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From the PRESIDENT & CEO

October 2023

IF YOU ARE READING THIS INTRODUCTION TO THE 2024 *Hodgdon Annual Manual*, you are likely a reloading and shooting enthusiast. And I imagine you have three basic questions for Hodgdon.

*Why can't I find a specific powder I need?

*Why has the price gone up?

*What are the newest powders and cartridges?

Let's address these questions without making your eyes glaze over with references to world politics, multiple regional conflicts, and economic charts and graphs.

Regarding powder availability, inventories for most powders have improved over the past year. I know there are certain products that have been out of stock for an extended period—Trail Boss, the Clays family of shotgun powders, and a few others. The reasons these powders have been unavailable are twofold: raw material and supply chain problems. We are working to make some of this product available in 2024, but it is not an easy or quick fix. Trust us, we want to sell these powders, too!

As far as the price of gunpowder is concerned, Hodgdon does not like the increases we have been forced to pass on any more than our customers do. But the fact is, raw material prices have increased at the highest rate in the past 30 years. We have tried to moderate these increases, but we can't operate our business at a loss (or a new Hodgdon president will be writing this introduction next year). We continue to look for ways to reduce these costs, but it is very difficult in the current economic climate.

Now for some good news. Hodgdon introduced four new powders in 2023. Two of these are new temperature-stable rifle powders under the Winchester brand. The Winchester StaBALL family of rifle powders offers temperature stability, reduces copper fouling, and meters easily in your press. StaBALL Match and StaBALL HD offer burn speeds for almost any caliber and load combination. These new products have sold extremely well and are readily available. If you haven't tried them yet and you are a rifle shooter, you owe it to yourself to give them a shot.

On the shotshell front, Hodgdon introduced Perfect Pattern and High Gun last May. Both powders are designed for 12-gauge target and game loads. Shotshell reloading has undergone a resurgence in the past few years and Hodgdon is supporting that with readily available shotshell powders.



For 2024 Hodgdon Powder Co. is excited to announce the release and more information about our newest powder, Ramshot Grand, in this issue.

Before I close, I would be remiss if I did not address a major loss Hodgdon experienced in 2023. In January 2023, R.E. "Bob" Hodgdon passed away after the 2023 *Annual Manual* was published. During my first six years at the company, it has been an absolute privilege to work with Bob and J.B. Hodgdon. On a weekly basis, I met with these brothers to discuss the business and to provide updates to them on the company and our employees. While Bob was keenly interested in the powder business of Hodgdon, he was even more interested in the welfare of our employees and the loading and shooting practices of our customers. He was kind, generous, gracious, and passionate about his world. We already miss Bob's cheerful presence in the office. You can read more about Bob and his amazing life in the article in this issue.

Hodgdon appreciates your business and your trust in our products. We will continue working to make all our products more readily available this year and to keep reloading affordable. Enjoy the 2024 *Hodgdon Annual Manual*.

Shoot straight,
Steve Kehrwald
President & CEO



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WARNING:

Ballistic data shown in this manual was obtained in the Hodgdon laboratory under strictly controlled conditions.

Your reloads must contain the exact combinations listed in this manual. **NEVER EXCEED** charge recommendations in this manual.

Ballistic data varies considerably depending on many factors, including components used, how such components are assembled, the type of firearm used, and the reloading techniques and safety precautions utilized by the individual.

NEVER mix any two powders regardless of type, brand, or source. **NEVER** substitute any smokeless powder for black powder, Pyrodex®, or Triple Seven®.

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The individual assumes the risk of safe loading practices. Failure to do so or violation of any of the above warnings could result in severe personal injury (including death) or gun damage to the user or bystanders.

Do not use pointed bullets in any rifle with a tubular magazine, unless that pointed bullet was designed with a collapsible tip, made for tubular magazines.

USE THIS DATA WITH HODGDON, IMR, WINCHESTER, ACCURATE, AND RAMSHOT BRAND POWDERS ONLY. DO NOT EXCEED THE LOADS SHOWN IN THIS GUIDE.

MISSION STATEMENT

Hodgdon Powder Company operates following Biblical principles to honor God. Our mission is to provide quality products and services in a manner which enhances the lives of our employees, families, customers, suppliers, and our communities. In doing so, we will deal with integrity and honesty, reflecting that people are more important than dollars and that our purpose is to bring credit to our Lord Jesus Christ.

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IN MEMORIAM

ROBERT ELTINGE “BOB” HODGDON, ONE OF THE HODGDON Powder Company co-founders, passed away on January 14, 2023.

Bob was born in the suburbs of Kansas City on August 19, 1938, to Bruce and Amy Hodgdon. Bob grew up in suburban Kansas City and was extremely active in his hometown community. He attended Baker University in Baldwin City, Kansas, before graduating *summa cum laude* from the University of Kansas in 1961. Bob also served in the United States Air Force and the Air Force Reserve from 1957 to 1961.

Bob’s personal and professional lives were intertwined with the Hodgdon Powder Company his parents founded in 1947. While still young boys, Bob and his brother J.B. were instrumental to company operations—Bob often told the story of weighing and loading gunpowder into retail bags in the family basement. Throughout his 70+ year career, Bob served in multiple positions at the company, but notably served as President from 1976 to 2002 and Board Chairman from 2014 to 2017. He was voted Board Chairman Emeritus in 2017. He also assisted with the design and led the team constructing the Pyrodex Plant in Herington, Kansas, in 1979, and he helped to design and build The Bullet Hole, a 44-station shooting range in 1967.

Bob’s story and influence even reached to the heavens above. In the early 1990s, NASA needed a second source for a propellant to trigger the separation bolts of the U.S. Space Shuttle Program. Bob was quick to step up and offer the services of Hodgdon when contacted by NASA. Hodgdon worked with NASA to certify Hodgdon H4227 as a qualified propellant to use in the separation bolts between the shuttle’s twin solid rocket boosters and external tank. In May 1996, Bob was onsite at Launch Pad 39B at the Kennedy Space Center in Florida for the launch of the Space Shuttle Endurance for Mission STS-77, the first mission using these new explosive bolts, powdered by Hodgdon.

In addition to his professional pursuits, Bob consistently invested his time and finances into his community. He served as volunteer to many civic organizations, such as Volunteers in Prison, Christian Sportsmen’s Fellowship, Cross International, Pastor Serve, and the National Christian Foundation. Bob also was a member of the

Westside Family Church in Lenexa, Kansas, where he served on the Pastor Advisory Team and led Divorce Care and Crown classes. His generosity extended throughout his lifetime in funding over 450 Christian ministries and organizations.

Along with his work at the Hodgdon Powder Company, Bob also was very active in the hunting and shooting industries. He served as a Board Member for the National Rifle Association, a Board Member and Trustee of the NRA Foundation, a founding member of the National Shooting Sports Foundation, a member of the Kansas State Rifle Association, and a founding member of the Kansas Sportsmen’s Alliance.

Bob left behind four children, 11 grandchildren, and 11 great-grandchildren. He was the consummate business professional, friend, coworker, and family leader. He is already missed from our hallways at Hodgdon. 



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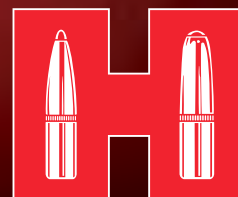
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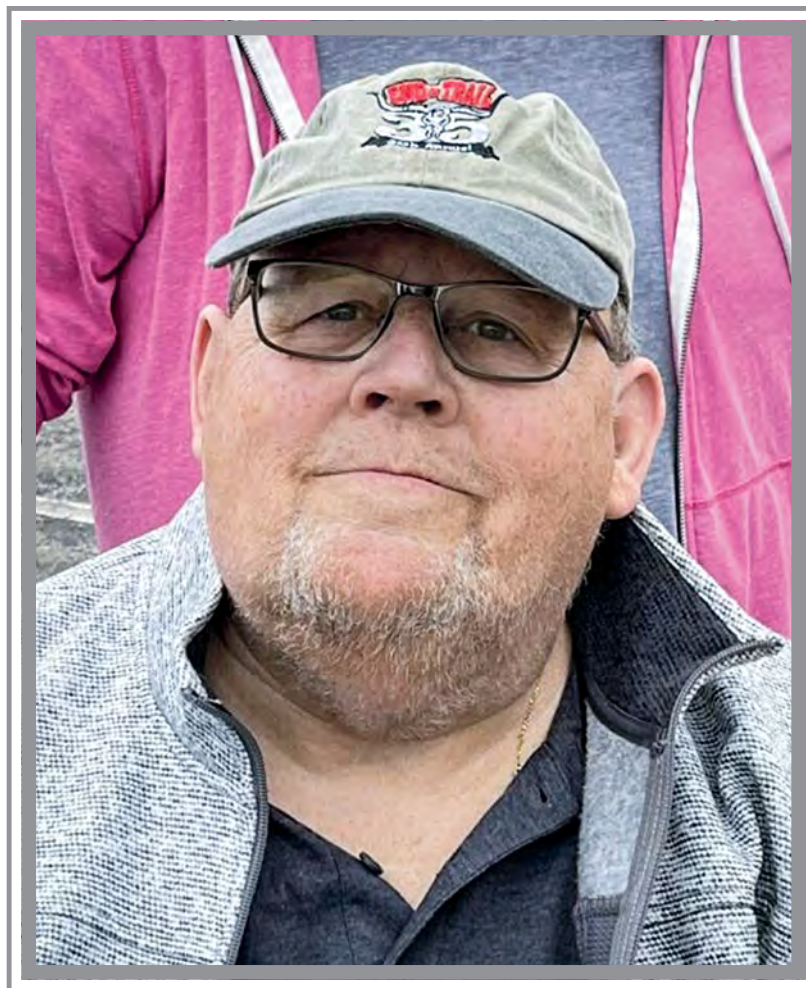


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MICHAEL “MIKE” DALY

- A.K.A. “BIRDSHOT”

August 19, 1954 – May 18, 2023

MIKE DALY RETIRED FROM THE TECHNICAL SERVICES team in 2021 after a 30-year association with Hodgdon Powder Company. A professional firefighter by trade, Mike reached the rank of Captain with the Overland Park Fire Department and started part-time in the 1990s at Hodgdon while working full-time with the fire department. In addition to Hodgdon Powder, Mike also worked for The Bullet Hole, a retail gunshop formerly owned by the Hodgdon family.

Mike had a lot of passions in life. Not only was he an avid fan of scuba diving, the outdoors, wildlife, and more, but he also was an avid fan of firearms and Cowboy Action Shooting (CAS) as part of the Single Action Shooting Society (SASS). Mike participated in many Cowboy Action shoots under his SASS moniker of “Birdshot”

and was well thought of in SASS circles. Mike’s influence (for example, during his time at HPC, he traveled to Australia to help a powder manufacturer develop a new powder for Cowboy Action shooters) will continue in the SASS CAS world. Mike and his wife Mary Beth even named that new powder, Trail Boss®. Mike also was instrumental in naming Hodgdon Varget®, another customer favorite.

Mike thoroughly enjoyed talking to all customers; however, he particularly enjoyed talking to engineers, small ammo loading companies, and other like-minded partners in the industry. Mike was widely recognized as one of the leading experts in reloading, and if customers had a challenging reloading question, Mike was the guy to call.

Mike was a key contributor to Hodgdon’s success in serving the reloading community, and he is missed by his coworkers and customers.



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A HIGH FIVE FOR HIGH GUN

Hodgdon's new High Gun shotgun powder is a specialized propellant for 12-gauge handloads.

BY STEVE GASH

FOLKS WHO ASSEMBLE THEIR OWN AMMUNITION ESSENTIALLY fall into two different camps. There are “handloaders” and there are “reloaders.” Handloaders are usually rifle and/or handgun shooters who strive for the highest velocities, the smallest groups, or both. What with the vast selection of powders and bullets, this is an almost endless exercise of fun.

Shotgunners, however, are basically reloaders because they're usually not interested in trying as many combinations of components as possible. They shoot a lot of ammo and want every one of their rounds to be as similar to every other round as possible. For example, I shot registered skeet for about 15 years, and I basically had four loads—one for each gauge. Each one worked.

Uniformity is important to both reloaders and handloaders, and this plays into the design of components, especially the powders. Shotgun propellants must meter through a loader uniformly, and they must produce consistent speeds.

Earlier this year Hodgdon, The Powder People, introduced a new powder aimed at the 12-gauge reloader. It's called High Gun, it's made in the United States, and it covers a broad spectrum of loads, from slow to fast with 1-ounce and 1½-ounce shot charges. Trap, skeet, and sporting clays shooters should relish this powder for their competition loads.

High Gun is a spherical powder with a bulk density of 0.750 g/cm³. The flattened flakes have a diameter of from 0.0117 inch to 0.0469 inch, with a web of 0.0095 inch.

There are many plastic wads and several brands of primers from which to choose, and Hodgdon has developed a comprehensive set of

load data for High Gun with many combinations of components covering a wide range of speeds. In fact, there are 855 different loads in the data set using readily available components, with speed and pressure measurements published in this manual. The speeds of the 1-ounce loads vary from 1,180 fps to 1,355 fps, and the 1½-ounce loads range from 1,090 to 1,310 fps.

Addressing such a mass of data was a daunting task, so I compared several combinations of Hodgdon's loads with components I had or could obtain locally. I assembled all loads on my MEC Model 77 SizeMaster.

The first task was to see how uniformly High Gun metered. I had 10 of the MEC bushings for which Hodgdon had data, so I threw five charges with each bushing. The results were outstanding. In my experience, the weights of powder dispensed this way can vary a lot. Not so with High Gun. The extreme spreads varied from a measly 0.1 grain to a maximum of 0.5 grain. That, my friends, is excellent uniformity for shotgun reloading—or any reloading for that matter.

As expected, the charge weights thrown were slightly different from the listed charges, but this is of little consequence, as long as the actual charge weights delivered are known.

Another important feature of High Gun is that there was virtually no “leakage” of this fine-grained powder as the bar was cycled back and forth. This is a common problem with other powders, and it can make a real mess.

For my test loads, I weighed every powder charge on a Hornady electronic scale. I have an adjustable bar on my MEC Model 77, and I adjusted it to throw exactly 1 ounce or exactly 1½ ounces of shot. Thus, my test loads closely mimicked Hodgdon's data.



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HIGH GUN SHOTGUN DATA 12 GA, 2 3/4"				
SHOT WT	CASE	WAD	PRIMER	CHARGE/VELOCITY
1 oz	Win AA	WAA12SL	Win 209	17.7 gr / 1235 fps
1 1/8 oz	Win AA	WAA12	Win 209	18.4 gr / 1255 fps
1 oz	Fed GM	CB6100-12	Fed 209A	18.5 gr / 1235 fps
1 1/8 oz	Fed GM	CB2118-12	Fed 209A	20.0 gr / 1255 fps
1 oz	Rem STS	Rem TGT12	Rem 209P	17.3 gr / 1235 fps
1 1/8 oz	Rem STS	Rem FIG 8	Rem 209P	18.5 gr / 1255 fps
1 oz	Ched	CB6100-12	Ched 209	19.6 gr / 1235 fps
1 1/8 oz	Ched	CB4100-12B	Ched 209	20.3 gr / 1255 fps

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A HIGH FIVE FOR HIGH GUN

The Mechanics of Fit

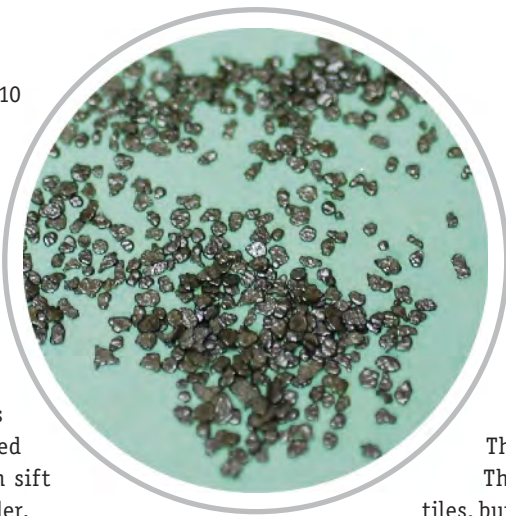
We've all heard the expression you can't get 10 pounds of you know what into a five-pound sack. The same principle holds true for shot-gun shell casings. The internal volume of a shell has to contain the powder, wads, and shot. If there is too little or too much space left over, the crimp will be a failure.

It is also important to keep the powder where it belongs—under the plastic wad—and not sifting down around the shot. The fit of most plastic wads in the shell casing is pretty loose, and when loaded shells are stored base-up, a fine-grained spherical powder can sift down past the wad and mingle with the powder.

A good approach to this problem also applies to the volume issue noted above. "Nitro card" wads are available in various thicknesses, and if the shell is not full enough, one or more card wads can be placed over the powder, and then the plastic wad can be seated. As a bonus, this usually produces more uniform velocities. Card wads should not be used with tapered cases like Winchester AA and Remington Nitro 27.

Tips for Assessing Handloads

To assess the results of my reloads with the new High Gun powder, the speed of the shot charge is required. Measuring the speed of a projectile is important. The speeds of shot charges in loading manuals only



Made in the U.S.A., Hodgdon's new High Gun powder is optimized for 12-gauge reloads and high-volume shooters. It is composed of small, flattened grains of spherical powder, making it meter uniformly in typical shot-shell loaders.

give the reloader the performance of the load in the laboratory. Today's chronographs handloaders use have photoelectric screens to start and stop a timer to measure the time it takes the shot to travel a known distance. This is then expressed as feet per second (fps).

This process is relatively simple for single projectiles, but it is much different for multi-projectile loads, i.e., shotshells. The problem then is to know when to start and stop the timer. A shot charge starts to change shape as soon as it leaves the muzzle of the gun. It starts to "string out," and a Full choke tends to "squirt" the shot out, which elongates the leading edge of the shot cloud. Thus, it's usually the leading pellet that starts and stops the timer, if there is no interference from the muzzle blast, which is going much faster than the shot itself. The blast can start the timer before the shot gets over it or stop the timer before the rear portion of the shot passes over it. Both give erroneous readings. This, I must point out, also applies to the best factory ammunition, as well as to our reloads. I have checked the speed of factory-loaded shotshells, and they vary as much as most reloads.

When developing experimental loads, it's handy to have two electronic scales on hand. One can be set to register in grains and the other in ounces. The author weighed every thrown charge for this exercise on his electronic scales.



High Gun charges fit perfectly in a variety of cases with a wide variety of plastic wads. Steve's reloads resulted in perfect crimps for 100 percent functioning in the gas-operated test gun.

The skyscreens we handloaders use can be effective for shotshells, with certain modifications to the procedure. The first thing is to use the most open choke you have for the test gun; actually, Cylinder is best. Next, we have to protect the skyscreens from the muzzle blast and extraneous ejecta, such as pieces of wads that come along right after the shot.

Here's what I use with my Oehler Model 35P chronograph. I gratefully acknowledge the previous writings of Dr. Ken Oehler, Ron Reiber, Don Zutz, Ed Lowry, Dr. Mark Denny, and Ross Seyfried on this subject.

Placing a "baffle" between the skyscreens and the gun's muzzle protects the screens from the muzzle blast and extraneous ejecta. The baffle I use has a 3.0-inch hole through which to shoot. I have chronographed hundreds of shotshells, and the baffle gives good results.

The skyscreen spacing is much different for shotshells but is essential for good results. Use a skyscreen spacing of two feet. Place the start screen about four to five inches above the line of the shot, and no more than about six to eight inches behind the opening in the baffle. Shoot with the gun's muzzle about eight inches in front of the opening in the baffle. Be sure to wear eye and ear protection, and be careful not to hit the baffle. (I haven't hit mine yet!)

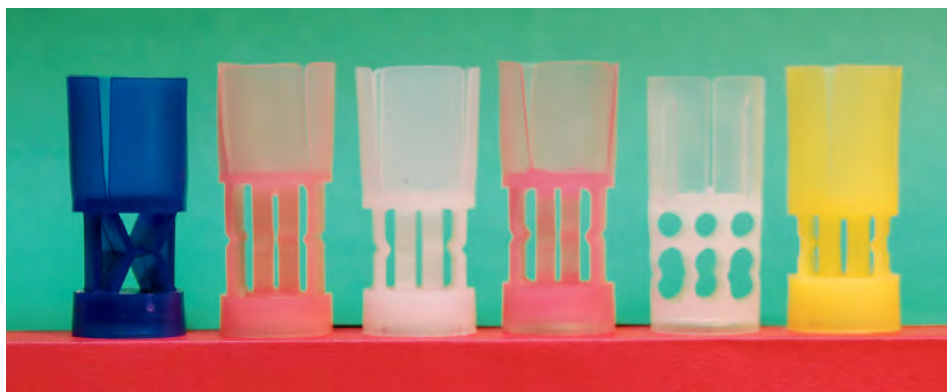
The best "yardsticks" with which to assess shotshell performance are factory loads. We all have a "favorite" factory load for a certain use, such as for skeet, trap, quail, or whatever. So chronograph that factory load. Then load reloads with a range of powder charges that will encompass the desired speed. Then chronograph them on your system and compare the results.

Shoot at least five rounds per powder charge. Make up a data sheet and record your results: speeds, extreme spreads (E.S.), and standard deviations (S.D.). Strive for uniformity. A useful statistic that's easy to calculate is the "coefficient of variation." This is the standard deviation expressed as a percent of the average speed. It provides an apples-to-apples comparison. Anything under 2 percent is darn good. The load can be fine-tuned to be closer to the desired speed by linear regression, easily done by Excel or on a scientific calculator.

Finally, don't be alarmed if the speed of the factory load you get is considerably different than the speed (velocity) printed on the box. This is of no consequence. The goal is to mimic the handload to a proven factory load measured on your system.

Testing Some High Gun Loads

For testing I used my Mossberg Model 930 Sporting semiautomatic shotgun. It has a 28-inch ported barrel with Briley screw-in choke



tubes. I used the Improved Cylinder choke tube for all testing. I should note that after shooting many High Gun handloads, the bore of the Model 930 had only a few flakes of fouling. I don't know what's in this new powder, but I can report that it really burns very cleanly.

Hodgdon's data are corrected to muzzle speed, which is somewhat different from the results we get with the system as described herein. But the important point is that your test loads are measured on your system in your gun.

Hodgdon's data utilized as many as six different primers, three wads, and three to four speed levels. After reviewing this mass of data, I selected 19 load recipes that involved as many different primer, wad, and powder charges as I thought were reasonably possible.

I had several of the plastic wads utilized in Hodgdon's loads, and I had good luck filling most brands of cases for a good crimp. Winchester AA and Remington Nitro 27 worked best with my test loads, and all test loads cycled the gun's action. No malfunctions of any kind occurred.

There were virtually no differences in the S.D.s between primers, wads, and cases. However, on average, the 1-ounce loads were somewhat more uniform than the 1 1/8-ounce loads. Remington Nitro 27 and Winchester AA cases worked the best in my tests. Given the excellent results I had with High Gun and Remington Nitro 27 and Winchester AA cases, I can recommend them for High Gun reloads.

As for the chronographing results, let me first say that I have chronographed hundreds of shotshells, and I was prepared for data that varied all over the place. Boy, was I surprised! The High Gun test loads had the most uniform speeds of any group of shotshells I have ever tested. I would put these loads up against any factory load for ballistic uniformity. Plus the gun tossed fired hulls in a neat pile a few yards from the gun, which also is a good indication of extreme uniformity.

A HIGH FIVE FOR HIGH GUN

My “yardstick” for this project was Fiocchi’s VIP-Target factory ammo. It carried 1⅞ ounces of No. 7½ shot at a listed speed of 1,200 fps. Note that this load registered 1,151 fps from my shotgun over my system. Most of my 1⅞-ounce loads with High Gun matched or beat this speed with a charge of 17.2 to 17.5 grains. After reviewing the results, I can pick out several for use on clays or game farm birds.

Here are some loads that stand out. I think a speed of 1,175 to 1,185 fps is nigh on to perfect for shotshells with 1 ounce and 1⅞ ounces of shot, and there were many loads with High Gun that registered in that range. In the Winchester AA or Remington Nitro 27 cases, a charge of 17.0 to 17.2 grains of High Gun gave the desired speed of around 1,170 to 1,227 fps. For a 1⅞-ounce load, a charge of 17.5 grains was perfect, coming in at 1,178 and 1,194 fps for the two cases in the same order.

High Gun powder is brand new and is packaged in 1-, 4-, and 8-pound containers. The list prices are \$31.99, \$121.99, and \$237.99, respectively. With a nominal charge of 17.5 grains (perfect for a 1-ounce load), a pound of High Gun will load 400 shells. Coincidentally, there are 400 ounces in a 25-pound bag of shot.

As I look back on my experience with the new High Gun powder, it appears that it may be the perfect propellant for the 12-gauge reloader. A little goes a long way, it meters nicely through the loader,



Chronographing shotshells is important for assessing the loads. The author devised, built, and used a special setup as described in this report. High Gun produced fantastic results in this assessment.

the speeds are super uniform, and it burns very cleanly. Oh, and it’s made in the U.S.A.

The few months I’ve spent shooting reloads with High Gun powder fill me with anticipation of the coming clay target and hunting seasons and make me think of my favorite quote from the great Gene Hill: “What friends I have, what days I treasure most, what places that I think about and smile. They are because shotguns are.”

High Gun gets high marks, indeed.



HIGH GUN LOAD DATA										
CASE	PRIMER	POWDER	CHARGE (GRS.)	WAD	SHOT (OZ.)	SHOT SIZE	SPEED (F.P.S.)	E.S. (F.P.S.)	S.D. (F.P.S.)	COV (%)
12-Gauge Mossberg 930 Sporting, 28-in. Barrel with Briley Improved Cylinder Extended Choke Tube										
Remington Nitro 27	Rem. 209P	High Gun	15.8	WAAL	1	6	1158	25	8	0.72
Remington Nitro 27	Rem. 209P	High Gun	17.2	WAAL	1	6	1227	6	2	0.16
Remington Nitro 27	Rem. 209P	High Gun	18.6	WAAL	1	6	1305	26	9	0.67
Remington Nitro 27	Fiocchi 616	High Gun	15.8	CB-2100-12	1	6	1139	25	8	0.73
Remington Nitro 27	Fiocchi 616	High Gun	17.2	CB-2100-12	1	6	1210	8	3	0.22
Remington Nitro 27	Fiocchi 616	High Gun	18.6	CB-2100-12	1	6	1285	15	5	0.39
Remington Nitro 27	Fed. 209A	High Gun	17.5	WAA	1⅞	8	1178	11	4	0.31
Winchester AA	Win. 209	High Gun	15.7	WAAL	1	6	1156	21	7	0.61
Winchester AA	Win. 209	High Gun	17.1	WAAL	1	6	1243	26	9	0.70
Winchester AA	Win. 209	High Gun	18.5	WAAL	1	6	1331	71	24	1.78
Winchester AA	Fed. 209A	High Gun	17.0	WAA	1⅞	8	1104	49	16	1.48
Winchester AA	Fed. 209A	High Gun	17.5	WAA	1⅞	8	1169	46	15	1.31
Winchester AA	Fed. 209A	High Gun	18.0	WAA	1⅞	8	1241	19	6	0.51
Federal Top Gun	Fed. 209A	High Gun	17.3	WAAL	1	6	1170	27	9	0.77
Federal Top Gun	Fed. 209A	High Gun	18.5	WAAL	1	6	1136	48	16	1.41
Federal Top Gun	Fed. 209A	High Gun	19.8	WAAL	1	6	1220	73	24	1.99
Federal Top Gun	Win. 209	High Gun	16.7	DR-XL-1⅞	1⅞	8	1060	54	18	1.70
Federal Top Gun	Win. 209	High Gun	17.9	DR-XL-1⅞	1⅞	8	1151	19	6	0.55
Federal Top Gun	Win. 209	High Gun	19.0	DR-XL-1⅞	1⅞	8	1138	22	7	0.64
NOTES: Velocity is the average of five rounds with the midpoint of the chronograph screens 18 inches from the gun’s muzzle. All rounds were fired through a 3.0-inch hole in a baffle eight inches in front of the gun’s muzzle. Range temperatures were 73 to 85 degrees Fahrenheit.										

A blue Dillon Precision XL750 reloading press is shown on a dark wooden surface. The press has a large blue hopper at the top, a vertical frame, and a base with a handle. Various components like the die holder, primer, and powder measure are visible. To the right of the press, there are several items: a blue tray, a small blue scale, a manual, a caliper, and some brass components.

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RAMSHOT GRAND:

A NEW CUTTING-EDGE, EASY-TO-LOAD POWDER

This versatile new magnum powder is temp-stable, reduces copper fouling, meters beautifully, and serves the same cartridges as H1000.

BY JOSEPH VON BENEDIKT

NEW FROM RAMSHOT, GRAND GUNPOWDER IS MADE IN THE U.S.A. A cutting-edge, easy-to-handload propellant, this new powder possesses the characteristics most coveted by modern long-range shooters.

Coveted Characteristics

For starters, it's stable and provides consistent velocity across a broad range of temperatures. This is important to long-range shooters everywhere because a drop in velocity on a cold day can mean impacts missed low off the bottom edge of a steel target or out of the scoring rings on paper. Conversely, a spike in pressure on a very hot day can be dangerous and causes bullets to hit high at long ranges.

Open-country hunters who regularly shoot past 300 yards are likewise negatively affected by gunpowders that fluctuate with heat and cold. Ramshot Grand is chemically composed to provide consistent pressure and velocity no matter what temperature it's fired in.

Grand also pushes bullets fast. Being a double-base powder, it generates a longer, more sustained pressure curve than single-base

powders, thereby applying prolonged acceleration to the projectile—which is to say, Ramshot Grand produces top-tier velocities in appropriate cartridges.

Another shooter-friendly characteristic is the very easy-metering way the spherical-type granules flow through powder chargers and tricklers. I used an RCBS Matchmaster powder dispenser to cast all the charges in my testing for this article, and I ran it as fast as



One of the engineering protocols for the new spherical Ramshot Grand (left) was to mirror performance of the ultrapopular but hard-to-find H1000 extruded propellant (right) in magnum cartridges. Grand is proving to be ideal for a spectrum of cartridges, ranging from classic to cutting edge—for example, the 300 Win. Mag. and 300 PRC.

RAMSHOT GRAND: A NEW CUTTING-EDGE, EASY-TO-LOAD POWDER

allowable. The dispenser threw only one over-run charge—and that was only by three-tenths of a grain. All the other charges were precisely the desired weight.

For those who don't particularly enjoy scrubbing built-up copper from the bores of their rifle barrels, Grand has a copper-fouling reducing agent in its chemical composition. This is a subtle advantage to most, but for shooters who like running magnum cartridges fast, for folks who prefer monometal projectiles, and for competitive shooters who put literally thousands of rounds through their rifle barrels during a season's matches, copper-fouling reducers are a significant benefit.

Appropriate Cartridges

Similar to the StaBALL family of powders recently introduced in Winchester's line of propellants, Ramshot Grand was engineered for a specific family of cartridges. The easiest way to describe what it's most suitable for is this: Use Ramshot Grand anywhere you'd use Hodgdon H1000.

More specifically, it's a relatively slow-burning propellant ideal for use in modern magnum cartridges like the 6.5 PRC, 6.8 Western, 7mm PRC, and 300 PRC, as well as the traditional magnums, including 7mm Remington Magnum, 300 Winchester Magnum, and so forth. It also should be excellent in magnum cartridges with slightly restrictive propellant capacities, such as the 7mm SAUM, because it has excellent fill density characteristics.

That fill density advantage provides better burn consistency than most spherical-type powders are known for. Longtime handloaders

will often tell you they prefer extruded "stick-type" powders, such as Hodgdon's Extreme family of propellants, because even though they are more difficult to load, they tend to provide tighter extreme spreads and smaller standard deviations—both advantageous when shooting long. In the brief experience I've had with Ramshot Grand, it behaves more like an extruded powder than a typical spherical powder; standard deviations of my handloads were often in the single digits.

There's one more characteristic of Ramshot Grand that will be welcomed by shooters in the UK and other chemical-restrictive regions. Grand is REACH compliant. What the heck is REACH? According to the website www.assent.com, the acronym REACH has the following definition: Registration, Evaluation, Authorization, and Restriction of Chemicals regulation...protects human health and the environment from the harmful effects of certain substances.... Absurdly, food and feedstuffs and medicinal products are partially exempt.

Before diving into my shooting tests and results, let's briefly circle back to that very first advantage listed: Made in the U.S.A.

Shooters have struggled with propellant availability through the past three years of the COVID supply chain issues. Most of the popular powders coming from Australia (Hodgdon) and Canada (IMR) have been as scarce as unicorns, and they are just now trickling back onto gunshop shelves. Powders from Europe are still basically unavailable. Using a propellant made here in America makes us just a little less dependent on foreign nations. Also, Ramshot Grand should be much more consistently available because it won't have to undergo importation red tape.

Joseph tested the new Ramshot Grand powder in five different high-performance cartridges, including 6.5 PRC, 280 Ackley Improved, 7mm PRC, 300 PRC, and 338 RUM.





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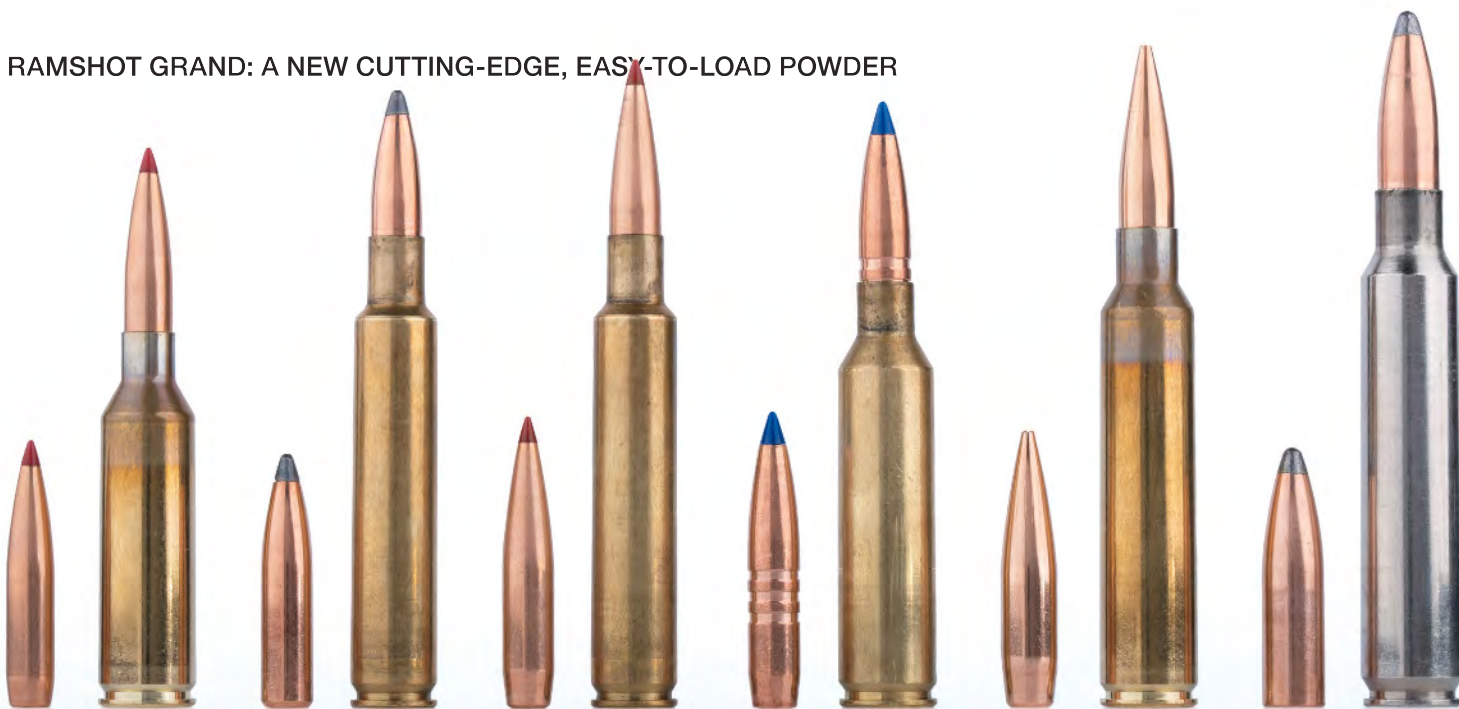
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Component bullets used with the new Grand powder were (left to right) 6.5mm Hornady 147-grain ELD Match, 0.284-inch Nosler 175-grain Partition, 0.284-inch Hornady 180-grain ELD Match, 0.284-inch Barnes 168-grain LRX, 0.308-inch Berger 205-grain Elite Hunter, and 0.338-inch Nosler 250-grain Partition.

Shooting Results

To wring out the new Ramshot powder, I handloaded test batches of several of my favorite cartridges. They were 6.5 PRC, 280 Ackley Improved, 7mm PRC, 300 PRC, and 338 RUM.

Before working up a charge, I requested Ramshot Grand reloading data from Hodgdon Senior Ballistician Justin Schrader. I worked up charges close to the listed maximums but generally stayed a grain or so shy of maximum.

For projectiles, I arbitrarily chose component bullets that I'm interested in working with in those cartridges, as follows:

In the 6.5 PRC test batch of handloads, I loaded Hornady 147-grain ELD Match bullets over 59.0 grains of Grand, using new Lapua cases primed with Federal 210 Gold Medal primers. Bullets were seated to just kiss the rifling, resulting in an overall length of 3.020 inches.

I assembled two different test batches for my 280 Ackley, one consisting of Nosler 175-grain Partition bullets, the other of Hornady 180-grain ELD Match bullets. Both were seated over 64.0 grains of Grand, in Nosler cases primed with Federal 210 Gold Medal primers. Both projectiles were seated to lightly contact the rifling. Overall length with the Partition bullets was 3.320 inches; with the ELD Match bullets it was 3.485 inches.

For the 7mm PRC, I handloaded Barnes 168-grain LRX bullets over 69.0 grains of Grand, using once-fired Hornady cases primed with Federal 215 Gold Medal primers. As the LRX is a very dense, monometal design, I seated the bullets 50 thousandths off the rifling. Overall length was 3.260 inches.

My test loads for the 300 PRC consisted of Berger 205-grain Elite Hunter bullets over 80.0 grains of Grand powder. I seated them in new Lapua cases primed with Federal 215 Gold Medal primers, to an overall length of

3.550 inches. The throat on the Proof Research Glacier Ti rifle used for testing is deep, and the Berger bullets had to jump a couple tenths of an inch before engaging the rifling lead.

Finally, I loaded a batch of test ammo for my 338 RUM, seating Nosler 250-grain Partition bullets over 94.0 grains of Grand. I primed Norma cases with Federal 215 Gold Medal primers and seated the bullets to a COL of 3.730 inches, against the rifling lead.

Placing a target at 100 yards, I settled in at the bench, resting each of the five test rifles on a bipod up front and a bunny-ear sandbag under the toe of the stock. Each test batch of ammo consisted of 10



Several cartridges showed a distinct liking for Ramshot Grand during the author's accuracy tests. This is a typical 100-yard group produced by the 6.5 PRC and Hornady 147-grain ELD Match bullets.



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rounds, and I fired three consecutive three-shot groups, allowing the barrel to cool between groups. The extra round I used if I felt like I needed a mulligan because I executed a shot poorly.

Impressively, the 6.5 PRC rifle (a Gunwerks ClymR) produced tiny groups, averaging 0.56 inch—and that’s without any load tuning. Standard deviation, too, was excellent—less than I’m accustomed to when loading spherical powder—at just 9 fps. Velocity was acceptable, averaging 2,791 fps.

To my dismay my favorite 280 Ackley Improved rifle didn’t particularly like either of the test loads I created for it, averaging 1.18 inches with the 175-grain Partition and 1.59 inches with the 180-grain ELD Match. However, that’s likely just a charge-weight and tuning issue. Standard deviations were excellent at just 7 fps and 10 fps, respectively. Velocity, too, was excellent at 2,851 fps and 2,832 fps.

PRCs apparently like Ramshot Grand. The 7mm PRC shot nearly as well as the 6.5mm version, producing a 0.65-inch average group size from a Gunwerks ClymR rifle. Standard deviation was 11; velocity was a reasonable 2,852 fps. I suspect the charge weight can be increased considerably with this particular rifle and bullet and would likely safely bring speed up 100 fps or more.

Likewise with the 300 PRC cartridges loaded with Berger 205-grain bullets. The group size average was acceptable at 1.07 inches. (That’s only a whisker outside the 1.047 inches that constitutes a true MOA at 100 yards.) However, standard deviation was 22 fps, and velocity was a rather pedestrian 2,858 fps. Most likely, filling the cases with a bit more powder would increase fill density, resulting in narrower standard deviations and should result in excellent velocity. According to Schrader, “Ramshot Grand gave the highest velocity (of the propellants tested) in the 300 PRC with all but one bullet.”

I fired the 338 RUM test loads last, figuring that the cumulative recoil it would apply was

best served late in the clinical testing. The test rifle is a customized Model 70 Winchester, and it’s always been a bit finicky about accuracy. I wasn’t surprised to see groups average an unimpressive 1.30 inches, but I was delighted at the 2,936 fps muzzle velocity. As an interesting note, when pushed to that speed, the 250-grain Partition bullet generates 4,786 ft-lbs of kinetic energy—exactly the sort of authority I own the 338 RUM for. Standard deviations of the test load ran 13 fps.

When the smoke had cleared, I was impressed with the new Ramshot Grand powder. Candidly, I rarely use spherical-type propellants in my high-octane rifle handloads because I find it’s a bit less consistent and easy to achieve accuracy with than stick-type, extruded-grain propellants. However, Grand is changing my mind. Initial experience with it suggests it’s nontemperamental, easy to load for accuracy and consistency, and offers excellent velocities when loaded to full density in appropriate cartridges.



Few tasks are more interesting and rewarding than trying out new, cutting-edge propellants, such as Ramshot Grand, in a variety of different cartridges.

RAMSHOT GRAND LOAD DATA									
CASE	PRIMER	POWDER	CHARGE (GRS.)	BULLET	COL (IN.)	VEL. (F.P.S.)	E.S. (F.P.S.)	S.D. (F.P.S.)	100-YD. ACC. (IN.)
6.5 PRC Gunwerks ClymR, 22-in. Barrel, 1:8 Twist									
Lapua	Fed. 210GM	Grand	59.0	Hornady 147-gr. ELD Match	3.020	2791	23	9	0.56
280 Ackley Defiance anTi X Action with Proof Research Sendero 22-in. Barrel, 1:8 Twist									
Nosler	Fed. 210GM	Grand	64.0	Nosler 175-gr. Partition	3.320	2851	19	7	1.18
Nosler	Fed. 210GM	Grand	64.0	Hornady 180-gr. ELD Match	3.485	2832	26	10	1.59
7mm PRC Gunwerks ClymR, 22-in. Barrel, 1:8 Twist									
Hornady	Fed. 215GM	Grand	69.0	Barnes 168-gr. LRX	3.260	2852	28	11	0.65
300 PRC Proof Research Glacier Ti, 24-in. Barrel, 1:9 Twist									
Lapua	Fed. 215GM	Grand	80.5	Berger 205-gr. Elite Hunter	3.550	2858	50	22	1.07
338 RUM Winchester Model 70 Action with Benchmark 24-in. Barrel, 1:10 Twist									
Norma	Fed. 215GM	Grand	94.0	Berger 250-gr. VLD H	3.730	2936	37	13	1.30
NOTES: Accuracy is the average of three, three-shot groups fired from a bipod. Velocity is the average of nine rounds measured 10 feet from the guns' muzzles.									



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PRIMERS AS A VARIABLE IN 308 WINCHESTER HANDLOADS

Handloaders always want to know what difference a different primer can make in their favorite loads. Here's the answer.

STAFF REPORT

AT THE TIME OF THIS WRITING, PRIMERS FOR BOTH METAL-lic and shotshell reloading remain in extremely high demand. While there are some signs of life in the primer supply chain, more often than not, the primers that are available are not the primers listed in this manual or online at the Hodgdon Reloading Data Center. On a regular basis we are asked, "What happens if I substitute Primer A for Primer B?" And the ever popular, "Can I use a magnum primer instead?" To help understand what happens when a primer is substituted, we will share the results of our tests, determining what effect the primer has on velocity, pressure, standard deviation, and extreme spread. Our test included Winchester Large Rifle primers as the control, Winchester Large Rifle Magnum primers, Federal Large Rifle primers(210), Federal Large Rifle Magnum primers(215), and CCI #34 primers.

The Test Components

For these tests we wanted to use a cartridge that has been around for a while and is easy to shoot and load. We settled on the 308 Winchester (an inherently accurate cartridge that loads easily and produces great results with lots of different powders) for our test vehicle. We used commercial Winchester brass (the same brass used in our data), Winchester Large Rifle primers, and Sierra's 168-grain MatchKing bullet seated to a cartridge overall length (COL) of 2.800 inches. There are

many powders suitable for the 308 Win., so as part of this test, we wanted to compare the two main types of smokeless powders—single-base extruded and double-base spherical—to see how they react to the different types of primers being used.

Our first powder, Varget, sets the standard for consistency and accuracy as a temperature-stable, single-based extruded powder that ignites easily and excels in a wide range of cartridges from 223 Remington all the way up to 45-70 Gov't. Our second powder, CFE223, is a double-based spherical BALL POWDER® propellant that utilizes technology from military propellants to remove copper fouling from the bore of your gun as you shoot. CFE223 boasts top velocities in many cartridges, ranging from the 204 Ruger to the 308 Win. These powders will help us see how each type is affected by the change in primers.

To get started, we worked up each powder type load to S.A.A.M.I. maximum average pressure (MAP) and fired five rounds to establish a control lot with the Winchester Large Rifle primers. This left us with charge weights of 46.0 grains for our Varget load and 49.0 grains for our CFE223 load. Using the components listed, we repeated this five-round test with each primer. We selected the Winchester and Federal primers because they are two of the most popular domestically produced primers available. Also, the CCI #34 primer is popular for 308/7.62 loads in semiautomatic applications, and it, too, was available off the shelf at press time.

PRIMERS AS A VARIABLE IN 308 WINCHESTER HANDLOADS

The Takeaways

Let's discuss some takeaways after reviewing the data in the accompanying chart.

Pressure is the unseen variable that goes hand in hand with velocity. Generally speaking, you can expect a 1,000 psi increase for every 11 fps in velocity, so we strongly urge you to chronograph your velocity and watch for pressure signs and follow this rule to ensure that you do not exceed maximum S.A.A.M.I. pressure. For 308 Win. ammunition, it is 62,000 psi. Our control lot was intentionally set at max pressure so we could see what happens when we change out the primer in this scenario.

Looking at the data, we can see that changing the primer can change the pressure (up or down). Some of the magnum-type primers yielded pressure increases of 6,000+ psi. This is important to remember if you intend to substitute a magnum-type primer in a load that doesn't call for it. It also is important to remember that when working up a load, always begin with the starting load, advance in small increments, watch for pressure signs, and begin again if changing components, especially primers. Do not exceed the maximum charge weights listed in our data. Some high-pressure signs to look for include bolt handles that stick or are difficult to cycle and flattened primer faces.

Velocity has a direct relationship with pressure. Caldwell, Magneto-Speed, and LabRadar all make accurate and affordable chronographs that are available to shooters. Buy one and check your loads!

As you can see, changing the primer can change velocity a lot—39 fps in one load. If you are working up a load and notice a drastic

change in the velocity, the pressure has changed as well. Proceed with caution if you notice a sharp increase in velocity. Don't wait until the bolt is stuck or your primer faces are flat.

Extreme spreads and standard deviations are where reloading your own ammo can really pay off. Change out a component. Adjust the COL. Experiment with the powder charge weight within the Min and Max range. By changing components, you can tailor your load to your specific firearm. Different firearms can have different barrel lengths, twist rates, throat dimensions, and overall barrel harmonics. Changing your powder charge weight by a tenth of a grain or adjusting your cartridge COL can be the difference between a sub-MOA load or a 2-MOA load in your specific firearm.

When you change the primer, you change the ignition flame volume, temperature, and consistency. All of these can affect the extreme spreads and standard deviations of a given load. Depending upon the powder grain size and composition, primers can crack or fracture the grains, changing how they will ignite and burn. Just because Primer A works well doesn't mean that Primer B will.

Other variables are worth considering. For our test we didn't change the brass manufacturer, bullet type, or COL. All can be changed and adjusted to tune the load for your specific firearm. Cartridge cases from different manufacturers will vary in thickness and capacity. Bullets can vary in internal construction, jacket hardness, and design.

Barrel wear is another variable. If you have a barrel with a lot of rounds on it, you may experience lower velocities and pressures than with a new barrel. Also, the temperature that the ammunition

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is stored and fired in will change the performance of both the primer and powder, so be careful if you set up your loads for maximum performance on a cold day and then fire them when it is hot.

Remember that when you change one of these variables you should always go back to the starting load, advance in small increments, and watch for pressure signs. Your firearm is a complex system, and no one component can guarantee accuracy. The downside is that just one component can degrade accuracy tremendously.

The data in the accompanying chart is for informational purposes—it is not an endorsement to deviate from the loads listed

in this manual or online at www.hodgdonreloading.com/reloading-data-center. All testing was done under controlled conditions at Hodgdon Powder Company’s Ballistic Laboratory, using S.A.A.M.I.-spec test barrels and equipment.

In conclusion, there can be up to a 5 percent variation in performance when using primers supplied from Remington, Federal, CCI, and Winchester. For other primers that are not listed in our catalog, (Ginex, Wolf, etc.), there could be variation greater than this. Please be safe and keep all safety precautions in mind.

Happy shooting.



308 WINCHESTER LOAD DATA											
CASE	PRIMER	POWDER	CHARGE (GRS.)	BULLET	COL (IN.)	VEL. (F.P.S.)	E.S. (F.P.S.)	S.D. (F.P.S.)	PRESSURE (PSI)	E.S. (PSI)	S.D. (PSI)
Winchester	WLR	Varget	46.0	Sierra 168-gr. MatchKing	2.800	2774	21	9	62300	2800	1100
Winchester	WLR MG	Varget	46.0	Sierra 168-gr. MatchKing	2.800	2800	32	14	66100	4100	1600
Winchester	Fed. 210	Varget	46.0	Sierra 168-gr. MatchKing	2.800	2770	12	5	62100	2300	900
Winchester	Fed. 215	Varget	46.0	Sierra 168-gr. MatchKing	2.800	2809	17	7	66800	1500	600
Winchester	CCI #34	Varget	46.0	Sierra 168-gr. MatchKing	2.800	2804	34	12	66300	2900	1200
Winchester	WLR	CFE223	49.0	Sierra 168-gr. MatchKing	2.800	2803	21	8	62400	2500	900
Winchester	WLR MG	CFE223	49.0	Sierra 168-gr. MatchKing	2.800	2839	28	11	68800	5900	2200
Winchester	Fed. 210	CFE223	49.0	Sierra 168-gr. MatchKing	2.800	2809	10	4	62300	2600	1200
Winchester	Fed. 215	CFE223	49.0	Sierra 168-gr. MatchKing	2.800	2818	12	5	66700	3000	1200
Winchester	CCI #34	CFE223	49.0	Sierra 168-gr. MatchKing	2.800	2809	25	10	65500	3800	1500



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LOADS FOR 9MM BUDGET BULLETS

With the right components, you can save money and produce excellent-performing 9mm handloads.

BY LANE PEARCE

IN THESE DAYS OF HIGH INFLATION, PEOPLE, INCLUDING HANDLOADERS, ARE trying to make their hard-earned dollars go as far as possible. One way for handloaders to do that is to load “budget” bullets. When the 9mm Luger is the cartridge of choice, the term “budget bullet” generally means cast, plated, and coated bullets. Loading these less-expensive bullets can save you some money, as long as you shop around and buy them right. Like last year’s article on reloading shotshells that revealed the way to save money on your reloads is by shopping around and buying components in bulk, you have to do the same when it comes to reloading the 9mm.

Jacketed bullets are complex, so they’re more expensive to manufacture. Plated and coated bullets are like hybrid versions of jacketed and cast or swaged lead bullets. The plating/coating acts as the buffer between the lead core and the rifling while it’s accelerating and spinning down the barrel.

Although they look like jacketed bullets, the copper plating/coating is not as robust, so they are typically loaded with less aggressive, cast bullet load data.

I used Berry's plated bullets, ACME coated bullets, Missouri cast bullets, and one Clements cast bullet for this exercise. Berry's plated bullets are formed by first pouring molten lead alloy into multiple mold cavities. Excess material is sheared off to make slugs of uniform weight. Then the slugs are individually inserted into precisely machined dies and struck by a hydraulic punch to form the desired shape. Thousands of these are carefully cleaned and placed in a drum filled with a heated chemical solution and a specific quantity of copper blocks. The container of copper acts as the anode, and over a specific period of time (hours), the electrolysis process leaches copper ions from the blocks and deposits them on the lead slug surfaces.

The plating thickness ranges from four- to nine-thousandths of an inch depending on the bullet's intended velocity. After plating, the bullets are punched through a sizer die to ensure the specified diameter is achieved.

ACME coated bullets are cast from 92-6-2 alloy (BHN 16) and coated with Hi-Tek coating. According to ACME, the benefits of shooting coated bullets include the coating molecularly bonds to the bullet, encapsulating it; the coating prevents lead-to-bore contact; less smoke is produced than with traditional lubed bullets; the coated bullets feed well in automated bullet feeders; coated bullets can be fired at higher velocities than traditional lubed bullets without lead fouling; and coated bullets can be fired through polygonal rifling.

Once you have your budget cast, plated, and coated bullets in hand, you need some proper recipes, starting with proven powders. Hodgdon has many great propellants for the 9mm, and one of the top choices for economical loading is Titegroup. Hodgdon describes Titegroup as a spherical propellant that was designed for accuracy. It provides flawless ignition with all types of primers, including lead-free types. Unlike pistol powders of the past, powder position with Titegroup in large handgun cartridge cases like 45 Colt and 357 Magnum has no effect on velocity and performance. It provides low charge weight, it burns cleanly, it produces mild muzzle report, and it yields uniform ballistics.

In addition to Titegroup, I also used Hodgdon CFE Pistol, Long Shot, and Universal; Winchester AutoComp, W244, and W572; Accurate No. 7; and Ramshot Silhouette powders for the loads listed in the accompanying chart. All propellants performed well, producing consistent velocities with excellent extreme spreads and standard deviations.

Loading Techniques

Handloading plated and coated bullets is essentially the same as loading jacketed bullets; however, there are some things to watch out for. First, the case mouth must be flared to ensure the bullet will align easily when seating and the heel won't snag the case. Second, after seating the bullet to the required cartridge overall length (COL), you should back off the seating stem and adjust the die to crimp the case mouth lightly onto the bullet shank.

Lead Cast Coated Bullets



AcmeBullet.com

LOADS FOR 9MM BUDGET BULLETS

If you use a separate taper crimp die, lightly crimp the case mouth to remove the flare. Remember, the plating is relatively thin, and unlike cast or some jacketed bullets, plated bullets don't have a crimping groove. Be advised that a crimp that is too heavy will likely cut the plating, and when the round is fired, the rear portion will strip off the core.

Also, gas blows by the bullet base, further damaging the bullet and causing it to tumble. Accuracy is ruined, and the bullets will keyhole. Poor performance with plated bullets is almost always the result of excessive crimping or shooting the bullets too fast.

Range Results

As the chart shows, the budget bullets performed admirably in my handloads. The most accurate load consisted of Berry's 124-grain plated RN over 5.6 grains of Silhouette. It was loaded into Federal cases and ignited by CCI 500 primers. Average accuracy was 1.50 inches. The load with the highest velocity consisted of Berry's 115-grain plated RN, 8.0 grains of Accurate No. 7, Federal cases, and CCI 500 primers. The velocity was 1,243 fps measured eight feet from the gun's muzzle.

I used a vintage Colt Series 70 Combat Commander Model 1911 to shoot the handloads listed here. And I assembled all of the loads on an RCBS Rock Chucker Supreme single-stage press, using Lee Precision 9mm Luger dies.

I typically charge my practice 9mm handloads toward the top end of the recommended propellant range specified in the *Hodgdon Annual Manual*. That way I'm assured of reliable cycling and avoiding



When it comes to the 9mm cartridge, the term “budget bullets” generally means copper plated, coated (the red and green bullets in this photo), and cast bullets.

a bullet-in-barrel event. I also usually “throw” pistol propellant with a Redding Competition 10-X pistol measure. Doing that gives me 100 percent confidence the powder charges will vary no more than +/- 0.1 grain.

But just to be sure, I randomly drop an occasional charge into the powder pan and weigh it with my RCBS electronic scale. And I always use a small penlight to inspect the tray of charged cases before seating the first bullet. That's to verify they all have some and that the powder levels look the same. You can't be too careful.

My friend Joe accompanied me in the shooting portion of this review, and we spent two eventful mornings at our club range

BUDGET 9MM LOAD DATA								
CASE	PRIMER	POWDER	CHARGE (GRS.)	BULLET	VEL. (FPS)	E.S. (FPS)	S.D. (FPS)	12-YD. ACC. (IN.)
Colt Combat Commander, 4.25-in. Barrel								
Federal	CCI 500	Accurate No. 7	8.0	Berry Plated 115-gr. RN	1243	47	13	1.71
Blazer	CCI 500	CFE Pistol	5.4	Berry Plated 115-gr. RN	1143	38	12	2.40
Federal	CCI 500	Silhouette	6.0	Berry Plated 115-gr. RN	1139	67	18	2.39
IMI	Fed. 100	AutoComp	5.0	Missouri Hi-Tek 115-gr. RN	1133	38	10	1.80
Blazer	Fed. 100	W244	4.3	Missouri Hi-Tek 115-gr. RN	1148	37	8	1.75
Remington	Fed. 100	Long Shot	5.6	ACME Coated 122-gr. RN	1134	41	11	2.16
IMI	Fed. 100	W572	5.2	ACME Coated 122-gr. RN	1173	43	11	1.61
Winchester	CCI 500	Accurate No. 7	7.4	Berry Plated 124-gr. RN	1173	36	10	1.74
Federal	CCI 500	Silhouette	5.6	Berry Plated 124-gr. RN	1081	47	12	1.50
Frontier	Wolf SP	CFE Pistol	5.4	Berry Plated 124-gr. TPHB	1146	30	7	2.21
PMC	WSP	AutoComp	4.7	Missouri Hi-Tek 124-gr. RN	1063	32	10	2.75
Lapua	CCI 500	Titegroup	3.9	Missouri Hi-Tek 124-gr. RN	1085	62	18	2.26
Blazer	Fed. 100	W244	4.0	Missouri Hi-Tek 124-gr. RN	1069	31	7	1.87
Frontier	Fed. 100	CFE Pistol	4.8	ACME Coated 125-gr. RN	1071	34	8	2.51
Lapua	Fed. 100	Titegroup	3.9	ACME Coated 125-gr. RN	1092	52	15	2.62
Frontier	Fed. 100	Universal	4.3	ACME Coated 125-gr. RN	1086	27	7	1.87
Lapua	Fed. 100	Accurate No. 7	6.3	Clements 147-gr. RNFP	1004	27	6	1.59
NOTES: Accuracy is the average of four, five-shot groups fired from a benchrest. Velocity is the average of 20 rounds measured 10 feet from the gun's muzzle.								

loading magazines, operating an Oehler M35P chronograph, and setting up/shooting targets with 17 different budget 9mm handload recipes. As you can see from the chart, several were quite good. Overall accuracy was about two inches, and just over half exhibited a standard deviation of 10 fps or less.

I did notice something that warrants a note of caution. All of the bullets except Berry's plated bullets generated a small amount of smoke when the bullet exited the barrel. I could see it in the sunlight after Joe fired each round. Of course, we were outside and there was a light breeze that promptly dispersed the ejecta. However, if you're shooting in an indoor range, make sure the area is well ventilated to avoid undue exposure to lead particles.

Plated and coated bullets cost about the same as cast bullets unless you pour your own. Even so, there's no lube or sizing required and no need to wipe your fingers often when reloading. Comparable jacketed bullets cost up to 50 percent more. For plinking, target shooting, and routine personal-defense needs, cast, plated, and coated 9mm bullets work just fine. If you're trying to stretch your hard-earned dollars as far as possible, you owe it to yourself to try out some of these loads.



The 9mm handloads prepared with budget bullets were fired with a vintage Colt Combat Commander, and they provided excellent ballistics and accuracy.

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SHOOTING HODGDON'S NEW PERFECT PATTERN POWDER

The new Perfect Pattern shotgun powder is fantastic for 1-ounce and 1½-ounce loadings.

BY LAYNE SIMPSON

PERFECT PATTERN IS A RELATIVELY QUICK-BURNING POWDER positioned slightly faster than Hodgdon Titewad on the Relative Burn Rates chart in this edition of the *Annual Manual*. Like many other shotshell propellants, it is of double-base composition and derives its energy from a mixture of nitrocellulose and nitroglycerine. Perfect Pattern is made up of flattened spherical granules, and due to their small size, my RCBS Grand progressive loader meters it quite accurately with minimal charge-to-charge variation. Small granules also make the new powder quite dense. With a charge bushing sized for dispensing 15.0 grains of Perfect Pattern, it throws only 9.6 grains of Clays powder. That same bushing also drops 16.5 grains of Winchester WSF, making it closer in density to Perfect Pattern than any other shotshell propellant in my reloading room.

Not long after Hodgdon introduced Clays in 1992, I began using it when loading 12-gauge shells for clay target shooting and for most of my wingshooting. Simply stated, it was my favorite propellant for loading the 12-gauge shell. Then suddenly, its availability became quite sporadic. As Senior Ballistician Justin Schrader explained to me, the war in Ukraine has turned the propellant world upside down, and since wars and governments are higher on the priority list than powder suppliers, delivery of Clays and other Hodgdon propellants made in other countries has been, and still is, less than reliable. The fact that Perfect Pattern is made by St. Marks Powder in

Crawfordville, Florida, should ensure its steady availability. While writing this report, I checked with Graf & Sons, Powder Valley, Ballistic Products, Midsouth Shooters Supply, Precision Reloading, and CAC Associates, and all had plenty of Perfect Pattern in stock.

Some shooters may get the impression that a ballisticsian's job at Hodgdon Powder Co. is as simple as throwing together a bunch of components, firing the concoction in a pressure gun, recording the results, and then moving on to the next project. This is far from true.



Since the introduction of Clays in 1992, Layne had been using it exclusively for loading the 12-gauge shell for clay target shooting and for hunting. He will continue to use Clays when loading 7/8 ounce of shot, but due to its sporadic availability, he has switched to Perfect Pattern when loading 1 ounce and 1½ ounces of shot. Perfect Pattern burns too quickly to use behind shot charges heavier than 1½ ounces, so for those, Universal will continue to be his first choice.

SHOOTING HODGDON'S NEW PERFECT PATTERN POWDER

Cases from various makers, as well as some cases from the same maker, can vary considerably in interior shape and volumetric capacity, so each has its own requirements for the stack height of the powder charge, plastic wad, and shot charge. Ideally, with those three components inserted into a case, the top surface of the shot charge is level with the crimp fold point at the mouth

of the case. This ensures a perfect crimp, and getting there requires just the right combination of powder charge, plastic wad, and shot charge. And while selecting and specifying those items for publication in load data is the ballisticians' job, proper crimp and wad seating pressure adjustments of the shotshell loader are the operator's responsibility. The surface of the crimp should be fairly flat, and when loading the Remington STS, Federal Gold Medal, and Winchester AA hulls, I keep crimp depth at 0.050 inch.

While Perfect Pattern has a high density, ballisticians at Hodgdon were able to come up with the proper stack height for loading 7/8 ounce of shot in the 12-gauge shell. This is good news for me because it is the shot charge weight I have long used for shooting skeet, for some sporting clays presentations, and for 16-yard trap. I mostly hunt doves and quail with shotguns in .410 and 28 gauge, but on the few occasions when I use a 12-gauge shotgun, it is fed handloads with 7/8 ounce of shot. Clays powder has been a favorite propellant in such loads, but I will definitely try some of the 7/8-ounce loads as soon as they become available online through the Hodgdon Data Center. The Hodgdon folks say they will be available by the time you read this.

Among hunters and clay target shooters across the country, 1-ounce and 1½-ounce shot charges are far more popular in the 12-gauge shell,



Perfect Pattern (left) and Clays are double-base propellants deriving their energy from a mixture of nitrocellulose and nitroglycerine. Due to its smaller granulation, Perfect Pattern is denser.

and Perfect Pattern is proving to be, well, perfect for those. It burns too quickly to be suitable for shot charges heavier than 1½ ounces, so for that application, I will continue hanging in there with Hodgdon Universal.

Shooting Perfect Pattern has convinced me that for 1-ounce and 1½-ounce loadings it is now a powder I will keep on the shelf, not because it is better than old faithful Clays but

because it is just as good, and it appears to be more readily available.

And how does recoil compare? A 12-gauge Krieghoff K32 with Purbaugh sub-gauge tubes for the .410, 28-gauge, and 20-gauge events has long been my skeet gun, but for this project I switched to a favorite Remington Model 1100 in order to check out Perfect Pattern in a gas-operated semiautomatic. When shooting doubles in skeet, one shell loaded in that gun contained Perfect Pattern and the other contained Clays. I shoot doubles in trap with a Remington Model 3200 over-under, and the shell in its bottom barrel contained Perfect Pattern, while Clays was up top. I perceived recoil in both guns with shells loaded with the two powders to be the same. One of many things I like about Clays is it burns cleanly and leaves very little residue behind. Perfect Pattern rates just as high in that department as well.

Pattern quality delivered by a shotgun is mostly influenced by the type of lead shot used, with magnum and chilled shot being the two types commonly available. Magnum shot costs more to manufacture because it contains a higher percentage of antimony, and that increases its hardness. The No. 7½ and No. 8 shot in premium-grade shells loaded by Federal and Remington for trap shooting can contain as much as 6 percent antimony. For many years I have used shot made by Lawrence when loading shells ranging from .410 to 12 gauge, and magnum-grade shot made by that company is available in sizes



Correct stack height of powder charge, wad, and shot charge specified by a ballisticians along with proper adjustment of the crimp die and wad seating pressure of the loading press by its operator result in crimp quality accurately described by a single word—perfect.



Shells loaded with different shot charge weights are quickly identified by using cases of different colors. For example, the hand-loaded red shell shown here has an ounce of shot (even though the hull was factory marked 1½ ounces), while the handloaded burgundy shell contains 1½ ounces of shot.

4, 5, 6, 7, 7½, 8, 8½, and 9. Extremely hard shot does a good job of resisting setback deformation during firing, as well as the damage that can occur as the charge is violently squeezed through the forcing cone and choke section of the barrel.

Depending on the source, the antimony content of chilled shot can range from zero to 2 percent or so. Because it is softer than magnum shot, a larger number of pellets are deformed during firing and during passage of the charge through the barrel. As a charge of magnum shot exits the muzzle, the high percentage of undamaged pellets tend to hold a straight course toward the target; therefore, pattern density is good, with uniform distribution of pellets throughout the pattern. In contrast, air resistance against the irregular surfaces of a higher percentage of deformed pellets in a charge of chilled shot causes them to stray from their nice round mates, for a weakening of pattern density and uniformity. For shooting skeet, 16-yard trap, and at the distances most upland game birds are taken, chilled shot can do a very good job. But for shooting trap at handicap distances or when hunting late in the season when pheasants have more of a tendency to flush wild, magnum shot is worth its slightly higher price. I use magnum shot for everything.

Pattern-Testing Perfect Pattern

With that lesson behind us, let's now look at the results of pattern-testing a couple of loads containing Perfect Pattern. There is more than one way to do it, but I prefer to use a 40x40-inch steel patterning plate attached at eye level to a pair of support posts. In preparation for the first shot, a felt paint roller is used to apply a mixture of white paint pigment and new motor oil. Testing reveals the effective diameter of a pattern at various distances and how uniformly a charge of pellets is distributed throughout the pattern. After a round is fired and its pattern evaluated and recorded, the paint roller is used to erase those pellet strikes prior to firing the next round. Shooting the plate at various distances also reveals the maximum effective range of a particular choke/shot charge combination—in other words, the distance at which any part of the pattern will deliver enough pellets to shatter a clay target or kill a game bird stone dead in flight. Due to the possibility of pellets bouncing back and striking the shooter, steel shot or any other type of shot harder than lead should not be pattern-tested on a steel plate.

Targets in skeet are usually broken inside 25 yards, so it is the distance at which I pattern-tested the Remington Model 1100 with

a choke constriction of 0.005 inch. Moving to trap, I am a fairly quick shooter and when shooting singles from the 16-yard line, I usually break most targets at about the same distance. In trap doubles, the first target is broken at about 25 yards, whereas the second target is probably a good 10 yards farther out when the trigger is squeezed. When shooting trap from longer handicap distances, targets can be 40 yards away when broken, and that, along with the second shot in doubles, is where pattern quality has to be perfect. When shooting both trap doubles and singles from the 16-yard line, I use a Remington Model 3200 with 30-inch barrels with 0.015 inch of choke constriction in its bottom barrel and 0.034 inch up top. When shooting trap from longer handicap distances, I use a Remington 90T, and its 32-inch barrel has 0.035 inch of choke constriction.



Layne uses a steel plate to pattern-test shotguns at various distances. The performance of loads containing Perfect Pattern powder proved to be quite good.

SHOOTING HODGDON'S NEW PERFECT PATTERN POWDER

Most flushing game birds are taken inside 30 yards, but late in the season, pheasants are sometimes dropped a bit farther out. I never take a first shot as far away as 40 yards, but I do want to know how effective a load is at that distance should a follow-up shot on a crippled bird be required. My favorite late-season pheasant gun is a 12-gauge Fox Sterlingworth double with 30-inch barrels, and it has choke constrictions of 0.020 inch in its right barrel and 0.040 inch in the left. During my 40-yard pattern-testing, I shot it as well as my Remington Model 90T trap gun.



Shotguns used for testing loads with Perfect Pattern powder at 25 and 40 yards include (left to right) Remington Model 90T, Remington Model 3200, Remington Model 1100, and Fox Sterlingworth double.

For clay target shooting with the 12 gauge, I load 7/8 ounce of shot in green Remington STS cases, 1 ounce of shot in red Winchester AA cases, and 1 1/8 ounces of shot in burgundy Federal Gold Medal cases. Doing so is an easy way of keeping track of different shot charge weights. If I am shooting skeet or 16-yard trap, I shoot either green or red shells, but when moving back to handicap distance in trap, I know that all shells in my bag should be of another color. Federal also loads the Gold Medal shell with a paper case, so it is important to note that all cases mentioned in this report are plastic.

The load used when pattern-testing the Remington Model 1100 at 25 yards consisted of the Winchester AA case, Remington 209P primer, 15.0 grains of Perfect Pattern, Winchester WAA12SL wad, and an ounce of No. 9 magnum shot at a velocity of 1,180 fps. My 16-yard trap load for the Remington Model 3200 was the same except No. 8 shot was used. The load used for pattern-testing the Remington 90T at 40 yards consisted of the Federal Gold Medal case, Remington 209P primer, 18.2 grains of Perfect Pattern, Clay Buster No. 6118-12 wad, and 1 1/8 ounces of Lawrence No. 7 1/2 magnum-grade shot for a velocity of 1,255 fps. With the exception of increasing shot size to No. 5, the load for my Fox Sterlingworth was the same. Muzzle velocity is 1,200 fps.

When evaluating patterns shot with the four guns, it quickly became apparent that all were as fond of loads built around Perfect Pattern as they are with loads containing Clays. I will keep Clays on hand for loading 7/8 ounce of shot in the 12 gauge and Universal on the shelf for loading 1 1/4 ounces of shot, but for everything in between, Perfect Pattern will do an equally good job. 



Due to the fine granulation of Perfect Pattern, charges were dispensed by this RCBS Grand progressive loader with very little variation in weight.



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RELOADING THE 360 BUCKHAMMER

Remington's new cartridge is easy to handload, with the right powders.

BY FRANK MELLONI

CARRYING A RIFLE AFIELD ALLOWS FOR ETHICAL HARVESTS at greater distances. While this seems like an obvious win, that capability increase also can make rifles dangerous in areas where shotguns and muzzleloaders play just fine. For this reason, many jurisdictions limit hunters to the latter two platforms, and that can present some difficulties. Shotguns loaded with slugs produce a level of recoil that many hunters will find uncomfortable and, as such, will decline to practice with them in the off-season. Furthermore, one is pushing the limits of this platform once they hit the 100-yard mark. Saboted slugs help us to reach out a bit farther but are generally too expensive to practice with and require the additional expense of a rifled barrel. For these reasons, shooters turn to muzzleloaders, but with them, you are limited to a single-shot firearm and the task of learning an entirely new skill set to produce repeatable accuracy.

These arguments were presented to the lawmakers of these hunting locales and, to much surprise, fell on sympathetic ears. Many, being hunters themselves, understood that rifle cartridges span a wide variety of effective ranges, thus making it unfair to outlaw them as a whole. After working with firearms experts and advocacy groups, legislators determined that a subset of cartridges deemed "straight wall" represented rifle fodder that was about as safe to shoot in densely populated areas as scatterguns and front stuffers. Although an epic win for the firearms community, it didn't leave a perfect option for deer hunting. Winchester first addressed this with the

350 Legend cartridge, but some hunters found it underpowered and weren't pleased that its rimless case nearly precluded it from functioning in lever-action rifles.

Enter the 360 Buckhammer

While Winchester might have built the first cartridge specifically for straight-wall country, Remington had the idea on its storyboard many years prior. Initial thoughts were to chamber a lever-action Marlin Model 336 in 357 Maximum, but with bankruptcy looming, there wasn't enough in the budget left for new product development. Slowly, the idea got pushed to the back of the engineering department, and the Remington company was sold off. Big Green, as we knew it, entered a restructuring phase, directing most of its resources to rebuilding, retooling, and resupplying the factory floor with raw materials. Once back on its feet, Remington realized that the best way to announce its reentry was to bring a new cartridge to the industry.



The straight-wall 360 Buckhammer was created for hunters, and excellent full-power handloads and subsonic handloads are easy to build with the right powders and bullets.

RELOADING THE 360 BUCKHAMMER

With straight-wall acceptance catching on, the company thought it could make a better .35-caliber round, one that would pull on sentimental heartstrings as well as serve utility beyond novelty. Taking a traditional 30-30 Winchester case, the boys in Arkansas cut out the bottlenecking step and instead gently tapered it to hold the classic Core-Lokt bullets already being made for the 35 Remington round. Also, the case was cut to 1.800 inches on the nose, putting it right at the legal maximum for states that have one set. What we have in the new 360 Buckhammer is a cartridge that produces substantially more energy than the 30-30 Win. and is about as close as you can get to carrying a trusty 35 Rem. afield without getting in trouble.

After filling my freezer from a single hunt, I quickly fell in love with the 360 Buckhammer and the Henry lever-action rifles chambered to fire it. Owning a lever action in 360 Buckhammer makes a lot of sense for a guy in my position. As I now hang my hat in the state of Pennsylvania, many wildlife management units have opened up to allow straight-wall ammunition. Additionally, the entire state is one of the few places with a ban in place on semiautomatic firearms for big-game hunting. To my west is Ohio, which mandates straight-wall cartridge rifles, and to my east is New York, which requires a nonexistent permit to possess a semiautomatic. However, even if I

weren't "forced" to shoot the 360 Buckhammer, it still would be my go-to woods cartridge/gun combo. I enjoy the manual of arms that goes with a lever-action rifle, and the round has power to spare without being overbearing to the shoulder. It also is a fun little cartridge to reload, which brings me to this report.

Powder Selection

Handloading the 360 BH is interesting because only a few powders work well with it. If you go with propellants that are too fast, you'll experience pressure issues. Too slow, and you won't get the velocity that makes this round worthwhile. In short, it operates on a narrow band of burn rates. Furthermore, many powders will be too voluminous to cram into the case to meet even the minimum charge. With the exception of Accurate No. 2, all of the workable powders fall between IMR 4227 and H4895 on a burn chart. At the time of this writing, Hodgdon had six powders that could accomplish favorable supersonic performance; however, it was up to me to narrow down the best ones. Because 360 BH isn't intended for semiautomatic firearms, it is a perfect candidate for subsonic loading. Powder options for flying below the speed of sound were rather plentiful, as I had 10 from which to choose. This made it more difficult in some respects, as it likely meant more poking around before finding a winner. But surely an avid handloader wouldn't mind that one little bit.

Bullet Choices

Where lever guns have the advantage of manual cycling, they carry the disadvantage of a tubular magazine. Because the ammunition sits bullet to primer in these guns, abrupt recoil can cause a round to go off prematurely. So, my selection was limited only to bullets that are safe in this configuration. Complicating matters further, the 360 BH slings 0.358-inch-diameter projectiles in lieu of the more popular 0.357-inch ones. However, the good folks at Hodgdon confirmed that 0.357-inch-diameter bullets are safe and even provided some data for their use. I opted to skip this diameter, as using undersized bullets is seldom the path to accuracy, but I would consider seeing how they perform sometime down the road. After a little digging, I was able to find enough 0.358-inch bullets to handle just about every hunting scenario, so we can't call the 360 BH limited by any means.

Remington offers its classic 180-grain and 200-grain softpoint Core-Lokt bullets as reloading components, so I included them. My only gripe is that they have a sectional density and ballistic coefficient that pulls them from the sky in a hurry. Don't get me wrong, when selling this cartridge to those who govern straight-wall territories, it was the perfect option, but let's be honest, half of handloading is about gaming the system. Hornady's Flex-Tip (FTX) lever-gun bullet was all but built to game said system and dramatically flattens trajectories through its conical profile that is safe for tubular magazines. Luckily, it is available in this caliber, and I was particularly excited to make it sing.



Frank found several powders that work well for the 360 Buckhammer, including Accurate 5744, CFE BLK, IMR 4227, and Accurate 1680.



Bullets used in this report were 0.358 inch in diameter and ranged in weight from 180 to 223 grains.

All of Frank's handloads performed well from the shooting bench. Averaging just 0.98 inch at 100 yards, the most accurate load consisted of 34.0 grains of CFE BLK under the Hornady 200-grain FTX bullet.



Speer offers a 180-grain 0.358-inch Hot-Cor bullet, which boasts a molten core that is poured in to produce consistency beyond its class. Speer knows a thing or two about bullets, so I trusted this one enough to spend time building cartridges. And a small bulletmaker in Montana called Hammer Bullets specializes in monolithic copper bullets, so I selected its 178-grain and 223-grain Shock Hammer bullets. They are Spitzer-style bullets, but they are perfectly safe for use in tubular magazines because of their oversized hollow points that essentially produce less primer contact than even a blunted softpoint bullet.

Tooling Up

When Remington made the 360 Buckhammer, it knew folks were going to want to handload it. Therefore, the company worked closely with its sister company RCBS to ensure that dies would be available right at the start. In fact, I had dies in my hands before there was loading data! Expanding on its Group C series, this all-steel set includes a sizer that is void of a carbide ring, meaning you have to lube each case before running them through. The plus side of this is that they are tough as nails, and you don't have to back them off of the shellholder, providing a more thorough resizing. This set also comes with a "stepped" expander die to uniformly expand the case mouth without subjecting it to undue stress. This extra work can potentially split a cartridge upon ignition, causing a point of impact shift and a wounded deer limping through the woods. The seater die is built to place a gamut of different-profiled bullets without damaging them and contains a roll crimp feature that is perfect for lever-action cartridges that headspace on the rim.

I utilized the latest generation of RCBS's iconic Rock Chucker reloading press to maximize my mechanical advantage, except I upgraded it with the Hornady Lock-N-Load bushing system. This allows dies to be snapped in and out of the press, retaining their settings. When you have more than half a dozen different loads to make, this saves a boatload of time and aggravation. In addition, it makes the unquantifiable process of crimping repeatable, allowing for accurate reproduction once you find your favorite load.

Building Some Handloads

I began by building supersonic loads for a Henry 20-inch-barreled lever gun (H009G-360BH), which is what I consider the average rifle in this chambering. After topping it with a Riton 1 Conquer 6-24X scope, I had a perfect 100-yard load-development tool.

Starting with the lightest bullets, I looked over my propellant choices for the 178-grain Shock Hammer. Comparing its lengthy bearing surface to the powders that I was familiar with, I had an eerie feeling that they were all too bulky for proper seating depth. I was

right on nearly all of them, except for Accurate 5744. This wasn't a total shock, as this powder is made to keep fluffiness to a minimum, despite being an extruded formula.

At a minimum charge, the powder column was nearly touching the base of the bullet, and this was concerning because I knew it meant I wasn't going to get much more in for the next series. However, at the very next charge step, I found performance that rivaled factory ammo, so I settled on it as my special-purpose lead-free load.

The Remington 180-grain Core-Lokt bullets were a touch heavier, and with them, I wanted to build a load using CFE BLK powder. Due to the spherical nature of this propellant, rounds could be banged out on a progressive press, and the powder's copper-removal properties make it an outstanding practice round for the off-season. A 35-grain charge was about all that the case could fit if I wanted to seat the bullet to the cannelure, which I did because that allows for a solid crimp without deforming the bullet. As luck would have it, this load duplicated factory ammo velocity to within 1 fps and grouped just slightly larger than Remington factory-loaded ammo. Although I was tempted to try to tighten accuracy with a different powder, I left well enough alone because if I were ever in a spot where I couldn't handload, I could substitute a box of loaded ammo off the shelf without having to rezero my rifle.

Since CFE BLK produced a single-digit standard deviation, I was not ready to give up on it, despite the larger groups, and I reasoned that using a heavier bullet would allow for less powder, which might make the difference because having more bearing surface inside the case can sometimes lead to a more uniform burn. The results with the Hornady FTX bullet showed that my hypothesis was correct, and it turned out to be the tightest-shooting load I would fire through this rifle.

Because 180-grain bullets and CFE didn't look like a great match, I decided to switch to Accurate 1680 to see how well I could get the Speer Hot-Cors to fly. This powder is just a step slower than Accurate 5744, but it is of the smooth-metering spherical variety. With it, I was able to get within two grains of the maximum charge without compressing, and the load produced the fastest velocity of the handloads I fired. With an average muzzle velocity of 2,408 fps, the muzzle energy was a whopping 2,317 ft-lbs, which isn't too far from some 308 Winchester loads. On top of that, most of my five-shot groups were

360 BUCKHAMMER LOAD DATA										
CASE	PRIMER	POWDER	CHARGE (GRS.)	BULLET	COL (IN.)	VEL. (FPS)	E.S. (FPS)	S.D. (FPS)	50-YD. ACC. (IN.)	100-YD. ACC. (IN.)
Henry H009G-360BH Rifle, 20-in. Barrel, 1:12 Twist										
Remington	Rem. 9½	Accurate 5744	28.5	Hammer 178-gr. Shock Hammer	2.355	2232	27	15	----	1.98
Remington	Rem. 9½	CFE BLK	35.0	Remington 180-gr. Core-Lokt	2.390	2311	36	9	----	2.21
Remington	Rem. 9½	Accurate 1680	36.0	Speer 180-gr. HOT-COR	2.340	2408	61	19	----	1.12
Remington	Rem. 9½	CFE BLK	34.0	Hornady 200-gr. FTX	2.410	2152	24	5	----	0.98
Remington	Rem. 9½	IMR 4227	27.0	Remington 200-gr. Core-Lokt	2.390	2081	38	12	----	1.52
Henry H009X-360BH Rifle, 21.375-in. Barrel, 1:12 Twist, Banish 46 Suppressor										
Remington	Rem. 9½	Accurate 5744	14.0	Remington 200-gr. Core-Lokt	2.390	1051	39	11	0.61	----
Remington	Rem. 9½	Accurate 5744	16.0	Hammer 223-gr. Shock Hammer	2.425	1089	74	16	0.78	----
NOTES: Accuracy is the average of three, five-shot groups fired from a Caldwell rest. Velocity is the average of 10 rounds measured five feet from the guns' muzzles. Temperature: 78 degrees Fahrenheit. Altitude: 700 ft.										

under the 1.0-inch mark, making this load a top candidate for game larger than whitetails. The downside? It's not for the squeamish. It took just 20 rounds before I started to feel it, which isn't a problem for hunting, but I won't be plinking steel anytime soon with this load.

Not to leave IMR out of the story, IMR 4227 made the cut of acceptable powders, so I decided to include it. Intended for magnum pistol cartridges, this super-short-grain propellant left enough case capacity for bullets with small amounts of bearing surface, such as Remington's 200-grain Core-Lokt. The Core-Lokts stabilized well with a 27-grain charge of powder, out-grouped the factory ammo, and nearly matched factory ammo velocity and drop. Needless to say, I was satisfied, so I moved on to developing subsonic handloads.

Henry and Remington had subsonic plans for the 360 BH from the start, but it was up to me to create the first rounds. The other Henry rifle I used for the load development (H009X-360BH) features a 21.375-inch barrel with a threaded muzzle, to which I promptly affixed a Silencer Central Banish 46 suppressor. With the Sightmark Presidio 3-18X I mounted on this rig, I had one heck of a close-quarters deer slayer for state land that butts up against a residential neighborhood.

Since velocity is limited in this type of load development, kinetic energy must come from the weight side of the equation. That's where those 223-grain Shock Hammers come into play, as well as an encore with the 200-grain Core-Lokts. Load development is easy, as Hodgdon prints subsonic data almost the way it does shotgun data. If the recommended load doesn't work well for your particular rifle/suppressor/altitude/temperature combination, consider adding or subtracting a tenth of a grain until subsonic speeds are achieved. Some velocity and accuracy tweaking can be had by varying primers, seating depth, and crimp tension, but understand that the recipes I have listed below were not derived from a conventional load-development process. That being said, both of my loads loved being pushed by Accurate 5744, and they punched many one-hole groups at 50 yards. The hardest-hitting of the pair was the Shock Hammer, which produced 583 ft-lbs of energy at the muzzle and is likely to carry more to the target than the Core-Lokt, which is built

360 BUCKHAMMER FACTORY LOAD ACCURACY & VELOCITY					
AMMUNITION	COL (IN.)	VEL. (FPS)	E.S. (FPS)	S.D. (FPS)	100-YD. ACC. (IN.)
Henry H009G-360BH Rifle, 20-in. Barrel, 1:12 Twist					
Remington 180-gr. Core-Lokt	2.390	2312	40	16	1.81
Remington 200-gr. Core-Lokt	2.390	2061	31	13	2.18
NOTES: Accuracy is the average of three, five-shot groups fired from a Caldwell rest. Velocity is the average of 10 rounds measured five feet from the gun's muzzle. Temperature: 65 degrees Fahrenheit. Altitude: 700 ft.					



The 360 Buckhammer is an excellent deer-hunting cartridge, and the handloads developed for this report shot extremely well in two different Henry lever-action rifles.

to shed its punch rapidly. Although the numbers are there, gel evidence suggested only minimal expansion with each bullet at these speeds, so it's best to keep shots close when using them.

Although usable powders were supposed to be limited, I found several top contenders that could power a wider variety of bullets than I imagined. Careful load development produced accuracy in most cases that was more than twice what is needed to ethically harvest medium-sized game out to 200 yards, with many putting neck shots on the table at that distance. The two excellent subsonic loads make my suppressed Henry lever gun hearing-safe, and they make for good medicine on backyard deer, where the law allows. Overall, the 360 Buckhammer is a capable cartridge that's easily handloaded, and sourcing components locally shouldn't be much trouble at all.



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LOADS FOR SUBSONIC RIFLE AMMUNITION

Accurate subsonic rifle ammo ranging from 223 Remington to 45-70 Government can be handloaded with a host of great powders from Hodgdon.

BY LAYNE SIMPSON

THE SPEED OF SOUND IN DRY AIR AT SEA LEVEL AT A TEMPERATURE of 60 degrees Fahrenheit is just over 1,100 feet per second. When a jet fighter exceeds that velocity, shock waves that ripple through the atmosphere when air molecules are suddenly displaced by the plane create a loud noise called a sonic boom. The pilot does not hear the boom because he is traveling so fast it cannot catch up with him. I know this to be true firsthand because I used to make frequent business trips to various European countries and the Middle East, and when I was in a hurry, I would board the Concorde, a supersonic airliner jointly created by France and Great Britain. It flew on the edge of outer space at an altitude of 60,000 feet, with a cruising speed of close to 2,000 fps, about as fast as my Marlin Model 336 in 35 Remington launches a 200-grain bullet.

A bullet from a rifle that exceeds the speed of sound also creates a sonic boom, but it is much quieter because the mass of the bullet is tiny compared to that of a jet fighter. Attach an efficient suppressor to the rifle, and the much louder muzzle blast created by the exit of pressurized propellant gas into the atmosphere is reduced to a level that allows occasional shots to be comfortably fired without wearing hearing protection. Slow down the bullet to a velocity below the speed of sound, and the bullet striking steel or the bolt in an AR-15 cycling will be louder.

The Subsonic Movement

The subsonic movement as we know it today began in 1992 when J.D. Jones of SSK Industries created the 300 Whisper cartridge by necking down the 221 Remington Fireball case and loading it with 220-grain match-grade bullets. Intended for use in AR-15 rifles, the conversion required little more than switching barrels, and it used the same magazine as the 223 Remington. The cartridge picked up more momentum around 2010, when Advanced Armament Corporation renamed it 300 AAC Blackout and teamed up with Remington, who registered it with S.A.A.M.I.

Due to the rapidly growing popularity of attaching suppressors to the barrels of rifles, the 300 Blackout has become extremely popular outside of military circles, and Hodgdon has developed plenty of subsonic and supersonic load data for it and other cartridges, such as the 30-30 Winchester, 223 Rem., 308 Win., 350 Legend, 7.62x39mm Russian, 30-06, 458 SOCOM, and 45-70 Government. If what you are looking for is not in this edition of the *Annual Manual*, go online and check out Hodgdon's Reloading Data Center. The gun club that I have been a member of for several decades is approaching 1,000 members, and I am amazed at how many are shooting suppressed rifles. Most are bolt actions, with the 308 Win. probably the most popular, although I also see autoloaders as well as Henry lever actions in 45-70, 30-30, and 44 Magnum.



Subsonic handloads can be very accurate. For example, IMR 4227, Remington 7½ primers, Starline cases, and Redding dies produce excellent 300 Blackout ammunition.



LOADS FOR SUBSONIC RIFLE AMMUNITION

Some of the smaller, high-expansion-ratio cartridges are ideally suited for subsonic handloads because the extremely small powder charges required for producing drastically reduced velocities occupy a large percentage of the powder cavities of their cases. Optimal examples in .30 caliber are the 300 Blackout, Bill Wilson's 300 Hammer, the 7.62x39mm Russian, and the 30 Remington AR. The load density for most of the 300 Blackout subsonic loads developed by Hodgdon exceeds 90 percent. Due to its greater capacity, the 30-30 is not as efficient, but it is more so than the larger 308 Win., which is slightly more efficient than the 30-06. Even so, all can be successfully loaded to subsonic velocities, and all can be accurate.

Notes on Load Density

Load density indicates the amount of empty space inside a case from its web to the base of the bullet occupied by a powder charge. A charge that completely fills that space is considered to be a 100 percent density load, and velocity variation is likely to be low. If it fills only half the space, it is a 50 percent density load, and depending on the powder being loaded, velocity variation can be quite high. Due to the varying densities of various powders and variations in powder charge weights, load density in subsonic ammunition will vary considerably.

Subsonic data with the highest load densities developed by Hodgdon that I received for several cartridges were 35 percent for the 223 Rem. (Accurate No. 2 powder), 38 percent for the 308 Win. (also Accurate No. 2), and 76 percent for IMR 4064 in the 45-70. Since Trail Boss is far more bulky than the other powders, load density for 13.5 grains behind the Rim Rock 405-grain cast bullet that I shot is 99 percent. Unfortunately, Australian Defense Industries (ADI) has not delivered any Trail Boss to Hodgdon for several years, and this is why staff



With their soft lead cores, thin jackets, and Flex-Tip inserts, Hornady SUB-X bullets are constructed to expand at impact velocities as low as 900 fps and are good choices for building subsonic handloads.

members at Hodgdon's ballistics lab have spent many hours developing subsonic loads with a variety of other powders. Increase expansion ratio beyond that of the 45-70 by switching to the 458 SOCOM, and for nine of the powders used by Hodgdon with the Hornady 410-grain SUB-X and ACME 576-grain bullets, load density slightly exceeds 100 percent due to slight powder charge compression. Those powders are Benchmark, IMR 3031, Accurate LT-30, Accurate LT-32, IMR 8208 XBR, Accurate 2495, IMR 4198, Accurate 2200, and Accurate 5744.

At the short distances slow-poke loads are usually shot, load density does not appear to be a determining factor in producing the best accuracy. Load density for 8.7 grains of Titegroup behind the Hornady 175-grain SUB-X in the 308 Win. is only 26 percent, yet when that load was shot in my Jarrett custom rifle, it averaged 0.46 inch at 100 yards. That rifle, by the way, has a Remington Model Seven action, McMillan stock, and a medium-heavy Shilen Select Match Grade barrel. It consistently shoots inside half MOA with a variety of full-power loads, and I have used it to take a lot of game. Due to the small charges of powders used in subsonic loads, a short section of wooden dowel should be used to check each case for an accidental double charge prior to bulletseating.

It should be noted that powder charges shown by Hodgdon under the "Maximum Loads" heading indicate the heaviest charge that could be used in the company's pressure gun without exceeding subsonic velocities. It does not indicate a maximum-pressure charge. This becomes quite clear when comparing maximum pressures shown for full-power loads in the 300 Blackout and those listed for subsonic loads in that cartridge. Due to the absolute minimum chamber and bore dimensions of a pressure barrel, pressure and velocity of a particular powder charge/bullet weight combination can be higher than in many off-the-shelf, mass-produced rifles. A velocity ranging from 1,000 fps to 1,075 fps is the goal, and in order to reach that, the subsonic charge listed by Hodgdon may have to be increased slightly when loading for the typical factory rifle. On the other hand, some rifles may require a slight decrease in Hodgdon's recommended charge weight.

Developing Loads

When developing a subsonic load with a new bullet, I begin with a recommended powder charge, and if velocity proves to be a bit low, the charge is gradually increased to 1,050 fps or so. Once that point is reached, 10 rounds are slow-fired over chronograph screens to confirm that each bullet received enough push to exit the barrel. Verification can also be accomplished by shooting a paper target with a pause to peep through a spotting scope between each shot.

Drastically reducing a pressure-tested load should not be attempted, as doing so can leave a bullet stuck in the barrel. Should this happen, rest the rifle muzzle-up and pour a bit of Kroil penetrating oil down its bore and against the front of the lodged bullet. A wad of paper towel pushed into the chamber prevents the oil from entering the action. After a one-hour soaking, take a brass rod or hardwood dowel of a diameter matching bore diameter as closely as possible, insert it into the barrel from its breech end and against the base of the bullet, and push the bullet from the barrel. It may take several taps on the rod with a small plastic-head hammer to get things moving.

While the original intended role of rifle ammunition loaded to subsonic velocity was for use by military and law enforcement personnel against bad people, in some circles it is now being promoted

for hunting big game. While some calibers deliver adequate incapacitation power for two-legged creatures, using most on animals larger than coyotes and possibly juvenile feral hogs makes no sense at all to me. Even when used on those, proper bullet placement is extremely important, and the distance has to be quite short. Anything less will result in wounded animals escaping to die a slow and painful death, and no true sportsman who believes in the ethical treatment of game

animals wants any part of that. I occasionally hunt big game with suppressed rifles, but I always use full-power ammunition when doing so.

Before the introduction of SUB-X bullets by Hornady, a jacketed rifle bullet that would expand at subsonic impact velocities did not exist. Due to a soft lead core enclosed by a thin jacket with deep skiving at its hollow nose and the soft Flex-Tip insert, SUB-X bullets will expand at impact velocities as low as 900 fps. The .30-caliber

SUBSONIC LOAD DATA

CASE	PRIMER	POWDER	CHARGE (GRS.)	BULLET	COL (IN.)	VEL. (F.P.S.)	E.S. (F.P.S.)	ENERGY (FT-LBS)	25-YD. ACC. (IN.)	50-YD. ACC. (IN.)	100-YD. ACC. (IN.)
223 Rem. Remington Model 7615, 16.5-in. Barrel, 1:8 Twist											
Starline	Rem. 7½	Accurate No. 2	4.8	Berger 65-gr. Match	2.215	1059	62	162	----	----	1.97
Starline	Rem. 7½	Titegroup	4.5	Berger 65-gr. Match	2.215	1078	35	168	----	----	2.10
Starline	Rem. 7½	Accurate No. 2	5.5	Berger 75-gr. VLD	2.230	1060	55	187	----	----	1.19
Starline	Rem. 7½	Accurate 5744	5.8	Berger 75-gr. VLD	2.230	1031	20	177	----	----	1.55
300 Blackout Ruger American Ranch Rifle, 16.12-in. Barrel, 1:7 Twist											
Starline	Rem. 7½	CFE BLK	12.5	Hornady 190-gr. SUB-X	2.050	1056	33	470	----	----	2.11
Starline	Rem. 7½	H322	13.2	Hornady 190-gr. SUB-X	2.050	1078	29	490	----	----	2.15
Starline	Rem. 7½	H4198	11.8	Hornady 190-gr. SUB-X	2.050	1029	40	447	----	----	2.79
Starline	Rem. 7½	IMR 4227	10.6	Hornady 190-gr. SUB-X	2.050	1038	39	455	----	----	1.36
Starline	Rem. 7½	Li'Gun	8.8	Hornady 190-gr. SUB-X	2.050	1056	161	470	----	----	1.62
Starline	Rem. 7½	W296	9.5	Hornady 190-gr. SUB-X	2.050	1077	62	489	----	----	1.41
Starline	Rem. 7½	W296	9.0	Berger 200-gr. Hybrid	2.250	1032	63	473	----	----	2.14
Starline	Rem. 7½	Accurate 1680	10.0	Berger 230-gr. Hybrid	2.250	1026	22	538	----	----	3.22
Starline	Rem. 7½	Accurate 5744	10.7	Berger 230-gr. Hybrid	2.250	1038	30	550	----	----	2.06
Starline	Rem. 7½	CFE BLK	11.0	Berger 230-gr. Hybrid	2.250	1047	38	560	----	----	3.19
Starline	Rem. 7½	IMR 4227	10.0	Berger 230-gr. Hybrid	2.250	1056	34	569	----	----	0.84
30-30 Ruger-Made Marlin Model 336, 20.5-in. Barrel, 1:12 Twist											
Starline	Rem. 9½	Trail Boss	8.3	Rim Rock 155-gr. Cast RNFP	2.545	1066	25	391	----	----	1.88
Starline	Rem. 9½	H322	10.2	Hornady 175-gr. SUB-X	2.515	1051	31	429	----	----	2.11
Starline	Rem. 9½	H4895	10.2	Hornady 175-gr. SUB-X	2.515	1020	18	404	----	----	1.70
308 Win. Jarrett Custom Remington Model Seven, 21-in. Barrel, 1:12 Twist											
Starline	Rem. 9½	Accurate No. 2	8.4	Hornady 165-gr. SST	2.800	1055	34	408	----	----	0.30
Starline	Rem. 9½	Accurate 5744	12.5	Hornady 175-gr. SUB-X	2.490	1020	22	404	----	----	1.22
Starline	Rem. 9½	Titegroup	8.7	Hornady 175-gr. SUB-X	2.490	1048	52	427	----	----	0.46
Starline	Rem. 9½	Accurate 5744	12.9	Hornady 190-gr. SUB-X	2.705	1062	21	476	----	----	1.33
Starline	Rem. 9½	H322	13.8	Hornady 190-gr. SUB-X	2.705	1048	41	463	----	----	0.58
Starline	Rem. 9½	Trail Boss	10.9	Hornady 190-gr. SUB-X	2.705	1041	30	457	----	----	1.05
Starline	Rem. 9½	Accurate 5744	13.0	Berger 200-gr. Hybrid	2.800	1014	74	457	----	----	0.61
38 Special Marlin Model 1894, 20-in. Barrel, 1:18 Twist											
Starline	CCI 500	H4227	10.0	Hornady 158-gr. XTP	1.450	1028	19	371	2.23	----	----
Starline	CCI 500	H4227	9.0	Rim Rock 158-gr. Cast SWCHP	1.460	1080	15	409	2.84	----	----
44 Special Ruger-Made Marlin Model 1894, 20-in. Barrel, 1:20 Twist											
Starline	Rem. 2½	IMR 4227	14.5	Rim Rock 240-gr. Cast HP	1.580	1056	10	594	2.87	----	----
44 Magnum Ruger-Made Marlin Model 1894, 20-in. Barrel, 1:20 Twist											
Starline	Rem. 2½	Titegroup	8.5	Rim Rock 240-gr. Cast HP	1.700	1086	27	629	3.11	----	----
Starline	Rem. 2½	IMR 4227	17.5	Rim Rock 305-gr. Cast FN	1.700	1062	21	764	2.55	----	----
45-70 Henry Lever-Action 22-in. Barrel, 1:20 Twist											
Starline	Rem. 9½	Trail Boss	13.5	Rim Rock 405-gr. Cast RNFP	2.555	1004	17	906	----	1.66	----
Starline	Rem. 9½	Accurate No. 2	14.4	Hornady 410-gr. SUB-X	2.547	1098	45	1097	----	1.28	----
Starline	Rem. 9½	Accurate 2200	42.0	Hornady 410-gr. SUB-X	2.5 47	1719	38	2691*	----	0.79	----
Starline	Rem. 9½	Accurate 5744	27.7	Hornady 410-gr. SUB-X	2.5 47	1011	115	930	----	1.12	----
Starline	Rem. 9½	IMR 4064	34.6	Hornady 410-gr. SUB-X	2.547	1032	19	970	----	0.84	----
Starline	Rem. 9½	Titegroup	13.0	Hornady 410-gr. SUB-X	2.547	1018	57	943	----	1.13	----
*Supersonic velocity											
NOTES: Accuracy is the average of three, three-shot groups fired from a sandbag benchrest. Velocity is the average of five rounds measured 12 feet from the guns' muzzles. WARNING: Due to the small quantities of most powders used in subsonic loads, prior to seating bullets cases should be carefully checked to ensure they have not been accidentally double charged.											

LOADS FOR SUBSONIC RIFLE AMMUNITION

175-grain and .458-caliber, 410-grain versions are suitable for use in rifles with tubular magazines, although they can be used in other types of rifles as well. SUB-X construction meets FBI protocol for terminal ballistic test requirements.

When exiting the muzzle of a rifle at just under 1,100 fps, SUB-X bullets should expand out to about 200 yards, although residual energy at that distance would be only about 400 foot-pounds for the .30-caliber 190-grain bullet and 363 ft-lbs for the 175-grain bullet. That's about the same as for the 25-20 Winchester cartridge at the muzzle of my Marlin 1894, and no experienced hunter would consider it powerful enough to use on anything much bigger than an unsuspecting groundhog, and then only at fairly close range. Shortening the distance increases energy delivery of the two SUB-X bullets but not by much since at 50 yards the figures are 483 ft-lbs and 437 ft-lbs. Moving to the bottom line, I see no logical reason to shoot deer or other big game with a subsonic loading of the 300 Blackout.

For hunting pigs and deer with a suppressed rifle, the 45-70 pushing the Hornady 410-grain SUB-X along at 1,050 fps is a far better option than cartridges of smaller calibers. In addition to punching a much bigger hole, the bullet strikes a 100-yard target with 1,000 ft-lbs of punch, about the same as for a supersonic loading of the 44 Remington Magnum from a Marlin 1894 or Henry Big Boy. The fairly soft Rim Rock 405-grain bullet I shot for this report should also work nicely on deer. Performance of the 410-grain SUB-X pushed to higher velocity should be even more effective on deer, and for the benefit of those who would like to give it a try, I have included a supersonic load with Accurate 2200 powder. The 458 SOCOM loaded with the 410-grain SUB-X and the 450 Bushmaster loaded with the 395-grain SUB-X would pretty much match 45-70 performance on deer.

Due to the noise reduction, I enjoy hunting with suppressed rifles, but I always use supersonic ammunition. I am reminded of a wonderful hunt for red stags and feral goats in Scotland where I used a Mauser rifle in 308 Win. and Hornady ammunition loaded with the 165-grain SST at just over 2,900 fps. Only two shots were fired during the entire hunt, so hearing protection was not needed. But when many shots will be fired at the range or during other activities, I always wear hearing protection when shooting a suppressed rifle.

Optimal Powders

Keep in mind that a subsonic load developed during cool weather can go supersonic when the ammunition is subjected to hot weather. That makes some members of Hodgdon's Extreme family of reduced-temperature-sensitivity propellants, such as H4198, H322, and H4895, excellent choices for subsonic loadings of ammunition that will be subjected to wide temperature extremes.

With all that said, when choosing a powder for subsonic velocities from any cartridge, I prefer to start with one that, according to Hodgdon, produces the highest pressure because I want all the push I can get against the base of a bullet. As an example, of various powders used by Hodgdon when shooting 300 Blackout data with the Hornady 190-grain SUB-X, pressures ranged from 18,100 psi for H322 to 29,100 psi for IMR 4227, so between the two, I would go with IMR 4227. Top pressure producers with the Berger 230-grain Hybrid Target are 9.6 grains of IMR 4227 at 33,100 psi and 9.0 grains of W296 at 32,900 psi.



Due to the drastic noise reduction, Layne enjoys hunting with suppressed rifles but always uses full-power ammunition. He used a rifle and Hornady 308 Win. ammo to take this feral goat while hunting red stags in Scotland.

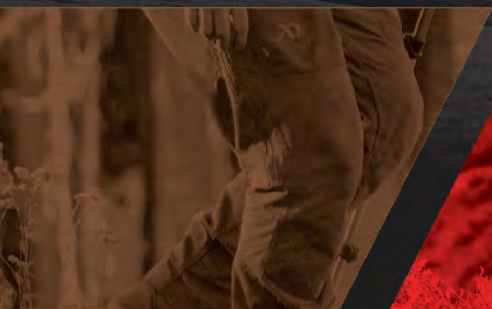
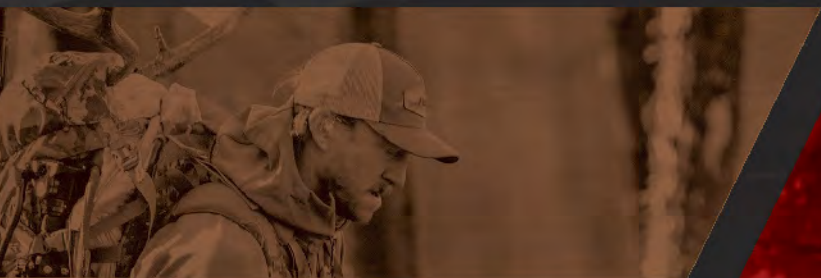
Other Considerations

Bullet rotation, and therefore its stability in flight, is determined by the rifling twist rate of a barrel and the level of velocity. A small increase or decrease in twist will have considerably more effect on bullet rotation than small increases or decreases in velocity. As an example, at an exit velocity of 1,050 fps, the finger-long Berger 230-grain Hybrid Target will stabilize from a rifle in 300 Blackout with a 1:7.5 or 1:8 twist, but it likely will not when exiting at the same velocity from a rifle in 308 Win. with a 1:10 twist, which is standard for that cartridge. In addition to being inaccurate, an unstable bullet could strike the baffles of a suppressor.

Because they are softer, thin-jacketed bullets are less resistant to being pushed through a barrel than bullets of monolithic construction, and for that reason they are less likely to stick in the barrel should velocity dip too far below the lower end of the subsonic velocity range. Examples would be a relatively soft bullet like the Hornady 150-grain A-Max and an extremely hard bullet like the Hornady 150-grain GMX from a rifle in 300 Blackout or 308 Win.

Due to the noise reduction, I believe having a suppressed rifle on hand for home protection is a good idea, and in that case subsonic ammunition is just the ticket. And for that I can think of nothing more suitable than a short lever-action rifle, such as the Marlin 1894 or Henry Big Boy in 44 Magnum/44 Special. Either carbine in 357 Magnum firing 38 Special handloads with a 158-grain cast or jacketed bullet at subsonic speed should also be an excellent option. A short bolt action, such as my Ruger American Ranch Rifle with a 16.12-inch barrel, in 300 Blackout or 308 Win. would not be a bad choice for repelling home invaders. A stock AR-15 will usually not function with subsonic ammo, although with certain modifications it can be made to do so.

Such a pity that suppressors for rifles were not as easy to find and to acquire while I was growing up as they are today. If they had been, I might still be able to hear the chirp of a cricket.



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BARREL LENGTH VERSUS VELOCITY

Here are the results of some inch-by-inch tests that will give you a practical basis for comparing load data and barrel lengths.

STAFF REPORT

YOU JUST PURCHASED YOUR BRAND-NEW FIREARM AND can't wait to get some loads worked up, so you have been reading all the load manuals at your disposal. One of the first things you notice is that the barrel length of your new firearm is different than the barrel lengths of the firearms used to generate load data. Why do the load manuals all use the same length barrels that are different than the barrel on your rifle? How do you compensate for the difference in your barrel versus the test barrel in the reloading data?

The Sporting Arms and Ammunition Manufacturers Institute (S.A.A.M.I.) sets the standards for test barrels used by the various ammunition, bullet, and powder manufacturers' ballistics labs. This helps keep the data generated by the various entities uniform from lab to lab. The specified barrel length for most rifle calibers is 24 inches, whereas in handgun calibers, the barrel length varies.

We have on hand the results of three rifle barrel length versus velocity tests conducted by our ballistics lab as well as one handgun study. In the rifle barrel versus velocity tests, we started with a 24-inch 6.5 Creedmoor and two 24-inch 223 Wylde barrels. We fired five-shot groups through each barrel, then shortened the barrels in a lathe an inch at a time after each subsequent five-shot group, going from the original 24 inches down to 16 inches. The barrels were cleaned to remove all fouling each time they were shortened. In the 223 Wylde barrels, we shot three different bullet weights—40, 60, and 77 grains—using a fast for this caliber powder (Ramshot X-Terminator) and a slow for this caliber powder (Accurate 2520).

223 REMINGTON WYLDE — 1-IN. INCREMENTS

BARREL	40 GR SIE BK X-TERM 29.0 GR			40 GR SIE BK 2520 31.0 GR		
	P	V	LOSS	P	V	LOSS
24 in.	50,740	3791	--	50,640	3727	--
23 in.	51,680	3784	7	51,540	3719	8
22 in.	50,860	3741	43	51,120	3679	40
21 in.	51,980	3729	12	51,080	3654	25
20 in.	52,000	3683	46	51,820	3618	36
19 in.	51,860	3642	41	52,840	3593	25
18 in.	51,840	3593	49	52,720	3531	62
17 in.	52,140	3549	44	52,540	3478	53
16 in.	52,360	3498	51	52,320	3419	59
Average loss per inch			37	39		
Group High P	52,360	52,840				
Group Low P	50,740	50,640				
Pressure Diff	1620	2200				

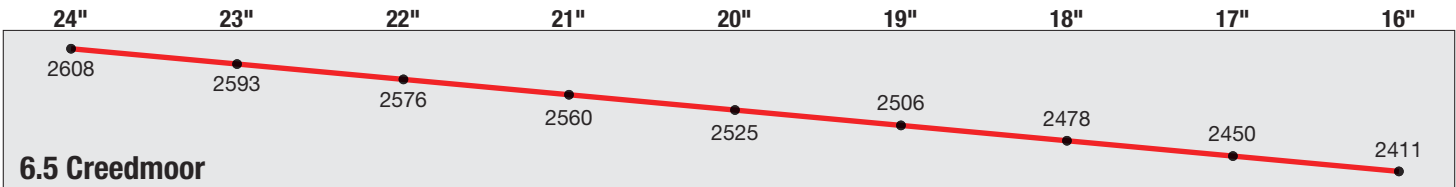
VELOCITY LOSS PER INCH OF BARREL — 540 TOTAL ROUNDS

BARREL	X-TERMINATOR 40 GR SIE BK			A 2520 40 GR SIE BK		
	P	V	LOSS	P	V	LOSS
24 in.	54,280	3841	--	55,490	3819	--
23 in.	54,640	3828	13	56,600	3809	10
22 in.	53,900	3783	45	56,230	3767	42
21 in.	53,960	3746	37	55,850	3721	46
20 in.	54,040	3705	41	56,500	3689	32
19 in.	54,170	3673	32	55,010	3610	79
18 in.*	54,520	3657	16	55,780	3611	-1
17 in.	53,690	3592	65	56,130	3559	52
16 in.	54,600	3562	30	55,590	3496	63
Total V lost			279	323		
Average/inch			35	40		
Group High P	54,640			56,600		
Group Low P	53,690			55,010		
Pressure Diff	950			1590		
* Rebuilt receiver						

* Rebuilt receiver

6.5 CREEDMOOR — BARREL LENGTH VS VELOCITY

SHOT	BARREL LENGTH								
	24"	23"	22"	21"	20"	19"	18"	17"	16"
Shot 1 Vel. (fps)	2612	2605	2552	2566	2527	2498	2484	2452	2419
Shot 2 Vel. (fps)	2612	2588	2575	2566	2517	2513	2476	2465	2410
Shot 3 Vel. (fps)	2608	2594	2572	2565	2527	2483	2482	2452	2415
Shot 4 Vel. (fps)	2599	2584	2578	2541	2524	2509	2461	2447	2401
Shot 5 Vel. (fps)	2607	2,93	2603	2560	2530	2525	2486	2435	2409
Average 5-shot String (fps)	2608	2593	2576	2560	2525	2506	2478	2450	2411
SD	5.32	7.92	18.21	10.69	4.95	15.90	10.11	10.80	6.80
Difference		-15	-17	-16	-35	-19	-28	-28	-39
Average Difference: -25									



60 GR SIE TMK X-TERM 24.9 GR			60 GR SIE TMK 2520 27.3 GR			77 GR SIE HPBT X-TERM 22.5 GR			77 GR SIE HPBT 2520 25.2 GR		
P	V	LOSS	P	V	LOSS	P	V	LOSS	P	V	LOSS
52,140	3,147	--	50,660	3,191	--	50,000	2671	--	52,020	2821	--
50,020	3,112	35	50,320	3,173	18	50,240	2658	13	50,760	2792	29
51,200	3,106	6	50,500	3,150	23	50,080	2637	21	51,360	2781	11
51,440	3,095	11	51,040	3,140	10	49,360	2626	11	50,260	2750	31
51,960	3,066	29	50,740	3,096	44	49,560	2600	26	50,780	2713	37
52,040	3,040	26	51,620	3,081	15	49,600	2582	18	51,580	2710	3
53,480	3,026	14	51,160	3,035	46	49,360	2555	27	50,060	2655	55
52,340	2,979	47	50,480	2,983	52	49,460	2526	29	50,420	2630	25
52,320	2,941	38	52,300	2,970	13	48,980	2491	35	49,740	2592	38
		26			28			23			29
53,480			52,300			50,240			52,020		
50,020			50,320			48,980			49,740		
3,460			1980			1260			2280		

X-TERMINATOR 62 GR WIN FMJ			A 2520 62 GR WIN FMJ			X-TERMINATOR 77 GR SIE HPBT			A 2520 77 GR SIE HPBT			# ROUNDS AT START
P	V	LOSS	P	V	LOSS	P	V	LOSS	P	V	LOSS	
56,830	3092	--	52,610	3117	--	55,740	2724	--	53,950	2821	--	107
56,860	3077	15	52,850	3109	8	57,270	2731	-7	54,850	2816	5	167
56,090	3051	26	52,140	3075	34	56,260	2705	26	53,930	2790	26	227
55,400	3020	31	51,980	3040	35	55,300	2674	31	53,350	2753	37	287
55,400	2989	31	53,500	3038	2	54,410	2636	38	54,350	2738	15	347
54,260	2949	40	51,140	2965	73	53,570	2599	37	53,630	2698	40	407
55,040	2949	0	51,460	2955	10	54,420	2620	-21	54,040	2709	-11	467
54,920	2915	34	51,550	2916	39	54,790	2586	34	54,610	2680	29	527
53,620	2863	52	52,380	2891	25	54,300	2556	30	53,460	2633	47	587
		229			226			168			188	
		29			28			21			24	
56,860			53,500			57,270			54,850			
53,620			51,140			53,570			53,350			
3240			2360			3700			1500			

BARREL LENGTH VERSUS VELOCITY

The Hodgdon Ballistics Lab measured velocities in 6.5 Creedmoor and 223 Wylde rifle barrels and in 9mm Luger and 45 ACP pistols, reducing the barrel lengths one inch at a time to derive an average velocity difference per inch of barrel.

In the handgun test, we fired 9mm Luger and 45 ACP pistols with barrel lengths of 3, 4, and 5 inches for both calibers. The 9mm Luger load was a factory 90-grain +P self-defense load, and the .45 ACP load was factory 230-grain ball ammunition.

While the results of these tests aren't totally linear, using the average velocity drop for the entire test will get you close to the velocity difference you would expect for a barrel that is shorter or longer than the test barrel used in a ballistic lab. The 6.5 Creedmoor velocity drop averaged 25 fps per inch. The results of the two 223 Wylde tests were very similar, with the light 40-grain bullets averaging about 38 fps per inch, while the heavy 77-grain bullets saw an average close to 25 fps per inch. It would make sense that the heavy compressed loads used with the light bullets would show more velocity difference than the loads used with the 77-grain bullet that did not fill the case.

This shows that there isn't an exact answer to how much your personal rifle will vary from the reloading manuals, but if you use 25 fps for most standard hunting calibers, you will be close. For overbore cartridges that use a lot of powder for the bore size, 35 fps per inch will get you closer to what you should expect.

The handgun test, while not as extensive, gave us a good idea of what to expect, and the results were very linear. The 9mm +P load came very close to averaging 100 fps per inch of barrel. We have seen the same results with 9mm Luger 125-grain competition loads. The



45 ACP gave us approximately 50 fps difference per inch of barrel. As you can see, there is a much larger variation in the handgun calibers than what we see in the rifle calibers.

While there are no definitive rules as to how much velocity difference you will see, these tests should give you an idea of what to expect with your firearm. In the future, we hope to continue exploring other variables in the velocity difference equation, such as very overbore and straight-wall rifle cartridges. In the meantime, the numbers from these tests will get you in the ballpark.

9MM — BARREL LENGTH VS VELOCITY			
SHOT	3" 9MM	4" 9MM	5" 9MM
Shot 1 Vel. (fps)	1355	1438	1527
Shot 2 Vel. (fps)	1376	1451	1571
Shot 3 Vel. (fps)	1358	1446	1574
Shot 4 Vel. (fps)	1346	1415	1523
Shot 5 Vel. (fps)	1346	1448	1593
Shot 6 Vel. (fps)	1347	1433	1549
Shot 7 Vel. (fps)	1356	1469	1568
Shot 8 Vel. (fps)	1333	1458	1537
AVG	1352	1445	1555
	93	111	

45 ACP — BARREL LENGTH VS VELOCITY			
SHOT	3" 45 ACP	4" 45 ACP	5" 45 ACP
Shot 1 Vel. (fps)	748	815	828
Shot 2 Vel. (fps)	735	806	843
Shot 3 Vel. (fps)	758	825	829
Shot 4 Vel. (fps)	745	787	857
Shot 5 Vel. (fps)	730	757	813
Shot 6 Vel. (fps)	712	799	866
Shot 7 Vel. (fps)	705	802	850
Shot 8 Vel. (fps)	748	792	837
AVG	735	798	840
	63	43	

RELOADING DATA

Introduction

RIFLE/PISTOL

At the time of this writing, the new Hodgdon *Annual Manual* represents the most complete and up-to-date listing of loading data available. All data are arranged with bullets from lightest to heaviest and powders listed with burning rates from slowest to fastest for quick and easy use. Each cartridge is conveniently indexed for rapid location.

Primarily, the data for this edition were developed through the use of pressure barrels. All loads for standard U.S. cartridges adhere to the guidelines provided by the Sporting Arms and Ammunition Manufacturers' Institute (S.A.A.M.I.). Maximum loads for wildcat cartridges and cartridges not covered by S.A.A.M.I. were obtained by visual case-head signs, such as flat or cratered primers, difficult extraction and measured case heads.

Pressures were gauged by one of two methods: mechanically with Copper Units of Pressure (CUP) or electronically with a transducer as Pounds per Square Inch (PSI). CUP is determined by using a copper slug called a "crusher." The crusher is placed in a fixture over the chamber where a hole passes through the barrel to the chamber. When the cartridge is fired, gases swell and cause the crusher to flatten. The results are compared to a Tarage Table and converted to pressure in CUP. The electronic method utilizes a force transducer, which rests against the cartridge in the chamber. When the cartridge is fired, the gases cause the brass to expand against the force transducer, and the results are measured in pounds per square inch (PSI). The two systems do not provide the same maximum number for each

cartridge, so no correlation can be made between the systems. However, each cartridge has a standard for both systems, and therefore, actual maximums are physically the same.

WHEN WORKING UP A LOAD, THE RELOADER SHOULD ALWAYS BEGIN WITH THE STARTING LOAD, ADVANCE IN SMALL INCREMENTS, WATCH FOR PRESSURE SIGNS AND BEGIN AGAIN IF CHANGING COMPONENTS. Generally, the best powder choice is the powder that most nearly fills the case for the intended velocity. Most cartridges have only a certain number of appropriate powders. Those cartridges that are more versatile can use a wider range of burning speeds. For others, lesser numbers of propellants will give optimum results.

Most often, slower-burning powders are more suitable with heavy bullets, while faster powders are better with lighter bullets. Of course, most reloaders like a powder that delivers near-maximum or maximum results throughout the range of bullets, but that is not always obtainable, since some cartridges (like the 30-06) have too wide a range of bullets for any one burning rate to be ideal.

The reloader who seriously loads for any given rifle/pistol will choose different components (primers, powders, bullets, cases) in varying combinations to obtain the best overall performance and accuracy. After all, the reloader reloads to save money, but he also reloads to improve accuracy and performance, creating special loads he cannot find on the dealers' shelves.

Powder Usage

SHOTGUN

	TARGET				LIGHT FIELD					HEAVY FIELD					
	12 GA	20 GA	28 GA	410 BORE	12 GA	16 GA	20 GA	28 GA	410 BORE	10 GA	12 GA	16 GA	20 GA	28 GA	410 BORE
Hodgdon Smokeless Propellant															
Clays	•				•										
Perfect Pattern	•				•										
Titewad	•				•										
Hi-Skor 700-X	•				•	•									
International	•	•			•		•								
High Gun	•				•										
Titegroup	•				•										
Universal	•	•	•		•	•	•	•							
HS-6			•			•	•	•			•				
Longshot	•	•	•							•	•	•	•	•	
H110				•					•						•
Lil' Gun				•					•					•	•
IMR Smokeless Propellant															
IMR 4227				•					•						•
Winchester Smokeless Propellant															
WST	•				•										
Super Handicap	•				•										
WSF	•	•			•	•					•				
572		•	•		•	•	•	•			•	•	•	•	
296				•					•						•
Accurate Smokeless Propellant															
Nitro 100 NF	•														
Ramshot Smokeless Propellant															
Competition	•				•										

PISTOL

	TARGET	LIGHT DUTY	MEDIUM DUTY	MAGNUM
Hodgdon Smokeless Propellant				
Clays	•	•		
Hi-Skor 700-X	•	•		
Titegroup	•	•		
Trail Boss	•	•		
Universal	•	•	•	
HS-6		•	•	
CFE Pistol	•	•	•	•
H110			•	•
Lil' Gun			•	•
IMR Smokeless Propellant				
IMR 4227			•	•
Winchester Smokeless Propellant				
WST	•	•		
AutoComp	•	•	•	
WSF	•	•		
231	•	•	•	
244	•	•	•	
572	•	•	•	
296			•	•
Accurate Smokeless Propellant				
Accurate No. 2	•	•	•	
Accurate No. 5		•	•	
Accurate No. 7	•	•	•	
Accurate TCM		•	•	•
Accurate No. 9			•	•
Accurate No. 11 FS			•	•
Ramshot Smokeless Propellant				
Silhouette	•	•		
True Blue	•	•		
Zip	•	•	•	
Enforcer			•	•

RIFLE

	TARGET	SILHOUETTE	LIGHT	MEDIUM	MAGNUM	50 CAL
Hodgdon Smokeless Propellant						
Trail Boss	•		•			
Lil' Gun			•			
CFE BLK	•		•			
H4198	•		•			
H322	•	•	•	•		
Benchmark	•	•	•	•		
H335	•	•	•	•		
H4895	•	•	•	•		
Varget	•	•	•	•		
BL-(C)2	•	•	•	•		
CFE 223	•	•	•	•		
LEVERevolution	•	•	•	•		
H380		•		•		
H4350		•	•	•		
Hybrid 100V		•	•	•	•	
H4831				•	•	
H4831SC				•	•	
Superformance				•	•	
H1000				•	•	
Retumbo					•	
US869					•	•
H50BMG					•	•
IMR Smokeless Propellant						
IMR 4227			•			
IMR 4198	•		•			
IMR 3031	•	•	•	•		
IMR 8208 XBR	•	•	•	•		
IMR 4895	•	•	•	•		
IMR 4166	•	•	•	•		
IMR 4064	•	•	•	•		
IMR 4350		•		•	•	
IMR 4451		•		•	•	
IMR 4831				•	•	
IMR 4955				•	•	
IMR 7828 SSC				•	•	
IMR 7977				•	•	
IMR 8133					•	
Winchester Smokeless Propellant						
748	•	•	•	•		
StaBALL Match	•	•	•			
760		•		•	•	
StaBALL 6.5	•	•		•	•	
StaBALL HD				•	•	
Accurate Smokeless Propellant						
Accurate 5744	•		•	•		
Accurate 1680	•		•			
Accurate LT-30	•	•	•			
Accurate 2200	•		•			
Accurate LT-32	•	•	•			
Accurate 2015	•	•	•	•		
Accurate 2230	•	•	•	•		
Accurate 2460	•	•	•	•		
Accurate 2495	•	•	•	•		
Accurate 4064	•	•	•	•		
Accurate 2520	•	•	•	•		
Accurate 2700		•		•	•	
Accurate 4350		•		•	•	
Accurate MagPro				•	•	
Ramshot Smokeless Propellant						
X-Terminator	•	•	•	•		
TAC	•	•	•	•		
Big Game		•		•	•	
Hunter				•	•	
Grand				•	•	
Magnum			•	•	•	
LRT					•	•

RELATIVE BURN RATES FROM FASTEST TO SLOWEST

1	NORMA R1	56	Accurate 4100	111	Alliant Power Pro 2000-MR
2	VihtaVuori N310	57	Alliant Steel	112	Hodgdon LEVERevolution
3	Accurate Nitro 100	58	NORMA R123	113	Hodgdon H380
4	Alliant e3	59	VihtaVuori N110	114	Ramshot Big Game
5	Hodgdon Perfect Pattern	60	Hodgdon LIL'GUN	115	VihtaVuori N540
6	Hodgdon TITEWAD	61	Hodgdon H110	116	Alliant Power Pro 4000-MR
7	Ramshot Competition	62	Winchester 296	117	Winchester 760
8	Alliant Red Dot	63	IMR 4227	118	VihtaVuori N150
9	Alliant Promo	64	Alliant Power Pro 300-MP	119	Accurate 2700
10	Hodgdon CLAYS	65	Accurate 5744	120	IMR 4350
11	Alliant Clay Dot	66	Accurate 1680	121	IMR 4451
12	Hodgdon Hi-Skor 700-X	67	Accurate LT-30	122	Alliant Reloder 16
13	Alliant Bullseye	68	Hodgdon CFE BLK	123	Hodgdon H4350
14	Hodgdon High Gun	69	NORMA 200	124	Alliant Reloder 17
15	Hodgdon TITEGROUP	70	Accurate 2200	125	Accurate 4350
16	Alliant American Select	71	Alliant Reloder 7	126	NORMA 204
17	Ramshot Silhouette	72	Accurate LT-32	127	Hodgdon HYBRID 100V
18	Accurate Solo 1000	73	IMR 4198	128	Winchester StaBALL 6.5
19	Alliant Green	74	Hodgdon H4198	129	VihtaVuori N550
20	Ramshot True Blue	75	VihtaVuori N120	130	Alliant Reloder 19
21	Winchester WST	76	Alliant Power Pro 1200-R	131	IMR 4831
22	Hodgdon Trail Boss	77	Hodgdon H322	132	Ramshot Hunter
23	Winchester Super Handicap	78	Accurate 2015BR	133	Accurate 3100
24	Hodgdon INTERNATIONAL	79	Alliant Reloder 10X	134	VihtaVuori N160
25	VihtaVuori N320	80	VihtaVuori N130	135	NORMA 205
26	Accurate No. 2	81	IMR 3031	136	Hodgdon H4831 & H4831SC
27	Ramshot Zip	82	VihtaVuori N133	137	Hodgdon SUPERFORMANCE
28	Winchester 231	83	Hodgdon BENCHMARK	138	IMR 4955
29	Alliant 20/28	84	Hodgdon H335	139	NORMA MRP
30	Winchester 244	85	Ramshot X-Terminator	140	Alliant Reloder 22
31	Alliant Unique	86	Accurate 2230	141	NORMA MRP2
32	Hodgdon UNIVERSAL	87	Accurate 2460	142	VihtaVuori N560
33	Alliant Power Pistol	88	IMR 8208 XBR	143	Alliant Reloder 23
34	VihtaVuori N330	89	Alliant AR Comp	144	VihtaVuori N165
35	Alliant Herco	90	Ramshot TAC	145	IMR 7828SC
36	Winchester WSF	91	Alliant Power Pro Varmint	146	Alliant Reloder 25
37	VihtaVuori N340	92	Hodgdon H4895	147	VihtaVuori N170
38	Accurate No. 5	93	VihtaVuori N530	148	Accurate Magpro
39	Hodgdon HS-6	94	IMR 4895	149	IMR 7977
40	Winchester AutoComp	95	VihtaVuori N135	150	Alliant Reloder 26
41	Hodgdon CFE Pistol	96	Alliant Reloder 12	151	Hodgdon H1000
42	VihtaVuori 3N37	97	Accurate 2495	152	Ramshot Grand
43	VihtaVuori N350	98	IMR 4166	153	Ramshot Magnum
44	VihtaVuori 3N38	99	IMR 4064	154	Hodgdon RETUMBO
45	Winchester 572	100	NORMA 202	155	Winchester StaBALL HD
46	Alliant Blue Dot	101	Accurate 4064	156	IMR 8133
47	Accurate No. 7	102	Accurate 2520	157	Ramshot LRT
48	Alliant Pro Reach	103	Alliant Reloder 15	158	VihtaVuori N570
49	Hodgdon LONGSHOT	104	NORMA 203B	159	Alliant Reloder 33
50	Alliant 410	105	VihtaVuori N140	160	VihtaVuori 24N41
51	Accurate TCM	106	Hodgdon VARGET	161	Hodgdon H50BMG
52	Alliant 2400	107	Winchester 748	162	Hodgdon US869
53	Ramshot Enforcer	108	Winchester StaBALL Match	163	Alliant Reloder 50
54	VihtaVuori N105	109	Hodgdon BL-C(2)	164	VihtaVuori 20N29
55	Accurate No. 9	110	Hodgdon CFE 223		

HODGDON Smokeless Pistol and Shotgun Powders

In Order of Approximate Burning Rate

PERFECT PATTERN® Perfect Pattern is a fast-burning, flattened, spherical shotshell powder designed for light and extra-light field and target loads for the 12-gauge shotgun. Its geometry and density result in excellent ignition, superb metering, and low charge weights that deliver consistent patterns with mild report and low recoil.

TITEWAD® Through advanced technology, Hodgdon Powder Co. has produced a superior flattened spherical shotgun powder. Unlike spherical propellants in the past, TITEWAD features low charge weights, mild muzzle report, minimum recoil and reduced residue for optimum ballistic performance. This outstanding propellant designed for 12 ga. only meters superbly and is ideal for 7/8-, 1- and 1½-oz. loads. As the name implies, “a little goes a long way!”

» **CLAYS®** Introduced in January 1992, CLAYS has “taken the clay target world by storm.” It is the most clean-burning, consistent 12-ga. 7/8-oz., 1-oz. and 1½-oz. powder available today. The superb burning characteristics of this powder produce soft, smooth recoil; ultra-clean burning; mild muzzle report; and excellent patterns. These features transfer directly to handgun applications where target shooting is the main goal. The 45 ACP and 38 Special are only two of the cartridges where CLAYS provides “tackdriving” target accuracy with flawless functioning.

Hi-Skor 700-X™ This extruded flake powder is ideally suited for shotshells in 12 and 16 gauge where clay target and light field loads are the norm. It doubles as an excellent pistol target powder for such cartridges as the 38 Special and 45 ACP and many more.

TRAIL BOSS® Trail Boss was designed specifically for low-velocity lead bullets suitable for Cowboy Action shooting. It is primarily a pistol powder but has some application in rifles. It is based on a whole new technology that allows very high loading density, good flow through powder measures, stability in severe temperature variation and, most important, additional safety to the handloader.

» **INTERNATIONAL®** INTERNATIONAL is the second in the CLAYS series of powders. It is positioned in burning speed to accommodate 12-ga., 2¾” light, medium and heavy 1½-oz. loads, with some very nice 1-oz. listings. Also, it works splendidly in 20-ga., 7/8-oz. target and light field loads. As with CLAYS, clean burning and flawless functioning are the rule.

HIGH GUN™ High Gun is a flattened, spherical shotshell powder designed for light-target, handicap, and super handicap loads in a 12-gauge shotgun. This powder also closely duplicates Remington Nitro 27 factory loads. High Gun’s geometry results in a powder that meters consistently, has excellent ignition, and burns clean enough to throw uniform patterns clay after clay.

TITEGROUP® As the name implies, this new spherical propellant was designed for accuracy. Because of the unique design, this powder provides flawless ignition with all types of primers, including the lead-free versions. Unlike pistol powders of the past, powder position in large cases (45 Colt, 357 Magnum and others) has virtually no effect on velocity and performance. Cowboy Action, Bullseye and Combat Shooters should love this one! TITEGROUP has it all: low charge weight; clean burning; mild muzzle report; and superb, uniform ballistics.

HP-38® HP-38 is a spherical pistol powder that is great for low velocity and midrange target loads in 38 Special, 44 Special and 45 ACP. This high-energy powder provides economy in loading.

» **UNIVERSAL®** UNIVERSAL handles the broadest spectrum of cartridges for both pistol and shotgun. From the 25 ACP to the 44 Magnum, UNIVERSAL provides outstanding performance. In shotgun, it produces excellent loads in 28 ga. 3/4 oz., 20 ga. 7/8 oz., 16 ga. 1 oz. and even 12 ga. 1¼ oz. Clean burning and uniformity are part of its attributes.

CFE™Pistol New in 2014, this excellent spherical pistol propellant utilizes our CFE formula, Copper Fouling Eraser, virtually eliminating copper fouling, plus providing top velocities with clean burning and minimal muzzle flash. For competitive shooters and handloaders seeking the perfect powder for target or self-defense loads, CFE Pistol provides optimum performance in cartridges like the 9mm Luger, 38 Super, 40 S&W, the venerable 45 ACP and many more.

HS-6® HS-6 is a fine spherical propellant that has wide application in pistol and shotshell. In pistol, 9mm, 38 Super, 40 S&W and 10mm Auto are some of the cartridges where HS-6 provides top performance. In shotshell, HS-6 yields excellent heavy field loadings in 10 ga., 12 ga., 16 ga., 20 ga. and even the efficient and effective 28 ga. HS-6 is truly an outstanding spherical propellant.

LONGSHOT® This new spherical shotshell powder is the most versatile heavy field propellant Hodgdon has ever produced. Great field loads in 10 ga., 12 ga., 16 ga., 20 ga. and 28 ga. are shown herein. This propellant provides true magnum velocities with superb patterns. In addition, LONGSHOT is the best choice for those competitors shooting “race” games, such as “Buddy” shoots, “Annie Oakleys” and more.

H110® H110 is the spherical powder that screams, “No wimps, please!” It delivers top velocities with top accuracy in the 44 Magnum, 454 Casull and 475 Linebaugh. Silhouette shooters claim it is the most accurate 44 powder they have ever used. In addition, H110 is the choice for the minuscule 410 Bore shotgun. It handles all 2½”, 1/2-oz. loads as well as all 11/16-oz. loads for the 3” version.

LIL’ GUN® The 410 Bore has long been difficult to load due to shortcomings in powder fit and metering, along with poor burning characteristics. Not anymore! LIL’ GUN was designed to fit, meter and perform flawlessly in the 410 Bore. No more spilled shot or bulged cases. In addition, LIL’ GUN has many magnum pistol applications and is superb in the 22 Hornet.

HODGDON Smokeless Rifle Powders

In Order of Approximate Burning Rate

» EXTREME POWDERS

CFE BLK™ This new spherical propellant was designed expressly for the 300 Remington AAC Blackout cartridge. It provides full function of AR-type rifles throughout the range of bullet weights and is perfect for those subsonic reduced loads. In addition to being outstanding in the 300 Blackout, it performs beautifully in many smaller-capacity cartridges—in particular, varmint specials like the 17 Hornet, 17 Ackley Hornet, 218 Bee, 221 Fireball and many more. It also yields top performance in the 6.8 Remington SPC and the 7.62x39mm Russian cartridge. This fine powder meters like a dream and leaves no copper residue, extending accuracy for longer shooting periods and making cleanup quick and easy. It is truly a remarkable new propellant!

» **H4198™** This Extreme Extruded propellant has gone through some changes since its inception, all the time maintaining the same important burning speed of the past. The kernels were shortened for improved metering, and necessary elements were added to make it extremely insensitive to hot/cold temperatures. H4198 is outstanding in cartridges like the 222 Remington, 444 Marlin and the 7.62x39.

» **H322®** This Extreme Extruded powder has won more benchrest matches than all other propellants combined. It provides match-grade accuracy in small- and medium-capacity cartridges like the 223 Remington, 6mm PPC and the 7mm TCU. As a fine extruded powder, it flows through powder measures with superb accuracy.

» **BENCHMARK®** As the name implies, this Extreme Extruded propellant was developed for precision cartridges. As such, it is ideally suited for benchrest and small varmint cartridges like the 6mm PPC, 22 PPC, 6mm BR, 22 BR, 223 Remington and 222 Remington. Additionally, it performs superbly in the 308 Winchester with light match bullets like the 147-gr. and 155-gr. versions. With small, easy-metering granules, competitors will love how it flows through progressive presses.

H335® H335 originated as a military powder, used for the 5.56 NATO, or 223 Remington as handloaders know it. Obviously, it sees endless use in the 222 Remington, 223 Remington and other small cartridges. In particular, prairie dog shooters will find this a favorite, as J.B. Hodgdon has for years!

» **H4895®** H4895 is a most versatile rifle powder. This member of the Extreme Extruded line is great for 17 Remington, 250-3000 Savage, 308 Winchester and 458 Winchester, to name just a few. It is amazingly accurate in every cartridge where it is listed in our data. It had its origin in the 30-06 as a military powder and was the first powder Bruce Hodgdon sold to the loading public.

» **VARGET®** The first of Hodgdon's revolutionary Extreme Extruded Powders, VARGET features small extruded grains for uniform metering, insensitivity to hot/cold temperatures and higher energy for improved velocities over other powders in its burning-speed class. Easy ignition and clean burning are other features that translate into superb accuracy; higher scores; and more clean, one-shot kills. Outstanding performance and velocity can be obtained in such popular cartridges as the 223 Remington, 22-250 Remington, 308 Winchester, 30-06, 375 H&H and many more.

BL-C(2)® BL-C(2) is a spherical powder that began as a military powder used in the 7.62 NATO, commonly known as the 308 Winchester. When the powder was first introduced to the handloader, benchrest shooters and other target shooters made it an instant success. BL-C(2) works extremely well in the 223 Remington, 17 Remington, 22 PPC and, of course, the 308 Winchester, plus many more.

CFE™ 223 Introduced in January 2012, this versatile spherical rifle propellant incorporates in its formula CFE, Copper Fouling Eraser. This ingredient, originally used in military propellant, greatly deters copper fouling. It contributes to longer periods of top accuracy with less barrel cleaning time. Being a spherical powder, metering is superbly accurate. CFE 223 yields top velocities in many cartridges, such as the 204 Ruger, 223 Remington/5.56mm NATO, 22-250 Remington and the 308 Winchester/7.62mm NATO, plus many, many more. Match, Varmint and AR shooters will love this one!

LEVEREVOLUTION® Hodgdon® Powder Company and Hornady® Manufacturing have teamed together to answer the frequently asked reloading question: "Can I buy the powder used in Hornady LEVERevolution factory ammunition?" Yes, this is the same spherical propellant used in Hornady's innovative and award-winning high-performance factory ammunition. This fabulous propellant meters flawlessly and makes lever-action cartridges like the 30-30 Winchester yield velocities in excess of 100 fps over any published handloads, with even greater gains over factory ammunition. Other cartridges include the 35 Remington, 308 Marlin Express, 338 Marlin Express and the 25-35 Winchester. The list of cartridges and bullets is limited with this highly specialized powder, but where it works, it really works!

H380® H380 was an unnamed spherical rifle propellant when the late Bruce Hodgdon first used it. When a 38-gr. charge behind a 52-gr. bullet gave one-hole groups from his 22-caliber wildcat (now called 22-250), he appropriately named the powder H380. H380 is also a superb performer in the 220 Swift, 243, 257 Roberts and other fine varmint cartridges.

» **H4350™** The burning speed of this Extreme Extruded propellant has been known to shooters for decades. During that time, Hodgdon has modernized H4350 by shortening the grains for improved metering and making it insensitive to hot/cold temperatures. H4350 is great in such cartridges as the 243 Winchester, 6mm Remington, 270 Winchester, 338 Winchester Magnum and many more. For magnums with light to moderate-weight bullets, it can't be beat!

HYBRID 100V™ This excellent new product is the result of combining the technologies of spherical powders and extruded propellants. The chemistry of a spherical powder is combined with the geometry of an extruded propellant, creating a smooth-metering, super-short-granule, extruded-shaped propellant with high energy. HYBRID 100V has a burn speed between H4350 and H4831, yielding superb performance in such popular calibers as 270 Winchester, 243 Winchester Super Short Magnum, 7mm Remington Magnum, 300 Winchester Magnum and dozens more.

HODGDON Smokeless Rifle Powders (Continued)

» EXTREME POWDERS

In Order of Approximate Burning Rate

» **H4831®** It is probably safe to say more big game has been taken with H4831 than any other powder. Bruce Hodgdon was the first supplier to introduce this popular burning powder in 1950. Since that time, it has become a favorite for cartridges such as the 270 Winchester, 25-06 Remington, 280 Remington and 300 Winchester Magnum. As an Extreme Extruded propellant, it shares the fine quality of insensitivity to hot/cold temperatures, as well as superb uniformity from lot to lot.

» **H4831SC®** Ballistically, this Extreme Extruded powder is the exact copy of H4831. Physically, it has a shorter grain size and therefore the designation SC, or short cut. The shorter, more compact kernels allow the powder to flow through powder measures more smoothly, helping to alleviate the constant cutting of granules. With the smoother flow characteristics comes more uniform charge weights, while the individual grains orient more compactly, creating better loading density.

SUPERFORMANCE™ This is another of the spherical powders Hodgdon® Powder Company and Hornady® Manufacturing introduced to answer the frequently asked reloading question: “Can I buy the powder used in Hornady Superformance factory ammunition?” Superformance delivers striking velocities in cartridges like the 22-250 Remington, 243 Winchester and the 300 Winchester Short Magnum. Velocities well in excess of 100 fps over the best published handloads and even larger gains over factory ammunition! Because this propellant is tailored for specific applications, the number of cartridges and bullets is limited, but where it works, it really works!

» **H1000®** This very slow-burning Extreme Extruded powder is perfect for highly overbored magnums like the 7mm Remington Magnum, 7mm STW and the 30-378 Weatherby. In addition, with heavy bullets, H1000 gives top velocity and performance in such cartridges as the 6mm-284, 257 Weatherby, 270 Winchester and 300 Winchester Magnum. In a short period of time this powder has achieved considerable notoriety among long-range match shooters.

» **RETUMBO®** This magnum powder was designed expressly for the really large overbored cartridges, such as the 7mm Remington Ultra Mag, 300 Remington Ultra Magnum, 30-378 Weatherby Magnum, etc. RETUMBO adds 40 to 100 fps more velocity to these cartridges when compared with other normal magnum powders. In addition, it is an Extreme Powder, making it perfect for big-game hunting under all types of conditions.

US869™ This spherical powder is superb with heavy bullets in big, overbore, magnum rifle cartridges. Because it is very dense, it allows the shooter to use enough powder to create true magnum loads. US869 is also used in the 50-caliber BMG, where it yields high velocity and great accuracy with 750- to 800-grain projectiles. It's a truly great 1,000-yard competition propellant.

» **H50BMG™** As the name implies, this new-generation Extreme Extruded rifle propellant is a clean-burning powder designed expressly for the 50-caliber BMG cartridge. Because it shares the same technology as VARGET, 50 BMG displays a high degree of thermal stability in temperature extremes. Tests have conclusively proven that H50BMG yields very low extreme spreads in velocity and pressure. All this translates into small groups at extended ranges.

IMR Smokeless Pistol and Shotgun Powders

In Order of Approximate Burning Rate

IMR 4227™ This is the magnum pistol powder in the IMR lineup. If it says magnum, IMR 4227™ is the choice for true magnum velocities

and performance. In rifles, this powder delivers excellent velocity and accuracy in such cartridges as the 22 Hornet and 221 Fireball.

IMR Smokeless Rifle Powders

In Order of Approximate Burning Rate

IMR 4198™ This fast-burning rifle powder gives outstanding performance in cartridges like the 222 Remington, 221 Fireball, 45-70 and 450 Marlin. Varmint shooters with smallbore cartridges love it.

IMR 3031™ A propellant with many uses, IMR 3031 has long been a favorite of 308 Match shooters using 168-grain match bullets. It is equally effective in small-capacity varmint cartridges from 223 Remington to 22-250 Remington, and it's a great 30-30 Winchester powder.

IMR 8208 XBR™ The latest in the versatile IMR line of fine propellants, this accurate-metering, super-short-grain extruded rifle powder was designed expressly for match, varmint and AR sniper cartridges. Ideally suited for cartridges such as the 223 Remington/5.56 NATO, 308 Winchester/7.62mm NATO and the 6mm PPC, shooters will find IMR 8208 XBR totally insensitive to changes in temperature while yielding max velocities and “tackdriving” accuracy. Clearly, it's the competitor's choice and the Varmint Hunter's “dream powder.”

IMR 4895™ Originally a military powder featured in the 30-06, IMR 4895 is extremely versatile. From the 17 Remington to the 243 Winchester to the 375 H&H Magnum, accuracy and performance are excellent. In addition, it is a longtime favorite of Match shooters.

IMR 4166® This fine, extruded propellant is the first in the series of Enduron® Technology powders. The main features of the Enduron® series are copper fouling eliminator, insensitivity to temperature changes, ideal loading density and being environmentally friendly. IMR 4166 is the perfect burn speed for cartridges like the 308 Win./7.62mm NATO, 22-250 Remington, 257 Roberts and dozens more. Positively, a versatile, match-grade propellant.

IMR 4064® The most versatile propellant in the IMR spectrum—223 Remington, 22-250 Remington, 220 Swift, 6mm Remington, 243 Winchester Super Short Magnum, 308 Winchester, 338 Winchester Magnum and the list goes on and on. Versatility with uniformity and accuracy.

IMR Smokeless Rifle Powders (Continued)

In Order of Approximate Burning Rate

IMR 4350™ The number one choice for the short magnums, both Remington and Winchester versions. For magnums with light to medium bullet weights, IMR 4350 is the best choice.

IMR 4451® Another new Enduron® extruded powder, IMR 4451 gives top performance in the venerable 30-06, 270 Winchester and 300 WSM, to name just a few. This propellant is ideally suited for many mid-range burn speed cartridges. Simply scroll through the list of cartridges on the Hodgdon Reloading Data Center and see how many of your favorite cartridges are covered with this fine powder. Once the shooter tries this one in that favorite cartridge, the search is over!

IMR 4831™ Slightly slower in burn speed than IMR 4350, IMR 4831 gives top velocities and performance with heavier bullets in medium-size magnums.

IMR 4955® This new Enduron® extruded powder is a top performer with such great cartridges as the 270 Winchester, 25-06 Remington, 280 Remington, 300 Winchester Magnum and many, many more. It falls directly between IMR 4451 and IMR 7977 in burn speed, providing top performance for all such cartridges used for big game. As with all Enduron® powders, it is temperature insensitive and clean burning, minimizes copper fouling and is totally safe for the environment. Adding this propellant to the Enduron® line filled in an important place in the chart. IMR 4955, plus the original three, provides top

loading for cartridges from 223 Remington to the massive 500 Nitro Express Magnum.

IMR 7828 SSC™ This magnum rifle powder has exactly the same burn rate as standard IMR 7828 and uses the same data. However, due to the super-short kernels, metering is virtually as good as a spherical powder. This allows up to 4 percent more powder space in the case and in many loads yields more velocity than standard 7828. Such loads are marked with an asterisk in the data to show where standard 7828 will not fit.

IMR 7977® The slowest burn rate Enduron® Technology extruded powder is IMR 7977, and it is a true magnum cartridge propellant. It yields outstanding performance in such cartridges as the 300 Winchester Magnum, 7mm Remington Magnum, 338 Lapua and a host of others. Loading density is perfect for magnums, nicely filling the case at maximum charges, contributing to superb uniformity and accuracy. The 7mm Remington Magnum “never had it so good”!

IMR 8133® The latest IMR Legendary Powder, IMR 8133® is an Enduron® Technology powder. It was designed to provide optimum performance in the large overbored cartridges like the 300 Remington Ultra Mag, 6.5mm-300 Weatherby Magnum, 28 Nosler and a host of other fine magnum cartridges. It provides excellent loading density, copper fouling eliminator, insensitivity to extreme temperature changes, and is environmentally friendly. It is, without equal, the consummate big-game cartridge propellant.

WINCHESTER Smokeless Pistol and Shotgun Powders

In Order of Approximate Burning Rate

WST® The choice for 12-ga. AA duplicate handloads and standard-velocity handgun loads. Ideal for use in 45 Auto match applications. Consistency, clean burn, low flash and less smoke are benefits to the shooter.

231® One of the most popular reload propellants, 231 is a pistol powder ideally suited to the 38 Special, 45 Auto and 9mm standard loads. Consistency, clean burn, low flash and a broad range of applications make this a powder of choice for any pistol cartridge reloader.

SUPER HANDICAP™ Super Handicap is the same propellant used in Winchester's Super Handicap ammunition. This slow-burning, high-energy propellant gives the shooter great handicap or long-range sporting clays loads up to 1,250 fps with a 1½-oz. shot charge. Great velocity with excellent patterns!

244™ This new Winchester pistol powder has all the latest features for a mid-range burn speed propellant. Winchester 244 Ball powder is a WINCLEAN® product with a host of attributes, including reduced copper fouling, clean burning, and precise metering. The versatility of this fine powder can be found in 9mm Luger, 45 ACP, 38 Special and many, many more pistol cartridges. From plinking rounds to top competitive target loads, 244 is a “clean” winner!

AUTOCOMP™ This new Winchester powder is perfect for the top target game semiauto pistols. In such cartridges as the 9mm, 38 Super, 40 S&W and the ever-popular 45 ACP, maximum velocities with excellent

accuracy are the norm. AutoComp ranks tops in efficiency by achieving maximum performance with .3 to .5 grain less powder. All this with less muzzle flash and clean burning!

WSF® Super-Field propellant is the propellant of choice for Winchester 20-ga. AA Target loads. WSF is an ideal choice to maximize velocities in 12-ga. 1⅛-oz. and 1¼-oz. loads. Super-Field also performs well in 38 Super, 9mm and 40 S&W pistol loads. Excellent propellant for action pistol applications.

572® This new Winchester powder is strategically designed to do a myriad of jobs. First, it has the correct burn rate to create the famous 3¼-dram equivalent, 1¼-oz., 1,330-fps 12-gauge load originated by Winchester. And it does it with any brand case! Back Fence competitors and pheasant hunters will be delighted. Now, that is just one application, and it goes on to provide superb clay target loads in 20 gauge and 28 gauge, top field loads in both, and outstanding field loads for the wonderful 16 gauge. It even is used to duplicate the always-popular 28-gauge WAAHS target load. In addition, 572 has a vast number of pistol applications, ranging from the 25 ACP to the 45 ACP and all popular calibers in between. This is one positively versatile and useful propellant.

296® This propellant was developed for Winchester factory-loaded ammunition for 357 Magnum, 44 Magnum and 410 Bore. Its high loading density provides optimal velocity. 296 is recommended by Winchester for 410 Bore AA loads.

WINCHESTER Smokeless Rifle Powders

In Order of Approximate Burning Rate

748® 748 is the powder of choice for 223 Remington ammunition. The low flame temperature of 748 extends barrel life vs. other similar-speed powders. It is ideal for a wide variety of centerfire rifle loads, including 222 Rem., 30-30 Win., 308 Win. and up to 458 Win. Mag.

StaBALL™ Match is a temperature-insensitive, double-base, BALL® Powder, stable in extreme-hot or extreme-cold conditions. This powder provides optimal loading density in cartridges appropriate for the burn speed, which is ideal for high-BC heavy-for-caliber bullets in 223 Remington, 224 Valkyrie, 22-250 Remington, 308 Winchester, 30-06 and many more. Typical of a BALL powder, precise metering contributes to consistent velocity and pressure with lower standard deviations, ingredients that are paramount to match-grade accuracy! This REACH-compliant, “environmentally green” propellant has copper fouling reducer additives, which contribute to shooting sessions without cleaning the bore. Velocity levels obtainable, depending on the cartridge, are 50–75 fps greater than other propellants in its class. Thus, the StaBALL family provides Stability, Precision and Speed.

760® Combine Winchester components with 760 to duplicate 30-06 Springfield factory load ballistics. 760 has ideal flow characteristics that give it an advantage over other powders with similar burn rates. 760 is an excellent choice for 22-250 Rem., 300 Win. Mag. and 300 WSM.

StaBALL™ 6.5, BALL Powder® Never before, has a BALL powder propellant been temperature insensitive, but now StaBALL 6.5 is stable in all

conditions, hot or cold! Case fill/loading density is 93-100% in all cartridges appropriate for the burn speed, creating the perfect condition for small standard deviations in velocity and pressure, a key element in achieving benchrest accuracy. Like all spherical powders, it meters precisely. It provides speed that eclipses all powders in its burn speed class (30–200 fps), along with a copper fouling reducing additive. Stability, precision and speed makes Winchester’s new StaBALL 6.5 powder the “Best of the Best”!

StaBALL™ HD is a temperature-insensitive, double-base, BALL® Powder, stable in extreme-hot or extreme-cold conditions. This slow-burning magnum powder provides optimal loading density in large-capacity magnum cartridges appropriate for the burn speed, which is ideal for 6.5 PRC, 7MM Remington Mag, 300 PRC and many more. Typical of a BALL powder, precise metering contributes to improved velocity and lower standard deviations, ingredients that are paramount to match-grade accuracy! This REACH-compliant, “environmentally green” propellant has copper fouling reducer additives, which contribute to shooting sessions without cleaning the bore. Velocity levels obtainable, depending on the cartridge, are 50–75 fps greater than other propellants in its class. Thus, the StaBALL family provides Stability, Precision and Speed.

Top performance is achieved in these cartridges, 6 Creedmoor, 6.5 Creedmoor, 270 Win., 7mm-08 Rem., 375 H&H, plus many, many more. Long Range competitive shooters and hunters will find this is THE powder for top performance at all ranges and all conditions!

ACCURATE Smokeless Pistol and Shotgun Powders

In Order of Approximate Burning Rate

ACCURATE Nitro 100 NF® is a fast-burning, flattened spherical, double-base shotshell powder that is a clean-burning, cost-effective choice for all 12-gauge target applications.

ACCURATE No. 2® is an extremely fast-burning, double-base, spherical handgun powder suitable for use in a wide range of handgun calibers. Low recoil and low flash make No. 2 well suited for use in short-barrel, concealed-carry applications. This propellant is a non-position-sensitive powder, and low charge weights make it an economical and versatile choice for high-volume handgun shooters. Made in the USA.

ACCURATE No. 5® is a fast-burning, double-base, spherical handgun propellant. It is extremely versatile and can be used in many calibers. No. 5 offers a wide performance range from target and Cowboy Action applications to full-power defense loads. No. 5 meters well and strikes a good balance between ballistics and cost efficiency. Made in the USA.

ACCURATE No. 7® is an intermediate-burning, double-base, spherical powder suitable for a wide range of handgun calibers. No. 7 is an excellent choice for high-performance semiauto handguns, such as the 357 Sig, 38 Super and 40 S&W. No. 7 is also a cost-effective solution in larger magnum handgun calibers. Made in the USA.

ACCURATE TCM® was created in 2017, when Western Powders partnered with Armscor International to provide a canister-grade propellant for their innovative 22 TCM cartridge. Producing 2,000 fps at the muzzle with virtually no

recoil, this accurate and fun little cartridge brings handgun performance to a new level for small-game hunting and plinking. Accurate TCM also has a place with old favorites, with data for hunting loads in 357 Magnum, 41 Magnum, and high-pressure 45 Colt cartridges. Made in the USA.

ACCURATE No. 9® is a double-base, spherical powder that is ideal for high-power loads in traditional magnums, such as the 357 Magnum, 41 Magnum, and 44 Magnum. It is particularly well-suited to the 357 Sig and 10mm Auto, providing high velocities and excellent case-fill. No. 9 can also be used with large magnums, such as the 460 S&W and 500 S&W, for economical target loads. Made in the USA.

ACCURATE 4100 is a double-base, slow-burning spherical powder with exceptional metering characteristics. 4100 is an excellent choice for high-performance, full-power loads in magnum handgun cartridges. It is ideally suited for the 357 Magnum, 41 Magnum, 44 Magnum, 454 Casull, 460 S&W, and 500 S&W. Made in Belgium.

ACCURATE 5744® is an extremely fast-burning, double-base, extruded powder. This unique powder can be used in a wide range of rifle calibers and magnum handguns. 5744 is characterized by excellent ignition and consistency over a very wide performance range. Low bulky density and superior ignition characteristics make 5744 an excellent choice for reduced loads in many rifle calibers and in large-capacity black powder cartridges, such as the 45-70 through 45-120 and 50-90 through 50-120. Made in Canada.

ACCURATE Smokeless Rifle Powders

In Order of Approximate Burning Rate

ACCURATE 1680 is an extremely fast-burning, double-base, spherical rifle powder that is well-suited for large-capacity, high-performance handgun cartridges, such as the 454 Casull, 460 S&W, and 500 S&W. 1680 is also an excellent choice for the 22 Hornet and the 7.62x39, as well as other low-capacity rifle cartridges. Made in the USA.

ACCURATE LT-30 is the second powder in Accurate's line of benchrest-grade Light Target powders and is optimized for use in the 30 BR cartridge. While still in its development phase, LT-30 was used to win numerous matches, even claiming a world record along the way. With a burn rate similar to 4198, this single-base fine-grained powder is at home in many smaller-capacity cartridges from the 6.5 Grendel to the 222 Remington.

ACCURATE 2200, a varmint-hunting favorite, is an excellent choice for many cartridges, including the 223 Remington, 6.5 Grendel and 6.8 SPC. Spherical granules allow precise metering and easy flow through small cartridge necks, making Accurate 2200® ideal for use in progressive loaders.

ACCURATE LT-32® is a fine-grained extruded powder that was developed for 6mm PPC benchrest competitors. Already a proven match winner, LT-32's excellent shot-to-shot consistency and low standard deviations provide the ultimate competitive edge. Due to its small grain size, LT-32 flows like a spherical powder and allows for very precise handloading. It also offers outstanding accuracy in varmint and tactical cartridges, including the 223 Remington and the 308 Winchester. LT-32 is the perfect choice for extreme accuracy.

ACCURATE 2015® is a fast-burning, single-base, extruded rifle powder that performs very well in small to medium varmint calibers (223 Remington, 204 Ruger). 2015 is a popular choice for first-class performance in benchrest calibers and is also recommended for use in large-bore straight-wall cartridges (45-70, 458 Winchester Magnum). 2015 offers excellent ignition characteristics and shot-to-shot consistency. Made in Canada.

ACCURATE 2230® is a fast-burning, double-base, spherical rifle propellant. This versatile powder was designed around the 223 Remington but can be used in many small- and medium-caliber cartridges, including the 308 Winchester. 2230 also works well in big-bore straight-wall cartridges, such as the 458 Winchester. The excellent flow characteristics and grain size of 2230 make it ideal for progressive loading. Made in Belgium.

ACCURATE 2460 is a fast-burning, double-base, spherical rifle powder that is a slower derivative of the ACCURATE 2230 powder. It is suitable for small- and medium-sized caliber applications but with slightly higher loading densities than ACCURATE 2230. It provides an additional option for shooters to fine tune and optimize loads and combinations with calibers ranging from the 223 Remington to 308 Winchester and for light bullets in the 30-06 Springfield. 2460 is within the threshold limit for M14 systems. Made in the USA.

ACCURATE 2495 is a single-base, extruded rifle powder that was developed for the 308 Winchester and can be used over a wide range of rifle calibers. It is a very popular powder for 308 Winchester NRA High Power shooting disciplines, as well as heavy-bullet 223 Remington target applications. 2495 is a versatile powder with excellent ignition characteristics that provides excellent shot-to-shot consistency. Made in Canada.

ACCURATE 4064® is an intermediate-burning, single-base, short-cut, extruded rifle powder designed around the 30-06 Springfield. This versatile powder works extremely well in calibers such as 22-250, 220 Swift, 243 WSM, 7x57 Mauser and 325 WSM. 4064 is a popular choice for High Power shooters using the M1 Garand. Made in Canada.

ACCURATE 2520 is a medium-burning, double-base, spherical rifle propellant designed around the 308 Winchester. 2520 is our "Camp Perry" powder and is extremely popular with many service shooters. 2520 also performs extremely well in 223 Remington with heavy match bullets (62 to 80 grains). This versatile powder has superb flow characteristics and is well within the threshold limit for the M14 systems. Made in Belgium.

ACCURATE 2700 is a medium-burning, double-base, spherical rifle powder that is ideally suited for the 30-06 Springfield and other medium-capacity calibers, such as the 22-250 Remington, 220 Swift and 243 Winchester. 2700 provides excellent velocities and performance in the Winchester Super Short Magnum cartridges. Made in the USA.

ACCURATE 4350® is a short-cut, single-base, extruded rifle powder in the extremely popular 4350 burn range. A highly versatile powder, 4350 can be used in a wide range of cartridges, from the popular 243 Winchester to the 338 Winchester Magnum with excellent results. Accurate 4350® is an exceptional choice for 6mm Remington, 270 Winchester, 280 Remington and 300 WSM. This short-cut extruded powder meters accurately, resulting in excellent shot-to-shot consistency. Made in Canada.

ACCURATE MAGPRO is a slow-burning, double-base, spherical rifle powder developed specifically for the Short Magnums of both Winchester (WSM) and Remington (SAUM). This powder excels in the 6.5x284, 270 WSM, and 7mm WSM. MAGPRO is an excellent choice for belted cartridges like the 300 Win. Mag. Consistent performance can be expected from the excellent metering properties. Made in the USA.

RAMSHOT Smokeless Pistol and Shotgun Powders

In Order of Approximate Burning Rate

RAMSHOT COMPETITION is an extremely clean-burning powder for 12-gauge target shooters. A double-base modified (flattened) spherical propellant, it is designed for the 12-gauge competitive clay target shooter who demands a clean-burning powder with low recoil and consistent performance. It is a low bulk density powder that is also well-suited for many low-pressure, low-velocity Cowboy Action loads. Made in the USA.

RAMSHOT SILHOUETTE is the choice for competitive shooters in IPSC, IDPA, and USPSA. A double-base, high-performance, spherical powder, it's an excellent choice for 9mm Luger, 38 Super, 40 S&W and 45 ACP. Silhouette's low-flash, high-velocity, and clean-burning characteristics make it a perfect choice for indoor ranges and law enforcement applications. Made in the USA.

RAMSHOT TRUE BLUE® is the perfect powder for classic calibers, such as the 38 Special, 44 Special and 45 Long Colt. It's a double-base, spherical powder with great metering properties that make it an

ideal choice for consistent results using high-volume, progressive reloading equipment. It works well with cast bullets and is also an excellent choice for 9mm law enforcement rounds. Made in Belgium.

RAMSHOT ZIP® is a clean-burning, double-base propellant designed for a wide range of handgun calibers. Low charge weights make it the most economical and versatile choice for high-volume shooters, with the added benefit of low recoil, low flash, and minimal residue. 9mm, 40 S&W and 45 ACP are just a few of the cartridges that are well-matched with this powder. Made in Belgium.

RAMSHOT ENFORCER® is the best choice for high-performance, full-power loads in magnum handgun cartridges. It is ideally suited for the 44 Magnum, 454 Casull, 460 S&W and 500 S&W. It is a double-base, spherical powder with excellent metering qualities that meets the performance expectations of serious magnum handgun shooters. Made in Belgium.

RAMSHOT Smokeless Rifle Powders

In Order of Approximate Burning Rate

X-TERMINATOR® is a double-base, spherical powder designed for the high-volume 223 varmint hunter who demands a clean-burning, accurate powder. Excellent flow characteristics and small grain size allow trouble-free loading in small-diameter case necks. It performs extremely well with light- to medium-weight bullets in the 223 Remington. It also is an excellent choice for 17 Remington, .20-caliber cartridges, 222 Remington, and 45-70 Government. Made in Belgium.

TAC® is a double-base, spherical propellant that sets the standard for extreme accuracy and reliability with heavy bullets in the 223 Remington and match applications in the 308 Winchester. Excellent flow characteristics ensure consistent metering and charge weights for repeatable results with progressive loading equipment. It is the choice for shooters who demand precision and accuracy. Made in Belgium.

RAMSHOT BIG GAME® is the ultimate 30-06 Springfield powder. Outstanding velocities and optimal case-fill result in excellent shot-to-shot consistency. These properties also allow it to outperform the competition in the popular 22-250 Remington and other calibers in this range. It is an extremely clean-burning, double-base, spherical powder with outstanding metering properties. Made in Belgium.

RAMSHOT HUNTER is a double-base, clean-burning, high-performance propellant that's perfect for elk cartridges, such as the 270 Win., 300 WSM, and 338 Win. Mag. It's the only spherical powder in the popular 4350 burn range, making it an ideal powder for a wide range of cartridges. The excellent flow characteristics allow accurate metering and consistent shot-to-shot results. Made in Belgium.

RAMSHOT GRAND® is a double-base spherical propellant that brings the latest propellant technology to the Ramshot family of powders. Temperature-stable...check. Precise metering...check. Accuracy...check. With a density tuned for magnum cartridges, Ramshot Grand offers optimal load densities, which equals low extreme spreads and standard deviations. Ramshot Grand excels across a broad spectrum of cartridges from the 243 Winchester all the way up to the 338 Lapua Magnum. Top performers include 6.5, 7mm, and 300 PRC, as well as the 7mm Remington Magnum and the 300 Winchester Magnum.

RAMSHOT MAGNUM is the ultimate high-performance magnum rifle powder. It provides outstanding performance from the popular 7mm Remington Magnum and 300 Winchester Magnum through the Remington Ultra Mags and the 338 Lapua. It is a double-base, spherical propellant that is the number one choice for high-performance, overbore magnum cartridges. Made in Belgium.

RAMSHOT LRT® is one of the slowest spherical powders ever developed and was created for high performance at extreme ranges. Designed specifically for the 338 Lapua Magnum using heavy, high-ballistic-coefficient bullets, LRT offers high load densities and low standard deviations for superior accuracy. Hunters who prefer the advantages of overbore magnums like the 257 Weatherby or 30 Nosler will find that LRT meters more easily and produces flatter trajectories than rival propellants.

LEGEND

BRANDS

ACME	Acme	FA	Freedom Arms	SIE	Sierra
BAR	Barnes	HDY	Hornady	SFT	Swift
BTB	Beartooth Bullets	LGH	Lehigh Defense	SPR	Speer
BER	Berger	LY	Lyman SPM	WDLGH	Woodleigh
BERB	Berry's Bullets	MEI	Meister	WIN	Winchester
BLX	Bull-X	NOS	Nosler	SFIRE	SinterFire
CEB	Cutting Edge Bullets	PLYCS	Polycase		
CPB	Cast Performance Bullets	REM	Remington		

PRIMERS

LR	Large Rifle	SRM	Small Rifle Magnum	SP	Small Pistol
LRM	Large Rifle Magnum	LP	Large Pistol	SPM	Small Pistol Magnum
SR	Small Rifle	LPM	Large Pistol Magnum		

DATA

C	Compressed Powder Charge
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BULLETS

AB	AccuBond	HB	Hollow Base	SCENARL	Lapua Hollow Point Long Range
ABLR	AccuBond Long Range	HC	Hollow Cavity	SCIR	Scirocco
AFSP	A-Frame Semi Spitzer	HP	Hollow Point	SJ	Short Jacket
A-MAX	Hornady Match	HPBT	Hollow Point Boat Tail	SMP	Semi-Pointed
ARX	Polycase Defense	HSP	Hollow Soft Point	SP	Soft Point, Spitzer, Spire Point
BK	Blitz King	IB	Inter Bond	SPT	Spitzer
BR	Bench Rest	JFP	Jacketed Flat Point	SPBT	Soft Point Boat Tail
BT	Ballistic Tip	JHC	Jacketed Hollow Cavity	SSP	Single Shot Pistol
BTLF	Ballistic Tip Lead Free	JRN	Jacketed Round Nose	SST	Super Shock Tip
BTSP	Boat Tail Spire Point	JSWC	Jacketed Semi-Wadcutter	ST	Silver Tip
CTD	Acme Coated Defense	LBBWC	Lead Bevel Base Wadcutter	SX	Super Explosive
ELD-M	Extremely Low Drag Match	LCN	Lead Conical Nose	TAC X-BT	Tactical X Bullet Boat Tail
ELD-X	Extremely Low Drag Expanding	LF	Lead Free	TAC-XP	Tactical X Pistol
E-TIP	Polymer Tipped Copper Bullet	LFN	Lead Flat Nose	TMJ	Totally Metal Jacket
FBHP	Flat Base Hollow Point	LFNPB	Lead Flat Nose Plain Base	TMK	Tipped MatchKing
FBT	Flat Base Tipped	LFP	Lead Flat Point	TNT	Varmint Bullet
FMC	Full Metal Case	LHBWC	Lead Hollow Base Wadcutter	TSX	Triple Shock X Bullet
FMJ	Full Metal Jacket	LRN	Lead Round Nose	TTSX	Tipped Triple Shock X Bullet
FMJBT	Full Metal Jacket Boat Tail	LSWC	Lead Semi-Wadcutter	VG	Varmint Grenade
FN	Flat Nose	MK	MatchKing	VLD	Very Low Drag
FP	Flat Point	MT-SP	Mag Tip Soft Point	V-MAX	Varmint Express
FPJ	Full Plated Jacket	NTX	Non Toxic Expanding	WC	Wadcutter
FS	Fail Safe	PART	Partition	W/GCK	With Gas Check
FTX	FlexTip	PSPCL	Pointed Soft Point "Core-Lokt"	X	X Bullet
GC	Gas Check	RAPTOR	CEB All Copper	XBT	X Boat Tail
GDHP	Gold Dot Hollow Point	RN	Round Nose	XBTC	X Boat Tail Coated
GDSP	Gold Dot Soft Point	RNP	Round Nose Frangible	XD	Extreme Defense
GMX	Gilding Metal Expanding Bullet	SB	Solid Base	XFB	X Flat Base
GS	Grand Slam	SBT	Spitzer Boat Tail	XPB	X Pistol Bullet
HAP	Hornady Action Pistol	SCENAR	Lapua Hollow Point	XTP	Extreme Terminal Performance

WARNING

Hodgdon® Powder, IMR® Powder and Winchester® Powder, Accurate® Powder, and Ramshot® Powder expressly disclaim any and all warranties with respect to any and all products sold or distributed by them, the safety or suitability thereof, or the results obtained including, without limitation, any implied warranty of merchantability or fitness for a particular purpose and/or any other warranty. Buyers and users assume all risk, responsibility and liability whatsoever for any and all injuries (including death), losses or damages to persons or property (including consequential damages), arising from the use of any product or data, whether or not occasioned by seller's negligence or based on strict liability or principles of indemnity or contribution. Hodgdon®, IMR®, Winchester®, Accurate® and Ramshot® powders neither assume nor authorize any person to assume for it any liability in connection with the use of any product or data.

For all powders, use only the components shown. If the reloader makes any changes in components or gets new lot numbers, he should begin again with the starting loads and work up to maximum cautiously. Never exceed maximum charges.

For those loads listed where a starting load is not shown, start 10 percent below the suggested maximum load and then approach maximums carefully, watching for any sign of pressure (difficult extraction, cratered and flattened or blown primers, and unusual recoil).

Never mix any two powders regardless of type, brand, or source. Never substitute any smokeless powder for Black Powder or any Black Powder substitute.

Powder left in the reloader's powder measure hoppers for extended periods, overnight or several days, should be avoided. Powder needs to be stored in original containers **ONLY** when not in use. Numerous modern smokeless powders are double base in construction, containing both Nitrocellulose and Nitroglycerine. Many powder measures use plastics containing polystyrene, which Nitroglycerine adversely affects when contact is made for extended periods of time, resulting in etching or misshaping the plastic. Normal usage during the reloading process does not provide adequate time for this to occur, so simply draining hoppers into the original containers when the reloading is completed for the day prevents ruining the hoppers.

Trail Boss® was designed to work in specific charge weight ranges. Do not use charges less than the starting load shown, nor greater than the maximum shown.

Do not use pointed bullets in any rifle with a tubular magazine, unless that pointed bullet was designed with a collapsible tip, made for tubular magazines.

For plated bullets, such as the fine line of Berry's Bullets, use existing lead data for the same-weight plated bullet.

***When an asterisk (*) appears in the title of the cartridge, or in the data, refer to the warning page. Those warnings are as follows:**

***40 S&W:** This data are intended for use in firearms with barrels that fully support the cartridge in the chamber. Use of this data in firearms that do not fully support the cartridge may result in bulged cases, ruptured cases, case-head separation or other condition that **may result in damage to the firearm and/or result in injury or death of the shooter and/or bystanders.**

***45 Colt:** *45 Colt data are listed in two categories. The first is intended for original Colt revolvers and their replicas. Max pressure: 14,000 CUP. The second category is *45 Colt Ruger Blackhawk, Freedom Arms and Thompson/Center Contender/Encore handguns. Max pressure: 30,000 CUP. **Do not use these data in any other make or model of firearm.**

***45-70 Government data usage:** 45-70 data are listed in the following three divisions based on pressure levels for only the firearms intended:

***45-70 Government (Trapdoor Rifle):** These data are intended for Springfield "Trapdoor," Rolling Block and Antique Replicas. Max pressure: 28,000 CUP.

***45-70 Government (Lever Actions):** These data are intended for the 1895 lever-action Marlin **ONLY**. Max pressure: 40,000 CUP. Do not use these data in any of the firearms listed in the Trapdoor section. Do not use pointed bullets in any rifle with a tubular magazine, unless that pointed bullet was designed with a collapsible tip, made for tubular magazines.

***45-70 Government (Modern Rifles):** These data are only for Ruger No. 1 and No. 3 single-shot rifles, Browning 1885 single shots and Siamese bolt-action rifles. Max pressure: 50,000 CUP. Do not use these data in either of the prior two sections of 45-70 data (Trapdoor and Lever Actions).

***26 Nosler and *6.5-300 Weatherby Magnum:** Do not reduce starting loads, as doing so can result in pressure spikes that may result in damage to the firearm or injury to the user and/or bystanders.

***Max loads listed that show an asterisk (*) following the "C" for compressed load with IMR 7828 SSC will not fit with the standard IMR 7828. Reduce by four percent.**

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads				
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
17 HORNET													
Barrel: 24" Twist: 1:9" Trim: 1.340"													
Bullet: 15.5 GR. HDY NTX Dia: .172"													
Case: Hornady		Primer: FED 205M, SR Match				Col: 1.715"							
CFE BLK	12.1	3735	39,100 PSI	13.2	4021	48,000 PSI							
IMR 4227	10.3	3460	40,900 PSI	11.1C	3680	47,300 PSI							
H110	9.1	3613	42,500 PSI	9.9	3797	47,800 PSI							
Lil'Gun	9.1	3687	40,900 PSI	9.8	3715	47,700 PSI							
Bullet: 20 GR. HDY V-MAX Dia: .172"													
Case: Hornady		Primer: WIN SR				Col: 1.715"							
A-2200	11.7	3203	44,700 PSI	13.0	3553	49,700 PSI							
LT-30	10.8	3093	42,600 PSI	12.0	3404	47,300 PSI							
A-5744	10.1	3097	42,800 PSI	11.2	3412	47,500 PSI							
A-1680	10.0	3183	44,300 PSI	11.2	3493	49,700 PSI							
Case: Hornady		Primer: FED 205M, SR Match				Col: 1.715"							
H4198	11.0	3226	32,200 PSI	11.8C	3463	39,300 PSI							
IMR 4227	9.3	3204	40,700 PSI	10.1	3356	45,400 PSI							
Lil'Gun	9.7	3538	44,600 PSI	10.0	3629	48,200 PSI							
H110	8.0	3173	40,900 PSI	8.7	3301	45,100 PSI							
W296	8.0	3173	40,900 PSI	8.7	3301	45,100 PSI							
Bullet: 25 GR. HDY V-MAX Dia: .172"													
Case: Hornady		Primer: WIN SR				Col: 1.715"							
A-2200	11.2	2930	44,000 PSI	12.4	3223	48,700 PSI							
LT-30	10.3	2801	44,900 PSI	11.4	3093	49,900 PSI							
A-5744	9.4	2786	44,100 PSI	10.5	3070	49,300 PSI							
A-1680	9.0	2724	44,100 PSI	10.0	2983	49,000 PSI							
Case: Hornady		Primer: FED 205M, SR Match				Col: 1.715"							
H335	12.4	2984	39,200 PSI	13.2C	3145	45,900 PSI							
H322	12.0	3091	30,600 PSI	12.8C	3283	36,200 PSI							
H4198	10.3	2983	34,900 PSI	11.1C	3187	42,500 PSI							
Lil'Gun	8.6	3125	45,000 PSI	8.9	3195	48,000 PSI							
IMR 4227	8.5	2856	40,900 PSI	9.3	3032	45,700 PSI							
Bullet: 30 GR. BER HP Dia: .172"													
Case: Hornady		Primer: FED 205M, SR Match				Col: 1.715"							
H335	11.8	2718	36,700 PSI	12.5C	2866	44,000 PSI							
H322	11.7	2853	40,500 PSI	12.5C	3020	48,000 PSI							
H4198	10.0	2815	38,700 PSI	10.8C	3024	47,300 PSI							
204 RUGER													
Barrel: 24" Twist: 1:12" Trim: 1.840"													
Bullet: 24 GR. HDY NTX Dia: .204"													
Case: REM		Primer: WIN SR				Col: 2.245"							
A-2460	27.1	4051	50,600 PSI	30.1	4410	56,200 PSI							
LT-32	23.1	3869	51,600 PSI	25.6	4241	57,400 PSI							
A-5744	18.7	3455	43,100 PSI	25.0	4395	57,500 PSI							
Case: Hornady		Primer: FED 205M, SR Match				Col: 2.245"							
IMR 8208 XBR	27.0	3997	40,600 PSI	30.0C	4447	56,000 PSI							
H4895	27.0	4061	43,400 PSI	29.5C	4423	54,900 PSI							
H335	27.4	4184	47,100 PSI	29.5	4456	55,200 PSI							
Benchmark	27.3	4109	45,500 PSI	29.0	4373	54,500 PSI							
H322	26.3	4143	48,700 PSI	28.0	4358	56,000 PSI							
IMR 4198	23.0	4166	48,200 PSI	24.5	4383	54,900 PSI							
H4198	22.6	4294	54,100 PSI	24.0	4400	56,600 PSI							
Bullet: 26 GR. BAR VG FB Dia: .204"													
Case: REM		Primer: WIN SR				Col: 2.250"							
A-2520	28.8	4030	53,300 PSI	32.0	4466	59,300 PSI							
TAC	27.5	3988	53,700 PSI	30.5	4415	59,600 PSI							
X-Terminator	26.7	4050	53,400 PSI	29.7	4435	59,400 PSI							
A-2230	26.7	4050	53,400 PSI	29.7	4435	59,400 PSI							
A-2460	25.7	3917	51,700 PSI	28.6	4208	57,500 PSI							
LT-32	21.9	3610	51,700 PSI	24.3	3974	57,500 PSI							
Case: Hornady		Primer: FED 205M, SR Match				Col: 2.250"							
CFE 223	29.5	4067	46,300 PSI	31.5	4282	52,600 PSI							
StaBALL Match	28.0	3862	44,000 PSI	30.5C	4151	53,100 PSI							
BL-C(2)	28.9	4004	47,200 PSI	30.7	4173	52,700 PSI							
H4895	28.2	4067	48,900 PSI	30.0C	4302	57,300 PSI							
Varget	27.5	3962	47,500 PSI	30.0C	4110	51,000 PSI							
Bullet: 32 GR. HDY V-MAX Dia: .204"													
Case: REM		Primer: WIN SR				Col: 2.250"							
A-2520	26.6	3680	53,200 PSI	29.5	4089	59,000 PSI							
A-2460	25.3	3652	51,700 PSI	28.1	3968	57,500 PSI							
A-2495	25.2	3560	51,500 PSI	28.0	3867	57,200 PSI							
X-Terminator	24.7	3564	50,600 PSI	27.5	3960	56,300 PSI							
A-2230	24.7	3564	50,600 PSI	27.5	3960	56,300 PSI							
LT-32	21.5	3532	51,600 PSI	23.9	3798	57,300 PSI							
A-5744	17.6	3178	43,000 PSI	23.4	3978	57,300 PSI							
Case: Hornady		Primer: FED 205M, SR Match				Col: 2.250"							
CFE 223	29.0	3826	45,400 PSI	30.9	4091	55,000 PSI							
BL-C(2)	28.5	3772	43,000 PSI	30.7	4081	55,500 PSI							
StaBALL Match	27.6	3657	44,200 PSI	30.0C	3981	56,900 PSI							
Varget	27.0	3557	38,300 PSI	29.0C	3798	47,400 PSI							
H4895	27.0	3669	40,500 PSI	29.0C	3980	51,100 PSI							
IMR 4895	27.0	3627	40,500 PSI	29.0C	3949	51,900 PSI							
IMR 8208 XBR	27.5	3917	47,500 PSI	29.0	4130	56,500 PSI							
H335	26.0	3703	40,600 PSI	28.3	4044	54,800 PSI							
Benchmark	26.0	3770	45,500 PSI	28.0	4047	57,100 PSI							
H322	25.5	3826	48,300 PSI	27.5	4030	56,400 PSI							
IMR 4198	22.0	3725	42,700 PSI	23.5	4006	55,400 PSI							
Bullet: 40 GR. HDY V-MAX Dia: .204"													
Case: REM		Primer: WIN SR				Col: 2.255"							
A-2520	25.2	3386	53,900 PSI	28.0	3762	59,900 PSI							
TAC	24.0	3300	49,800 PSI	27.0	3680	56,000 PSI							
X-Terminator	23.4	3270	50,700 PSI	26.0	3633	56,300 PSI							
A-2230	23.4	3270	50,700 PSI	26.0	3633	56,300 PSI							
Case: Hornady		Primer: FED 205M, SR Match				Col: 2.255"							
BL-C(2)	28.0	3569	47,300 PSI	30.0	3774	56,200 PSI							
CFE 223	27.3	3518	46,500 PSI	29.0	3769	56,700 PSI							
StaBALL Match	26.3	3374	44,600 PSI	28.6	3676	57,100 PSI							
IMR 8208 XBR	26.0	3586	48,300 PSI	27.3	3754	56,300 PSI							
Varget	26.0	3395	44,100 PSI	28.1C	3647	55,100 PSI							
IMR 4895	26.0	3415	44,700 PSI	27.8C	3695	56,000 PSI							
H4895	26.0	3500	45,500 PSI	27.7C	3741	56,000 PSI							
IMR 4064	25.5	3379	43,600 PSI	27.5C	3616	52,000 PSI							
IMR 3031	24.0	3456	46,300 PSI	25.6C	3694	56,600 PSI							
H335	25.0	3508	47,300 PSI	26.8	3738	56,700 PSI							
Benchmark	24.0	3419	45,200 PSI	25.7	3646	55,400 PSI							
H322	23.0	3319	41,500 PSI	25.1	3639	55,900 PSI							
Bullet: 50 GR. BER HPBT Dia: .204"													
Case: Hornady		Primer: FED 205M, SR Match				Col: 2.300"							
CFE 223	25.2	3279	54,400 PSI	26.8	3370	55,700 PSI							
BL-C(2)	25.0	3089	42,900 PSI	27.0	3334	54,500 PSI							
StaBALL Match	24.4	3050	45,700 PSI	26.6	3297	57,000 PSI							
Varget	24.0	3071	44,900 PSI	26.0	3287	55,200 PSI							
IMR 4064	24.0	3079	44,900 PSI	25.8C	3330	55,800 PSI							
IMR 4895	24.0	3092	45,400 PSI	26.2C	3344	56,000 PSI							
H4895	24.0	3167	46,900 PSI	25.7	3352	56,000 PSI							
IMR 8208 XBR	23.0	3129	47,800 PSI	24.9	3327	56,100 PSI							
H335	22.5	3039	43,700 PSI	24.3	3268	54,700 PSI							
Benchmark	22.5	3110	47,800 PSI	24.0	3256	54,300 PSI							
IMR 3031	22.0	3046	44,500 PSI	24.0	3284	55,100 PSI							
H322	22.0	3105	48,300 PSI	23.5	3252	55,100 PSI							
22 HORNET													
Barrel: 24" Twist: 1:16" Trim: 1.393"													
Bullet: 30 GR. BAR VG FB Dia: .224"													
Case: WIN		Primer: WIN SR				Col: 1.750"							
CFE BLK	12.1	2642	22,900 PSI	13.5C	2819	26,700 PSI							
Lil'Gun	11.7	2863	26,300 CUP	13.0	3055	29,700 CUP							

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
W296	11.1	2807	33,000 CUP	12.3	3150	41,500 CUP	Bullet: 35 GR. NOS BT LF Dia: .224"						
H110	11.1	2807	33,000 CUP	12.3	3150	41,500 CUP	Case: WIN Primer: REM 7 1/2, SR Mag Col: 2.130"						
IMR 4227	10.0	2321	37,300 CUP	11.7C	2703	37,600 CUP	A-2200	21.9	3410	45,000 PSI	24.4	3739	50,000 PSI
Bullet: 35 GR. HDY V-MAX Dia: .224"							LT-32	21.4	3237	45,000 PSI	23.8	3500	50,000 PSI
Case: REM Primer: REM 6 1/2, SR Col: 1.723"							LT-30	19.9	3301	44,900 PSI	22.1	3635	49,800 PSI
A-1680	12.1	2516	37,600 PSI	13.5	2860	41,900 PSI	A-5744	16.5	2921	40,000 PSI	20.7	3599	50,000 PSI
No. 11 FS	10.7	2731	39,800 PSI	12.6	3101	46,900 PSI	Case: WIN Primer: WIN SR Col: 2.130"						
Case: WIN Primer: WIN SR Col: 1.725"							Benchmark	22.5	3316	34,600 PSI	25.0C	3665	48,600 PSI
Li'l'Gun	12.0	2694	22,000 CUP	13.0	2842	24,000 CUP	IMR 8208 XBR	22.1	3096	32,500 PSI	24.5C	3516	42,200 PSI
H110	11.0	2805	32,700 CUP	12.3	3060	41,400 CUP	H322	21.6	3290	39,700 PSI	23.2	3527	47,600 PSI
H4227	10.5	2630	35,600 CUP	11.6C	2896	42,500 CUP	CFE BLK	18.6	3372	41,900 PSI	21.0	3633	48,200 PSI
H4198	10.5	2223	23,100 CUP	11.5C	2420	26,300 CUP	H4198	19.3	3472	44,800 PSI	20.5	3612	47,300 PSI
Bullet: 40 GR. NOS BT Dia: .224"							IMR 4198	18.5	3220	36,800 PSI	19.9	3539	47,800 PSI
Case: REM Primer: REM 6 1/2, SR Col: 1.720"							Bullet: 40 GR. NOS BT Dia: .224"						
A-5744	9.2	2092	38,800 PSI	9.8	2307	41,300 PSI	Case: WIN Primer: REM 7 1/2, SR Mag Col: 2.130"						
Enforcer	8.1	2298	37,900 PSI	9.0	2553	42,100 PSI	X-Terminator	22.5	3098	40,300 PSI	25.0	3442	44,800 PSI
Bullet: 40 GR. SPR SP Dia: .224"							A-2460	22.5	3045	43,700 PSI	25.0	3425	48,500 PSI
Case: WIN Primer: WIN SR Col: 1.725"							A-2230	22.2	3038	43,700 PSI	24.7	3410	48,600 PSI
CFE BLK	12.1	2484	23,200 PSI	13.5C	2684	28,400 PSI	A-2200	20.8	3220	45,000 PSI	23.1	3534	50,000 PSI
Li'l'Gun	12.0	2667	24,900 CUP	13.0	2826	28,400 CUP	LT-32	20.7	3161	44,900 PSI	23.0	3480	49,900 PSI
H4198	10.5	2253	26,100 CUP	11.5C	2488	32,800 CUP	A-2015	20.7	3085	41,100 PSI	23.0	3422	45,700 PSI
H110	10.0	2569	32,400 CUP	11.2	2795	41,800 CUP	LT-30	19.4	3145	44,800 PSI	21.6	3449	49,800 PSI
H4227	9.0	2421	39,900 CUP	10.2	2567	43,000 CUP	A-5744	18.4	3125	44,700 PSI	20.4	3448	49,700 PSI
Bullet: 45 GR. BAR XBT Dia: .224"							Bullet: 40 GR. SIE HP Dia: .224"						
Case: WIN Primer: WIN SR Col: 1.850"							Case: WIN Primer: WIN SR Col: 2.125"						
Li'l'Gun	12.0	2641	35,700 CUP	13.0	2770	38,500 CUP	Benchmark	23.5	3110	34,800 CUP	25.0	3303	40,700 CUP
H4198	10.5	2217	31,500 CUP	11.5C	2390	36,900 CUP	IMR 8208 XBR	22.5	3049	30,400 PSI	25.0C	3452	42,800 PSI
H110	9.0	2323	35,200 CUP	9.9	2503	40,400 CUP	H335	22.5	3125	38,400 CUP	25.0	3371	44,600 CUP
H4227	8.5	2198	37,000 CUP	9.8	2346	42,700 CUP	H322	20.7	2966	31,700 CUP	23.0	3313	44,000 CUP
Bullet: 45 GR. HDY SP Dia: .224"							H4895	20.0	2572	23,300 CUP	24.0C	3133	34,200 CUP
Case: WIN Primer: WIN SR Col: 1.750"							H4198	19.5	3201	35,200 CUP	21.4	3480	45,700 CUP
Li'l'Gun	12.0	2622	26,500 CUP	13.0	2787	31,600 CUP	IMR 4198	19.0	3226	36,300 PSI	21.2C	3583	48,700 PSI
H4198	10.5	2239	28,000 CUP	11.5C	2400	32,000 CUP	IMR 4227	14.0	2984	38,100 PSI	16.0	3240	45,200 PSI
H110	9.0	2342	33,500 CUP	10.4	2574	43,000 CUP	Bullet: 45 GR. BAR TSX FB Dia: .224"						
IMR 4227	8.5	2312	39,900 CUP	9.8	2484	42,000 CUP	Case: WIN Primer: REM 7 1/2, SR Mag Col: 2.130"						
Bullet: 50 GR. HDY SPSX Dia: .224"							TAC	22.6	3038	45,000 PSI	25.1	3340	50,000 PSI
Case: REM Primer: REM 6 1/2, SR Col: 1.780"							X-Terminator	22.2	3099	44,900 PSI	24.7	3387	49,900 PSI
A-1680	10.4	2105	38,200 PSI	11.5	2392	42,200 PSI	A-2230	22.2	3099	44,900 PSI	24.7	3387	49,900 PSI
A-5744	8.1	1717	38,200 PSI	9.0	1951	42,400 PSI	A-2200	20.8	3088	45,000 PSI	23.1	3395	50,000 PSI
Enforcer	7.7	2138	38,500 PSI	8.5	2375	42,500 PSI	LT-32	20.2	3002	44,900 PSI	22.4	3316	49,900 PSI
Bullet: 50 GR. SIE SP Dia: .224"							LT-30	18.9	3009	45,000 PSI	21.1	3297	50,000 PSI
Case: WIN Primer: WIN SR Col: 1.850"							A-5744	17.8	2987	45,000 PSI	19.8	3293	50,000 PSI
Li'l'Gun	12.0	2556	31,600 CUP	13.0	2713	35,300 CUP	Bullet: 45 GR. SPR SP Dia: .224"						
CFE BLK	11.7	2338	29,200 PSI	13.0C	2512	33,700 PSI	Case: WIN Primer: WIN SR Col: 2.130"						
H4198	10.5	2102	28,200 CUP	11.5C	2296	34,100 CUP	BL-C(2)	23.0	2774	28,100 CUP	25.5	3100	37,400 CUP
H110	9.0	2249	37,500 CUP	10.0	2422	42,300 CUP	Benchmark	23.0	3092	39,700 CUP	24.5	3290	44,900 CUP
H4227	8.4	2131	39,700 CUP	9.4	2256	41,800 CUP	IMR 8208 XBR	22.2	3121	38,700 PSI	23.6	3327	47,200 PSI
Bullet: 55 GR. HDY SP Dia: .224"							IMR 4895	22.0	2829	33,100 PSI	24.0C	3134	42,800 PSI
Case: WIN Primer: WIN SR Col: 1.850"							H335	21.5	2962	36,500 CUP	24.0	3252	46,200 CUP
Li'l'Gun	12.0	2551	39,400 CUP	13.0	2652	42,900 CUP	H4895	20.0	2510	25,000 CUP	23.8C	3080	35,900 CUP
CFE BLK	11.7	2340	39,400 PSI	13.0C	2520	45,600 PSI	H322	20.5	2914	34,600 CUP	22.5	3173	43,600 CUP
H4198	10.0	1955	30,000 CUP	11.5C	2273	41,000 CUP	IMR 3031	20.0	2806	31,000 PSI	22.5C	3226	45,800 PSI
H4227	8.0	1915	41,800 CUP	9.0	2095	43,000 CUP	H4198	18.9	3011	33,400 CUP	21.0	3315	44,800 CUP
222 REMINGTON							IMR 4198	17.8	3083	40,600 PSI	19.8	3311	47,600 PSI
Barrel: 24" Twist: 1:14" Trim: 1.690"							CFE BLK	16.4	2922	41,000 PSI	18.9	3170	48,300 PSI
Bullet: 30 GR. BAR VG Dia: .224"							H4227	11.0	2259	24,300 CUP	14.5	2863	46,100 CUP
Case: WIN Primer: WIN SR Col: 2.040"							Bullet: 50 GR. HDY SP Dia: .224"						
H322	23.3	3535	40,300 PSI	25.5C	3817	49,400 PSI	Case: WIN Primer: WIN SR Col: 2.130"						
Benchmark	23.2	3332	35,500 PSI	25.2C	3628	44,200 PSI	CFE 223	24.1	2970	35,200 PSI	26.2	3268	47,600 PSI
IMR 8208 XBR	23.0	3234	34,900 PSI	25.0C	3522	42,700 PSI	Varget	23.0	2884	33,600 CUP	25.0C	3114	40,600 CUP
H4198	20.3	3500	37,400 PSI	21.9	3817	48,500 PSI	BL-C(2)	22.5	2693	25,500 CUP	25.0	3000	38,600 CUP
IMR 4198	19.8	3412	37,200 PSI	21.3	3755	48,900 PSI	Benchmark	22.5	2994	39,200 CUP	24.0	3168	45,800 CUP
CFE BLK	19.5	3593	40,900 PSI	21.2	3827	48,500 PSI	IMR 4895	22.0	2845	37,800 PSI	24.0C	3106	47,400 PSI
IMR 4227	15.7	3268	40,000 PSI	17.6	3567	48,400 PSI	H4895	20.0	2466	23,900 CUP	23.8C	3022	36,500 CUP
NEVER EXCEED MAXIMUM LOADS							IMR 8208 XBR	21.9	3006	39,200 PSI	23.3	3201	47,100 PSI
*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.							H335	21.3	2861	37,100 CUP	23.6	3120	45,700 CUP
							IMR 4064	21.0	2711	33,500 PSI	23.5C	3065	46,200 PSI

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads				
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
IMR 3031	20.0	2740	32,000 PSI	22.4C	3156	47,800 PSI	TAC	25.2	3405	49,000 PSI	28.0	3721	54,400 PSI
H322	20.2	2810	33,300 CUP	22.2	3079	43,200 CUP	A-2460	25.0	3406	47,200 PSI	27.8	3722	52,500 PSI
H4198	18.5	2890	34,000 CUP	20.5	3160	44,200 CUP	Varget	25.0	3310	34,400 CUP	28.0C	3674	47,200 CUP
IMR 4198	17.0	2850	37,100 PSI	19.3	3152	49,000 PSI	H4895	25.0	3204	32,100 CUP	27.5C	3573	44,500 CUP
Bullet: 50 GR. HDY V-MAX Dia: .224"						IMR 8208 XBR	25.0	3433	41,500 PSI	26.7C	3659	50,400 PSI	
Case: WIN Primer: REM 7 1/2, SR Mag Col: 2.130"						IMR 4895	24.9	3164	35,200 PSI	26.5C	3390	44,200 PSI	
A-2200	19.6	2935	45,000 PSI	21.8	3221	50,000 PSI	X-Terminator	24.3	3435	48,400 PSI	27.0	3754	53,800 PSI
LT-32	19.4	2846	45,000 PSI	21.5	3147	50,000 PSI	A-2230	24.3	3435	48,400 PSI	27.0	3754	53,800 PSI
LT-30	18.1	2835	45,000 PSI	20.1	3111	50,000 PSI	H322	23.5	3376	34,600 CUP	25.5	3574	48,000 CUP
A-5744	17.1	2874	44,900 PSI	19.0	3157	49,900 PSI	A-2200	22.9	3386	48,400 PSI	25.4	3701	53,700 PSI
Bullet: 55 GR. SIE SBT Dia: .224"						IMR 3031	23.5	3291	42,600 PSI	25.2C	3498	46,200 PSI	
Case: WIN Primer: REM 7 1/2, SR Mag Col: 2.125"						A-2015	22.7	3256	49,500 PSI	25.2	3558	55,000 PSI	
A-2520	21.5	2641	39,300 PSI	23.8	2985	43,500 PSI	H4198	20.5	3147	29,400 CUP	22.5	3601	49,600 CUP
A-2460	20.7	2740	42,800 PSI	23.0	3027	47,500 PSI	IMR 4198	19.5	3269	42,500 PSI	22.2	3652	53,400 PSI
A-2230	20.5	2720	43,600 PSI	22.8	3032	48,500 PSI	A-5744	18.5	3025	49,200 PSI	20.6	3439	54,800 PSI
A-2015	19.3	2770	42,400 PSI	21.5	3070	47,200 PSI	Bullet: 45 GR. SIE SPT Dia: .224"						
A-2200	19.2	2797	44,900 PSI	21.3	3071	49,800 PSI	Case: WIN Primer: WIN SR Col: 2.240"						
LT-32	19.1	2741	45,000 PSI	21.2	3024	50,000 PSI	CFE 223	27.5	3358	40,800 PSI	29.0	3536	47,200 PSI
LT-30	17.8	2730	45,000 PSI	19.8	2993	50,000 PSI	BL-C(2)	26.5	3266	36,000 CUP	28.5	3559	48,000 CUP
A-5744	17.0	2775	44,900 PSI	18.8	3052	49,900 PSI	Varget	25.0	3071	30,200 CUP	28.0C	3477	43,700 CUP
Bullet: 55 GR. SPR SP Dia: .224"						H4895	25.0	3211	33,800 CUP	27.5C	3454	43,400 CUP	
Case: WIN Primer: WIN SR Col: 2.130"						Benchmark	25.3	3327	41,100 CUP	27.3	3554	51,100 CUP	
CFE 223	23.9	2894	35,000 PSI	25.9	3174	47,600 PSI	TAC	24.3	3276	49,200 PSI	27.0	3580	54,700 PSI
Varget	23.0	2860	34,500 CUP	25.0C	3095	43,000 CUP	IMR 8208 XBR	24.5	3287	41,700 PSI	26.8	3550	52,000 PSI
StaBALL Match	22.0	2686	35,500 CUP	24.4	2969	46,500 CUP	H335	24.0	3280	41,500 CUP	26.2	3456	51,000 CUP
BL-C(2)	22.0	2625	28,200 CUP	24.2	2876	35,400 CUP	A-2460	23.6	3260	48,900 PSI	26.2	3563	54,300 PSI
IMR 8208 XBR	21.8	2905	38,400 PSI	23.2C	3120	48,500 PSI	X-Terminator	23.2	3296	49,500 PSI	25.8	3602	55,000 PSI
IMR 4064	21.5	2739	36,500 PSI	23.0C	2954	44,400 PSI	A-2230	23.2	3296	49,500 PSI	25.8	3602	55,000 PSI
Benchmark	21.5	2843	38,100 CUP	23.2	3052	45,100 CUP	H322	23.0	3164	36,000 CUP	25.0	3424	47,400 CUP
IMR 4895	21.0	2632	32,700 PSI	23.5C	3017	47,300 PSI	IMR 3031	22.7	3065	37,700 PSI	25.2C	3374	45,800 PSI
H335	20.5	2776	35,300 CUP	23.0	3037	45,600 CUP	A-2200	22.0	3219	48,800 PSI	24.4	3518	54,300 PSI
H4895	20.0	2569	28,900 CUP	23.5C	3023	39,900 CUP	A-2015	21.8	3088	49,500 PSI	24.2	3375	55,000 PSI
IMR 3031	19.5	2687	33,500 PSI	21.6C	3004	46,300 PSI	H4198	20.0	3009	28,800 CUP	22.0	3472	49,100 CUP
H322	19.0	2654	31,600 CUP	21.2	2953	45,100 CUP	IMR 4198	19.5	3205	44,600 PSI	22.1	3495	52,000 PSI
H4198	17.5	2733	33,400 CUP	19.5	3017	45,300 CUP	Bullet: 50 GR. SIE BK Dia: .224"						
IMR 4198	16.5	2722	35,900 PSI	18.7	3017	47,700 PSI	Case: WIN Primer: WIN SR Col: 2.260"						
Bullet: 60 GR. HDY V-MAX Dia: .224"						A-2520	24.8	3149	48,500 PSI	27.5	3441	53,900 PSI	
Case: WIN Primer: WIN SR Col: 2.160"						TAC	23.8	3137	49,200 PSI	26.4	3428	54,700 PSI	
CFE 223	22.3	2652	33,300 PSI	24.3	2972	47,900 PSI	A-2460	23.4	3069	49,100 PSI	26.0	3382	54,500 PSI
Varget	22.0	2734	36,600 CUP	23.5C	2906	42,800 CUP	X-Terminator	22.9	3143	48,700 PSI	25.4	3435	54,200 PSI
BL-C(2)	22.0	2590	33,200 CUP	23.5	2803	44,000 CUP	A-2230	22.9	3143	48,700 PSI	25.4	3435	54,200 PSI
H4895	21.7	2802	38,500 CUP	23.1C	2937	43,500 CUP	A-2200	22.1	3111	48,600 PSI	24.6	3400	54,000 PSI
StaBALL Match	20.4	2505	35,900 CUP	22.6	2811	49,100 CUP	LT-32	21.8	3112	49,400 PSI	24.2	3399	54,900 PSI
IMR 4895	20.0	2573	36,200 PSI	22.4C	2907	49,100 PSI	A-2015	21.6	2964	48,400 PSI	24.0	3239	53,800 PSI
IMR 4064	20.0	2530	34,500 PSI	22.3C	2862	47,800 PSI	LT-30	20.3	3053	49,400 PSI	22.6	3332	54,900 PSI
IMR 8208 XBR	20.5	2737	39,200 PSI	21.8	2920	48,200 PSI	Bullet: 50 GR. SPR SP Dia: .224"						
H335	20.0	2602	34,400 CUP	21.3	2759	42,900 CUP	Case: WIN Primer: WIN SR Col: 2.210"						
Benchmark	19.7	2627	35,900 CUP	21.0	2805	42,800 CUP	CFE 223	27.0	3241	41,500 PSI	28.5	3505	53,600 PSI
H322	19.0	2592	34,800 CUP	20.7	2818	42,900 CUP	StaBALL Match	25.7	3084	40,800 PSI	28.0C	3400	54,300 PSI
IMR 3031	18.5	2476	32,900 PSI	20.6C	2838	48,700 PSI	BL-C(2)	26.0	3187	34,200 CUP	28.0	3428	47,100 CUP
H4198	16.9	2633	36,100 CUP	18.0	2771	42,400 CUP	H4895	25.0	3200	38,300 CUP	27.5C	3468	51,300 CUP
IMR 4198	15.5	2552	37,100 PSI	17.6	2832	48,400 PSI	IMR 4895	25.2	3118	43,300 PSI	26.7C	3211	45,200 PSI
Bullet: 60 GR. SIE HP Dia: .224"						Varget	26.5	3242	40,800 CUP	27.5C	3383	44,800 CUP	
Case: WIN Primer: REM 7 1/2, SR Mag Col: 2.120"						H335	24.0	3166	43,000 CUP	26.0	3393	51,700 CUP	
A-2520	20.7	2562	40,300 PSI	23.0	2897	44,800 PSI	Benchmark	24.0	3139	38,600 CUP	26.5	3396	50,400 CUP
A-2460	20.4	2600	42,400 PSI	22.5	2910	46,800 PSI	IMR 8208 XBR	23.5	3111	40,500 PSI	25.8	3407	53,300 PSI
A-2230	20.0	2630	43,100 PSI	22.2	2931	47,800 PSI	IMR 3031	23.5	3169	44,600 PSI	25.0	3268	46,900 PSI
A-2015	18.5	2661	42,900 PSI	20.6	2950	47,800 PSI	H322	22.0	3018	36,500 CUP	24.0	3301	49,300 CUP
223 REMINGTON						IMR 4198	19.8	3094	42,800 PSI	21.9	3352	52,100 PSI	
Barrel: 24" Twist: 1:12" Trim: 1.750"						H4198	19.5	3023	32,400 CUP	21.5	3223	45,900 CUP	
Bullet: 40 GR. NOS BT Dia: .224"						Bullet: 55 GR. WIN FMJ Dia: .224"							
Case: WIN Primer: WIN SR Col: 2.260"						Case: WIN Primer: WIN SR Col: 2.195"							
CFE 223	27.5	3457	40,600 PSI	29.0	3667	48,200 PSI	No. 2	Subsonic		3.7	1075	13,600 PSI	
BL-C(2)	26.5	3368	35,400 CUP	28.5	3612	45,400 CUP	Titegroup	Subsonic		3.6	1065	14,400 PSI	
H335	26.0	3299	34,400 CUP	28.0	3572	44,600 CUP	Bullet: 55 GR. BARTSX FB Dia: .224"						
Benchmark	25.3	3404	39,600 CUP	27.3	3666	51,000 CUP	Case: WIN Primer: WIN SR Col: 2.185"						
						CFE 223	24.7	3065	44,600 PSI	27.4	3317	54,000 PSI	
						A-2520	24.1	2959	48,700 PSI	26.8	3234	54,100 PSI	

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads		
	Vel	Pressure			Vel	Pressure				Vel	Pressure			Vel	Pressure	
BL-C(2)	23.4	2888	41,900 PSI	26.0	3135	50,300 PSI		A-2200	19.3	2713	49,100 PSI	21.4	2965	54,500 PSI		
Varget	22.8	2996	47,600 PSI	24.0C	3134	53,300 PSI		Bullet: 62 GR. BARTSX BT Dia: .224"								
W748	22.5	2862	39,200 PSI	25.0	3104	48,500 PSI		Case: WIN			Primer: WIN SR			Col: 2.255"		
TAC	22.5	2887	48,500 PSI	25.0	3155	53,900 PSI		A-2520	24.1	2864	47,300 PSI	26.8	3140	52,600 PSI		
A-2460	22.0	2887	48,000 PSI	24.4	3155	53,300 PSI		A-2460	22.7	2861	49,200 PSI	25.2	3132	54,600 PSI		
X-Terminator	21.8	2914	49,500 PSI	24.2	3185	55,000 PSI		TAC	22.5	2804	48,900 PSI	25.0	3066	54,300 PSI		
A-2230	21.7	2905	49,400 PSI	24.1	3195	54,900 PSI		X-Terminator	22.1	2833	48,700 PSI	24.5	3100	54,000 PSI		
IMR 4895	21.5	2837	43,000 PSI	23.9C	3107	52,300 PSI		A-2230	22.1	2833	48,700 PSI	24.5	3100	54,000 PSI		
IMR 8208 XBR	21.5	2949	47,600 PSI	23.0	3105	52,900 PSI		A-2015	20.5	2669	49,300 PSI	22.8	2935	54,900 PSI		
H335	21.3	2920	48,900 PSI	22.7	3063	53,000 PSI		A-2200	19.5	2741	49,500 PSI	21.6	3010	54,900 PSI		
IMR 4064	21.2	2871	43,900 PSI	23.5C	3116	52,500 PSI		LT-32	19.1	2716	49,500 PSI	21.2	2944	55,000 PSI		
H4895	21.0	2910	43,700 PSI	22.6	3110	51,500 PSI		LT-30	17.8	2659	49,200 PSI	19.8	2895	54700 PSI		
H322	21.0	2953	48,600 PSI	22.4	3083	51,300 PSI		Bullet: 62 GR. SFT SCIR Dia: .224"								
IMR 3031	20.0	2878	46,800 PSI	21.3	3024	52,200 PSI		Case: WIN			Primer: WIN SR			Col: 2.260"		
Benchmark	20.0	2885	47,600 PSI	22.2	3066	52,200 PSI		CFE 223	23.8	2884	44,100 PSI	25.9	3110	53,700 PSI		
A-2200	20.0	2798	48,300 PSI	22.2	3058	53,700 PSI		StaBALL Match	23.4	2736	41,800 PSI	25.5C	3004	54,400 PSI		
A-2015	19.8	2685	49,400 PSI	22.0	2966	54,900 PSI		BL-C(2)	22.5	2772	45,100 PSI	24.2	2949	52,500 PSI		
Bullet: 55 GR. HDY V-MAX Dia: .224"								IMR 4895	22.4	2782	46,900 PSI	24.1	2956	53,400 PSI		
Case: WIN			Primer: WIN SR			Col: 2.260"			W748	22.3	2779	44,600 PSI	24.0	2967	52,400 PSI	
A-2520	23.0	2934	48,700 PSI	25.6	3207	54,100 PSI		Varget	22.1	2773	44,700 PSI	24.1	2974	52,600 PSI		
A-2495	22.5	2832	47,800 PSI	25.0	3111	53,100 PSI		IMR 4064	21.9	2671	42,200 PSI	23.6	2928	53,200 PSI		
TAC	22.2	2909	47,400 PSI	24.7	3179	52,700 PSI		IMR 8208 XBR	21.4	2787	43,400 PSI	23.2	2999	53,000 PSI		
A-2460	21.8	2914	49,500 PSI	24.2	3185	55,000 PSI		H4895	21.0	2740	42,300 PSI	23.0	3004	53,000 PSI		
X-Terminator	21.2	2936	48,800 PSI	23.5	3209	54,200 PSI		Benchmark	20.8	2755	45,400 PSI	22.7	2948	52,800 PSI		
A-2230	21.2	2936	48,800 PSI	23.5	3209	54,200 PSI		IMR 3031	20.3	2700	43,500 PSI	22.0	2940	53,100 PSI		
LT-32	20.8	2924	49,500 PSI	23.1	3175	55,000 PSI		H322	19.5	2717	45,400 PSI	21.2	2904	52,300 PSI		
A-2015	20.3	2735	49,300 PSI	22.5	3025	54,800 PSI		H335	19.3	2678	47,500 PSI	21.4	2887	53,600 PSI		
LT-30	19.4	2860	49,300 PSI	21.5	3114	54,800 PSI		Bullet: 64 GR. SIE TGK Dia: .224"								
Bullet: 55 GR. SPR SP Dia: .224"								Case: WIN			Primer: WIN SR			Col: 2.212"		
Case: WIN			Primer: WIN SR			Col: 2.200"			A-5744	Subsonic		4.7	1,045	15,600 PSI		
CFE 223	26.0	3133	43,300 PSI	27.8C	3329	51,300 PSI		No. 2	Subsonic		4.6	1,082	19,700 PSI			
Varget	25.5	3174	41,300 CUP	27.5C	3384	49,700 CUP		Titegroup	Subsonic		4.3	1,077	20,200 PSI			
BL-C(2)	25.5	3069	37,200 CUP	27.5	3313	48,500 CUP		Bullet: 69 GR. SIE HPBT Dia: .224"								
StaBALL Match	25.0	2890	37,400 PSI	27.0C	3212	52,000 PSI		Case: WIN			Primer: WIN SR			Col: 2.255"		
IMR 4895	23.0	2843	39,500 PSI	26.2C	3219	53,200 PSI		A-2520	22.0	2680	49,200 PSI	24.4	2931	54,600 PSI		
H4895	25.0	3176	39,700 CUP	26.0	3315	49,000 CUP		TAC	21.9	2671	49,200 PSI	24.3	2921	54,700 PSI		
IMR 4064	23.0	2867	40,300 PSI	25.7C	3201	52,600 PSI		A-2460	21.1	2671	48,900 PSI	23.4	2907	54,300 PSI		
Benchmark	24.0	3113	42,600 CUP	25.6	3264	50,000 CUP		A-2230	20.7	2666	48,800 PSI	23.1	2895	54,400 PSI		
H335	23.0	3018	40,800 CUP	25.3	3203	49,300 CUP		X-Terminator	20.7	2666	48,800 PSI	23.1	2895	54,400 PSI		
IMR 8208 XBR	23.0	3024	42,100 PSI	25.3	3268	53,100 PSI		A-2495	20.3	2664	49,100 PSI	22.5	2939	54,400 PSI		
IMR 3031	21.6	2907	41,100 PSI	24.6C	3233	52,500 PSI		A-2015	19.7	2524	49,600 PSI	21.8	2762	54,900 PSI		
H322	21.0	2841	38,600 CUP	23.0	3106	48,900 CUP		A-2200	18.5	2613	49,400 PSI	20.6	2822	55,000 PSI		
H4198	19.0	2841	34,800 CUP	21.0	3150	47,600 CUP		Bullet: 70 GR. SPR SP Dia: .224"								
IMR 4198	18.8	2885	41,600 PSI	20.4	3122	53,600 PSI		Case: WIN			Primer: WIN SR			Col: 2.140"		
Bullet: 60 GR. HDY V-MAX Dia: .224"								BL-C(2)	24.5	2774	41,700 CUP	26.5	2954	50,800 CUP		
Case: WIN			Primer: WIN SR			Col: 2.250"			Varget	23.5	2827	41,000 CUP	26.0C	3024	48,400 CUP	
Varget	25.0	2924	40,400 CUP	27.0C	3159	51,900 CUP		StaBALL Match	23.0	2605	40,400 PSI	25.3C	2889	54,000 PSI		
BL-C(2)	25.0	2948	44,900 CUP	27.0	3137	51,900 CUP		H4895	23.0	2782	40,400 CUP	25.0	2997	50,500 CUP		
CFE 223	25.0	3007	46,000 PSI	26.7	3176	53,400 PSI		CFE 223	23.0	2719	45,600 PSI	24.7	2900	53,800 PSI		
StaBALL Match	23.8	2777	40,200 PSI	26.0C	3099	54,400 PSI		IMR 4895	20.2	2562	45,700 PSI	24.5C	2917	52,300 PSI		
H4895	24.0	2918	37,600 CUP	26.0C	3174	50,100 CUP		IMR 4064	19.5	2485	42,000 PSI	23.5C	2831	53,300 PSI		
IMR 4895	23.7	2884	45,000 PSI	25.2C	3052	52,700 PSI		H335	21.0	2520	34,500 CUP	23.5	2867	47,900 CUP		
IMR 4064	23.0	2837	42,500 PSI	24.7C	3055	52,600 PSI		H322	19.0	2515	37,500 CUP	23.0	2962	51,200 CUP		
Benchmark	23.0	2913	42,500 CUP	24.6	3086	49,900 CUP		Benchmark	20.5	2665	45,200 CUP	22.8	2869	51,000 CUP		
H335	22.5	2910	43,700 CUP	24.0	3075	50,600 CUP		IMR 8208 XBR	20.0	2621	44,100 PSI	21.8	2797	52,800 PSI		
H322	22.0	2873	40,300 CUP	23.5	3063	49,800 CUP		IMR 3031	19.0	2582	47,200 PSI	21.2	2729	50,900 PSI		
IMR 8208 XBR	21.5	2857	43,500 PSI	23.6	3057	51,700 PSI		Bullet: 75 GR. JLK VLD Dia: .224"								
IMR 3031	21.0	2815	42,500 PSI	22.5	3008	51,700 PSI		Case: WIN			Primer: WIN SR			Col: 2.250"		
H4198	18.0	2747	42,500 CUP	20.0	2953	47,600 CUP		BL-C(2)	23.0	2646	39,800 CUP	26.0	2858	49,500 CUP		
IMR 4198	18.3	2795	42,500 PSI	19.5	2945	52,000 PSI		StaBALL Match	23.0	3246	41,400 PSI	25.3C	2850	54,400 PSI		
Bullet: 60 GR. NOS PART Dia: .224"								CFE 223	23.0	2680	45,200 PSI	25.0	2876	54,400 PSI		
Case: WIN			Primer: WIN SR			Col: 2.205"			Varget	22.5	2693	40,600 CUP	25.0C	2907	48,400 CUP	
A-2520	23.0	2856	49,100 PSI	25.6	3121	54,500 PSI		H4895	22.5	2696	39,900 CUP	24.5	2905	50,000 CUP		
TAC	22.3	2845	49,500 PSI	24.8	3109	55,000 PSI		IMR 4064	21.0	2531	37,500 PSI	24.0C	2827	53,400 PSI		
X-Terminator	21.2	2836	48,900 PSI	23.6	3099	54,400 PSI		IMR 4895	21.2	2506	41,200 PSI	23.8C	2786	51,800 PSI		
A-2230	21.2	2836	48,900 PSI	23.6	3099	54,400 PSI		Benchmark	21.5	2610	41,900 CUP	23.5	2829	49,400 CUP		
A-2460	21.2	2792	48,500 PSI	23.6	3051	53,900 PSI		H335	21.0	2624	41,300 CUP	23.0	2814	50,000 CUP		
A-2015	19.4	2628	48,600 PSI	21.5	2872	54,100 PSI										

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
IMR 8208 XBR	20.0	2538	40,800 PSI	22.7	2804	53,900 PSI	CFE 223	33.9	3415	50,300 PSI	37.7	3673	60,100 PSI
H322	20.0	2594	40,700 CUP	22.0	2785	48,100 CUP	A-4064	33.4	3371	51,400 PSI	37.1	3660	61,800 PSI
IMR 3031	20.0	2543	40,000 PSI	21.8C	2740	53,500 PSI	A-2495	33.0	3354	50,600 PSI	36.6	3651	61,700 PSI
Bullet: 77 GR. SIE HPBT Dia: .224"							Varget	32.7	3425	50,400 PSI	36.3	3701	61,700 PSI
Case: WIN Primer: WIN SR Col: 2.230"							IMR 4064	32.6	3382	49,000 PSI	36.2	3701	60,900 PSI
A-5744		Subsonic		5.6	1,056	23,900 PSI	Bullet: 60 GR. BER FBV Dia: .224"						
No. 2		Subsonic		5.4	1,097	25,700 PSI	Case: ALPHA Primer: CCI 450, SR MAGNUM Col: 2.300"						
Titegroup		Subsonic		5.2	1,083	26,300 PSI	StaBALL 6.5	38.5	3333	48,200 PSI	42.8	3665	61,100 PSI
Case: WIN Primer: WIN SR Col: 2.260"							A-2700	36.7	3370	50,900 PSI	40.8	3645	61,900 PSI
A-2520	21.7	2553	49,300 PSI	24.1	2785	54,800 PSI	H4350	36.1	3262	48,500 PSI	40.2	3597	61,500 PSI
StaBALL Match	22.0	2497	41,200 PSI	24.0	2754	54,700 PSI	Big Game	34.8	3245	47,800 PSI	38.6	3559	61,400 PSI
TAC	21.1	2483	49,100 PSI	23.4	2759	54,500 PSI	A-4064	32.1	3234	51,000 PSI	35.6	3524	61,700 PSI
A-2460	20.4	2532	48,800 PSI	22.6	2743	54,100 PSI	A-2495	32.0	3246	51,000 PSI	35.6	3527	61,800 PSI
A-2230	20.0	2531	48,900 PSI	22.2	2731	54,300 PSI	IMR 4064	31.1	3232	48,600 PSI	34.6	3546	60,900 PSI
X-Terminator	20.2	2531	49,400 PSI	22.2	2731	54,300 PSI	Varget	30.5	3231	49,400 PSI	33.9	3491	61,200 PSI
A-2495	19.6	2487	48,900 PSI	21.8	2741	54,400 PSI	Bullet: 60 GR. NOS PART Dia: .224"						
A-2015	18.5	2333	49,400 PSI	20.5	2553	54,700 PSI	Case: ALPHA Primer: CCI 450, SR MAGNUM Col: 2.260"						
LT-32	17.9	2417	49,400 PSI	19.9	2625	54,900 PSI	StaBALL 6.5	38.3	3372	48,400 PSI	42.5	3675	61,500 PSI
A-2200	17.6	2395	49,000 PSI	19.6	2618	54,600 PSI	A-2700	36.7	3427	52,400 PSI	40.8	3659	61,800 PSI
LT-30	16.5	2342	49,400 PSI	18.3	2539	54,800 PSI	Big Game	34.8	3289	49,600 PSI	38.6	3587	61,700 PSI
Bullet: 80 GR. SIE HPBT Dia: .224"							H4350	34.2	3282	52,300 PSI	38.0	3536	61,800 PSI
Case: WIN Primer: WIN SR Col: 2.380"							A-2495	29.8	3232	54,800 PSI	33.1	3444	61,800 PSI
A-2520	22.4	2536	49,400 PSI	24.9	2792	54,900 PSI	IMR 4064	27.9	3130	48,400 PSI	31.0	3399	61,100 PSI
TAC	21.9	2500	48,900 PSI	24.3	2749	54,300 PSI	Bullet: 62 GR. BAR TT SX Dia: .224"						
A-2460	21.0	2509	48,800 PSI	23.3	2729	54,100 PSI	Case: ALPHA Primer: CCI 450, SR MAGNUM Col: 2.330"						
A-2230	20.8	2528	49,000 PSI	23.1	2732	54,400 PSI	StaBALL 6.5	36.8	3265	48,100 PSI	40.9	3573	61,900 PSI
X-Terminator	20.8	2528	49,000 PSI	23.1	2732	54,400 PSI	H4350	35.8	3142	46,100 PSI	39.8	3504	61,900 PSI
A-2015	19.5	2349	49,100 PSI	21.7	2582	54,700 PSI	A-2700	35.8	3336	52,700 PSI	39.8	3580	61,800 PSI
A-2495	19.3	2467	48,800 PSI	21.5	2726	54,400 PSI	Big Game	34.0	3174	48,600 PSI	37.7	3466	61,500 PSI
A-2200	18.8	2414	49,000 PSI	20.9	2641	54,500 PSI	A-4064	30.5	3106	50,600 PSI	33.9	3368	61,900 PSI
Bullet: 82 GR. BER BT TARG Dia: .224"							A-2495	29.4	3082	50,100 PSI	32.7	3326	60,600 PSI
Case: WIN Primer: WIN SR Col: 2.375"							IMR 4064	28.4	3134	51,700 PSI	31.6	3366	61,200 PSI
StaBALL 6.5	24.3	2450	43,300 PSI	26.3	2675	53,900 PSI	A-5744	22.7	2947	41,800 PSI	28.4	3484	62,000 PSI
W760	23.2	2478	44,700 PSI	25.0	2667	53,700 PSI	Bullet: 65 GR. SIE SBT GK Dia: .224"						
CFE 223	21.7	2518	44,000 PSI	23.5	2724	53,300 PSI	Case: ALPHA Primer: CCI 450, SR MAGNUM Col: 2.250"						
Varget	20.0	2417	44,000 PSI	21.5	2590	52,800 PSI	StaBALL 6.5	38.1	3193	46,300 PSI	42.3	3572	61,900 PSI
BL-C(2)	21.1	2429	43,300 PSI	22.9	2617	52,200 PSI	IMR 4350	36.2	3170	47,900 PSI	40.2	3506	61,400 PSI
IMR 4895	20.0	2380	43,100 PSI	21.7	2590	52,700 PSI	H4350	36.1	3129	45,900 PSI	40.1	3496	61,200 PSI
H4895	18.9	2448	46,500 PSI	20.4	2585	52,700 PSI	Hybrid 100V	36.0	3151	45,900 PSI	40.0	3543	61,800 PSI
IMR 8208 XBR	18.4	2392	44,440 PSI	19.9	2554	52,100 PSI	A-4064	32.3	3102	48,100 PSI	35.9	3411	61,400 PSI
Bullet: 90 GR. SIE HPBT Dia: .224"							Varget	30.9	3177	49,900 PSI	34.4	3440	61,800 PSI
Case: WIN Primer: WIN SR Col: 2.380"							Bullet: 69 GR. SIE TMK Dia: .224"						
StaBALL 6.5	23.6	2374	44,200 PSI	25.7C	2561	53,400 PSI	Case: ALPHA Primer: CCI 450, SR MAGNUM Col: 2.400"						
W760	22.5	2332	41,700 PSI	24.0	2482	52,100 PSI	Hunter	37.0	3066	46,800 PSI	41.1	3419	61,700 PSI
A-2520	21.2	2374	48,900 PSI	23.6	2586	54,400 PSI	StaBALL 6.5	36.7	3106	45,500 PSI	40.8	3435	61,900 PSI
StaBALL Match	21.3	2322	41,700 PSI	23.2	2574	54,700 PSI	Hybrid 100V	35.2	3055	45,700 PSI	39.1	3427	61,800 PSI
CFE 223	21.0	2391	45,900 PSI	22.8	2554	53,500 PSI	H4350	35.2	3057	46,300 PSI	39.1	3393	61,900 PSI
Varget	21.0	2332	46,700 PSI	22.3C	2447	52,100 PSI	IMR 4350	34.7	3046	45,900 PSI	38.6	3381	61,000 PSI
BL-C(2)	21.0	2291	41,400 PSI	22.5	2491	52,300 PSI	A-4064	31.6	3001	46,900 PSI	35.1	3300	61,100 PSI
IMR 4895	21.0	2356	46,200 PSI	22.5C	2527	53,000 PSI	Bullet: 75 GR. SFT SCIR II Dia: .224"						
TAC	20.5	2313	49,200 PSI	22.8	2546	54,700 PSI	Case: ALPHA Primer: CCI 450, SR MAGNUM Col: 2.424"						
H4895	20.0	2352	47,500 PSI	21.5	2481	53,500 PSI	Suprform	36.3	2977	51,300 PSI	40.4	3227	61,700 PSI
A-2460	19.7	2363	48,700 PSI	21.9	2537	54,100 PSI	H4831SC	36.1	2873	50,500 PSI	40.1	3120	61,100 PSI
X-Terminator	19.6	2393	49,200 PSI	21.8	2542	54,700 PSI	Hunter	35.1	2869	49,200 PSI	39.0	3136	61,700 PSI
A-2230	19.6	2393	49,200 PSI	21.8	2542	54,700 PSI	StaBALL 6.5	34.5	2927	51,300 PSI	38.4	3184	61,900 PSI
A-2015	19.0	2198	49,100 PSI	21.1	2400	54,500 PSI	Hybrid 100V	32.9	2885	50,300 PSI	36.6	3168	61,700 PSI
A-2495	18.6	2315	49,100 PSI	20.6	2545	54,400 PSI	A-4350	31.4	2810	53,400 PSI	34.9	3017	61,000 PSI
A-2200	18.1	2235	49,300 PSI	20.1	2446	54,700 PSI	H4350	31.3	2852	52,300 PSI	34.8	3075	61,900 PSI
IMR 8208 XBR	18.0	2270	45,600 PSI	19.6	2419	52,800 PSI	IMR 4350	31.3	2822	51,000 PSI	34.8	3076	61,500 PSI
22 GT							Bullet: 80 GR. SIE HPBT Dia: .224"						
Barrel: 24" Twist: 1:7" Trim: 1.704"							Case: ALPHA Primer: CCI 450, SR MAGNUM Col: 2.468"						
Bullet: 55 GR. SIE BK Dia: .224"							Suprform	36.9	3049	52,400 PSI	41.1	3271	61,800 PSI
Case: ALPHA Primer: CCI 450, SR MAGNUM Col: 2.320"							H4831SC	36.7	2881	48,300 PSI	40.7	3179	60,900 PSI
A-2700	37.5	3507	51,600 PSI	41.6	3751	60,500 PSI	Hunter	36.3	2850	45,800 PSI	40.3	3173	61,600 PSI
H4350	37.1	3373	48,800 PSI	41.2	3716	61,800 PSI	StaBALL 6.5	35.9	3003	52,000 PSI	39.9	3247	62,000 PSI
H380	36.2	3393	47,000 PSI	40.2	3727	60,500 PSI	A-4350	35.7	3014	54,700 PSI	39.7	3197	59,900 PSI
Big Game	35.8	3366	47,200 PSI	39.7	3695	59,800 PSI	Hybrid 100V	33.7	2939	49,700 PSI	37.5	3216	61,500 PSI

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads				
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
IMR 4350	33.2	2907	49,600 PSI	36.9	3171	61,000 PSI	Benchmark	33.5	3786	45,300 CUP	36.0	3979	51,000 CUP
H4350	32.6	3146	61,900 PSI	36.2	3146	61,900 PSI	IMR 3031	33.0	3704	47,600 PSI	35.2	4015	62,300 PSI
Bullet: 85.5 GR. BER HYBRID Dia: .224"													
Case: ALPHA		Primer: CCI 450, SR MAGNUM				Col: 2.540"							
Hunter	34.7	2748	44,800 PSI	38.5	3049	61,200 PSI							
H4831SC	34.4	2817	51,500 PSI	38.2	3051	61,800 PSI							
StaBALL 6.5	33.5	2854	51,000 PSI	37.3	3085	62,000 PSI							
Suprform	33.1	2879	53,300 PSI	36.7	3078	61,900 PSI							
Hybrid 100V	31.5	2834	51,700 PSI	35.0	3071	61,800 PSI							
A-4350	31.1	2759	50,000 PSI	34.5	2991	61,000 PSI							
H4350	30.3	2750	49,900 PSI	33.6	2992	61,700 PSI							
IMR 4350	29.8	2747	49,200 PSI	33.1	2981	61,200 PSI							
A-5744	21.0	2526	42,800 PSI	26.2	2983	62,000 PSI							
Bullet: 88 GR. HDY ELD-M Dia: .224"													
Case: ALPHA		Primer: CCI 450, SR MAGNUM				Col: 2.550"							
H4831SC	34.4	2769	49,200 PSI	38.3	3038	61,900 PSI							
Suprform	34.5	2867	51,900 PSI	38.3	3094	61,700 PSI							
Hunter	34.1	2686	43,200 PSI	37.9	2980	60,000 PSI							
StaBALL 6.5	33.9	2831	49,800 PSI	37.7	3086	61,900 PSI							
A-4350	32.8	2761	48,300 PSI	36.4	3017	60,500 PSI							
Hybrid 100V	31.0	2751	47,500 PSI	34.4	3026	61,700 PSI							
IMR 4350	30.8	2751	48,500 PSI	34.2	2998	60,900 PSI							
H4350	30.2	2730	49,200 PSI	33.6	2979	62,000 PSI							
Bullet: 95 GR. SIE HPBT Dia: .224"													
Case: ALPHA		Primer: CCI 450, SR MAGNUM				Col: 2.555"							
H4831SC	33.5	2659	51,700 PSI	37.2	2896	61,800 PSI							
Suprform	32.6	2716	53,800 PSI	36.2	2914	61,900 PSI							
IMR 4831	31.1	2594	49,000 PSI	34.6	2832	60,900 PSI							
22-250 REMINGTON													
Barrel: 24" Twist: 1:14" Trim: 1.902"													
Bullet: 36 GR. BAR VG FB Dia: .224"													
Case: WIN		Primer: WIN LR				Col: 2.350"							
StaBALL Match	37.0	4029	47,800 PSI	40.8	4401	62,300 PSI							
Varget	37.8	4061	50,800 PSI	40.2C	4277	59,800 PSI							
IMR 4895	37.1	4063	50,900 PSI	40.0C	4367	63,100 PSI							
H4895	36.6	4130	50,700 PSI	39.0C	4376	61,400 PSI							
IMR 8208 XBR	36.5	4137	50,700 PSI	38.8	4404	62,300 PSI							
IMR 4064	35.7	3976	48,300 PSI	38.0C	4202	55,700 PSI							
Benchmark	35.6	4108	51,700 PSI	37.8	4335	61,100 PSI							
IMR 3031	33.7	3953	45,500 PSI	35.8	4333	61,500 PSI							
Bullet: 40 GR. NOS BT Dia: .224"													
Case: WIN		Primer: WIN LR				Col: 2.350"							
StaBALL 6.5	41.0	3826	45,000 PSI	44.8C	4155	56,600 PSI							
CFE 223	40.0	4036	47,600 PSI	43.0C	4328	58,300 PSI							
W760	38.0	3644	39,600 CUP	41.0	3933	47,100 CUP							
H380	38.0	3647	34,500 CUP	41.0	3855	39,200 CUP							
StaBALL Match	36.6	3924	47,100 PSI	40.3	4306	62,900 PSI							
Varget	37.5	3936	43,400 CUP	39.5	4135	51,100 CUP							
IMR 4895	36.0	3807	45,500 PSI	39.0C	4189	60,200 PSI							
IMR 8208 XBR	35.0	3944	47,000 PSI	39.0	4336	63,500 PSI							
IMR 4064	36.0	3877	47,700 PSI	38.5C	4187	60,500 PSI							
H4895	34.0	3750	43,800 CUP	37.0	4060	48,700 CUP							
IMR 3031	34.0	3941	50,200 PSI	36.3	4224	62,100 PSI							
Benchmark	34.0	3837	41,600 CUP	36.5	4114	50,100 CUP							
Case: REM		Primer: WIN LR				Col: 2.350"							
TAC	33.8	3722	54,000 PSI	38.9	4186	62,200 PSI							
A-2460	33.7	3663	54,400 PSI	37.5	4163	60,500 PSI							
Bullet: 45 GR. BAR XBT Dia: .224"													
Case: WIN		Primer: WIN LR				Col: 2.340"							
W760	38.0	3537	40,200 CUP	41.0	3899	47,600 CUP							
H380	38.0	3612	37,900 CUP	41.0	3839	43,500 CUP							
StaBALL Match	36.0	3784	48,700 PSI	39.5	4103	62,200 PSI							
Varget	35.0	3652	46,000 CUP	38.0	3921	49,200 CUP							
IMR 4064	35.0	3708	48,700 PSI	38.0C	4042	63,000 PSI							
IMR 4895	35.0	3666	47,400 PSI	38.0	4007	61,700 PSI							
H4895	34.0	3660	47,300 CUP	37.0	3918	49,100 CUP							
Bullet: 45 GR. BER FBV Dia: .224"													
Case: REM		Primer: WIN LR				Col: 2.305"							
A-4064	35.1	3426	50,500 PSI	39.0	3894	56,100 PSI							
A-2520	33.8	3412	53,000 PSI	37.5	3877	58,800 PSI							
A-2460	32.4	3392	52,900 PSI	36.0	3854	58,800 PSI							
Bullet: 50 GR. HDY V-MAX Dia: .224"													
Case: REM		Primer: WIN LR				Col: 2.350"							
A-4064	34.2	3340	53,400 PSI	38.0	3796	59,300 PSI							
TAC	31.8	3391	54,100 PSI	35.3	3763	60,100 PSI							
Bullet: 50 GR. SIE SP Dia: .224"													
Case: WIN		Primer: WIN LR				Col: 2.350"							
StaBALL 6.5	39.5	3690	49,100 PSI	43.0	4001	62,400 PSI							
H4350	39.0	3410	43,600 CUP	42.0	3579	48,900 CUP							
H380	38.0	3562	41,700 CUP	41.0	3742	45,300 CUP							
W760	37.0	3494	41,400 CUP	40.0	3765	48,600 CUP							
CFE 223	37.0	3702	51,100 PSI	39.8	3968	62,600 PSI							
StaBALL Match	35.0	3576	46,300 PSI	38.3	3925	62,700 PSI							
IMR 4895	35.0	3587	49,100 PSI	37.6	3862	61,500 PSI							
Varget	34.5	3596	43,600 CUP	37.5	3834	50,400 CUP							
IMR 4064	34.5	3560	47,900 PSI	37.0	3866	61,900 PSI							
H4895	33.5	3530	43,800 CUP	36.5	3827	50,200 CUP							
Benchmark	33.5	3718	45,900 CUP	36.0	3903	51,400 CUP							
IMR 8208 XBR	33.0	3728	55,200 PSI	36.0	3925	62,900 PSI							
IMR 3031	33.0	3601	49,500 PSI	35.0	3862	62,600 PSI							
BL-C(2)	31.5	3506	43,600 CUP	34.5	3740	48,400 CUP							
H335	31.5	3519	44,400 CUP	34.5	3753	48,700 CUP							
H322	30.0	3441	46,200 CUP	32.0	3628	50,300 CUP							
Bullet: 52 GR. HDY ELD-M Dia: .224"													
Case: WIN		Primer: WIN LR				Col: 2.350"							
StaBALL 6.5	39.0	3619	48,600 PSI	42.4	3939	62,200 PSI							
H4350	39.0	3402	43,800 CUP	41.0	3557	49,400 CUP							
H380	38.0	3509	41,900 CUP	41.0	3717	46,600 CUP							
W760	37.0	3461	42,000 CUP	40.0	3692	48,900 CUP							
CFE 223	36.0	3596	47,600 PSI	39.3	3932	63,100 PSI							
StaBALL Match	34.4	3584	50,200 PSI	37.7	3873	63,000 PSI							
IMR 4064	34.5	3538	50,200 PSI	36.9C	3795	62,400 PSI							
IMR 4895	34.5	3509	48,200 PSI	37.0	3808	62,000 PSI							
Varget	34.0	3630	45,500 CUP	36.0	3784	50,000 CUP							
H4895	32.5	3467	44,400 CUP	35.5	3729	49,600 CUP							
IMR 8208 XBR	32.5	3612	52,200 PSI	35.5	3837	60,100 PSI							
Benchmark	32.5	3602	45,800 CUP	34.6	3755	49,800 CUP							
IMR 3031	32.0	3474	48,000 PSI	34.0	3768	62,500 PSI							
BL-C(2)	31.0	3461	44,600 CUP	34.0	3702	49,700 CUP							
H335	31.0	3417	43,200 CUP	33.5	3657	49,200 CUP							
H322	29.0	3379	45,500 CUP	31.0	3498	48,000 CUP							
Bullet: 53 GR. HDY HP Dia: .224"													
Case: REM		Primer: WIN LR				Col: 2.350"							
A-2700	39.0	3404	56,400 PSI	41.0	3621	59,300 PSI							
A-2520	32.0	3167	50,800 PSI	35.5	3599	56,400 PSI							
A-2460	31.5	3194	52,700 PSI	35.0	3629	58,600 PSI							
Bullet: 53 GR. SIE HP Dia: .224"													
Case: REM		Primer: WIN LR				Col: 2.350"							
Big Game	36.5	3361	54,400 PSI	40.5	3734	60,400 PSI							
A-4064	33.7	3314	57,900 PSI	37.5	3767	64,400 PSI							
Bullet: 55 GR. HDY V-MAX Dia: .224"													
Case: REM		Primer: WIN LR				Col: 2.350"							
A-4064	33.3	3236	53,600 PSI	37.0	3678	59,500 PSI							
TAC	29.7	3223	55,800 PSI	33.0	3581	62,000 PSI							
Bullet: 55 GR. NOS BT Dia: .224"													
Case: REM		Primer: WIN LR				Col: 2.350"							
Big Game	35.6	3326	56,700 PSI	39.5	3695	62,900 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads				Maximum Loads			Starting Loads				Maximum Loads			
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	
A-2520	32.4	3172	53,700 PSI	36.0	3605	59,700 PSI	Bullet: 70 GR. SPR SP Dia: .224"							
TAC	29.5	3237	53,700 PSI	32.8	3597	59,700 PSI								
Bullet: 55 GR. SPR SP Dia: .224"														
Case: WIN		Primer: WIN LR		Col: 2.350"										
StaBALL 6.5	39.0	3559	47,700 PSI	42.5	3887	62,700 PSI								
H380	38.0	3507	45,400 CUP	41.0	3713	50,700 CUP								
H4350	37.0	3296	46,400 CUP	39.0	3490	47,800 CUP								
Hybrid 100V	36.0	3254	43,500 PSI	39.0	3466	50,600 PSI								
W760	36.0	3324	40,200 CUP	39.0	3582	46,700 CUP								
CFE 223	36.0	3557	49,300 PSI	39.2	3855	63,500 PSI								
StaBALL Match	34.3	3459	48,300 PSI	37.5	3764	62,700 PSI								
Varget	34.0	3490	46,100 CUP	36.5	3664	50,400 CUP								
IMR 4064	34.0	3461	50,000 PSI	36.3	3713	62,000 PSI								
IMR 4895	34.0	3486	50,900 PSI	36.5	3725	62,400 PSI								
H4895	32.5	3446	45,000 CUP	35.5	3670	49,300 CUP								
IMR 8208 XBR	32.0	3514	52,300 PSI	35.8	3768	62,700 PSI								
IMR 3031	32.0	3474	51,300 PSI	34.1	3691	62,500 PSI								
BL-C(2)	31.0	3410	43,800 CUP	34.0	3606	49,600 CUP								
Benchmark	31.6	3532	46,200 CUP	33.6	3674	50,200 CUP								
H335	30.5	3400	44,400 CUP	33.0	3589	51,100 CUP								
H322	28.0	3339	46,200 CUP	30.0	3480	49,800 CUP								
Trail Boss	9.1	1664	17,200 PSI	13.0	1984	26,600 PSI								
Bullet: 60 GR. HDY V-MAX Dia: .224"														
Case: WIN		Primer: WIN LR		Col: 2.350"										
Suprform	39.0	3390	45,500 PSI	43.0C	3738	60,000 PSI								
H4350	39.0	3374	51,600 PSI	41.5C	3570	60,500 PSI								
H380	37.5	3335	51,000 PSI	40.5	3580	62,000 PSI								
StaBALL 6.5	37.3	3391	47,300 PSI	40.6	3715	62,400 PSI								
W760	37.0	3273	47,600 PSI	40.0	3548	60,300 PSI								
Hybrid 100V	35.0	3168	44,900 PSI	38.0C	3366	50,900 PSI								
CFE 223	35.0	3441	51,900 PSI	37.6	3688	63,800 PSI								
BL-C(2)	34.0	3276	47,100 PSI	37.0	3560	61,000 PSI								
StaBALL Match	32.9	3303	48,400 PSI	36.1	3604	63,300 PSI								
Varget	33.0	3318	52,200 PSI	35.8	3503	60,400 PSI								
H4895	32.0	3340	51,700 PSI	35.0	3551	61,300 PSI								
H335	31.5	3272	50,800 PSI	34.0	3494	61,400 PSI								
IMR 8208 XBR	31.5	3412	55,600 PSI	34.0	3550	61,000 PSI								
Benchmark	29.0	3183	49,000 PSI	32.0	3406	59,900 PSI								
H322	29.0	3222	50,900 PSI	31.5	3434	62,000 PSI								
Bullet: 63 GR. SIE SP Dia: .224"														
Case: WIN		Primer: WIN LR		Col: 2.350"										
Suprform	38.0	3294	44,600 PSI	42.7C	3674	61,400 PSI								
IMR 4350	38.0	3308	52,900 PSI	40.0C	3467	60,300 PSI								
StaBALL 6.5	37.0	3330	46,700 PSI	40.6	3669	62,300 PSI								
H4350	36.0	3210	45,400 CUP	38.0	3391	48,000 CUP								
H380	36.0	3266	46,600 CUP	38.5	3419	51,200 CUP								
Case: REM		Primer: WIN LR		Col: 2.350"										
A-2700	35.6	3199	57,800 PSI	37.5	3408	60,900 PSI								
Case: WIN		Primer: WIN LR		Col: 2.350"										
Hybrid 100V	35.0	3146	44,700 PSI	38.0C	3382	53,900 PSI								
W760	35.0	3262	43,200 CUP	38.0	3432	47,100 CUP								
CFE 223	35.0	3400	53,900 PSI	37.3	3597	64,000 PSI								
StaBALL Match	32.3	3217	48,200 PSI	35.5	3500	61,900 PSI								
IMR 4064	33.0	3269	50,800 PSI	35.3	3499	62,900 PSI								
IMR 4895	33.0	3287	51,500 PSI	35.5	3502	62,700 PSI								
H4895	31.5	3317	47,300 CUP	34.0	3486	50,400 CUP								
IMR 3031	31.0	3284	53,300 PSI	33.1	3457	62,700 PSI								
Case: REM		Primer: WIN LR		Col: 2.350"										
A-4064	31.0	2983	53,000 PSI	34.5	3390	59,000 PSI								
Case: WIN		Primer: WIN LR		Col: 2.350"										
IMR 8208 XBR	30.0	3256	52,400 PSI	33.0	3459	62,100 PSI								
Varget	29.5	3039	39,500 CUP	34.0	3426	50,400 CUP								
Bullet: 70 GR. BER FBV Dia: .224"														
Case: REM		Primer: WIN LR		Col: 2.325"										
A-2700	32.8	2934	56,000 PSI	34.5	3121	58,900 PSI								
A-4064	29.0	2833	58,100 PSI	32.2	3220	64,500 PSI								
Bullet: 70 GR. SPR SP Dia: .224"														
Case: WIN		Primer: WIN LR		Col: 2.330"										
Suprform	37.0	3206	50,500 PSI	40.8C	3499	63,700 PSI								
H1000	36.0	3042	41,100 CUP	38.0	3187	47,500 CUP								
IMR 4350	36.0	3162	54,500 PSI	38.2C	3324	62,500 PSI								
H4831	35.0	2976	42,000 CUP	38.0	3189	50,300 CUP								
StaBALL 6.5	35.0	3168	48,700 PSI	38.6	3460	62,400 PSI								
Hybrid 100V	35.0	3091	49,000 PSI	38.0C	3322	58,500 PSI								
H4350	34.0	3007	44,800 CUP	36.0	3129	49,600 CUP								
H380	33.0	3006	45,200 CUP	35.0	3161	51,500 CUP								
CFE 223	33.0	3147	52,600 PSI	35.8	3373	63,200 PSI								
W760	31.0	2860	42,000 CUP	34.0	3117	49,400 CUP								
StaBALL Match	30.8	3057	51,300 PSI	33.6	3270	62,300 PSI								
IMR 4064	31.0	3106	53,200 PSI	33.5	3298	62,600 PSI								
IMR 4895	31.0	3111	53,500 PSI	33.3	3278	62,300 PSI								
Varget	29.5	3006	44,700 CUP	32.0	3196	50,300 CUP								
IMR 3031	29.0	3068	53,600 PSI	31.5	3248	63,600 PSI								
H4895	28.0	2933	43,000 CUP	31.5	3196	50,700 CUP								
IMR 8208 XBR	28.0	3015	49,800 PSI	31.0	3246	61,600 PSI								
220 SWIFT														
Barrel: 24"		Twist: 1:14"		Trim: 2.195"										
Bullet: 35 GR. NOS LF Dia: .224"														
Case: WIN		Primer: WIN LR		Col: 2.680"										
W760	41.4	4011	43,600 CUP	45.0	4304	51,800 CUP								
H380	41.2	3988	41,200 CUP	44.8	4226	47,700 CUP								
Varget	38.5	4035	43,500 CUP	41.0	4251	51,100 CUP								
IMR 4895	38.3	3987	47,000 CUP	40.7	4222	52,100 CUP								
IMR 4064	37.8	3955	42,800 CUP	40.2	4238	51,300 CUP								
H4895	37.6	4171	47,400 CUP	40.0	4401	52,300 CUP								
IMR 3031	36.2	4019	45,200 CUP	38.5	4248	51,300 CUP								
Bullet: 40 GR. SIE HP Dia: .224"														
Case: WIN		Primer: WIN LR		Col: 2.680"										
W760	42.5	3928	45,500 CUP	46.0	4213	51,600 CUP								
H380	40.5	3867	44,400 CUP	44.0	4124	50,000 CUP								
StaBALL Match	37.5	3803	43,000 CUP	40.8	4126	53,700 CUP								
Varget	38.0	4007	49,800 CUP	40.5	4113	49,800 CUP								
H335	37.0	3923	44,400 CUP	40.0	4158	53,100 CUP								
H4895	37.0	3768	41,400 CUP	40.0	4126	52,000 CUP								
IMR 4064	36.0	3777	44,700 CUP	40.0	4110	51,400 CUP								
IMR 4895	36.0	3743	42,500 CUP	40.5	4093	51,300 CUP								
IMR 3031	35.0	3904	48,100 CUP	38.5	4189	52,000 CUP								
Bullet: 45 GR. HDY SP Dia: .224"														
Case: WIN		Primer: WIN LR		Col: 2.680"										
W760	41.5	3849	48,700 CUP	45.0	4100	51,700 CUP								
H380	40.5	3784	42,000 CUP	44.0	4041	52,400 CUP								
H4895	36.5	3676	38,400 CUP	39.5	3996	52,100 CUP								
Varget	36.0	3777	47,100 CUP	40.2	4002	52,100 CUP								
StaBALL Match	35.0	3551	42,100 CUP	38.2	3915	53,300 CUP								
Bullet: 50 GR. HDY SP Dia: .224"														
Case: WIN		Primer: WIN LR		Col: 2.680"										
W760	40.5	3663	45,900 CUP	44.0	3826	49,600 CUP								
H380	40.0	3668	41,400 CUP	43.5	3947	53,800 CUP								
IMR 4064	35.0	3640	46,900 CUP	38.4	3905	53,000 CUP								
BL-C(2)	35.0	3431	40,200 CUP	38.0	3888	51,000 CUP								
IMR 4895	35.0	3661	48,700 CUP	38.7	3868	52,900 CUP								
H4895	35.0	3460	39,000 CUP	38.0	3840	51,200 CUP								
StaBALL Match	34.4	3485	44,300 CUP	37.4	3728	53,300 CUP								
Varget	34.5	3616	47,200 CUP	36.0	3770	50,200 CUP								
IMR 3031	33.0	3681	48,600 CUP	36.5	3877	53,100 CUP								
Bullet: 50 GR. HDY V-MAX Dia: .224"														
Case: WIN		Primer: FED 210 LR		Col: 2.680"										
A-2700	42.8	3793	59,400 PSI	45.0	4035	62,500 PSI								
Big Game	37.0	3500	54,100 PSI	41.0	3800	60,000 PSI								
Bullet: 52 GR. SIE HPBT Dia: .224"														
Case: WIN		Primer: WIN LR		Col: 2.680"										
W760	39.5	3596	43,100 CUP	42.0	3792	49,900 CUP								

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		
H380	39.0	3632	47,100 CUP	41.5	3792	51,400 CUP	StaBALL Match	33.4	3197	45,800 CUP	36.3	3386	53,500 CUP		
BL-C(2)	35.7	3546	44,200 CUP	38.0	3801	51,200 CUP	H4895	32.5	3218	40,800 CUP	35.5	3484	51,000 CUP		
StaBALL Match	34.4	3391	42,700 CUP	37.4	3713	53,200 CUP	Varget	32.0	3181	42,200 CUP	34.0	3407	49,300 CUP		
Varget	34.0	3516	42,700 CUP	36.5	3687	50,300 CUP	Bullet: 70 GR. SPR SP Dia: .224"								
H4895	33.8	3588	45,100 CUP	36.0	3736	50,000 CUP	Case: WIN		Primer: WIN LR			Col: 2.680"			
Bullet: 55 GR. HDY SP Dia: .224"															
Case: WIN		Primer: WIN LR				Col: 2.680"	H1000	42.0	3149	43,800 CUP	44.0	3317	50,200 CUP		
H4831	41.5	3194	36,600 CUP	46.0	3616	46,600 CUP	Suprform	37.3	3209	45,400 CUP	40.8	3428	52,700 CUP		
W760	40.5	3536	47,300 CUP	44.0	3833	53,700 CUP	H4831	37.0	2991	45,800 CUP	42.0	3359	52,600 CUP		
H4350	39.0	3225	42,000 CUP	42.0	3619	50,800 CUP	Hybrid 100V	37.0	3188	44,800 CUP	40.0C	3397	51,800 CUP		
H380	39.0	3580	45,900 CUP	42.5	3839	53,300 CUP	H4350	36.0	3027	45,200 CUP	38.0	3313	51,200 CUP		
StaBALL 6.5	38.5	3492	44,000 CUP	42.3	3716	52,900 CUP	StaBALL 6.5	35.9	3088	44,200 CUP	39.3	3359	52,400 CUP		
Hybrid 100V	38.0	3358	44,700 CUP	42.0C	3627	52,600 CUP	W760	34.0	2955	44,200 CUP	37.0	3148	50,300 CUP		
StaBALL Match	34.4	3379	43,800 CUP	37.4	3657	53,600 CUP	Varget	31.0	3103	46,500 CUP	33.0	3247	49,900 CUP		
Varget	34.0	3516	47,000 CUP	36.0	3645	51,900 CUP	22 CREEDMOOR								
IMR 4064	34.0	3498	46,100 CUP	37.5	3742	52,500 CUP	Barrel: 24"	Twist: 1:7"	Trim: 1.910"						
BL-C(2)	34.0	3426	44,400 CUP	36.0	3682	49,900 CUP	Bullet: 62 GR. SFT SCIR Dia: .224"								
IMR 4895	34.0	3546	48,500 CUP	38.0	3739	53,000 CUP	Case: Alpha		Primer: WIN LR			Col: 2.570"			
H4895	34.0	3481	45,900 CUP	37.0	3698	52,000 CUP	MagPro	44.5	3238	47,900 PSI	48.4	3543	60,500 PSI		
IMR 3031	32.0	3490	47,300 CUP	35.2	3687	52,700 CUP	H4831	41.0	3315	50,100 PSI	44.6C	3551	60,500 PSI		
Bullet: 55 GR. NOS BT Dia: .224"															
Case: WIN		Primer: FED 210 LR				Col: 2.680"	IMR 7828SSC	40.7	3246	48,100 PSI	44.3	3552	61,700 PSI		
Hunter	40.0	3432	55,300 PSI	44.4	3813	61,400 PSI	Suprform	40.5	3350	47,600 PSI	44.2	3656	60,900 PSI		
A-2700	41.3	3602	54,100 PSI	43.5	3832	57,000 PSI	Hunter	40.0	3291	51,600 PSI	43.6	3545	61,100 PSI		
Bullet: 55 GR. SIE BK Dia: .224"															
Case: WIN		Primer: FED 210 LR				Col: 2.680"	IMR 4831	39.0	3267	49,800 PSI	42.6	3553	60,900 PSI		
Big Game	36.0	3450	54,000 PSI	40.0	3600	60,000 PSI	Bullet: 69 GR. SIE HPBT Dia: .224"								
A-4064	33.3	3138	55,400 PSI	37.0	3566	61,600 PSI	Case: Alpha		Primer: WIN LR			Col: 2.570"			
Bullet: 60 GR. HDY V-MAX Dia: .224"															
Case: WIN		Primer: FED 210 LR				Col: 2.680"	MagPro	44.5	3149	47,100 PSI	48.4	3441	61,100 PSI		
A-2700	39.9	3391	56,700 PSI	42.0	3607	59,700 PSI	IMR 7828SSC	41.0	3159	47,500 PSI	44.6	3445	61,100 PSI		
Hunter	36.9	3150	55,200 PSI	41.0	3495	61,400 PSI	H4831	41.0	3211	48,700 PSI	44.6	3444	60,700 PSI		
Big Game	34.0	3200	54,600 PSI	38.0	3450	61,000 PSI	Suprform	40.4	3269	48,200 PSI	44.0	3540	61,000 PSI		
Bullet: 60 GR. NOS PART Dia: .224"															
Case: WIN		Primer: WIN LR				Col: 2.680"	IMR 4831	39.3	3155	47,700 PSI	42.8	3421	60,500 PSI		
H4831	41.5	3252	41,600 CUP	46.0C	3556	51,800 CUP	Hunter	38.4	3132	47,200 PSI	41.8	3406	60,800 PSI		
W760	38.5	3425	43,900 CUP	41.7	3647	51,400 CUP	Bullet: 70 GR. BARTAC X-BT Dia: .224"								
StaBALL 6.5	37.7	3366	45,500 CUP	41.5	3602	52,900 CUP	Case: Alpha		Primer: WIN LR			Col: 2.570"			
Hybrid 100V	37.5	3287	44,800 CUP	41.0C	3550	50,900 CUP	Magnum	44.1	3187	47,600 PSI	48.0C	3435	58,300 PSI		
H4350	37.0	3230	39,800 CUP	41.0	3527	50,600 CUP	Grand	43.0	3145	43,900 PSI	47.0C	3412	53,500 PSI		
H380	35.0	3188	44,400 CUP	38.0	3413	51,900 CUP	H1000	41.3	3130	48,700 PSI	44.8C	3395	60,800 PSI		
StaBALL Match	33.8	3268	46,500 CUP	36.8	3501	53,800 CUP	MagPro	43.0	3116	48,700 PSI	46.8	3411	61,900 PSI		
Varget	33.0	3242	40,000 CUP	36.0	3473	49,000 CUP	H4831	39.0	3131	49,900 PSI	42.6	3375	60,600 PSI		
IMR 4064	33.0	3322	46,600 CUP	36.0	3539	51,800 CUP	IMR 7828SSC	39.1	3134	50,200 PSI	42.5	3361	60,800 PSI		
IMR 4895	33.0	3270	44,100 CUP	36.0	3520	53,100 CUP	Suprform	39.0	3232	51,700 PSI	42.4	3451	61,300 PSI		
H4895	30.5	3165	39,200 CUP	33.5	3401	49,600 CUP	Hunter	38.5	3174	50,700 PSI	41.8	3398	61,500 PSI		
Bullet: 62 GR. BARTAC-X BT Dia: .224"															
Case: WIN		Primer: WIN LR				Col: 2.680"	IMR 4831	37.5	3118	50,000 PSI	40.8	3369	60,800 PSI		
StaBALL 6.5	38.0	3322	45,400 CUP	41.8	3609	53,000 CUP	Bullet: 73 GR. HDY ELD-M Dia: .224"								
Hybrid 100V	37.8	3254	42,200 CUP	42.0	3539	51,800 CUP	Case: Alpha		Primer: WIN LR			Col: 2.570"			
H4350	37.2	3177	43,500 CUP	40.5C	3389	52,400 CUP	Magnum	44.2	3061	40,300 PSI	48.0C	3348	53,200 PSI		
W760	37.2	3181	42,900 CUP	40.4	3394	51,200 CUP	StaBALL HD	43.5	2933	42,700 PSI	47.9C	3309	57,900 PSI		
H380	36.7	3160	45,900 CUP	39.0	3338	51,700 CUP	MagPro	43.6	3091	45,800 PSI	47.4	3385	61,000 PSI		
StaBALL Match	33.7	3216	45,600 CUP	36.7	3460	53,700 CUP	Grand	43.2	3070	43,200 PSI	47.5C	3415	57,800 PSI		
IMR 4895	33.4	3217	46,300 CUP	35.5	3360	50,600 CUP	H1000	41.8	3049	42,100 PSI	45.5C	3332	56,000 PSI		
IMR 4064	33.2	3236	45,300 CUP	35.3	3369	50,000 CUP	IMR 7828SSC	40.5	3105	46,200 PSI	44.0	3389	60,100 PSI		
Varget	32.3	3161	44,100 CUP	34.3	3315	50,400 CUP	H4831	40.1	3145	47,600 PSI	43.6	3398	61,200 PSI		
H4895	31.7	3121	45,700 CUP	33.7	3364	51,400 CUP	Suprform	40.0	3225	48,300 PSI	43.5	3484	61,300 PSI		
Bullet: 63 GR. SIE SP Dia: .224"															
Case: WIN		Primer: WIN LR				Col: 2.680"	Hunter	39.0	3133	47,300 PSI	42.4	3409	61,800 PSI		
H4831	41.5	3180	37,200 CUP	46.0	3586	52,000 CUP	IMR 4831	38.8	3106	48,000 PSI	42.2	3382	62,300 PSI		
W760	38.5	3339	44,400 CUP	42.0	3595	52,100 CUP	Bullet: 77 GR. SIE HPBT Dia: .224"								
Suprform	38.4	3360	45,300 CUP	42.0	3583	52,500 CUP	Case: Alpha		Primer: WIN LR			Col: 2.570"			
StaBALL 6.5	38.2	3305	43,400 CUP	42.0	3611	53,200 CUP	StaBALL HD	43.2	2972	47,300 PSI	47.3C	3282	60,800 PSI		
H380	38.0	3405	45,900 CUP	41.0	3580	51,900 CUP	Magnum	42.6	2970	44,600 PSI	46.4	3219	54,600 PSI		
Hybrid 100V	37.5	3269	42,700 CUP	41.0C	3517	51,200 CUP	MagPro	42.5	2979	47,400 PSI	46.2	3264	59,900 PSI		
H4350	37.0	3181	46,000 CUP	39.0	3474	52,000 CUP	Retumbo	42.3	2956	45,900 PSI	46.0C	3260	60,800 PSI		
									Grand	43.0	3099	48,200 PSI	47.2C	3350	57,900 PSI
									H1000	41.0	2998	47,800 PSI	44.6	3271	60,900 PSI
									IMR 7828SSC	38.6	2990	49,400 PSI	42.0	3215	60,800 PSI
									Suprform	38.3	3100	51,100 PSI	41.7	3320	61,000 PSI
									H4831	37.9	3011	49,200 PSI	41.2	3230	60,600 PSI
									Hunter	37.1	2997	49,700 PSI	40.4	3225	61,900 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
IMR 4831	36.8	2991	50,400 PSI	40.0	3226	60,600 PSI	Varget	23.0	2296	38,600 PSI	25.7C	2541	51,900 PSI
Bullet: 85.5 GR. BER LRHT Dia: .224"							6MM DASHER						
Case: Alpha Primer: WIN LR Col: 2.700"							Barrel: 30" Twist: 1:8" Trim: 1.540"						
StaBALL HD	42.8	2840	45,600 PSI	46.8C	3160	60,700 PSI	Bullet: 58 GR. HDY V-MAX Dia: .243"						
Magnum	41.9	2901	48,300 PSI	45.6	3174	60,600 PSI	Case: Lapua (ref) Primer: CCI BR4, SR Match Col: 2.180"						
Retumbo	40.7	2810	45,800 PSI	44.3C	3110	60,200 PSI	CFE 223	38.3	3673	44,000 CUP	40.7	3897	51,300 CUP
MagPro	40.1	2856	48,100 PSI	43.6	3101	59,100 PSI	Varget	36.4	3668	45,000 CUP	38.7C	3844	51,000 CUP
Grand	41.5	2934	44,400 PSI	46.0C	3232	57,400 PSI	H4895	35.1	3682	42,700 CUP	37.0C	3866	48,000 CUP
H1000	39.0	2900	51,900 PSI	42.5	3117	61,800 PSI	IMR 4895	34.5	3434	41,400 CUP	37.5C	3785	51,800 CUP
IMR 7828SSC	36.9	2872	51,100 PSI	40.2	3103	61,800 PSI	IMR 8208 XBR	33.5	3508	41,200 CUP	36.3	3819	50,800 CUP
H4831	36.6	2924	52,600 PSI	39.8	3118	61,600 PSI	Benchmark	33.0	3546	43,300 CUP	36.3	3847	52,000 CUP
Suprform	36.0	2940	52,300 PSI	39.3	3134	60,700 PSI	Bullet: 70 GR. NOS BT Dia: .243"						
IMR 4831	35.2	2896	52,600 PSI	38.4	3087	60,600 PSI	Case: Lapua (ref) Primer: CCI BR4, SR Match Col: 2.180"						
Hunter	35.2	2834	50,400 PSI	38.3	3046	60,800 PSI	CFE 223	36.0	3333	40,900 CUP	38.8	3633	51,200 CUP
Bullet: 90 GR. HDY A-TIP Dia: .224"							Varget	35.1	3449	43,500 CUP	37.4	3646	51,500 CUP
Case: Alpha Primer: WIN LR Col: 2.700"							IMR 4895	33.8	3334	43,300 CUP	36.4C	3611	52,400 CUP
Magnum	42.5	2833	48,000 PSI	46.2C	3107	59,900 PSI	H4895	33.7	3457	44,300 CUP	36.3C	3693	51,800 CUP
StaBALL HD	42.0	2819	46,700 PSI	46.0	3116	61,400 PSI	IMR 8208 XBR	33.6	3430	44,200 CUP	35.8C	3643	51,400 CUP
Retumbo	42.1	2840	49,600 PSI	45.0C	3058	60,300 PSI	Bullet: 90 GR. SFT SCIR Dia: .243"						
MagPro	40.3	2759	47,300 PSI	43.9C	3041	60,000 PSI	Case: Lapua (ref) Primer: CCI BR4, SR Match Col: 2.280"						
Grand	41.7	2893	46,000 PSI	45.8	3177	59,100 PSI	H4350	35.2	2990	42,200 CUP	38.3C	3220	51,600 CUP
H1000	39.5	2804	48,800 PSI	43.0	3049	60,400 PSI	CFE 223	31.6	2931	43,200 CUP	35.6	3209	51,500 CUP
IMR 7828SSC	37.5	2818	48,900 PSI	40.8	3071	61,600 PSI	IMR 4895	31.3	2991	42,800 CUP	34.0C	3229	52,300 CUP
H4831	36.8	2840	51,100 PSI	40.0	3048	61,500 PSI	IMR 4064	31.0	2933	42,500 CUP	34.1	3199	52,100 CUP
Suprform	35.8	2789	48,000 PSI	39.0	3042	60,500 PSI	Varget	30.7	2943	43,900 CUP	33.8	3208	52,200 CUP
IMR 4831	34.7	2774	50,400 PSI	38.0	2987	60,000 PSI	H4895	30.3	2971	42,300 CUP	32.9C	3182	51,800 CUP
Hunter	34.9	2712	48,400 PSI	38.0	2961	60,600 PSI	IMR 8208 XBR	29.9	2933	43,100 CUP	32.5	3149	52,400 CUP
6 MM ARC							Bullet: 100 GR. SPR BTSP Dia: .243"						
Barrel: 24" Twist: 1:7.5" Trim: 1.480"							Case: Lapua (ref) Primer: CCI BR4, SR Match Col: 2.360"						
Bullet: 100 GR. NOS PART Dia: .243"							H4350	33.4	2836	41,600 CUP	36.8C	3086	51,700 CUP
Case: Hornady Primer: FED 205M, SR Match Col: 2.150"							StaBALL 6.5	33.3	2724	40,800 CUP	37.0	3004	51,600 CUP
W760	26.5	2414	39,600 PSI	29.5C	2657	51,200 PSI	CFE 223	30.7	2860	44,800 CUP	33.4	3011	51,900 CUP
CFE 223	25.7	2498	39,400 PSI	28.6	2758	51,600 PSI	IMR 4064	30.5	2852	43,100 CUP	33.6	3088	52,600 CUP
LVR	25.5	2535	41,600 PSI	28.4C	2750	51,700 PSI	Varget	29.5	2820	43,300 CUP	32.5	3023	52,000 CUP
BL-C(2)	25.3	2423	40,100 PSI	28.2	2671	51,600 PSI	IMR 8208 XBR	27.9	2756	42,000 CUP	30.4	2928	51,400 CUP
StaBALL Match	25.3	2438	41,600 PSI	27.6	2637	51,800 PSI	Bullet: 107 GR. SIE HPBT Dia: .243"						
W748	24.7	2475	40,800 PSI	27.5	2698	51,700 PSI	Case: Lapua (ref) Primer: CCI BR4, SR Match Col: 2.360"						
Bullet: 103 GR. VPRTRL VTAC Dia: .243"							H4350	33.4	2792	44,600 CUP	35.2C	2917	48,800 CUP
Case: Hornady Primer: FED 205M, SR Match Col: 2.260"							StaBALL 6.5	33.2	2644	40,600 CUP	36.9	2943	52,300 CUP
StaBALL 6.5	27.6	2324	36,300 PSI	30.7C	2611	49,800 PSI	IMR 4064	29.8	2746	42,300 CUP	32.8C	2978	52,200 CUP
W760	26.6	2387	36,800 PSI	29.5C	2656	50,100 PSI	CFE 223	29.4	2706	43,700 CUP	33.1	2926	51,400 CUP
CFE 223	26.0	2465	37,600 PSI	28.9	2727	50,600 PSI	Varget	29.2	2726	42,900 CUP	31.8	2916	51,900 CUP
LVR	25.6	2471	38,800 PSI	28.5	2712	51,100 PSI	IMR 8208 XBR	27.4	2647	41,700 CUP	30.2	2836	51,500 CUP
BL-C(2)	25.5	2395	37,600 PSI	28.4	2654	50,900 PSI	6 GT						
W748	25.1	2422	37,900 PSI	27.9	2674	50,500 PSI	Barrel: 24" Twist: 1:7.7" Trim: 1.720"						
StaBALL Match	25.3	2400	39,500 PSI	27.6	2609	51,500 PSI	Bullet: 95 GR. SIE TMK Dia: .243"						
Varget	23.5	2369	39,700 PSI	26.2	2608	51,800 PSI	Case: Alpha Primer: WIN SR Col: 2.480"						
Bullet: 107 GR. SIE HPBT Dia: .243"							Suprform	38.6	2874	43,800 PSI	42.9	3248	62,000 PSI
Case: Hornady Primer: FED 205M, SR Match Col: 2.260"							Hunter	37.9	2887	46,500 PSI	42.1	3205	62,000 PSI
StaBALL 6.5	27.2	2258	34,400 PSI	30.3C	2557	50,300 PSI	A-2700	37.6	2901	46,400 PSI	41.8	3217	62,100 PSI
W760	26.5	2352	38,100 PSI	29.4C	2610	51,100 PSI	StaBALL 6.5	37.6	2811	41,100 PSI	41.8	3240	62,300 PSI
CFE 223	25.8	2450	40,300 PSI	28.8	2687	51,400 PSI	Big Game	35.6	2872	49,100 PSI	39.5	3158	62,500 PSI
LVR	25.4	2400	37,700 PSI	28.2	2669	51,800 PSI	StaBALL Match	31.0	2773	47,000 PSI	37.5	3143	62,200 PSI
BL-C(2)	24.9	2358	41,200 PSI	27.7	2576	51,500 PSI	A-2520	33.4	2869	46,600 PSI	37.1	3154	62,000 PSI
W748	24.7	2398	40,400 PSI	27.4	2623	51,500 PSI	A-4064	33.3	2766	46,200 PSI	37.0	3071	62,400 PSI
StaBALL Match	24.8	2347	42,200 PSI	27.0	2538	51,500 PSI	A-2495	32.7	2793	48,500 PSI	36.3	3091	62,500 PSI
Varget	23.2	2325	40,900 PSI	25.8C	2541	51,600 PSI	Bullet: 100 GR. SIE SBT Dia: .243"						
Bullet: 110 GR. HDY A-TIP Dia: .243"							Case: Alpha Primer: WIN SR Col: 2.390"						
Case: Hornady Primer: FED 205M, SR Match Col: 2.260"							Suprform	37.6	2838	45,900 PSI	41.8	3165	61,800 PSI
StaBALL 6.5	27.0	2238	34,900 PSI	30.0C	2555	50,400 PSI	StaBALL 6.5	36.2	2740	42,100 PSI	40.9	3125	61,800 PSI
W760	26.4	2336	37,900 PSI	29.3C	2590	50,400 PSI	Hunter	36.8	2790	47,600 PSI	40.9	3095	62,000 PSI
LVR	25.4	2410	38,600 PSI	28.2C	2660	51,200 PSI	A-2700	36.3	2856	48,500 PSI	40.4	3118	60,800 PSI
CFE 223	25.3	2397	38,200 PSI	28.2	2649	50,500 PSI	H4350	34.8	2726	45,100 PSI	38.7	3044	61,800 PSI
StaBALL Match	25.7	2396	42,300 PSI	28.0	2564	51,800 PSI	Hybrid 100V	34.5	2740	44,600 PSI	38.4C	3029	58,700 PSI
BL-C(2)	24.8	2329	38,800 PSI	27.5	2568	50,300 PSI	Big Game	34.1	2735	48,900 PSI	37.9	3004	62,100 PSI
W748	24.4	2357	37,800 PSI	27.1	2604	50,000 PSI	NEVER EXCEED MAXIMUM LOADS						

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads					
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	
CFE 223	32.3	2658	43,200 PSI	35.9	3010	61,200 PSI	6X47MM LAPUA							
A-2520	32.0	2765	48,800 PSI	35.6	3030	62,500 PSI	Barrel: 30" Twist: 1:8" Trim: 1.840"							
StaBALL Match	29.8	2626	45,500 PSI	35.4	2988	62,400 PSI	Bullet: 55 GR. NOS BT Dia: .243"							
A-4064	31.6	2678	47,100 PSI	35.1	2954	62,200 PSI	Case: Lapua (ref)			Primer: FED 205M, SR Match			Col: 2.440"	
IMR 4064	31.4	2722	46,100 PSI	34.9	3019	61,800 PSI	Varget	39.9	3760	44,400 CUP	41.8C	3979	51,600 CUP	
A-2495	31.4	2687	49,200 PSI	34.9	2958	62,000 PSI	CFE 223	39.7	3741	43,100 CUP	43.7	4040	51,600 CUP	
Varget	30.9	2753	49,900 PSI	34.3	2992	62,500 PSI	IMR 4064	38.1	3587	43,700 CUP	40.4C	3832	51,100 CUP	
Bullet: 103 GR. VPRTRL VTAC Dia: .243"							H4895	36.9	3678	44,400 CUP	40.6	4064	52,100 CUP	
Case: Alpha			Primer: WIN SR			Col: 2.500"		IMR 8208 XBR	36.6	3676	43,300 CUP	39.8	3996	52,300 CUP
Suprform	39.2	2883	44,300 PSI	43.6	3213	61,400 PSI	IMR 4895	36.5	3461	43,100 CUP	40.2	3895	52,300 CUP	
StaBALL 6.5	39.0	2889	43,300 PSI	42.8	3223	62,000 PSI	Bullet: 70 GR. NOS BT Dia: .243"							
Hybrid 100V	38.0	2958	47,800 PSI	40.0	3119	56,400 PSI	Case: Lapua (ref)			Primer: FED 205M, SR Match			Col: 2.540"	
H4350	37.0	2830	43,600 PSI	41.2C	3153	62,000 PSI	H4350	40.0	3274	43,300 CUP	43.7C	3583	51,100 CUP	
CFE 223	34.0	2875	51,500 PSI	38.5	3130	62,500 PSI	CFE 223	37.0	3372	42,700 CUP	41.1	3684	51,900 CUP	
Varget	32.7	2816	47,000 PSI	36.6	3081	62,500 PSI	Varget	35.8	3345	43,700 CUP	39.4	3639	52,000 CUP	
IMR 4064	32.6	2765	43,400 PSI	36.5C	3100	62,200 PSI	IMR 4064	35.3	3442	44,600 CUP	38.9	3591	52,300 CUP	
StaBALL Match	30.0	2604	45,100 PSI	35.5	2948	62,300 PSI	H4895	35.0	3400	45,100 CUP	38.5	3684	52,300 CUP	
Bullet: 107 GR. SIE HPBT Dia: .243"							IMR 4895	34.8	3272	45,000 CUP	38.3	3584	52,500 CUP	
Case: Alpha			Primer: WIN SR			Col: 2.530"		IMR 8208 XBR	34.1	3283	44,600 CUP	37.5	3600	51,900 CUP
Suprform	37.1	2765	45,400 PSI	41.2	3078	61,700 PSI	Bullet: 75 GR. HDY V-MAX Dia: .243"							
StaBALL 6.5	36.4	2728	44,500 PSI	40.5	3062	62,200 PSI	Case: Lapua (ref)			Primer: FED 205M, SR Match			Col: 2.505"	
Hunter	35.4	2691	47,600 PSI	39.3	2957	62,500 PSI	H4350	38.5	3186	43,200 CUP	42.4	3468	52,300 CUP	
A-2700	34.7	2751	50,700 PSI	38.6	2970	62,500 PSI	CFE 223	36.3	3337	45,900 CUP	40.0	3612	51,800 CUP	
Hybrid 100V	34.5	2700	45,600 PSI	38.4C	3007	61,200 PSI	Varget	34.5	3246	43,500 CUP	38.0	3510	52,100 CUP	
H4350	34.1	2668	45,400 PSI	38.1	2966	61,500 PSI	IMR 4064	34.0	3169	44,600 CUP	37.5	3458	52,300 CUP	
Big Game	33.3	2642	47,400 PSI	37.0	2904	62,100 PSI	H4895	33.6	3265	45,100 CUP	37.0	3531	52,400 CUP	
CFE 223	31.6	2691	50,100 PSI	35.5	2949	62,300 PSI	IMR 8208 XBR	33.4	3266	44,200 CUP	36.3	3502	52,000 CUP	
A-2520	31.3	2662	48,000 PSI	34.7	2910	62,000 PSI	IMR 4895	33.2	3158	44,200 CUP	36.5	3427	52,500 CUP	
StaBALL Match	29.8	2618	49,800 PSI	34.4	2843	62,300 PSI	Bullet: 80 GR. BARTTSX BT Dia: .243"							
IMR 4064	30.8	2664	46,800 PSI	34.2	2927	61,400 PSI	Case: Lapua (ref)			Primer: FED 205M, SR Match			Col: 2.530"	
A-4064	30.8	2598	48,600 PSI	34.2	2850	62,500 PSI	H4350	38.2	3111	42,900 CUP	41.9C	3389	51,700 CUP	
Varget	30.6	2679	48,200 PSI	34.0	2909	61,800 PSI	CFE 223	35.0	3186	46,000 CUP	38.8	3461	52,500 CUP	
A-2495	30.3	2590	48,700 PSI	33.6	2838	62,500 PSI	Varget	33.0	3117	43,300 CUP	36.3	3342	52,300 CUP	
Bullet: 108 GR. HDY ELD-M Dia: .243"							IMR 4064	32.5	3022	44,600 CUP	36.1	3307	52,200 CUP	
Case: Alpha			Primer: WIN SR			Col: 2.500"		H4895	32.3	3132	44,800 CUP	35.8	3401	52,600 CUP
Suprform	37.0	2770	45,700 PSI	41.2	3097	61,500 PSI	IMR 8208 XBR	32.3	3118	45,500 CUP	35.1	3341	52,000 CUP	
StaBALL 6.5	36.4	2740	44,900 PSI	40.4	3078	62,200 PSI	IMR 4895	32.1	3034	45,300 CUP	35.3	3279	52,100 CUP	
Hunter	36.1	2717	47,800 PSI	40.2	3006	62,400 PSI	Bullet: 85 GR. HDY IB Dia: .243"							
A-2700	35.0	2751	49,200 PSI	38.9	2988	61,000 PSI	Case: Lapua (ref)			Primer: FED 205M, SR Match			Col: 2.515"	
Hybrid 100V	34.5	2741	47,700 PSI	38.4C	3038	62,200 PSI	H4350	38.0	3069	44,000 CUP	41.9	3369	52,400 CUP	
H4350	34.3	2702	47,200 PSI	38.1	2973	61,900 PSI	CFE 223	35.5	3170	45,200 CUP	39.3	3426	52,500 CUP	
Big Game	33.4	2657	48,000 PSI	37.1	2931	61,800 PSI	Varget	33.5	3096	45,900 CUP	36.8	3307	52,300 CUP	
StaBALL Match	29.7	2604	45,900 PSI	34.8	2911	62,100 PSI	IMR 4064	33.0	2999	43,300 CUP	36.2	3265	52,400 CUP	
CFE 223	31.0	2586	44,800 PSI	34.4	2910	61,300 PSI	H4895	32.8	3087	44,600 CUP	36.0	3319	51,700 CUP	
A-4064	30.8	2599	48,500 PSI	34.2	2862	62,200 PSI	IMR 8208 XBR	32.3	3087	44,200 CUP	35.6	3320	52,400 CUP	
A-2520	30.6	2659	47,700 PSI	34.0	2910	62,000 PSI	Bullet: 90 GR. NOS E-TIP Dia: .243"							
A-2495	30.4	2582	48,200 PSI	33.7	2842	62,200 PSI	Case: Lapua (ref)			Primer: FED 205M, SR Match			Col: 2.515"	
IMR 4064	30.1	2617	45,700 PSI	33.5	2903	61,700 PSI	H4350	36.8	2978	45,900 CUP	40.5	3225	52,200 CUP	
Varget	29.8	2646	47,400 PSI	33.1	2892	61,200 PSI	StaBALL 6.5	36.7	2826	44,800 CUP	40.4	3124	52,300 CUP	
Bullet: 110 GR. HDY A-TIP Dia: .243"							CFE 223	34.3	3023	46,100 CUP	38.4	3300	52,500 CUP	
Case: Alpha			Primer: WIN SR			Col: 2.600"		Varget	32.5	2957	44,200 CUP	35.9	3195	52,300 CUP
Suprform	37.1	2725	43,100 PSI	41.3	3075	62,100 PSI	IMR 4064	31.9	2878	43,900 CUP	35.1	3126	51,800 CUP	
StaBALL 6.5	36.4	2686	42,400 PSI	40.5	3040	61,900 PSI	H4895	31.3	2931	45,300 CUP	34.4	3136	51,900 CUP	
Hunter	35.5	2664	49,800 PSI	39.5	2925	62,200 PSI	Bullet: 100 GR. SIE SBT Dia: .243"							
Hybrid 100V	34.7	2676	44,100 PSI	38.6C	3002	59,700 PSI	Case: Lapua (ref)			Primer: FED 205M, SR Match			Col: 2.500"	
H4350	34.5	2654	43,500 PSI	38.5	2958	62,200 PSI	H4831	38.7	2828	47,200 CUP	42.6C	3042	52,400 CUP	
A-2700	33.9	2699	52,600 PSI	37.7	2908	62,500 PSI	Hybrid 100V	36.2	2844	46,600 CUP	39.8	3113	52,100 CUP	
Big Game	32.9	2612	50,300 PSI	36.6	2850	62,000 PSI	H4350	36.0	2876	45,300 CUP	39.5	3102	52,500 CUP	
CFE 223	31.7	2537	41,000 PSI	35.6	2911	62,400 PSI	StaBALL 6.5	35.9	2798	43,000 CUP	39.5	3019	51,400 CUP	
StaBALL Match	30.0	2553	48,100 PSI	35.0	2850	62,400 PSI	CFE 223	32.8	2860	44,200 CUP	36.5	3139	52,200 CUP	
A-2520	30.9	2632	49,400 PSI	34.3	2857	61,900 PSI	Varget	31.2	2786	46,200 CUP	34.3	2996	52,300 CUP	
Varget	30.8	2634	47,000 PSI	34.2	2880	62,200 PSI	IMR 4064	30.8	2761	46,000 CUP	33.9	2960	51,200 CUP	
IMR 4064	30.6	2631	45,600 PSI	34.0	2895	61,600 PSI	Bullet: 105 GR. LAP SCENAR Dia: .243"							
A-4064	30.4	2553	49,700 PSI	33.8	2803	62,500 PSI	Case: Lapua (ref)			Primer: FED 205M, SR Match			Col: 2.635"	
A-2495	30.2	2562	50,500 PSI	33.6	2794	62,500 PSI	H4831	37.3	2717	46,100 CUP	41.0	2959	52,300 CUP	
							StaBALL 6.5	36.2	2806	46,000 CUP	39.8	3016	52,400 CUP	

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
H4350	34.9	2789	44,200 CUP	38.4	3034	52,700 CUP	IMR 4064	39.4	3328	44,900 PSI	42.8	3670	60,300 PSI
Hybrid 100V	34.3	2732	45,300 CUP	37.7	2951	51,800 CUP	StaBALL Match	39.0	3286	47,000 PSI	42.6	3594	60,600 PSI
CFE 223	32.5	2770	46,000 CUP	35.2	2979	51,900 CUP	H4895	38.0	3429	49,600 PSI	41.3	3652	60,200 PSI
IMR 4064	30.5	2697	46,800 CUP	33.7	2908	51,900 CUP	IMR 8208 XBR	37.9	3450	51,700 PSI	41.0	3628	59,100 PSI
Varget	29.9	2646	46,600 CUP	33.2	2882	51,900 CUP	Bullet: 80 GR. HDY GMX Dia: .243"						
Bullet: 108 GR. BER TGT BT Dia: .243"							Case: Hornady Primer: WIN LR Col: 2.540"						
H4831	37.5	2676	46,200 CUP	41.3	2933	52,300 CUP	H4831	44.0	3106	50,300 PSI	47.2C	3285	58,300 PSI
StaBALL 6.5	35.8	2728	44,000 CUP	39.8	2996	52,000 CUP	StaBALL 6.5	42.9	3199	46,800 PSI	46.7	3516	60,200 PSI
H4350	35.1	2772	48,000 CUP	38.6	2970	51,500 CUP	IMR 4831	42.5	3112	48,900 PSI	46.0C	3342	58,100 PSI
Hybrid 100V	34.4	2697	44,000 CUP	37.5	2890	51,400 CUP	IMR 4350	41.0	3123	48,700 PSI	44.9C	3396	59,700 PSI
CFE 223	31.4	2663	45,900 CUP	34.5	2891	51,900 CUP	H4350	40.3	3097	47,800 PSI	44.4	3374	60,000 PSI
IMR 4064	30.7	2662	47,400 CUP	33.7	2874	52,500 CUP	W760	39.8	3094	45,700 PSI	43.8	3403	59,400 PSI
Varget	30.1	2661	48,000 CUP	33.1	2856	52,200 CUP	H380	39.6	3125	50,500 PSI	42.7	3353	60,300 PSI
6MM CREEDMOOR							BL-C(2)	37.5	3093	50,500 PSI	40.5	3320	59,700 PSI
Barrel: 24" Twist: 1:8" Trim: 1.910"							CFE 223	37.4	3114	49,400 PSI	40.7	3345	59,900 PSI
Bullet: 55 GR. NOS BT Dia: .243"							StaBALL Match	36.0	3018	49,700 PSI	39.4	3286	60,800 PSI
Case: Hornady Primer: WIN LR Col: 2.490"							IMR 4895	36.2	3134	51,300 PSI	39.3	3341	60,200 PSI
StaBALL 6.5	48.8	3734	46,500 PSI	53.0C	4088	60,000 PSI	IMR 4064	36.0	3113	50,200 PSI	39.1	3325	59,700 PSI
W760	46.2	3704	45,300 PSI	50.2	4049	58,500 PSI	Varget	35.7	3104	50,300 PSI	38.7	3308	59,700 PSI
CFE 223	44.6	3766	45,200 PSI	48.5	4122	59,100 PSI	H4895	34.2	3097	52,100 PSI	37.1	3281	60,200 PSI
BL-C(2)	44.0	3662	44,600 PSI	47.8	4037	58,900 PSI	IMR 8208 XBR	34.0	3106	52,300 PSI	36.7	3264	59,200 PSI
Varget	42.0	3730	46,800 PSI	45.7	4057	60,000 PSI	Bullet: 80 GR. SIE SBT Dia: .243"						
StaBALL Match	41.5	3636	46,100 PSI	45.3	3997	60,100 PSI	Case: Hornady Primer: FED 210M, LR Match Col: 2.500"						
IMR 4064	41.2	3661	45,100 PSI	44.7	4036	59,100 PSI	Hunter	42.6	3141	55,300 PSI	47.3	3431	61,500 PSI
IMR 4895	41.2	3704	46,800 PSI	44.8	4066	60,200 PSI	A-2700	40.5	3087	54,900 PSI	45.0	3410	61,000 PSI
H335	41.1	3702	47,100 PSI	44.4	4023	60,200 PSI	Big Game	39.4	3081	55,200 PSI	43.8	3379	61,300 PSI
IMR 8208 XBR	40.0	3739	46,900 PSI	43.5	4065	60,400 PSI	Bullet: 85 GR. NOS PART Dia: .243"						
H4895	39.9	3736	46,200 PSI	43.4	4074	60,400 PSI	Case: Hornady Primer: WIN LR Col: 2.580"						
Benchmark	39.3	3742	46,600 PSI	42.8	4055	59,300 PSI	StaBALL 6.5	44.0	3194	46,100 PSI	47.9	3511	60,300 PSI
IMR 3031	39.1	3700	47,200 PSI	42.5	4034	60,200 PSI	IMR 4831	43.2	3029	43,900 PSI	47.0C	3352	58,000 PSI
Bullet: 58 GR. HDY V-MAX Dia: .243"							IMR 4350	41.3	3031	44,800 PSI	45.4	3373	59,500 PSI
Case: Hornady Primer: FED 210M, LR Match Col: 2.475"							H4350	41.1	3061	45,300 PSI	45.7	3390	60,500 PSI
A-2700	45.4	3538	55,300 PSI	50.5	3947	61,400 PSI	W760	40.7	3110	47,600 PSI	44.7	3379	59,200 PSI
Big Game	44.3	3581	55,200 PSI	49.3	3924	61,400 PSI	H380	40.4	3106	49,600 PSI	43.2	3297	59,000 PSI
A-4064	40.9	3427	55,200 PSI	45.5	3838	61,300 PSI	BL-C(2)	38.1	3113	51,700 PSI	41.4	3302	59,700 PSI
Bullet: 60 GR. SIE HP Dia: .243"							CFE 223	38.0	3124	51,500 PSI	41.3	3310	59,600 PSI
Case: Hornady Primer: WIN LR Col: 2.410"							IMR 4064	37.5	3147	50,900 PSI	40.7	3350	60,100 PSI
StaBALL 6.5	47.3	3605	46,800 PSI	51.5C	3947	60,100 PSI	StaBALL Match	37.0	2988	47,800 PSI	40.4	3279	60,600 PSI
W760	44.8	3536	44,700 PSI	48.7	3893	58,800 PSI	IMR 4895	37.0	3150	50,800 PSI	40.4	3350	59,700 PSI
CFE 223	43.1	3630	46,400 PSI	46.8	3965	60,200 PSI	Varget	36.8	3128	51,100 PSI	39.9	3316	59,800 PSI
BL-C(2)	42.7	3540	45,400 PSI	46.4	3885	59,600 PSI	H4895	35.2	3093	49,900 PSI	38.3	3301	60,200 PSI
Varget	40.7	3631	49,200 PSI	44.2	3886	59,600 PSI	IMR 8208 XBR	34.8	3092	50,800 PSI	37.7	3274	59,500 PSI
IMR 4064	40.2	3518	46,100 PSI	43.6	3875	60,000 PSI	Bullet: 90 GR. SFT SCIR Dia: .243"						
IMR 4895	40.1	3550	46,200 PSI	43.5	3913	60,600 PSI	Case: Hornady Primer: WIN LR Col: 2.725"						
H335	39.8	3524	48,700 PSI	43.1	3825	59,800 PSI	H4831	42.9	3001	50,700 PSI	46.6	3208	60,100 PSI
StaBALL Match	39.5	3482	46,900 PSI	43.1	3787	60,200 PSI	StaBALL 6.5	41.7	3050	46,000 PSI	45.3	3365	60,000 PSI
IMR 8208 XBR	38.9	3611	48,100 PSI	42.3	3885	60,000 PSI	IMR 4831	41.7	2992	48,000 PSI	45.5	3262	59,300 PSI
H4895	38.8	3634	48,500 PSI	42.2	3909	60,200 PSI	Hybrid 100V	39.6	2981	45,400 PSI	43.8	3263	56,700 PSI
Benchmark	38.3	3665	52,200 PSI	41.7	3852	59,400 PSI	H4350	40.2	3039	50,300 PSI	43.7	3261	60,100 PSI
IMR 3031	38.1	3584	49,500 PSI	41.5	3867	60,600 PSI	IMR 4350	40.2	3029	48,800 PSI	43.7	3280	59,500 PSI
Bullet: 70 GR. NOS BT Dia: .243"							W760	39.5	3028	50,000 PSI	43.2	3267	59,800 PSI
Case: Hornady Primer: FED 210M, LR Match Col: 2.550"							H380	38.5	2987	50,500 PSI	41.4	3175	59,100 PSI
A-2700	42.4	3264	55,300 PSI	47.1	3610	61,400 PSI	BL-C(2)	36.2	3006	53,600 PSI	39.3	3161	60,400 PSI
Big Game	40.7	3241	55,200 PSI	45.2	3561	61,300 PSI	CFE 223	36.1	2965	50,900 PSI	39.3	3158	59,000 PSI
A-4064	38.4	3171	54,900 PSI	42.7	3505	61,000 PSI	IMR 4064	35.7	2997	50,000 PSI	38.9	3210	59,700 PSI
Bullet: 70 GR. SPR HP Dia: .243"							StaBALL Match	35.4	2871	48,800 PSI	38.5	3114	59,700 PSI
Case: Hornady Primer: WIN LR Col: 2.490"							IMR 4895	34.9	2979	49,900 PSI	37.9	3181	59,500 PSI
StaBALL 6.5	46.0	3456	46,400 PSI	50.0	3763	59,700 PSI	Varget	34.8	2969	51,100 PSI	37.6	3170	60,500 PSI
H4350	44.2	3303	44,700 PSI	48.0C	3590	56,900 PSI	H4895	33.3	2925	50,200 PSI	36.0	3107	59,800 PSI
H380	43.8	3413	49,000 PSI	47.5	3673	60,300 PSI	IMR 8208 XBR	32.9	2922	50,900 PSI	35.5	3105	60,100 PSI
W760	43.5	3367	45,700 PSI	47.7	3684	59,400 PSI	Bullet: 95 GR. BAR LRX BT Dia: .243"						
BL-C(2)	42.1	3386	47,800 PSI	45.7	3675	60,500 PSI	Case: Hornady Primer: FED 210M, LR Match Col: 2.750"						
CFE 223	42.0	3432	48,500 PSI	45.6	3710	60,500 PSI	Magpro	44.3	2764	55,300 PSI	49.2	3052	61,400 PSI
Varget	39.7	3437	49,400 PSI	43.2	3680	60,500 PSI	A-4350	39.7	2812	54,800 PSI	44.1	3078	60,800 PSI
IMR 4895	39.5	3411	48,400 PSI	42.9	3666	60,000 PSI	Hunter	38.7	2812	55,100 PSI	43.0	3073	61,300 PSI

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads							Maximum Loads							
Powder	Gr	Vel	Pressure	Gr	Vel	Pressure	Powder	Gr	Vel	Pressure	Gr	Vel	Pressure	
Bullet: 95 GR. BER VLD TRGT Dia: .243"														
Case: Hornady		Primer: FED 210M, LR Match				Col: 2.650"								
Magpro	44.7	2796	55,300 PSI	49.7	3102	61,500 PSI	H1000	43.8	2786	46,600 PSI	48.2C	3042	59,700 PSI	
A-4350	41.5	2860	55,200 PSI	46.1	3192	59,500 PSI	H4831	40.8	2766	48,400 PSI	44.1	2972	60,200 PSI	
Hunter	39.6	2871	55,100 PSI	44.0	3136	60,000 PSI	Suprform	40.2	2813	46,300 PSI	44.2	3078	60,200 PSI	
A-2700	38.6	2876	55,200 PSI	42.9	3146	59,000 PSI	IMR 4831	39.6	2768	47,100 PSI	43.0	3012	59,800 PSI	
Case: Hornady		Primer: WIN LR				Col: 2.650"								
H4831	42.8	2921	47,000 PSI	47.0C	3158	61,300 PSI	StaBALL 6.5	39.5	2814	45,800 PSI	43.0	3088	59,500 PSI	
Suprform	42.1	3021	45,700 PSI	46.3	3314	61,300 PSI	Hybrid 100V	37.9	2805	48,300 PSI	41.7	3031	59,100 PSI	
StaBALL 6.5	42.3	3061	45,800 PSI	45.7	3342	61,300 PSI	H4350	37.8	2802	49,800 PSI	41.6	3006	60,100 PSI	
IMR 4831	41.4	2877	43,500 PSI	45.5	3222	60,900 PSI	IMR 4350	37.7	2771	47,300 PSI	41.4	3004	59,200 PSI	
IMR 4350	40.4	2946	45,500 PSI	44.4	3255	60,300 PSI	Bullet: 110 GR. HDY A-TIP Dia: .243"							
H4350	39.5	2932	45,700 PSI	44.0	3211	60,400 PSI	Case: Hornady		Primer: WIN LR				Col: 2.780"	
W760	39.5	2965	47,300 PSI	43.4	3227	59,300 PSI	Grand	46.7	2811	49,400 PSI	49.0C	2979	56,800 PSI	
Hybrid 100V	39.2	2944	45,200 PSI	43.1	3233	60,500 PSI	H1000	44.5	2796	49,300 PSI	47.5C	2956	57,500 PSI	
H380	39.4	2958	49,700 PSI	42.0	3150	60,100 PSI	H4831	40.5	2738	48,300 PSI	44.1C	2970	60,200 PSI	
CFE 223	37.5	2964	49,800 PSI	40.8	3174	60,000 PSI	Suprform	39.3	2800	47,500 PSI	42.8	3037	60,300 PSI	
BL-C(2)	37.2	2953	51,600 PSI	40.4	3139	59,800 PSI	StaBALL 6.5	39.3	2787	46,900 PSI	42.7	3046	60,000 PSI	
IMR 4064	35.9	2984	50,100 PSI	39.0	3179	60,300 PSI	IMR 4831	39.2	2731	48,400 PSI	42.8	2975	60,500 PSI	
IMR 4895	35.9	3010	51,000 PSI	38.9	3192	60,200 PSI	IMR 4350	38.2	2792	51,400 PSI	41.5	2983	60,000 PSI	
StaBALL Match	35.6	2842	46,900 PSI	38.8	3116	61,100 PSI	H4350	37.2	2741	48,100 PSI	41.4	2987	60,700 PSI	
Varget	34.8	2950	49,500 PSI	37.9	3135	59,500 PSI	Hybrid 100V	36.7	2714	46,300 PSI	40.8	3029	60,800 PSI	
H4895	33.9	2941	49,400 PSI	36.7	3128	60,200 PSI	Bullet: 112 GR. BAR BT-MB Dia: .243"							
IMR 8208 XBR	33.8	2952	51,000 PSI	36.6	3117	59,500 PSI	Case: Hornady		Primer: FED 210M, LR Match				Col: 2.780"	
Bullet: 100 GR. HDY BTSP Dia: .243"							Magnum	45.7	2755	55,200 PSI	50.8	3026	61,400 PSI	
Case: Hornady		Primer: WIN LR				Col: 2.625"		Magpro	42.7	2638	55,200 PSI	47.5	2924	61,300 PSI
Grand	45.5	2816	46,000 PSI	49.5C	3147	61,300 PSI	A-4350	38.0	2626	55,200 PSI	42.2	2896	61,300 PSI	
H1000	44.6	2784	41,900 PSI	49.0C	3050	55,300 PSI	Bullet: 115 GR. BER VLD Dia: .243"							
H4831	42.0	2853	48,400 PSI	46.2	3070	60,000 PSI	Case: Hornady		Primer: FED 210M, LR Match				Col: 2.780"	
Suprform	41.4	2922	46,200 PSI	45.5	3200	60,600 PSI	Magnum	44.4	2696	55,100 PSI	49.3	2959	61,200 PSI	
IMR 4831	40.6	2823	45,600 PSI	44.7C	3127	60,700 PSI	Magpro	41.6	2595	55,100 PSI	46.3	2860	61,300 PSI	
StaBALL 6.5	41.0	2910	43,800 PSI	44.6	3217	59,400 PSI	A-4350	36.8	2583	55,100 PSI	40.9	2823	61,200 PSI	
IMR 4350	39.3	2858	47,200 PSI	43.2	3111	59,700 PSI	Case: Hornady		Primer: WIN LR				Col: 2.780"	
Hybrid 100V	38.8	2881	46,800 PSI	42.7	3139	59,400 PSI	H1000	43.2	2687	46,100 PSI	48.0C	2944	59,500 PSI	
H4350	38.8	2879	48,200 PSI	42.7	3113	59,800 PSI	Grand	43.6	2689	46,300 PSI	47.4C	2977	61,300 PSI	
W760	38.6	2858	47,200 PSI	42.5	3120	60,200 PSI	H4831	39.6	2658	47,200 PSI	43.6	2889	59,500 PSI	
H380	37.8	2804	46,200 PSI	40.9	3050	59,600 PSI	Suprform	39.6	2732	46,300 PSI	43.4	2984	59,900 PSI	
BL-C(2)	37.1	2880	51,700 PSI	40.3	3062	60,200 PSI	StaBALL 6.5	39.3	2714	44,100 PSI	43.2	3026	60,000 PSI	
CFE 223	36.8	2867	49,800 PSI	40.0	3068	59,800 PSI	IMR 4831	38.4	2663	46,900 PSI	42.2	2918	60,500 PSI	
IMR 4064	36.0	2894	49,400 PSI	39.0	3085	59,400 PSI	IMR 4350	36.9	2690	48,600 PSI	40.6	2904	59,400 PSI	
StaBALL Match	35.3	2774	48,500 PSI	38.4	3026	60,400 PSI	H4350	36.8	2718	50,500 PSI	40.5	2895	58,900 PSI	
IMR 4895	35.0	2880	49,500 PSI	37.9	3069	59,000 PSI	Hybrid 100V	36.4	2662	46,400 PSI	40.5	2909	59,600 PSI	
Varget	34.7	2871	50,100 PSI	37.6	3047	59,900 PSI	243 WINCHESTER							
H4895	33.5	2842	50,300 PSI	36.3	3020	60,600 PSI	Barrel: 24" Twist: 1:10" Trim: 2.035"							
IMR 8208 XBR	33.0	2828	50,200 PSI	35.7	3000	60,000 PSI	Bullet: 55 GR. NOS BT Dia: .243"							
Case: WIN		Primer: REM 9 1/2, LR				Col: 2.650"								
Hunter	49.4	3771	53,400 PSI	54.9	4086	59,400 PSI								
A-2700	44.7	3617	53,700 PSI	49.7	3991	59,700 PSI								
Big Game	44.1	3651	53,900 PSI	49.0	3998	59,900 PSI								
A-4064	41.3	3581	53,800 PSI	45.9	3941	59,700 PSI								
Case: WIN		Primer: WIN LR				Col: 2.650"								
H380	46.0	3704	40,600 CUP	51.0	4010	48,700 CUP								
W760	45.0	3611	37,400 CUP	50.0	3950	51,600 CUP								
BL-C(2)	43.0	3779	42,600 CUP	47.0	4025	49,400 CUP								
StaBALL Match	41.5	3548	44,600 PSI	46.1	3939	59,600 PSI								
CFE 223	41.0	3684	49,500 PSI	45.3	3941	58,700 PSI								
Varget	41.0	3776	42,000 CUP	45.0	4000	50,000 CUP								
H4895	40.0	3638	35,100 CUP	44.5	4058	49,300 CUP								
IMR 4895	40.0	3599	42,100 CUP	44.0	3877	50,200 CUP								
IMR 4064	39.5	3554	41,300 CUP	44.0	3875	51,200 CUP								
IMR 8208 XBR	40.0	3687	47,700 PSI	43.0	3931	58,600 PSI								
Benchmark	39.0	3575	42,600 CUP	41.5	3815	50,100 CUP								
IMR 3031	37.0	3520	38,300 CUP	40.5	3864	50,900 CUP								
Bullet: 58 GR. HDY V-MAX Dia: .243"														
Case: WIN		Primer: REM 9 1/2, LR				Col: 2.600"								
Hunter	46.9	3591	53,200 PSI	52.1	3958	59,100 PSI								
A-2700	44.3	3500	53,800 PSI	49.2	3893	59,700 PSI								
Big Game	43.5	3559	53,700 PSI	48.4	3923	59,800 PSI								
A-4064	40.5	3464	53,500 PSI	45.0	3843	59,500 PSI								

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads				Maximum Loads				Starting Loads				Maximum Loads			
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	
Case: WIN				Primer: WIN LR				Col: 2.600"				Bullet: 70 GR. SIE HPBT			
H380	46.0	3721	47,500 CUP	49.5	3874	51,000 CUP		Primer: REM 9 1/2, LR				Col: 2.625"			
W760	46.0	3633	43,600 CUP	49.0	3806	49,000 CUP		Hunter	46.0	3486	53,700 PSI	51.2	3764	59,800 PSI	
CFE 223	41.0	3634	50,200 PSI	44.9	3850	57,800 PSI		A-4350	44.1	3295	50,400 PSI	49.0	3616	56,000 PSI	
IMR 4895	40.5	3551	42,300 CUP	44.7	3819	50,000 CUP		A-2700	43.5	3437	53,700 PSI	48.4	3704	59,700 PSI	
StaBALL Match	40.0	3506	47,100 PSI	44.1	3805	59,000 PSI		Big Game	41.4	3381	54,100 PSI	45.9	3653	59,900 PSI	
Varget	41.0	3617	44,800 CUP	44.0	3790	49,800 CUP		Bullet: 70 GR. SPR HP				Dia: .243"			
IMR 4064	39.6	3388	39,400 CUP	44.0	3780	50,200 CUP		Case: WIN				Primer: WIN LR			
H4895	40.0	3643	43,300 CUP	43.0	3851	49,900 CUP		Col: 2.625"				Col: 2.625"			
IMR 8208 XBR	39.0	3581	47,300 PSI	42.3	3825	58,300 PSI		Suprform	46.0	3332	43,600 PSI	51.0C	3661	57,900 PSI	
H335	39.5	3714	47,800 CUP	41.5	3812	50,600 CUP		StaBALL 6.5	46.0	3417	45,800 PSI	49.8	3724	58,400 PSI	
IMR 3031	36.5	3467	40,700 CUP	41.0	3815	50,500 CUP		W760	42.0	3314	41,600 CUP	46.0	3568	49,800 CUP	
Benchmark	35.0	3417	41,800 CUP	37.5	3607	50,000 CUP		H380	42.0	3349	42,900 CUP	46.0	3567	48,900 CUP	
Bullet: 60 GR. SIE HP				Dia: .243"				IMR 4895	38.5	3349	44,300 CUP	42.6	3558	50,000 CUP	
Case: WIN				Primer: WIN LR				StaBALL Match	38.7	3223	46,600 PSI	42.6	3512	59,400 PSI	
W760	43.0	3423	38,600 CUP	47.5	3724	49,600 CUP		IMR 4064	38.5	3316	43,700 CUP	42.5	3541	50,000 CUP	
H380	43.0	3514	38,900 CUP	48.0	3781	47,400 CUP		CFE 223	36.0	3266	51,800 PSI	41.5	3487	57,400 PSI	
CFE 223	41.0	3541	49,400 PSI	45.0	3785	58,600 PSI		Varget	38.0	3433	45,500 CUP	40.5	3574	50,100 CUP	
StaBALL Match	39.5	3509	51,500 PSI	43.5	3730	59,700 PSI		H4895	36.0	3286	42,700 CUP	39.5	3477	49,200 CUP	
Varget	40.0	3671	45,400 CUP	42.7	3816	50,400 CUP		Benchmark	36.5	3128	45,100 CUP	39.3	3491	50,300 CUP	
IMR 4064	40.0	3476	43,600 CUP	43.8	3766	50,400 CUP		IMR 3031	35.5	3218	41,500 CUP	39.0	3485	51,100 CUP	
IMR 4895	39.6	3464	43,500 CUP	43.3	3785	50,800 CUP		BL-C(2)	35.0	3228	47,900 CUP	39.0	3384	50,400 CUP	
Benchmark	38.5	3587	47,000 CUP	41.2	3713	50,700 CUP		IMR 8208 XBR	35.0	3232	47,600 PSI	38.6	3461	58,100 PSI	
H4895	38.0	3521	40,500 CUP	42.0	3812	50,600 CUP		Bullet: 75 GR. HDY HP				Dia: .243"			
IMR 8208 XBR	37.0	3505	50,000 PSI	40.2	3702	58,500 PSI		Case: WIN				Primer: WIN LR			
IMR 3031	36.8	3448	43,000 CUP	40.5	3714	50,500 CUP		Col: 2.640"				Col: 2.640"			
H335	35.0	3445	41,400 CUP	39.0	3717	50,300 CUP		Suprform	45.0	3280	47,400 PSI	49.0	3510	57,900 PSI	
Bullet: 62 GR. BAR VG				Dia: .243"				StaBALL 6.5	43.5	3305	47,000 PSI	48.6	3614	58,600 PSI	
Case: WIN				Primer: REM 9 1/2, LR				W760	42.0	3203	41,100 CUP	46.0	3447	50,100 CUP	
Hunter	45.6	3499	53,500 PSI	50.7	3825	59,500 PSI		H380	40.0	3127	42,700 CUP	44.5	3393	48,600 CUP	
A-2700	43.7	3609	53,700 PSI	48.6	3854	59,800 PSI		IMR 4895	37.5	3198	44,200 CUP	41.7	3423	50,400 CUP	
A-4350	43.7	3282	50,400 PSI	48.6	3648	56,000 PSI		IMR 4064	37.5	3183	43,300 CUP	41.2	3419	50,300 CUP	
Big Game	40.8	3515	53,500 PSI	45.3	3779	59,400 PSI		StaBALL Match	37.4	3196	53,700 PSI	41.1	3373	59,700 PSI	
Bullet: 62 GR. BAR VG FB				Dia: .243"				Varget	36.0	3246	45,000 CUP	38.5	3408	50,500 CUP	
Case: WIN				Primer: WIN LR				H4895	34.0	3101	40,900 CUP	38.0	3354	49,400 CUP	
W760	43.5	3427	50,600 PSI	46.3	3631	58,600 PSI		IMR 8208 XBR	34.5	3114	48,200 PSI	37.8	3316	57,900 PSI	
H380	41.9	3450	50,100 PSI	44.5	3625	57,900 PSI		CFE 223	34.0	3080	50,600 PSI	37.7	3274	57,600 PSI	
StaBALL Match	38.3	3383	50,600 PSI	42.1	3630	59,300 PSI		BL-C(2)	34.0	3041	45,100 CUP	37.5	3185	49,200 CUP	
Varget	39.3	3476	50,900 PSI	41.4	3620	57,100 PSI		IMR 3031	33.2	3061	41,800 CUP	36.7	3298	49,800 CUP	
IMR 4064	38.1	3480	51,400 PSI	40.5	3652	58,000 PSI		Bullet: 75 GR. HDY V-MAX				Dia: .243"			
IMR 4895	38.1	3460	50,600 PSI	40.5	3658	58,300 PSI		Case: WIN				Primer: REM 9 1/2, LR			
H4895	36.7	3478	51,200 PSI	39.0	3622	57,400 PSI		Col: 2.620"				Col: 2.620"			
IMR 8208 XBR	35.0	3321	46,500 PSI	39.0	3598	58,800 PSI		Hunter	43.8	3311	53,800 PSI	48.7	3632	59,800 PSI	
Benchmark	36.1	3442	52,000 PSI	38.0	3586	58,600 PSI		A-4350	43.7	3253	53,600 PSI	48.5	3579	59,400 PSI	
CFE 223	34.0	3328	54,200 PSI	38.0	3517	59,300 PSI		A-2700	41.8	3312	53,700 PSI	46.5	3580	59,700 PSI	
IMR 3031	34.8	3392	49,600 PSI	37.0	3573	58,100 PSI		Big Game	39.7	3232	53,900 PSI	44.1	3509	59,900 PSI	
Bullet: 65 GR. HDY V-MAX				Dia: .243"				Bullet: 80 GR. HDY GMX				Dia: .243"			
Case: WIN				Primer: WIN LR				Case: WIN				Primer: WIN LR			
Suprform	49.0	3530	52,100 PSI	51.9C	3773	57,300 PSI		Col: 2.610"				Col: 2.610"			
W760	45.0	3521	41,400 CUP	48.0	3746	49,400 CUP		StaBALL 6.5	41.0	3149	48,100 PSI	45.0	3423	58,500 PSI	
H380	42.0	3448	45,200 CUP	45.0	3627	50,000 CUP		Hybrid 100V	39.1	3083	48,600 PSI	42.5	3318	58,100 PSI	
IMR 4064	40.0	3415	43,000 CUP	43.4	3698	50,000 CUP		W760	38.9	3022	48,400 PSI	42.3	3231	57,300 PSI	
CFE 223	38.0	3360	47,400 PSI	43.0	3632	57,300 PSI		H4350	38.3	3045	52,600 PSI	40.7	3183	58,500 PSI	
IMR 4895	38.5	3392	42,300 CUP	42.7	3664	50,600 CUP		H380	36.9	3022	54,600 PSI	39.3	3135	57,300 PSI	
StaBALL Match	38.4	3342	47,700 PSI	42.3	3614	59,100 PSI		BL-C(2)	36.5	3057	49,600 PSI	39.2	3220	57,000 PSI	
BL-C(2)	39.0	3493	47,300 CUP	42.0	3612	49,500 CUP		StaBALL Match	34.5	2910	49,600 PSI	38.1	3174	59,700 PSI	
Varget	38.0	3494	43,100 CUP	41.0	3682	49,600 CUP		IMR 4895	35.3	3032	51,500 PSI	37.5	3165	58,100 PSI	
H4895	38.0	3522	44,500 CUP	41.0	3677	49,200 CUP		Varget	34.1	2986	51,200 PSI	36.3	3137	58,700 PSI	
IMR 8208 XBR	37.0	3363	45,800 PSI	41.0	3666	58,500 PSI		IMR 4064	34.0	2966	49,500 PSI	36.3	3134	57,600 PSI	
Benchmark	37.0	3417	44,300 CUP	40.0	3598	50,600 CUP		IMR 8208 XBR	33.0	2961	51,400 PSI	35.1	3109	58,800 PSI	
IMR 3031	36.5	3397	43,800 CUP	39.8	3624	50,200 CUP		H4895	32.7	2982	51,900 PSI	34.8	3123	58,100 PSI	
Bullet: 68 GR. BER FBT				Dia: .243"				Bullet: 80 GR. NOS BT				Dia: .243"			
Case: WIN				Primer: REM 9 1/2, LR				Case: WIN				Primer: REM 9 1/2, LR			
Hunter	45.6	3516	53,800 PSI	50.7	3766	59,800 PSI		Col: 2.695"				Col: 2.695"			
A-4350	44.3	3412	52,200 PSI	49.2	3682	58,000 PSI		Magnum	48.8	3044	53,300 PSI	54.2	3373	59,200 PSI	
A-2700	42.8	3424	53,800 PSI	47.5	3697	59,700 PSI		Magpro	48.1	3060	53,400 PSI	53.5	3391	59,400 PSI	
Bullet: 80 GR. SIE BTSP				Dia: .243"				Hunter	43.0	3133	53,800 PSI	47.8	3447	59,800 PSI	
Case: WIN				Primer: WIN LR				A-4350	42.6	3140	53,800 PSI	47.3	3436	59,800 PSI	
Suprform	44.0	3236	49,300 PSI					A-2700	40.4	3149	53,800 PSI	44.9	3399	59,800 PSI	

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Grs	Starting Loads Vel	Pressure	Grs	Maximum Loads Vel	Pressure	Powder	Grs	Starting Loads Vel	Pressure	Grs	Maximum Loads Vel	Pressure
StaBALL 6.5	42.9	3266	47,800 PSI	46.7	3517	58,700 PSI	Hybrid 100V	39.0	2866	42,200 CUP	43.0C	3113	50,200 CUP
W760	42.0	3249	46,300 CUP	45.0	3404	50,100 CUP	IMR 4831	39.5	2793	43,900 CUP	42.8	2985	50,200 CUP
Hybrid 100V	41.0	3072	40,100 CUP	45.0C	3330	48,400 CUP	StaBALL 6.5	39.0	2988	51,400 PSI	42.8	3171	58,400 PSI
H380	38.0	3047	44,700 CUP	41.2	3223	50,300 CUP	H4350	39.0	2917	45,800 CUP	42.0	3087	50,500 CUP
IMR 4064	37.5	3141	45,000 CUP	41.0	3320	50,800 CUP	W760	39.0	2933	43,800 CUP	42.0	3138	50,700 CUP
StaBALL Match	36.5	3038	48,900 PSI	40.2	3274	59,400 PSI	IMR 4350	38.0	2792	43,200 CUP	41.8	2993	50,200 CUP
IMR 4895	36.5	3094	43,300 CUP	40.2	3290	50,300 CUP	H380	36.0	2779	43,000 CUP	38.0	2922	49,100 CUP
Varget	36.0	3193	45,400 CUP	38.5	3355	50,300 CUP	StaBALL Match	34.4	2770	52,200 PSI	37.9	2953	59,600 PSI
BL-C(2)	35.0	3083	47,100 CUP	38.5	3242	50,600 CUP	Varget	33.0	2870	45,000 CUP	35.0	2996	50,200 CUP
H4895	35.0	3123	45,800 CUP	38.0	3307	50,100 CUP	IMR 4064	33.0	2745	43,500 CUP	36.5	2967	51,100 CUP
IMR 8208 XBR	34.0	3013	45,400 PSI	38.0	3269	57,500 PSI	H4895	33.0	2865	45,000 CUP	35.0	2990	50,700 CUP
Bullet: 85 GR. BARTSX-BT Dia: .243"							Bullet: 100 GR. SIE SBT Dia: .243"						
Case: WIN		Primer: REM 9 1/2, LR			Col: 2.620"		Case: WIN		Primer: REM 9 1/2, LR			Col: 2.650"	
Magnum	47.7	2998	53,400 PSI	52.9	3269	59,300 PSI	Magnum	45.7	2824	53,800 PSI	50.7	3092	59,700 PSI
Magpro	46.9	2993	53,700 PSI	52.1	3306	59,700 PSI	Magpro	45.2	2861	53,900 PSI	50.2	3107	59,900 PSI
Hunter	41.3	3046	53,800 PSI	45.9	3347	59,800 PSI	Hunter	38.8	2795	53,900 PSI	43.1	3052	59,900 PSI
A-2700	38.7	3046	53,600 PSI	42.9	3270	59,500 PSI	A-4350	34.8	2741	53,700 PSI	38.4	2911	59,200 PSI
A-4350	37.3	2990	53,300 PSI	41.5	3221	59,300 PSI	Bullet: 100 GR. SPR BTSP Dia: .243"						
Case: WIN		Primer: WIN LR			Col: 2.620"		Case: WIN		Primer: WIN LR			Col: 2.650"	
StaBALL 6.5	41.9	3105	46,500 PSI	45.6	3404	58,900 PSI	Grand	45.5	2862	46,500 PSI	49.7C	3109	57,000 PSI
IMR 4831	38.3	3014	49,900 PSI	42.6C	3233	58,500 PSI	H1000	44.0	2876	45,700 CUP	47.0C	3000	49,800 CUP
Hybrid 100V	38.3	3022	47,500 PSI	42.5C	3267	58,100 PSI	IMR 7828	42.5	2796	43,700 CUP	46.0C*	3009	51,100 CUP
W760	38.4	2981	50,300 PSI	41.7	3165	57,300 PSI	Hybrid 100V	40.0	2868	45,400 CUP	43.7C	3100	51,700 CUP
IMR 4350	37.4	2980	48,900 PSI	40.7	3176	57,800 PSI	IMR 4831	39.2	2733	43,500 CUP	43.0	2947	50,800 CUP
H4350	37.3	2972	49,600 PSI	40.5	3141	57,300 PSI	H4831	39.0	2761	44,400 CUP	42.0	2924	50,100 CUP
StaBALL Match	35.5	2894	48,500 PSI	39.1	3159	59,700 PSI	StaBALL 6.5	38.5	2893	50,400 PSI	42.0	3085	58,200 PSI
H380	36.4	2987	55,700 PSI	38.7	3074	57,300 PSI	IMR 4350	38.5	2760	43,000 CUP	42.0	2958	50,100 CUP
IMR 4895	34.6	3010	50,700 PSI	36.8	3146	58,000 PSI	H4350	37.0	2806	45,100 CUP	40.0	2973	51,000 CUP
Varget	34.3	2997	52,200 PSI	36.5	3121	58,000 PSI	W760	37.0	2800	44,500 CUP	40.0	2963	50,600 CUP
IMR 4064	33.8	2964	49,200 PSI	36.0	3112	56,700 PSI	H380	34.0	2639	43,600 CUP	36.0	2770	50,100 CUP
H4895	32.6	2955	51,800 PSI	34.7	3089	57,500 PSI	IMR 4064	33.0	2672	42,200 CUP	36.5	2902	51,100 CUP
Bullet: 87 GR. HDY V-MAX Dia: .243"							IMR 4895	32.8	2683	42,300 CUP	35.7	2862	50,100 CUP
Case: WIN		Primer: REM 9 1/2, LR			Col: 2.640"		StaBALL Match	32.0	2666	52,300 PSI	35.6	2843	59,800 PSI
Magnum	47.5	2959	53,700 PSI	52.8	3266	59,600 PSI	Varget	31.0	2674	42,700 CUP	33.7	2838	50,400 CUP
Magpro	47.2	2991	53,700 PSI	52.5	3293	59,700 PSI	H4895	31.0	2683	44,900 CUP	33.0	2818	50,100 CUP
A-4350	41.8	3078	53,200 PSI	46.4	3313	59,100 PSI	Bullet: 107 GR. SIE BTHP Dia: .243"						
Hunter	41.8	3036	54,000 PSI	46.4	3336	59,900 PSI	Case: WIN		Primer: WIN LR			Col: 2.850"	
A-2700	39.1	3033	53,600 PSI	43.5	3261	59,600 PSI	StaBALL HD	45.0	2725	47,700 PSI	49.4C	2964	59,000 PSI
Bullet: 90 GR. SPR SP Dia: .243"							Retumbo	46.0	2785	42,800 CUP	49.0C	2974	48,500 CUP
Case: WIN		Primer: WIN LR			Col: 2.625"		Grand	44.0	2849	51,300 PSI	48.4C	3040	59,200 PSI
Grand	45.5	2931	43,800 PSI	50.2C	3199	54,500 PSI	H1000	43.0	2787	44,700 CUP	46.0C	2918	50,100 CUP
IMR 7828	45.0	2950	46,100 CUP	48.0C*	3130	50,600 CUP	IMR 7828	40.0	2675	43,000 CUP	43.5	2878	50,100 CUP
H4831	45.0	3010	43,700 CUP	48.0C	3203	50,800 CUP	StaBALL 6.5	38.0	2809	49,900 PSI	42.3	3021	59,200 PSI
Hybrid 100V	40.0	2934	43,000 CUP	44.0C	3204	50,100 CUP	Hybrid 100V	38.0	2760	45,300 CUP	41.5C	2957	50,900 CUP
StaBALL 6.5	40.0	3025	48,900 PSI	45.0	3273	58,000 PSI	H4831	38.0	2678	43,700 CUP	41.0	2835	50,100 CUP
H4350	42.0	3039	44,400 CUP	44.5	3185	50,600 CUP	IMR 4831	37.5	2662	43,900 CUP	40.9	2844	50,400 CUP
IMR 4831	40.5	2858	43,700 CUP	43.9	3050	50,700 CUP	IMR 4350	36.5	2661	42,100 CUP	39.8	2853	50,600 CUP
W760	41.0	3024	43,600 CUP	43.5	3185	49,600 CUP	H4350	35.0	2671	43,100 CUP	37.5	2800	50,200 CUP
IMR 4350	39.5	2856	42,700 CUP	43.0	3096	50,800 CUP	W760	35.0	2664	43,400 CUP	38.0	2809	49,500 CUP
H380	38.0	2892	43,100 CUP	40.5	3060	49,500 CUP	H380	33.0	2570	44,400 CUP	34.8	2682	50,100 CUP
StaBALL Match	34.5	2856	53,100 PSI	38.5	3059	59,800 PSI	StaBALL Match	31.3	2563	51,700 PSI	34.7	2738	59,500 PSI
IMR 4064	33.5	2796	41,600 CUP	37.0	3020	50,200 CUP	Varget	31.0	2630	45,300 CUP	33.0	2749	50,400 CUP
IMR 4895	33.5	2815	41,800 CUP	36.9	3033	50,200 CUP	H4895	30.5	2613	45,900 CUP	32.5	2719	49,900 CUP
Varget	34.0	2964	44,800 CUP	36.5	3106	50,400 CUP	Bullet: 107 GR. SIE HPBT Dia: .243"						
H4895	34.0	2967	44,900 CUP	36.5	3114	50,800 CUP	Case: WIN		Primer: REM 9 1/2, LR			Col: 2.700"	
Bullet: 95 GR. NOS BT Dia: .243"							Magnum	46.1	2778	53,800 PSI	51.2	3073	59,800 PSI
Case: WIN		Primer: REM 9 1/2, LR			Col: 2.700"		Magpro	45.0	2741	52,200 PSI	50.0	3010	58,000 PSI
Magnum	46.1	2822	53,800 PSI	51.2	3137	59,700 PSI	Hunter	38.9	2736	53,200 PSI	43.2	3001	59,100 PSI
Magpro	45.3	2859	53,700 PSI	50.4	3145	59,700 PSI	Bullet: 108 GR. BER BTT Dia: .243"						
Hunter	39.2	2857	53,800 PSI	43.6	3126	59,800 PSI	Case: WIN		Primer: REM 9 1/2, LR			Col: 2.700"	
A-4350	38.0	2863	53,300 PSI	42.2	3075	59,200 PSI	Magpro	44.8	2797	52,500 PSI	49.7	3037	58,200 PSI
A-2700	36.8	2847	53,900 PSI	40.9	3059	59,900 PSI	Magnum	44.8	2752	53,800 PSI	49.8	3027	59,800 PSI
Bullet: 95 GR. NOS PART Dia: .243"							Hunter	37.9	2717	53,600 PSI	42.1	2964	59,500 PSI
Case: WIN		Primer: WIN LR			Col: 2.650"		Bullet: 108 GR. HDY ELD-M Dia: .243"						
Grand	45.5	2897	43,600 PSI	50.0C	3176	55,400 PSI	Case: WIN		Primer: WIN LR			Col: 2.700"	
H1000	45.0	2946	44,900 CUP	48.0C	3077	50,000 CUP	StaBALL HD	45.3	2687	46,100 PSI	49.8C	2954	59,200 PSI
IMR 7828	41.5	2780	42,300 CUP	45.8C*	3030	50,600 CUP							
H4831	42.0	2930	47,000 CUP	44.5C	3052	50,700 CUP							

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Grand	45.0	2708	42,800 PSI	49.5C	3065	60,000 PSI	H4895	41.0	3544	45,300 PSI	46.0	3934	61,400 PSI
H1000	44.2	2782	45,300 PSI	49.2C	3051	58,200 PSI	IMR 8208 XBR	40.0	3488	43,000 PSI	44.5	3907	60,500 PSI
Retumbo	45.1	2773	43,900 PSI	49.0C	3039	57,500 PSI	IMR 3031	40.0	3584	47,800 PSI	44.3	3925	62,200 PSI
H4831	39.9	2699	45,000 PSI	44.7C	3014	59,400 PSI	Benchmark	39.0	3478	44,400 PSI	43.0	3826	59,000 PSI
IMR 7828	39.2	2716	44,600 PSI	44.5	3051	59,000 PSI	Bullet: 65 GR. HDY V-MAX Dia: .243"						
IMR 4831	38.7	2745	45,800 PSI	44.0C	3053	59,300 PSI	Case: WIN Primer: REM 9 1/2, LR Col: 2.825"						
StaBALL 6.5	39.6	2799	46,700 PSI	43.1	3044	59,400 PSI	Suprform	49.0	3495	44,700 PSI	54.5	3927	62,700 PSI
Hybrid 100V	37.3	2751	44,500 PSI	42.4C	3054	58,600 PSI	H4350	48.0	3564	50,900 PSI	51.5C	3763	58,900 PSI
IMR 4350	36.4	2702	45,000 PSI	41.2	3023	59,200 PSI	W760	44.0	3388	44,900 PSI	49.2	3777	60,700 PSI
H4350	34.1	2601	41,600 PSI	41.1	3015	59,300 PSI	H380	44.0	3438	47,800 PSI	49.0	3763	60,000 PSI
Bullet: 115 GR. BER VLD Dia: .243"							Varget	41.0	3468	47,600 PSI	45.5	3775	60,200 PSI
Case: WIN Primer: REM 9 1/2, LR Col: 2.850"							IMR 4895	40.0	3457	46,900 PSI	45.3	3856	63,100 PSI
Magpro	44.5	2734	52,400 PSI	49.4	2955	58,200 PSI	IMR 4064	40.0	3450	46,500 PSI	45.0	3839	61,800 PSI
Magnum	44.4	2721	53,800 PSI	49.3	2962	59,800 PSI	BL-C(2)	40.0	3379	45,000 PSI	44.7	3723	60,000 PSI
Hunter	35.9	2609	53,900 PSI	39.9	2828	59,900 PSI	W748	40.0	3465	50,300 PSI	44.5	3739	61,000 PSI
Case: WIN Primer: WIN LR Col: 2.850"							H4895	39.0	3460	47,100 PSI	44.0	3797	60,600 PSI
StaBALL HD	44.5	2633	46,800 PSI	48.8C	2895	59,600 PSI	IMR 8208 XBR	39.0	3412	45,000 PSI	43.5	3777	60,900 PSI
Grand	44.2	2715	47,600 PSI	48.5C	2974	59,700 PSI	IMR 3031	38.0	3426	46,700 PSI	42.2	3765	61,600 PSI
Retumbo	40.7	2632	43,400 PSI	46.3C	2947	59,000 PSI	Benchmark	39.0	3472	49,000 PSI	41.3	3694	60,200 PSI
H1000	39.8	2620	43,800 PSI	45.5C	2934	59,300 PSI	Bullet: 70 GR. NOS BT Dia: .243"						
IMR 7828	37.2	2604	43,900 PSI	42.6C	2942	59,500 PSI	Case: REM Primer: FED 210M, LR Match Col: 2.810"						
H4831	37.1	2601	45,500 PSI	42.5	2885	59,500 PSI	Hunter	46.4	3203	52,200 PSI	51.5	3559	57,900 PSI
IMR 4831	36.8	2641	46,400 PSI	41.4	2926	59,400 PSI	Big Game	42.3	3263	56,300 PSI	47.0	3625	62,500 PSI
Hybrid 100V	35.4	2652	45,600 PSI	40.2	2931	59,300 PSI	A-4064	40.0	3235	56,800 PSI	44.5	3677	63,200 PSI
IMR 4350	34.8	2594	45,600 PSI	39.6	2886	59,400 PSI	Bullet: 70 GR. SIE HPBT Dia: .243"						
H4350	34.2	2616	46,900 PSI	38.4	2850	58,700 PSI	Case: WIN Primer: REM 9 1/2, LR Col: 2.810"						
6MM REMINGTON							Suprform	50.0	3509	48,600 PSI	54.0	3812	61,000 PSI
Barrel: 24" Twist: 1:9" Trim: 2.223"							H4350	46.0	3360	46,700 PSI	50.8C	3671	59,800 PSI
Bullet: 55 GR. NOS BT Dia: .243"							W760	44.0	3305	44,600 PSI	49.0	3693	60,900 PSI
Case: REM Primer: FED 210M, LR Match Col: 2.800"							H380	43.0	3334	47,900 PSI	48.0	3653	61,000 PSI
Hunter	46.2	3317	44,300 PSI	51.3	3685	49,200 PSI	W748	40.0	3324	46,300 PSI	45.0	3691	63,400 PSI
A-2700	45.1	3445	53,500 PSI	50.5	3915	59,900 PSI	IMR 4895	40.0	3364	46,500 PSI	44.6	3735	63,200 PSI
Big Game	44.8	3539	54,000 PSI	49.8	3932	60,100 PSI	Varget	40.0	3355	47,800 PSI	44.5	3639	59,500 PSI
A-4064	40.5	3547	54,200 PSI	45.0	4031	60,200 PSI	IMR 4064	40.0	3355	45,600 PSI	44.5	3710	61,200 PSI
Case: WIN Primer: REM 9 1/2, LR Col: 2.800"							StaBALL Match	39.2	3351	52,200 PSI	43.2	3609	63,100 PSI
H380	48.0	3793	49,900 PSI	53.0	4083	60,700 PSI	H4895	39.0	3435	51,200 PSI	43.0	3653	60,100 PSI
W760	46.0	3626	43,900 PSI	51.0	4016	58,800 PSI	IMR 8208 XBR	38.0	3236	43,000 PSI	42.7	3616	59,500 PSI
BL-C(2)	44.0	3680	44,800 PSI	48.8	4094	60,100 PSI	IMR 3031	38.0	3335	46,500 PSI	42.0	3673	62,400 PSI
Varget	43.0	3678	45,700 PSI	47.5	4023	58,800 PSI	Benchmark	38.0	3315	46,800 PSI	41.0	3579	59,300 PSI
H4895	42.0	3656	43,700 PSI	46.5	4066	59,300 PSI	Bullet: 75 GR. HDY HP Dia: .243"						
IMR 8208 XBR	40.0	3533	39,700 PSI	45.0	4044	59,300 PSI	Case: WIN Primer: REM 9 1/2, LR Col: 2.825"						
IMR 3031	40.0	3656	44,500 PSI	45.0	4090	61,200 PSI	Suprform	47.0	3297	47,500 PSI	52.0	3637	60,700 PSI
Benchmark	40.0	3656	44,800 PSI	44.5	4028	59,600 PSI	H4350	44.0	3262	48,600 PSI	49.0	3563	61,200 PSI
Bullet: 58 GR. HDY V-MAX Dia: .243"							IMR 4350	44.0	3206	47,300 PSI	48.5C	3509	58,600 PSI
Case: WIN Primer: REM 9 1/2, LR Col: 2.775"							Hybrid 100V	44.0	3213	47,700 PSI	48.0C	3491	57,900 PSI
H380	46.0	3627	47,300 PSI	50.0	3898	56,700 PSI	W760	42.0	3151	44,400 PSI	47.0	3513	58,800 PSI
W760	45.0	3534	43,200 PSI	49.7	3925	59,100 PSI	H380	41.0	3154	47,200 PSI	45.5	3465	59,800 PSI
Varget	42.0	3571	44,600 PSI	46.7	3953	59,600 PSI	StaBALL Match	38.7	3230	51,200 PSI	43.0	3498	62,900 PSI
IMR 4895	42.0	3597	44,900 PSI	46.7	4029	62,100 PSI	IMR 4064	39.0	3275	50,600 PSI	43.0	3553	62,100 PSI
BL-C(2)	42.0	3502	41,800 PSI	46.5	3939	60,000 PSI	W748	39.0	3244	50,600 PSI	43.0	3502	61,900 PSI
IMR 4064	42.0	3599	44,500 PSI	46.3C	3970	58,400 PSI	IMR 4895	38.0	3255	50,600 PSI	43.0	3558	63,100 PSI
H4895	41.0	3590	44,500 PSI	46.0	3972	58,900 PSI	Varget	38.0	3207	48,500 PSI	42.6	3480	59,500 PSI
IMR 8208 XBR	40.0	3537	42,700 PSI	44.5	3939	58,600 PSI	H4895	37.0	3230	49,900 PSI	41.5	3482	60,500 PSI
IMR 3031	40.0	3642	46,900 PSI	44.2	3981	61,100 PSI	IMR 8208 XBR	37.0	3184	48,100 PSI	41.5	3470	59,700 PSI
Benchmark	39.0	3500	42,200 PSI	43.0	3896	59,000 PSI	IMR 3031	36.0	3217	50,500 PSI	40.0	3494	63,200 PSI
Bullet: 60 GR. SIE HP Dia: .243"							Bullet: 75 GR. HDY V-MAX Dia: .243"						
Case: REM Primer: FED 210M, LR Match Col: 2.750"							Case: REM Primer: FED 210M, LR Match Col: 2.825"						
Hunter	46.6	3306	48,700 PSI	51.8	3673	54,100 PSI	Hunter	45.1	3180	55,200 PSI	50.1	3533	61,400 PSI
A-4064	40.9	3432	57,200 PSI	45.5	3901	63,600 PSI	Big Game	40.7	3078	55,100 PSI	45.2	3420	61,200 PSI
Case: WIN Primer: REM 9 1/2, LR Col: 2.700"							Bullet: 80 GR. BAR TTSTX BT Dia: .243"						
W760	45.0	3435	37,100 PSI	50.0	3877	60,300 PSI	Case: WIN Primer: REM 9 1/2, LR Col: 2.810"						
H380	45.0	3546	47,400 PSI	50.0	3874	59,700 PSI	Suprform	46.0	3202	45,000 PSI	51.0C	3581	59,600 PSI
Varget	42.0	3565	47,200 PSI	46.5	3900	60,200 PSI	IMR 4350	43.0	3086	43,300 PSI	48.0C	3484	58,800 PSI
IMR 4064	42.0	3570	46,400 PSI	46.2C	3930	60,400 PSI	H4350	42.0	3065	43,900 PSI	47.5	3427	58,800 PSI
IMR 4895	42.0	3609	49,100 PSI	46.5	3955	62,500 PSI	W760	42.0	3134	46,400 PSI	47.0	3471	60,700 PSI
W748	41.0	3532	47,500 PSI	46.5	3870	61,100 PSI	H380	41.0	3115	47,100 PSI	45.5	3411	59,500 PSI
BL-C(2)	41.0	3454	42,600 PSI	46.7	3870	59,200 PSI	Varget	38.0	3140	47,900 PSI	42.5	3416	59,800 PSI

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Grs	Starting Loads Vel	Pressure	Grs	Maximum Loads Vel	Pressure	Powder	Grs	Starting Loads Vel	Pressure	Grs	Maximum Loads Vel	Pressure
IMR 4895	38.0	3129	47,500 PSI	42.3	3418	59,400 PSI	IMR 7828 SSC	44.0	2818	48,400 PSI	48.7C	3130	61,800 PSI
W748	38.0	3075	45,800 PSI	43.0	3431	61,300 PSI	H4831	44.0	2798	43,700 PSI	49.5C	3125	57,600 PSI
IMR 4064	38.0	3094	44,700 PSI	42.0	3415	58,700 PSI	IMR 4831	42.0	2887	49,000 PSI	47.0C	3218	63,000 PSI
StaBALL Match	38.2	3144	52,400 PSI	41.9	3398	63,300 PSI	StaBALL 6.5	41.0	2826	45,600 PSI	45.2	3128	60,300 PSI
H4895	37.0	3169	49,500 PSI	41.3	3419	60,500 PSI	Hybrid 100V	41.0	2930	50,700 PSI	45.5	3226	63,100 PSI
IMR 8208 XBR	36.0	3068	46,400 PSI	40.3	3363	60,100 PSI	H4350	41.0	2909	48,100 PSI	45.5	3167	59,200 PSI
IMR 3031	35.0	3039	45,100 PSI	39.2	3356	59,300 PSI	IMR 4350	41.0	2867	49,900 PSI	45.5C	3153	61,500 PSI
Bullet: 80 GR. NOS BT						Dia: .243"							
Case: REM		Primer: FED 210M, LR Match				Col: 2.825"							
A-4350	44.6	2997	55,700 PSI	49.5	3406	61,800 PSI	W760	40.0	2847	45,900 PSI	44.5	3164	60,100 PSI
A-2700	43.2	3006	56,600 PSI	48.0	3416	62,900 PSI	Varget	36.0	2843	47,800 PSI	40.0	3091	58,900 PSI
Hunter	42.3	3011	51,700 PSI	47.0	3346	57,400 PSI	IMR 4895	36.0	2835	51,300 PSI	40.0	3095	63,300 PSI
Big Game	41.4	3078	56,400 PSI	46.0	3420	62,700 PSI	W748	36.0	2750	48,600 PSI	39.7	3042	62,200 PSI
Bullet: 80 GR. SPR SP						Dia: .243"							
Case: WIN		Primer: REM 9 1/2, LR				Col: 2.775"							
Suprform	46.0	3207	49,100 PSI	51.4	3536	61,000 PSI	StaBALL Match	38.0	3129	50,700 PSI	41.6	3366	62,800 PSI
Hybrid 100V	44.0	3186	50,500 PSI	48.0C	3458	61,500 PSI	IMR 8208 XBR	37.0	3156	51,600 PSI	40.7	3353	59,800 PSI
H4350	42.0	3123	46,700 PSI	47.0	3430	59,400 PSI	H4895	37.0	3167	50,900 PSI	40.5	3377	59,900 PSI
W760	42.0	3134	47,400 PSI	46.7	3439	59,600 PSI	IMR 4064	35.0	3066	51,600 PSI	39.6	3346	61,800 PSI
IMR 4350	41.0	3108	52,000 PSI	46.5	3410	62,800 PSI	W748	35.0	3132	58,800 PSI	39.2	3297	61,800 PSI
H380	40.0	3068	47,800 PSI	44.5	3358	58,900 PSI	IMR 4895	35.0	3067	50,800 PSI	39.4	3337	61,800 PSI
Varget	38.0	3148	49,400 PSI	41.8	3376	59,400 PSI	IMR 3031	33.0	3006	48,900 PSI	37.2	3296	61,600 PSI
Bullet: 85 GR. NOS PART						Dia: .243"							
Case: WIN		Primer: REM 9 1/2, LR				Col: 2.825"							
IMR 4831	44.0	3058	49,300 PSI	48.5C	3379	62,400 PSI	IMR 7828 SSC	43.0	2778	49,500 PSI	47.5C*	3048	60,900 PSI
StaBALL 6.5	44.0	3154	48,200 PSI	48.0	3429	60,900 PSI	StaBALL 6.5	42.0	2875	46,700 PSI	46.3	3190	62,200 PSI
Hybrid 100V	43.0	3143	51,700 PSI	47.5C	3411	62,200 PSI	IMR 4831	42.0	2889	50,500 PSI	46.2C	3149	62,100 PSI
H4350	42.0	3075	48,200 PSI	46.5	3350	59,300 PSI	H4350	41.0	2879	47,900 PSI	45.5	3137	59,800 PSI
IMR 4350	42.0	2996	48,900 PSI	47.0	3335	62,100 PSI	Hybrid 100V	40.0	2909	53,400 PSI	44.5	3142	61,500 PSI
W760	41.0	3007	45,900 PSI	45.8	3329	59,500 PSI	IMR 4350	40.0	2842	50,200 PSI	44.6C	3126	62,600 PSI
H380	39.0	2937	46,800 PSI	43.5	3243	59,000 PSI	W760	39.0	2774	44,400 PSI	43.5	3093	58,500 PSI
Varget	37.0	3020	49,200 PSI	41.0	3270	59,100 PSI	Varget	36.0	2843	49,800 PSI	40.2	3055	59,200 PSI
IMR 4064	37.0	3006	49,700 PSI	41.0	3277	61,700 PSI	StaBALL Match	35.2	2772	51,100 PSI	39.0	3008	63,000 PSI
StaBALL Match	36.5	3032	51,800 PSI	40.7	3276	62,800 PSI	W748	34.5	2766	55,300 PSI	38.5	2964	61,500 PSI
IMR 4895	36.5	2998	50,500 PSI	40.7	3261	61,800 PSI	IMR 4064	34.0	2765	50,000 PSI	38.0	2982	61,000 PSI
W748	36.0	3020	54,800 PSI	40.2	3235	61,200 PSI	IMR 4895	34.0	2737	48,800 PSI	38.5	3016	62,400 PSI
H4895	35.5	3003	48,400 PSI	39.5	3253	59,200 PSI	H4895	34.0	2749	45,900 PSI	38.5	3035	59,900 PSI
Bullet: 87 GR. HDY HPBT						Dia: .243"							
Case: REM		Primer: FED 210M, LR Match				Col: 2.825"							
Magnum	48.0	2862	53,600 PSI	53.3	3180	59,500 PSI	Grand	47.2	2833	49,600 PSI	51.6C	3106	62,500 PSI
Big Game	39.2	2952	56,300 PSI	43.5	3280	62,500 PSI	Retumbo	47.0	2836	44,900 PSI	50.0C	3033	55,200 PSI
Case: WIN		Primer: REM 9 1/2, LR				Col: 2.825"							
IMR 7828 SSC	45.0	2941	48,700 PSI	50.0C*	3250	61,900 PSI	H1000	47.0	2818	47,400 PSI	50.0C	2980	55,100 PSI
H4831	44.0	2871	41,900 PSI	49.5C	3164	53,200 PSI	H4831	43.0	2779	48,300 PSI	48.0C	3042	59,600 PSI
IMR 4831	43.0	2985	47,400 PSI	48.0C	3327	61,300 PSI	IMR 7828 SSC	42.0	2739	50,300 PSI	47.0C*	3023	63,000 PSI
StaBALL 6.5	43.0	3045	45,800 PSI	47.5	3382	62,100 PSI	IMR 4831	40.0	2772	48,800 PSI	44.5	3080	63,600 PSI
Hybrid 100V	43.0	3149	53,300 PSI	47.0C	3386	63,300 PSI	StaBALL 6.5	41.0	2815	49,800 PSI	44.2	3044	61,600 PSI
H4350	42.0	3051	48,100 PSI	46.7	3317	59,500 PSI	Hybrid 100V	40.0	2870	54,400 PSI	43.5	3053	62,800 PSI
IMR 4350	42.0	2990	49,000 PSI	46.5C	3306	62,500 PSI	H4350	39.0	2779	48,800 PSI	43.5	3016	59,600 PSI
W760	41.0	3000	47,200 PSI	45.2	3291	59,900 PSI	IMR 4350	39.0	2750	49,300 PSI	43.5	3044	63,800 PSI
H380	39.0	2940	47,300 PSI	43.0	3206	59,200 PSI	W760	39.0	2757	49,800 PSI	43.0	3001	60,400 PSI
Varget	37.0	3011	49,100 PSI	41.0	3243	59,300 PSI	Varget	34.0	2652	46,300 PSI	38.5	2930	60,200 PSI
IMR 4064	36.0	2945	48,900 PSI	40.3	3217	61,200 PSI	StaBALL Match	34.3	2683	53,300 PSI	37.7	2884	63,400 PSI
StaBALL Match	36.3	2986	51,600 PSI	40.2	3222	63,400 PSI	IMR 4064	33.0	2650	48,900 PSI	37.0	2869	60,800 PSI
IMR 4895	36.0	2982	51,200 PSI	40.2	3236	62,800 PSI	Bullet: 108 GR. HDY ELD-M						Dia: .243"
W748	36.0	2944	52,000 PSI	39.8	3174	62,100 PSI	Case: REM		Primer: FED 210M, LR Match				Col: 2.825"
H4895	35.5	2986	49,100 PSI	39.5	3214	60,300 PSI	A-2700	40.1	2605	54,900 PSI	44.5	2960	60,900 PSI
Bullet: 95 GR. NOS BT						Dia: .243"							
Case: WIN		Primer: REM 9 1/2, LR				Col: 2.825"							
Grand	47.6	2891	45,800 PSI	52.0C	3166	57,900 PSI	A-4350	39.6	2563	53,300 PSI	44.0	2912	59,200 PSI
H1000	47.0	2835	43,000 PSI	50.5C	3056	52,900 PSI	Case: WIN		Primer: REM 9 1/2, LR				Col: 2.825"
							Grand	47.0	2830	48,600 PSI	51.6C	3125	61,400 PSI
							H1000	47.0	2817	45,800 PSI	50.0C	2980	53,300 PSI
							H4831	44.0	2839	49,400 PSI	47.5C	3028	57,900 PSI
							IMR 4831	41.0	2785	48,800 PSI	45.7C	3075	62,100 PSI
							StaBALL 6.5	41.0	2794	46,800 PSI	44.7	3086	61,800 PSI
							Hybrid 100V	40.0	2849	51,900 PSI	43.7C	3078	62,500 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
H4350	40.0	2838	49,700 PSI	43.5	3029	58,800 PSI	IMR 3031	36.0	3036	35,800 CUP	40.3	3343	33,600 CUP
W760	40.0	2826	50,700 PSI	43.0	3009	58,600 PSI	IMR 8208 XBR	36.0	3062	38,400 CUP	39.8	3284	33,600 CUP
IMR 4350	39.0	2713	48,200 PSI	43.8	3027	62,600 PSI	Benchmark	35.5	2990	36,900 CUP	39.5	3285	33,600 CUP
StaBALL Match	34.5	2672	49,700 PSI	38.1	2918	62,600 PSI	CFE 223	35.0	3038	40,700 CUP	39.0	3243	33,600 CUP
Varget	34.0	2711	47,400 PSI	38.0	2946	58,800 PSI	Bullet: 85 GR. BAR X Dia: .257"						
IMR 4064	33.0	2659	49,200 PSI	37.2	2894	60,700 PSI	Case: Rem Primer: FED 210, LR Col: 2.770"						
Bullet: 115 GR. BAR RN Dia: .243"							A-4350	42.3	2802	44,000 PSI	47.0	3184	48,900 PSI
Case: WIN Primer: REM 9 1/2, LR Col: 2.825"							A-2700	42.8	2959	46,300 PSI	45.0	3148	48,700 PSI
Returnbo	47.0	2711	43,200 CUP	50.0C	2878	49,000 CUP	A-4064	37.3	2750	44,000 PSI	41.5	3125	49,000 PSI
H1000	43.0	2665	43,800 CUP	45.5	2793	49,600 CUP	A-2520	35.1	2709	43,800 PSI	39.0	3078	48,700 PSI
H4831	39.0	2598	43,800 CUP	42.0	2761	49,800 CUP	Bullet: 90 GR. HDY GMX Dia: .257"						
H4350	36.0	2537	43,200 CUP	39.0	2696	49,700 CUP	Case: Rem Primer: REM 9 1/2, LR Col: 2.880"						
257 ROBERTS							IMR 7828 SSC	44.0	2847	41,000 CUP	49.0C	3038	33,600 CUP
Barrel: 24" Twist: 1:10" Trim: 2.223"							IMR 4831	41.0	2841	38,800 CUP	45.3	3031	33,600 CUP
Bullet: 60 GR. HDY SP Dia: .257"							H4831	40.0	2645	35,200 CUP	44.5	2925	33,600 CUP
Case: Rem Primer: REM 9 1/2, LR Col: 2.535"							Hybrid 100V	40.0	2823	37,100 cUP	44.5	3128	33,600 CUP
H414	49.5	3566	36,000 CUP	54.0	3818	33,600 CUP	StaBALL 6.5	40.5	2741	35,300 CUP	44.3	3067	33,600 CUP
W760	49.5	3566	36,000 CUP	54.0	3818	33,600 CUP	IMR 4350	40.0	2837	39,400 CUP	44.0	3025	33,600 CUP
H4831	49.0	2847	23,700 CUP	53.0	3382	33,600 CUP	H414	39.0	2832	39,200 CUP	42.5	2984	33,600 CUP
H4350	48.0	3290	36,200 CUP	51.0	3612	33,600 CUP	H4350	38.0	2729	36,000 CUP	42.0	2968	33,600 CUP
H380	45.0	3497	39,000 CUP	49.0	3752	33,600 CUP	H380	36.0	2661	38,500 CUP	40.0	2862	33,600 CUP
BL-C(2)	44.0	3469	30,000 CUP	48.0	3834	33,600 CUP	IMR 4895	36.0	2787	37,500 CUP	39.8	3023	33,600 CUP
H335	44.0	3467	29,400 CUP	48.0	3885	33,600 CUP	IMR 4064	35.0	2773	36,900 CUP	38.5	2973	33,600 CUP
CFE 223	44.0	3551	37,200 CUP	47.5	3760	33,600 CUP	Varget	35.0	2788	39,100 CUP	38.0	2968	33,600 CUP
H4895	42.0	3376	36,600 CUP	46.0	3805	33,600 CUP	BL-C(2)	35.0	2749	39,800 CUP	38.0	2916	33,600 CUP
Benchmark	41.0	3453	42,200 CUP	43.7	3671	33,600 CUP	H4895	33.0	2739	37,700 CUP	36.5	2943	33,600 CUP
Bullet: 75 GR. HDY HP Dia: .257"							IMR 8208 XBR	33.0	2739	38,300 CUP	36.3	2927	33,600 CUP
Case: Rem Primer: REM 9 1/2, LR Col: 2.795"							Bullet: 90 GR. SIE HPBT Dia: .257"						
IMR 4350	47.8	3254	41,700 CUP	52.0C	3496	33,600 CUP	Case: Rem Primer: FED 210, LR Col: 2.735"						
IMR 4831	46.5	3017	34,100 CUP	51.5C	3403	33,600 CUP	A-4350	42.3	2786	44,900 PSI	47.0	3166	49,900 PSI
Hybrid 100V	45.0	3145	36,500 CUP	49.0C	3380	33,600 CUP	A-2700	41.8	2954	47,800 PSI	44.0	3143	50,300 PSI
H414	48.0	3343	37,200 CUP	52.0	3555	33,600 CUP	A-4064	37.3	2755	44,400 PSI	41.5	3131	49,400 PSI
W760	48.0	3343	37,200 CUP	52.0	3555	33,600 CUP	A-2520	34.7	2692	43,400 PSI	38.5	3059	48,200 PSI
H4350	47.0	3129	35,200 CUP	50.0	3422	33,600 CUP	Case: Rem Primer: REM 9 1/2, LR Col: 2.775"						
StaBALL 6.5	44.0	3082	36,300 CUP	48.5	3391	33,600 CUP	H4831	48.0	2786	27,600 CUP	52.0	3236	39,500 CUP
H380	44.0	3258	37,800 CUP	48.0	3563	33,600 CUP	IMR 4831	47.4	3049	37,500 CUP	51.5C	3313	45,800 CUP
BL-C(2)	42.0	3094	31,800 CUP	46.0	3531	33,600 CUP	IMR 4350	47.0	3084	41,800 CUP	50.0C	3299	47,900 CUP
H335	42.0	3161	31,200 CUP	46.0	3548	33,600 CUP	H414	46.0	3107	34,800 CUP	50.0	3368	44,400 CUP
IMR 4064	41.7	3320	39,700 CUP	44.3	3517	33,600 CUP	W760	46.0	3107	34,800 CUP	50.0	3368	44,400 CUP
H4895	40.5	3201	34,800 CUP	44.0	3561	33,600 CUP	Hybrid 100V	45.0	3061	38,800 CUP	49.0C	3282	44,800 CUP
IMR 4895	40.9	3288	39,700 CUP	43.5	3496	33,600 CUP	StaBALL 6.5	41.5	2823	33,800 CUP	47.3	3231	46,100 CUP
IMR 8208 XBR	40.5	3390	39,300 CUP	43.0	3456	33,600 CUP	H380	43.0	3083	38,400 CUP	47.0	3364	45,400 CUP
CFE 223	38.0	3160	38,500 CUP	42.0	3369	33,600 CUP	H4350	44.0	2890	36,100 CUP	46.0	3040	43,700 CUP
Benchmark	39.0	3226	39,200 CUP	41.7	3434	33,600 CUP	BL-C(2)	40.0	2864	30,600 CUP	43.5	3231	45,000 CUP
Varget	37.0	3155	34,700 CUP	41.0	3453	33,600 CUP	H335	39.0	2951	30,600 CUP	43.0	3300	44,400 CUP
Bullet: 75 GR. SIE HP Dia: .257"							IMR 4064	39.8	3040	39,600 CUP	42.3	3211	46,300 CUP
Case: Rem Primer: FED 210, LR Col: 2.745"							H4895	38.5	2954	33,600 CUP	42.0	3372	47,600 CUP
A-4350	44.1	2966	42,500 PSI	49.0	3370	47,200 PSI	IMR 4895	39.5	3042	39,800 CUP	42.0	3238	46,400 CUP
Hunter	44.0	3000	45,200 PSI	49.0	3320	50,300 PSI	IMR 8208 XBR	39.4	3129	40,200 CUP	42.0	3314	46,800 CUP
Big Game	42.5	3140	47,000 PSI	47.5	3450	52,500 PSI	Varget	36.0	2990	36,300 CUP	40.0	3269	44,900 CUP
A-2700	44.7	3119	46,200 PSI	47.0	3318	48,600 PSI	Bullet: 100 GR. BARTSX BT Dia: .257"						
A-4064	39.0	2966	45,900 PSI	43.3	3370	51,000 PSI	Case: Rem Primer: FED 210, LR Col: 2.760"						
A-2520	36.9	2912	43,300 PSI	41.0	3309	48,100 PSI	A-4350	39.6	2570	45,300 PSI	44.0	2920	50,300 PSI
Bullet: 80 GR. BARTSX BT Dia: .257"							A-2700	39.0	2640	45,500 PSI	41.0	2808	47,800 PSI
Case: Rem Primer: REM 9 1/2, LR Col: 2.780"							A-4064	35.1	2533	44,600 PSI	39.0	2879	49,600 PSI
IMR 4350	45.0	3008	35,100 CUP	49.2C	3326	33,600 CUP	A-2520	33.3	2475	44,900 PSI	37.0	2813	49,900 PSI
StaBALL 6.5	44.4	3181	40,100 CUP	48.8	3458	33,600 CUP	Bullet: 100 GR. NOS BT Dia: .257"						
H4350	44.0	2999	36,000 CUP	48.5	3290	33,600 CUP	Case: Rem Primer: FED 210, LR Col: 2.775"						
H414	43.0	3047	37,300 CUP	48.0	3377	33,600 CUP	A-4350	41.9	2682	45,800 PSI	46.5	3048	50,800 PSI
W760	43.0	3047	37,300 CUP	48.0	3377	33,600 CUP	Hunter	40.0	2690	46,400 PSI	45.0	3000	52,200 PSI
H380	41.0	2988	36,700 CUP	45.0	3257	33,600 CUP	A-2700	40.9	2761	46,800 PSI	43.0	2937	49,200 PSI
IMR 4064	39.0	3071	35,300 CUP	43.5	3419	33,600 CUP	Big Game	37.5	2750	47,200 PSI	42.0	3020	52,900 PSI
Varget	39.0	3061	37,500 CUP	43.0	3287	33,600 CUP	A-4064	36.0	2594	45,700 PSI	40.0	2948	50,800 PSI
BL-C(2)	39.0	3114	42,300 CUP	43.0	3277	33,600 CUP	A-2520	33.8	2525	43,900 PSI	37.5	2869	48,700 PSI
IMR 4895	39.0	3058	37,000 CUP	43.0	3357	33,600 CUP	Bullet: 100 GR. SPR SPBT Dia: .257"						
W748	39.0	3094	41,300 CUP	42.5	3248	33,600 CUP	Case: Rem Primer: REM 9 1/2, LR Col: 2.770"						
H4895	37.0	3090	38,800 CUP	40.8	3281	33,600 CUP	IMR 4831	46.3	2965	41,000 CUP	49.2C	3134	47,100 CUP

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads		
	Vel	Pressure			Vel	Pressure				Vel	Pressure			Vel	Pressure	
Hybrid 100V	44.0	2968	38,800 CUP	48.0C	3205	45,400 CUP		IMR 4064	44.0	3322	43,600 CUP	48.5	3566	51,200 CUP		
H4831	45.0	2660	29,100 CUP	49.0	3010	44,100 CUP		IMR 4895	43.0	3250	44,100 CUP	48.0	3529	50,900 CUP		
IMR 4350	44.8	2896	38,400 CUP	47.7	3077	47,000 CUP		Bullet: 80 GR. BARTTSX BT Dia: .257"								
StaBALL 6.5	41.8	2865	40,100 CUP	45.8	3057	47,400 CUP		Case: REM		Primer: REM 9 1/2, LR				Col: 3.075"		
H4350	43.0	2833	34,200 CUP	45.0	2970	45,400 CUP		IMR 7828 SSC	57.0	3350	49,900 PSI	61.0C*	3582	58,500 PSI		
H414	44.0	2919	33,600 CUP	45.0	3098	44,500 CUP		IMR 4831	52.0	3301	45,600 PSI	56.0C	3569	55,200 PSI		
W760	44.0	2919	33,600 CUP	45.0	3098	44,500 CUP		H4350	51.0	3347	48,500 PSI	55.0C	3560	56,900 PSI		
H380	40.5	2868	37,800 CUP	44.0	3108	46,600 CUP		IMR 4350	51.0	3372	49,300 PSI	55.0C	3600	57,300 PSI		
IMR 4064	38.8	2904	40,900 CUP	41.3	3076	47,300 CUP		Hybrid 100V	50.0	3353	46,400 PSI	54.0C	3624	56,600 PSI		
IMR 4895	39.0	2921	41,200 CUP	41.0	3061	45,900 CUP		H380	49.0	3394	52,800 PSI	52.5	3597	60,800 PSI		
IMR 8208 XBR	37.1	2991	39,400 CUP	39.5	3085	44,700 CUP		W760	48.0	3379	52,800 PSI	53.0	3586	60,300 PSI		
BL-C(2)	36.0	2692	32,400 CUP	39.0	2958	45,400 CUP		IMR 4064	45.0	3377	49,500 PSI	49.5	3645	61,400 PSI		
H335	36.0	2776	37,200 CUP	39.0	3042	47,800 CUP		IMR 4895	45.0	3385	50,500 PSI	49.5	3661	61,900 PSI		
Varget	34.0	2724	34,400 CUP	38.0	2981	44,900 CUP		H4895	43.0	3408	52,100 PSI	47.5	3630	61,500 PSI		
H4895	35.0	2661	30,600 CUP	38.0	2990	46,100 CUP										

Bullet: 115 GR. NOS PART Dia: .257"						
Case: Rem		Primer: REM 9 1/2, LR		Col: 2.780"		
IMR 7828 SSC	42.0	2480	35,500 CUP	46.3	2724	43,700 CUP
IMR 4831	42.6	2670	37,900 CUP	46.3	2867	46,000 CUP
Hybrid 100V	42.0	2845	40,700 CUP	46.0C	3049	46,600 CUP
H4831	43.0	2479	30,400 CUP	46.0	2760	46,000 CUP
IMR 4350	41.9	2666	39,800 CUP	45.5	2866	46,600 CUP
H4350	41.0	2660	40,600 CUP	43.0	2777	44,400 CUP
H414	39.5	2574	36,000 CUP	43.0	2720	44,200 CUP
StaBALL 6.5	38.5	2595	38,800 CUP	43.0	2831	46,000 CUP
W760	39.5	2574	36,000 CUP	43.0	2720	44,200 CUP
H380	37.0	2567	39,600 CUP	40.0	2754	45,900 CUP
IMR 4895	36.7	2667	40,500 CUP	38.6	2770	46,500 CUP
IMR 4064	36.1	2650	39,400 CUP	38.4	2756	46,300 CUP
IMR 8208 XBR	34.8	2707	39,200 CUP	37.0	2798	45,000 CUP
BL-C(2)	33.0	2402	33,600 CUP	36.0	2673	47,100 CUP
H4895	33.0	2433	31,200 CUP	36.0	2702	45,100 CUP
Varget	31.0	2462	34,300 CUP	35.0	2701	44,900 CUP

Bullet: 117 GR. SIE SBT Dia: .257"						
Case: Rem		Primer: FED 210, LR		Col: 2.775"		
A-4350	39.6	2410	43,600 PSI	44.0	2739	48,400 PSI
Hunter	39.0	2560	48,000 PSI	43.5	2840	53,500 PSI
A-2700	39.0	2532	45,700 PSI	41.0	2694	48,000 PSI
Big Game	35.5	2530	46,800 PSI	39.5	2770	52,100 PSI
A-4064	33.7	2347	44,300 PSI	37.5	2668	49,300 PSI
A-2520	32.9	2357	44,400 PSI	36.5	2678	49,300 PSI

Bullet: 120 GR. SIE HPBT Dia: .257"						
Case: Rem		Primer: REM 9 1/2, LR		Col: 2.775"		
IMR 7828			47.0C	2745	43,900 CUP	
IMR 4831			44.0	2810	45,000 CUP	
IMR 4350			41.5	2780	45,000 CUP	
IMR 4064			35.5	2695	44,000 CUP	
IMR 4895			33.5	2615	45,000 CUP	

25-06 REMINGTON

Barrel: 24" Twist: 1:10" Trim: 2.484"

Bullet: 75 GR. HDY V-MAX Dia: .257"						
Case: REM		Primer: WIN LR		Col: 3.140"		
Magnum	57.2	3137	48,500 PSI	63.6	3485	54,000 PSI
Hunter	53.8	3355	54,700 PSI	59.8	3766	60,800 PSI
A-4350	53.1	3326	55,300 PSI	59.0	3780	61,400 PSI
Case: REM		Primer: REM 9 1/2, LR		Col: 3.100"		
H1000	58.0	3135	35,300 CUP	62.0C	3339	40,000 CUP
H4831	58.0	3393	41,800 CUP	62.0C	3599	49,300 CUP
IMR 7828 SSC	56.0	3252	44,300 CUP	59.7C*	3486	50,600 CUP
IMR 4831	53.0	3197	43,200 CUP	58.0C	3540	51,600 CUP
H4350	54.0	3460	43,300 CUP	58.5	3700	50,900 CUP
Hybrid 100V	51.0	3395	44,300 CUP	55.5	3625	50,900 CUP
W760	51.0	3471	44,500 CUP	55.0	3626	50,100 CUP
IMR 4350	50.0	3195	41,800 CUP	55.0	3493	51,000 CUP
H380	47.0	3331	45,000 CUP	51.0	3494	49,900 CUP
Varget	46.0	3454	43,400 CUP	49.7	3660	51,200 CUP
H4895	45.0	3474	45,000 CUP	48.5	3642	50,800 CUP

Bullet: 85 GR. NOS BT Dia: .257"						
Case: REM		Primer: REM 9 1/2, LR		Col: 3.230"		
H1000	58.0	3218	41,000 CUP	62.0C	3442	48,100 CUP
IMR 7828 SSC	55.0	3186	46,200 CUP	59.2C*	3417	51,900 CUP
H4831	54.0	3302	46,000 CUP	58.0	3473	51,700 CUP
Hybrid 100V	49.0	3223	44,100 CUP	54.0	3490	51,200 CUP
IMR 4831	49.0	3021	42,400 CUP	55.0	3417	51,600 CUP
H4350	49.0	3255	44,400 CUP	53.0	3445	50,700 CUP
IMR 4350	48.0	3107	43,700 CUP	53.0	3398	50,800 CUP
W760	48.0	3248	45,000 CUP	52.0	3443	50,600 CUP
H380	45.0	3130	43,700 CUP	49.0	3321	51,200 CUP
Varget	43.0	3271	45,000 CUP	46.5	3449	50,900 CUP
IMR 4064	42.0	3149	45,700 CUP	45.7	3353	50,200 CUP
IMR 4895	41.0	3063	43,300 CUP	45.5	3297	50,100 CUP
H4895	41.0	3176	44,600 CUP	44.5	3369	51,600 CUP

Bullet: 87 GR. HDY SP Dia: .257"						
Case: REM		Primer: WIN LR		Col: 3.120"		
Magpro	56.3	3261	54,900 PSI	62.5	3573	60,900 PSI
A-4350	49.5	3203	55,300 PSI	55.0	3501	61,500 PSI

Bullet: 87 GR. SPR HP Dia: .257"						
Case: REM		Primer: REM 9 1/2, LR		Col: 3.115"		
H1000	58.0	3176	36,200 CUP	62.0C	3296	43,700 CUP
H4831	56.0	3232	43,500 CUP	60.0	3421	50,500 CUP
IMR 7828 SSC	55.0	3133	43,600 CUP	59.5C*	3398	51,600 CUP
IMR 4831	52.0	3099	41,900 CUP	56.5	3398	50,600 CUP
Hybrid 100V	50.0	3214	42,400 CUP	55.0	3499	49,300 CUP
H4350	50.0	3234	45,600 CUP	54.5	3409	50,800 CUP
IMR 4350	50.0	3086	41,800 CUP	54.8	3378	50,900 CUP
W760	47.0	3138	43,800 CUP	50.5	3327	51,100 CUP
Varget	43.0	3231	44,900 CUP	46.0	3382	50,500 CUP
H4895	43.0	3243	47,700 CUP	45.5	3364	51,600 CUP
IMR 4064	42.0	3091	42,000 CUP	46.5	3344	50,600 CUP
IMR 4895	42.0	3148	45,800 CUP	46.0	3341	51,000 CUP

Bullet: 90 GR. BAR BAND-S Dia: .257"						
Case: REM		Primer: WIN LR		Col: 3.250"		
Magnum	57.3	2980	52,400 PSI	63.7	3311	58,300 PSI
Hunter	49.5	3028	55,100 PSI	55.0	3364	61,300 PSI

Bullet: 90 GR. HDY GMX Dia: .257"						
Case: REM		Primer: REM 9 1/2, LR		Col: 3.115"		
StaBALL HD	56.0	3063	47,300 PSI	61.5C	3363	57,500 PSI
Retumbo	56.0	3250	51,000 PSI	60.0C	3432	58,700 PSI
H1000	56.0	3248	54,900 PSI	60.0C	3377	59,300 PSI
IMR 7828 SSC	52.0	3198	52,300 PSI	57.0C	3437	61,500 PSI
H4831	50.0	3205	56,200 PSI	54.5C	3363	61,000 PSI
IMR 4831	48.0	3219	53,400 PSI	52.8	3437	60,400 PSI
IMR 4350	47.0	3223	54,800 PSI	52.0	3437	61,800 PSI
Hybrid 100V	46.0	3152	49,100 PSI	50.7	3436	59,500 PSI
H4350	45.0	3117	51,300 PSI	49.5	3344	60,600 PSI
Varget	41.0	3098	51,600 PSI	44.0	3261	58,800 PSI
IMR 4895	41.0	3070	49,200 PSI	46.0	3351	59,900 PSI
IMR 4064	40.0	3043	48,900 PSI	44.0	3253	57,300 PSI
H4895	39.0	3053	50,800 PSI	43.0	3281	60,200 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 90 GR. SIE HPBT Dia: .257"							Varget 38.0 2584 45,100 CUP 41.0 2755 51,900 CUP						
Case: REM Primer: WIN LR Col: 3.100"							H4895 37.0 2541 45,400 CUP 40.0 2694 51,700 CUP						
Magpro 55.9 3248 55,300 PSI 62.2 3550 61,500 PSI							Bullet: 120 GR. SIE HPBT Dia: .257"						
A-4350 48.6 3055 56,600 PSI 54.0 3472 62,900 PSI							Case: REM Primer: WIN LR Col: 3.200"						
Case: REM Primer: REM 9 1/2, LR Col: 3.100"							Magnum 53.1 2768 55,600 PSI 59.0 3025 61,800 PSI						
StaBALL HD 56.7 3089 45,700 PSI 62.2C 3392 56,500 PSI							Magpro 50.6 2788 56,200 PSI 56.3 3038 62,500 PSI						
H1000 58.0 3142 40,300 CUP 62.0C 3330 47,500 CUP							257 WEATHERBY MAGNUM						
IMR 7828 SSC 55.0 3145 46,400 CUP 59.5C* 3374 52,900 CUP							Barrel: 26" Twist: 1:10" Trim: 2.537"						
H4831 54.0 3213 46,000 CUP 58.0 3481 50,400 CUP							Bullet: 70 GR. SIE BK Dia: .257"						
IMR 4831 51.0 3095 42,900 CUP 55.5 3374 51,100 CUP							Case: Weatherby Primer: WIN LR Col: 3.170"						
Hybrid 100V 50.0 3217 46,400 CUP 54.0 3404 51,500 CUP							Magnum 72.6 3460 55,200 PSI 80.7 3872 61,300 PSI						
IMR 4350 49.0 3088 42,800 CUP 53.5 3348 51,400 CUP							Magpro 71.9 3398 55,200 PSI 79.9 3826 61,400 PSI						
H4350 49.0 3191 44,000 CUP 53.0 3370 50,700 CUP							A-4350 64.4 3407 55,400 PSI 71.5 3863 61,600 PSI						
W760 47.0 3135 44,300 CUP 51.0 3315 50,200 CUP							A-5744 39.7 3243 47,600 PSI 49.7 3855 59,500 PSI						
IMR 4895 42.0 3106 46,000 CUP 45.9 3269 49,200 CUP							Bullet: 75 GR. HDY V-MAX Dia: .257"						
IMR 4064 42.0 3117 45,100 CUP 45.8 3298 51,100 CUP							Case: Weatherby Primer: FED 215, LR Magnum Col: 3.250"						
Varget 42.0 3165 45,000 CUP 45.0 3312 50,400 CUP							H1000 76.0 3517 37,700 CUP 80.0C 3649 42,000 CUP						
H4895 41.0 3128 44,100 CUP 44.0 3257 51,000 CUP							H4831 71.0 3652 45,200 CUP 75.0 3841 51,900 CUP						
Bullet: 100 GR. NOS BT Dia: .257"							H4350 65.0 3715 43,100 CUP 70.0 3905 51,800 CUP						
Case: REM Primer: WIN LR Col: 3.170"							W760 65.0 3717 44,200 CUP 69.5 3971 52,400 CUP						
Magnum 55.6 2937 52,200 PSI 61.8 3263 58,000 PSI							Bullet: 75 GR. HDY HP Dia: .257"						
Magpro 54.6 3019 55,900 PSI 60.7 3296 62,200 PSI							Case: Weatherby Primer: WIN LR Col: 3.140"						
A-4350 47.7 2969 56,000 PSI 53.0 3245 62,200 PSI							Magpro 70.5 3320 56,100 PSI 78.3 3736 62,300 PSI						
Bullet: 100 GR. NOS PART Dia: .257"							Magnum 70.0 3282 55,400 PSI 77.8 3691 61,600 PSI						
Case: REM Primer: REM 9 1/2, LR Col: 3.200"							A-4350 64.1 3318 55,700 PSI 71.2 3741 61,900 PSI						
StaBALL HD 55.4 3028 48,200 PSI 60.8 3324 60,200 PSI							Bullet: 85 GR. NOS BT Dia: .257"						
H1000 56.0 3055 44,600 CUP 59.7C 3212 50,700 CUP							Case: Weatherby Primer: WIN LR Col: 3.250"						
IMR 7828 SSC 53.0 2940 40,700 CUP 57.2C 3203 51,300 CUP							LRT 76.5 3222 54,900 PSI 84.9 3638 61,000 PSI						
H4831 51.0 3025 46,800 CUP 54.3 3172 51,400 CUP							Magnum 69.4 3244 55,800 PSI 77.1 3623 62,000 PSI						
IMR 4831 49.0 2981 41,700 CUP 54.0 3233 51,400 CUP							Magpro 69.0 3232 55,400 PSI 76.6 3629 61,600 PSI						
IMR 4350 48.0 2975 43,200 CUP 52.8 3257 51,200 CUP							A-4350 60.6 3246 55,400 PSI 67.3 3597 61,500 PSI						
Hybrid 100V 48.0 3034 44,200 CUP 52.5 3295 51,800 CUP							Case: Weatherby Primer: FED 215, LR Magnum Col: 3.250"						
H4350 47.0 3038 47,800 CUP 50.0 3155 51,500 CUP							H1000 76.0 3548 44,600 CUP 80.0C 3665 47,900 CUP						
W760 42.0 2843 44,600 CUP 47.0 3059 50,700 CUP							H4831 68.0 3498 45,000 CUP 72.0 3664 52,200 CUP						
IMR 4895 42.0 3009 46,000 CUP 45.3 3155 50,400 CUP							H4350 63.0 3544 44,400 CUP 67.0 3739 51,600 CUP						
Varget 41.0 2974 45,600 CUP 44.0 3125 51,400 CUP							W760 62.5 3543 44,800 CUP 66.5 3746 51,700 CUP						
IMR 4064 40.0 2904 40,400 CUP 44.0 3122 50,800 CUP							Bullet: 90 GR. HDY GMX Dia: .257"						
H4895 40.0 2921 44,200 CUP 43.0 3072 51,000 CUP							Case: Weatherby Primer: WIN LR Col: 3.180"						
Trail Boss 13.4 1454 25,500 PSI 19.2 1712 30,600 PSI							LRT 74.4 3195 54,100 PSI 82.7 3594 60,100 PSI						
Bullet: 117 GR. HDY SPBT Dia: .257"							Magnum 68.1 3231 55,300 PSI 75.7 3591 61,500 PSI						
Case: REM Primer: WIN LR Col: 3.165"							Magpro 67.5 3228 56,200 PSI 75.0 3624 62,500 PSI						
Magnum 54.5 2811 55,200 PSI 60.5 3123 61,300 PSI							A-4350 59.9 3213 55,900 PSI 66.6 3554 62,100 PSI						
Magpro 51.3 2807 55,800 PSI 57.0 3068 62,000 PSI							Bullet: 90 GR. SIE BK Dia: .257"						
Hunter 46.9 2717 55,300 PSI 52.1 3019 61,400 PSI							Case: Weatherby Primer: WIN LR Col: 3.150"						
A-4350 45.9 2784 56,400 PSI 51.0 3043 62,700 PSI							LRT 75.7 3266 56,000 PSI 84.1 3668 62,200 PSI						
Case: REM Primer: REM 9 1/2, LR Col: 3.165"							Magpro 67.4 3252 55,300 PSI 74.9 3613 61,500 PSI						
Retumbo 56.0 2876 44,600 CUP 60.5C 3079 50,700 CUP							Magnum 67.2 3221 56,100 PSI 74.6 3604 62,300 PSI						
H1000 55.0 2936 47,200 CUP 58.5C 3046 51,000 CUP							A-4350 60.4 3190 55,300 PSI 67.1 3586 61,500 PSI						
StaBALL HD 53.3 2889 49,600 PSI 58.3 3152 60,900 PSI							A-5744 34.5 2823 44,400 PSI 46.0 3458 59,200 PSI						
IMR 7828 SSC 51.0 2879 46,600 CUP 55.0 3037 51,200 CUP							Bullet: 90 GR. SIE HPBT Dia: .257"						
IMR 4831 48.0 2839 42,600 CUP 53.0 3137 51,400 CUP							Case: Weatherby Primer: FED 215, LR Magnum Col: 3.150"						
H4831 48.0 2748 43,000 CUP 52.0 2937 50,900 CUP							H1000 76.0 3494 43,800 CUP 80.0C 3671 50,000 CUP						
IMR 4350 47.0 2851 42,700 CUP 52.0 3106 51,300 CUP							H4831 67.0 3420 44,400 CUP 71.0 3611 52,500 CUP						
Hybrid 100V 46.0 2981 43,100 CUP 50.5 3111 50,400 CUP							H4350 62.5 3524 46,600 CUP 66.5 3685 52,400 CUP						
H4350 44.0 2737 44,300 CUP 47.7 2923 50,800 CUP							W760 62.0 3458 44,000 CUP 66.0 3671 52,200 CUP						
Varget 37.0 2637 42,900 CUP 41.0 2838 50,100 CUP							Bullet: 100 GR. SFT A-FRAME Dia: .257"						
H4895 37.0 2641 44,500 CUP 40.0 2797 50,600 CUP							Case: Weatherby Primer: WIN LR Col: 3.160"						
Bullet: 120 GR. SFT SP Dia: .257"							LRT 71.8 3064 55,200 PSI 79.8 3466 61,300 PSI						
Case: REM Primer: REM 9 1/2, LR Col: 3.150"							Magpro 65.4 3087 55,100 PSI 72.6 3451 61,100 PSI						
Retumbo 56.0 2806 43,700 CUP 60.0C 2991 50,300 CUP							Magnum 65.3 3060 55,100 PSI 72.6 3428 61,300 PSI						
StaBALL HD 53.8 2862 51,700 PSI 57.9 3067 61,300 PSI							A-4350 58.2 3053 55,100 PSI 64.6 3503 61,300 PSI						
H1000 52.0 2772 44,900 CUP 55.5 2902 50,600 CUP							Bullet: 100 GR. SPR SPBT Dia: .257"						
IMR 7828 SSC 50.0 2752 44,400 CUP 54.0 2923 50,300 CUP							Case: Weatherby Primer: FED 215, LR Magnum Col: 3.200"						
IMR 4831 48.0 2787 42,200 CUP 53.0C 3065 50,900 CUP							H1000 73.0 3410 45,800 CUP 78.0 3575 52,400 CUP						
IMR 4350 48.0 2831 43,500 CUP 52.0C 3049 50,800 CUP							H4831 64.0 3312 45,800 CUP 68.0 3462 52,500 CUP						
H4831 48.0 2705 45,800 CUP 51.5 2856 51,200 CUP													
Hybrid 100V 46.0 2796 44,500 CUP 50.0 3009 51,200 CUP													
H4350 44.0 2643 42,900 CUP 47.5 2816 50,900 CUP													

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads					
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	
H4350	59.0	3312	44,900 CUP	63.0	3500	52,400 CUP	Bullet: 95 GR. HDY V-MAX Dia: .264"							
W760	59.0	3294	45,300 CUP	62.5	3449	51,800 CUP								
Bullet: 115 GR. BARTSX FB Dia: .257"								Case: Lapua Primer: Fed 205M, SR Match Col: 2.230"						
Case: Weatherby	Primer: WIN LR					Col: 3.160"	H335	28.0	2570	37,400 PSI	31.2	2841	50,200 PSI	
LRT	69.3	2902	55,900 PSI	77.0	3263	62,100 PSI	IMR 8208 XBR	28.0	2527	35,600 PSI	31.0C	2840	49,600 PSI	
Magnum	63.3	2908	55,500 PSI	70.4	3238	61,600 PSI	Benchmark	27.0	2476	33,900 PSI	30.0C	2807	49,700 PSI	
Magpro	61.9	2877	55,500 PSI	68.8	3236	61,700 PSI	H322	26.0	2477	35,900 PSI	28.8C	2768	49,300 PSI	
Bullet: 115 GR. BAR XFB Dia: .257"								H4198	23.0	2483	36,600 PSI	25.8C	2750	49,300 PSI
Case: Weatherby	Primer: FED 215, LR Magnum					Col: 3.250"	IMR 4198	22.5	2470	36,700 PSI	25.2C	2740	49,900 PSI	
H1000	67.0	3147	50,000 CUP	71.0	3265	52,700 CUP	Case: Alexander Primer: WIN SR					Col: 2.200"		
H4831	60.0	3030	46,200 CUP	64.0	3170	52,000 CUP	A-2520	29.3	2591	46,700 PSI	32.5	2858	51,900 PSI	
H4350	56.0	2988	46,900 CUP	60.0	3188	52,500 CUP	TAC	27.7	2509	46,400 PSI	30.7	2761	51,600 PSI	
Bullet: 115 GR. BER VLD Dia: .257"								A-2460	26.5	2495	46,500 PSI	29.4	2768	51,700 PSI
Case: Weatherby	Primer: WIN LR					Col: 3.240"	A-2230	26.4	2509	46,200 PSI	29.4	2766	51,400 PSI	
LRT	69.2	2929	55,300 PSI	76.9	3290	61,400 PSI	X-Terminator	26.4	2509	46,200 PSI	29.4	2766	51,400 PSI	
Magnum	62.6	2898	56,000 PSI	69.6	3257	62,200 PSI	A-2200	25.1	2541	46,500 PSI	27.9	2756	51,700 PSI	
Magpro	61.9	2877	54,800 PSI	68.8	3240	60,900 PSI	LT-32	24.3	2410	46,700 PSI	27.0	2641	51,800 PSI	
Bullet: 117 GR. HDY SPBT Dia: .257"								Bullet: 100 GR. NOS BT Dia: .264"						
Case: Weatherby	Primer: FED 215, LR Magnum					Col: 3.220"	Case: Lapua	Primer: Fed 205M, SR Match				Col: 2.200"		
H1000	70.0	3169	45,200 CUP	74.0	3321	51,800 CUP	IMR 8208 XBR	29.0	2542	38,300 PSI	30.8C	2732	47,600 PSI	
H4831	62.0	3099	44,800 CUP	66.0	3252	52,300 CUP	H335	28.0	2509	38,200 PSI	30.7	2744	49,700 PSI	
H4350	57.0	3112	46,000 CUP	60.5	3266	52,000 CUP	Benchmark	27.0	2460	36,300 PSI	29.9C	2739	49,900 PSI	
Bullet: 117 GR. SIE SBT Dia: .257"								H322	26.0	2420	36,700 PSI	29.0C	2716	49,800 PSI
Case: Weatherby	Primer: WIN LR					Col: 3.250"	H4198	23.0	2414	36,800 PSI	25.6C	2666	49,800 PSI	
LRT	68.7	2898	56,100 PSI	76.4	3249	62,300 PSI	IMR 4198	22.0	2334	34,400 PSI	25.1C	2646	49,600 PSI	
Magnum	62.0	2856	55,400 PSI	68.9	3207	61,600 PSI	Bullet: 100 GR. BAR TTSX BT Dia: .264"							
Magpro	61.9	2852	54,700 PSI	68.8	3190	60,700 PSI	Case: Alexander	Primer: WIN SR				Col: 2.260"		
Bullet: 120 GR. NOS PART Dia: .257"								A-2520	28.8	2476	46,200 PSI	32.0	2737	51,400 PSI
Case: Weatherby	Primer: WIN LR					Col: 3.240"	TAC	27.0	2360	46,300 PSI	30.0	2625	51,500 PSI	
LRT	69.1	2882	55,800 PSI	76.8	3218	62,000 PSI	A-2460	25.9	2358	46,100 PSI	28.8	2616	51,200 PSI	
Magnum	61.2	2800	55,700 PSI	68.0	3141	61,800 PSI	A-2230	25.8	2346	46,100 PSI	28.7	2610	51,200 PSI	
Magpro	60.3	2801	55,500 PSI	67.0	3138	61,700 PSI	X-Terminator	25.8	2346	46,100 PSI	28.7	2610	51,200 PSI	
A-5744	31.4	2404	45,700 PSI	40.7	2914	59,200 PSI	A-2200	24.0	2398	46,100 PSI	26.7	2603	51,300 PSI	
Bullet: 120 GR. SFT SP Dia: .257"								LT-32	22.8	2198	46,200 PSI	25.3	2421	51,300 PSI
Case: Weatherby	Primer: FED 215, LR Magnum					Col: 3.220"	LT-30	21.3	2179	46,100 PSI	23.6	2366	51,300 PSI	
H1000	69.0	3103	45,700 CUP	73.0	3256	51,800 CUP	Bullet: 100 GR. HDY SP Dia: .264"							
H4831	61.0	3013	44,600 CUP	65.0	3184	51,800 CUP	Case: Alexander	Primer: WIN SR				Col: 2.215"		
H4350	56.0	3000	44,400 CUP	60.0	3189	51,800 CUP	A-2520	29.4	2556	46,400 PSI	32.6	2806	51,600 PSI	
6.5MM GRENDL								TAC	28.0	2473	46,700 PSI	31.1	2724	51,900 PSI
Barrel: 24" Twist: 1:9" Trim: 1.515"								A-2230	26.5	2468	46,500 PSI	29.4	2695	51,600 PSI
Bullet: 85 GR. SIE HP Dia: .264"								X-Terminator	26.5	2468	46,500 PSI	29.4	2695	51,600 PSI
Case: Lapua	Primer: Fed 205M, SR Match					Col: 2.240"	A-2460	26.4	2438	46,300 PSI	29.3	2691	51,500 PSI	
H335	29.0	2705	37,700 PSI	32.0	2956	49,300 PSI	A-2200	25.0	2472	46,600 PSI	27.8	2703	51,700 PSI	
H322	27.0	2625	36,600 PSI	30.1C	2927	49,400 PSI	Bullet: 100 GR. NOS BT Dia: .264"							
H4198	24.5	2674	38,500 PSI	27.2C	2919	49,500 PSI	Case: Alexander	Primer: WIN SR				Col: 2.230"		
IMR 4198	24.0	2645	38,100 PSI	26.4C	2898	50,000 PSI	A-2520	28.6	2512	46,700 PSI	31.8	2767	51,800 PSI	
Case: Alexander Primer: WIN SR								TAC	27.7	2447	46,300 PSI	30.8	2696	51,400 PSI
A-2520	30.5	2724	46,300 PSI	33.9	2996	51,500 PSI	A-2460	26.1	2411	46,700 PSI	29.1	2670	51,900 PSI	
TAC	28.9	2638	46,500 PSI	32.2	2904	51,700 PSI	A-2230	26.1	2430	46,300 PSI	29.0	2674	51,500 PSI	
A-2230	27.5	2629	46,700 PSI	30.6	2889	51,900 PSI	X-Terminator	26.1	2430	46,300 PSI	29.0	2674	51,500 PSI	
X-Terminator	27.5	2629	46,700 PSI	30.6	2889	51,900 PSI	A-2200	24.5	2451	46,500 PSI	27.3	2673	51,700 PSI	
A-2460	27.4	2600	46,700 PSI	30.5	2887	51,900 PSI	LT-32	24.0	2321	46,800 PSI	26.6	2538	52,000 PSI	
A-2200	26.6	2705	46,000 PSI	29.6	2944	51,100 PSI	LT-30	22.6	2288	46,600 PSI	25.1	2495	51,800 PSI	
LT-32	25.4	2503	46,700 PSI	28.2	2772	51,900 PSI	Bullet: 107 GR. SIE HPBT Dia: .264"							
LT-30	24.3	2513	46,600 PSI	27.0	2754	51,700 PSI	Case: Lapua	Primer: Fed 205M, SR Match				Col: 2.250"		
Bullet: 90 GR. SPR TNT HP Dia: .264"								H335	27.0	2413	36,900 PSI	30.0	2677	49,500 PSI
Case: Lapua	Primer: Fed 205M, SR Match					Col: 2.200"	IMR 8208 XBR	27.0	2356	34,600 PSI	29.8C	2667	49,300 PSI	
H335	28.5	2613	35,200 PSI	31.7	2912	49,400 PSI	Benchmark	26.0	2355	34,800 PSI	29.0C	2653	49,600 PSI	
IMR 8208 XBR	29.0	2580	34,700 PSI	31.0C	2794	42,400 PSI	H322	25.0	2325	35,900 PSI	27.7C	2607	49,800 PSI	
Benchmark	28.5	2662	37,700 PSI	30.5C	2870	47,000 PSI	H4198	22.0	2324	37,000 PSI	24.8	2576	49,900 PSI	
H322	26.5	2534	34,600 PSI	29.5C	2863	49,500 PSI	IMR 4198	21.5	2298	35,900 PSI	24.3C	2567	49,700 PSI	
H4198	24.0	2594	36,800 PSI	26.8C	2854	49,400 PSI	Case: Alexander Primer: WIN SR					Col: 2.260"		
IMR 4198	23.5	2562	36,600 PSI	26.2C	2844	49,900 PSI	A-2520	28.1	2413	45,400 PSI	31.2	2682	50,400 PSI	
								TAC	26.9	2348	46,600 PSI	29.9	2606	51,800 PSI
								A-2230	25.6	2374	46,600 PSI	28.5	2606	51,700 PSI
								X-Terminator	25.6	2374	46,600 PSI	28.5	2606	51,700 PSI
								A-2460	25.5	2344	46,500 PSI	28.3	2600	51,600 PSI
								A-2200	24.4	2390	46,700 PSI	27.2	2639	51,900 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads				
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
LT-32	23.8	2278	46,600 PSI	26.4	2492	51,700 PSI	IMR 8208 XBR	36.2	3050	43,700 CUP	39.0	3265	51,800 CUP
LT-30	22.3	2228	46,300 PSI	24.7	2440	51,500 PSI	Benchmark	34.9	3014	44,200 CUP	38.3	3264	52,000 CUP
Bullet: 110 GR. BAR BAND-S Dia: .264"						Bullet: 100 GR. NOS BT Dia: .264"							
Case: Alexander		Primer: WIN SR		Col: 2.245"		Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.600"			
A-2520	27.3	2360	45,000 PSI	30.3	2608	50,000 PSI	CFE 223	37.9	3045	46,100 CUP	42.4	3283	51,700 CUP
TAC	26.0	2310	46,700 PSI	28.9	2540	51,900 PSI	Varget	36.5	2976	44,600 CUP	40.2	3243	52,200 CUP
A-2460	25.0	2315	46,600 PSI	27.8	2555	51,800 PSI	StaBALL Match	36.0	2893	43,800 CUP	39.7	3156	52,300 CUP
A-2230	24.8	2327	46,700 PSI	27.5	2549	51,900 PSI	IMR 4064	35.2	2844	43,500 CUP	38.9	3135	51,900 CUP
X-Terminator	24.8	2327	46,700 PSI	27.5	2549	51,900 PSI	IMR 8208 XBR	34.6	2961	44,900 CUP	38.0	3207	51,900 CUP
A-2200	23.1	2328	46,000 PSI	25.7	2528	51,100 PSI	Benchmark	34.5	2973	44,600 CUP	37.9	3194	52,000 CUP
Bullet: 120 GR. BAR TSX Dia: .264"						Bullet: 107 GR. SIE HPBT Dia: .264"							
Case: Lapua		Primer: Fed 205M, SR Match		Col: 2.200"		Case: Lapua		Primer: WIN SR		Col: 2.645"			
IMR 8208 XBR	25.0	2094	34,600 PSI	28.0C	2419	50,000 PSI	Big Game	39.6	2827	50,800 PSI	44.0	3141	56,500 PSI
H335	25.0	2142	37,400 PSI	28.0	2415	48,400 PSI	A-4064	36.0	2787	54,000 PSI	40.0	3097	60,000 PSI
Benchmark	24.5	2133	36,900 PSI	27.3	2401	50,200 PSI	A-2520	35.1	2806	55,100 PSI	39.0	3118	61,300 PSI
H322	23.0	2074	37,700 PSI	25.8C	2347	50,000 PSI	Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.665"		
H4198	20.5	2074	41,000 PSI	22.9C	2272	49,700 PSI	CFE 223	38.6	3077	47,000 CUP	42.5	3276	52,000 CUP
IMR 4198	20.3	2062	40,600 PSI	22.7C	2280	50,100 PSI	Varget	35.9	2916	45,300 CUP	39.0	3123	51,800 CUP
Bullet: 120 GR. NOS BT Dia: .264"						IMR 4064		35.5	2860	44,400 CUP	39.0	3117	51,900 CUP
Case: Alexander		Primer: WIN SR		Col: 2.230"		StaBALL Match		34.8	2798	43,500 CUP	38.5	3065	52,700 CUP
A-2230	24.7	2195	46,000 PSI	27.4	2401	51,100 PSI	IMR 8208 XBR	34.0	2862	45,000 CUP	37.0	3083	51,700 CUP
X-Terminator	24.7	2195	46,000 PSI	27.4	2401	51,100 PSI	Benchmark	33.9	2873	43,900 CUP	36.8	3078	52,000 CUP
A-2460	24.3	2158	46,300 PSI	27.0	2384	51,500 PSI	Bullet: 123 GR. HDY ELD-M Dia: .264"						
A-2200	22.2	2151	46,300 PSI	24.6	2344	51,500 PSI	Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.685"		
Bullet: 120 GR. SIE HPBT Dia: .264"						H4831		40.9	2649	44,400 CUP	43.6C	2832	49,400 CUP
Case: Alexander		Primer: WIN SR		Col: 2.215"		H4350		37.8	2682	44,800 CUP	42.0	2945	51,900 CUP
A-2520	26.7	2262	46,500 PSI	29.7	2498	51,600 PSI	StaBALL 6.5	37.3	2623	43,500 CUP	41.4	2882	52,400 CUP
TAC	25.8	2215	46,300 PSI	28.7	2449	51,500 PSI	IMR 4350	37.1	2591	43,300 CUP	41.2	2882	51,600 CUP
A-2460	24.6	2209	46,700 PSI	27.3	2429	51,900 PSI	StaBALL Match	33.4	2636	44,300 CUP	37.0	2859	52,100 CUP
A-2230	24.4	2208	46,600 PSI	27.1	2412	51,800 PSI	CFE 223	33.3	2571	45,300 CUP	37.0	2849	51,700 CUP
X-Terminator	24.4	2208	46,600 PSI	27.1	2412	51,800 PSI	IMR 4064	33.1	2631	47,900 CUP	36.4	2841	51,600 CUP
A-2200	22.7	2176	46,500 PSI	25.2	2397	51,700 PSI	Varget	32.6	2601	42,700 CUP	36.2	2845	51,400 CUP
Bullet: 123 GR. SIE HPBT Dia: .264"						IMR 8208 XBR		32.1	2634	45,100 CUP	34.9	2816	52,000 CUP
Case: Lapua		Primer: Fed 205M, SR Match		Col: 2.250"		Benchmark		31.0	2563	44,400 CUP	34.1	2785	51,800 CUP
H335	26.0	2288	37,800 PSI	28.7	2508	49,800 PSI	Bullet: 123 GR. SIE HPBT Dia: .264"						
IMR 8208 XBR	25.5	2180	33,900 PSI	28.5C	2497	50,000 PSI	Case: Lapua		Primer: WIN SR		Col: 2.635"		
Benchmark	25.0	2225	36,900 PSI	27.5C	2460	49,900 PSI	Big Game	38.3	2655	52,400 PSI	42.5	2950	58,300 PSI
H322	24.0	2192	36,600 PSI	26.6C	2434	49,900 PSI	A-2700	37.8	2606	49,300 PSI	42.0	2896	54,800 PSI
IMR 4198	22.0	2263	43,300 PSI	24.2C	2385	50,500 PSI	A-4064	34.5	2579	53,600 PSI	38.3	2866	59,600 PSI
H4198	21.0	2153	37,700 PSI	23.7C	2375	50,000 PSI	A-2520	33.3	2582	54,500 PSI	37.0	2869	60,600 PSI
Bullet: 123 GR. LAP SCENAR Dia: .264"						Bullet: 130 GR. SIE TMK Dia: .264"							
Case: Alexander		Primer: WIN SR		Col: 2.260"		Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.700"			
A-2520	26.5	2232	46,600 PSI	29.5	2471	51,800 PSI	H4831	38.9	2450	44,200 CUP	43.3C	2723	51,500 CUP
TAC	25.3	2186	46,600 PSI	28.2	2405	51,700 PSI	StaBALL 6.5	36.9	2568	42,600 CUP	41.0	2814	52,300 CUP
A-2460	24.1	2169	46,300 PSI	26.8	2383	51,500 PSI	H4350	36.8	2549	44,800 CUP	40.5C	2822	51,900 CUP
A-2230	24.1	2184	46,500 PSI	26.8	2388	51,700 PSI	IMR 4350	36.8	2524	43,900 CUP	40.5C	2786	51,900 CUP
X-Terminator	24.1	2184	46,500 PSI	26.8	2388	51,700 PSI	StaBALL Match	33.2	2568	46,00 CUP	37.0	2809	52,600 CUP
A-2200	22.1	2142	46,500 PSI	24.5	2348	51,600 PSI	CFE 223	33.1	2552	44,800 CUP	36.8	2823	52,100 CUP
LT-32	21.1	2016	46,400 PSI	23.5	2204	51,600 PSI	Varget	32.5	2569	46,400 CUP	36.1	2799	52,100 CUP
LT-30	19.8	1979	46,200 PSI	22.0	2154	51,400 PSI	IMR 8208 XBR	31.9	2583	45,500 CUP	35.1	2794	51,400 CUP
Bullet: 123 GR. SIE HPBT Dia: .264"						Bullet: 136 GR. LAP SCNR-L Dia: .264"							
Case: Alexander		Primer: WIN SR		Col: 2.260"		Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.695"			
A-2520	26.7	2259	46,600 PSI	29.6	2491	51,700 PSI	H4831	38.7	2494	43,900 CUP	42.6C	2727	51,800 CUP
TAC	25.4	2206	46,500 PSI	28.2	2424	51,600 PSI	H4350	36.2	2522	45,500 CUP	40.3C	2774	51,900 CUP
A-2230	24.7	2233	46,300 PSI	27.4	2424	51,400 PSI	StaBALL 6.5	35.8	2493	43,500 CUP	39.8	2726	52,200 CUP
X-Terminator	24.7	2233	46,300 PSI	27.4	2424	51,400 PSI	IMR 4350	35.4	2453	45,300 CUP	39.4C	2735	52,100 CUP
A-2460	24.4	2208	46,500 PSI	27.1	2420	51,700 PSI	StaBALL Match	32.5	2482	46,900 CUP	36.3	2759	52,800 CUP
A-2200	22.7	2176	45,800 PSI	25.3	2382	50,900 PSI	CFE 223	31.8	2455	44,900 CUP	35.8	2718	52,200 CUP
6.5X47MM LAPUA						IMR 8208 XBR		31.0	2480	47,700 CUP	33.7	2668	51,700 CUP
Barrel: 30" Twist: 1:8" Trim: 1.840"						Varget		30.8	2473	45,700 CUP	34.8	2733	52,600 CUP
Bullet: 95 GR. HDY V-MAX Dia: .264"						Bullet: 140 GR. BER VLD Dia: .264"							
Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.525"		Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.740"			
CFE 223	39.7	3119	45,300 CUP	43.2	3388	51,800 CUP	H4831	38.2	2478	43,700 CUP	42.5C	2714	51,400 CUP
Varget	36.9	3019	44,600 CUP	40.2	3290	52,100 CUP	H4350	36.0	2491	45,000 CUP	40.1C	2770	52,500 CUP
StaBALL 6.5	36.5	2981	44,500 CUP	40.0	3230	52,600 CUP	StaBALL 6.5	35.5	2443	43,600 CUP	39.5	2705	52,400 CUP
IMR 4064	36.4	2984	43,100 CUP	40.0	3252	52,000 CUP	IMR 4350	35.2	2459	45,100 CUP	39.2C	2711	52,400 CUP
						CFE 223		32.4	2438	45,700 CUP	36.2	2693	51,400 CUP

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
StaBALL Match	32.3	2545	45,600 CUP	36.0	2773	52,300 CUP	Varget	36.5	2888	48,900 PSI	40.5	3122	60,300 PSI
Varget	30.9	2450	45,000 CUP	34.9	2696	51,900 CUP	IMR 4895	36.5	2899	48,400 PSI	40.5	3151	60,300 PSI
Bullet: 142 GR. SIE HPBT Dia: .264"							IMR 4064	36.0	2873	46,500 PSI	40.0	3135	59,400 PSI
Case: Lapua		Primer: WIN SR		Col: 2.695"			H4895	35.0	2878	49,400 PSI	38.5	3097	59,300 PSI
A-2700	37.4	2502	54,900 PSI	41.5	2780	61,100 PSI	IMR 8208 XBR	34.0	2850	48,700 PSI	38.0	3087	60,000 PSI
Big Game	36.5	2475	55,700 PSI	40.5	2750	61,900 PSI	Bullet: 107 GR. SIE HPBT Dia: .264"						
A-4064	33.0	2384	55,600 PSI	36.7	2649	61,800 PSI	Case: Hornady		Primer: WIN LR		Col: 2.710"		
Bullet: 143 GR. HDY ELD-X Dia: .264"							Big Game	41.9	2875	53,100 PSI	46.5	3194	59,000 PSI
Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.740"			A-4064	37.8	2757	53,600 PSI	42.0	3063	59,600 PSI
H4831	38.2	2484	43,900 CUP	41.5C	2632	48,500 CUP	Case: Hornady		Primer: FED 210M, LR Match		Col: 2.780"		
IMR 4831	37.2	2462	45,400 CUP	40.0C	2653	48,700 CUP	StaBALL 6.5	43.4	2919	46,200 PSI	47.2	3208	60,400 PSI
StaBALL 6.5	36.7	2517	44,400 CUP	39.9	2718	52,400 CUP	H4350	41.0	2829	45,300 PSI	46.0C	3139	60,900 PSI
H4350	35.6	2489	42,900 CUP	40.0C	2770	51,300 CUP	W760	40.0	2832	45,300 PSI	45.0	3127	58,800 PSI
IMR 4350	35.5	2477	45,100 CUP	39.5C	2717	52,000 CUP	StaBALL Match	38.8	2895	46,200 PSI	42.8	3149	60,100 PSI
CFE 223	32.6	2496	46,500 CUP	36.3	2702	52,600 CUP	BL-C(2)	38.0	2912	50,300 PSI	42.0	3103	59,000 PSI
StaBALL Match	32.0	2453	45,200 CUP	35.9	2675	52,500 CUP	CFE 223	39.0	2960	53,600 PSI	41.5	3076	59,000 PSI
Varget	31.5	2441	45,200 CUP	35.0	2673	52,700 CUP	W748	37.0	2848	49,000 PSI	41.3	3086	59,300 PSI
Bullet: 147 GR. HDY ELD-M Dia: .264"							Varget	37.0	2863	48,600 PSI	41.0	3093	60,200 PSI
Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.740"			IMR 4895	36.0	2816	45,800 PSI	40.0	3083	59,700 PSI
H4831	38.0	2454	43,600 CUP	41.5C	2628	47,600 CUP	IMR 4064	36.0	2799	44,100 PSI	39.7	3081	58,500 PSI
IMR 4831	37.2	2440	45,100 CUP	40.0C	2625	49,800 CUP	H4895	35.0	2846	49,400 PSI	39.0	3073	60,900 PSI
StaBALL 6.5	36.5	2487	45,600 CUP	39.7	2711	52,600 CUP	IMR 8208 XBR	34.0	2812	48,900 PSI	37.8	3027	59,700 PSI
H4350	35.8	2496	43,100 CUP	39.8C	2732	52,600 CUP	Bullet: 120 GR. HDY ELD-M Dia: .264"						
IMR 4350	35.3	2444	43,700 CUP	39.2C	2711	52,500 CUP	Case: Hornady		Primer: FED 210M, LR Match		Col: 2.670"		
CFE 223	32.7	2443	44,600 CUP	36.3	2650	52,700 CUP	StaBALL 6.5	41.7	2735	45,200 PSI	45.3	3004	60,500 PSI
Varget	31.3	2420	44,200 CUP	34.8	2629	52,900 CUP	H4350	40.5	2709	47,700 PSI	45.0C	2965	60,800 PSI
Bullet: 153 GR. HDY A-TIP Dia: .264"							W760	40.0	2684	47,100 PSI	44.5	2960	61,500 PSI
Case: Lapua (ref)		Primer: FED 205M, SR Match		Col: 2.740"			BL-C(2)	37.0	2678	46,600PSI	41.3	2941	60,500 PSI
H4350	36.2	2494	45,600 PSI	39.4C	2682	52,700 PSI	StaBALL Match	36.8	2665	44,800 PSI	40.6	2944	61,000 PSI
StaBALL 6.5	35.8	2402	45,500 PSI	39.0	2619	52,600 PSI	Varget	36.0	2668	49,600 PSI	40.2	2891	60,400 PSI
IMR 4350	35.1	2393	46,000 PSI	38.3C	2621	52,200 PSI	W748	36.0	2650	56,900 PSI	40.4	2899	59,900 PSI
CFE 223	31.6	2384	45,500 PSI	34.5	2554	52,100 PSI	IMR 4064	35.0	2666	47,200 PSI	38.9	2903	59,800 PSI
6.5 CREEDMOOR							IMR 4895	35.0	2670	48,600 PSI	39.0	2895	59,300 PSI
Barrel: 24" Twist: 1:8" Trim: 1.910"							H4895	34.0	2672	50,500 PSI	37.4	2858	60,400 PSI
Bullet: 95 GR. HDY V-MAX Dia: .264"							IMR 8208 XBR	32.0	2564	45,800 PSI	36.0	2818	60,300 PSI
Case: Hornady		Primer: FED 210M, LR Match		Col: 2.670"			Bullet: 120 GR. NOS BT Dia: .264"						
StaBALL 6.5	45.5	3079	45,400 PSI	49.3	3371	60,100 PSI	Case: Hornady		Primer: WIN LR		Col: 2.710"		
H4350	43.0	2972	45,000 PSI	47.0C	3224	56,100 PSI	Hunter	42.8	2697	52,500 PSI	47.5	2997	58,300 PSI
W760	42.0	2991	46,100 PSI	46.5	3243	57,100 PSI	A-2700	39.6	2629	52,600 PSI	44.0	2921	58,400 PSI
StaBALL Match	41.2	3063	43,600 PSI	45.3	3367	60,100 PSI	Big Game	39.2	2655	53,100 PSI	43.5	2950	59,000 PSI
CFE 223	40.4	3152	54,500 PSI	43.0	3274	60,000 PSI	A-4064	36.0	2549	53,300 PSI	40.0	2832	59,200 PSI
BL-C(2)	40.0	3082	49,800 PSI	44.0	3313	60,300 PSI	Bullet: 123 GR. SIE HPBT Dia: .264"						
Varget	39.0	3051	49,000 PSI	43.0	3286	60,100 PSI	Case: Hornady		Primer: WIN LR		Col: 2.780"		
W748	39.0	3050	50,200 PSI	43.0	3259	59,000 PSI	Hunter	42.3	2683	53,000 PSI	47.0	2981	58,800 PSI
IMR 4064	38.0	3009	45,800 PSI	41.6	3281	58,700 PSI	A-2700	39.9	2655	52,600 PSI	44.3	2950	58,500 PSI
IMR 4895	38.0	3006	46,600 PSI	42.2	3295	60,400 PSI	Big Game	38.7	2636	52,600 PSI	43.0	2929	58,500 PSI
H4895	37.0	3059	50,400 PSI	41.0	3276	60,300 PSI	Case: Hornady		Primer: FED 210M, LR Match		Col: 2.670"		
IMR 8208 XBR	36.0	3041	50,800 PSI	40.0	3228	58,900 PSI	StaBALL 6.5	40.5	2656	43,600 PSI	44.9	2980	60,900 PSI
Bullet: 100 GR. BAR TT SX BT Dia: .264"							H4350	40.0	2680	45,500 PSI	44.8	2951	59,700 PSI
Case: Hornady		Primer: FED 210M, LR Match		Col: 2.655"			W760	40.0	2670	45,200 PSI	44.2	2938	58,900 PSI
StaBALL 6.5	44.1	2981	46,700 PSI	48.0	3256	60,300 PSI	BL-C(2)	37.0	2640	43,800 PSI	41.3	2916	58,600 PSI
H4350	39.9	2895	49,200 PSI	44.7	3133	60,300 PSI	W748	37.0	2650	45,600 PSI	40.8	2900	58,900 PSI
W760	39.7	2893	47,100 PSI	44.5	3163	60,400 PSI	StaBALL Match	37.0	2676	45,100 PSI	40.7	2937	60,600 PSI
StaBALL Match	39.7	2969	46,400 PSI	43.8	3244	60,800 PSI	Varget	36.0	2712	51,100 PSI	39.8	2887	59,200 PSI
IMR 4895	35.4	2819	46,600 PSI	39.8	3103	59,800 PSI	IMR 4895	35.0	2663	47,700 PSI	39.2	2896	59,900 PSI
IMR 4064	35.1	2847	47,300 PSI	39.5	3116	60,400 PSI	IMR 4064	35.0	2673	48,300 PSI	38.8	2882	58,300 PSI
Varget	34.8	2867	50,700 PSI	39.0	3101	62,100 PSI	IMR 8208 XBR	32.0	2570	46,100 PSI	36.0	2806	59,000 PSI
IMR 8208 XBR	33.2	2812	49,300 PSI	37.4	3056	60,900 PSI	Bullet: 130 GR. SIE TMK Dia: .264"						
H4895	33.1	2819	49,100 PSI	37.3	3063	61,000 PSI	Case: Hornady		Primer: WIN LR		Col: 2.800"		
Bullet: 100 GR. NOS BT Dia: .264"							A-4350	40.4	2582	54,600 PSI	44.9	2849	60,600 PSI
Case: Hornady		Primer: FED 210M, LR Match		Col: 2.760"			Hunter	39.7	2616	55,300 PSI	44.1	2846	61,400 PSI
StaBALL 6.5	45.0	3015	46,100 PSI	48.8	3297	60,000 PSI	A-2700	37.9	2591	54,600 PSI	42.1	2823	60,700 PSI
H4350	40.5	2905	48,500 PSI	45.0C	3156	59,800 PSI	Big Game	36.5	2553	54,300 PSI	40.5	2778	60,400 PSI
W760	40.0	2923	48,700 PSI	43.8	3143	58,700 PSI	A-4064	33.7	2507	54,500 PSI	37.5	2722	60,500 PSI
StaBALL Match	39.6	2981	47,600 PSI	43.7	3240	61,500 PSI	Bullet: 130 GR. NOS AB Dia: .264"						
BL-C(2)	37.5	2912	48,800 PSI	41.8	3163	60,100 PSI	Case: Hornady		Primer: FED 210M, LR Match		Col: 2.750"		
							StaBALL 6.5	39.9	2582	44,300 PSI	44.3	2889	61,300 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads				Maximum Loads				Starting Loads				Maximum Loads			
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	
W760	35.4	2490	50,500 PSI	39.3	2693	60,000 PSI		StaBALL Match	34.8	2441	45,300 PSI	38.5	2682	59,900 PSI	
H4350	35.2	2464	49,300 PSI	39.2	2687	60,400 PSI		IMR 4064	34.6	2503	52,400 PSI	36.8	2614	59,500 PSI	
StaBALL Match	35.2	2522	47,300 PSI	38.8	2753	60,000 PSI		Varget	34.5	2489	52,600 PSI	36.3	2598	60,100 PSI	
IMR 4895	32.9	2435	49,600 PSI	37.0	2668	61,000 PSI		IMR 4895	33.8	2479	51,200 PSI	36.0	2599	59,500 PSI	
Varget	31.4	2414	51,500 PSI	34.9	2610	61,400 PSI		H4895	32.4	2426	49,800 PSI	34.5	2551	58,000 PSI	
BL-C(2)	31.2	2358	52,600 PSI	34.9	2529	60,400 PSI		IMR 8208 XBR	32.2	2431	51,500 PSI	33.5	2518	58,000 PSI	
IMR 4064	31.0	2352	47,600 PSI	34.9	2585	59,600 PSI		Bullet: 143 GR. HDY ELD-X Dia: .264"							
W748	33.0	2494	56,200 PSI	34.8	2586	60,500 PSI		Case: Hornady		Primer: FED 210M, LR Match				Col: 2.800"	
IMR 8208 XBR	30.5	2378	49,700 PSI	34.0	2589	61,200 PSI		H4831	39.4	2414	45,800 PSI	46.3C	2735	61,500 PSI	
H4895	30.1	2361	48,500 PSI	33.8	2583	61,200 PSI		Suprform	40.7	2515	48,100 PSI	45.8	2795	60,300 PSI	
Bullet: 135 GR. HDY A-TIP Dia: .264"								IMR 4831	38.2	2396	44,200 PSI	45.0C	2760	61,400 PSI	
Case: Hornady		Primer: FED 210M, LR Match				Col: 2.800"		Hybrid 100V	36.8	2433	44,300 PSI	43.4	2791	61,500 PSI	
StaBALL 6.5	41.4	2633	46,600 PSI	45.0	2870	60,800 PSI		IMR 4350	36.4	2374	43,200 PSI	42.8C	2749	61,300 PSI	
Hybrid 100V	40.4	2670	50,300 PSI	44.0C	2878	61,400 PSI		H4350	35.9	2407	44,700 PSI	41.8	2719	61,200 PSI	
IMR 4350	40.0	2596	48,900 PSI	43.5C	2812	60,800 PSI		Bullet: 147 GR. HDY ELD-M Dia: .264"							
H4350	38.4	2498	43,300 PSI	43.2	2807	61,200 PSI		Case: Hornady		Primer: WIN LR				Col: 2.800"	
W760	39.0	2556	45,900 PSI	42.4	2803	60,900 PSI		Hunter	37.8	2418	55,300 PSI	42.0	2626	61,400 PSI	
StaBALL Match	36.0	2528	44,500 PSI	39.8	2783	60,300 PSI		A-4350	37.3	2385	54,900 PSI	41.4	2590	60,900 PSI	
IMR 4895	35.1	2568	49,300 PSI	38.2	2750	60,800 PSI		Case: Hornady		Primer: FED 210M, LR Match				Col: 2.800"	
Varget	34.6	2553	51,500 PSI	37.7	2724	61,400 PSI		H4831	40.4	2432	47,700 PSI	46.0C	2695	61,400 PSI	
IMR 4064	34.5	2497	47,700 PSI	37.4	2702	61,100 PSI		Suprform	39.7	2456	48,100 PSI	45.2	2746	61,100 PSI	
H4895	34.0	2544	50,500 PSI	37.0	2703	60,700 PSI		IMR 4831	38.9	2394	45,300 PSI	44.3C	2705	60,700 PSI	
IMR 8208 XBR	33.9	2562	52,100 PSI	36.8	2710	60,600 PSI		StaBALL 6.5	39.0	2429	43,200 PSI	43.3	2725	60,000 PSI	
Bullet: 140 GR. HDY ELD-M Dia: .264"								Hybrid 100V	38.2	2480	46,600 PSI	43.0	2741	59,800 PSI	
Case: Hornady		Primer: WIN LR				Col: 2.740"		IMR 4350	37.3	2385	44,300 PSI	42.4	2697	60,500 PSI	
Hunter	40.8	2501	53,100 PSI	45.3	2779	59,000 PSI		H4350	36.7	2389	44,700 PSI	41.8	2680	60,800 PSI	
A-4350	39.2	2446	54,700 PSI	43.5	2695	60,800 PSI		H380	36.6	2396	48,400 PSI	40.7	2635	61,400 PSI	
A-2700	37.8	2432	52,700 PSI	42.0	2702	58,600 PSI		Bullet: 150 GR. SIE BTHP Dia: .264"							
Big Game	36.3	2423	52,900 PSI	40.3	2692	58,800 PSI		Case: Hornady		Primer: FED 210M, LR Match				Col: 2.800"	
A-4064	33.9	2332	52,900 PSI	37.7	2591	58,800 PSI		H4831	41.1	2467	50,200 PSI	45.7C	2664	61,200 PSI	
Case: Hornady		Primer: FED 210M, LR Match				Col: 2.820"		Suprform	40.9	2519	52,000 PSI	44.5	2710	60,500 PSI	
IMR 4350	37.0	2460	47,500 PSI	41.0C	2607	59,800 PSI		IMR 4831	39.6	2426	46,800 PSI	44.0C	2666	60,200 PSI	
Hybrid 100V	36.0	2451	45,300 PSI	40.9C	2736	59,600 PSI		Hybrid 100V	39.1	2530	50,600 PSI	42.6	2713	60,300 PSI	
H4350	36.0	2464	49,200 PSI	40.0C	2660	59,200 PSI		StaBALL 6.5	39.0	2469	47,300 PSI	42.3	2693	60,800 PSI	
StaBALL 6.5	40.0	2535	45,400 PSI	44.0	2806	61,100 PSI		IMR 4350	37.8	2433	47,900 PSI	42.0C	2668	60,700 PSI	
W760	36.0	2460	50,100 PSI	40.2	2672	60,300 PSI		H4350	37.2	2419	47,500 PSI	41.2	2638	60,400 PSI	
H380	34.5	2388	47,800 PSI	38.5	2605	59,500 PSI		Bullet: 153 GR. HDY A-TIP Dia: .264"							
StaBALL Match	34.5	2452	47,300 PSI	38.1	2664	60,100 PSI		Case: Hornady		Primer: FED 210M, LR Match				Col: 2.800"	
IMR 4895	33.7	2491	52,700 PSI	35.9	2609	60,200 PSI		H4831	41.2	2503	50,600 PSI	44.8C	2674	61,100 PSI	
Varget	32.0	2371	47,400 PSI	35.8	2598	59,900 PSI		A-4350	40.4	2481	50,400 PSI	44.0C	2655	61,500 PSI	
IMR 4064	32.0	2393	48,700 PSI	35.7	2603	60,800 PSI		IMR 4831	38.6	2412	48,000 PSI	42.0C	2620	61,400 PSI	
H4895	30.0	2316	46,800 PSI	34.0	2555	60,400 PSI		IMR 4350	38.4	2471	49,600 PSI	41.8C	2651	61,400 PSI	
IMR 8208 XBR	30.0	2335	49,200 PSI	32.8	2511	59,300 PSI		Suprform	40.3	2472	44,400 PSI	43.9	2721	61,000 PSI	
Bullet: 140 GR. SFT A-FRAME Dia: .264"								StaBALL 6.5	39.4	2460	47,000 PSI	42.9	2684	61,100 PSI	
Case: Hornady		Primer: FED 210M, LR Match				Col: 2.700"		Hunter	39.3	2434	47,800 PSI	42.8	2643	61,100 PSI	
Suprform	39.5	2573	46,400 PSI	43.8	2819	60,500 PSI		Hybrid 100V	38.1	2500	48,800 PSI	41.5	2689	60,800 PSI	
H4831	39.6	2485	48,000 PSI	43.5	2684	59,900 PSI		H4350	37.7	2438	48,600 PSI	41.0	2631	61,200 PSI	
StaBALL 6.5	38.7	2468	46,100 PSI	43.0	2711	60,100 PSI		260 REMINGTON							
IMR 4831	38.8	2492	47,800 PSI	42.4	2720	60,100 PSI		Barrel: 24" Twist: 1:9" Trim: 2.025"							
Hybrid 100V	38.1	2565	48,500 PSI	41.4	2767	60,200 PSI		Bullet: 100 GR. NOS BT Dia: .264"							
W760	37.4	2534	50,100 PSI	40.7	2717	60,500 PSI		Case: REM		Primer: WIN LR				Col: 2.800"	
H4350	37.2	2528	49,900 PSI	40.4	2707	60,300 PSI		A-4350	43.2	2845	52,800 PSI	48.0	3234	58,700 PSI	
IMR 4350	37.1	2491	46,600 PSI	40.3	2710	60,500 PSI		A-2700	40.5	2746	53,000 PSI	45.0	3121	58,900 PSI	
H380	35.7	2445	49,600 PSI	38.8	2632	59,900 PSI		Big Game	40.5	2840	52,000 PSI	45.0	3156	57,700 PSI	
StaBALL Match	34.0	2410	47,700 PSI	37.5	2620	60,300 PSI		Bullet: 107 GR. SIE HPBT Dia: .264"							
Bullet: 142 GR. SIE HPBT Dia: .264"								Case: REM		Primer: WIN LR				Col: 2.800"	
Case: Hornady		Primer: WIN LR				Col: 2.820"		Hunter	44.6	2777	49,100 PSI	49.6	3086	54,600 PSI	
Hunter	41.1	2485	52,700 PSI	45.7	2761	58,500 PSI		A-4350	43.2	2797	53,000 PSI	48.0	3179	58,900 PSI	
A-2700	37.8	2433	52,600 PSI	42.0	2703	58,500 PSI		A-2700	41.4	2722	52,400 PSI	46.0	3094	58,200 PSI	
Big Game	36.5	2420	53,000 PSI	40.6	2689	58,800 PSI		Big Game	40.5	2782	51,200 PSI	45.0	3091	56,800 PSI	
A-4064	34.2	2335	52,800 PSI	38.0	2594	58,700 PSI		Case: REM		Primer: REM 9 1/2, LR				Col: 2.780"	
Case: Hornady		Primer: FED 210M, LR Match				Col: 2.780"		H4831	50.0	2963	50,300 PSI	51.0C	3027	54,000 PSI	
StaBALL 6.5	40.5	2533	45,100 PSI	44.4	2814	61,300 PSI		Hybrid 100V	42.0	2835	46,600 PSI	46.0C	3071	56,100 PSI	
IMR 4350	39.2	2511	48,300 PSI	41.7C	2687	58,600 PSI		H4350	46.0	2997	50,400 PSI	49.0	3164	58,700 PSI	
Hybrid 100V	39.0	2581	50,200 PSI	41.5	2737	58,900 PSI		W760	43.5	2917	46,900 PSI	46.5	3151	58,100 PSI	
H4350	38.8	2573	52,300 PSI	41.5	2694	59,800 PSI		H380	43.0	2908	48,500 PSI	46.0	3107	58,200 PSI	
W760	36.5	2470	50,900 PSI	40.2	2634	58,300 PSI									
H380	35.5	2399	47,000 PSI	39.2	2618	59,100 PSI									

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads				
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
BL-C(2)	40.0	2951	50,400 PSI	42.7	3097	57,800 PSI	Hybrid 100V	37.0	2464	49,500 PSI	41.0C	2670	58,400 PSI
Benchmark	40.0	3158	50,900 PSI	42.5	3227	59,500 PSI	StaBALL 6.5	36.9	2441	47,700 PSI	41.1	2689	59,700 PSI
CFE 223	39.7	2955	54,900 PSI	42.2	3081	58,900 PSI	H380	37.0	2434	51,200 PSI	40.0	2594	58,900 PSI
StaBALL Match	38.5	2873	45,900 PSI	41.8	3100	59,300 PSI	BL-C(2)	34.0	2412	52,800 PSI	36.6	2557	59,000 PSI
Varget	38.5	2947	49,800 PSI	41.5	3125	58,700 PSI	Varget	34.0	2469	53,300 PSI	36.0	2578	59,400 PSI
H4895	38.0	2950	51,900 PSI	40.7	3074	58,000 PSI	StaBALL Match	33.0	2421	50,700 PSI	35.8	2581	59,800 PSI
H335	37.0	2862	50,300 PSI	39.2	3014	58,400 PSI	H4895	32.0	2367	50,500 PSI	34.3	2517	58,400 PSI
IMR 8208 XBR	37.2	2900	52,300 PSI	39.1	3001	57,900 PSI							
Bullet: 120 GR. NOS BT Dia: .264"						Bullet: 142 GR. SIE HPBT Dia: .264"							
Case: REM			Primer: WIN LR			Col: 2.800"	Case: REM			Primer: WIN LR			Col: 2.800"
Hunter	41.2	2581	51,300 PSI	45.8	2868	57,100 PSI	A-4350	38.7	2414	51,800 PSI	43.0	2744	57,500 PSI
A-4350	40.0	2594	53,900 PSI	44.5	2948	60,000 PSI	A-2700	36.9	2323	52,900 PSI	41.0	2640	58,800 PSI
A-2700	37.8	2468	52,800 PSI	42.0	2805	58,700 PSI							
Bullet: 120 GR. SPR SP Dia: .264"						Bullet: 143 GR. HDY ELD-X Dia: .264"							
Case: REM			Primer: REM 9 1/2, LR			Col: 2.780"	Case: REM			Primer: REM 9 1/2, LR			Col: 2.780"
Grand	46.5	2638	42,600 PSI	51.4C	2907	54,000 PSI	Grand	44.5	2460	42,000 PSI	49.2	2709	53,300 PSI
H1000	49.0	2710	44,600 PSI	51.0C	2810	49,300 PSI	H4831	45.0	2601	50,900 PSI	48.0C	2747	58,700 PSI
H4831	47.0	2812	52,100 PSI	50.0C	2954	59,200 PSI	H4350	41.5	2590	50,100 PSI	44.5	2735	58,000 PSI
Hybrid 100V	41.0	2738	50,200 PSI	45.0C	2934	58,500 PSI	W760	41.0	2588	50,400 PSI	43.5	2734	58,800 PSI
H4350	43.5	2814	51,400 PSI	46.5	2960	58,200 PSI	StaBALL 6.5	38.8	2521	48,300 PSI	43.1	2745	59,800 PSI
W760	42.5	2802	51,000 PSI	45.5	2968	58,600 PSI	Hybrid 100V	38.0	2464	46,800 PSI	42.0C	2690	57,500 PSI
H380	40.0	2686	51,500 PSI	43.0	2844	58,100 PSI	H380	39.0	2490	50,100 PSI	41.5	2636	58,300 PSI
BL-C(2)	37.0	2686	52,800 PSI	40.0	2840	58,900 PSI	StaBALL Match	35.0	2447	48,800 PSI	38.0	2633	59,400 PSI
Benchmark	37.0	2768	51,200 PSI	40.0	2935	59,500 PSI	Varget	35.0	2541	54,000 PSI	37.5	2645	59,100 PSI
Varget	36.0	2716	50,300 PSI	39.0	2877	58,300 PSI	H4895	34.0	2486	52,000 PSI	36.2	2597	58,200 PSI
StaBALL Match	35.7	2652	49,200 PSI	38.8	2837	59,800 PSI							
H4895	35.0	2664	51,900 PSI	38.0	2813	58,900 PSI							
H335	34.0	2613	51,600 PSI	36.7	2755	58,600 PSI							
Bullet: 125 GR. NOS PART Dia: .264"						Bullet: 147 GR. HDY ELD-M Dia: .264"							
Case: REM			Primer: REM 9 1/2, LR			Col: 2.780"	Case: REM			Primer: REM 9 1/2, LR			Col: 2.800"
Grand	46.2	2608	42,800 PSI	50.8C	2872	55,100 PSI	Grand	44.5	2426	42,000 PSI	49.0C	2679	53,000 PSI
H1000	48.0	2685	46,300 PSI	51.0C	2821	53,300 PSI	H1000	43.2	2453	42,000 PSI	48.0C	2668	52,500 PSI
H4831	45.0	2725	51,600 PSI	48.0C	2862	58,000 PSI	H4831	41.6	2543	49,200 PSI	46.2C	2739	59,500 PSI
H4350	41.0	2714	50,900 PSI	44.3	2867	57,900 PSI	Suprform	40.7	2564	50,200 PSI	45.3	2791	59,500 PSI
Hybrid 100V	40.0	2657	48,600 PSI	44.0C	2876	58,600 PSI	StaBALL 6.5	40.7	2562	48,100 PSI	44.0	2765	59,900 PSI
W760	40.0	2691	50,500 PSI	43.0	2852	58,100 PSI	IMR 4831	40.6	2546	47,800 PSI	45.0C	2771	59,700 PSI
H380	39.0	2641	50,300 PSI	42.0	2806	58,900 PSI	Hybrid 100V	38.9	2549	45,800 PSI	43.2	2796	59,700 PSI
BL-C(2)	36.5	2623	51,600 PSI	38.5	2746	58,200 PSI	H4350	38.6	2551	48,800 PSI	42.9	2759	59,900 PSI
StaBALL Match	35.2	2600	49,400 PSI	38.2	2779	59,700 PSI	IMR 4350	38.3	2514	46,400 PSI	42.6C	2748	59,300 PSI
Varget	34.5	2624	51,200 PSI	37.5	2785	58,400 PSI							
H4895	34.0	2623	54,300 PSI	37.0	2743	58,900 PSI							
Bullet: 129 GR. HDY SP Dia: .264"						Bullet: 150 GR. SIE BTHP Dia: .264"							
Case: REM			Primer: WIN LR			Col: 2.780"	Case: REM			Primer: REM 9 1/2, LR			Col: 2.800"
A-4350	39.6	2493	52,600 PSI	44.0	2833	58,400 PSI	H4831	41.5	2487	48,500 PSI	46.2C	2693	59,400 PSI
Hunter	39.2	2422	48,100 PSI	43.5	2691	53,400 PSI	IMR 4831	40.6	2459	46,500 PSI	45.2C	2709	59,500 PSI
A-2700	36.9	2366	51,400 PSI	41.0	2689	57,100 PSI	Suprform	40.1	2481	50,100 PSI	44.5	2698	59,800 PSI
Big Game	36.9	2458	52,100 PSI	41.0	2731	57,900 PSI	StaBALL 6.5	40.4	2525	48,900 PSI	43.7	2718	59,900 PSI
							H4350	38.5	2471	48,600 PSI	42.8	2678	59,900 PSI
							IMR 4350	38.5	2438	46,800 PSI	42.8C	2691	59,900 PSI
Bullet: 130 GR. NOS AB Dia: .264"						Bullet: 153 GR. HDY A-TIP Dia: .264"							
Case: REM			Primer: REM 9 1/2, LR			Col: 2.780"	Case: REM			Primer: REM 9 1/2, LR			Col: 2.800"
Grand	45.5	2538	42,900 PSI	50.0C	2788	53,900 PSI	H4831	40.6	2391	47,300 PSI	45.4C	2609	59,700 PSI
H1000	46.9	2658	46,000 PSI	50.0C	2814	54,000 PSI	IMR 4831	40.2	2428	48,200 PSI	43.8C	2639	59,600 PSI
H4831	43.2	2682	51,700 PSI	46.6C	2845	59,400 PSI	StaBALL 6.5	39.3	2442	47,200 PSI	43.2	2663	59,700 PSI
Hybrid 100V	39.9	2666	49,800 PSI	42.8	2835	58,300 PSI	Hybrid 100V	38.3	2456	47,200 PSI	41.9C	2671	59,400 PSI
H4350	39.7	2646	50,600 PSI	42.7	2816	59,000 PSI	H4350	38.2	2441	50,500 PSI	41.5	2606	59,900 PSI
W760	38.7	2640	49,800 PSI	41.6	2816	58,800 PSI							
H380	37.8	2572	50,800 PSI	40.7	2738	58,900 PSI							
BL-C(2)	35.0	2527	51,700 PSI	37.7	2676	59,500 PSI							
StaBALL Match	34.6	2508	48,900 PSI	37.5	2694	59,900 PSI							
Varget	34.6	2563	50,500 PSI	37.2	2719	58,800 PSI							
H4895	33.0	2504	50,700 PSI	36.0	2677	59,500 PSI							
Bullet: 140 GR. NOS PART Dia: .264"						Bullet: 160 GR. HDY RN Dia: .264"							
Case: REM			Primer: REM 9 1/2, LR			Col: 2.780"	Case: REM			Primer: REM 9 1/2, LR			Col: 2.860"
H1000	48.0	2619	51,200 PSI	50.5	2730	57,000 PSI	H1000	48.0	2498	50,500 PSI	50.0C	2595	56,400 PSI
Grand	45.0	2511	44,300 PSI	49.5C	2777	58,200 PSI	H4831	43.0	2419	50,900 PSI	46.0	2540	58,100 PSI
H4831	43.0	2568	53,000 PSI	45.7	2686	59,000 PSI	H4350	40.0	2417	52,100 PSI	43.0	2538	58,200 PSI
H4350	39.0	2530	51,900 PSI	42.0	2677	58,800 PSI	W760	39.0	2365	51,200 PSI	42.0	2514	58,800 PSI
W760	38.0	2496	50,700 PSI	41.0	2656	58,800 PSI	Hybrid 100V	38.0	2346	47,400 PSI	42.0C	2539	56,900 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads				Maximum Loads				Starting Loads				Maximum Loads					
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		Powder	Grs	Vel	Pressure	Grs	Vel	Pressure			
6.5-284								Bullet: 143 GR. HDY ELD-X Dia: .264"									
Barrel: 24"		Twist: 1:9"		Trim: 2.160"				Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.910"			
Grand	57.5	2925		61.9C	3170			Grand	53.5	2622		57.9	2823				
H1000	56.0	2808		60.0C	2985			IMR 7828	46.3	2493		51.5	2792				
H4831	51.0	2842		55.5	3084			IMR 4831	43.5	2433		50.1	2763				
IMR 7828 SSC	50.0	2779		55.3	3105			H4831	44.2	2444		50.0	2713				
Hybrid 100V	49.0	3167		53.0	3358			IMR 4350	41.9	2466		47.1	2722				
IMR 4831	48.0	2888		53.0	3222			Hybrid 100V	42.3	2464		47.0	2725				
IMR 4350	46.0	2845		51.5	3191			H4350	41.1	2540		46.2	2760				
H4350	47.0	2898		51.5	3118			Bullet: 150 GR. SIE BTHP Dia: .264"									
W760	46.0	2883		49.5	3110			Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.930"			
H380	43.0	2735		47.5	3020			Grand	53.0	2566		58.1	2819				
Varget	42.0	2970		45.8	3125			H1000	47.5	2384		54.6	2718				
IMR 4064	40.0	2916		43.5	3105			IMR 7828	46.7	2495		51.9	2782				
Bullet: 120 GR. SFT SP Dia: .264"																	
Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.780"											
H1000	55.0	2743		58.5C	2901			H4831	45.5	2502		51.2	2735				
H4831	48.0	2651		52.5	2871			IMR 4831	44.1	2420		49.5	2689				
IMR 7828 SSC	47.0	2636		52.0	2899			IMR 4350	42.7	2467		48.0	2738				
Hybrid 100V	46.0	2739		50.0	2979			Hybrid 100V	42.8	2457		47.3	2706				
H4350	45.0	2744		49.0	2897			H4350	41.9	2522		46.6	2698				
IMR 4831	44.0	2671		48.7	2920			Bullet: 160 GR. HDY RN Dia: .264"									
IMR 4350	42.5	2624		47.2	2878			Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.980"			
W760	42.0	2577		46.0	2797			H1000	51.0	2454		55.0	2622				
H380	39.0	2463		42.5	2626			H4831	46.0	2433		50.0	2582				
Bullet: 129 GR. HDY SP Dia: .264"																	
Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.935"											
Grand	55.2	2700		59.6	2940			IMR 7828 SSC	45.0	2376		49.5	2557				
H1000	51.0	2638		55.5C	2820			Hybrid 100V	45.0	2731		49.0	2910				
H4831	47.0	2670		51.0	2859			H4350	43.0	2670		47.0	2863				
IMR 7828 SSC	45.0	2536		50.5	2832			IMR 4831	42.0	2559		47.0	2832				
Hybrid 100V	45.0	2731		49.0	2910			IMR 4350	41.0	2574		45.9	2821				
H4350	43.0	2670		47.0	2863			Bullet: 130 GR. NOS AB Dia: .264"									
IMR 4831	42.0	2559		47.0	2832			Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.950"			
IMR 4350	41.0	2574		45.9	2821			Grand	55.3	2765		60.5C	3052				
Bullet: 130 GR. NOS AB Dia: .264"																	
Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.950"											
Grand	55.3	2765		60.5C	3052			H1000	47.7	2570		53.0	2812				
H1000	47.7	2570		53.0	2812			IMR 7828 SSC	47.0	2589		52.2	2872				
IMR 7828 SSC	47.0	2589		52.2	2872			H4831	44.0	2541		48.8	2779				
H4831	44.0	2541		48.8	2779			IMR 4831	43.5	2628		48.3	2898				
IMR 4831	43.5	2628		48.3	2898			IMR 4350	43.4	2667		48.2	2935				
IMR 4350	43.4	2667		48.2	2935			Hybrid 100V	45.0	2746		47.3	2884				
Hybrid 100V	45.0	2746		47.3	2884			H4350	42.1	2645		46.7	2874				
H4350	42.1	2645		46.7	2874			Bullet: 140 GR. SPR GS-SP Dia: .264"									
Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.910"											
Grand	54.8	2660		59.7C	2906			Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.900"			
H1000	49.0	2503		53.5C	2694			Grand	54.5	2659		59.5C	2922				
IMR 7828 SSC	45.0	2462		50.5	2718			H1000	49.0	2436		55.0C	2700				
H4831	45.0	2520		49.5	2722			H4831	45.0	2479		50.3	2714				
Hybrid 100V	45.0	2696		49.0	2895			IMR 7828 SSC	45.0	2484		50.0	2719				
IMR 4831	43.0	2536		47.8	2762			Hybrid 100V	45.0	2666		49.5	2901				
IMR 4350	42.0	2539		46.8	2753			IMR 4831	41.0	A-2460		46.2	2692				
H4350	42.0	2548		45.5	2720			IMR 4350	42.0	2583		46.0	2735				
Bullet: 142 GR. SIE HPBT Dia: .264"																	
Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.900"											
Grand	54.5	2659		59.5C	2922			Case: Lapua		Primer: CCI 200 LR				Col: 2.850"			
H1000	49.0	2436		55.0C	2700			Magnum	56.7	2949		53,400 PSI	63.0	3283	59,400 PSI		
H4831	45.0	2479		50.3	2714			Magpro	55.9	2968		53,100 PSI	62.1	3280	58,900 PSI		
IMR 7828 SSC	45.0	2484		50.0	2719			A-4350	50.1	3040		53,400 PSI	55.7	3328	59,300 PSI		
Hybrid 100V	45.0	2666		49.5	2901			Bullet: 120 GR. HDY GMX Dia: .264"									
IMR 4831	41.0	A-2460		46.2	2692			Case: Lapua		Primer: CCI 200 LR				Col: 2.970"			
H4350	42.0	2583		46.0	2735			Magnum	55.0	2758		53,500 PSI	61.1	3073	59,500 PSI		
Bullet: 142 GR. SIE HPBT Dia: .264"																	
Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.900"											
Grand	54.5	2659		59.5C	2922			Magpro	54.3	2786		53,500 PSI	60.4	3080	59,400 PSI		
H1000	49.0	2436		55.0C	2700			A-4350	44.6	2772		53,300 PSI	49.5	2965	59,300 PSI		
H4831	45.0	2479		50.3	2714			Bullet: 123 GR. SIE HPBT Dia: .264"									
IMR 7828 SSC	45.0	2484		50.0	2719			Case: Lapua		Primer: CCI 200 LR				Col: 3.005"			
Hybrid 100V	45.0	2666		49.5	2901			Magnum	54.1	2780		53,500 PSI	60.1	3067	59,500 PSI		
IMR 4831	41.0	A-2460		46.2	2692			Magpro	53.0	2791		53,400 PSI	58.9	3078	59,400 PSI		
H4350	42.0	2583		46.0	2735			A-4350	47.7	2866		53,500 PSI	53.0	3064	59,400 PSI		
Bullet: 142 GR. SIE HPBT Dia: .264"																	
Case: WIN (REF.)		Primer: FED 210 LR				Col: 2.900"											
Grand	54.5	2659		59.5C	2922			A-5744	26.4	2332		43,600 PSI	34.7	2845	57,400 PSI		
H1000	49.0	2436		55.0C	2700												
H4831	45.0	2479		50.3	2714												
IMR 7828 SSC	45.0	2484		50.0	2719												
Hybrid 100V	45.0	2666		49.5	2901												
IMR 4831	41.0	A-2460		46.2	2692												
H4350	42.0	2583		46.0	2735												

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
Bullet: 127 GR. BAR LRX BT Dia: .264"							Bullet: 120 GR. BAR TTSX BT Dia: .264"						
Case: Lapua		Primer: CCI 200 LR		Col: 2.990"			Case: Hornady		Primer: FED 210M, LR Match		Col: 2.875"		
Magnum	52.5	2691	53,500 PSI	58.4	2935	59,400 PSI	Grand	53.0	2744	41,800 PSI	62.6C	3161	59,000 PSI
Magpro	51.5	2738	53,500 PSI	57.2	2941	59,500 PSI	Returnbo	51.6	2796	43,800 PSI	61.0C	3177	60,600 PSI
Bullet: 129 GR. HDY SST Dia: .264"							Bullet: 129 GR. NOS ABLR Dia: .264"						
Case: Lapua		Primer: CCI 200 LR		Col: 2.950"			Case: Hornady		Primer: REM 9 1/2, LR Mag		Col: 2.900"		
Magnum	53.7	2689	53,400 PSI	59.7	2992	59,300 PSI	Magnum	57.8	2821	53,800 PSI	64.2	3134	59,800 PSI
Magpro	53.4	2727	53,500 PSI	59.4	3016	59,400 PSI	Magpro	56.2	2790	57,500 PSI	62.5	3122	63,900 PSI
Bullet: 129 GR. NOS ABLR Dia: .264"							A-4350		2819	57,300 PSI	56.8	3116	63,600 PSI
Case: Lapua		Primer: CCI 200 LR		Col: 2.900"			Bullet: 130 GR. SFT SCIR II Dia: .264"						
Magnum	55.6	2713	53,500 PSI	61.7	3028	59,400 PSI	Case: Hornady		Primer: FED 210M, LR Match		Col: 2.930"		
Magpro	54.1	2714	53,500 PSI	60.1	3023	59,500 PSI	StABALL HD	54.5	2752	46,200 PSI	61.0	3049	60,700 PSI
Bullet: 130 GR. BER VLD Dia: .264"							Returnbo	52.1	2730	42,900 PSI	60.5C	3090	61,200 PSI
Case: Lapua		Primer: CCI 200 LR		Col: 3.100"			Grand	52.0	2752	46,700 PSI	60.7	3105	61,600 PSI
Magnum	53.3	2726	53,500 PSI	59.2	3005	59,500 PSI	H1000	51.2	2747	48,000 PSI	58.9C	3041	61,300 PSI
Magpro	51.9	2729	53,500 PSI	57.7	2991	59,500 PSI	Bullet: 130 GR. SIE TKG Dia: .264"						
Bullet: 130 GR. SIE HPBT Dia: .264"							Case: Hornady		Primer: REM 9 1/2, LR Mag		Col: 2.890"		
Case: Lapua		Primer: CCI 200 LR		Col: 2.850"			Magnum	57.9	2867	57,800 PSI	64.3	3158	64,200 PSI
Magnum	52.4	2660	53,200 PSI	58.2	2946	59,100 PSI	Magpro	54.7	2765	57,500 PSI	60.8	3065	63,900 PSI
Magpro	52.2	2712	53,400 PSI	58.0	2978	59,300 PSI	A-4350	48.9	2743	57,500 PSI	54.4	3023	63,900 PSI
Bullet: 139 GR. LAP SCENAR Dia: .264"							Bullet: 135 GR. HDY A-TIP Dia: .264"						
Case: Lapua		Primer: CCI 200 LR		Col: 3.035"			Case: Hornady		Primer: FED 210M, LR Match		Col: 2.945"		
LRT	58.1	2736	51,300 PSI	64.5	2988	57,000 PSI	US 869	61.2	2602	44,200 PSI	68.0C	2969	60,300 PSI
Magnum	51.1	2626	53,600 PSI	56.7	2878	59,500 PSI	StABALL HD	55.8	2670	45,300 PSI	62.2	3032	59,200 PSI
Magpro	49.5	2643	53,400 PSI	55.0	2873	59,300 PSI	Grand	54.0	2727	44,500 PSI	61.2	3079	60,600 PSI
Bullet: 140 GR. BAR BT-MB Dia: .264"							Returnbo	54.0	2753	47,300 PSI	60.0C	3035	60,700 PSI
Case: Lapua		Primer: CCI 200 LR		Col: 3.065"			H1000	53.1	2726	48,000 PSI	59.0	3003	61,100 PSI
LRT	58.1	2719	53,500 PSI	64.6	2998	59,400 PSI	Bullet: 140 GR. BAR BT-MB Dia: .264"						
Magnum	52.0	2638	53,500 PSI	57.7	2912	59,500 PSI	Case: Hornady		Primer: REM 9 1/2, LR Mag		Col: 2.890"		
Magpro50.694600A-57441672625			53,500 PSI	56.3	2907	59,400 PSI	LRT	58.8	2677	49,500 PSI	65.4	2946	55,000 PSI
Bullet: 140 GR. BER BTTLR Dia: .264"							Magnum	55.6	2721	57,600 PSI	61.8	3018	64,000 PSI
Case: Lapua		Primer: CCI 200 LR		Col: 3.150"			Magpro	54.3	2711	57,600 PSI	60.4	3004	64,000 PSI
LRT	59.7	2768	53,000 PSI	66.3	3064	58,900 PSI	A-4350	47.0	2683	56,600 PSI	52.2	2897	62,900 PSI
Magpro	51.5	2667	53,500 PSI	57.2	2918	59,400 PSI	Bullet: 140 GR. NOS BT Dia: .264"						
Magnum	50.8	2636	53,400 PSI	56.4	2904	59,400 PSI	Case: Hornady		Primer: FED 210M, LR Match		Col: 2.880"		
Bullet: 140 GR. NOS BT Dia: .264"							US 869	61.5	2631	40,300 PSI	68.5C	2995	58,900 PSI
Case: Lapua		Primer: CCI 200 LR		Col: 3.000"			StABALL HD	53.0	2665	47,400 PSI	59.6	2952	60,800 PSI
LRT	59.0	2716	53,700 PSI	65.5	3005	59,600 PSI	Returnbo	51.2	2640	45,300 PSI	59.5C	2949	60,300 PSI
Magnum	51.6	2575	53,500 PSI	57.4	2845	59,400 PSI	Grand	51.5	2657	45,600 PSI	58.5	2974	60,500 PSI
Magpro	49.6	2598	53,400 PSI	55.1	2844	59,400 PSI	H1000	47.9	2567	45,400 PSI	57.7C	2902	61,000 PSI
Bullet: 142 GR. SIE HPBT Dia: .264"							Bullet: 143 GR. HDY ELD-X Dia: .264"						
Case: Lapua		Primer: CCI 200 LR		Col: 3.085"			Case: Hornady		Primer: FED 210M, LR Match		Col: 2.945"		
Magnum	51.6	2603	53,500 PSI	57.3	2877	59,500 PSI	US 869	61.2	2643	40,200 PSI	68.0C	2982	58,200 PSI
Magpro	50.7	2642	53,500 PSI	56.3	2880	59,500 PSI	Grand	53.0	2627	44,000 PSI	60.5	2971	60,100 PSI
A-5744	24.8	2115	43,800 PSI	32.6	2591	57,600 PSI	StABALL HD	53.5	2652	46,400 PSI	60.1	2945	60,700 PSI
6.5 PRC							Returnbo	50.7	2647	44,700 PSI	59.0C	2953	59,600 PSI
Barrel: 24" Twist: 1:9" Trim: 2.015"							H1000	51.1	2708	51,100 PSI	58.1C	2917	60,200 PSI
Bullet: 85 GR. SIE HP-V Dia: .264"							Bullet: 147 GR. HDY ELD-M Dia: .264"						
Case: Hornady		Primer: REM 9 1/2, LR Mag		Col: 2.620"			Case: Hornady		Primer: REM 9 1/2, LR Mag		Col: 2.930"		
Magpro	58.9	3015	52,800 PSI	69.3	3551	62,200 PSI	LRT	57.2	2551	47,700 PSI	63.5	2834	53,000 PSI
A-4350	56.5	3208	51,300 PSI	62.8	3599	56,900 PSI	Magnum	55.2	2690	56,700 PSI	61.3	2937	63,000 PSI
A-5744	36.4	3228	54,000 PSI	42.8	3624	63,500 PSI	Magpro	52.6	2616	56,900 PSI	58.5	2897	63,200 PSI
Bullet: 100 GR. SIE HP-V Dia: .264"							A-5744	30.2	2386	55,000 PSI	34.5	2621	62,900 PSI
Case: Hornady		Primer: REM 9 1/2, LR Mag		Col: 2.720"			Case: Hornady		Primer: FED 210M, LR Match		Col: 2.945"		
Magpro	59.8	3042	57,000 PSI	66.4	3374	63,300 PSI	US 869	59.3	2533	44,100 PSI	66.3	2872	59,900 PSI
A-4350	55.2	3114	57,600 PSI	61.4	3472	64,000 PSI	StABALL HD	53.0	2597	45,300 PSI	59.5	2919	61,400 PSI
Bullet: 120 GR. BAR TSX BT Dia: .264"							Returnbo	51.7	2561	43,400 PSI	58.8	2896	59,900 PSI
Case: Hornady		Primer: REM 9 1/2, LR Mag		Col: 2.780"			H1000	49.1	2505	44,500 PSI	56.5	2828	60,400 PSI
Magnum	58.1	2859	51,700 PSI	64.6	3148	57,400 PSI	Bullet: 150 GR. SIE BTHP Dia: .264"						
Magpro	56.6	2854	57,600 PSI	62.9	3174	64,000 PSI	Case: Hornady		Primer: FED 210M, LR Match		Col: 2.945"		
A-4350	49.3	2883	57,500 PSI	54.7	3126	63,900 PSI	US 869	57.8	2452	41,100 PSI	66.7	2852	58,800 PSI
NEVER EXCEED MAXIMUM LOADS							LRT	60.2	2635	42,700 PSI	65.2C	2842	51,700 PSI
*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.							Magnum	56.0	2692	48,700 PSI	62.2C	2942	61,400 PSI

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
StaBALL HD	53.0	2546	42,500 PSI	59.8	2903	60,400 PSI	Bullet: 125 GR. NOS PART Dia: .264"						
Magpro	54.0	2667	48,300 PSI	59.5C	2934	61,200 PSI	Case: WIN			Primer: WIN LR Magnum			Col: 3.225"
Grand	52.0	2629	48,100 PSI	59.5	2922	60,600 PSI	Magpro	62.2	2966	57,200 PSI	69.1	3230	63,600 PSI
Retumbo	49.2	2544	46,100 PSI	58.6C	2878	60,700 PSI	Magnum	60.6	2867	56,700 PSI	67.3	3173	63,000 PSI
H1000	49.3	2498	44,600 PSI	57.0C	2818	60,300 PSI	Bullet: 129 GR. HDY SP Dia: .264"						
Bullet: 153 GR. HDY A-TIP Dia: .264"							Case: WIN			Primer: WIN LR Magnum			Col: 3.250"
Case: Hornady			Primer: FED 210M, LR Match			Col: 2.945"	Magnum	63.1	2887	57,300 PSI	70.1	3168	63,600 PSI
US 869	59.0	2538	46,800 PSI	65.5C	2835	60,000 PSI	Magpro	62.1	2896	56,800 PSI	69.0	3163	63,100 PSI
LRT	60.0	2642	44,400 PSI	65.0C	2850	54,400 PSI	StaBALL HD	63.3	2962	55,000 PSI	67.8	3139	63,400 PSI
Magnum	55.5	2647	48,600 PSI	61.0C	2893	61,000 PSI	Retumbo	63.5	3005	51,900 PSI	67.5	3171	61,500 PSI
StaBALL HD	52.5	2529	43,300 PSI	59.5	2872	60,700 PSI	H1000	60.2	2942	54,500 PSI	64.0	3064	60,700 PSI
Magpro	54.0	2641	47,500 PSI	59.0C	2890	61,000 PSI	IMR 7828 SSC	58.7	2925	52,100 PSI	62.4	3109	60,800 PSI
Retumbo	50.0	2647	55,500 PSI	56.0	2822	60,900 PSI	H4831	58.3	2927	52,500 PSI	62.0	3101	61,400 PSI
Grand	51.5	2574	46,600 PSI	58.7	2891	61,300 PSI	IMR 4831	55.5	2931	52,300 PSI	59.0	3090	60,700 PSI
H1000	49.5	2560	49,600 PSI	55.0	2801	61,100 PSI	IMR 4350	54.4	2913	51,800 PSI	57.8	3081	61,000 PSI
264 WINCHESTER MAGNUM							H4350	53.6	2929	53,500 PSI	57.0	3067	60,900 PSI
Barrel: 24" Twist: 1:9" Trim: 2.490"							Hybrid 100V	53.0	2922	51,000 PSI	56.7	3045	59,700 PSI
Bullet: 85 GR. SIE HP Dia: .264"							Bullet: 130 GR. BAR TSX FB Dia: .264"			Case: WIN			Col: 3.180"
Case: WIN			Primer: WIN LR Magnum			Col: 3.100"	Magnum	60.1	2817	57,000 PSI	66.8	3084	63,300 PSI
Magnum	69.8	3352	56,800 PSI	77.6	3692	63,200 PSI	Magpro	59.1	2856	57,200 PSI	65.7	3110	63,600 PSI
Magpro	69.5	3328	57,200 PSI	77.3	3689	63,600 PSI	Bullet: 130 GR. NOS AB Dia: .264"						
Bullet: 95 GR. HDY V-MAX Dia: .264"							Case: WIN			Primer: WIN LR Magnum			Col: 3.280"
Case: WIN			Primer: WIN LR Magnum			Col: 3.200"	StaBALL HD	62.2	2925	54,400 PSI	66.6	3108	63,400 PSI
Magnum	67.9	3258	57,000 PSI	75.5	3590	63,400 PSI	Retumbo	59.9	2932	54,300 PSI	64.1	3090	60,800 PSI
Magpro	67.4	3269	56,900 PSI	74.9	3597	63,200 PSI	H1000	56.1	2835	54,600 PSI	60.4	3005	62,100 PSI
Bullet: 100 GR. BAR TTSSX BT Dia: .264"							IMR 7828 SSC	55.8	2863	55,600 PSI	60.1	3053	63,200 PSI
Case: WIN			Primer: WIN LR Magnum			Col: 3.250"	H4831	55.3	2864	56,100 PSI	59.2	2984	60,500 PSI
Magpro	64.7	3122	55,000 PSI	74.4	3539	63,200 PSI	IMR 4831	53.5	2788	52,800 PSI	57.8	2989	61,400 PSI
Magnum	63.8	3093	55,200 PSI	73.3	3506	63,500 PSI	IMR 4350	52.2	2792	52,500 PSI	56.4	3007	62,400 PSI
Bullet: 100 GR. NOS BT Dia: .264"							Hybrid 100V	50.7	2809	54,800 PSI	54.5	2970	61,900 PSI
Case: WIN			Primer: WIN LR Magnum			Col: 3.215"	H4350	50.7	2786	54,600 PSI	55.0	2956	62,000 PSI
Magpro	68.2	3274	57,200 PSI	75.8	3597	63,500 PSI	Bullet: 140 GR. BER VLD Dia: .264"						
Magnum	67.4	3201	57,200 PSI	74.9	3548	63,600 PSI	Case: WIN			Primer: WIN LR Magnum			Col: 3.325"
Bullet: 110 GR. BAR BAND-S Dia: .264"							Magnum	59.7	2765	57,000 PSI	66.4	3027	63,400 PSI
Case: WIN			Primer: WIN LR Magnum			Col: 3.215"	Magpro	59.4	2803	56,700 PSI	66.1	3040	63,100 PSI
Magnum	65.9	3053	56,100 PSI	74.9	3439	63,800 PSI	Bullet: 140 GR. HDY ELD-M Dia: .264"						
Magpro	64.2	3068	55,700 PSI	73.7	3480	63,900 PSI	Case: WIN			Primer: WIN LR Magnum			Col: 3.210"
Bullet: 120 GR. BARTSX BT Dia: .264"							Magnum	61.5	2754	57,000 PSI	68.3	3049	63,300 PSI
Case: WIN			Primer: WIN LR Magnum			Col: 3.170"	Magpro	60.6	2781	56,700 PSI	67.3	3053	63,000 PSI
Magnum	63.1	2991	57,300 PSI	70.1	3253	63,600 PSI	Bullet: 140 GR. NOS PART Dia: .264"						
Magpro	60.6	2876	54,600 PSI	70.4	3260	63,500 PSI	Case: WIN			Primer: WIN LR Magnum			Col: 3.260"
Bullet: 120 GR. BARTTSSX BT Dia: .264"							Magpro	59.3	2798	57,000 PSI	65.8	3054	63,200 PSI
Case: WIN			Primer: WIN LR Magnum			Col: 3.250"	Magnum	58.8	2740	57,500 PSI	65.3	3020	63,900 PSI
Magnum	60.3	2851	55,500 PSI	69.3	3219	63,800 PSI	StaBALL HD	60.0	2823	56,200 PSI	64.4	2984	63,200 PSI
Magpro	59.8	2875	54,600 PSI	69.6	3246	63,500 PSI	Retumbo	59.7	2904	57,000 PSI	63.5	3026	63,000 PSI
Bullet: 120 GR. NOS BT Dia: .264"							H1000	55.0	2810	58,600 PSI	58.5	2900	61,800 PSI
Case: WIN			Primer: WIN LR Magnum			Col: 3.220"	IMR 7828 SSC	54.5	2769	54,000 PSI	58.0	2927	60,700 PSI
Magpro	63.9	3022	57,000 PSI	71.0	3307	63,400 PSI	IMR 4831	51.9	2755	54,700 PSI	55.2	2907	61,700 PSI
Magnum	63.4	2968	57,000 PSI	70.5	3274	63,400 PSI	H4831	51.7	2753	55,600 PSI	55.0	2853	59,400 PSI
Bullet: 120 GR. SIE SPT Dia: .264"							Hybrid 100V	51.2	2787	55,700 PSI	54.5	2912	61,800 PSI
Case: WIN			Primer: WIN LR Magnum			Col: 3.200"	IMR 4350	51.2	2752	53,500 PSI	54.5	2903	61,400 PSI
Magpro	64.1	2995	57,400 PSI	71.2	3260	63,800 PSI	H4350	48.9	2713	55,300 PSI	52.0	2829	60,800 PSI
Magnum	62.5	2890	56,900 PSI	69.4	3200	63,200 PSI	Bullet: 142 GR. SIE HPBT Dia: .264"						
Bullet: 120 GR. SPR SP Dia: .264"							Case: WIN			Primer: WIN LR Magnum			Col: 3.320"
Case: WIN			Primer: WIN LR Magnum			Col: 3.250"	Magnum	57.7	2693	57,100 PSI	64.2	3021	63,600 PSI
Retumbo	66.3	3091	50,400 PSI	70.5	3299	61,700 PSI	Magpro	56.8	2724	56,700 PSI	63.1	3014	63,000 PSI
H1000	65.5	3050	49,100 PSI	69.7	3267	62,100 PSI	Bullet: 160 GR. HDY RN Dia: .264"						
StaBALL HD	64.5	3049	55,900 PSI	69.0	3225	63,300 PSI	Case: WIN			Primer: WIN LR Magnum			Col: 3.350"
H4831	60.6	3027	49,100 PSI	64.5	3254	62,000 PSI	H1000	61.5	2730	55,500 PSI	65.4	2857	62,200 PSI
IMR 4831	58.0	3105	56,400 PSI	60.7	3212	61,600 PSI	Retumbo	60.2	2703	54,800 PSI	64.0	2846	61,000 PSI
IMR 4350	56.5	3075	54,700 PSI	60.0	3226	61,900 PSI	Magpro	57.1	2611	56,800 PSI	63.4	2840	63,100 PSI
Hybrid 100V	56.4	3080	53,500 PSI	60.0	3232	60,600 PSI	Magnum	56.8	2571	57,100 PSI	63.2	2813	63,600 PSI
H4350	54.5	3045	53,000 PSI	58.0	3185	61,200 PSI	IMR 7828 SSC	58.6	2764	56,500 PSI	62.3	2861	61,200 PSI
							H4831	58.1	2725	54,800 PSI	61.8	2847	61,500 PSI
							IMR 4831	55.5	2680	54,000 PSI	59.0	2810	60,900 PSI

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		
IMR 4350	54.5	2696	53,800 PSI	58.0	2834	62,100 PSI	H322	29.0	2765	42,100 PSI	31.0C	2929	49,500 PSI		
H4350	53.4	2675	56,600 PSI	56.8	2784	61,500 PSI	CFE BLK	26.8	2759	38,000 PSI	30.1	3049	52,300 PSI		
Hybrid 100V	52.7	2690	57,400 PSI	56.0	2784	61,500 PSI	H4198	26.0	2810	47,700 PSI	28.6C	3012	54,000 PSI		
26 NOSLER															
Barrel: 24"			Twist: 1:8"			Trim: 2.575"									
Bullet: 100 GR. NOS BT						Dia: .264"									
Case: Nosler		Primer: WIN LR Magnum				Col: 3.300"		Case: Rem		Primer: WIN LR				Col: 2.260"	
US 869	90.4	3427	53,200 PSI	96.2	3698	63,000 PSI	A-2200	27.1	2626	52,000 PSI	30.2	2915	58,000 PSI		
H50BMG	89.0	3387	54,600 PSI	93.7	3548	61,300 PSI	A-2230	27.0	2419	43,000 PSI	30.0	2659	47,800 PSI		
Retumbo	81.2	3493	56,200 PSI	85.5	3675	62,400 PSI	X-Terminator	27.0	2419	43,000 PSI	30.0	2659	47,800 PSI		
Grand	79.0	3538	57,000 PSI	83.7	3689	64,000 PSI	LT-30	24.8	2428	46,000 PSI	27.6	2723	51,100 PSI		
H1000	77.9	3484	57,000 PSI	82.0	3628	63,100 PSI	A-2015	23.7	2149	37,200 PSI	26.3	2406	41,300 PSI		
StaBALL HD	76.0	3400	54,300 PSI	81.6	3619	63,600 PSI	A-1680	23.0	2408	52,100 PSI	25.6	2668	58,000 PSI		
IMR 7828	74.8	3500	56,400 PSI	78.8	3662	63,000 PSI	A-5744	22.6	2514	52,600 PSI	25.1	2805	58,400 PSI		
Bullet: 120 GR. BAR TTSX BT						Dia: .264"									
Case: Nosler		Primer: WIN LR Magnum				Col: 3.300"		Case: Rem		Primer: WIN LR				Col: 2.260"	
US 869	84.6	3184	54,200 PSI	90.0	3409	63,800 PSI	Benchmark	28.0	2588	42,000 PSI	30.0C	2755	51,200 PSI		
H50BMG	74.0	3143	59,000 PSI	78.0	3245	62,600 PSI	H322	27.0	2502	37,700 PSI	30.0C	2803	52,300 PSI		
Grand	73.0	3208	55,900 PSI	76.0	3338	63,000 PSI	H4198	24.0	2542	40,500 PSI	26.5	2791	52,900 PSI		
StaBALL HD	70.0	3145	56,200 PSI	75.4	3330	63,700 PSI	IMR 4198	23.0	2525	40,500 PSI	25.3C	2755	52,400 PSI		
Retumbo	68.5	3127	56,000 PSI	74.0	3299	62,800 PSI	IMR 4227	20.0	2431	46,800 PSI	22.9	2643	53,000 PSI		
H1000	65.8	3122	56,700 PSI	71.0	3269	62,300 PSI	Bullet: 110 GR. HDY HP							Dia: .277"	
IMR 7828	63.5	3094	55,800 PSI	68.5	3266	62,100 PSI	Case: Rem		Primer: WIN LR				Col: 2.260"		
Bullet: 129 GR. NOS ABLR						Dia: .264"									
Case: Nosler		Primer: WIN LR Magnum				Col: 3.300"		Case: Rem		Primer: WIN LR				Col: 2.260"	
US 869	84.8	3136	51,400 PSI	90.3	3377	62,000 PSI	A-2200	25.7	2410	52,000 PSI	28.6	2685	57,900 PSI		
H50BMG	82.0	3075	54,700 PSI	86.5	3267	62,800 PSI	A-5744	21.8	2359	52,200 PSI	24.2	2619	58,000 PSI		
StaBALL HD	72.0	3084	55,200 PSI	77.0	3267	63,100 PSI	A-1680	21.6	2198	51,400 PSI	24.0	2366	57,200 PSI		
Retumbo	70.5	3185	58,400 PSI	74.0	3301	64,300 PSI	Bullet: 110 GR. HDY V-MAX							Dia: .277"	
Bullet: 140 GR. SFT A-FRAME						Dia: .264"									
Case: Nosler		Primer: WIN LR Magnum				Col: 3.300"		Case: Rem		Primer: WIN LR				Col: 2.260"	
US 869	78.0	2983	54,200 PSI	84.5	3188	63,000 PSI	A-2230	27.0	2398	47,900 PSI	30.0	2618	53,200 PSI		
H50BMG	66.0	2899	59,200 PSI	72.5	3026	63,000 PSI	X-Terminator	27.0	2398	47,900 PSI	30.0	2618	53,200 PSI		
StaBALL HD	66.5	2907	56,200 PSI	70.5	3047	62,300 PSI	A-2200	25.7	2439	52,100 PSI	28.6	2711	58,000 PSI		
Retumbo	62.0	2847	54,500 PSI	67.5	3010	61,700 PSI	LT-30	24.6	2376	52,400 PSI	27.3	2639	58,200 PSI		
6.8MM REMINGTON SPC															
Barrel: 24"			Twist: 1:10"			Trim: 1.676"									
Bullet: 85 GR. BAR MPG						Dia: .277"									
Case: Rem		Primer: WIN LR				Col: 2.235"		Case: Rem		Primer: WIN LR				Col: 2.260"	
A-2200	28.0	2737	49,500 PSI	31.1	3020	55,000 PSI	A-2200	26.1	2454	52,600 PSI	29.0	2685	58,400 PSI		
A-2230	27.8	2543	44,500 PSI	30.9	2798	49,500 PSI	A-2015	24.2	2216	46,900 PSI	26.9	2430	52,200 PSI		
X-Terminator	27.8	2543	44,500 PSI	30.9	2798	49,500 PSI	A-5744	22.5	2427	52,500 PSI	25.0	2671	58,400 PSI		
A-1680	24.8	2574	52,300 PSI	27.6	2818	58,200 PSI	A-1680	21.8	2211	52,000 PSI	24.2	2358	57,700 PSI		
A-2015	24.3	2259	36,900 PSI	27.0	2502	41,000 PSI	Bullet: 110 GR. HDY V-MAX							Dia: .277"	
A-5744	23.5	2631	52,400 PSI	26.1	2937	58,200 PSI	Case: Rem		Primer: REM 9 1/2, Large Rifle				Col: 2.260"		
Bullet: 85 GR. BAR TAC-X FB						Dia: .277"									
Case: Rem		Primer: REM 9 1/2, Large Rifle				Col: 2.230"		Case: Rem		Primer: REM 9 1/2, Large Rifle				Col: 2.260"	
Benchmark	27.9	2595	31,800 PSI	31.0C	2848	40,000 PSI	IMR 8208 XBR	28.0	2496	38,500 PSI	30.0C	2690	48,600 PSI		
H322	28.0	2637	33,600 PSI	31.0C	2949	45,600 PSI	H335	27.0	2487	41,700 PSI	29.5	2694	53,600 PSI		
CFE BLK	27.0	2813	39,900 PSI	30.0	3097	52,600 PSI	H4895	27.0	2335	33,900 PSI	29.0C	2550	42,400 PSI		
IMR 4198	24.8	2770	39,200 PSI	27.5C	3025	51,800 PSI	H322	27.0	2571	47,600 PSI	29.0C	2697	53,600 PSI		
H4198	25.2	2829	40,400 PSI	27.4	3030	50,900 PSI	Benchmark	27.0	2518	44,000 PSI	28.8C	2665	52,000 PSI		
Lil'Gun	19.7	2836	49,500 PSI	21.0	2927	52,400 PSI	IMR 3031	26.0	2450	42,100 PSI	28.0C	2605	48,700 PSI		
Bullet: 90 GR. SIE HP-V						Dia: .277"									
Case: Rem		Primer: WIN LR				Col: 2.260"		Case: Rem		Primer: WIN LR				Col: 2.260"	
A-2230	29.3	2649	47,200 PSI	32.6	2870	52,500 PSI	A-2200	25.2	2372	52,400 PSI	28.0	2614	58,200 PSI		
X-Terminator	29.3	2649	47,200 PSI	32.6	2870	52,500 PSI	A-2015	24.2	2178	48,300 PSI	26.9	2397	53,700 PSI		
A-2200	28.2	2699	52,500 PSI	31.4	2988	58,500 PSI	A-5744	22.1	2358	52,600 PSI	24.5	2607	58,300 PSI		
LT-30	26.6	2583	49,100 PSI	29.6	2840	54,600 PSI	A-1680	20.7	2117	51,300 PSI	23.0	2256	57,000 PSI		
A-2015	25.5	2379	40,700 PSI	28.4	2600	45,300 PSI	Case: Rem		Primer: REM 9 1/2, Large Rifle				Col: 2.260"		
A-1680	24.8	2548	50,000 PSI	27.5	2757	55,400 PSI	IMR 8208 XBR	28.0	2483	41,800 PSI	30.0C	2647	51,400 PSI		
A-5744	23.9	2651	52,000 PSI	26.5	2921	57,700 PSI	H4895	27.0	2302	34,300 PSI	29.0C	2495	42,800 PSI		
Bullet: 90 GR. SPR HP						Dia: .277"									
Case: Rem		Primer: REM 9 1/2, Large Rifle				Col: 2.255"		H335	27.0	2415	40,800 PSI	29.0	2569	48,500 PSI	
Benchmark	29.0	2705	38,900 PSI	31.0C	2853	45,900 PSI	Benchmark	26.0	2400	42,400 PSI	28.5C	2581	51,800 PSI		
NEVER EXCEED MAXIMUM LOADS															

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
CFE BLK	22.4	2304	41,800 PSI	24.9	2520	53,600 PSI	IMR 7828 SSC	57.4	2964	52,300 PSI	63.3	3216	63,000 PSI
H4198	22.0	2413	47,800 PSI	24.0C	2534	52,300 PSI	H4831	57.9	3015	54,300 PSI	63.2	3230	63,400 PSI
IMR 4198	22.0	2386	43,100 PSI	23.5C	2515	50,000 PSI	A-4350	55.4	2966	52,500 PSI	63.1	3243	63,300 PSI
Bullet: 120 GR. HDY SST Dia: .277"							Hunter	56.8	2960	51,100 PSI	62.4	3221	63,300 PSI
Case: Rem Primer: WIN LR Col: 2.260"							Suprform	56.4	3003	51,100 PSI	62.0	3255	62,900 PSI
A-2230	26.5	2275	52,900 PSI	28.5	2457	56,900 PSI	StabALL 6.5	56.7	3044	53,500 PSI	61.7	3258	63,200 PSI
X-Terminator	26.5	2275	52,900 PSI	28.5	2457	56,900 PSI	IMR 4831	54.7	2977	52,400 PSI	61.0	3244	63,600 PSI
A-2200	24.5	2289	52,700 PSI	27.2	2543	58,500 PSI	H4350	54.3	2988	53,000 PSI	59.4	3208	63,500 PSI
LT-30	23.6	2246	51,400 PSI	26.2	2492	57,100 PSI	IMR 4350	54.0	2986	52,000 PSI	59.4	3232	63,500 PSI
A-2015	22.9	1884	38,300 PSI	25.5	2124	42,600 PSI	Hybrid 100V	54.2	3021	51,900 PSI	59.3	3258	62,900 PSI
A-1680	21.6	2055	48,900 PSI	24.0	2283	54,400 PSI	Big Game	53.0	2946	52,800 PSI	56.9	3141	62,900 PSI
A-5744	20.5	2171	52,500 PSI	22.8	2402	58,300 PSI	A-2700	52.5	2986	54,100 PSI	56.2	3159	62,700 PSI
Bullet: 130 GR. BER VLD Dia: .277"							W760	52.5	2986	54,100 PSI	56.2	3159	62,700 PSI
Case: Rem Primer: WIN LR Col: 2.350"							Bullet: 130 GR. SFT SCIR Dia: .277"						
LT-30	23.4	2158	52,600 PSI	26.0	2404	58,400 PSI	Case: WIN Primer: WIN LR Magnum Col: 2.900"						
Case: Rem Primer: WIN LR Col: 2.260"							MAGPRO	65.0	3010	51,300 PSI	70.7	3264	63,100 PSI
LT-30	22.6	2099	47,100 PSI	25.1	2347	52,400 PSI	Grand	64.5	3036	49,300 PSI	70.0C	3257	57,700 PSI
Bullet: 130 GR. NOS BT Dia: .277"							Retumbo	62.5	2850	44,700 PSI	68.2C	3157	58,200 PSI
Case: Rem Primer: WIN LR Col: 2.260"							H1000	62.5	3008	52,100 PSI	67.1C	3243	63,400 PSI
A-2200	24.2	2205	48,900 PSI	26.9	2434	54,300 PSI	H4831	57.4	2982	53,400 PSI	62.8	3205	63,300 PSI
A-2230	24.1	2092	43,800 PSI	26.8	2269	48,700 PSI	IMR 7828 SSC	57.0	2937	51,900 PSI	62.3	3196	63,300 PSI
X-Terminator	24.1	2092	43,800 PSI	26.8	2269	48,700 PSI	A-4350	56.0	2965	52,700 PSI	62.1	3211	63,400 PSI
A-2015	21.0	1868	37,000 PSI	23.3	2016	41,000 PSI	Suprform	56.5	2998	51,100 PSI	61.6	3249	63,100 PSI
A-1680	20.8	2003	51,300 PSI	23.1	2196	57,000 PSI	Hunter	56.5	2967	52,800 PSI	61.5	3198	63,500 PSI
A-5744	20.2	2139	52,300 PSI	22.4	2345	58,000 PSI	StabALL 6.5	56.1	2995	51,000 PSI	61.2	3256	63,300 PSI
Bullet: 140 GR. NOS BT Dia: .277"							IMR 4831	55.3	2962	52,500 PSI	60.4	3202	63,300 PSI
Case: Rem Primer: WIN LR Col: 2.260"							IMR 4350	54.2	2952	52,800 PSI	59.1	3191	63,500 PSI
A-2200	23.0	2094	48,100 PSI	25.6	2298	53,500 PSI	H4350	54.1	2960	54,000 PSI	59.0	3171	63,300 PSI
A-1680	20.0	1946	51,300 PSI	22.3	2095	57,200 PSI	Hybrid 100V	53.8	2989	51,100 PSI	58.8	3252	63,400 PSI
A-5744	19.6	2048	52,100 PSI	21.8	2243	58,000 PSI	Big Game	52.4	2930	53,900 PSI	56.3	3117	62,900 PSI
Bullet: 140 GR. SIE HPBT Dia: .277"							A-2700	52.5	2966	54,800 PSI	56.1	3137	62,900 PSI
Case: Rem Primer: WIN LR Col: 2.260"							W760	52.5	2966	54,800 PSI	56.1	3137	62,900 PSI
A-2230	24.8	2120	49,100 PSI	27.5	2303	54,400 PSI	Bullet: 136 GR. FED TLR Dia: .277"						
X-Terminator	24.8	2120	49,100 PSI	27.5	2303	54,400 PSI	Case: WIN Primer: WIN LR Magnum Col: 2.900"						
A-2200	23.4	2128	52,500 PSI	26.0	2342	58,300 PSI	Magnum	65.0	2926	48,500 PSI	71.0	3168	59,400 PSI
A-2015	21.7	1879	42,300 PSI	24.1	2050	47,000 PSI	Grand	64.0	3013	48,600 PSI	70.0C	3277	60,600 PSI
A-1680	20.0	1964	52,500 PSI	22.2	2125	58,200 PSI	MAGPRO	63.5	2937	49,900 PSI	69.4	3213	63,600 PSI
A-5744	19.7	2078	52,800 PSI	21.8	2307	58,400 PSI	Retumbo	62.0	2929	50,000 PSI	67.5C	3174	61,400 PSI
6.8 WESTERN							H1000	60.5	2962	51,300 PSI	66.0	3215	63,300 PSI
Barrel: 24" Twist: 1:8" Trim: 2.010"							H4831	57.2	2967	53,600 PSI	62.4	3177	63,200 PSI
Bullet: 110 GR. HDY V-MAX Dia: .277"							IMR 7828 SSC	56.8	2940	52,500 PSI	62.0	3167	63,400 PSI
Case: WIN Primer: WIN LR Magnum Col: 2.690"							A-4350	55.3	2931	53,700 PSI	61.0	3134	63,500 PSI
MAGPRO	67.7	3158	48,300 PSI	74.7	3474	62,900 PSI	Hunter	55.3	2866	50,200 PSI	61.0	3117	62,900 PSI
A-4350	61.7	3123	45,300 PSI	68.0C	3443	58,000 PSI	Suprform	55.6	2968	51,400 PSI	60.7	3201	63,200 PSI
H4831	61.5	3229	51,400 PSI	67.8	3478	62,800 PSI	IMR 4831	55.0	2931	51,700 PSI	60.1	3162	63,500 PSI
IMR 7828 SSC	61.5	3175	50,700 PSI	67.6	3461	63,300 PSI	StabALL 6.5	54.8	2966	51,900 PSI	59.8	3187	63,300 PSI
Suprform	60.7	3284	49,700 PSI	66.7	3582	63,100 PSI	H4350	53.9	2955	52,500 PSI	58.9	3172	63,500 PSI
Hunter	60.5	3225	50,100 PSI	66.3	3497	63,200 PSI	IMR 4350	53.7	2937	51,900 PSI	58.7	3171	63,400 PSI
StabALL 6.5	60.5	3270	50,200 PSI	66.3	3564	63,100 PSI	Hybrid 100V	53.5	2961	51,300 PSI	58.4	3195	63,100 PSI
IMR 4831	59.4	3237	52,000 PSI	65.6	3522	63,600 PSI	Bullet: 140 GR. SIE TKG Dia: .277"						
IMR 4350	59.0	3163	47,500 PSI	64.8	3524	63,300 PSI	Case: WIN Primer: WIN LR Magnum Col: 2.900"						
H4350	58.4	3218	50,000 PSI	64.4	3503	63,400 PSI	Magnum	64.8	2863	47,100 PSI	71.0	3121	57,900 PSI
Hybrid 100V	57.5	3248	49,600 PSI	63.5	3557	63,000 PSI	Grand	63.5	2970	48,600 PSI	69.5C	3261	62,200 PSI
Big Game	57.7	3231	51,200 PSI	62.5	3468	63,200 PSI	MAGPRO	63.0	2891	49,800 PSI	69.2	3176	63,300 PSI
A-2700	56.8	3223	50,500 PSI	62.2	3488	63,000 PSI	Retumbo	61.7	2851	47,800 PSI	67.3C	3129	61,200 PSI
W760	56.8	3223	50,500 PSI	62.2	3488	63,000 PSI	H1000	59.4	2931	52,500 PSI	64.8	3149	63,200 PSI
H380	55.8	3156	50,000 PSI	60.8	3434	63,100 PSI	A-4350	57.0	2894	52,300 PSI	62.7	3141	63,200 PSI
Varget	53.4	3297	55,600 PSI	57.7	3468	63,500 PSI	H4831	55.5	2901	52,700 PSI	60.7	3117	63,500 PSI
IMR 4064	52.9	3207	50,400 PSI	57.6	3468	63,400 PSI	Hunter	55.2	2837	50,600 PSI	60.4	3082	62,300 PSI
Bullet: 129 GR. BAR LRX BT Dia: .277"							IMR 7828 SSC	55.3	2867	52,000 PSI	60.3	3104	63,600 PSI
Case: WIN Primer: WIN LR Magnum Col: 2.885"							Suprform	55.0	2936	53,100 PSI	60.0	3145	63,100 PSI
Magnum	64.8	2949	46,200 PSI	71.2C	3196	55,500 PSI	StabALL 6.5	54.0	2913	52,900 PSI	59.0	3126	63,100 PSI
MAGPRO	64.5	2990	49,400 PSI	71.1	3294	63,400 PSI	IMR 4831	53.0	2860	52,400 PSI	57.9	3089	63,400 PSI
Grand	64.5	3017	48,000 PSI	70.0C	3256	58,800 PSI	Hybrid 100V	51.8	2903	52,200 PSI	56.9	3130	63,100 PSI
Retumbo	63.2	2918	46,900 PSI	68.7C	3179	57,900 PSI	H4350	51.8	2903	53,400 PSI	56.8	3096	63,700 PSI
H1000	62.2	3022	51,800 PSI	67.8C	3258	63,100 PSI	IMR 4350	51.2	2848	51,600 PSI	56.7	3098	63,500 PSI

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 145 GR. HDY ELD-X Dia: .277"							270 WINCHESTER						
Case: WIN							Barrel: 24" Twist: 1:10" Trim: 2.530"						
Primer: WIN LR Magnum Col: 2.900"							Bullet: 85 GR. BAR MPG Dia: .277"						
Col: 2.900"							Case: WIN						
Grand	63.5	2944	49,400 PSI	69.5C	3209	61,500 PSI	Hunter	58.8	3482	53,300 PSI	65.4	3759	59,200 PSI
StaBALL HD	63.0	2822	49,200 PSI	69.3C	3108	63,600 PSI	A-2700	56.4	3491	58,100 PSI	62.6	3777	64,600 PSI
Retumbo	61.5	2830	49,000 PSI	67.0C	3098	61,900 PSI	Big Game	55.4	3488	58,300 PSI	61.5	3802	64,700 PSI
H1000	58.5	2836	50,200 PSI	63.9	3092	63,100 PSI	Bullet: 90 GR. SIE HP Dia: .277"						
H4831	55.0	2857	52,800 PSI	60.1	3061	63,300 PSI	Case: WIN						
IMR 7828 SSC	54.9	2815	51,500 PSI	59.9	3042	63,000 PSI	Primer: WIN LR Col: 3.200"						
Suprform	54.4	2869	51,400 PSI	59.3	3090	63,500 PSI	Hunter	57.0	3426	57,600 PSI	63.4	3700	64,000 PSI
StaBALL 6.5	53.5	2844	51,100 PSI	58.4	3076	63,400 PSI	A-4350	56.3	3192	52,400 PSI	62.5	3566	58,300 PSI
IMR 4831	53.3	2830	51,900 PSI	58.2	3050	63,400 PSI	H4350	58.0	3401	43,700 CUP	62.0C	3603	49,800 CUP
Hybrid 100V	51.7	2853	51,200 PSI	56.5	3088	63,300 PSI	IMR 4350	56.0	3251	41,900 CUP	60.3	3516	50,800 CUP
IMR 4350	51.7	2822	51,800 PSI	56.5	3052	63,500 PSI	StaBALL 6.5	55.0	3380	49,500 PSI	59.8	3671	62,600 PSI
H4350	51.5	2850	53,200 PSI	56.2	3036	63,300 PSI	A-2700	53.3	3311	58,000 PSI	59.3	3621	64,500 PSI
Bullet: 150 GR. HDY IB Dia: .277"							W760	55.0	3361	42,200 CUP	59.0	3585	50,700 CUP
Case: WIN							Big Game	52.5	3311	58,200 PSI	58.3	3632	64,700 PSI
Primer: WIN LR Magnum Col: 2.840"							H380	53.0	3344	45,600 CUP	56.3	3462	50,900 CUP
Col: 2.840"							CFE 223	52.6	3408	54,200 PSI	56.0	3579	62,200 PSI
Grand	61.5	2895	48,900 PSI	67.6	3160	62,500 PSI	Varget	51.0	3409	46,000 CUP	55.0	3596	51,400 CUP
Magnum	65.0	2850	51,100 PSI	71.0	3098	62,900 PSI	IMR 4064	49.6	3295	44,400 CUP	54.0	3538	50,500 CUP
StaBALL HD	62.9	2777	48,200 PSI	69.2C	3066	63,500 PSI	IMR 4895	49.0	3268	43,700 CUP	53.3	3507	50,300 CUP
MAGPRO	61.5	2810	50,400 PSI	67.6	3088	63,600 PSI	H4895	50.0	3482	48,100 CUP	53.0	3595	50,400 CUP
Retumbo	60.5	2805	50,600 PSI	66.2C	3048	62,600 PSI	BL-C(2)	49.0	3328	45,400 CUP	52.0	3475	50,100 CUP
H1000	58.2	2809	51,500 PSI	63.4	3029	63,200 PSI	IMR 3031	46.0	3299	45,000 CUP	50.2	3487	50,600 CUP
H4831	54.0	2783	52,100 PSI	58.9	2993	63,100 PSI	H335	46.0	3313	46,100 CUP	49.0	3459	50,900 CUP
A-4350	52.8	2746	52,700 PSI	58.9	2979	63,000 PSI	IMR 8208 XBR	45.6	3380	57,900 PSI	48.0	3476	61,900 PSI
IMR 7828 SSC	54.0	2756	51,700 PSI	58.9	2990	63,300 PSI	Bullet: 95 GR. BAR TAC-TX Dia: .277"						
Suprform	53.3	2795	50,200 PSI	58.2	3017	62,800 PSI	Case: WIN						
Hunter	53.2	2739	51,600 PSI	58.2	2964	63,100 PSI	Primer: WIN LR Col: 3.100"						
IMR 4831	52.5	2768	51,700 PSI	57.4	2978	63,000 PSI	Hunter	58.8	3422	55,900 PSI	65.3	3690	62,200 PSI
StaBALL 6.5	52.5	2780	50,900 PSI	57.1	2991	63,300 PSI	A-2700	55.3	3338	57,900 PSI	61.5	3643	64,300 PSI
IMR 4350	51.2	2774	52,800 PSI	55.8	2989	63,400 PSI	A-4350	53.3	2993	47,100 PSI	59.2	3371	52,400 PSI
Hybrid 100V	51.0	2794	51,700 PSI	55.7	3022	63,600 PSI	Big Game	52.7	3319	58,000 PSI	58.6	3604	64,500 PSI
H4350	50.2	2774	53,600 PSI	54.8	2960	63,600 PSI	Bullet: 100 GR. SPR SP Dia: .277"						
Bullet: 165 GR. NOS ABLR Dia: .277"							Case: WIN						
Case: WIN							Primer: WIN LR Col: 3.145"						
Primer: WIN LR Magnum Col: 2.900"							Col: 3.145"						
Col: 2.900"							H4350	56.0	3258	44,000 CUP	59.4	3401	50,200 CUP
Magnum	62.5	2717	51,800 PSI	68.5	2956	63,300 PSI	StaBALL 6.5	55.0	3212	47,200 PSI	59.8	3511	61,400 PSI
Grand	60.5	2823	53,600 PSI	66.0	3019	62,200 PSI	IMR 4350	54.0	3072	40,100 CUP	59.5	3383	50,200 CUP
MAGPRO	59.4	2676	50,300 PSI	65.3	2943	63,000 PSI	W760	53.0	3262	46,000 CUP	56.0	3383	50,700 CUP
Retumbo	58.5	2662	51,000 PSI	63.7	2897	63,300 PSI	CFE 223	53.0	3356	54,900 PSI	55.8	3514	62,900 PSI
H1000	55.8	2661	52,500 PSI	60.9	2870	63,300 PSI	H380	50.0	3160	46,200 CUP	53.7	3274	50,300 CUP
A-4350	52.8	2622	52,200 PSI	58.1	2838	63,000 PSI	IMR 4064	48.0	3116	40,800 CUP	52.7	3380	50,100 CUP
IMR 7828 SSC	51.5	2603	52,100 PSI	56.1	2797	62,800 PSI	IMR 4895	48.0	3180	47,900 CUP	52.2	3367	51,500 CUP
H4831	51.2	2616	52,600 PSI	55.8	2813	63,600 PSI	Varget	48.0	3232	44,400 CUP	52.0	3397	50,200 CUP
Suprform	51.0	2631	51,100 PSI	55.6	2843	63,300 PSI	H4895	47.0	3298	47,000 CUP	50.0	3401	50,200 CUP
IMR 4831	50.7	2622	52,900 PSI	55.2	2823	63,400 PSI	IMR 3031	45.5	3139	44,700 CUP	49.0	3339	50,400 CUP
StaBALL 6.5	49.8	2625	53,600 PSI	54.6	2813	62,900 PSI	BL-C(2)	45.0	3144	47,300 CUP	47.3	3243	50,500 CUP
Hybrid 100V	48.5	2624	52,100 PSI	53.1	2830	63,200 PSI	H335	41.0	3058	45,300 CUP	43.5	3185	50,200 CUP
IMR 4350	48.4	2603	53,300 PSI	52.5	2788	63,100 PSI	Bullet: 110 GR. HDY HP Dia: .277"						
H4350	47.7	2605	54,200 PSI	52.0	2778	63,400 PSI	Case: WIN						
Bullet: 170 GR. BER EOL Dia: .277"							Primer: WIN LR Col: 3.250"						
Case: WIN							Col: 3.250"						
Primer: WIN LR Magnum Col: 2.940"							H4831	58.0	3057	42,600 CUP	62.0C	3214	48,200 CUP
Col: 2.940"							H4350	54.0	3164	46,900 CUP	57.0	3267	50,100 CUP
Magnum	63.5	2716	52,000 PSI	69.1	2938	63,300 PSI	StaBALL 6.5	53.7	3108	47,400 PSI	58.4	3396	61,900 PSI
StaBALL HD	60.7	2656	48,700 PSI	66.8C	2933	63,400 PSI	Hybrid 100V	53.0	3072	49,500 PSI	57.0C	3240	56,100 PSI
Grand	60.5	2765	51,000 PSI	66.0	2977	62,500 PSI	IMR 4350	52.5	2997	43,000 CUP	57.8	3308	50,900 CUP
Retumbo	60.2	2651	49,500 PSI	65.5C	2903	62,700 PSI	W760	51.0	3058	43,500 CUP	55.0	3241	50,700 CUP
MAGPRO	60.0	2682	50,700 PSI	65.4	2921	63,000 PSI	CFE 223	50.4	3142	53,500 PSI	53.6	3304	61,700 PSI
H1000	57.0	2659	51,300 PSI	62.0	2881	63,200 PSI	H380	48.0	2976	46,000 CUP	52.0	3124	50,500 CUP
A-4350	52.0	2592	53,400 PSI	58.2	2806	63,000 PSI	IMR 4064	46.0	3036	45,800 CUP	50.7	3223	50,300 CUP
H4831	52.7	2637	52,900 PSI	57.3	2829	63,300 PSI	IMR 4895	46.0	3045	43,400 CUP	50.2	3269	51,100 CUP
IMR 7828 SSC	52.5	2608	52,300 PSI	57.3	2815	63,000 PSI	BL-C(2)	45.0	2971	47,300 CUP	47.5	3089	50,200 CUP
Suprform	52.5	2646	52,100 PSI	57.0	2845	62,400 PSI	H4895	45.0	3113	46,700 CUP	47.5	3215	50,800 CUP
IMR 4831	52.2	2643	52,900 PSI	56.8	2835	63,000 PSI	IMR 3031	44.0	3024	46,000 CUP	47.2	3159	49,500 CUP
StaBALL 6.5	51.4	2643	53,300 PSI	55.9	2818	63,100 PSI	Varget	43.0	3072	44,100 CUP	48.7	3248	50,800 CUP
Hybrid 100V	50.0	2652	52,300 PSI	54.5	2857	63,500 PSI	IMR 8208 XBR	44.1	3064	56,400 PSI	46.4	3146	59,500 PSI
IMR 4350	49.5	2618	52,100 PSI	53.9	2807	63,000 PSI	H335	42.0	2958	46,800 CUP	45.0	3081	50,800 CUP
H4350	49.3	2614	53,500 PSI	53.6	2793	63,300 PSI	NEVER EXCEED MAXIMUM LOADS						

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads				Maximum Loads			Starting Loads				Maximum Loads			
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	
Bullet: 110 GR. HDY V-MAX Dia: .277"							Varget 43.0 2797 43,900 CUP 46.0 2931 49,600 CUP							
Case: WIN		Primer: WIN LR				Col: 3.100"	IMR 8208 XBR 42.8 2840 57,600 PSI 45.0 2934 62,800 PSI							
Magnum	59.6	2935	55,000 PSI	66.2	3223	61,100 PSI	H4895 42.0 2782 44,700 CUP 45.0 2922 51,000 CUP							
Magpro	59.2	2933	56,400 PSI	65.8	3253	62,700 PSI	Trail Boss 14.0 1318 22,800 PSI 19.7 1537 27,100 PSI							
A-4350	53.8	2971	53,800 PSI	59.8	3350	59,800 PSI	Bullet: 130 GR. HDY SST Dia: .277"							
Hunter	53.5	3139	58,200 PSI	59.4	3419	64,700 PSI	Case: WIN		Primer: WIN LR Col: 3.235"					
A-2700	50.8	3041	58,200 PSI	56.4	3343	64,600 PSI	Magnum		59.1	2845	57,600 PSI	65.7	3127	64,000 PSI
Big Game	49.9	3108	58,400 PSI	55.5	3381	64,900 PSI	Magpro		59.0	2860	58,000 PSI	65.5	3136	64,400 PSI
Bullet: 120 GR. BAR XFB Dia: .277"							A-4350		51.0	2814	57,700 PSI	56.7	3132	64,100 PSI
Case: WIN		Primer: WIN LR				Col: 3.270"	Hunter		50.9	2895	57,900 PSI	56.5	3153	64,400 PSI
H4831	58.0	2918	45,800 CUP	62.0C	3112	51,200 CUP	A-2700		48.1	2807	58,300 PSI	53.5	3099	64,800 PSI
IMR 4831	51.5	2793	40,600 CUP	56.7	3112	50,100 CUP	Big Game		47.8	2821	57,900 PSI	53.1	3095	64,400 PSI
H4350	51.0	2886	44,700 CUP	55.0	3069	51,200 CUP	Bullet: 130 GR. NOS E-TIP Dia: .277"							
IMR 4350	50.5	2836	42,300 CUP	56.0	3131	50,500 CUP	Case: WIN		Primer: WIN LR Col: 3.340"					
W760	49.0	2814	43,100 CUP	53.0	3017	51,100 CUP	Magpro		57.2	2855	58,200 PSI	63.6	3102	64,700 PSI
H380	46.0	2698	43,200 CUP	49.5	2980	51,000 CUP	Magnum		57.2	2787	58,000 PSI	63.6	3066	64,500 PSI
IMR 4064	45.5	2937	45,600 CUP	49.2	3096	51,000 CUP	Hunter		49.2	2772	57,900 PSI	54.6	3075	64,400 PSI
Varget	44.0	2858	46,300 CUP	47.0	3010	51,000 CUP	A-4350		46.9	2753	57,600 PSI	52.1	3020	64,000 PSI
IMR 4895	44.0	2883	44,900 CUP	48.2	3057	50,600 CUP	Big Game		46.0	2718	58,200 PSI	51.1	3013	64,600 PSI
IMR 3031	42.5	2864	48,000 CUP	45.0	2976	49,300 CUP	A-2700		45.9	2784	57,700 PSI	51.0	3009	64,100 PSI
H4895	42.0	2799	45,000 CUP	45.0	2950	50,400 CUP	Bullet: 130 GR. NOS PART Dia: .277"							
Bullet: 130 GR. BARTSX Dia: .277"							Case: WIN		Primer: WIN LR Col: 3.285"					
Case: WIN		Primer: WIN LR				Col: 3.230"	Magnum		58.5	2852	58,000 PSI	65.0	3127	64,400 PSI
Grand	58.5	2892	45,500 PSI	63.0C	3091	53,800 PSI	Magpro		57.0	2846	57,900 PSI	63.3	3122	64,400 PSI
IMR 7828 SSC	55.0	2815	48,700 PSI	60.2C	3083	62,400 PSI	A-4350		50.2	2853	58,100 PSI	55.8	3117	64,500 PSI
H4831	54.0	2747	45,500 PSI	60.0C	3025	59,000 PSI	Hunter		50.0	2833	57,900 PSI	55.6	3112	64,400 PSI
Hybrid 100V	52.2	2994	55,700 PSI	55.5	3144	63,100 PSI	A-2700		48.8	2852	58,300 PSI	54.2	3110	64,800 PSI
StaBALL 6.5	52.0	2954	51,400 PSI	56.5	3194	63,100 PSI	Big Game		48.0	2822	57,700 PSI	53.4	3076	64,100 PSI
IMR 4831	52.0	2822	46,600 PSI	57.0C	3113	61,700 PSI	Bullet: 130 GR. SIE SBT Dia: .277"							
H4350	51.0	2905	52,500 PSI	55.5	3111	63,500 PSI	Case: WIN		Primer: WIN LR Col: 3.275"					
IMR 4350	50.0	2824	48,900 PSI	55.0C	3104	62,800 PSI	Magnum		59.2	2854	57,800 PSI	65.8	3144	64,300 PSI
W760	48.0	2840	50,400 PSI	52.5	3059	62,100 PSI	Magpro		57.3	2846	58,100 PSI	63.7	3123	64,500 PSI
H380	47.0	2810	51,900 PSI	50.8	2989	61,600 PSI	A-4350		50.5	2839	57,900 PSI	56.1	3130	64,300 PSI
Varget	44.0	2849	54,800 PSI	48.0	3013	63,200 PSI	Hunter		49.8	2870	57,900 PSI	55.4	3127	64,300 PSI
IMR 4064	42.0	2760	49,400 PSI	47.3	3013	62,900 PSI	A-2700		48.9	2877	57,900 PSI	54.4	3105	64,400 PSI
IMR 8208 XBR	42.3	2798	55,700 PSI	45.0	2922	62,400 PSI	Big Game		48.0	2833	57,900 PSI	53.3	3106	64,400 PSI
Bullet: 130 GR. BARTSX BT Dia: .277"							Bullet: 135 GR. SIE BT Dia: .277"							
Case: WIN		Primer: WIN LR				Col: 3.300"	Case: WIN		Primer: WIN LR Col: 3.340"					
Magnum	59.1	2825	57,900 PSI	65.7	3110	64,300 PSI	H1000		61.0	2915	43,100 CUP	63.0C	3011	47,600 CUP
Magpro	58.8	2839	56,200 PSI	65.3	3096	62,500 PSI	Grand		57.5	2856	46,200 PSI	61.8	3096	59,500 PSI
Hunter	51.0	2862	58,100 PSI	56.6	3145	64,500 PSI	IMR 7828		54.0	2696	40,200 CUP	60.0	3046	50,000 CUP
A-4350	50.7	2815	57,800 PSI	56.4	3112	64,200 PSI	H4831		55.0	2812	43,600 CUP	59.5C	3010	51,000 CUP
A-2700	48.0	2802	58,000 PSI	53.4	3092	64,400 PSI	IMR 4831		51.0	2774	40,400 CUP	55.8	2990	51,100 CUP
Big Game	46.5	2761	58,100 PSI	51.7	3049	64,600 PSI	StaBALL 6.5		50.9	2876	48,100 PSI	55.4	3119	61,500 PSI
Bullet: 130 GR. BER VLD Dia: .277"							Hybrid 100V		50.0	2830	49,900 PSI	55.0	3056	61,600 PSI
Case: WIN		Primer: WIN LR				Col: 3.250"	IMR 4350		50.0	2772	41,700 CUP	54.9	3007	50,000 CUP
Magnum	58.3	2823	58,300 PSI	64.8	3128	64,800 PSI	H4350		50.0	2834	44,400 CUP	53.5	2994	50,700 CUP
Magpro	57.3	2836	57,900 PSI	63.7	3117	64,400 PSI	W760		47.0	2785	45,400 CUP	50.0	2910	50,500 CUP
A-4350	50.5	2782	57,900 PSI	56.1	3118	64,400 PSI	IMR 4064		43.5	2775	44,500 CUP	47.3	2934	50,700 CUP
Hunter	50.2	2907	58,200 PSI	55.8	3147	64,700 PSI	IMR 4895		43.0	2755	43,400 CUP	47.7	2972	51,100 CUP
A-2700	48.1	2839	58,000 PSI	53.5	3094	64,400 PSI	H380		44.0	2667	43,600 CUP	47.0	2803	50,500 CUP
Big Game	47.1	2844	58,100 PSI	52.4	3081	64,500 PSI	Varget		41.0	2701	40,800 CUP	45.0	2902	50,200 CUP
Bullet: 130 GR. HDY SP Dia: .277"							H4895		41.0	2735	44,300 CUP	44.0	2879	50,600 CUP
Case: WIN		Primer: WIN LR				Col: 3.180"	Bullet: 140 GR. BER VLD Dia: .277"							
H1000	61.0	2900	42,900 CUP	64.0C	3025	48,100 CUP	Case: WIN		Primer: WIN LR Col: 3.250"					
Grand	58.0	2867	45,300 PSI	62.8	3115	60,900 PSI	Magnum		56.2	2728	58,000 PSI	62.4	3008	64,500 PSI
IMR 7828	56.0	2862	43,800 CUP	60.2	3085	50,300 CUP	Magpro		55.4	2731	57,900 PSI	61.6	3020	64,300 PSI
H4831	56.0	2843	44,400 CUP	60.0C	3019	51,000 CUP	A-4350		49.0	2699	58,000 PSI	54.4	3009	64,400 PSI
Hybrid 100V	51.0	2845	51,000 PSI	56.0C	3066	61,800 PSI	Hunter		48.7	2777	58,100 PSI	54.1	3027	64,500 PSI
IMR 4831	51.0	2759	42,900 CUP	55.8	3002	50,300 CUP	A-2700		46.8	2722	58,400 PSI	52.0	2979	64,900 PSI
StaBALL 6.5	51.0	2901	50,400 PSI	55.5	3121	61,900 PSI	Bullet: 140 GR. HDY BTSP Dia: .277"							
IMR 4350	50.2	2806	43,700 CUP	55.0	3028	49,900 CUP	Case: WIN		Primer: WIN LR Col: 3.210"					
H4350	51.0	2865	45,200 CUP	54.3	3012	50,500 CUP	Magpro		57.0	2808	58,100 PSI	63.3	3062	64,600 PSI
W760	50.0	2843	44,700 CUP	53.5	3003	50,800 CUP	Magnum		56.7	2731	57,900 PSI	63.0	3022	64,300 PSI
H380	47.0	2744	46,400 CUP	49.8	2884	51,000 CUP	A-4350		50.0	2745	57,800 PSI	55.5	3045	64,300 PSI
IMR 4064	43.0	2745	43,100 CUP	47.5	2932	50,000 CUP	Hunter		48.8	2759	58,100 PSI	54.2	3048	64,500 PSI
IMR 4895	43.0	2768	43,000 CUP	46.9	2957	50,600 CUP	A-2700		46.9	2704	58,200 PSI	52.1	2977	64,600 PSI

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads				
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 140 GR. NOS AB						Dia: .277"							
Case: WIN		Primer: WIN LR				Col: 3.340"							
Magnum	56.6	2757	58,300 PSI	62.9	3023	64,700 PSI	Magnum	54.6	2646	58,100 PSI	60.7	2922	64,600 PSI
Magpro	56.4	2810	58,300 PSI	62.7	3054	64,800 PSI	A-4350	47.3	2656	58,200 PSI	52.6	2912	64,700 PSI
Hunter	48.3	2727	58,200 PSI	53.7	2999	64,600 PSI	Hunter	47.0	2658	58,400 PSI	52.2	2925	64,900 PSI
A-4350	47.4	2708	58,200 PSI	52.7	2962	64,600 PSI	A-2700	46.0	2574	57,300 PSI	51.0	2840	63,500 PSI
Bullet: 140 GR. SFT A-FRAME						Dia: .277"		Bullet: 160 GR. NOS PART					
Case: WIN		Primer: WIN LR				Col: 3.280"		Case: WIN		Primer: WIN LR			
H1000	59.0	2771	41,800 CUP	63.0C	2979	50,800 CUP	Grand	57.5	2598	43,900 PSI	62.0	2866	60,200 PSI
Grand	57.8	2760	45,200 PSI	62.6	3037	59,800 PSI	Magpro	53.4	2630	58,300 PSI	59.3	2868	64,800 PSI
H4831	54.0	2716	43,900 CUP	58.0C	2888	50,100 CUP	Magnum	53.2	2559	58,000 PSI	59.1	2822	64,500 PSI
IMR 7828	52.0	2628	40,500 CUP	57.2	2939	50,600 CUP	H1000	55.0	2614	44,200 CUP	59.0C	2765	50,900 CUP
StaBALL 6.5	50.3	2809	50,200 PSI	54.7	3033	62,300 PSI	IMR 7828	50.5	2450	38,900 CUP	56.0	2758	50,300 CUP
Hybrid 100V	50.0	2787	53,600 PSI	54.2C	2964	62,300 PSI	H4831	50.0	2510	43,000 CUP	54.0	2673	50,500 CUP
IMR 4831	50.6	2738	44,400 CUP	54.0	2896	50,700 CUP	Hybrid 100V	48.0	2578	49,900 PSI	53.0C	2796	63,300 PSI
IMR 4350	49.0	2712	43,800 CUP	53.2	2916	51,000 CUP	IMR 4831	48.5	2481	41,800 CUP	52.9	2680	50,300 CUP
H4350	49.0	2737	44,500 CUP	52.0	2870	50,400 CUP	IMR 4350	46.5	2483	42,100 CUP	51.0	2706	50,500 CUP
W760	46.0	2644	42,900 CUP	48.9	2788	49,800 CUP	A-4350	45.4	2559	57,800 PSI	50.4	2769	64,200 PSI
IMR 4064	42.0	2608	43,300 CUP	46.1	2828	50,800 CUP	Hunter	45.3	2550	58,400 PSI	50.4	2781	64,900 PSI
IMR 4895	42.0	2650	44,600 CUP	45.6	2828	50,100 CUP	A-2700	45.0	2450	57,200 PSI	50.0	2750	63,500 PSI
Varget	41.0	2623	44,300 CUP	43.7	2772	50,500 CUP	H4350	46.0	2501	43,600 CUP	49.0	2646	51,100 CUP
H4895	40.0	2627	45,300 CUP	42.6	2768	50,600 CUP	IMR 4064	40.0	2401	42,200 CUP	43.3	2580	50,400 CUP
Bullet: 140 GR. SIE SBT						Dia: .277"		Bullet: 180 GR. BAR JRN					
Case: WIN		Primer: WIN LR				Col: 3.250"		Case: WIN		Primer: WIN LR			
Magpro	56.5	2819	58,000 PSI	62.8	3051	64,400 PSI	H1000	50.0	2404	45,100 CUP	54.0	2540	50,600 CUP
Magnum	56.0	2721	57,800 PSI	62.2	3014	64,200 PSI	IMR 7828	48.0	2307	40,900 CUP	52.8	2529	50,400 CUP
A-4350	49.2	2757	58,100 PSI	54.6	3021	64,500 PSI	H4831	47.0	2358	46,000 CUP	50.5	2501	51,100 CUP
Hunter	48.4	2762	58,200 PSI	53.8	3031	64,600 PSI	27 NOSLER						
Bullet: 150 GR. BAR TSX FB						Dia: .277"		Barrel: 24" Twist: 1:10" Trim: 2.575"					
Case: WIN		Primer: WIN LR				Col: 3.210"		Bullet: 129 GR. BAR BT					
Magnum	56.1	2588	57,600 PSI	62.3	2891	64,000 PSI	Case: Nosler		Primer: WIN LR Magnum				
Magpro	53.6	2602	57,900 PSI	59.6	2888	64,300 PSI	US 869	87.0	3171	53,400 PSI	93.4C	3396	63,100 PSI
Hunter	48.0	2638	58,300 PSI	53.3	2874	64,800 PSI	H50BMG	84.0	3120	53,500 PSI	90.0C	3305	61,900 PSI
A-4350	44.6	2509	58,100 PSI	49.6	2774	64,600 PSI	StaBALL HD	77.5	3114	49,800 PSI	85.0	3445	63,100 PSI
Bullet: 150 GR. BER VLD						Dia: .277"		Retumbo		75.0 3160 50,300 PSI 80.0 3386 61,800 PSI			
Case: WIN		Primer: WIN LR				Col: 3.275"		H1000		73.0 3119 51,800 PSI 79.5 3359 63,300 PSI			
Magnum	54.8	2640	57,800 PSI	60.9	2908	64,200 PSI	IMR 7828 SSC		69.0 3139 52,800 PSI 74.2 3366 63,000 PSI				
Magpro	54.5	2668	57,900 PSI	60.6	2926	64,300 PSI	Bullet: 130 GR. SFT SCIR						
A-4350	48.3	2633	58,300 PSI	53.6	2916	64,800 PSI	Case: Nosler		Primer: WIN LR Magnum				
Hunter	47.4	2660	58,200 PSI	52.7	2908	64,600 PSI	US 869	87.0	3077	50,000 PSI	94.0	3404	63,500 PSI
Bullet: 150 GR. HDY SP						Dia: .277"		H50BMG		83.0 3013 50,000 PSI 90.0C 3266 61,500 PSI			
Case: WIN		Primer: WIN LR				Col: 3.285"		StaBALL HD		76.0 3041 59,300 PSI 83.5 3362 63,500 PSI			
Magnum	55.8	2656	58,200 PSI	62.0	2903	64,600 PSI	Retumbo		76.5 3164 51,500 PSI 82.0 3381 63,000 PSI				
Grand	57.0	2745	50,900 PSI	61.6	2954	60,800 PSI	H1000		73.0 3122 52,600 PSI 79.5 3366 63,200 PSI				
Magpro	54.5	2657	58,000 PSI	60.6	2909	64,500 PSI	IMR 7828 SSC		70.0 3117 52,500 PSI 76.0 3350 63,600 PSI				
H1000	55.0	2689	44,900 CUP	59.0C	2831	51,000 CUP	Bullet: 136 GR. FED TLR						
IMR 7828	51.2	2536	39,800 CUP	56.8	2850	50,400 CUP	Case: Nosler		Primer: WIN LR Magnum				
H4831	52.0	2651	46,300 CUP	55.7	2804	51,200 CUP	US 869	85.0	3071	51,500 PSI	92.0	3345	62,700 PSI
A-4350	48.1	2621	58,100 PSI	53.5	2896	64,600 PSI	H50BMG		84.0 3055 53,700 PSI 90.0C 3242 61,100 PSI				
IMR 4831	46.3	2498	40,500 CUP	53.0	2815	50,900 CUP	StaBALL HD		76.5 3080 52,300 PSI 83.5 3328 62,800 PSI				
StaBALL 6.5	48.2	2671	51,800 PSI	52.4	2879	63,300 PSI	H1000		74.5 3098 51,700 PSI 80.7 3321 63,100 PSI				
Hybrid 100V	48.0	2650	53,600 PSI	52.0	2811	61,900 PSI	Retumbo		74.0 3152 53,400 PSI 79.8 3344 62,900 PSI				
Hunter	46.7	2609	57,800 PSI	51.9	2863	64,200 PSI	IMR 7828 SSC		69.5 3061 51,700 PSI 76.4 3307 62,800 PSI				
IMR 4350	48.0	2642	44,600 CUP	51.6	2809	50,900 CUP	Bullet: 140 GR. SIE TGK						
H4350	46.0	2575	43,400 CUP	49.0	2724	51,000 CUP	Case: Nosler		Primer: WIN LR Magnum				
W760	45.0	2569	45,000 CUP	48.0	2706	51,200 CUP	US 869	86.0	3180	51,400 PSI	93.0	3349	63,300 PSI
IMR 4064	42.0	2584	44,000 CUP	45.0	2719	50,700 CUP	H50BMG		85.0 3025 50,800 PSI 90.0C 3184 58,900 PSI				
IMR 4895	41.5	2560	44,500 CUP	44.5	2704	50,600 CUP	StaBALL HD		75.7 3004 49,400 PSI 82.5 3310 63,300 PSI				
Bullet: 150 GR. NOS PART						Dia: .277"		Retumbo		77.0 3112 50,700 PSI 82.0 3351 62,800 PSI			
Case: WIN		Primer: WIN LR				Col: 3.320"		H1000		74.0 3084 51,100 PSI 79.5 3334 63,500 PSI			
Magpro	54.4	2706	58,200 PSI	60.4	2955	64,700 PSI	IMR 7828 SSC		69.8 3037 50,100 PSI 76.7 3312 63,200 PSI				
Magnum	53.9	2608	57,800 PSI	59.9	2885	64,200 PSI	Bullet: 145 GR. HDY ELD-X						
Hunter	46.4	2622	57,900 PSI	51.5	2869	64,300 PSI	Case: Nosler		Primer: WIN LR Magnum				
A-4350	45.9	2595	57,800 PSI	51.0	2847	64,200 PSI	US 869	85.0	3026	50,100 PSI	92.0	3318	63,300 PSI
Bullet: 150 GR. SIE SBT						Dia: .277"		H50BMG		83.0 2966 51,200 PSI 90.0C 3218 63,100 PSI			
Case: WIN		Primer: WIN LR				Col: 3.250"		StaBALL HD		74.5 2954 49,400 PSI 81.3 3238 63,000 PSI			
Magpro	54.9	2722	58,200 PSI	61.1	2974	64,700 PSI	Retumbo		76.0 3081 52,100 PSI 80.6 3290 62,900 PSI				

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
H1000	71.0	2987	50,900 PSI	78.0	3232	63,000 PSI	H380	45.0	2804	41,900 CUP	47.0	2934	45,700 CUP
IMR 7828 SSC	68.0	2947	50,200 PSI	75.2	3245	63,500 PSI	W760	44.0	2761	40,900 CUP	47.0	2925	50,000 CUP
Bullet: 150 GR. HDY IB Dia: .277"							CFE 223	41.9	2765	37,300 CUP	45.5	2957	47,800 CUP
Case: Nosler Primer: WIN LR Magnum Col: 3.340"							BL-C(2)	41.5	2857	44,000 CUP	44.2	2989	49,800 CUP
US 869	83.0	2988	51,500 PSI	90.0	3233	63,400 PSI	Varget	40.0	2830	43,400 CUP	43.5	3004	50,100 CUP
H50BMG	80.0	2879	50,300 PSI	89.0C	3161	63,300 PSI	StaBALL Match	40.0	2671	46,600 PSI	43.5	2893	59,500 PSI
StaBALL HD	73.2	2935	50,400 PSI	79.8	3202	62,800 PSI	IMR 4895	40.0	2759	43,300 CUP	42.4	2801	50,000 CUP
Retumbo	72.0	2974	51,800 PSI	79.0	3215	63,000 PSI	H4895	39.5	2824	43,500 CUP	42.0	2957	50,200 CUP
H1000	69.5	2948	51,800 PSI	76.5	3193	63,000 PSI	IMR 4064	39.0	2711	39,600 CUP	41.7	2890	49,900 CUP
IMR 7828 SSC	66.0	2898	51,600 PSI	73.7	3192	63,500 PSI	IMR 8208 XBR	39.1	2755	42,600 CUP	41.6	2922	50,400 CUP
Bullet: 165 GR. NOS ABLR Dia: .277"							Benchmark	37.0	2701	41,500 CUP	39.8	2861	50,200 CUP
Case: Nosler Primer: WIN LR Magnum Col: 3.340"							IMR 3031	37.0	2709	42,400 CUP	39.5	2860	50,000 CUP
US 869	81.1	2874	49,200 PSI	88.2	3154	63,100 PSI	H335	37.0	2690	44,800 CUP	39.0	2809	49,500 CUP
H50BMG	80.0	2842	53,700 PSI	85.0C	2962	59,000 PSI	Bullet: 139 GR. HDY SP Dia: .284"						
StaBALL HD	71.3	2800	50,200 PSI	77.8	3061	63,400 PSI	Case: REM Primer: REM 9 1/2, LR Col: 2.800"						
Retumbo	69.8	2844	52,800 PSI	75.5	3058	63,500 PSI	StaBALL 6.5	45.9	2741	42,900 PSI	51.0C	3054	59,700 PSI
H1000	66.0	2784	52,400 PSI	72.0	2985	62,700 PSI	H4350	47.0	2729	40,400 CUP	50.0C	2906	47,500 CUP
Bullet: 170 GR. BER EOL Dia: .277"							IMR 4350	45.5	2646	39,700 CUP	48.0C	2793	45,200 CUP
Case: Nosler Primer: WIN LR Magnum Col: 3.340"							W760	45.5	2710	40,400 CUP	47.0	2810	44,100 CUP
US 869	81.0	2841	50,400 PSI	88.0	3106	63,200 PSI	H380	44.0	2674	41,800 CUP	47.0	2807	46,800 CUP
H50BMG	76.0	2760	51,600 PSI	84.0C	3001	63,500 PSI	CFE 223	41.4	2666	38,900 CUP	45.0	2847	48,900 CUP
StaBALL HD	72.0	2796	50,000 PSI	78.7	3039	62,600 PSI	BL-C(2)	41.0	2641	41,200 CUP	44.7	2857	49,900 CUP
Retumbo	68.0	2769	51,400 PSI	75.4	3006	62,300 PSI	StaBALL Match	40.0	2602	48,100 PSI	43.5	2803	59,600 PSI
H1000	66.5	2749	50,500 PSI	72.4	2964	62,200 PSI	Varget	40.5	2721	44,700 CUP	43.5	2877	50,000 CUP
7MM-08 REMINGTON							IMR 4895	40.5	2706	43,600 CUP	43.2	2851	49,900 CUP
Barrel: 24" Twist: 1:9" Trim: 2.025"							IMR 4064	40.0	2682	42,500 CUP	42.5	2847	49,900 CUP
Bullet: 100 GR. SIE HP Dia: .284"							H4895	39.0	2678	42,500 CUP	42.5	2857	50,200 CUP
Case: REM Primer: FED 210 LR Col: 2.665"							IMR 8208 XBR	39.0	2642	41,200 CUP	41.5	2783	49,000 CUP
A-2700	45.6	2859	56,800 PSI	48.0	3041	59,800 PSI	Benchmark	37.5	2624	40,300 CUP	40.5	2799	49,600 CUP
A-2495	42.1	2954	52,800 PSI	46.8	3246	58,700 PSI	IMR 3031	38.0	2633	42,000 CUP	40.3	2797	49,900 CUP
A-4064	41.4	2786	49,400 PSI	46.0	3166	54,900 PSI	H335	37.5	2585	42,700 CUP	40.0	2730	49,400 CUP
A-2520	40.7	3047	54,900 PSI	45.2	3287	61,000 PSI	Bullet: 139 GR. HDY SST Dia: .284"						
A-2460	40.6	3022	52,500 PSI	45.1	3271	58,400 PSI	Case: REM Primer: FED 210 LR Col: 2.800"						
A-5744	27.4	2563	43,700 PSI	38.0	3347	60,600 PSI	A-4350	42.8	2467	52,900 PSI	47.5	2803	58,800 PSI
Bullet: 120 GR. NOS BT Dia: .284"							A-2495	38.4	2577	54,600 PSI	42.6	2835	60,700 PSI
Case: REM Primer: FED 210 LR Col: 2.765"							A-4064	37.8	2442	52,800 PSI	42.0	2775	58,600 PSI
A-2495	40.5	2784	54,700 PSI	45.0	3055	60,800 PSI	A-2460	36.0	2574	54,800 PSI	40.1	2811	60,900 PSI
A-2520	39.0	2802	54,900 PSI	43.3	3054	61,000 PSI	Bullet: 140 GR. BAR TTSX BT Dia: .284"						
A-4064	38.7	2603	51,100 PSI	43.0	2958	56,800 PSI	Case: REM Primer: FED 210 LR Col: 2.800"						
A-2460	38.7	2782	54,500 PSI	43.0	3053	60,600 PSI	Big Game	43.0	2638	53,500 PSI	47.8	2880	59,500 PSI
Case: REM Primer: REM 9 1/2, LR Col: 2.800"							A-4064	39.0	2575	53,300 PSI	43.4	2791	59,200 PSI
StaBALL 6.5	46.6	2839	39,000 PSI	53.0C	3201	54,800 PSI	A-2495	37.4	2533	54,800 PSI	41.5	2756	60,900 PSI
H4350	48.0	2895	39,300 CUP	50.0C	3039	44,600 CUP	A-2520	37.0	2577	54,900 PSI	41.1	2788	61,000 PSI
CFE 223	46.0	2944	40,700 CUP	49.5	3151	50,000 CUP	A-2460	36.3	2570	54,700 PSI	40.4	2784	60,800 PSI
W760	46.5	2867	40,600 CUP	49.0	3023	47,600 CUP	Bullet: 140 GR. SFT A-FRAME Dia: .284"						
H380	46.0	2881	40,200 CUP	48.0	2977	43,400 CUP	Case: REM Primer: REM 9 1/2, LR Col: 2.750"						
StaBALL Match	43.2	2834	45,700 PSI	47.0	3074	59,700 PSI	StaBALL 6.5	43.7	2699	44,200 PSI	48.5	2976	59,300 PSI
BL-C(2)	43.5	2932	41,400 CUP	46.5	3109	50,100 CUP	H4350	45.0	2692	42,300 CUP	48.0C	2868	49,800 CUP
Varget	42.5	2996	43,800 CUP	45.0	3117	49,900 CUP	IMR 4350	43.7	2616	38,600 CUP	46.5C	2826	50,000 CUP
IMR 4895	41.5	2861	43,900 CUP	44.0	3022	49,800 CUP	W760	43.5	2624	41,900 CUP	46.0	2791	49,500 CUP
IMR 4064	41.0	2839	41,500 CUP	43.9	3017	50,000 CUP	H380	43.0	2645	44,200 CUP	45.7	2775	49,400 CUP
H4895	41.0	2931	42,200 CUP	43.7	3085	49,700 CUP	CFE 223	39.7	2577	38,400 CUP	43.2	2796	48,800 CUP
IMR 8208 XBR	40.1	2830	40,500 CUP	42.7	2997	48,900 CUP	BL-C(2)	40.0	2660	44,800 CUP	42.5	2796	49,700 CUP
H335	39.5	2810	42,100 CUP	42.0	2984	49,400 CUP	Varget	39.5	2695	43,700 CUP	42.2	2819	49,800 CUP
Benchmark	39.0	2812	40,900 CUP	41.3	2968	49,000 CUP	StaBALL Match	38.6	2537	46,800 PSI	42.0	2761	59,700 PSI
IMR 3031	38.5	2826	42,700 CUP	41.0	2987	50,500 CUP	IMR 4895	38.5	2596	40,100 CUP	41.0	2752	49,600 CUP
Bullet: 130 GR. SIE HPBT Dia: .284"							IMR 4064	38.0	2593	41,200 CUP	40.5	2770	50,300 CUP
Case: REM Primer: FED 210 LR Col: 2.770"							H4895	38.0	2618	42,000 CUP	40.5	2769	49,700 CUP
A-2700	42.8	2612	56,700 PSI	45.0	2779	59,600 PSI	IMR 8208 XBR	37.3	2606	43,200 CUP	39.7	2732	48,800 CUP
A-2495	38.6	2662	54,900 PSI	42.9	2899	60,900 PSI	IMR 3031	36.0	2537	40,700 CUP	38.3	2695	49,600 CUP
A-4064	38.2	2502	54,300 PSI	42.5	2844	60,400 PSI	Benchmark	36.0	2564	42,600 CUP	38.3	2688	49,300 CUP
A-2460	37.3	2655	54,800 PSI	41.5	2897	60,800 PSI	H335	35.5	2536	43,800 CUP	37.5	2647	49,800 CUP
Case: REM Primer: REM 9 1/2, LR Col: 2.800"							Trail Boss	11.0	1211	36,200 CUP	16.0	1472	43,300 CUP
StaBALL 6.5	46.1	2843	45,600 PSI	51.2	3125	59,700 PSI	Bullet: 145 GR. SPR SP Dia: .284"						
H4350	47.0	2871	43,000 CUP	50.0C	2998	47,400 CUP	Case: REM Primer: REM 9 1/2, LR Col: 2.730"						
IMR 4350	45.0	2730	41,200 CUP	47.0C	2846	46,300 CUP	StaBALL 6.5	44.9	2655	40,000 PSI	51.0C	3014	58,800 PSI
							H4350	45.0	2647	42,300 CUP	48.0C	2801	49,800 CUP
							IMR 4350	45.0	2668	43,900 CUP	48.0C	2847	50,200 CUP

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Grs	Starting Loads Vel	Pressure	Grs	Maximum Loads Vel	Pressure	Powder	Grs	Starting Loads Vel	Pressure	Grs	Maximum Loads Vel	Pressure
W760	43.0	2589	41,200 CUP	46.0	2788	49,500 CUP	IMR 4350	44.2	2595	43,100 CUP	47.0C	2744	50,200 CUP
H380	43.0	2603	45,000 CUP	45.5	2716	49,900 CUP	W760	43.0	2569	41,200 CUP	46.0	2731	49,600 CUP
CFE 223	39.3	2519	36,000 CUP	42.7	2701	47,400 CUP	Hybrid 100V	42.5	2541	42,900 CUP	46.0C	2713	47,500 CUP
IMR 4895	40.0	2598	45,700 CUP	42.5	2753	50,700 CUP	H4350	42.3	2531	46,100 CUP	45.0	2645	51,300 CUP
StaBALL Match	42.0	2492	45,800 PSI	42.0	2739	59,900 PSI	H380	41.5	2462	42,400 CUP	44.0	2627	49,600 CUP
BL-C(2)	39.0	2516	41,700 CUP	41.7	2693	49,600 CUP	StaBALL Match	38.2	2419	46,100 PSI	41.6	2638	60,000 PSI
Varget	39.0	2639	46,200 CUP	41.5	2745	50,200 CUP	CFE 223	38.7	2444	39,600 CUP	41.2	2696	47,000 CUP
IMR 4064	38.5	2590	45,000 CUP	41.0	2728	50,300 CUP	Varget	38.5	2530	44,100 CUP	41.2	2666	50,300 CUP
H4895	38.5	2599	44,400 CUP	41.0	2728	49,800 CUP	IMR 4895	38.4	2532	45,500 CUP	40.8	2687	50,700 CUP
IMR 8208 XBR	37.8	2589	43,700 CUP	40.2	2721	50,200 CUP	IMR 4064	38.0	2552	45,600 CUP	40.5	2697	50,700 CUP
Benchmark	36.0	2487	40,900 CUP	39.5	2693	50,700 CUP	BL-C(2)	38.0	2387	40,800 CUP	40.5	2566	49,500 CUP
IMR 3031	36.5	2512	44,000 CUP	38.8	2659	49,800 CUP	H4895	37.0	2484	44,200 CUP	39.5	2592	49,900 CUP
Bullet: 150 GR. BAR TSX BT Dia: .284"							IMR 3031	36.7	2498	43,800 CUP	39.0	2624	50,400 CUP
Case: REM		Primer: FED 210 LR			Col: 2.735"		IMR 8208 XBR	36.2	2482	43,200 CUP	38.5	2587	49,100 CUP
Big Game	41.6	2550	54,100 PSI	46.2	2782	60,100 PSI	Benchmark	36.0	2467	42,900 CUP	38.5	2597	49,500 CUP
A-2700	40.2	2446	48,000 PSI	44.7	2689	53,400 PSI	H335	35.0	2374	41,700 CUP	37.5	2506	49,000 CUP
A-4064	38.2	2500	54,000 PSI	42.5	2719	60,000 PSI	Bullet: 160 GR. NOS PART Dia: .284"						
A-2495	36.8	2457	54,600 PSI	40.9	2675	60,700 PSI	Case: REM		Primer: FED 210 LR			Col: 2.800"	
Bullet: 150 GR. BAR TTSX BT Dia: .284"							Hunter	43.7	2490	52,400 PSI	48.5	2695	58,200 PSI
Case: REM		Primer: REM 9 1/2, LR			Col: 2.770"		A-4350	41.4	2314	52,500 PSI	46.0	2630	58,300 PSI
StaBALL 6.5	44.3	2631	45,500 PSI	49.2C	2891	57,900 PSI	Big Game	40.4	2446	54,400 PSI	44.9	2666	60,500 PSI
W760	43.4	2576	43,500 CUP	46.2	2733	50,400 CUP	A-2700	39.9	2311	51,100 PSI	42.0	2458	53,800 PSI
IMR 4350	41.4	2380	37,600 CUP	46.0C	2633	46,100 CUP	A-4064	36.0	2246	54,900 PSI	40.0	2553	61,000 PSI
H4350	41.9	2475	40,100 CUP	45.5C	2659	50,400 CUP	A-2495	35.3	2366	54,800 PSI	39.2	2565	60,900 PSI
H380	41.4	2441	41,400 CUP	45.0	2646	49,900 CUP	Bullet: 160 GR. SFT A-FRAME Dia: .284"						
CFE 223	39.5	2501	43,500 CUP	42.0	2668	49,200 CUP	Case: REM		Primer: FED 210 LR			Col: 2.770"	
StaBALL Match	38.3	2463	49,500 PSI	41.7C	2679	60,000 PSI	Hunter	43.5	2421	48,500 PSI	48.4	2626	53,900 PSI
BL-C(2)	38.5	2463	41,400 CUP	41.0	2630	48,800 CUP	Big Game	40.6	2411	54,300 PSI	45.1	2658	60,400 PSI
IMR 4895	38.3	2512	44,800 CUP	41.0	2655	50,600 CUP	A-2495	36.0	2334	53,000 PSI	40.0	2551	58,900 PSI
IMR 4064	37.4	2468	43,900 CUP	39.8	2576	49,900 CUP	Bullet: 160 GR. SPR SPBT Dia: .284"						
Varget	37.3	2448	43,400 CUP	39.7	2580	50,700 CUP	Case: REM		Primer: REM 9 1/2, LR			Col: 2.800"	
H335	35.2	2373	43,500 CUP	37.4	2522	50,400 CUP	H4831	47.5	2547	43,700 CUP	49.5C	2627	47,500 CUP
IMR 8208 XBR	35.2	2404	44,600 CUP	37.4	2518	50,700 CUP	StaBALL 6.5	42.4	2500	40,800 PSI	47.7	2825	59,200 PSI
H4895	34.8	2428	45,200 CUP	37.0	2561	50,700 CUP	IMR 4831	43.5	2474	41,300 CUP	46.0C	2626	47,200 CUP
IMR 3031	34.8	2400	43,900 CUP	37.0	2553	49,000 CUP	IMR 4350	43.0	2513	43,500 CUP	46.0C	2681	49,300 CUP
Benchmark	34.8	2369	45,900 CUP	37.0	2506	50,600 CUP	W760	42.5	2566	43,300 CUP	45.5	2684	49,600 CUP
Bullet: 150 GR. NOS E-TIP Dia: .284"							Hybrid 100V	41.0	2486	41,300 CUP	45.0C	2690	48,900 CUP
Case: REM		Primer: FED 210 LR			Col: 2.770"		H4350	40.9	2471	45,400 CUP	43.5	2583	50,800 CUP
Big Game	41.6	2507	53,000 PSI	46.2	2728	58,900 PSI	H380	40.5	2413	42,800 CUP	43.0	2566	49,700 CUP
A-4064	37.7	2440	54,300 PSI	41.9	2658	60,300 PSI	StaBALL Match	37.7	2407	48,900 PSI	41.0	2593	59,700 PSI
A-2495	36.1	2395	54,900 PSI	40.1	2611	61,000 PSI	CFE 223	37.9	2421	42,000 CUP	40.3	2525	49,500 CUP
Bullet: 150 GR. SIE HPBT Dia: .284"							IMR 4895	37.5	2477	43,100 CUP	40.0	2601	50,300 CUP
Case: REM		Primer: FED 210 LR			Col: 2.780"		BL-C(2)	37.0	2382	43,900 CUP	39.5	2533	49,700 CUP
Hunter	44.5	2601	53,900 PSI	49.5	2817	59,900 PSI	Varget	36.5	2451	43,400 CUP	39.0	2562	49,900 CUP
A-2700	41.3	2477	57,900 PSI	43.5	2635	61,000 PSI	IMR 4064	36.5	2438	42,000 CUP	38.7	2564	49,000 CUP
A-2495	36.4	2453	54,800 PSI	40.5	2677	60,800 PSI	Benchmark	36.0	2457	44,100 CUP	38.5	2592	50,700 CUP
Case: REM		Primer: REM 9 1/2, LR			Col: 2.800"		H4895	35.0	2420	44,400 CUP	38.5	2530	50,000 CUP
StaBALL 6.5	43.6	2628	43,100 PSI	48.5	2908	58,900 PSI	IMR 8208 XBR	35.5	2459	45,400 CUP	37.7	2554	49,900 CUP
IMR 4350	44.0	2637	41,800 CUP	46.5C	2746	46,600 CUP	IMR 3031	34.5	2378	43,000 CUP	36.7	2516	49,200 CUP
W760	44.0	2640	43,600 CUP	46.5	2776	50,000 CUP	H335	34.0	2335	44,100 CUP	36.5	2468	49,900 CUP
H380	42.0	2583	43,000 CUP	45.5	2748	49,900 CUP	Bullet: 162 GR. HDY ELD-M Dia: .284"						
H4350	42.0	2549	40,600 CUP	45.4	2724	51,500 CUP	Case: REM		Primer: REM 9 1/2, LR			Col: 2.875"	
CFE 223	39.9	2529	41,500 CUP	42.5	2688	48,200 CUP	H4831	47.5	2501	39,000 CUP	48.5C	2555	42,400 CUP
StaBALL Match	38.6	2490	47,900 PSI	42.0	2698	59,800 PSI	StaBALL 6.5	42.5	2490	39,500 PSI	47.8	2821	59,000 PSI
BL-C(2)	39.0	2559	43,000 CUP	41.5	2699	49,600 CUP	IMR 4350	44.0C	2494	40,000 CUP	46.0C	2655	46,900 CUP
IMR 4895	39.0	2605	44,000 CUP	41.5	2737	50,700 CUP	Hybrid 100V	41.0	2455	40,300 CUP	45.0C	2651	46,900 CUP
Varget	38.5	2597	42,400 CUP	41.3	2731	50,000 CUP	W760	43.0	2553	42,100 CUP	45.0	2632	44,500 CUP
H4895	37.0	2546	43,300 CUP	40.5	2723	50,000 CUP	H4350	41.4	2443	40,400 CUP	45.0	2622	50,500 CUP
IMR 4064	38.0	2569	42,600 CUP	40.3	2723	48,800 CUP	H380	42.5	2508	42,400 CUP	44.0	2590	45,800 CUP
IMR 8208 XBR	36.9	2539	43,200 CUP	39.3	2677	49,900 CUP	StaBALL Match	37.7	2379	45,000 PSI	41.0	2603	59,500 PSI
IMR 3031	36.2	2533	43,000 CUP	38.5	2684	49,900 CUP	Varget	38.5	2504	43,400 CUP	41.0	2644	49,800 CUP
Benchmark	36.0	2526	43,300 CUP	38.5	2667	50,200 CUP	IMR 4895	38.0	2471	42,100 CUP	40.6	2650	49,300 CUP
H335	35.0	2471	44,700 CUP	37.5	2605	49,900 CUP	IMR 8208 XBR	36.2	2499	41,000 CUP	40.2	2725	50,800 CUP
Bullet: 154 GR. HDY SP Dia: .284"							IMR 4064	37.0	2463	42,000 CUP	39.5	2624	49,900 CUP
Case: REM		Primer: REM 9 1/2, LR			Col: 2.800"		H4895	37.0	2462	43,700 CUP	39.5	2600	49,800 CUP
H4831	48.0	2550	40,900 CUP	49.5C	2625	44,500 CUP	H335	36.5	2467	45,200 CUP	38.2	2585	50,100 CUP
StaBALL 6.5	44.3	2627	44,000 PSI	48.1	2871	59,300 PSI	Benchmark	36.0	2441	43,100 CUP	38.0	2557	49,200 CUP
IMR 4831	44.2	2517	38,400 CUP	47.0C	2655	45,100 CUP	IMR 3031	35.7	2452	43,200 CUP	38.0	2598	50,300 CUP

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads														
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure										
Bullet: 166 GR. HDY A-TIP						Dia: .284"		BL-C(2)						35.0	2154	40,000 CUP	37.0	2298	49,500 CUP				
Case: REM						Primer: REM 9 1/2, LR		Col: 2.800"		Benchmark						34.0	2202	42,400 CUP	36.5	2333	49,700 CUP		
H4831	44.5	2446	45,000 PSI	48.7C	2659	58,700 PSI	H335						34.0	2195	46,200 CUP	36.0	2276	49,800 CUP					
Hunter	44.0	2475	47,000 PSI	48.3	2701	59,000 PSI	IMR 8208 XBR						33.4	2264	43,200 CUP	35.5	2372	48,200 CUP					
StaBALL 6.5	42.8	2495	46,600 PSI	47.0	2721	60,200 PSI	7MM REMINGTON MAGNUM																
IMR 4350	41.5	2419	45,200 PSI	45.7C	2671	59,700 PSI	Barrel: 24"						Twist: 1:9.5" Trim: 2.490"										
Hybrid 100V	41.4	2514	49,100 PSI	45.5C	2710	59,000 PSI	Bullet: 120 GR. BAR TSX BT						Dia: .284"										
IMR 4831	41.3	2343	41,500 PSI	45.5C	2593	54,700 PSI	Case: WIN						Primer: WIN LR Magnum						Col: 3.230"				
H4350	40.8	2447	46,300 PSI	44.7	2656	60,200 PSI	Magnum						68.6	3003	54,600 PSI	76.3	3332	60,700 PSI					
A-2700	40.5	2457	47,000 PSI	44.5	2678	59,900 PSI	Magpro						67.7	3068	54,500 PSI	75.2	3332	60,500 PSI					
W760	40.5	2457	47,000 PSI	44.5	2678	59,900 PSI	A-4350						58.9	3051	54,600 PSI	65.4	3307	60,600 PSI					
Big Game	39.8	2414	45,300 PSI	43.5	2638	59,100 PSI	Hunter						57.6	2966	54,400 PSI	64.0	3283	60,500 PSI					
StaBALL Match	37.5	2376	46,600 PSI	40.8	2570	59,300 PSI	Bullet: 120 GR. HDY HP						Dia: .284"										
A-4064	36.5	2398	50,400 PSI	40.0C	2555	59,200 PSI	Case: WIN						Primer: WIN LR Magnum						Col: 3.200"				
A-2495	36.0	2373	49,300 PSI	39.5	2555	59,700 PSI	Grand						76.0	3254	45,200 PSI	78.0C	3487	59,700 PSI					
IMR 4064	34.8	2336	45,200 PSI	38.2	2551	59,700 PSI	Magnum						69.5	2992	54,100 PSI	77.3	3293	60,100 PSI					
Varget	34.5	2390	50,600 PSI	38.0	2553	59,300 PSI	Magpro						69.2	3019	54,100 PSI	76.9	3315	60,100 PSI					
Bullet: 168 GR. BER VLD						Dia: .284"		Col: 2.800"		A-4350						60.0	2970	53,800 PSI	66.7	3273	59,800 PSI		
Hunter	41.8	2404	49,400 PSI	46.5	2601	54,900 PSI	Hunter						57.6	2928	53,600 PSI	64.0	3220	59,600 PSI					
Big Game	40.6	2421	54,700 PSI	45.2	2660	60,800 PSI	Bullet: 120 GR. HDY SP						Dia: .284"										
A-4064	37.8	2375	54,700 PSI	42.0	2612	60,700 PSI	Case: WIN						Primer: WIN LR Magnum						Col: 3.230"				
A-2495	36.5	2347	54,700 PSI	40.5	2580	60,800 PSI	IMR 7828						68.0	3044	50,000 PSI	72.5C	3261	59,100 PSI					
Bullet: 168 GR. SIE HPBT						Dia: .284"		Col: 2.800"		H4831						65.0	3095	45,800 CUP	68.5	3236	50,600 CUP		
A-4350	41.4	2284	53,500 PSI	46.0	2596	59,500 PSI	IMR 4831						64.0	3040	51,300 PSI	68.2	3231	58,500 PSI					
A-2700	39.9	2157	53,000 PSI	42.0	2451	55,800 PSI	IMR 4350						62.0	3050	49,900 PSI	66.5	3251	59,000 PSI					
Case: REM						Primer: REM 9 1/2, LR		Col: 2.800"		Hybrid 100V						60.0	3092	50,100 PSI	65.5	3327	59,600 PSI		
H4831	47.0	2438	39,700 CUP	49.0C	2545	45,000 CUP	H4350						62.0	3106	44,700 CUP	65.0	3226	50,100 CUP					
IMR 7828	46.0	2385	40,700 CUP	49.0C	2547	46,700 CUP	W760						61.0	3126	45,500 CUP	64.5	3261	50,700 CUP					
StaBALL 6.5	42.1	2485	42,600 PSI	47.4	2776	59,300 PSI	IMR 4064						54.0	3062	52,600 PSI	58.2	3212	59,400 PSI					
IMR 4350	43.7	2469	42,500 CUP	46.5C	2643	49,300 CUP	IMR 4895						54.0	3049	52,200 PSI	57.9	3189	58,700 PSI					
W760	44.0	2557	44,600 CUP	46.5	2670	49,800 CUP	Varget						53.0	3021	45,200 CUP	57.0	3218	50,900 CUP					
IMR 4831	44.0	2402	38,500 CUP	46.0C	2517	42,900 CUP	Bullet: 120 GR. NOS BT						Dia: .284"										
H380	42.0	2458	45,800 CUP	44.5	2565	49,900 CUP	Case: WIN						Primer: WIN LR Magnum						Col: 3.200"				
H4350	41.6	2431	42,500 CUP	44.2	2551	50,700 CUP	Magnum						69.9	3019	54,700 PSI	77.7	3322	60,700 PSI					
Hybrid 100V	40.0	2443	42,800 CUP	44.0C	2623	48,200 CUP	Magpro						69.4	3016	54,500 PSI	77.1	3347	60,500 PSI					
BL-C(2)	38.0	2370	42,700 CUP	40.5	2492	49,500 CUP	A-4350						60.9	3022	54,200 PSI	67.7	3319	60,300 PSI					
StaBALL Match	37.0	2325	46,500 PSI	40.4	2534	59,800 PSI	Bullet: 130 GR. SPR SP						Dia: .284"										
Varget	37.5	2430	44,600 CUP	40.0	2540	50,100 CUP	Case: WIN						Primer: WIN LR Magnum						Col: 3.185"				
IMR 4895	37.5	2439	42,300 CUP	40.0	2583	49,800 CUP	Grand						75.0	3164	45,300 PSI	80.0C	3415	60,000 PSI					
IMR 4064	37.5	2466	43,200 CUP	39.8	2597	50,200 CUP	IMR 7828						65.0	2943	50,800 PSI	70.0	3159	59,300 PSI					
H4895	36.5	2390	45,400 CUP	39.0	2504	49,700 CUP	IMR 4831						62.0	2971	53,200 PSI	66.3	3125	59,800 PSI					
IMR 3031	36.0	2431	45,200 CUP	38.2	2565	50,100 CUP	H4831						63.0	2952	46,300 CUP	66.0	3051	50,200 CUP					
Benchmark	36.0	2389	43,500 CUP	38.0	2517	49,400 CUP	IMR 4350						60.0	2964	52,300 PSI	64.0	3131	59,300 PSI					
IMR 8208 XBR	34.9	2414	46,400 CUP	37.1	2486	49,600 CUP	Hybrid 100V						57.0	2931	49,400 PSI	62.5	3157	59,000 PSI					
H335	35.0	2328	44,700 CUP	37.0	2421	49,600 CUP	H4350						58.0	2953	45,100 CUP	61.5	3082	50,800 CUP					
Bullet: 175 GR. BAR TSX FB						Dia: .284"		Col: 2.735"		W760						59.0	2985	46,500 CUP	61.0	3064	49,400 CUP		
Hunter	39.1	2191	47,500 PSI	43.5	2400	52,800 PSI	IMR 4064						52.0	2904	52,200 PSI	55.4	3048	59,600 PSI					
Big Game	39.0	2289	54,800 PSI	43.3	2510	60,800 PSI	Varget						51.0	2877	45,700 CUP	54.0	2998	49,400 CUP					
A-4064	35.5	2192	53,300 PSI	39.5	2413	59,300 PSI	Bullet: 139 GR. HDY BTSP						Dia: .284"										
A-2495	34.3	2170	54,700 PSI	38.2	2393	60,800 PSI	Case: WIN						Primer: WIN LR Magnum						Col: 3.230"				
Bullet: 175 GR. NOS PART						Dia: .284"		Col: 2.800"		Magpro						68.3	2921	54,600 PSI	75.8	3207	60,700 PSI		
H4831	47.0	2443	46,600 CUP	49.0C	2516	49,400 CUP	Magnum						67.4	2837	54,700 PSI	74.9	3171	60,800 PSI					
IMR 4350	41.4	2310	39,200 CUP	46.0C	2556	48,500 CUP	A-4350						59.6	2845	54,800 PSI	66.2	3142	60,900 PSI					
StaBALL 6.5	40.9	2395	41,300 PSI	46.0	2669	59,000 PSI	Bullet: 139 GR. HDY GMX						Dia: .284"										
Hybrid 100V	40.0	2359	41,500 CUP	44.0C	2568	48,300 CUP	Case: WIN						Primer: WIN LR Magnum						Col: 3.290"				
W760	40.5	2322	40,600 CUP	43.0	2495	50,100 CUP	StaBALL HD						69.5	2954	48,500 PSI	76.2C	3219	59,700 PSI					
H380	40.0	2303	45,600 CUP	42.7	2415	49,900 CUP	Grand						70.0	3025	45,200 PSI	75.5C	3295	59,600 PSI					
H4350	39.9	2303	41,900 CUP	42.4	2451	50,400 CUP	Retumbo						68.0	2869	45,500 PSI	74.0C	3128	58,400 PSI					
IMR 4895	38.0	2343	43,900 CUP	40.5	2466	49,400 CUP	H1000						67.5	2847	46,300 PSI	73.0C	3065	56,000 PSI					
IMR 4064	37.5	2308	43,300 CUP	40.0C	2433	49,700 CUP	IMR 7828						63.4	2841	45,800 PSI	70.0C	3191	59,400 PSI					
StaBALL Match	35.8	2241	48,800 PSI	38.6	2393	57,600 PSI	H4831						64.5	2878	50,200 PSI	68.8	3054	58,100 PSI					
IMR 3031	35.2	2270	44,900 CUP	37.5	2381	49,700 CUP	IMR 4831						61.6	2862	48,400 PSI	65.5	3085	58,400 PSI					
Varget	35.0	2231	43,400 CUP	37.5	2344	49,500 CUP	IMR 4350						59.6	2902	49,300 PSI	63.4	3099	58,500 PSI					
H4895	35.0	2240	44,500 CUP	37.5	2354	49,700 CUP	Hybrid 100V						58.5	2914	49,800 PSI	62.2	3114	59,500 PSI					
												W760						56.2	2820	51,300 PSI	59.8	3043	59,300 PSI
												H4350						56.1	2834	45,300 PSI	59.7	3007	57,800 PSI

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
Bullet: 140 GR. BAR TTSX BT Dia: .284"							StaBALL HD	67.7	2823	48,000 PSI	74.6	3031	59,500 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.240"							Retumbo	65.0	2756	43,200 CUP	69.5C	2915	49,900 CUP
Magnum	67.3	2797	54,700 PSI	74.8	3108	60,800 PSI	H1000	63.0	2729	43,300 CUP	66.0	2839	49,600 CUP
Magpro	64.9	2825	54,500 PSI	72.1	3111	60,500 PSI	IMR 7828	60.0	2709	50,500 PSI	64.0	2868	58,200 PSI
A-4350	54.1	2773	54,400 PSI	60.1	2987	60,400 PSI	IMR 4831	57.0	2707	50,600 PSI	61.0	2858	58,400 PSI
Bullet: 140 GR. NOS PART Dia: .284"							H4831	58.0	2695	46,400 CUP	60.0	2787	49,800 CUP
Case: WIN Primer: WIN LR Magnum Col: 3.250"							IMR 4350	56.0	2697	49,700 PSI	59.5	2856	58,500 PSI
StaBALL HD	70.5	2954	46,800 PSI	77.6	3221	59,300 PSI	Hybrid 100V	53.0	2647	49,600 PSI	58.0	2839	58,300 PSI
Retumbo	71.0	2955	46,100 CUP	75.0C	3107	49,400 CUP	H4350	53.0	2651	46,400 CUP	55.5	2745	49,800 CUP
Grand	72.0	3041	45,200 PSI	75.0	3267	59,500 PSI	Bullet: 160 GR. SIE SBT Dia: .284"						
Magnum	67.1	2835	54,100 PSI	74.6	3116	60,100 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.245"						
Magpro	65.7	2874	53,200 PSI	73.0	3118	59,200 PSI	Magpro	65.3	2717	54,600 PSI	72.5	2993	60,700 PSI
H1000	67.0	2934	46,200 CUP	70.0	3036	50,600 CUP	Magnum	65.1	2646	54,300 PSI	72.3	2948	60,400 PSI
IMR 7828	64.0	2867	50,000 PSI	69.0	3095	59,200 PSI	A-4350	57.6	2654	54,700 PSI	64.0	2898	60,700 PSI
IMR 4831	61.0	2880	52,200 PSI	65.4	3053	59,400 PSI	Bullet: 162 GR. HDY ELD-M Dia: .284"						
H4831	61.0	2841	46,300 CUP	64.0	2950	50,200 CUP	Case: WIN Primer: WIN LR Magnum Col: 3.290"						
Hybrid 100V	57.0	2895	49,100 PSI	63.0	3138	59,800 PSI	Magnum	66.4	2653	54,300 PSI	73.8	2959	60,300 PSI
IMR 4350	59.0	2877	51,400 PSI	62.8	3045	58,600 PSI	Magpro	64.3	2672	54,300 PSI	71.5	2967	60,300 PSI
A-4350	54.6	2773	54,300 PSI	60.7	3000	60,300 PSI	A-4350	57.0	2537	54,500 PSI	63.4	2890	60,500 PSI
W760	58.0	2897	46,700 CUP	60.2	2967	49,300 CUP	Bullet: 162 GR. HDY SPBT Dia: .284"						
H4350	56.0	2808	45,500 CUP	59.0	2927	50,000 CUP	Case: WIN Primer: WIN LR Magnum Col: 3.290"						
Bullet: 150 GR. BAR TTSX BT Dia: .284"							US 869	77.0	2820	49,800 PSI	80.0	2921	54,400 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.225"							StaBALL HD	67.5	2774	46,600 PSI	74.1	3046	59,800 PSI
Grand	69.0	2939	45,400 PSI	76.0C	3223	60,000 PSI	Retumbo	69.0	2787	43,900 CUP	73.5C	2963	50,500 CUP
StaBALL HD	68.0	2847	47,500 PSI	74.9C	3104	59,400 PSI	Grand	67.0	2823	45,500 PSI	73.0	3094	60,200 PSI
H1000	67.2	2847	49,200 PSI	73.8	3083	59,100 PSI	H1000	67.0	2800	45,400 CUP	70.0	2905	49,600 CUP
Retumbo	66.9	2895	47,900 PSI	73.5C	3115	57,200 PSI	IMR 7828	61.0	2724	50,800 PSI	65.0	2882	59,000 PSI
IMR 7828	63.4	2851	48,400 PSI	68.7	3100	59,200 PSI	H4831	60.0	2731	43,300 CUP	64.0	2871	49,800 CUP
H4831	62.7	2852	50,600 PSI	68.0	3080	60,200 PSI	IMR 4831	58.0	2710	49,900 PSI	61.8	2877	59,500 PSI
IMR 4831	60.4	2848	49,600 PSI	65.0	3075	59,600 PSI	IMR 4350	56.0	2704	49,700 PSI	60.0	2861	58,100 PSI
IMR 4350	58.9	2856	49,800 PSI	63.7	3059	59,300 PSI	Hybrid 100V	55.0	2725	49,700 PSI	60.0	2922	59,500 PSI
H4350	57.9	2836	50,800 PSI	62.5	3041	59,800 PSI	H4350	55.0	2677	43,400 CUP	58.0	2799	49,400 CUP
Hybrid 100V	56.8	2829	47,800 PSI	60.7	3071	59,000 PSI	Bullet: 166 GR. HDY A-TIP Dia: .284"						
Bullet: 150 GR. NOS E-TIP Dia: .284"							Case: WIN Primer: WIN LR Magnum Col: 3.290"						
Case: WIN Primer: WIN LR Magnum Col: 3.330"							US 869	74.0	2746	44,500 PSI	79.0	2962	53,600 PSI
Magnum	65.9	2670	54,700 PSI	73.2	2986	60,700 PSI	LRT	73.0	2834	45,200 PSI	78.5	2990	50,800 PSI
Magpro	62.7	2703	54,100 PSI	69.7	2981	60,100 PSI	Grand	67.5	2805	45,300 PSI	75.0C	3099	60,200 PSI
A-4350	51.9	2602	54,600 PSI	57.6	2823	60,700 PSI	Retumbo	68.0	2826	48,600 PSI	73.0C	3047	60,000 PSI
Bullet: 150 GR. NOS PART Dia: .284"							Magnum	67.5	2784	46,500 PSI	73.0	3049	59,300 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.270"							StaBALL HD	67.5	2843	49,200 PSI	72.8	3054	59,600 PSI
StaBALL HD	68.8	2816	44,700 PSI	75.7	3126	59,700 PSI	Magpro	67.0	2876	50,200 PSI	72.0	3072	59,000 PSI
Grand	70.0	2969	46,400 PSI	75.2	3192	59,500 PSI	H1000	65.5	2819	49,400 PSI	70.5	3024	59,600 PSI
Magnum	65.6	2722	54,800 PSI	72.8	3016	60,900 PSI	IMR 7828 SSC	62.5	2843	49,700 PSI	67.3	3023	60,000 PSI
Retumbo	68.0	2818	43,300 CUP	72.5C	2998	50,300 CUP	H4831	61.0	2809	49,500 PSI	65.8	3003	59,500 PSI
Magpro	64.6	2757	53,600 PSI	71.8	3020	59,600 PSI	A-4350	60.3	2796	50,700 PSI	65.0	2983	59,600 PSI
H1000	65.0	2835	46,200 CUP	68.0	2936	49,900 CUP	IMR 4831	60.3	2796	48,400 PSI	65.0	3020	59,900 PSI
IMR 7828	62.0	2792	51,700 PSI	66.2	2952	58,500 PSI	IMR 4350	57.8	2818	50,500 PSI	62.3	2992	59,300 PSI
IMR 4831	58.0	2758	51,500 PSI	62.5	2925	59,400 PSI	Hunter	57.2	2751	49,500 PSI	61.4	2947	59,500 PSI
H4831	59.0	2775	45,300 CUP	62.0	2986	51,100 CUP	StaBALL 6.5	56.4	2728	48,800 PSI	60.7	2935	59,900 PSI
A-4350	55.6	2724	54,800 PSI	61.8	2942	60,900 PSI	Hybrid 100V	56.0	2786	48,700 PSI	60.4	2987	59,300 PSI
IMR 4350	57.0	2786	52,400 PSI	60.8	2931	59,400 PSI	H4350	54.5	2757	48,700 PSI	58.6	2954	60,200 PSI
Hybrid 100V	55.0	2746	48,800 PSI	60.0	2975	59,500 PSI	Bullet: 168 GR. BER VLD Dia: .284"						
H4350	55.0	2781	45,700 CUP	57.0	2859	50,100 CUP	Case: WIN Primer: WIN LR Magnum Col: 3.290"						
Bullet: 154 GR. HDY SP Dia: .284"							Magnum	64.8	2711	54,600 PSI	72.0	2993	60,600 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.290"							Magpro	63.2	2741	54,800 PSI	70.2	3001	60,900 PSI
Magpro	66.1	2744	54,600 PSI	73.4	3028	60,700 PSI	A-4350	57.6	2555	54,400 PSI	64.0	2838	60,400 PSI
Magnum	65.1	2656	54,300 PSI	72.3	2967	60,400 PSI	Bullet: 168 GR. SIE HPBT Dia: .284"						
A-4350	57.9	2680	54,800 PSI	64.4	2935	60,900 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.260"						
Bullet: 160 GR. BAR TSX FB Dia: .284"							Magnum	65.6	2639	54,500 PSI	72.9	2904	60,500 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.240"							Magpro	64.7	2604	54,800 PSI	71.9	2930	60,900 PSI
Magnum	66.8	2615	54,800 PSI	74.2	2931	60,900 PSI	A-4350	58.2	2578	54,100 PSI	64.6	2857	60,100 PSI
Magpro	63.8	2631	54,800 PSI	70.9	2935	60,900 PSI	Bullet: 170 GR. SIE RN Dia: .284"						
A-4350	51.5	2530	54,400 PSI	57.2	2709	60,500 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.270"						
Bullet: 160 GR. NOS PART Dia: .284"							US 869	77.0	2688	44,700 PSI	79.0	2826	51,300 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.290"							Retumbo	71.0	2752	44,200 CUP	75.0C	2899	50,700 CUP
US 869	77.0	2786	52,300 PSI	80.0	2897	58,300 PSI	H1000	69.0	2744	45,600 CUP	71.0	2806	49,400 CUP
Grand	68.0	2862	48,400 PSI	74.8	3098	59,300 PSI	IMR 7828	62.0	2680	50,400 PSI	66.0	2839	58,700 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
H4831	63.0	2749	46,300 CUP	65.0	2806	48,900 CUP	Bullet: 162 GR. HDY ELD-X Dia: .284"						
IMR 4831	59.0	2672	50,500 PSI	63.0	2828	59,100 PSI	Case: HDY Primer: FED 215, LR Magnum Col: 3.270"						
IMR 4350	57.0	2669	50,700 PSI	61.5	2829	59,200 PSI	LRT	71.8	2806	45,300 PSI	79.0C	3106	59,000 PSI
H4350	58.0	2701	44,600 CUP	60.0	2767	48,500 CUP	Retumbo	63.8	2759	45,400 PSI	70.2C	3074	62,300 PSI
Hybrid 100V	54.0	2604	49,400 PSI	59.0	2807	59,500 PSI	Grand	65.3	2846	45,200 PSI	71.7	3145	61,800 PSI
Bullet: 175 GR. BARTSX FB Dia: .284"							Magnum	65.2	2811	47,800 PSI	71.6	3085	62,500 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.240"							StaBALL HD	64.4	2691	43,900 PSI	70.8	3055	62,500 PSI
Magnum	62.0	2604	54,300 PSI	68.9	2844	60,300 PSI	H1000	61.6	2786	47,400 PSI	67.7	3054	62,200 PSI
Magpro	60.4	2621	54,400 PSI	67.2	2877	60,500 PSI	IMR 7828 SSC	59.7	2801	50,800 PSI	65.6	3029	62,400 PSI
A-4350	49.4	2470	54,200 PSI	54.9	2672	60,200 PSI	H4831	58.0	2785	49,800 PSI	64.2	3018	62,400 PSI
Bullet: 175 GR. NOS PART Dia: .284"							IMR 4831	57.3	2798	48,900 PSI	63.0	3044	62,500 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.290"							Bullet: 168 GR. BAR LRX BT Dia: .284"						
US 869	74.0	2632	49,300 PSI	77.0	2758	56,200 PSI	Case: HDY Primer: FED 215, LR Magnum Col: 3.200"						
Grand	65.3	2711	47,700 PSI	72.2	2940	59,700 PSI	LRT	70.0	2683	43,400 PSI	77.0C	2956	55,500 PSI
StaBALL HD	65.4	2639	46,700 PSI	72.1	2898	59,500 PSI	StaBALL HD	64.4	2671	49,000 PSI	70.8C	2959	62,500 PSI
Magnum	63.4	2647	54,400 PSI	70.4	2879	60,500 PSI	Magnum	64.3	2737	50,700 PSI	70.7	2975	62,100 PSI
Retumbo	64.0	2650	45,400 CUP	68.0	2800	51,200 CUP	Grand	63.5	2790	49,200 PSI	69.4	3029	61,800 PSI
Magpro	60.7	2614	54,600 PSI	67.4	2875	60,600 PSI	Retumbo	61.0	2654	46,700 PSI	67.0	2938	62,500 PSI
H1000	61.0	2567	45,000 CUP	64.5	2692	50,400 CUP	H1000	60.0	2713	49,600 PSI	66.0	2955	62,300 PSI
IMR 7828	57.0	2549	49,800 PSI	61.0	2707	58,300 PSI	IMR 7828 SSC	56.7	2650	50,800 PSI	62.4	2900	62,400 PSI
H4831	55.0	2532	45,800 CUP	58.0	2660	50,200 CUP	H4831	55.5	2673	52,200 PSI	61.0	2887	62,500 PSI
IMR 4831	54.0	2540	50,100 PSI	58.0	2710	58,700 PSI	IMR 4831	55.0	2656	51,400 PSI	60.5	2888	62,500 PSI
A-4350	52.1	2534	54,200 PSI	57.9	2740	60,200 PSI	Bullet: 175 GR. NOS ABLR Dia: .284"						
Hybrid 100V	53.0	2567	49,700 PSI	57.5	2740	58,200 PSI	Case: HDY Primer: FED 215, LR Magnum Col: 3.300"						
IMR 4350	54.0	2586	52,600 PSI	57.0	2698	58,800 PSI	LRT	72.8	2794	47,100 PSI	80.0C	3083	62,400 PSI
H4350	51.0	2504	46,200 CUP	54.0	2617	51,400 CUP	StaBALL HD	64.7	2674	45,700 PSI	71.1	2978	62,400 PSI
Bullet: 175 GR. SIE SBT Dia: .284"							Magnum	63.4	2653	43,800 PSI	70.4	2946	62,400 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.245"							Retumbo	63.7	2705	46,800 PSI	70.0C	2985	62,200 PSI
Magnum	63.9	2659	54,800 PSI	71.0	2915	60,900 PSI	Grand	64.0	2775	47,500 PSI	69.9	3030	61,900 PSI
Magpro	62.1	2632	54,400 PSI	69.0	2912	60,400 PSI	H1000	61.2	2711	48,100 PSI	67.2	2968	62,300 PSI
A-4350	53.5	2597	54,800 PSI	59.5	2782	60,900 PSI	IMR 7828 SSC	57.8	2653	47,300 PSI	64.3	2934	62,400 PSI
Bullet: 180 GR. BER VLD Dia: .284"							H4831	57.0	2660	48,000 PSI	63.3	2923	62,300 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.290"							IMR 4831	56.5	2661	47,200 PSI	62.8	2939	62,500 PSI
Grand	67.0	2746	48,900 PSI	73.5C	2958	59,800 PSI	Bullet: 180 GR. HDY ELD-M Dia: .284"						
StaBALL HD	64.7	2649	46,800 PSI	71.3	2895	59,600 PSI	Case: HDY Primer: FED 215, LR Magnum Col: 3.290"						
Retumbo	64.4	2638	46,400 PSI	70.8C	2914	59,600 PSI	LRT	69.3	2772	45,800 PSI	76.0	3097	62,400 PSI
Magnum	63.3	2629	54,500 PSI	70.3	2886	60,600 PSI	StaBALL HD	63.0	2672	48,000 PSI	69.2	2930	62,200 PSI
H1000	63.2	2605	46,000 PSI	69.5C	2884	60,000 PSI	Grand	63.0	2742	47,100 PSI	69.2	3003	62,000 PSI
Magpro	61.5	2584	54,500 PSI	68.3	2885	60,600 PSI	Magnum	61.6	2639	46,100 PSI	67.8	2934	62,400 PSI
IMR 7828	59.6	2570	45,300 PSI	65.5	2874	58,900 PSI	Retumbo	60.5	2705	45,500 PSI	66.5	2989	62,300 PSI
H4831	58.6	2652	51,800 PSI	64.5	2830	60,200 PSI	H1000	58.7	2676	48,500 PSI	64.6	2925	62,400 PSI
IMR 4831	56.4	2608	48,900 PSI	62.0	2841	59,500 PSI	IMR 7828 SSC	58.0	2757	55,500 PSI	61.0	2882	62,400 PSI
IMR 4350	55.5	2622	49,300 PSI	61.0	2837	59,400 PSI	H4831	55.0	2664	50,200 PSI	60.6	2881	62,300 PSI
A-4350	53.7	2547	54,200 PSI	59.7	2750	60,200 PSI	IMR 4831	55.5	2642	49,300 PSI	61.0	2862	62,100 PSI
Hybrid 100V	53.6	2594	48,800 PSI	59.0	2810	59,700 PSI	Bullet: 195 GR. BER EOL Dia: .284"						
H4350	52.0	2553	48,000 PSI	56.0	2752	59,000 PSI	Case: HDY Primer: FED 215, LR Magnum Col: 3.340"						
Bullet: 180 GR. SIE HPBT Dia: .284"							LRT	70.0	2651	46,700 PSI	75.0	2871	59,500 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.290"							Grand	63.5	2666	48,100 PSI	69.6	2904	62,400 PSI
Magnum	61.6	2614	54,400 PSI	68.5	2848	60,400 PSI	StaBALL HD	64.0	2662	48,800 PSI	68.7	2840	62,500 PSI
Magpro	60.9	2615	54,800 PSI	67.7	2877	60,900 PSI	Magnum	62.0	2637	50,300 PSI	67.3	2833	62,400 PSI
A-4350	49.8	2505	54,700 PSI	55.4	2688	60,800 PSI	Retumbo	62.0	2623	47,300 PSI	67.3	2826	62,000 PSI
7MM PRC							H1000	60.0	2607	48,900 PSI	65.0	2821	62,100 PSI
Barrel: 24" Twist: 1:8" Trim: 2.275"							IMR 7828 SSC	56.0	2592	51,300 PSI	59.8	2762	62,400 PSI
Bullet: 150 GR. NOS E-TIP Dia: .284"							H4831	55.0	2595	52,600 PSI	60.3	2774	62,400 PSI
Case: HDY Primer: FED 215, LR Magnum Col: 3.215"							IMR 4831	54.0	2543	50,700 PSI	59.5	2741	62,500 PSI
LRT	72.8	2882	47,800 PSI	80.0C	3211	62,500 PSI	7MM WEATHERBY MAGNUM						
Grand	67.0	2925	48,100 PSI	73.5	3222	62,500 PSI	Barrel: 24" Twist: 1:10" Trim: 2.539"						
Magnum	65.5	2820	47,600 PSI	72.0	3137	62,500 PSI	Bullet: 140 GR. SFT SP Dia: .284"						
StaBALL HD	64.8	2773	47,900 PSI	71.3	3077	62,300 PSI	Case: REM Primer: FED 215M, LR Mag Match Col: 3.250"						
Retumbo	64.0	2806	47,700 PSI	70.3	3107	62,200 PSI	H1000	75.0	3104	42,800 CUP	79.0C	3273	49,900 CUP
H1000	62.0	2824	48,500 PSI	68.3	3100	62,200 PSI	IMR 7828	69.0	3098	45,100 CUP	74.0	3326	55,100 CUP
IMR 7828 SSC	59.0	2786	49,900 PSI	65.0	3066	62,300 PSI	H4831	69.0	3023	43,600 CUP	74.0	3258	54,000 CUP
H4831	57.5	2783	48,800 PSI	63.2	3076	62,400 PSI	IMR 4831	65.0	3031	42,800 CUP	69.5	3255	52,800 CUP
IMR 4831	58.0	2839	52,200 PSI	63.8	3054	62,400 PSI	H4350	64.0	3046	43,800 CUP	68.5	3248	54,000 CUP
NEVER EXCEED MAXIMUM LOADS							IMR 4350	62.0	3037	41,400 CUP	67.0	3261	53,100 CUP
106 hodgdon.com							Hybrid 100V	60.0	2931	44,800 CUP	66.0	3196	53,300 CUP
*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.							Trail Boss	18.5	1365	22,700 CUP	26.5	1529	30,500 CUP

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Gr	Vel	Pressure	Gr	Vel	Pressure	Powder	Gr	Vel	Pressure	Gr	Vel	Pressure
Bullet: 150 GR. NOS PART Dia: .284"							Bullet: 145 GR. SPR SPBT Dia: .284"						
Case: REM		Primer: FED 215M, LR Mag Match				Col: 3.250"	Case: Nosler		Primer: WIN LR Magnum				Col: 3.340"
H1000	75.0	3073	45,400 CUP	79.0C	3223	52,200 CUP	US 869	88.9	3083	52,800 PSI	94.6	3307	62,700 PSI
H4831	68.0	2973	44,800 CUP	72.0	3152	53,500 CUP	LRT	85.0	3053	51,200 PSI	93.5	3340	63,600 PSI
IMR 7828	67.0	2989	48,500 CUP	72.0	3212	54,100 CUP	H50BMG	85.7	3080	57,500 PSI	91.2C	3206	62,900 PSI
IMR 4831	64.0	2957	44,300 CUP	69.0	3172	53,900 CUP	StaBALL HD	78.7	3040	50,900 PSI	85.8	3318	63,500 PSI
H4350	64.0	3012	45,800 CUP	68.0	3180	54,000 CUP	Magnum	75.4	2993	53,300 PSI	83.4	3264	63,900 PSI
IMR 4350	62.0	3003	44,000 CUP	66.5	3175	54,100 CUP	Retumbo	78.3	3089	53,800 PSI	83.4	3275	62,700 PSI
Hybrid 100V	61.0	2967	41,500 CUP	65.5C	3133	53,900 CUP	Magpro	76.0	3036	51,300 PSI	83.0	3318	63,400 PSI
Bullet: 160 GR. BAR TTSTX Dia: .284"							H1000	75.4	3096	57,400 PSI	80.3	3226	63,000 PSI
Case: REM		Primer: FED 215M, LR Mag Match				Col: 3.250"	IMR 7828	73.3	3098	54,800 PSI	78.0	3260	62,500 PSI
H1000	68.0	2778	45,600 CUP	75.0C	3034	54,800 CUP	H4831	70.1	3012	54,000 PSI	74.6	3190	62,800 PSI
IMR 7828 SSC	62.0	2699	43,900 CUP	69.5C	2998	54,200 CUP	IMR 4831	69.9	3040	53,900 PSI	74.4	3220	62,600 PSI
H4831	62.0	2759	48,300 CUP	69.0C	3001	55,000 CUP	Bullet: 150 GR. BAR TTSTX BT Dia: .284"						
IMR 4831	59.0	2750	44,300 CUP	65.0	2991	54,100 CUP	Case: Nosler		Primer: WIN LR Magnum				Col: 3.340"
Hybrid 100V	58.0	2664	43,200 CUP	63.5C	2888	50,700 CUP	US 869	88.5	3048	54,400 PSI	94.5	3265	63,500 PSI
IMR 4350	56.0	2715	46,900 CUP	62.0	2917	54,100 CUP	LRT	84.0	3010	49,700 PSI	92.3	3330	63,700 PSI
H4350	55.0	2723	48,500 CUP	61.5	2960	55,300 CUP	H50BMG	81.4	3000	58,800 PSI	86.6C	3103	62,400 PSI
Bullet: 175 GR. HDY SP Dia: .284"							StaBALL HD	77.2	3008	51,800 PSI	84.0	3264	62,900 PSI
Case: REM		Primer: FED 215M, LR Mag Match				Col: 3.350"	Magnum	73.0	2946	53,600 PSI	83.0	3220	63,700 PSI
US 869	78.0	2751	41,600 CUP	80.0	2862	45,200 CUP	Magpro	75.0	2973	50,900 PSI	82.2	3258	63,400 PSI
H1000	70.0	2844	45,000 CUP	74.7C	3022	54,000 CUP	H1000	74.5	3016	57,300 PSI	79.3	3160	63,400 PSI
IMR 7828	64.0	2773	45,000 CUP	67.5	2942	52,600 CUP	Retumbo	72.3	2959	53,300 PSI	77.1	3137	62,400 PSI
H4831	63.0	2724	43,500 CUP	67.5	2895	53,400 CUP	Bullet: 160 GR. NOS PART Dia: .284"						
IMR 4831	60.0	2756	46,400 CUP	64.0	2880	53,000 CUP	Case: Nosler		Primer: WIN LR Magnum				Col: 3.340"
H4350	60.0	2755	45,900 CUP	63.7	2899	53,600 CUP	US 869	88.2	3025	55,500 PSI	93.8	3199	63,700 PSI
IMR 4350	59.0	2784	45,800 CUP	63.0	2885	53,400 CUP	LRT	83.2	2925	50,600 PSI	91.5	3223	63,600 PSI
Hybrid 100V	57.0	2658	46,000 CUP	62.0C	2826	52,600 CUP	H50BMG	83.2	2934	55,900 PSI	88.6C	3086	62,800 PSI
Bullet: 180 GR. BER VLD Dia: .284"							StaBALL HD	76.7	2935	52,300 PSI	83.4	3177	62,800 PSI
Case: REM		Primer: FED 215M, LR Mag Match				Col: 3.350"	Magnum	75.0	2933	55,600 PSI	82.8	3128	63,700 PSI
US 869	75.2	2698	42,800 CUP	81.8C	2927	50,900 CUP	Magpro	74.0	2856	49,500 PSI	81.4	3179	63,600 PSI
H1000	66.3	2733	44,400 CUP	72.1C	2939	53,600 CUP	Retumbo	76.0	2984	55,700 PSI	80.9	3131	63,000 PSI
IMR 7828	62.6	2686	42,800 CUP	68.1C	2948	53,800 CUP	H1000	75.8	2984	57,800 PSI	80.6	3114	63,500 PSI
H4831	60.3	2647	42,800 CUP	66.3	2877	53,600 CUP	Bullet: 162 GR. HDY SPBT Dia: .284"						
IMR 4831	59.1	2705	45,700 CUP	64.3	2886	52,700 CUP	Case: Nosler		Primer: WIN LR Magnum				Col: 3.340"
Hybrid 100V	56.4	2641	43,900 CUP	61.4	2832	52,600 CUP	US 869	89.0	3013	54,100 PSI	94.2	3195	62,600 PSI
H4350	55.4	2630	44,400 CUP	60.3	2840	53,900 CUP	LRT	83.5	2908	48,900 PSI	91.8	3205	63,300 PSI
28 NOSLER							H50BMG	83.8	2908	54,200 PSI	90.7C	3103	63,800 PSI
Barrel: 24" Twist: 1:9" Trim: 2.575"							StaBALL HD	76.7	2946	53,100 PSI	83.5	3174	63,300 PSI
Bullet: 120 GR. NOS BT Dia: .284"							Magnum	75.0	2896	52,600 PSI	83.2	3131	63,300 PSI
Case: Nosler		Primer: WIN LR Magnum				Col: 3.340"	Retumbo	77.8	2982	53,900 PSI	82.8	3161	62,900 PSI
US 869	93.2	3192	48,900 PSI	101.0C	3535	62,500 PSI	Magpro	75.0	2881	48,800 PSI	82.0	3188	63,600 PSI
LRT	90.0	3268	48,100 PSI	98.5C	3633	63,400 PSI	H1000	76.3	2975	55,100 PSI	81.2	3153	63,500 PSI
H50BMG	90.2	3062	43,900 PSI	97.0C	3346	55,600 PSI	Bullet: 175 GR. NOS PART Dia: .284"						
StaBALL HD	83.0	3272	49,600 PSI	91.5	3615	63,400 PSI	Case: Nosler		Primer: WIN LR Magnum				Col: 3.340"
Magnum	83.5	3288	52,000 PSI	91.0	3573	63,900 PSI	US 869	85.7	2873	52,900 PSI	91.2	3085	62,700 PSI
H1000	84.0	3268	50,500 PSI	89.4C	3547	63,000 PSI	LRT	80.0	2782	50,900 PSI	88.2	3071	63,800 PSI
Retumbo	83.8	3170	44,900 PSI	90.2	3576	62,900 PSI	H50BMG	80.9	2850	57,800 PSI	84.8	2955	62,900 PSI
Magpro	81.0	3296	50,000 PSI	88.8	3634	64,000 PSI	StaBALL HD	75.0	2815	52,300 PSI	81.3	3037	63,300 PSI
IMR 7828	79.9	3336	52,600 PSI	84.8	3594	62,900 PSI	Magnum	73.0	2727	51,600 PSI	79.8	2978	63,600 PSI
H4831	78.5	3323	54,700 PSI	83.5	3507	62,400 PSI	Magpro	73.0	2787	51,500 PSI	79.7	3064	64,000 PSI
IMR 4831	75.0	3249	49,700 PSI	81.6	3557	62,500 PSI	Retumbo	72.3	2858	56,000 PSI	78.0	3018	64,000 PSI
Bullet: 140 GR. NOS E-TIP Dia: .284"							H1000	72.8	2864	57,300 PSI	77.5	2996	63,800 PSI
Case: Nosler		Primer: WIN LR Magnum				Col: 3.340"	IMR 7828	68.1	2831	55,900 PSI	71.7	2959	62,500 PSI
US 869	90.2	3057	52,100 PSI	96.0	3305	62,500 PSI	Bullet: 180 GR. BER VLD Dia: .284"						
LRT	86.0	3078	50,900 PSI	94.5	3398	63,600 PSI	Case: Nosler		Primer: WIN LR Magnum				Col: 3.340"
H50BMG	88.1	3089	56,600 PSI	93.8C	3244	63,100 PSI	H50BMG	85.2	2808	53,700 PSI	90.6C	2968	62,600 PSI
StaBALL HD	79.5	3069	50,700 PSI	86.5	3373	63,000 PSI	US 869	85.1	2854	51,900 PSI	90.6	3087	62,900 PSI
Magnum	77.0	2994	51,100 PSI	85.0	3287	63,500 PSI	Magnum	74.0	2770	53,300 PSI	81.7	3001	63,900 PSI
Magpro	77.2	3055	50,600 PSI	84.8	3372	63,800 PSI	Retumbo	76.6	2804	51,600 PSI	81.5	3017	63,300 PSI
Retumbo	79.1	3131	55,100 PSI	84.1	3307	62,800 PSI	StaBALL HD	74.7	2828	53,200 PSI	81.0	3027	63,300 PSI
H1000	78.2	3107	56,300 PSI	83.2	3254	62,400 PSI	Magpro	72.0	2743	50,000 PSI	79.6	3035	63,400 PSI
IMR 7828	73.1	3059	53,200 PSI	77.8	3256	62,200 PSI	H1000	74.8	2830	55,100 PSI	79.6	2976	62,400 PSI
H4831	71.8	3031	54,900 PSI	76.4	3194	62,400 PSI	IMR 7828	69.6	2825	54,700 PSI	74.1	2966	62,200 PSI
IMR 4831	69.3	3014	53,300 PSI	73.8	3224	62,600 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads																																							
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure																																			
30 CARBINE							Case: Hornady							Primer: REM 7 1/2, SR Magnum		Col: 2.050"																																
Barrel: 20" Twist: 1:20" Trim: 1.285"							CFE BLK							22.5C		2168		28,500 PSI		23.7C		2303		35,900 PSI																								
Bullet: 85 GR. SIE RN							Dia: .308"							Li'l'Gun							19.9		2368		39,700 PSI		21.0C		2474		46,400 PSI																	
Case: WIN							Primer: CCI 400 SR							Col: 1.625"							IMR 4227							19.0C		2120		40,900 PSI		20.0C		2220		47,600 PSI										
W296							16.5							2293							26,000 CUP							17.5							2458							34,800 CUP						
H110							16.5							2293							26,000 CUP							17.5							2458							34,800 CUP						
Li'l'Gun							16.0							2140							20,300 CUP							17.0							2285							24,800 CUP						
H4227							14.5							2054							25,200 CUP							15.5C							2181							30,700 CUP						
Bullet: 90 GR. HDY XTP							Dia: .308"							Case: REM							Primer: WIN SR							Col: 1.550"																				
Enforcer														15.0							2145							38,000 PSI																				
A-4100														14.8							2125							37,700 PSI																				
No. 9														12.0							2035							39,500 PSI																				
Bullet: 100 GR. SPR SP							Dia: .308"							Case: WIN							Primer: CCI 400 SR							Col: 1.625"																				
W296							14.5							2075							28,200 CUP							15.5							2202							36,100 CUP						
H110							14.5							2075							28,200 CUP							15.5							2202							36,100 CUP						
Li'l'Gun							14.0							2032							26,700 CUP							15.0							2132							28,300 CUP						
H4227							13.0							1879							28,900 CUP							14.5C							2026							33,600 CUP						
Bullet: 110 GR. HDY FMJ							Dia: .308"							Case: REM							Primer: WIN SR							Col: 1.680"																				
Enforcer														13.2							1853							37,000 PSI																				
A-4100														13.0							1830							36,600 PSI																				
No. 9														11.0							1738							37,500 PSI																				
Bullet: 110 GR. HDY JRN							Dia: .308"							Case: WIN							Primer: CCI 400 SR							Col: 1.680"																				
W296							14.0							2006							32,000 CUP							15.0							2106							36,500 CUP						
H110							14.0							2006							32,000 CUP							15.0							2106							36,500 CUP						
Li'l'Gun							14.0							1998							28,000 CUP							15.0							2064							29,800 CUP						
IMR 4227							13.0							1826							30,100 CUP							14.5C							2003							38,800 CUP						
H4227							13.0							1826							30,100 CUP							14.5C							2003							38,800 CUP						
Bullet: 110 GR. LC L RN							Dia: .308"							Case: REM							Primer: WIN SR							Col: 1.680"																				
Enforcer														13.4							1889							38,000 PSI																				
A-4100														13.0							1833							37,000 PSI																				
No. 9														10.0							1607							37,000 PSI																				
Bullet: 110 GR. SIE FMJ							Dia: .308"							Case: REM							Primer: WIN SR							Col: 1.680"																				
Enforcer														13.8							1913							37,700 PSI																				
A-4100														13.6							1896							37,500 PSI																				
No. 9														10.7							1687							37,600 PSI																				
Bullet: 110 GR. SPR TMJ							Dia: .308"							Case: REM							Primer: WIN SR							Col: 1.680"																				
Enforcer														13.4							1807							37,500 PSI																				
A-4100														13.0							1742							36,800 PSI																				
No. 9														10.4							1665							37,200 PSI																				
Bullet: 115 GR. LY L PT GC							Dia: .308"							Case: REM							Primer: WIN SR							Col: 1.680"																				
Enforcer														11.8							1734							37,700 PSI																				
A-4100														11.6							1702							37,200 PSI																				
No. 9														9.5							1568							38,200 PSI																				
Bullet: 130 GR. LY L PT							Dia: .308"							Case: REM							Primer: WIN SR							Col: 1.680"																				
Enforcer														11.5							1727							38,900 PSI																				
A-4100														11.3							1695							38,300 PSI																				
No. 9														9.1							1517							38,300 PSI																				
300 AAC BLACKOUT																																																
Barrel: 16" Twist: 1:10" Trim: 1.363"																																																
Bullet: 110 GR. HDY V-MAX							Dia: .308"							Case: REM							Primer: WIN SR							Col: 2.050"																				
No. 11 FS							18.3							2095							44,700 PSI							21.0							2381							51,400 PSI						
Enforcer							17.4							2182							49,100 PSI							19.3							2362							54,500 PSI						
A-4100							17.3							2174							47,900 PSI							19.2							2351							53,100 PSI						
Case: Hornady														Primer: REM 7 1/2, SR Magnum														Col: 2.050"																				
CFE BLK							22.5C							2168							28,500 PSI							23.7C							2303							35,900 PSI						
Li'l'Gun							19.9							2368							39,700 PSI							21.0C							2474							46,400 PSI						
IMR 4227							19.0C							2120							40,900 PSI							20.0C							2220							47,600 PSI						
W296							18.4							2191							38,900 PSI							19.4							2286							48,400 PSI						
H110							18.4							2191							38,900 PSI							19.4							2286							48,400 PSI						
Trail Boss							4.9							1023							12,400 PSI							6.2							1040							18,600 PSI						
Bullet: 115 GR. BERTGT FB							Dia: .308"							Case: Hornady							Primer: REM 7 1/2, SR Magnum							Col: 2.050"																				
CFE BLK							21.2							2004							22,400 PSI							23.0C							2169							28,600 PSI						
Li'l'Gun							20.2							2362							41,000 PSI							22.5C							2486							44,900 PSI						
W296							18.3							2134							34,100 PSI							20.3							2336							52,700 PSI						
H110							18.3							2134							34,100 PSI							20.3							2336							52,700 PSI						
IMR 4227							17.9							1987							34,700 PSI							19.8C							2178							45,300 PSI						
Trail Boss							4.5							965							17,100 PSI							5.5							1062							18,400 PSI						
Bullet: 125 GR. NOS BT							Dia: .308"							Case: REM							Primer: WIN SR							Col: 2.165"																				
A-1680							19.4							1925							35,400 PSI							21.5							2126							39,300 PSI						
A-5744							18.9							1984							46,800 PSI							21.0							2207							52,000 PSI						
Enforcer							16.5							2048							49,000 PSI							18.4							2224							54,700 PSI						
A-4100							16.5							2045							48,400 PSI							18.3							2217							53,700 PSI						
Bullet: 130 GR. BAR TTSTX BT							Dia: .308"							Case: REM							Primer: WIN SR							Col: 2.065"																				
A-1680							17.0							1704							40,100 PSI							18.9							1923							44,600 PSI						
A-5744							16.7							1718							45,700 PSI							18.5							1940							50,600 PSI						
Enforcer							14.4							1808							49,400 PSI							16.0							1998							54,900 PSI						
No. 11 FS							14.4							1687							37,700 PSI							16.5							1936							43,300 PSI						
A-4100							14.2							1794							48,300 PSI							15.8							1983							53,700 PSI						
Bullet: 130 GR. SPR HP							Dia: .308"							Case: Hornady							Primer: REM 7 1/2, SR Magnum							Col: 2.005"																				
CFE BLK							20.9							1966							28,200 PSI							22.0C							2092							37,100 PSI						
IMR 4227							17.4							1885							38,700 PSI							19.4C							2062							49,000 PSI						
W296							17.1							1942							37,900 PSI							18.6							2083							51,700 PSI						
H110							17.1							1942							37,900 PSI							18.6							2083							51,700 PSI						
Li'l'Gun							17.0							2090							41,700 PSI							18.5							2192							51,200 PSI						
Trail Boss																					6.4							967							25,800 PSI													
Bullet: 135 GR. SIE VAR HP							Dia: .308"							Case: Hornady							Primer: REM 7 1/2, SR Magnum							Col: 2.055"																				
CFE BLK							20.7							1895							24,600 PSI							22.5C							2090							37,000 PSI						
IMR 4227							17.8							1865							38,000 PSI							19.8C							2057							51,300 PSI						
Li'l'Gun							17.3							2069							42,000 PSI							19.3							2178							50,700 PSI						
W296							16.9							1881							38,500 PSI							18.8C							2077							50,800 PSI						
H110							16.9							1881							38,500 PSI							18.8C							2077							50,800 PSI						
Trail Boss																					6.4							869							21,600 PSI													
Bullet: 140 GR. NOS HPBT							Dia: .308"							Case: Hornady							Primer: REM 7 1/2, SR Magnum							Col: 2.055"																				
CFE BLK							18.5							1772							20,400 PSI							20.0C							1938							28,600 PSI						
IMR 4227							15.5							1689							30,200 PSI							18.3C							2018							52,500 PSI						
W296							15.1							1793							31,500 PSI							17.8							2047							52,700 PSI						
H110							15.1							1793							31,500 PSI							17.8							2047							52,700 PSI						
Li'l'Gun							15.1							1922							36,000 PSI							17.8							2139							52,800 PSI						
Trail Boss																					6.0							929							27,100 PSI													
Bullet: 150 GR. HDY IB							Dia: .308"							Case: Hornady							Primer: REM 7 1/2, SR Magnum							Col: 2.235"																				
CFE BLK							18.8							1810							26,600 PSI							20.5C							1940							33,500 PSI						
IMR 4227							15.6							1683							34,500 PSI							17.8							1899							48,700 PSI						
W296							14.6							1725							34,400 PSI							17.2							1971							52,800 PSI						
H110							14.6							1725							34,400 PSI							17.2							1971							52,800 PSI						
Li'l'Gun							14.6							1855							39,000 PSI							17.2							2062							52,800 PSI						
Trail Boss																					6.0							871							28,900 PSI													
Bullet: 150 GR. SIE FMJBT							Dia: .308"							Case: REM							Primer: WIN SR							Col: 2.140"																				
A-1680							19.5							1877							49,000 PSI							21.7							2057							54,600 PSI						
A-5744							17.8							1848							49,200 PSI							19.9							2053							55,000 PSI						
Enforcer							15.1							1817							49,700 PSI							16.7							1970							55,000 PSI						
A-4100							15.0							1809							48,600 PSI							16.6							1958							53,700 PSI						

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads				
Powder	Gr	Vel	Pressure	Gr	Vel	Pressure	Powder	Gr	Vel	Pressure	Gr	Vel	Pressure
Bullet: 155 GR. SIE HPBT Dia: .308"													
Case: REM		Primer: WIN SR		Col: 2.190"									
A-1680	18.6	1817	44,100 PSI	20.7	2010	49,100 PSI							
A-5744	17.0	1778	47,500 PSI	18.8	1982	52,500 PSI							
No. 11 FS	14.3	1678	47,700 PSI	16.4	1888	54,900 PSI							
Enforcer	14.4	1757	47,600 PSI	16.0	1905	52,900 PSI							
A-4100	14.4	1749	46,400 PSI	15.9	1891	51,200 PSI							
Bullet: 168 GR. HDY BTHP Dia: .308"													
Case: Hornady		Primer: REM 7 1/2, SR Magnum		Col: 2.230"									
CFE BLK	17.4	1653	25,900 PSI	20.0C	1887	41,800 PSI							
IMR 4227	15.6	1658	40,200 PSI	17.2	1812	52,500 PSI							
W296	14.5	1679	40,600 PSI	16.0	1817	53,300 PSI							
H110	14.5	1679	40,600 PSI	16.0	1817	53,300 PSI							
Lil'Gun	13.9	1735	41,400 PSI	15.3	1866	52,900 PSI							
Bullet: 168 GR. SIE HPBT Dia: .308"													
Case: REM		Primer: WIN SR		Col: 2.200"									
A-1680	17.8	1667	49,000 PSI	19.7	1840	54,300 PSI							
A-5744	16.7	1694	48,900 PSI	18.5	1897	54,200 PSI							
Bullet: 175 GR. SIE HPBT Dia: .308"													
Case: REM		Primer: WIN SR		Col: 2.215"									
A-1680	17.7	1637	49,300 PSI	19.7	1801	54,900 PSI							
A-5744	16.5	1679	49,300 PSI	18.4	1868	55,000 PSI							
Case: Hornady		Primer: REM 7 1/2, SR Magnum		Col: 2.215"									
CFE BLK	17.9	1691	30,000 PSI	19.5C	1821	37,400 PSI							
IMR 4227	15.3	1620	38,900 PSI	16.8	1775	53,000 PSI							
W296	14.5	1652	40,600 PSI	16.0	1785	52,600 PSI							
H110	14.5	1652	40,600 PSI	16.0	1785	52,600 PSI							
Lil'Gun	14.1	1730	42,500 PSI	15.4	1834	52,800 PSI							
Bullet: 180 GR. SPR SP Dia: .308"													
Case: Hornady		Primer: REM 7 1/2, SR Magnum		Col: 2.210"									
CFE BLK	16.4	1516	26,900 PSI	19.3	1799	51,200 PSI							
H4198	16.7	1596	31,400 PSI	17.6C	1675	35,900 PSI							
IMR 4198	15.9	1567	33,400 PSI	16.8C	1636	37,900 PSI							
IMR 4227	14.8	1579	41,400 PSI	16.3	1718	52,900 PSI							
W296	14.1	1624	44,500 PSI	15.6	1736	53,700 PSI							
H110	14.1	1624	44,500 PSI	15.6	1736	53,700 PSI							
Lil'Gun	13.4	1680	45,100 PSI	14.8	1786	52,900 PSI							
Bullet: 190 GR. HDY SUB-X Dia: .308"													
Case: Hornady		Primer: REM 7 1/2, SR Magnum		Col: 2.050"									
H322	Subsonic		13.0	1058	18,100 PSI								
CFE BLK	Subsonic		12.3	1062	18,700 PSI								
H4198	Subsonic		11.5	1059	22,900 PSI								
IMR 4198	Subsonic		11.4C	1032	22,800 PSI								
IMR 4227	Subsonic		10.4C	1056	29,100 PSI								
W296	Subsonic		9.6	1067	22,400 PSI								
H110	Subsonic		9.6	1067	22,400 PSI								
Lil'Gun	Subsonic		8.3	1044	23,100 PSI								
Bullet: 208 GR. HDY ELD-M Dia: .308"													
Case: Hornady		Primer: REM 7 1/2, SR Magnum		Col: 2.260"									
CFE BLK	Subsonic		11.6	1041	13,400 PSI								
IMR 4198	Subsonic		11.1	1080	22,500 PSI								
H4198	Subsonic		11.1	1052	19,900 PSI								
IMR 4227	Subsonic		9.8	1041	25,800 PSI								
W296	Subsonic		9.2	1060	22,700 PSI								
H110	Subsonic		9.2	1060	22,700 PSI								
Lil'Gun	Subsonic		8.2	1050	22,200 PSI								
Bullet: 210 GR. BER BTTLR Dia: .308"													
Case: REM		Primer: WIN SR		Col: 2.245"									
A-1680	14.4	1403	48,800 PSI	16.0	1582	54,200 PSI							
A-5744	13.6	1382	48,300 PSI	15.1	1552	53,600 PSI							
A-1680	Subsonic		11.7	1104	23,800 PSI								
A-5744	Subsonic		11.2	1102	27,500 PSI								
Bullet: 220 GR. SIE HPBT Dia: .308"													
Case: REM		Primer: WIN SR		Col: 2.089"									
LT-30	Subsonic		12.5	1055	28,900 PSI								
A-5744	Subsonic		10.9	1085	40,700 PSI								
A-1680	Subsonic		10.9	1085	36,400 PSI								
No. 11 FS	Subsonic		9.4	1099	38,800 PSI								
Bullet: 230 GR. BER TACT Dia: .308"													
Case: Hornady		Primer: REM 7 1/2, SR Magnum		Col: 2.260"									
CFE BLK	Subsonic		11.3	1045	20,000 PSI								
IMR 4198	Subsonic		10.8	1062	27,900 PSI								
H4198	Subsonic		10.8	1066	26,600 PSI								
IMR 4227	Subsonic		9.6	1046	33,100 PSI								
W296	Subsonic		9.0	1058	32,900 PSI								
H110	Subsonic		9.0	1058	32,900 PSI								
Lil'Gun	Subsonic		8.2	1068	30,000 PSI								
Case: REM		Primer: WIN SR		Col: 2.260"									
A-5744	Subsonic		11.0	1106	37,900 PSI								
A-1680	Subsonic		10.9	1106	39,600 PSI								
No. 11 FS	Subsonic		9.7	1084	40,800 PSI								
30-30 WINCHESTER													
Barrel: 24"			Twist: 1:12"			Trim: 2.030"							
Bullet: 110 GR. HDY RN Dia: .308"													
Case: WIN		Primer: WIN LR		Col: 2.440"									
A-4064	35.1	2380	37,300 PSI	39.0	2705	41,400 PSI							
A-2520	34.2	2366	32,100 PSI	38.0	2689	35,700 PSI							
A-2460	33.3	2369	33,700 PSI	37.0	2692	37,400 PSI							
A-2495	33.3	2375	36,900 PSI	37.0	2699	41,000 PSI							
A-2230	32.4	2450	37,400 PSI	36.0	2725	41,500 PSI							
Bullet: 110 GR. SPR FP Dia: .308"													
Case: WIN		Primer: WIN LR		Col: 2.415"									
StaBALL Match	36.4	2390	26,300 PSI	40.0C	2601	33,100 PSI							
BL-C(2)	36.0	2351	24,500 CUP	39.0	2526	25,400 CUP							
H335	35.0	2487	28,800 CUP	38.0	2684	34,300 CUP							
Varget	34.5	2365	27,200 CUP	38.0C	2572	31,900 CUP							
H4895	34.0	2417	28,600 CUP	37.0	2605	31,100 CUP							
IMR 4895	33.8	2290	30,500 CUP	36.0C	2459	35,400 CUP							
IMR 4064	33.3	2342	31,800 CUP	35.5C	2506	36,100 CUP							
IMR 3031	30.5	2281	22,400 CUP	32.5C	2445	33,700 CUP							
Benchmark	30.5	2406	36,400 CUP	32.5	2507	37,800 CUP							
H4198	23.0	2174	27,100 CUP	25.5	2409	35,900 CUP							
IMR 4198	22.5	2168	27,800 CUP	24.0	2302	35,400 CUP							
Bullet: 125 GR. SIE HP/FN Dia: .308"													
Case: WIN		Primer: WIN LR		Col: 2.420"									
Big Game	34.9	2179	24,100 PSI	38.8	2421	26,800 PSI							
A-2460	34.4	2472	37,300 PSI	38.2	2666	41,500 PSI							
A-4064	34.2	2225	35,600 PSI	38.0	2529	39,600 PSI							
TAC	32.2	2363	35,800 PSI	35.8	2625	39,800 PSI							
A-2520	32.0	2391	36,500 PSI	35.6	2573	40,600 PSI							
LT-32	30.6	2386	37,700 PSI	34.0	2586	41,900 PSI							
X-Terminator	29.7	2322	37,300 PSI	33.0	2517	41,400 PSI							
A-2230	29.7	2322	37,300 PSI	33.0	2517	41,400 PSI							
A-2015	29.5	2279	37,700 PSI	32.8	2468	41,900 PSI							
A-5744	20.5	1950	30,300 PSI	27.3	2511	40,400 PSI							
Bullet: 130 GR. SPR FP Dia: .308"													
Case: WIN		Primer: WIN LR		Col: 2.540"									
StaBALL Match	36.0	2409	33,600 PSI	39.8C	2586	41,400 PSI							
Varget	32.5	2312	30,200 CUP	36.0C	2496	35,700 CUP							
BL-C(2)	34.0	2305	28,500 CUP	37.5	2473	32,800 CUP							
CFE 223	32.8	2378	31,500 PSI	35.7	2533	37,000 PSI							
IMR 4064	33.3	2196	27,200 CUP	35.5C	2424	37,300 CUP							
H4895	31.5	2248	27,600 CUP	35.0	2482	35,300 CUP							
H335	30.5	2173	27,600 CUP	34.0	2423	34,700 CUP							
IMR 3031	29.6	2159	27,400 CUP	31.5	2323	33,500 CUP							
Benchmark	27.7	2165	33,700 CUP	29.7	2295	37,100 CUP							
H4198	22.5	2082	29,200 CUP	24.5	2234	36,400 CUP							
IMR 4198	22.0	2025	28,700 CUP	23.5	2187	36,200 CUP							
Bullet: 140 GR. HDY MFTX Dia: .308"													
Case: WIN		Primer: WIN LR		Col: 2.550"									
StaBALL Match	31.5	2168	34,400 PSI	35.2	2328	40,500 PSI							
LVR	29.0	2175	32,400 PSI	34.0C	2436	39,700 PSI							

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		
BL-C(2)	29.0	2030	31,600 PSI	32.7	2239	39,900 PSI	A-4064	27.0	1757	35,900 PSI	30.0	1997	39,900 PSI		
Varget	27.0	1986	31,600 PSI	30.5C	2225	39,900 PSI	A-2230	25.6	1925	36,400 PSI	28.5	2110	40,500 PSI		
IMR 4064	26.0	1909	30,600 PSI	30.0C	2209	41,000 PSI	Bullet: 170 GR. SIE FN Dia: .308"								
H4895	26.0	2077	36,800 PSI	29.7	2273	40,300 PSI	Case: WIN			Primer: WIN LR			Col: 2.520"		
H335	25.0	1977	31,200 PSI	28.8	2224	40,600 PSI	LVR	33.0	2145	28,900 CUP	36.3C	2332	35,400 CUP		
IMR 3031	25.0	1963	32,300 PSI	28.5	2216	41,600 PSI	BL-C(2)	32.5	2048	27,900 CUP	36.0	2227	34,700 CUP		
Benchmark	24.0	1839	26,400 PSI	28.0	2160	38,800 PSI	StaBALL Match	32.3	2067	31,700 PSI	35.8	2256	40,900 PSI		
Bullet: 150 GR. SIE FN Dia: .308"						CFE 223	32.2	2115	30,600 PSI	35.0	2258	36,800 PSI			
Case: WIN			Primer: WIN LR			Col: 2.520"			Varget	29.5	1976	30,200 CUP	33.0	2168	36,500 CUP
LVR	35.0	2314	28,700 CUP	38.5C	2512	34,800 CUP	A-2495	29.0	1919	37,300 PSI	32.2	2142	41,500 PSI		
StaBALL Match	34.0	2206	31,400 PSI	37.5	2400	40,500 PSI	IMR 4064	29.8	1991	30,700 CUP	31.7	2090	35,300 CUP		
Big Game	33.5	2070	26,500 PSI	37.2	2300	29,400 PSI	IMR 4895	29.8	1938	30,500 CUP	31.7	2068	35,300 CUP		
BL-C(2)	33.0	2021	21,800 CUP	37.0	2358	33,900 CUP	A-2520	28.4	1874	34,600 PSI	31.5	2129	38,400 PSI		
CFE 223	33.9	2274	31,700 PSI	36.8	2409	36,700 PSI	IMR 8208 XBR	27.8	2052	36,400 CUP	30.9	2181	37,500 CUP		
Varget	31.0	2172	31,100 CUP	34.5	2349	36,200 CUP	TAC	27.5	1962	33,400 PSI	30.5	2180	37,000 PSI		
H4895	30.5	2138	27,900 CUP	34.0	2390	36,700 CUP	H335	27.5	1934	29,000 CUP	30.5	2086	36,300 CUP		
IMR 4895	31.5	2071	32,200 CUP	33.5	2213	34,300 CUP	H4895	27.5	1947	28,200 CUP	30.5	2138	35,200 CUP		
A-2520	30.2	2046	35,000 PSI	33.5	2325	38,800 PSI	IMR 3031	27.5	1959	27,500 CUP	29.2	2085	35,800 CUP		
IMR 4064	31.0	2106	33,300 CUP	33.3	2236	36,200 CUP	A-2015	25.7	1992	36,500 PSI	28.5	2189	40,400 PSI		
H335	29.7	2098	28,700 CUP	33.0	2308	36,200 CUP	LT-32	25.4	1941	37,100 PSI	28.3	2095	41,300 PSI		
A-4064	29.7	1975	36,500 PSI	33.0	2245	40,500 PSI	Benchmark	25.3	1894	32,200 CUP	27.0	2001	36,100 CUP		
A-2460	29.3	2015	36,200 PSI	32.5	2290	40,200 PSI	A-5744	18.9	1724	32,400 PSI	24.2	2127	41,500 PSI		
IMR 8208 XBR	30.0	2213	35,000 CUP	32.0	2316	36,700 CUP	H4198	20.5	1764	27,300 CUP	22.5	1918	32,600 CUP		
A-2230	27.9	2185	37,100 PSI	31.0	2375	41,200 PSI	IMR 4198	21.0	1800	27,400 CUP	22.3	1896	32,100 CUP		
IMR 3031	28.7	2085	28,700 CUP	30.5	2192	36,000 CUP	Bullet: 170 GR. TS L RN FP GC Dia: .308"								
A-2015	27.5	2142	36,900 PSI	30.5	2341	40,900 PSI	Case: WIN			Primer: WIN LR			Col: 2.520"		
A-2495	27.5	1960	36,600 PSI	30.5	2227	40,600 PSI	X-Terminator	26.2	2089	37,700 PSI	29.1	2234	41,900 PSI		
Benchmark	27.0	2042	32,100 CUP	29.0	2183	37,200 CUP	A-2230	26.2	2089	37,700 PSI	29.1	2234	41,900 PSI		
H4198	21.6	1924	26,900 CUP	24.0	2110	36,800 CUP	LT-32	25.7	2057	36,900 PSI	28.6	2215	41,000 PSI		
IMR 4198	21.5	1888	27,800 CUP	23.0	2055	35,500 CUP	TAC	25.1	1859	26,500 PSI	27.9	2065	29,500 PSI		
Bullet: 160 GR. CAST LFN Dia: .308"						A-5744	18.7	1795	31,800 PSI	24.3	2197	41,300 PSI			
Case: WIN			Primer: WIN LR			Col: 2.485"			Bullet: 175 GR. HDY SUB-X Dia: .308"						
H4895	17.5	1351	15,200 CUP	21.0	1562	23,100 CUP	Case: WIN			Primer: WIN LR			Col: 2.505"		
H4198	15.0	1420	15,000 CUP	17.0	1616	20,600 CUP	Trail Boss	Subsonic			11.7	1065	25,400 PSI		
Trail Boss	6.5	997	20,500 CUP	9.0	1195	29,100 CUP	H4895	Subsonic			9.8	1063	26,700 PSI		
Bullet: 160 GR. HDY FTX Dia: .308"						H322	Subsonic			9.8	1058	28,400 PSI			
Case: WIN			Primer: WIN LR			Col: 2.535"			Benchmark	Subsonic			9.7	1062	50,000 PSI
LVR	32.0	2221	31,200 CUP	35.5C	2389	37,500 CUP	308 WINCHESTER								
StaBALL Match	31.2	2125	34,000 PSI	34.4	2285	41,200 PSI	Barrel: 24" Twist: 1:12" Trim: 2.005"								
CFE 223	31.6	2170	30,700 PSI	34.0	2302	36,700 PSI	Bullet: 110 GR. BAR TSX FB Dia: .308"								
A-2520	29.8	2144	37,400 PSI	33.2	2316	41,600 PSI	Case: WIN			Primer: FED 210M, LR Match			Col: 2.690"		
Varget	29.8	2081	31,700 CUP	32.4	2235	35,900 CUP	H335	47.3	3078	40,800 PSI	52.5	3358	26,900 PSI		
A-4064	28.6	1920	33,000 PSI	31.8	2117	36,700 PSI	Benchmark	45.2	3005	39,700 PSI	50.2C	3316	54,200 PSI		
W748	29.8	1994	31,500 CUP	31.7	2112	36,400 CUP	IMR 8208 XBR	45.5	2975	37,700 PSI	50.0C	3266	53,900 PSI		
TAC	28.3	2060	37,000 PSI	31.4	2233	41,100 PSI	IMR 4895	45.0	2831	36,100 PSI	50.0C	3128	46,600 PSI		
BL-C(2)	29.1	1863	27,400 CUP	31.0	2035	35,600 CUP	H4895	46.1	3055	40,300 PSI	49.0C	3212	46,200 PSI		
A-2495	27.8	1937	37,500 PSI	30.9	2148	41,700 PSI	H322	46.1	3139	48,100 PSI	49.0C	3334	59,000 PSI		
A-2460	27.7	1950	36,300 PSI	30.8	2145	40,400 PSI	IMR 3031	43.2	2913	37,700 PSI	47.0C	3170	47,700 PSI		
IMR 4064	28.7	2000	33,700 CUP	30.5	2095	36,200 CUP	H4198	39.9	3124	48,800 PSI	42.5	3278	58,700 PSI		
A-2230	27.5	1995	36,300 PSI	30.5	2128	40,300 PSI	IMR 4198	39.1	3064	46,200 PSI	41.6	3251	57,600 PSI		
IMR 4895	28.2	1912	31,700 CUP	30.0	2065	36,900 CUP	Bullet: 110 GR. HDY V-MAX Dia: .308"								
H335	28.2	2005	31,600 CUP	30.0	2131	37,100 CUP	Case: WIN			Primer: WIN LR			Col: 2.740"		
H4895	27.8	2045	31,100 CUP	30.0	2200	35,500 CUP	A-2520	48.1	3171	55,500 PSI	53.5	3444	61,700 PSI		
IMR 8208 XBR	27.0	2045	33,900 CUP	30.0	2207	37,000 CUP	A-2200	46.7	3138	55,500 PSI	51.9	3392	61,600 PSI		
IMR 3031	26.8	1992	34,300 CUP	28.5	2094	36,800 CUP	TAC	45.7	3095	55,000 PSI	50.8	3366	61,100 PSI		
Benchmark	26.1	1933	31,000 CUP	27.8	2045	35,400 CUP	A-2460	44.7	3118	55,600 PSI	49.7	3388	61,800 PSI		
A-2015	24.9	1933	37,800 PSI	27.7	2095	42,000 PSI	X-Terminator	43.3	3136	55,400 PSI	48.1	3382	61,600 PSI		
Bullet: 170 GR. LC L RN FP Dia: .308"						A-2230	43.3	3136	55,400 PSI	48.1	3382	61,600 PSI			
Case: WIN			Primer: WIN LR			Col: 2.550"			LT-32	40.6	2981	55,300 PSI	45.1	3262	61,500 PSI
Big Game	28.6	1799	20,300 PSI	31.8	1999	22,600 PSI	A-5744	29.4	2533	43,100 PSI	42.0	3442	61,600 PSI		
A-4064	27.0	1777	25,700 PSI	30.0	2020	28,600 PSI	Bullet: 115 GR. BER FBT Dia: .308"								
A-2520	25.7	1807	26,400 PSI	28.5	2053	29,300 PSI	Case: WIN			Primer: WIN LR			Col: 2.700"		
A-2495	24.8	1771	31,700 PSI	27.5	2013	35,100 PSI	A-2520	48.5	3139	55,100 PSI	53.9	3417	61,200 PSI		
A-2015	24.3	1930	35,500 PSI	27.0	2121	39,400 PSI	TAC	45.6	3036	55,600 PSI	50.7	3340	61,800 PSI		
A-5744	19.8	1791	29,500 PSI	22.0	2035	32,800 PSI	A-2460	45.1	3101	55,300 PSI	50.1	3370	61,500 PSI		
Bullet: 170 GR. NOS PART Dia: .308"						X-Terminator	43.6	3078	55,300 PSI	48.5	3340	61,500 PSI			
Case: WIN			Primer: WIN LR			Col: 2.545"									
A-2460	27.2	1864	35,900 PSI	30.2	2118	39,900 PSI									

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
A-2230	43.6	3078	55,300 PSI	48.5	3340	61,500 PSI	H335	43.0	2805	40,400 CUP	46.0	2980	49,700 CUP
A-2200	43.0	3087	55,000 PSI	47.7	3374	61,100 PSI	Benchmark	41.0	2704	38,800 CUP	46.0	2985	50,100 CUP
LT-30	38.9	2891	55,800 PSI	43.2	3186	62,000 PSI	H322	40.0	2754	41,200 CUP	43.0	2924	49,800 CUP
Bullet: 125 GR. NOS BT Dia: .308"							H4198	35.0	2745	44,700 CUP	37.0	2837	49,700 CUP
Case: WIN		Primer: WIN LR		Col: 2.750"			Bullet: 135 GR. BER FBT Dia: .308"						
A-2520	48.1	3044	52,100 PSI	53.5	3286	57,800 PSI	Case: WIN		Primer: WIN LR		Col: 2.810"		
TAC	46.1	2998	55,400 PSI	51.2	3269	61,500 PSI	A-2520	44.2	2820	55,800 PSI	49.1	3087	62,000 PSI
A-2460	45.3	3042	55,200 PSI	50.4	3302	61,300 PSI	TAC	42.4	2780	54,900 PSI	47.1	3042	61,100 PSI
X-Terminator	45.0	3035	55,700 PSI	50.0	3290	61,900 PSI	A-2460	41.7	2799	55,200 PSI	46.4	3031	61,300 PSI
A-2230	45.0	3035	55,700 PSI	50.0	3290	61,900 PSI	X-Terminator	40.9	2800	55,600 PSI	45.4	3043	61,700 PSI
A-2200	41.6	2952	55,200 PSI	46.3	3231	61,300 PSI	A-2230	40.9	2800	55,600 PSI	45.4	3043	61,700 PSI
Bullet: 125 GR. SFIRE Dia: .308"							A-2200	38.3	2754	55,500 PSI	42.5	2999	61,700 PSI
Case: WIN		Primer: FED 210M, LR Match		Col: 2.700"			Bullet: 150 GR. HDY FMJBT Dia: .308"						
IMR 4895	43.0	2772	42,100 PSI	48.0	3068	55,000 PSI	Case: WIN		Primer: WIN LR		Col: 2.735"		
IMR 8208 XBR	42.0	2830	41,200 PSI	46.5C	3110	54,100 PSI	A-2520	43.9	2755	55,300 PSI	48.8	2995	61,500 PSI
H335	42.0	2840	42,100 PSI	46.5	3075	52,300 PSI	TAC	42.4	2715	55,300 PSI	47.1	2957	61,500 PSI
H4895	42.0	2796	39,500 PSI	46.0C	3034	49,600 PSI	A-2495	41.9	2630	55,500 PSI	46.6	2924	61,700 PSI
Benchmark	40.0	2736	38,200 PSI	44.5C	3019	52,000 PSI	A-2460	41.1	2732	55,200 PSI	45.7	2954	61,400 PSI
IMR 3031	39.0	2741	40,600 PSI	43.5C	3007	51,400 PSI	X-Terminator	40.8	2723	55,700 PSI	45.3	2957	61,800 PSI
H322	38.0	2760	43,500 PSI	42.5C	2985	52,800 PSI	A-2230	40.8	2723	55,700 PSI	45.3	2957	61,800 PSI
Case: WIN		Primer: WIN LR		Col: 2.700"			A-2015	38.6	2604	55,500 PSI	42.8	2829	61,700 PSI
TAC	44.6	2960	54,900 PSI	49.6	3224	61,100 PSI	A-2200	37.6	2647	55,200 PSI	41.8	2903	61,300 PSI
A-2520	44.4	2893	47,700 PSI	49.4	3143	53,000 PSI	Bullet: 150 GR. NOS BT Dia: .308"						
X-Terminator	44.1	2992	55,300 PSI	49.0	3236	61,400 PSI	Case: WIN		Primer: FED 210M, LR Match		Col: 2.800"		
A-2230	44.1	2992	55,300 PSI	49.0	3236	61,400 PSI	CFE 223	48.4	2764	44,500 PSI	51.5	2974	57,000 PSI
A-2460	42.9	2922	49,800 PSI	47.7	3161	55,400 PSI	StaBALL Match	45.7	2717	48,100 PSI	50.0C	2917	58,700 PSI
A-2200	39.9	2886	54,300 PSI	44.3	3150	60,300 PSI	BL-C(2)	45.0	2661	40,200 CUP	48.0	2839	50,000 CUP
Bullet: 125 GR. SIE SPT Dia: .308"							IMR 4064	43.0	2663	44,700 PSI	47.7C	2903	57,100 PSI
Case: WIN		Primer: FED 210M, LR Match		Col: 2.700"			IMR 4895	42.6	2631	42,300 PSI	47.3C	2920	57,700 PSI
BL-C(2)	48.0	2876	35,900 CUP	52.0	3069	42,600 CUP	Varget	44.0	2788	43,300 CUP	47.0C	2937	50,300 CUP
IMR 4895	48.0	2969	45,600 PSI	51.8C	3185	55,200 PSI	IMR 8208 XBR	40.0	2604	45,500 PSI	44.5C	2870	60,800 PSI
IMR 4064	46.0	2891	42,500 PSI	50.1C	3119	52,100 PSI	IMR 3031	40.2	2658	44,300 PSI	43.5C	2881	59,200 PSI
Varget	48.0	3049	42,400 CUP	50.0C	3135	45,700 CUP	H4895	43.0	2742	43,200 CUP	45.5	2870	51,000 CUP
IMR 8208 XBR	46.0	3000	50,200 PSI	49.2C	3174	60,100 PSI	H335	41.0	2619	42,600 CUP	44.0	2787	51,200 CUP
H4895	45.0	2891	36,800 CUP	49.0C	3127	48,400 CUP	Benchmark	39.0	2521	38,800 CUP	43.0	2752	49,900 CUP
IMR 3031	43.2	2866	40,200 PSI	48.0C	3194	58,100 PSI	H322	37.0	2508	39,100 CUP	40.0	2702	50,500 CUP
H335	44.0	2840	37,500 CUP	48.0	3080	48,200 CUP	Trail Boss	10.0	1176	25,800 PSI	14.0	1417	27,100 PSI
Benchmark	43.0	2821	40,600 CUP	47.5	3070	50,700 CUP	Bullet: 150 GR. NOS E-TIP Dia: .308"						
H322	42.0	2888	43,400 CUP	45.0	3052	51,400 CUP	Case: WIN		Primer: WIN LR		Col: 2.800"		
H4198	36.0	2841	46,600 CUP	39.5	2988	49,800 CUP	A-2520	42.7	2651	55,400 PSI	47.4	2899	61,600 PSI
Case: WIN		Primer: WIN LR		Col: 2.700"			TAC	40.8	2598	55,200 PSI	45.3	2858	61,300 PSI
A-2520	46.5	2973	55,400 PSI	51.7	3233	61,600 PSI	A-2495	40.7	2536	54,800 PSI	45.3	2805	60,900 PSI
TAC	45.0	2939	55,200 PSI	50.1	3198	61,400 PSI	A-2460	39.9	2629	55,300 PSI	44.3	2867	61,500 PSI
A-2460	43.6	2923	55,300 PSI	48.5	3184	61,400 PSI	X-Terminator	38.9	2591	55,200 PSI	43.3	2830	61,300 PSI
X-Terminator	42.9	2948	55,400 PSI	47.7	3195	61,500 PSI	A-2230	38.9	2591	55,200 PSI	43.3	2830	61,300 PSI
A-2230	42.9	2948	55,400 PSI	47.7	3195	61,500 PSI	A-2015	37.1	2465	55,400 PSI	41.2	2690	61,600 PSI
A-2200	40.8	2894	55,100 PSI	45.3	3166	61,300 PSI	A-2200	35.3	2499	54,900 PSI	39.2	2744	61,000 PSI
LT-30	38.2	2767	55,700 PSI	42.5	3015	61,900 PSI	LT-30	33.7	2404	55,600 PSI	37.5	2632	61,800 PSI
Bullet: 130 GR. BAR TSX BT Dia: .308"							Case: WIN		Primer: FED 210M, LR Match		Col: 2.800"		
Case: WIN		Primer: WIN LR		Col: 2.810"			CFE 223	49.0	2865	52,300 PSI	51.1	2990	60,400 PSI
A-2520	47.6	2992	55,300 PSI	52.8	3251	61,400 PSI	W748	43.9	2762	50,800 PSI	47.3	2923	59,600 PSI
TAC	45.7	2935	55,300 PSI	50.8	3202	61,500 PSI	BL-C(2)	43.7	2654	47,800 PSI	47.0	2868	60,100 PSI
A-2460	44.5	2948	55,200 PSI	49.4	3207	61,300 PSI	IMR 4064	42.9	2659	47,500 PSI	46.7C	2883	59,800 PSI
X-Terminator	43.9	2951	55,000 PSI	48.8	3195	61,100 PSI	IMR 4895	42.7	2684	48,800 PSI	46.5C	2899	60,100 PSI
A-2230	43.9	2951	55,000 PSI	48.8	3195	61,100 PSI	Varget	42.3	2670	46,700 PSI	46.5C	2914	60,400 PSI
A-2200	39.9	2833	55,300 PSI	44.3	3107	61,500 PSI	H4895	41.5	2677	48,700 PSI	45.6	2893	60,500 PSI
Bullet: 130 GR. SPR HP Dia: .308"							IMR 8208 XBR	40.8	2659	45,900 PSI	44.3	2889	60,000 PSI
Case: WIN		Primer: FED 210M, LR Match		Col: 2.615"			H335	40.4	2551	46,500 PSI	43.4	2790	59,100 PSI
CFE 223	52.0	3054	49,600 PSI	54.0	3202	59,500 PSI	Benchmark	39.9	2629	47,300 PSI	43.0	2819	59,600 PSI
BL-C(2)	48.0	2897	42,400 CUP	51.5	3089	49,700 CUP	IMR 3031	39.3	2628	48,500 PSI	42.8	2839	60,100 PSI
IMR 4895	45.9	2867	44,500 PSI	51.0C	3153	57,800 PSI	Bullet: 155 GR. SIE HPBT Dia: .308"						
StaBALL Match	46.4	2782	41,700 PSI	50.8C	3068	58,000 PSI	Case: WIN		Primer: WIN LR		Col: 2.775"		
Varget	47.0	2975	42,900 CUP	50.0C	3130	50,400 CUP	A-2520	43.1	2689	55,400 PSI	47.9	2925	61,600 PSI
IMR 4064	45.0	2809	43,600 PSI	49.5C	3036	52,300 PSI	A-2495	41.4	2605	55,600 PSI	46.0	2869	61,800 PSI
H4895	45.0	2903	41,800 CUP	49.0C	3099	50,100 CUP	TAC	41.1	2654	55,500 PSI	45.7	2874	61,700 PSI
IMR 8208 XBR	43.0	2834	46,900 PSI	48.0C	3110	62,000 PSI	A-2460	40.2	2656	55,300 PSI	44.6	2877	61,400 PSI
IMR 3031	42.0	2827	42,600 PSI	46.7C	3130	59,800 PSI	X-Terminator	39.7	2638	55,500 PSI	44.1	2867	61,700 PSI
							A-2230	39.7	2638	55,500 PSI	44.1	2867	61,700 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads				Maximum Loads				Starting Loads				Maximum Loads			
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	
A-2015	37.6	2505	54,400 PSI	41.8	2725	60,500 PSI		Case: WIN		Primer: WIN LR				Col: 2.800"	
A-2200	37.3	2587	55,700 PSI	41.5	2819	61,800 PSI		A-4064	41.9	2516	55,300 PSI	46.5	2783	61,800 PSI	
Case: WIN		Primer: FED 210M, LR Match		Col: 2.775"				A-2520	40.1	2519	55,400 PSI	44.5	2741	61,500 PSI	
CFE 223	49.5	2846	50,900 PSI	51.0	2966	60,500 PSI		A-2495	39.8	2464	55,700 PSI	44.2	2727	61,400 PSI	
W760	48.0	2625	40,500 CUP	51.0	2793	50,200 CUP		TAC	39.4	2511	55,800 PSI	43.7	2730	62,000 PSI	
StaBALL Match	44.3	2661	46,000 PSI	48.7C	2898	61,400 PSI		A-2460	38.1	2487	55,500 PSI	42.3	2705	61,700 PSI	
BL-C(2)	45.0	2658	37,500 CUP	48.0	2867	49,600 CUP		X-Terminator	37.4	2470	55,400 PSI	41.6	2687	61,600 PSI	
IMR 4895	43.5	2664	45,100 PSI	47.5C	2897	58,200 PSI		A-2230	37.4	2470	55,400 PSI	41.6	2687	61,600 PSI	
IMR 4064	43.0	2602	42,900 PSI	47.5C	2871	56,500 PSI		A-2015	35.8	2368	55,100 PSI	39.8	2575	61,200 PSI	
Varget	44.0	2759	41,300 CUP	47.0C	2909	49,400 CUP		A-2200	34.8	2419	55,500 PSI	38.7	2634	61,600 PSI	
H4895	43.0	2735	42,000 CUP	46.0	2873	49,700 CUP		LT-30	33.9	2351	55,300 PSI	37.7	2569	61,500 PSI	
IMR 8208 XBR	41.0	2619	47,300 PSI	45.3	2854	60,900 PSI		LT-32	33.7	2349	55,300 PSI	37.5	2555	61,500 PSI	
H335	41.0	2646	42,100 CUP	43.5	2779	49,900 CUP		A-5744	25.0	2062	42,900 PSI	35.8	2737	61,500 PSI	
IMR 3031	39.5	2594	43,400 PSI	43.2C	2832	58,500 PSI		Case: WIN		Primer: FED 210M, LR Match				Col: 2.800"	
Benchmark	39.0	2538	41,900 CUP	43.0	2753	50,200 CUP		CFE 223	46.6	2662	48,200 PSI	49.0	2828	60,400 PSI	
H322	38.0	2588	42,400 CUP	41.0	2710	49,400 CUP		BL-C(2)	44.0	2569	39,400 CUP	47.0	2754	50,200 CUP	
Bullet: 165 GR. NOS PART		Dia: .308"						StaBALL Match	42.7	2492	44,100 PSI	46.8	2734	60,800 PSI	
Case: WIN		Primer: WIN LR		Col: 2.810"				Varget	42.0	2520	41,200 CUP	46.0C	2731	50,600 CUP	
A-4064	42.7	2535	53,700 PSI	47.5	2805	59,700 PSI		IMR 4064	41.5	2518	43,800 PSI	45.9C	2766	58,800 PSI	
A-2520	41.9	2603	55,800 PSI	46.6	2815	62,000 PSI		IMR 4895	41.0	2447	39,700 PSI	45.4C	2758	58,000 PSI	
TAC	40.6	2577	55,400 PSI	45.2	2781	61,500 PSI		H4895	41.0	2551	38,300 CUP	43.5	2703	49,500 CUP	
A-2495	40.5	2518	55,200 PSI	45.0	2765	61,300 PSI		IMR 8208 XBR	39.0	2493	49,000 PSI	43.3	2707	61,500 PSI	
A-2460	39.4	2555	55,700 PSI	43.7	2765	61,800 PSI		H335	39.0	2451	37,700 CUP	42.0	2631	49,300 CUP	
X-Terminator	38.5	2526	55,500 PSI	42.8	2743	61,600 PSI		IMR 3031	39.0	2507	43,900 PSI	42.0	2710	58,900 PSI	
A-2230	38.5	2526	55,500 PSI	42.8	2743	61,600 PSI		Benchmark	38.0	2416	38,100 CUP	42.0	2630	49,300 CUP	
A-2015	37.1	2423	55,300 PSI	41.2	2631	61,500 PSI		Bullet: 175 GR. HDY SUB-X		Dia: .308"					
A-2200	36.5	2494	55,200 PSI	40.6	2704	61,400 PSI		Case: WIN		Primer: WIN LR				Col: 2.490"	
Bullet: 165 GR. HDY SP		Dia: .308"						A-5744		Subsonic		13.0	1064	25,000 CUP	
Case: WIN		Primer: FED 210M, LR Match		Col: 2.750"				No. 2		Subsonic		9.4	1069	26,800 CUP	
W760	48.0	2537	43,500 CUP	52.0	2704	49,200 CUP		Titegroup		Subsonic		8.5	1023	23,900 PSI	
CFE 223	45.4	2649	46,700 PSI	48.3	2839	61,500 PSI		Bullet: 175 GR. NOS HPBT		Dia: .308"					
BL-C(2)	44.0	2528	37,700 CUP	47.5	2738	49,700 CUP		Case: WIN		Primer: WIN LR				Col: 2.810"	
StaBALL Match	43.2	2567	48,700 PSI	47.3	2767	61,000 PSI		A-4064	41.5	2458	54,900 PSI	46.2	2733	61,400 PSI	
IMR 4064	42.0	2554	47,700 PSI	46.3C	2767	59,700 PSI		A-2520	39.5	2458	55,100 PSI	43.9	2669	61,200 PSI	
Varget	42.0	2582	40,800 CUP	46.0C	2773	50,500 CUP		A-2495	39.0	2428	55,200 PSI	43.3	2674	61,100 PSI	
IMR 4895	42.7	2584	49,200 PSI	45.5C	2745	58,800 PSI		TAC	38.5	2462	54,900 PSI	42.8	2673	61,000 PSI	
H4895	41.0	2525	38,600 CUP	43.5	2694	50,000 CUP		A-2460	37.4	2466	55,200 PSI	41.6	2668	61,400 PSI	
IMR 8208 XBR	38.5	2491	49,100 PSI	42.8	2691	60,200 PSI		A-2015	35.6	2312	55,400 PSI	39.6	2510	61,600 PSI	
Benchmark	38.5	2438	40,200 CUP	42.5	2647	50,500 CUP		Bullet: 175 GR. SIE HPBT		Dia: .308"					
H335	39.0	2432	44,500 CUP	42.0	2608	49,100 CUP		Case: WIN		Primer: FED 210M, LR Match				Col: 2.800"	
IMR 3031	39.1	2537	49,600 PSI	41.6	2697	59,800 PSI		W760	46.0	2484	40,300 CUP	49.0	2629	50,100 CUP	
Bullet: 168 GR. BARTSX BT		Dia: .308"						CFE 223	45.5	2612	49,600 PSI	47.5	2752	60,400 PSI	
Case: WIN		Primer: WIN LR		Col: 2.810"				BL-C(2)	43.0	2517	39,200 CUP	46.0	2706	50,300 CUP	
A-2520	41.3	2514	55,500 PSI	45.8	2737	61,700 PSI		StaBALL Match	42.0	2432	43,500 PSI	46.0	2677	61,000 PSI	
TAC	39.5	2460	55,200 PSI	43.9	2690	61,300 PSI		IMR 4064	41.5	2500	45,200 PSI	45.6C	2728	59,500 PSI	
A-2495	39.1	2378	55,400 PSI	43.4	2641	61,600 PSI		Varget	42.0	2583	42,600 CUP	45.0C	2690	48,600 CUP	
A-2460	38.7	2465	55,000 PSI	43.0	2675	61,100 PSI		IMR 4895	41.0	2463	42,800 PSI	45.0C	2704	57,800 PSI	
X-Terminator	38.3	2444	55,800 PSI	42.6	2671	62,000 PSI		H4895	40.0	2489	39,100 CUP	42.7	2647	49,000 CUP	
A-2230	38.3	2444	55,800 PSI	42.6	2671	62,000 PSI		IMR 8208 XBR	39.0	2511	52,200 PSI	42.5	2664	61,800 PSI	
A-2015	35.6	2237	55,400 PSI	39.6	2482	61,500 PSI		Benchmark	38.0	2400	40,100 CUP	41.5	2590	50,800 CUP	
Bullet: 168 GR. BARTTSX BT		Dia: .308"						H335	38.0	2390	38,800 CUP	41.3	2592	50,100 CUP	
Case: WIN		Primer: FED 210M, LR Match		Col: 2.800"				IMR 3031	38.0	2427	42,000 PSI	41.3	2653	59,100 PSI	
StaBALL Match	42.4	2497	47,500 PSI	46.4C	2707	60,000 PSI		Bullet: 180 GR. HDY SST		Dia: .308"					
BL-C(2)	43.0	2532	46,000 PSI	46.0	2697	55,000 PSI		Case: WIN		Primer: WIN LR				Col: 2.740"	
IMR 4064	43.0	2539	47,400 PSI	45.0C	2743	58,900 PSI		A-2520	40.9	2486	55,300 PSI	45.5	2711	61,500 PSI	
CFE 223	41.0	2444	39,600 PSI	45.0C	2664	49,800 PSI		TAC	38.6	2426	55,200 PSI	42.8	2651	61,300 PSI	
Varget	41.0	2514	46,100 PSI	45.0C	2737	60,000 PSI		A-2460	38.2	2445	55,200 PSI	42.4	2633	61,300 PSI	
IMR 4895	41.0	2514	47,400 PSI	44.0C	2692	57,800 PSI		A-2495	38.1	2376	55,000 PSI	42.3	2610	61,100 PSI	
H4895	39.0	2497	45,100 PSI	43.0C	2727	59,900 PSI		A-2015	36.0	2262	55,000 PSI	40.0	2487	61,100 PSI	
IMR 8208 XBR	39.0	2505	46,500 PSI	43.0C	2724	60,700 PSI		Bullet: 180 GR. NOS E-TIP		Dia: .308"					
H335	39.0	2500	46,800 PSI	42.0	2661	56,100 PSI		Case: WIN		Primer: WIN LR				Col: 2.810"	
Benchmark	38.0	2458	44,500 PSI	42.0C	2686	59,500 PSI		Big Game	41.6	2224	40,500 PSI	46.2	2461	45,000 PSI	
IMR 3031	38.0	2493	46,600 PSI	41.5C	2693	58,600 PSI		A-2520	40.5	2387	55,700 PSI	45.0	2624	61,800 PSI	
Bullet: 168 GR. SIE HPBT		Dia: .308"						TAC	39.0	2349	55,800 PSI	43.3	2579	62,000 PSI	
Case: WIN		Primer: WIN LR		Col: 2.798"				A-2495	38.0	2286	55,300 PSI	42.2	2530	61,500 PSI	
A-5744		Subsonic		10.8	1033	20,000 PSI		A-2460	37.5	2345	55,700 PSI	41.6	2559	61,900 PSI	
No. 2		Subsonic		8.6	1060	19,400 PSI		A-2015	35.1	2174	55,300 PSI	39.0	2379	61,500 PSI	
Titegroup		Subsonic		8.0	1064	14,700 PSI									

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
Bullet: 180 GR. SIE HPBT Dia: .308"							Bullet: 190 GR. NOS HPBT Dia: .308"						
Case: WIN		Primer: WIN LR		Col: 2.800"			Case: WIN		Primer: WIN LR		Col: 2.810"		
A-2520	39.0	2421	55,700 PSI	43.3	2633	61,900 PSI	Big Game	43.5	2355	47,100 PSI	48.3	2574	61,900 PSI
TAC	37.9	2384	55,400 PSI	42.1	2603	61,600 PSI	A-2520	39.2	2388	55,500 PSI	43.6	2599	59,100 PSI
A-2495	37.8	2311	55,400 PSI	41.9	2567	61,600 PSI	TAC	38.6	2354	55,700 PSI	42.9	2571	53,200 PSI
A-2460	36.7	2378	55,500 PSI	40.8	2581	61,700 PSI	A-2495	37.8	2305	55,200 PSI	42.0	2545	61,400 PSI
A-2015	35.6	2230	55,400 PSI	39.5	2456	61,600 PSI	A-2460	37.3	2379	55,500 PSI	41.5	2569	61,700 PSI
Bullet: 180 GR. SPR GS-SP Dia: .308"							A-2015	35.5	2228	55,400 PSI	39.5	2434	61,600 PSI
Case: WIN		Primer: WIN LR		Col: 2.800"			Bullet: 200 GR. BARTSX FB Dia: .308"						
Big Game	43.7	2365	45,600 PSI	48.6	2578	50,700 PSI	Case: WIN		Primer: WIN LR		Col: 2.810"		
A-2520	39.8	2421	55,200 PSI	44.3	2631	61,300 PSI	Big Game	40.0	2067	45,400 PSI	44.5	2299	50,500 PSI
TAC	39.4	2414	55,300 PSI	43.7	2617	61,500 PSI	TAC	38.2	2195	55,500 PSI	42.5	2402	61,700 PSI
A-2495	39.0	2373	55,400 PSI	43.4	2603	61,500 PSI	A-2520	37.8	2171	55,200 PSI	42.0	2383	61,300 PSI
A-2460	37.4	2372	55,600 PSI	41.6	2573	61,800 PSI	A-2495	36.0	2068	53,300 PSI	40.0	2281	59,200 PSI
A-2015	35.7	2233	55,300 PSI	39.7	2433	61,400 PSI	A-2460	35.2	2139	55,300 PSI	39.1	2323	61,500 PSI
Case: WIN		Primer: FED 210M, LR Match		Col: 2.800"			A-2015	34.2	1978	55,600 PSI	38.0	2201	61,800 PSI
W760	46.0	2433	39,800 CUP	49.0	2573	47,500 CUP	Bullet: 200 GR. SFT A-FRAME Dia: .308"						
BL-C(2)	42.0	2460	40,300 CUP	46.0	2660	50,100 CUP	Case: WIN		Primer: FED 210M, LR Match		Col: 2.700"		
StaBALL Match	41.7	2406	47,600 PSI	45.8	2618	61,600 PSI	CFE 223	41.7	2362	48,600 PSI	45.3	2582	60,600 PSI
IMR 4064	40.7	2445	44,100 PSI	45.2C	2683	58,200 PSI	StaBALL Match	40.2	2283	47,400 PSI	44.0	2481	61,600 PSI
CFE 223	42.9	2502	52,500 PSI	45.1	2615	61,100 PSI	BL-C(2)	41.0	2213	40,200 CUP	43.5	2514	49,800 CUP
Varget	41.0	2470	41,200 CUP	45.0C	2661	49,600 CUP	IMR 4895	40.0	2302	47,500 PSI	43.2C	2476	59,000 PSI
IMR 4895	40.5	2439	43,800 PSI	44.7C	2674	58,700 PSI	IMR 4064	39.0	2268	46,100 PSI	42.5C	2466	58,400 PSI
H4895	40.0	2454	41,200 CUP	42.5	2595	49,700 CUP	Varget	39.0	2288	43,100 CUP	42.0C	2441	50,100 CUP
Benchmark	38.0	2363	40,700 CUP	41.3	2542	50,800 CUP	H4895	38.0	2256	42,400 CUP	41.0C	2403	49,400 CUP
H335	38.0	2374	41,100 CUP	41.0	2528	49,500 CUP	Benchmark	37.5	2227	43,000 CUP	40.0	2355	50,100 CUP
IMR 3031	37.0	2372	43,300 PSI	40.6	2594	58,000 PSI	IMR 3031	36.0	2219	46,100 PSI	39.5C	2410	59,200 PSI
IMR 8208 XBR	36.0	2340	51,600 PSI	40.0	2497	60,100 PSI	H335	37.0	2217	41,600 CUP	39.5	2400	50,400 CUP
Bullet: 185 GR. BER VLD-T Dia: .308"							IMR 8208 XBR	35.5	2250	51,900 PSI	39.5	2400	59,900 PSI
Case: WIN		Primer: WIN LR		Col: 2.810"			Bullet: 200 GR. SIE HPBT Dia: .308"						
Big Game	43.2	2321	44,900 PSI	48.0	2549	49,900 PSI	Case: WIN		Primer: WIN LR		Col: 2.800"		
A-2520	40.2	2441	55,400 PSI	44.6	2646	61,500 PSI	Big Game	42.5	2266	45,300 PSI	47.2	2501	50,300 PSI
A-4064	40.1	2332	50,000 PSI	44.5	2580	55,500 PSI	A-2520	39.8	2358	55,700 PSI	44.2	2555	61,900 PSI
TAC	39.3	2410	55,000 PSI	43.7	2620	61,100 PSI	A-4064	39.7	2282	54,000 PSI	44.1	2517	60,000 PSI
A-2495	38.9	2333	55,300 PSI	43.2	2586	61,500 PSI	TAC	37.2	2256	55,300 PSI	41.3	2462	61,500 PSI
A-2460	37.2	2373	55,300 PSI	41.3	2578	61,400 PSI	A-2495	37.0	2226	55,200 PSI	41.1	2436	61,400 PSI
A-2015	35.9	2230	55,300 PSI	39.9	2457	61,500 PSI	A-2460	35.9	2248	55,200 PSI	39.9	2429	61,400 PSI
Bullet: 190 GR. HDY BTSP Dia: .308"							A-2015	34.1	2091	55,300 PSI	37.9	2303	61,400 PSI
Case: WIN		Primer: WIN LR		Col: 2.740"			Bullet: 208 GR. HDY ELD-M Dia: .308"						
Big Game	43.4	2336	47,900 PSI	48.2	2578	23,600 PSI	Case: WIN		Primer: WIN LR		Col: 2.820"		
A-4064	40.2	2341	53,300 PSI	44.6	2581	25,500 PSI	Big Game	41.1	2183	43,200 PSI	45.7	2412	48,000 PSI
A-2520	39.2	2370	55,400 PSI	43.5	2580	14,400 PSI	A-4064	38.6	2163	51,500 PSI	42.9	2429	57,300 PSI
TAC	38.1	2337	55,700 PSI	42.3	2554	61,800 PSI	TAC	38.0	2286	55,500 PSI	42.2	2482	61,600 PSI
A-2495	37.9	2286	55,400 PSI	42.1	2528	61,600 PSI	A-2520	37.9	2276	55,100 PSI	42.1	2462	61,200 PSI
A-2460	37.3	2349	55,100 PSI	41.5	2533	61,200 PSI	A-2495	36.9	2208	55,400 PSI	41.0	2435	61,600 PSI
A-2015	35.4	2192	55,000 PSI	39.3	2398	61,100 PSI	A-2460	36.2	2285	55,600 PSI	40.3	2464	61,900 PSI
Case: WIN		Primer: FED 210M, LR Match		Col: 2.740"			A-2015	34.0	2086	55,000 PSI	37.8	2297	61,100 PSI
W760	45.0	2386	42,100 CUP	48.0	2504	48,700 CUP	A-5744	22.9	1772	43,000 PSI	32.8	2424	61,600 PSI
CFE 223	41.4	2388	46,500 PSI	45.0	2589	60,200 PSI	Case: WIN		Primer: FED 210M, LR Match		Col: 2.820"		
StaBALL Match	41.0	2363	48,600 PSI	45.0	2577	61,800 PSI	StaBALL Match	40.5	2301	49,600 PSI	44.3	2474	61,200 PSI
BL-C(2)	42.0	2396	41,300 CUP	44.5	2543	48,700 CUP	BL-C(2)	40.7	2273	48,300 PSI	43.8	2455	58,900 PSI
Varget	41.0	2452	46,100 CUP	44.0C	2536	49,100 CUP	CFE 223	40.6	2274	46,600 PSI	43.7	2474	57,500 PSI
IMR 4895	40.0	2363	46,000 PSI	43.9C	2571	59,100 PSI	W748	39.8	2279	47,000 PSI	42.8	2453	57,300 PSI
IMR 4064	39.4	2365	47,800 PSI	43.7C	2569	59,100 PSI	Varget	38.1	2260	49,400 PSI	41.5C	2420	59,500 PSI
H4895	39.0	2359	40,400 CUP	42.0	2514	49,500 CUP	IMR 4064	37.7	2207	45,100 PSI	41.0C	2391	56,700 PSI
H335	37.0	2246	39,200 CUP	40.0	2449	49,800 CUP	IMR 4895	37.7	2229	47,200 PSI	41.0C	2425	59,400 PSI
IMR 8208 XBR	36.0	2303	51,700 PSI	40.0	2459	59,800 PSI	H335	37.5	2264	52,600 PSI	39.5	2381	59,700 PSI
IMR 3031	36.0	2273	43,800 PSI	39.6	2483	57,700 PSI	IMR 8208 XBR	36.4	2219	48,100 PSI	39.2	2373	59,300 PSI
Benchmark	37.0	2288	41,100 CUP	39.5	2418	48,500 CUP	H4895	35.6	2218	49,900 PSI	38.8C	2359	58,600 PSI
Bullet: 190 GR. HDY SUB-X Dia: .308"							Benchmark	35.2	2207	51,000 PSI	38.3	2346	59,300 PSI
Case: WIN		Primer: FED 210M, LR Match		Col: 2.690"			IMR 3031	35.2	2214	48,600 PSI	38.1	2363	58,700 PSI
Benchmark		Subsonic	13.4	1071		18,200 PSI	Bullet: 210 GR. BER VLD Dia: .308"						
H4895		Subsonic	13.3	1044		16,600 PSI	Case: WIN		Primer: WIN LR		Col: 2.810"		
A-5744		Subsonic	13.2	1036		18,100 PSI	Big Game	41.3	2167	50,000 PSI	45.8	2413	55,500 PSI
H322		Subsonic	13.0	1058		30,100 PSI	A-4064	38.9	2174	53,500 PSI	43.2	2422	59,400 PSI
Trail Boss		Subsonic	10.5	1039		52,300 PSI	A-2520	37.3	2213	55,500 PSI	41.5	2402	61,700 PSI
No. 2		Subsonic	9.8	1066		61,600 PSI	TAC	36.6	2176	55,200 PSI	40.7	2377	61,300 PSI
Titegroup		Subsonic	8.7	1004		61,700 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
A-2495	36.0	2118	55,400 PSI	40.0	2353	61,600 PSI	IMR 3031	51.0	3252	47,200 PSI	54.9	3471	57,800 PSI
A-2460	35.2	2195	55,500 PSI	39.1	2380	61,700 PSI	W748				52.7	3320	47,000 CUP
A-2015	32.8	1991	55,200 PSI	36.5	2218	61,300 PSI	Bullet: 110 GR. HDY V-MAX Dia: .308"						
Bullet: 220 GR. SIE HPBT Dia: .308"							Case: REM Primer: WIN LR Col: 3.170"						
Case: WIN Primer: WIN LR Col: 2.795"							Hunter	61.2	3113	48,700 PSI	68.0	3415	54,100 PSI
A-5744		Subsonic		13.5	1086	29,500 PSI	Big Game	59.0	3236	53,800 PSI	65.5	3522	59,800 PSI
No. 2		Subsonic		10.2	1011	28,200 PSI	A-2700	57.7	3038	47,700 PSI	64.1	3349	53,000 PSI
Titegroup		Subsonic		9.7	1069	17,600 PSI	A-4064	53.9	3080	53,500 PSI	59.9	3431	59,400 PSI
308 WINCHESTER SERVICE RIFLE							TAC	49.8	3185	53,600 PSI	55.3	3404	59,600 PSI
Barrel: 24" Twist: 1:12" Trim: 2.005"							A-2520	49.1	3150	53,500 PSI	54.6	3387	59,500 PSI
Bullet: 150 GR. NOS BT Dia: .308"							Bullet: 115 GR. BER FBT Dia: .308"						
Case: WIN Primer: FED 210M , LR Match Col: 2.800"							Case: REM Primer: WIN LR Col: 3.200"						
StaBALL Match	44.3	2640	45,900 PSI	46.6	2746	51,100 PSI	Hunter	61.7	3126	49,400 PSI	68.6	3406	54,900 PSI
BL-C(2)	45.0	2661	40,200 CUP	46.0	2720	43,400 CUP	Big Game	59.4	3228	53,900 PSI	66.0	3506	59,900 PSI
IMR 4895	42.6	2631	42,300 PSI	45.3	2795	51,300 PSI	A-2700	57.8	3023	47,000 PSI	64.2	3318	52,200 PSI
IMR 4064	43.0	2663	44,700 PSI	45.0	2765	50,000 PSI	A-4064	54.0	3076	53,200 PSI	59.9	3399	59,100 PSI
Varget	42.8	2728	40,500 CUP	44.0	2788	43,300 CUP	A-2520	49.4	3141	53,400 PSI	54.9	3365	59,300 PSI
H4895	41.9	2685	40,000 CUP	43.0	2742	43,200 CUP	TAC	48.6	3103	53,700 PSI	54.0	3336	59,600 PSI
Bullet: 155 GR. SIE HPBT Dia: .308"							Bullet: 125 GR. SIE SPT Dia: .308"						
Case: WIN Primer: FED 210M , LR Match Col: 2.775"							Case: REM Primer: WIN LR Col: 3.150"						
BL-C(2)	45.0	2658	37,500 CUP	46.4	2755	43,000 PSI	Hunter	61.4	3031	50,100 PSI	68.3	3314	55,700 PSI
StaBALL Match	43.6	2571	42,000 PSI	45.9	2721	51,400 PSI	A-2700	58.8	3018	53,300 PSI	65.3	3319	59,200 PSI
IMR 4064	43.0	2602	42,900 PSI	45.6	2757	51,000 PSI	Big Game	57.2	3059	53,900 PSI	63.5	3331	59,900 PSI
IMR 4895	43.5	2664	45,100 PSI	45.3	2769	51,000 PSI	A-4064	52.7	2949	53,700 PSI	58.6	3273	59,600 PSI
Varget	43.0	2709	39,000 CUP	44.0	2759	41,300 CUP	TAC	49.0	2982	53,200 PSI	54.4	3222	59,100 PSI
H4895	41.8	2680	39,000 CUP	43.0	2735	42,000 CUP	Case: WIN Primer: WIN LR Col: 3.150"						
Bullet: 168 GR. SIE HPBT Dia: .308"							W760	57.0	2952	40,300 CUP	62.5	3181	46,700 CUP
Case: WIN Primer: FED 210M , LR Match Col: 2.800"							StaBALL Match	55.6	3098	50,300 PSI	60.5	3289	59,400 PSI
BL-C(2)	44.0	2569	39,400 CUP	45.2	2643	43,600 CUP	BL-C(2)	53.0	3117	38,000 CUP	58.7	3273	48,700 CUP
StaBALL Match	42.3	2464	44,000 PSI	44.5	2595	51,200 PSI	CFE 223	54.5	3081	53,000 PSI	58.0	3212	58,900 PSI
IMR 4895	41.0	2447	39,700 PSI	44.2	2673	53,000 PSI	Varget	54.0	3159	45,500 CUP	57.2	3267	49,500 CUP
IMR 4064	41.5	2518	43,800 PSI	43.9	2653	52,000 PSI	IMR 4895	53.0	3137	47,800 PSI	57.2	3331	56,800 PSI
Varget	42.0	2520	41,200 CUP	43.2	2583	44,000 CUP	IMR 4064	53.0	3129	47,400 PSI	56.5	3334	58,000 PSI
H4895	41.0	2551	38,300 CUP	42.3	2630	44,000 CUP	IMR 8208 XBR	51.5	3100	50,400 PSI	54.7	3243	57,400 PSI
Bullet: 175 GR. SIE HPBT Dia: .308"							H335	49.0	3046	43,000 CUP	54.0	3228	49,300 CUP
Case: WIN Primer: FED 210M , LR Match Col: 2.800"							H4895	48.0	2977	41,400 CUP	53.7	3229	49,300 CUP
BL-C(2)	43.0	2517	39,200 CUP	44.0	2580	42,900 CUP	IMR 3031	49.0	3091	47,100 PSI	52.8	3298	58,400 PSI
IMR 4064	40.7	2445	44,100 PSI	43.5	2593	53,000 PSI	Benchmark	49.0	2996	40,700 CUP	52.0	3178	48,700 CUP
IMR 4895	41.0	2463	42,800 PSI	43.4	2607	52,000 PSI	W748				51.0	3060	46,000 CUP
StaBALL Match	40.8	2419	44,100 PSI	43.0	2552	51,600 PSI	Bullet: 130 GR. BAR TSX BT Dia: .308"						
Varget	42.0	2583	42,600 CUP	43.0	2619	44,600 CUP	Case: REM Primer: WIN LR Col: 3.218"						
H4895	40.0	2454	41,200 CUP	40.8	2500	44,000 CUP	Hunter	59.6	2925	47,200 PSI	66.3	3187	52,400 PSI
30-06 SPRINGFIELD							Big Game	58.1	3054	53,700 PSI	64.5	3324	59,700 PSI
Barrel: 24" Twist: 1:10" Trim: 2.484"							A-2700	56.4	2901	45,100 PSI	62.6	3133	50,100 PSI
Bullet: 110 GR. BAR TTSX FB Dia: .308"							A-4064	51.7	2918	53,100 PSI	57.4	3215	59,000 PSI
Case: REM Primer: WIN LR Col: 3.218"							TAC	48.9	2942	53,300 PSI	54.3	3204	59,200 PSI
Hunter	59.6	3019	44,100 PSI	66.2	3304	49,000 PSI	A-2520	48.7	2934	53,500 PSI	54.2	3196	59,500 PSI
Big Game	58.4	3173	46,000 PSI	64.9	3409	51,100 PSI	Bullet: 130 GR. SPR HP Dia: .308"						
A-2700	56.5	2916	40,400 PSI	62.8	3210	44,900 PSI	Case: WIN Primer: WIN LR Col: 3.060"						
A-4064	54.5	3140	52,300 PSI	60.6	3466	58,100 PSI	BL-C(2)	52.0	2936	36,600 CUP	58.0	3179	48,300 CUP
TAC	52.4	3211	53,600 PSI	58.2	3507	59,600 PSI	CFE 223	54.0	3004	52,300 PSI	57.4	3145	59,100 PSI
A-2520	51.6	3195	53,300 PSI	57.3	3484	59,200 PSI	StaBALL Match	51.8	2910	45,100 PSI	56.3	3167	59,300 PSI
Bullet: 110 GR. HDY SP Dia: .308"							IMR 4895	51.0	3074	50,800 PSI	54.7	3234	57,800 PSI
Case: WIN Primer: WIN LR Col: 3.170"							IMR 4064	51.0	3070	49,500 PSI	54.5	3243	58,200 PSI
W760	57.0	3044	39,200 CUP	62.5	3268	46,900 CUP	Varget	49.0	2979	41,300 CUP	53.5	3154	48,400 CUP
StaBALL Match	57.5	3253	47,700 PSI	62.5	3489	59,400 PSI	H335	48.0	2912	39,600 CUP	53.5	3158	48,600 CUP
BL-C(2)	54.0	3108	36,200 CUP	60.0	3396	45,000 CUP	H4895	48.0	2927	38,600 CUP	53.1	3144	46,100 CUP
IMR 4895	56.0	3303	48,200 PSI	59.8	3505	57,300 PSI	IMR 8208 XBR	49.1	3021	52,100 PSI	51.7	3126	56,900 PSI
CFE 223	55.6	3224	50,600 PSI	59.0	3370	56,400 PSI	Benchmark	48.0	2986	44,900 CUP	51.0	3107	48,700 CUP
Varget	55.0	3308	44,400 CUP	59.0	3452	48,500 CUP	IMR 3031	47.0	3010	49,500 PSI	50.3	3176	58,300 PSI
IMR 4064	55.0	3263	47,900 PSI	58.5	3453	56,400 PSI	Bullet: 135 GR. BER FBT Dia: .308"						
H4895	51.0	3155	39,000 CUP	57.0	3431	49,300 CUP	Case: REM Primer: WIN LR Col: 3.300"						
IMR 8208 XBR	52.6	3223	46,200 PSI	56.0	3415	57,500 PSI	Hunter	60.3	2985	51,300 PSI	67.0	3223	57,000 PSI
H335	50.0	3168	43,500 CUP	55.5	3367	48,100 CUP	Big Game	53.4	2924	53,300 PSI	59.3	3148	59,300 PSI
Benchmark	51.5	3242	45,600 CUP	55.0	3396	49,800 CUP	A-2700	53.1	2815	53,600 PSI	59.0	3116	59,600 PSI
							A-4064	49.6	2839	53,700 PSI	55.1	3117	59,600 PSI

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads				Maximum Loads				Starting Loads				Maximum Loads								
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		Powder	Grs	Vel	Pressure	Grs	Vel	Pressure						
Bullet: 140 GR. BAR MPG							Dia: .308"	A-2700							55.0	2804	53,500 PSI	61.1	3062	59,500 PSI
Case: REM			Primer: WIN LR			Col: 3.270"		A-4350			54.2	2592	43,400 PSI	60.2C	2877	48,300 PSI				
Hunter	55.3	2756	48,800 PSI	61.4	3024	54,200 PSI		Big Game			52.8	2820	53,700 PSI	58.7	3038	59,700 PSI				
Big Game	53.6	2875	53,700 PSI	59.5	3113	59,700 PSI		A-4064			49.1	2748	53,500 PSI	54.6	2998	59,500 PSI				
A-2700	51.6	2782	53,100 PSI	57.3	3043	59,000 PSI		Case: WIN			Primer: WIN LR			Col: 3.250"						
A-4064	46.8	2709	53,500 PSI	52.0	2995	59,500 PSI		Suprform			59.0	2843	43,400 PSI	65.2C	3125	58,800 PSI				
A-2520	44.8	2689	53,700 PSI	49.7	2975	59,600 PSI		H4350			56.0	2757	36,000 CUP	62.0C	3038	47,500 CUP				
TAC	43.8	2682	53,400 PSI	48.6	2947	59,300 PSI		IMR 4350			56.0	2784	45,800 PSI	60.0C	2959	53,800 PSI				
Bullet: 150 GR. HDY FMJBT							Dia: .308"	StaBALL 6.5							57.0	2800	43,400 PSI	62.0	3085	59,500 PSI
Case: REM			Primer: WIN LR			Col: 3.185"		H380			53.0	2789	40,100 CUP	59.0	3009	47,800 CUP				
Hunter	57.6	2880	50,300 PSI	64.0	3111	55,900 PSI		StaBALL Match			50.0	2673	42,700 PSI	55.0	2959	60,000 PSI				
Big Game	53.9	2884	53,900 PSI	59.9	3115	59,900 PSI		BL-C(2)			49.0	2723	38,800 CUP	54.0	2912	46,300 CUP				
A-4350	53.7	2594	41,900 PSI	59.6	2886	46,600 PSI		IMR 4895			50.0	2851	49,800 PSI	53.8	3010	58,000 PSI				
A-2700	53.7	2797	53,700 PSI	59.6	3070	59,600 PSI		IMR 4064			49.0	2811	46,800 PSI	53.0	3005	58,800 PSI				
A-4064	49.8	2804	53,700 PSI	55.3	3062	59,700 PSI		CFE 223			49.2	2744	52,200 PSI	52.3	2879	59,500 PSI				
Bullet: 150 GR. NOS BT							Dia: .308"	H335							47.0	2776	42,200 CUP	51.5	2943	48,800 CUP
Case: WIN			Primer: WIN LR			Col: 3.250"		H4895			46.0	2752	41,200 CUP	51.0	2925	45,600 CUP				
Suprform	60.0	2850	43,100 PSI	65.0C	3072	53,000 PSI		Varget			48.0	2822	44,600 CUP	50.7	2958	48,800 CUP				
StaBALL 6.5	58.5	2929	50,500 PSI	63.0C	3128	59,600 PSI		Benchmark			46.5	2779	40,500 CUP	49.5	2916	49,400 CUP				
H4350	56.0	2792	37,100 CUP	62.0C	3068	48,400 CUP		IMR 8208 XBR			46.1	2747	50,400 PSI	49.0	2869	57,500 PSI				
W760	54.0	2792	40,500 CUP	60.0	2992	48,600 CUP		IMR 3031			46.0	2779	47,600 PSI	49.0	2944	58,600 PSI				
H380	53.0	2798	40,200 CUP	59.0	3005	45,900 CUP		Bullet: 165 GR. BAR MRX							Dia: .308"					
IMR 4350	54.0	2745	47,400 PSI	58.0C	2942	57,200 PSI		Case: REM			Primer: WIN LR			Col: 3.205"						
StaBALL Match	50.0	2756	47,500 PSI	55.0	2997	59,700 PSI		Hunter			55.5	2687	49,900 PSI	61.7	2924	55,400 PSI				
CFE 223	50.1	2763	50,500 PSI	54.2	2942	58,600 PSI		A-2700			51.3	2638	53,700 PSI	57.0	2913	59,600 PSI				
BL-C(2)	49.0	2759	39,700 CUP	54.0	2962	48,600 CUP		A-4350			51.1	2404	43,400 PSI	56.8	2709	48,200 PSI				
IMR 4895	49.0	2856	49,400 PSI	53.0	3009	56,700 PSI		Big Game			50.7	2669	53,800 PSI	56.4	2910	59,700 PSI				
H335	47.0	2785	42,500 CUP	51.5	2982	49,200 CUP		A-4064			47.1	2578	53,500 PSI	52.3	2855	59,400 PSI				
Varget	47.0	2808	42,600 CUP	51.0	2975	50,000 CUP		Bullet: 165 GR. HDY GMX							Dia: .308"					
IMR 4064	47.0	2743	49,000 PSI	51.0	2928	58,600 PSI		Case: WIN			Primer: WIN LR			Col: 3.225"						
H4895	46.0	2806	44,400 CUP	51.0	2976	48,500 CUP		StaBALL 6.5			52.5	2733	50,400 PSI	57.1	2942	59,600 PSI				
IMR 8208 XBR	47.0	2797	50,500 PSI	50.0	2935	58,400 PSI		Hybrid 100V			52.5	2653	48,600 PSI	56.7C	2818	56,700 PSI				
Benchmark	46.5	2792	44,600 CUP	49.5	2944	49,300 CUP		IMR 4350			52.0	2546	46,700 PSI	56.6	2770	58,200 PSI				
W748				48.0	2810	46,000 CUP		H380			52.0	2652	52,700 PSI	56.0	2788	57,300 PSI				
IMR 3031	43.0	2697	47,600 PSI	46.7	2887	59,300 PSI		H4350			51.0	2587	48,600 PSI	55.4	2781	59,200 PSI				
Trail Boss	13.3	1061	14,700 PSI	19.0	1477	26,400 PSI		W760			50.0	2656	52,400 PSI	53.1	2773	58,500 PSI				
Bullet: 150 GR. NOS E-TIP							Dia: .308"	StaBALL Match			44.8	2532	48,000 PSI	48.8	2744	59,400 PSI				
Case: REM			Primer: WIN LR			Col: 3.300"		Varget			44.5	2526	46,600 PSI	48.3	2724	59,000 PSI				
Hunter	57.3	2826	53,100 PSI	63.6	3082	59,000 PSI		IMR 4064			44.4	2510	44,900 PSI	48.2	2729	58,600 PSI				
Big Game	50.9	2747	53,900 PSI	56.6	2995	59,800 PSI		IMR 4895			44.4	2535	45,100 PSI	47.8	2757	58,400 PSI				
A-2700	50.9	2749	53,700 PSI	56.6	2988	59,700 PSI		BL-C(2)			43.9	2511	49,200 PSI	47.5	2706	58,800 PSI				
A-4064	45.2	2630	53,400 PSI	50.3	2897	59,300 PSI		IMR 8208 XBR			43.2	2572	50,800 PSI	47.0	2717	58,300 PSI				
Case: WIN			Primer: WIN LR			Col: 3.300"		CFE 223			43.9	2531	51,200 PSI	46.7	2672	57,500 PSI				
H4350	54.0	2747	47,000 PSI	57.8C	2927	57,700 PSI		H4895			43.4	2595	50,300 PSI	46.7	2712	57,100 PSI				
IMR 4350	54.0	2744	48,800 PSI	57.5C	2930	57,300 PSI		IMR 3031			41.0	2510	46,400 PSI	44.1	2685	58,100 PSI				
W760	53.0	2779	49,300 PSI	57.0	2945	57,100 PSI		Bullet: 165 GR. NOS PART							Dia: .308"					
H380	53.0	2763	50,400 PSI	57.0	2921	57,300 PSI		Case: REM			Primer: WIN LR			Col: 3.305"						
BL-C(2)	50.0	2777	51,300 PSI	53.5	2915	57,900 PSI		Hunter			55.7	2746	53,900 PSI	61.9	2991	59,800 PSI				
CFE 223	49.0	2715	47,600 PSI	53.2	2927	58,600 PSI		A-4350			53.3	2626	53,400 PSI	59.3	2908	59,300 PSI				
W748	48.0	2704	48,000 PSI	51.5	2859	55,400 PSI		A-2700			50.4	2662	53,400 PSI	56.0	2890	59,300 PSI				
IMR 4064	47.0	2714	48,700 PSI	51.0	2926	59,500 PSI		Big Game			50.0	2660	53,800 PSI	55.5	2900	59,800 PSI				
IMR 4895	47.0	2717	50,000 PSI	50.8	2900	58,700 PSI		A-4064			45.8	2577	53,400 PSI	50.8	2836	59,400 PSI				
Varget	46.0	2697	49,900 PSI	49.5	2860	58,000 PSI		Bullet: 165 GR. SIE SPBT							Dia: .308"					
H335	44.0	2671	51,600 PSI	48.0	2842	59,200 PSI		Case: WIN			Primer: WIN LR			Col: 3.300"						
Benchmark	44.0	2631	46,400 PSI	48.0	2850	58,600 PSI		Suprform			55.0	2724	45,100 PSI	61.0	2972	58,800 PSI				
IMR 8208 XBR	44.0	2677	50,100 PSI	47.7	2838	58,500 PSI		StaBALL 6.5			55.4	2804	50,100 PSI	60.2	3003	59,700 PSI				
H4895	43.0	2658	49,000 PSI	47.5	2863	59,700 PSI		IMR 4350			54.5	2685	48,900 PSI	59.0C	2898	59,400 PSI				
IMR 3031	43.0	2644	47,600 PSI	46.0	2811	56,600 PSI		H4350			53.0	2678	38,400 CUP	59.0	2938	49,400 CUP				
Bullet: 155 GR. BER VLD							Dia: .308"	Hybrid 100V			53.0	2648	46,000 PSI	57.0C	2801	52,800 PSI				
Case: REM			Primer: WIN LR			Col: 3.320"		W760			51.0	2678	38,400 CUP	56.5	2877	49,700 CUP				
Hunter	57.9	2837	53,100 PSI	64.3	3092	59,000 PSI		H380			51.0	2669	41,700 CUP	56.5	2892	50,000 CUP				
Big Game	51.8	2782	53,500 PSI	57.6	3007	59,500 PSI		IMR 4064			49.0	2752	50,400 PSI	52.5	2901	58,900 PSI				
A-2700	51.3	2699	53,400 PSI	57.0	2963	59,300 PSI		StaBALL Match			48.3	2654	50,100 PSI	52.5	2829	59,400 PSI				
A-4064	48.1	2703	53,700 PSI	53.5	2975	59,700 PSI		IMR 4895			49.0	2768	50,500 PSI	52.0	2888	57,200 PSI				
Bullet: 155 GR. SIE HPBT							Dia: .308"	BL-C(2)			46.0	2608	41,200 CUP	51.0	2805	49,800 CUP				
Case: REM			Primer: WIN LR			Col: 3.250"		Varget			47.0	2726	44,500 CUP	50.5	2873	49,700 CUP				
Hunter	58.5	2904	53,800 PSI	65.0	3135	59,800 PSI		CFE 223			46.5	2612	52,900 PSI	49.5	2731	58,700 PSI				
								IMR 3031			45.0	2707	51,000 PSI	48.0	2825	57,500 PSI				

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Benchmark	45.0	2686	45,600 CUP	47.7	2795	49,300 CUP	Bullet: 180 GR. BAR TSX BT Dia: .308"						
H4895	43.0	2607	41,100 CUP	47.5	2782	49,000 CUP	Case: REM Primer: WIN LR Col: 3.218"						
H335	42.0	2515	38,500 CUP	47.0	2749	49,300 CUP	Hunter	54.4	2615	49,500 PSI	60.4	2838	55,000 PSI
IMR 8208 XBR	44.6	2667	55,100 PSI	46.5	2728	58,000 PSI	Big Game	51.2	2634	53,500 PSI	56.9	2842	59,500 PSI
Bullet: 168 GR. BAR TTSX BT Dia: .308"							A-4350	50.1	2446	46,000 PSI	55.7	2685	51,100 PSI
Case: REM Primer: WIN LR Col: 3.300"							A-2700	48.3	2519	53,100 PSI	53.7	2768	59,000 PSI
Hunter	55.5	2661	50,600 PSI	61.6	2902	56,300 PSI	A-4064	45.6	2510	53,300 PSI	50.7	2743	59,300 PSI
Big Game	50.6	2648	53,700 PSI	56.2	2870	59,700 PSI	Bullet: 180 GR. HDY SST Dia: .308"						
A-4350	49.6	2407	47,000 PSI	55.1	2697	52,300 PSI	Case: REM Primer: WIN LR Col: 3.220"						
A-2700	48.5	2557	53,600 PSI	53.9	2817	59,500 PSI	Hunter	54.5	2650	53,100 PSI	60.5	2869	59,000 PSI
A-4064	45.9	2523	54,000 PSI	51.0	2790	60,000 PSI	A-4350	50.3	2407	46,500 PSI	55.9	2678	51,700 PSI
Bullet: 168 GR. BER VLD Dia: .308"							Big Game	48.8	2557	53,600 PSI	54.2	2768	59,600 PSI
Case: REM Primer: WIN LR Col: 3.330"							A-2700	48.4	2520	53,400 PSI	53.8	2761	59,300 PSI
Hunter	54.8	2721	53,500 PSI	60.9	2964	59,400 PSI	A-4064	45.2	2491	53,500 PSI	50.3	2723	59,400 PSI
A-4350	53.6	2589	49,900 PSI	59.5	2874	55,500 PSI	Bullet: 180 GR. SIE SPBT Dia: .308"						
A-2700	50.9	2642	53,100 PSI	56.6	2885	59,000 PSI	Case: WIN Primer: WIN LR Col: 3.300"						
Big Game	49.7	2666	53,900 PSI	55.3	2881	59,900 PSI	H4831	54.0	2447	34,700 CUP	60.0C	2710	44,300 CUP
A-4064	46.4	2610	53,200 PSI	51.5	2840	59,100 PSI	Suprform	54.0	2628	46,200 PSI	59.7	2840	57,600 PSI
Bullet: 168 GR. HDY HPBT Dia: .308"							H4350	52.0	2543	37,800 CUP	57.5	2798	49,300 CUP
Case: WIN Primer: WIN LR Col: 3.230"							StaBALL 6.5	52.6	2663	49,700 PSI	57.2	2857	59,600 PSI
H4350	55.0	2695	40,400 CUP	59.0	2897	48,100 CUP	Hybrid 100V	53.0	2585	47,000 PSI	57.0C	2742	55,200 PSI
StaBALL 6.5	54.0	2703	47,900 PSI	58.1	2903	58,900 PSI	IMR 4831	53.0	2563	47,300 PSI	56.8C	2749	57,100 PSI
IMR 4350	54.0	2720	48,500 PSI	58.0C	2903	57,800 PSI	IMR 4350	53.0	2586	48,300 PSI	56.5C	2752	57,200 PSI
Hybrid 100V	52.0	2645	50,400 PSI	57.0C	2817	57,400 PSI	W760	50.0	2528	39,200 CUP	55.5	2743	48,700 CUP
W760	53.0	2686	40,300 CUP	56.5	2839	49,700 CUP	H380	48.0	2490	39,900 CUP	53.0	2682	48,700 CUP
H380	51.0	2648	42,800 CUP	56.5	2859	49,700 CUP	StaBALL Match	46.0	2498	49,300 PSI	50.0	2677	59,400 PSI
IMR 4895	48.0	2719	49,900 PSI	51.2	2859	58,200 PSI	IMR 4064	45.5	2550	48,900 PSI	48.7	2700	58,200 PSI
BL-C(2)	46.0	2555	39,100 CUP	51.0	2767	49,200 CUP	BL-C(2)	44.0	2456	39,200 CUP	48.5	2634	48,100 CUP
StaBALL Match	47.0	2573	47,600 PSI	51.0	2780	59,700 PSI	IMR 4895	45.0	2555	49,500 PSI	48.0	2680	56,800 PSI
IMR 4064	47.0	2660	46,800 PSI	50.8	2850	57,900 PSI	Varget	44.0	2533	41,900 CUP	47.0	2668	50,000 CUP
Varget	47.0	2710	42,700 CUP	50.5	2859	49,200 CUP	Benchmark	43.0	2550	45,600 CUP	46.0	2660	49,000 CUP
IMR 8208 XBR	45.1	2661	54,800 PSI	48.0	2748	58,700 PSI	H335	42.0	2455	41,900 CUP	46.0	2621	49,200 CUP
H4895	43.0	2574	41,200 CUP	47.5	2789	50,000 CUP	H4895	41.0	2427	38,100 CUP	46.0	2638	48,800 CUP
Benchmark	44.0	2614	42,900 CUP	47.2	2760	49,400 CUP	Bullet: 185 GR. BER VLD-T Dia: .308"						
H335	42.0	2459	39,900 CUP	46.5	2656	49,500 CUP	Case: REM Primer: WIN LR Col: 3.340"						
Bullet: 175 GR. NOS HPBT Dia: .308"							Hunter	52.4	2584	53,800 PSI	58.2	2815	59,800 PSI
Case: REM Primer: WIN LR Col: 3.290"							A-4350	52.0	2503	51,300 PSI	57.7	2757	57,000 PSI
A-4350	53.6	2573	52,700 PSI	59.5	2871	58,600 PSI	A-2700	48.4	2498	53,300 PSI	53.7	2727	59,200 PSI
Hunter	52.6	2637	53,500 PSI	58.5	2871	59,400 PSI	Big Game	47.4	2499	53,400 PSI	52.7	2710	59,400 PSI
A-2700	49.3	2544	53,300 PSI	54.8	2800	59,300 PSI	A-4064	44.5	2464	53,500 PSI	49.4	2683	59,500 PSI
Big Game	48.5	2598	53,900 PSI	53.9	2801	59,900 PSI	Bullet: 190 GR. HDY BTSP Dia: .308"						
A-4064	46.4	2566	53,400 PSI	51.5	2794	59,400 PSI	Case: REM Primer: WIN LR Col: 3.220"						
Bullet: 175 GR. SIE HPBT Dia: .308"							Hunter	52.7	2557	53,700 PSI	58.6	2782	59,700 PSI
Case: REM Primer: WIN LR Col: 3.300"							A-4350	50.2	2404	49,400 PSI	55.7	2655	54,900 PSI
Hunter	53.3	2646	53,800 PSI	59.2	2883	59,800 PSI	A-2700	47.6	2431	53,200 PSI	52.9	2673	59,100 PSI
A-4350	52.7	2573	50,700 PSI	58.5	2828	56,300 PSI	Big Game	47.5	2463	53,600 PSI	52.8	2689	59,600 PSI
A-2700	49.6	2596	53,600 PSI	55.1	2818	59,600 PSI	A-4064	44.5	2427	53,500 PSI	49.5	2649	59,500 PSI
Big Game	48.7	2607	53,400 PSI	54.1	2806	59,300 PSI	Case: WIN Primer: WIN LR Col: 3.220"						
A-4064	45.8	2572	53,500 PSI	50.9	2790	59,500 PSI	H4831	57.0	2514	44,100 CUP	61.0C	2668	50,000 CUP
Case: WIN Primer: WIN LR Col: 3.300"							IMR 7828	55.0	2429	46,200 PSI	59.8C	2646	58,700 PSI
H4831	57.0	2535	38,300 CUP	61.5C	2719	44,400 CUP	H4350	51.0	2451	39,500 CUP	56.5	2692	49,200 CUP
H4350	55.0	2661	42,100 CUP	59.0	2842	48,700 CUP	StaBALL 6.5	50.6	2536	49,300 PSI	55.2	2747	59,600 PSI
Suprform	53.0	2609	42,600 PSI	58.7	2881	59,400 PSI	IMR 4831	51.0	2445	46,300 PSI	55.0C	2639	57,000 PSI
IMR 4831	54.0	2615	48,100 PSI	57.5C	2781	56,900 PSI	IMR 4350	51.0	2466	47,200 PSI	54.5	2647	58,500 PSI
IMR 4350	52.0	2546	45,000 PSI	57.0C	2780	57,100 PSI	Hybrid 100V	49.0	2456	49,300 PSI	53.5C	2639	58,300 PSI
StaBALL 6.5	52.5	2659	49,000 PSI	57.0	2855	59,100 PSI	W760	48.0	2398	49,000 CUP	53.0	2640	49,500 CUP
W760	52.5	2622	40,700 CUP	56.2	2794	49,200 CUP	H380	47.0	2369	40,900 CUP	51.5	2555	48,700 CUP
Hybrid 100V	50.0	2543	47,400 PSI	55.0C	2757	57,600 PSI	StaBALL Match	42.6	2282	43,900 PSI	48.3	2559	59,600 PSI
H380	49.5	2564	43,400 CUP	53.0	2704	48,400 CUP	IMR 4064	45.0	2485	50,900 PSI	47.7	2593	57,600 PSI
BL-C(2)	48.5	2644	44,100 CUP	51.5	2765	48,700 CUP	BL-C(2)	43.0	2312	39,200 CUP	47.0	2510	48,600 CUP
StaBALL Match	47.0	2557	50,200 PSI	51.2	2740	59,900 PSI	Varget	43.5	2450	41,800 CUP	46.5	2608	49,700 CUP
IMR 4064	46.5	2626	52,000 PSI	49.5	2741	58,000 PSI	H4895	41.0	2380	41,400 CUP	45.5	2525	48,000 CUP
IMR 4895	46.0	2619	51,600 PSI	49.0	2741	58,100 PSI	H335	40.0	2271	40,200 CUP	44.0	2465	48,400 CUP
Varget	45.0	2551	41,700 CUP	48.0	2694	49,000 CUP	Bullet: 200 GR. BAR TSX FB Dia: .308"						
H4895	43.8	2584	44,100 CUP	46.7	2700	49,000 CUP	Case: REM Primer: WIN LR Col: 3.218"						
H335	43.0	2566	46,600 CUP	45.7	2667	49,400 CUP	Hunter	50.7	2389	46,300 PSI	56.3	2585	51,400 PSI
							Big Game	48.1	2418	53,400 PSI	53.5	2626	59,300 PSI

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
A-2700	46.6	2374	53,600 PSI	51.7	2589	59,600 PSI	Bullet: 225 GR. HDY BTHP-M Dia: .308"						
A-4350	46.3	2283	46,400 PSI	51.4	2445	51,600 PSI	Case: REM Primer: WIN LR Col: 3.340"						
A-4064	43.4	2341	53,400 PSI	48.2	2536	59,400 PSI	A-4350	48.2	2167	51,300 PSI	53.6	2413	57,000 PSI
Bullet: 200 GR. NOS AB Dia: .308"							Hunter	47.1	2232	53,400 PSI	52.4	2461	59,400 PSI
Case: WIN Primer: WIN LR Col: 3.300"							A-2700	43.9	2146	54,000 PSI	48.8	2399	60,000 PSI
Grand	57.0	2361	44,800 PSI	61.0C	2506	51,500 PSI	Big Game	42.8	2142	53,300 PSI	47.6	2357	59,200 PSI
H1000	57.0	2329	35,800 CUP	61.0C	2487	42,200 CUP	A-4064	41.7	2156	53,500 PSI	46.3	2371	59,400 PSI
H4831	55.0	2427	42,100 CUP	59.0C	2586	49,300 CUP	300 WINCHESTER SHORT MAGNUM						
IMR 7828	53.0	2323	45,000 PSI	58.0C	2559	58,100 PSI	Barrel: 24" Twist: 1:10" Trim: 2.090"						
IMR 4831	51.0	2375	46,600 PSI	54.2C	2550	56,800 PSI	Bullet: 110 GR. BAR TTSSX FB Dia: .308"						
H4350	50.0	2412	40,400 CUP	53.7C	2580	48,400 CUP	Case: WIN Primer: WIN LR Magnum Col: 2.805"						
IMR 4350	50.0	2364	45,900 PSI	53.5	2550	57,200 PSI	Big Game	67.8	3429	58,000 PSI	75.4	3780	64,500 PSI
StaBALL 6.5	49.2	2458	49,400 PSI	53.5	2653	59,700 PSI	A-2700	66.7	3265	52,200 PSI	74.1	3661	58,000 PSI
Hybrid 100V	48.0	2384	50,000 PSI	52.0C	2542	57,900 PSI	A-4064	62.9	3316	57,700 PSI	69.9	3709	64,100 PSI
W760	48.0	2413	42,900 CUP	51.5	2579	49,400 CUP	Bullet: 125 GR. HDY SST Dia: .308"						
H380	45.5	2325	42,300 CUP	48.5	2463	48,800 CUP	Case: WIN Primer: WIN LR Magnum Col: 2.835"						
Varget	42.0	2337	41,900 CUP	47.0	2505	49,100 CUP	Hunter	68.4	3270	58,000 PSI	76.0	3572	64,500 PSI
W760	42.6	2262	48,000 PSI	46.4	2453	59,700 PSI	A-2700	65.2	3224	58,300 PSI	72.4	3548	64,700 PSI
IMR 4064	43.0	2292	44,600 PSI	46.0	2469	57,400 PSI	Big Game	63.7	3217	58,100 PSI	70.8	3513	64,600 PSI
H4895	41.0	2355	43,700 CUP	44.0	2474	49,500 CUP	A-4064	59.6	3186	57,600 PSI	66.2	3491	64,000 PSI
Bullet: 208 GR. HDY BTHP-M Dia: .308"							A-5744	38.0	2736	45,600 PSI	50.6	3416	60,800 PSI
Case: REM Primer: WIN LR Col: 3.340"							Bullet: 135 GR. SIE HPBT Dia: .308"						
Hunter	49.6	2381	53,700 PSI	55.1	2601	59,700 PSI	Case: WIN Primer: WIN LR Magnum Col: 2.775"						
A-4350	49.2	2237	50,600 PSI	54.7	2522	56,200 PSI	Hunter	70.5	3247	56,600 PSI	76.6	3471	61,500 PSI
A-2700	44.9	2246	53,900 PSI	49.8	2506	59,800 PSI	A-2700	67.6	3182	59,100 PSI	73.5	3478	64,300 PSI
Big Game	44.4	2284	53,900 PSI	49.4	2500	60,000 PSI	Big Game	66.4	3217	59,100 PSI	72.2	3458	64,300 PSI
A-4064	43.1	2261	53,800 PSI	47.9	2494	59,800 PSI	A-4064	61.7	3139	58,900 PSI	67.8	3441	64,700 PSI
Bullet: 208 GR. HDY ELD-M Dia: .308"							Bullet: 150 GR. HDY BTSP Dia: .308"						
Case: WIN Primer: WIN LR Col: 3.285"							Case: WIN Primer: WIN LR Magnum Col: 2.800"						
Grand	57.5	2389	47,400 PSI	62.0C	2555	55,600 PSI	Magpro	71.7	2925	55,500 PSI	79.8	3285	61,800 PSI
H1000	55.4	2405	48,100 PSI	60.5C	2611	58,600 PSI	A-4350	63.5	2950	57,000 PSI	70.8	3285	63,500 PSI
IMR 7828	52.2	2239	43,600 PSI	57.0C	2442	53,100 PSI	A-2700	61.0	2900	56,100 PSI	68.0	3220	62,500 PSI
H4831	52.1	2301	47,100 PSI	58.0C	2511	58,700 PSI	Bullet: 150 GR. HDY SST Dia: .308"						
IMR 4831	49.9	2291	46,100 PSI	54.9C	2538	59,500 PSI	Case: WIN Primer: WIN LR Magnum Col: 2.840"						
StaBALL 6.5	49.8	2428	47,700 PSI	54.2	2660	59,100 PSI	Hunter	65.8	3026	58,200 PSI	71.5	3236	63,200 PSI
IMR 4350	47.9	2259	45,000 PSI	52.7C	2503	58,600 PSI	Big Game	61.2	2949	55,100 PSI	68.0	3272	61,300 PSI
H4350	47.6	2303	47,600 PSI	52.4	2499	59,600 PSI	Bullet: 150 GR. NOS E-TIP Dia: .308"						
Hybrid 100V	47.3	2292	45,100 PSI	52.0C	2519	58,300 PSI	Case: WIN Primer: WIN LR Magnum Col: 2.820"						
W760	46.1	2307	49,300 PSI	49.6	2467	58,300 PSI	Hunter	64.5	2992	57,800 PSI	71.7	3254	64,200 PSI
H380	45.5	2231	45,600 PSI	49.5	2427	57,300 PSI	A-4350	60.8	2827	50,000 PSI	67.6	3075	55,600 PSI
StaBALL Match	43.8	2268	47,800 PSI	47.8	2464	59,800 PSI	A-2700	60.0	2927	58,200 PSI	66.7	3211	64,600 PSI
IMR 4064	42.5	2250	47,400 PSI	45.5	2404	57,000 PSI	Big Game	59.9	2932	58,200 PSI	66.5	3206	64,600 PSI
Varget	40.9	2226	47,900 PSI	45.0	2415	59,200 PSI	A-4064	54.0	2864	57,900 PSI	60.0	3124	64,400 PSI
H4895	38.9	2203	48,700 PSI	43.2	2362	57,400 PSI	Bullet: 150 GR. SPR GS-SP Dia: .308"						
Bullet: 210 GR. BER VLD-H Dia: .308"							Case: WIN Primer: WIN LR Magnum Col: 2.780"						
Case: REM Primer: WIN LR Col: 3.340"							Suprform	67.0	3129	50,000 PSI	74.0	3410	63,500 PSI
Hunter	49.5	2384	53,200 PSI	55.0	2594	59,100 PSI	StaBALL 6.5	66.5	3060	49,800 PSI	72.5	3357	64,000 PSI
A-4350	48.2	2324	53,300 PSI	53.6	2541	59,300 PSI	IMR 4350	64.0	3006	50,200 PSI	68.0	3221	62,100 PSI
A-2700	44.5	2293	53,400 PSI	49.5	2496	59,400 PSI	Hybrid 100V	63.0	2948	49,400 PSI	67.0C	3127	57,700 PSI
Big Game	44.3	2292	53,700 PSI	49.3	2491	59,600 PSI	H4350	63.0	3040	55,700 PSI	67.0	3187	63,200 PSI
A-4064	41.7	2259	53,600 PSI	46.4	2458	59,600 PSI	W760	62.0	3025	53,400 PSI	66.0	3204	63,300 PSI
Bullet: 220 GR. HDY JRN Dia: .308"							H380	60.0	2987	54,900 PSI	64.0	3141	63,600 PSI
Case: WIN Primer: WIN LR Col: 3.230"							IMR 4064	57.0	3012	52,100 PSI	61.0	3198	63,300 PSI
H1000	58.0	2293	36,500 CUP	61.0C	2412	43,600 CUP	IMR 4895	56.0	2980	50,800 PSI	60.5	3176	62,300 PSI
Grand	55.5	2278	45,500 PSI	60.0C	2492	59,900 PSI	Varget	55.0	3008	56,800 PSI	58.5	3140	63,800 PSI
H4831	54.0	2342	43,300 CUP	57.5C	2458	48,600 CUP	IMR 8208 XBR	52.6	2992	55,800 PSI	56.0	3115	62,300 PSI
IMR 7828	53.0	2288	48,600 PSI	58.0	2476	59,700 PSI	H4895	51.0	2919	53,400 PSI	54.5	3078	63,100 PSI
IMR 4831	50.0	2275	47,300 PSI	54.0	2438	57,200 PSI	Trail Boss	16.3	1473	26,400 PSI	23.3	1758	31,600 PSI
H4350	50.0	2318	43,400 CUP	53.0	2435	49,200 CUP	Bullet: 155 GR. BER VLD-H Dia: .308"						
StaBALL 6.5	49.5	2331	48,300 PSI	54.0	2523	59,500 PSI	Case: WIN Primer: WIN LR Magnum Col: 2.860"						
IMR 4350	49.0	2287	49,500 PSI	52.5	2425	57,300 PSI	Hunter	66.5	3032	58,300 PSI	73.9	3298	64,800 PSI
Hybrid 100V	47.0	2258	48,100 PSI	52.0C	2448	58,600 PSI	A-2700	64.8	2987	59,100 PSI	70.5	3255	64,200 PSI
W760	47.0	2215	39,000 CUP	52.0	2408	49,500 CUP	Big Game	63.7	3011	59,600 PSI	69.2	3241	64,800 PSI
IMR 4064	43.0	2241	52,200 PSI	45.5	2325	56,700 PSI	A-4064	59.1	2947	59,700 PSI	64.3	3197	64,900 PSI
Varget	42.0	2279	44,000 CUP	45.0	2382	49,400 CUP							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads											
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure							
Bullet: 165 GR. HDY GMX						Dia: .308"														
Case: WIN		Primer: WIN LR Magnum				Col: 2.840"														
Hunter	63.3	2862	57,300 PSI	70.3	3090	63,700 PSI	H4350	60.0	2799	55,700 PSI	64.0	2950	63,900 PSI							
Suprform	64.0	2952	51,600 PSI	69.0C	3169	62,700 PSI	W760	59.0	2801	54,100 PSI	62.5	2959	63,000 PSI							
Hybrid 100V	58.0	2867	51,600 PSI	63.0C	3099	63,300 PSI	H380	57.0	2718	53,700 PSI	61.0	2884	63,400 PSI							
H4350	58.0	2821	52,400 PSI	62.0C	2986	61,300 PSI	Bullet: 190 GR. BER VLD							Dia: .308"						
StaBALL 6.5	62.0	2871	48,500 PSI	67.4	3135	63,300 PSI	Case: WIN		Primer: WIN LR Magnum				Col: 2.860"							
A-4350	60.0	2753	54,500 PSI	66.7	3005	60,500 PSI	Hunter	61.8	2750	59,100 PSI	67.9	2953	64,900 PSI							
Big Game	58.2	2814	58,500 PSI	64.7	3040	64,900 PSI	A-2700	60.7	2704	59,400 PSI	66.0	2913	64,500 PSI							
A-2700	58.9	2855	60,400 PSI	63.3	3046	64,900 PSI	Big Game	58.3	2692	59,800 PSI	63.4	2874	65,000 PSI							
W760	58.0	2860	53,400 PSI	62.5	3043	62,900 PSI	A-4064	55.6	2672	59,800 PSI	60.5	2875	65,000 PSI							
H380	57.0	2800	52,500 PSI	61.8	2993	62,300 PSI	Bullet: 190 GR. SIE HPBT							Dia: .308"						
A-4064	52.4	2750	59,700 PSI	57.0	2942	64,900 PSI	Case: WIN		Primer: WIN LR Magnum				Col: 2.860"							
Varget	51.0	2810	56,700 PSI	54.5	2948	63,600 PSI	IMR 7828	64.0	2703	52,100 PSI	69.0C*	2891	63,300 PSI							
IMR 8208 XBR	48.0	2743	55,600 PSI	52.0	2887	63,300 PSI	H4831	62.0	2704	53,800 PSI	66.5C	2858	63,400 PSI							
H4895	47.0	2700	51,900 PSI	51.0	2887	63,300 PSI	StaBALL 6.5	59.8	2643	45,500 PSI	66.3	2963	62,700 PSI							
Bullet: 165 GR. NOS PART						Dia: .308"		Hybrid 100V						60.0		2790	52,000 PSI	64.5C	2951	61,000 PSI
Case: WIN		Primer: WIN LR Magnum				Col: 2.860"		IMR 4831						60.0		2679	49,300 PSI	64.0C	2867	61,700 PSI
Suprform	65.0	2987	47,800 PSI	72.0	3273	63,500 PSI	IMR 4350						60.0		2755	53,200 PSI	64.0C	2920	63,700 PSI	
StaBALL 6.5	65.0	2940	49,400 PSI	70.2	3187	62,300 PSI	Hunter						57.6		2662	58,200 PSI	64.0	2955	64,700 PSI	
Hunter	62.1	2810	57,500 PSI	69.0	3122	63,900 PSI	W760						59.0		2765	55,600 PSI	62.5	2896	63,800 PSI	
Hybrid 100V	62.0	2957	51,600 PSI	68.0C	3175	63,100 PSI	H4350						57.5		2736	56,200 PSI	61.0	2853	63,400 PSI	
H4350	61.0	2898	54,800 PSI	65.5	3047	63,600 PSI	Bullet: 200 GR. BAR LRX BT							Dia: .308"						
W760	61.0	2915	54,200 PSI	65.0	3069	63,200 PSI	Case: WIN		Primer: WIN LR Magnum				Col: 2.860"							
H380	59.0	2854	55,100 PSI	63.0	3012	63,600 PSI	Hunter	59.7	2622	59,000 PSI	65.6	2827	64,900 PSI							
Varget	54.0	2859	56,400 PSI	57.5	2987	63,700 PSI	A-2700	57.2	2569	58,900 PSI	62.9	2795	64,700 PSI							
IMR 8208 XBR	51.1	2849	55,600 PSI	54.4	2963	61,700 PSI	Big Game	55.5	2569	58,500 PSI	61.638653A-2460114			2766						
H4895	51.0	2810	55,700 PSI	54.0	2929	63,200 PSI	65,000 PSI													
Bullet: 168 GR. SIE HPBT						Dia: .308"		A-4064						51.2		2454	58,400 PSI	56.9	2691	64,900 PSI
Case: WIN		Primer: WIN LR Magnum				Col: 2.840"		Bullet: 200 GR. NOS PART							Dia: .308"					
H4831	65.0	2848	53,400 PSI	69.5C	3015	63,200 PSI	Case: WIN		Primer: WIN LR Magnum				Col: 2.850"							
StaBALL 6.5	64.0	2929	49,900 PSI	69.3	3170	63,400 PSI	A-4350	56.7	2540	54,700 PSI	63.0	2822	60,800 PSI							
Hybrid 100V	62.0	2921	49,800 PSI	67.7C	3144	61,100 PSI	Big Game	57.3	2654	57,800 PSI	62.3	2796	62,800 PSI							
Big Game	59.6	2819	56,600 PSI	65.5	3101	62,200 PSI	A-2700	55.8	2514	54,500 PSI	62.0	2793	60,600 PSI							
W760	61.0	2919	54,600 PSI	65.0	3074	63,200 PSI	Bullet: 200 GR. SFT A-FRAME							Dia: .308"						
H4350	61.0	2908	56,000 PSI	64.5	3034	63,700 PSI	Case: WIN		Primer: WIN LR Magnum				Col: 2.790"							
H380	59.0	2865	56,000 PSI	62.0	2985	63,300 PSI	H1000	70.0	2660	51,600 PSI	72.0C	2737	57,200 PSI							
IMR 8208 XBR	51.5	2853	56,400 PSI	54.8	2970	63,400 PSI	IMR 7828	63.0	2580	50,000 PSI	67.5C*	2793	63,100 PSI							
Bullet: 175 GR. SIE HPBT						Dia: .308"		H4831						63.0		2678	56,000 PSI	66.5C	2802	63,700 PSI
Case: WIN		Primer: WIN LR Magnum				Col: 2.860"		StaBALL 6.5						58.7		2523	45,800 PSI	65.2	2847	61,700 PSI
H4831	66.0	2848	55,300 PSI	70.0C	2980	63,100 PSI	IMR 4831						59.0		2565	49,200 PSI	63.7C	2780	62,200 PSI	
StaBALL 6.5	63.0	2802	46,300 PSI	68.3	3097	62,700 PSI	IMR 4350						59.0		2643	52,900 PSI	63.5C	2827	63,700 PSI	
Hunter	60.3	2775	57,900 PSI	67.0	3075	64,400 PSI	H4350						58.0		2666	55,000 PSI	62.0	2792	63,200 PSI	
Hybrid 100V	61.0	2878	51,000 PSI	66.5C	3085	61,700 PSI	W760						58.0		2678	55,700 PSI	61.0	2803	63,200 PSI	
H4350	61.0	2839	53,300 PSI	65.0	3009	63,400 PSI	Bullet: 208 GR. HDY ELD-M							Dia: .308"						
W760	61.0	2868	53,900 PSI	65.0	3032	63,200 PSI	Case: WIN		Primer: WIN LR Magnum				Col: 2.900"							
H380	60.0	2859	57,600 PSI	63.0	2954	63,200 PSI	H1000	62.0	2420	42,900 PSI	69.0C	2670	55,900 PSI							
Bullet: 180 GR. SIE SBT						Dia: .308"		IMR 7828						62.0		2556	48,000 PSI	66.8C	2761	58,400 PSI
Case: WIN		Primer: WIN LR Magnum				Col: 2.800"		H4831						61.8		2624	54,800 PSI	66.5C	2761	62,500 PSI
Magpro	68.3	2733	53,900 PSI	76.0	3028	60,000 PSI	StaBALL 6.5						58.0		2506	45,400 PSI	64.5	2818	62,700 PSI	
A-4350	60.3	2722	55,200 PSI	67.0	3024	61,300 PSI	IMR 4831						59.0		2594	51,500 PSI	63.5C	2785	62,600 PSI	
A-2700	58.5	2683	55,000 PSI	65.0	2981	61,100 PSI	IMR 4350						57.7		2593	52,000 PSI	62.0C	2773	62,900 PSI	
Big Game	58.5	2720	58,300 PSI	63.6	2930	63,300 PSI	H4350						56.4		2612	55,400 PSI	60.7	2748	62,800 PSI	
Bullet: 180 GR. NOS E-TIP						Dia: .308"		W760						55.6		2567	52,500 PSI	59.8	2732	62,100 PSI
Case: WIN		Primer: WIN LR Magnum				Col: 2.860"		Bullet: 210 GR. BER VLD-H							Dia: .308"					
StaBALL 6.5	60.0	2681	46,200 PSI	66.5	3019	63,300 PSI	Case: WIN		Primer: WIN LR Magnum				Col: 2.860"							
IMR 4350	60.0	2748	52,600 PSI	64.0C	2963	62,400 PSI	Hunter	59.5	2610	59,100 PSI	65.4	2787	65,000 PSI							
H4350	59.0	2751	54,900 PSI	63.7C	2925	63,800 PSI	A-4064	52.3	2496	59,000 PSI	57.5	2694	64,800PSI							
H380	57.0	2648	51,700 PSI	61.5	2809	59,700 PSI	Bullet: 210 GR. NOS ABLR							Dia: .308"						
Case: WIN		Primer: WIN LR Magnum				Col: 2.860"		Case: WIN		Primer: WIN LR Magnum				Col: 2.860"						
H4831	65.5	2775	52,000 PSI	70.0C	2929	64,000 PSI	H1000	64.0	2513	46,300 PSI	68.0C	2668	54,100 PSI							
IMR 7828	65.0	2783	54,400 PSI	69.5C*	2943	62,600 PSI	H4831	58.3	2486	48,200 PSI	66.3C	2774	63,100 PSI							
StaBALL 6.5	61.5	2720	46,200 PSI	68.0	3019	61,600 PSI	IMR 7828 SSC	58.6	2467	47,800 PSI	65.9C	2763	63,200 PSI							
IMR 4831	62.0	2797	52,700 PSI	66.3C	2980	62,900 PSI	StaBALL 6.5	57.0	2482	45,000 PSI	63.5	2792	62,200 PSI							
IMR 4350	61.0	2808	52,800 PSI	65.0C	2991	63,700 PSI	Hybrid 100V	53.0	2434	44,100 PSI	61.7C	2805	63,100 PSI							
Hybrid 100V	59.0	2728	50,200 PSI	64.0C	2918	59,800 PSI	H4350	51.0	2360	42,900 PSI	60.5	2734	61,700 PSI							

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads				Maximum Loads			Starting Loads				Maximum Loads														
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure												
Bullet: 220 GR. NOS PART						Dia: .308"																			
Case: WIN		Primer: WIN LR Magnum				Col: 2.815"																			
Magpro	67.6	2481	54,500 PSI	73.4	2702	59,300 PSI	IMR 7828	75.0	2943	47,500 PSI	80.0C	3188	58,100 PSI												
A-4350	59.3	2442	53,800 PSI	65.2	2624	59,200 PSI	H4831	74.0	2964	43,600 CUP	79.0C	3166	51,500 CUP												
Hunter	58.5	2492	59,100 PSI	64.3	2672	65,000 PSI	IMR 4831	71.0	2963	48,100 PSI	76.5C	3226	61,600 PSI												
A-5744	33.0	2038	47,400 PSI	42.8	2467	61,500 PSI	IMR 4350	70.0	3064	51,600 PSI	74.5	3273	63,300 PSI												
Bullet: 220 GR. HDY ELD-X						Dia: .308"																			
Case: WIN		Primer: WIN LR Magnum				Col: 2.860"																			
H1000	60.8	2406	46,200 PSI	67.5C	2655	60,300 PSI	H4350	69.0	3013	45,100 CUP	74.0	3215	52,400 CUP												
H4831	56.5	2417	49,300 PSI	63.5C	2653	61,200 PSI	Hybrid 100V	68.0	3049	51,900 PSI	74.0	3274	63,200 PSI												
StaBALL 6.5	55.3	2431	50,100 PSI	61.5	2672	63,100 PSI	W760	67.0	2986	44,500 CUP	71.5	3157	51,300 CUP												
Hybrid 100V	53.8	2456	50,600 PSI	59.8C	2687	63,400 PSI	IMR 4895	61.0	3002	50,900 PSI	65.5	3210	63,100 PSI												
H4350	52.2	2445	53,500 PSI	58.7	2634	63,800 PSI	H380	61.0	2869	44,300 CUP	65.0	3025	51,900 CUP												
Bullet: 220 GR. HDY RN						Dia: .308"																			
Case: WIN		Primer: WIN LR Magnum				Col: 2.830"																			
H1000	69.0	2597	57,200 PSI	72.5C	2689	63,000 PSI	IMR 4064	61.0	3014	52,000 PSI	65.0	3195	61,900 PSI												
H4831	60.0	2520	55,600 PSI	64.3C	2646	63,500 PSI	IMR 8208 XBR	58.0	2997	55,000 PSI	61.5	3117	60,700 PSI												
Hybrid 100V	57.0	2522	49,300 PSI	62.0C	2711	61,400 PSI	Varget	55.0	2897	42,400 CUP	59.7	3090	52,000 CUP												
W760	55.0	2484	54,000 PSI	59.0	2624	63,600 PSI	H4895	55.0	2919	43,700 CUP	59.0	3078	52,200 CUP												
H4350	54.0	2476	54,100 PSI	58.0	2602	63,300 PSI	Bullet: 165 GR. NOS AB							Dia: .308"											
Case: WIN		Primer: WIN LR Magnum				Col: 3.340"																			
Magnum	78.2	2860	56,400 PSI	86.8	3195	62,600 PSI	Case: WIN							Primer: FED 215, LR Magnum		Col: 3.340"									
Magpro	77.5	2936	56,700 PSI	86.1	3222	63,000 PSI	Magnum							78.2		2860		56,400 PSI		86.8		3195		62,600 PSI	
Hunter	69.9	2987	57,600 PSI	77.6	3262	63,900 PSI	Magpro							77.5		2936		56,700 PSI		86.1		3222		63,000 PSI	
A-4350	66.2	2830	56,900 PSI	73.6	3197	63,300 PSI	Hunter							69.9		2987		57,600 PSI		77.6		3262		63,900 PSI	
A-2700	62.1	2873	57,200 PSI	69.0	3140	63,600 PSI	A-4350							66.2		2830		56,900 PSI		73.6		3197		63,300 PSI	
							A-2700							62.1		2873		57,200 PSI		69.0		3140		63,600 PSI	
Bullet: 165 GR. SPR SP							Dia: .308"																		
Case: WIN		Primer: WIN LR Magnum				Col: 3.340"																			
Grand	75.7	2877	45,000 PSI	82.3C	3217	63,900 PSI	Grand							75.7		2877		45,000 PSI		82.3C		3217		63,900 PSI	
H1000	79.0	2957	44,600 CUP	84.0	3117	51,300 CUP	H1000							79.0		2957		44,600 CUP		84.0		3117		51,300 CUP	
IMR 7828	74.0	2884	49,500 PSI	79.5C	3127	60,600 PSI	IMR 7828							74.0		2884		49,500 PSI		79.5C		3127		60,600 PSI	
H4831	72.0	2934	47,600 CUP	75.5	3055	52,200 CUP	H4831							72.0		2934		47,600 CUP		75.5		3055		52,200 CUP	
IMR 4831	70.0	2878	49,800 PSI	75.2C	3142	62,900 PSI	IMR 4831							70.0		2878		49,800 PSI		75.2C		3142		62,900 PSI	
IMR 4350	68.0	2875	50,000 PSI	73.3	3142	63,100 PSI	IMR 4350							68.0		2875		50,000 PSI		73.3		3142		63,100 PSI	
Hybrid 100V	66.0	2905	50,700 PSI	72.0	3144	62,500 PSI	Hybrid 100V							66.0		2905		50,700 PSI		72.0		3144		62,500 PSI	
H4350	66.0	2910	46,900 CUP	70.0	3042	51,900 CUP	H4350							66.0		2910		46,900 CUP		70.0		3042		51,900 CUP	
W760	61.0	2853	48,500 CUP	65.0	2968	52,900 CUP	W760							61.0		2853		48,500 CUP		65.0		2968		52,900 CUP	
H380	59.0	2754	44,500 CUP	63.0	2909	52,400 CUP	H380							59.0		2754		44,500 CUP		63.0		2909		52,400 CUP	
H4895	55.0	2839	46,700 CUP	59.0	2977	52,500 CUP	H4895							55.0		2839		46,700 CUP		59.0		2977		52,500 CUP	
Varget	54.0	2799	43,900 CUP	58.5	2975	52,900 CUP	Varget							54.0		2799		43,900 CUP		58.5		2975		52,900 CUP	
Bullet: 168 GR. NOS E-TIP							Dia: .308"																		
Case: WIN		Primer: FED 215, LR Magnum				Col: 3.340"																			
Magnum	77.0	2864	54,900 PSI	85.5	3139	61,000 PSI	Magnum							77.0		2864		54,900 PSI		85.5		3139		61,000 PSI	
Magpro	75.9	2911	54,100 PSI	84.4	3149	60,200 PSI	Magpro							75.9		2911		54,100 PSI		84.4		3149		60,200 PSI	
Hunter	66.1	2854	57,200 PSI	73.4	3136	63,500 PSI	Hunter							66.1		2854		57,200 PSI		73.4		3136		63,500 PSI	
A-4350	64.1	2850	56,700 PSI	71.3	3084	63,100 PSI	A-4350							64.1		2850		56,700 PSI		71.3		3084		63,100 PSI	
A-2700	58.8	2807	56,900 PSI	65.4	3009	63,300 PSI	A-2700							58.8		2807		56,900 PSI		65.4		3009		63,300 PSI	
Bullet: 168 GR. SIE HPBT							Dia: .308"																		
Case: WIN		Primer: FED 215, LR Magnum				Col: 3.340"																			
Magnum	79.0	2882	57,300 PSI	87.8	3180	63,700 PSI	Magnum							79.0		2882		57,300 PSI		87.8		3180		63,700 PSI	
Magpro	75.2	2842	57,500 PSI	83.6	3146	63,900 PSI	Magpro							75.2		2842		57,500 PSI		83.6		3146		63,900 PSI	
A-4350	67.4	2788	56,700 PSI	74.8	3137	62,900 PSI	A-4350							67.4		2788		56,700 PSI		74.8		3137		62,900 PSI	
Hunter	64.7	2874	57,400 PSI	71.9	3136	63,800 PSI	Hunter							64.7		2874		57,400 PSI		71.9		3136		63,800 PSI	
A-2700	62.2	2790	56,800 PSI	69.1	3067	63,100 PSI	A-2700							62.2		2790		56,800 PSI		69.1		3067		63,100 PSI	
Bullet: 175 GR. SIE HPBT							Dia: .308"																		
Case: WIN		Primer: FED 215, LR Magnum				Col: 3.340"																			
Magnum	78.6	2861	57,600 PSI	87.3	3170	63,900 PSI	Magnum							78.6		2861		57,600 PSI		87.3		3170		63,900 PSI	
Magpro	74.3	2809	57,100 PSI	82.5	3126	63,400 PSI	Magpro							74.3		2809		57,100 PSI		82.5		3126		63,400 PSI	
A-4350	66.7	2765	57,200 PSI	74.1	3113	63,500 PSI	A-4350							66.7		2765		57,200 PSI		74.1		3113		63,500 PSI	
Hunter	64.3	2831	56,800 PSI	71.5	3083	63,200 PSI	Hunter							64.3		2831		56,800 PSI		71.5		3083		63,200 PSI	
A-2700	61.2	2740	57,300 PSI	68.0	3022	63,700 PSI	A-2700							61.2		2740		57,300 PSI		68.0		3022		63,700 PSI	
Case: WIN		Primer: WIN LR Magnum				Col: 3.340"																			
H1000	77.0	2820	43,100 CUP	82.0C	3008	51,800 CUP	H1000							77.0		2820		43,100 CUP		82.0C		3008		51,800 CUP	
Grand	74.5	2839	47,300 PSI	81.0C	3136	63,900 PSI	Grand							74.5		2839		47,300 PSI		81.0C		3136		63,900 PSI	
IMR 7828 SSC	71.1	2703	42,700 PSI	79.0C	3051	58,900 PSI	IMR 7828 SSC							71.1		2703		42,700 PSI		79.0C		3051		58,900 PSI	
H4831	72.0	2843	46,600 CUP	76.5	3006	53,100 CUP	H4831							72.0		2843		46,600 CUP		76.5		3006		53,100 CUP	
IMR 4831	69.5	2889	49,600 PSI	75.5C	3150	63,200 PSI	IMR 4831							69.5		2889		49,600 PSI		75.5C		3150		63,200 PSI	
IMR 4350	68.3	2910	51,900 PSI	72.7	3106	63,000 PSI	IMR 4350							68.3		2910		51,900 PSI		72.7		3106		63,000 PSI	
H4350	66.0	2832	45,800 CUP	71.0	2992	52,700 CUP	H4350							66.0		2832		45,800 CUP		71.0		2992		52,700 CUP	
Hybrid 100V	65.0	2837	49,900 PSI	70.5	3068	62,300 PSI	Hybrid 100V							65.0		2837		49,900 PSI		70.5		3068		62,300 PSI	
W760	63.0	2830	48,200 CUP	67.5	2972	53,300 CUP	W760							63.0		2830		48,200 CUP		67.5		2972		53,300 CUP	

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 180 GR. NOS E-TIP Dia: .308"							IMR 4350 65.0 2700 53,900 PSI 69.5 2860 62,600 PSI						
Case: WIN Primer: FED 215, LR Magnum Col: 3.340"							H4350 63.0 2646 47,800 CUP 66.0 2753 51,700 CUP						
Magnum	75.4	2712	55,200 PSI	83.8	3025	61,300 PSI	Hybrid 100V	61.0	2636	49,400 PSI	66.0	2820	59,400 PSI
Magpro	74.6	2803	55,700 PSI	82.8	3046	61,800 PSI	Bullet: 208 GR. HDY ELD-M Dia: .308"						
Hunter	64.1	2791	57,100 PSI	71.2	2998	63,500 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.420"						
Case: WIN Primer: WIN LR Magnum Col: 3.340"							StaBALL HD	73.3	2621	48,400 PSI	81.1C	2866	62,600 PSI
Grand	73.5	2860	51,500 PSI	79.8C	3097	63,600 PSI	Retumbo	74.5	2717	50,300 PSI	81.0C	2915	61,300 PSI
H1000	74.6	2821	53,300 PSI	79.4C	2984	62,400 PSI	Grand	71.0	2621	47,400 PSI	77.5C	2891	62,900 PSI
IMR 7828	68.4	2811	52,700 PSI	73.5C	2995	61,600 PSI	H1000	71.7	2650	47,800 PSI	78.0C	2869	60,200 PSI
H4831	66.8	2770	53,300 PSI	71.8C	2938	61,900 PSI	IMR 7828	68.0	2635	47,400 PSI	74.0C	2899	62,000 PSI
IMR 4831	67.3	2817	54,500 PSI	70.2C	2916	59,700 PSI	H4831	66.5	2671	53,200 PSI	72.3	2838	62,000 PSI
IMR 4350	64.7	2797	53,200 PSI	68.1	2932	60,500 PSI	IMR 4831	63.7	2613	48,600 PSI	69.2	2832	60,500 PSI
H4350	62.1	2730	52,300 PSI	66.8	2916	62,600 PSI	Hybrid 100V	61.4	2620	50,100 PSI	66.7	2831	62,400 PSI
Hybrid 100V	58.9	2679	47,700 PSI	66.0	2941	60,800 PSI	H4350	60.4	2655	53,600 PSI	65.7	2813	62,000 PSI
W760	60.0	2760	56,000 PSI	62.8	2849	60,600 PSI	Bullet: 210 GR. BER VLD Dia: .308"						
Bullet: 180 GR. SIE SBT Dia: .308"							Case: WIN Primer: FED 215, LR Magnum Col: 3.340"						
Case: WIN Primer: FED 215, LR Magnum Col: 3.340"							Magnum	74.7	2646	56,100 PSI	83.0	2951	62,300 PSI
Magnum	77.8	2863	57,400 PSI	86.5	3193	63,800 PSI	Magpro	74.0	2702	55,600 PSI	82.2	2957	61,800 PSI
Magpro	72.5	2801	54,800 PSI	84.4	3154	63,800 PSI	Hunter	62.7	2607	57,500 PSI	69.7	2828	63,900 PSI
A-4350	66.7	2758	57,300 PSI	74.2	3086	63,800 PSI	Bullet: 220 GR. SIE HPBT Dia: .308"						
Hunter	65.0	2839	57,500 PSI	72.2	3076	63,900 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.340"						
Bullet: 180 GR. SPR MT-SP Dia: .308"							Retumbo	73.0	2620	49,000 PSI	80.0C	2870	62,800 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.285"							StaBALL HD	71.0	2547	47,800 PSI	78.4C	2807	62,500 PSI
US 869	86.0	2824	52,500 PSI	88.0	2892	56,800 PSI	Grand	70.0	2568	49,300 PSI	75.7	2790	62,100 PSI
Grand	74.0	2909	54,200 PSI	79.3	3088	63,900 PSI	H1000	70.2	2614	49,500 PSI	77.7C	2876	63,200 PSI
H1000	76.0	2883	46,800 CUP	81.0C	3042	52,900 CUP	H4831	65.7	2616	52,200 PSI	72.2	2821	63,000 PSI
IMR 7828	73.0	2770	49,700 PSI	78.5C	3034	62,000 PSI	IMR 4831	63.6	2576	63,200 PSI	70.2	2806	63,200 PSI
IMR 4831	69.0	2766	50,100 PSI	74.0C	3025	63,200 PSI	Hybrid 100V	60.2	2572	51,100 PSI	66.3	2785	62,900 PSI
H4831	69.0	2851	48,500 CUP	73.0C	2966	53,200 CUP	Bullet: 230 GR. BER TACT Dia: .308"						
IMR 4350	66.0	2746	50,100 PSI	71.0	2974	61,200 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.395"						
Hybrid 100V	62.0	2775	50,200 PSI	67.7	2998	62,400 PSI	US 869	77.7	2423	41,700 PSI	83.5C	2610	50,200 PSI
H4350	63.0	2787	46,400 CUP	67.0	2918	53,100 CUP	StaBALL HD	71.2	2504	48,900 PSI	78.2C	2739	62,900 PSI
W760	58.0	2722	48,200 CUP	62.0	2845	52,300 CUP	Retumbo	71.6	2520	44,700 PSI	77.0C	2714	55,200 PSI
Bullet: 185 GR. BER VLD Dia: .308"							Grand	69.0	2487	47,300 PSI	76.8C	2755	62,100 PSI
Case: WIN Primer: FED 215, LR Magnum Col: 3.340"							H1000	69.1	2471	44,200 PSI	76.0C	2721	58,200 PSI
Magnum	76.3	2761	55,400 PSI	84.7	3092	61,500 PSI	IMR 7828	66.7	2507	46,200 PSI	72.6C	2774	61,300 PSI
Magpro	75.6	2833	57,500 PSI	84.0	3114	63,900 PSI	H4831	64.1	2527	50,800 PSI	70.3	2710	61,200 PSI
Hunter	66.2	2837	57,300 PSI	73.6	3054	63,700 PSI	IMR 4831	62.9	2553	51,500 PSI	68.7	2739	61,600 PSI
Bullet: 190 GR. HDY BTSP Dia: .308"							Hybrid 100V	59.5	2506	51,800 PSI	64.3	2690	62,600 PSI
Case: WIN Primer: FED 215, LR Magnum Col: 3.340"							Bullet: 240 GR. SIE HPBT Dia: .308"						
Magnum	77.4	2817	57,100 PSI	86.0	3117	63,500 PSI	Case: WIN Primer: FED 215, LR Magnum Col: 3.470"						
Magpro	76.0	2846	56,600 PSI	84.4	3083	62,800 PSI	Magnum	68.8	2448	57,500 PSI	76.4	2709	63,800 PSI
Hunter	63.6	2728	57,100 PSI	70.6	2955	63,400 PSI	Magpro	68.3	2506	57,400 PSI	75.9	2728	63,800 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.340"							Hunter	56.7	2354	57,200 PSI	62.9	2535	63,400 PSI
StaBALL HD	74.0	2693	47,100 PSI	81.5C	2946	60,200 PSI	300 PRC						
Grand	73.0	2800	50,500 PSI	79.5C	3040	64,000 PSI	Barrel: 24" Twist: 1:8.5" Trim: 2.565"						
H1000	76.0	2822	44,900 CUP	81.0C	2990	52,800 CUP	Bullet: 115 GR. LGH CC Dia: .308"						
IMR 7828	71.0	2676	46,700 PSI	76.5C	2975	61,000 PSI	Case: Hornady Primer: FED 215M, LR Mag Match Col: 3.315"						
H4831	69.0	2795	48,400 CUP	73.0C	2923	53,600 CUP	A-4350	79.3	3396	58,200 PSI	88.1	3826	64,700 PSI
IMR 4831	68.0	2741	51,000 PSI	72.5	2951	61,200 PSI	Hunter	74.9	3447	57,400 PSI	83.2	3752	63,800 PSI
IMR 4350	65.0	2739	49,900 PSI	69.7	2959	61,500 PSI	A-5744	49.5	3229	52,100 PSI	59.6	3722	62,800 PSI
Hybrid 100V	63.5	2811	56,200 PSI	67.5	2933	62,800 PSI	Bullet: 150 GR. SFT SCIR Dia: .308"						
H4350	63.0	2735	46,600 CUP	67.0	2863	53,400 CUP	Case: Hornady Primer: WIN LR Magnum Col: 3.515"						
Bullet: 200 GR. NOS PART Dia: .308"							StaBALL HD	82.0	3056	49,400 PSI	90.3	3327	62,700 PSI
Case: WIN Primer: FED 215, LR Magnum Col: 3.340"							H1000	81.4	3060	47,000 PSI	89.5C	3354	62,500 PSI
Magnum	76.0	2724	56,900 PSI	84.4	3011	63,200 PSI	Grand	81.0	3209	50,500 PSI	86.7	3446	63,300 PSI
Magpro	75.2	2799	57,300 PSI	83.6	3029	63,700 PSI	H4831	76.8	3064	50,200 PSI	83.0	3306	62,900 PSI
Hunter	63.8	2649	57,100 PSI	70.9	2871	63,500 PSI	IMR 7828 SSC	74.5	3016	47,800 PSI	81.4	3304	62,400 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.340"							Bullet: 168 GR. HDY ELD-M Dia: .308"						
US 869	83.0	2657	49,200 PSI	85.0	2712	51,800 PSI	Case: Hornady Primer: FED 215M, LR Mag Match Col: 3.390"						
Retumbo	79.0	2798	45,700 CUP	84.0C	2962	52,300 CUP	Magnum	80.1	2962	57,500 PSI	89.0	3277	63,900 PSI
StaBALL HD	73.5	2637	47,700 PSI	81.7C	2895	61,000 PSI	Magpro	75.9	2893	57,900 PSI	84.4	3206	64,300 PSI
Grand	71.0	2707	50,600 PSI	78.0C	2944	63,400 PSI	Hunter	64.3	2862	57,500 PSI	71.4	3113	63,900 PSI
H1000	74.0	2725	45,500 CUP	79.0C	2883	52,800 CUP	A-5744	45.6	2761	54,300 PSI	52.5	3046	62,600 PSI
IMR 7828	71.0	2645	48,200 PSI	76.0C	2851	58,400 PSI							
IMR 4831	69.0	2694	51,900 PSI	72.5C	2859	60,900 PSI							
H4831	67.0	2686	47,000 CUP	72.0C	2825	53,100 CUP							

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
Bullet: 168 GR. SIE TMK Dia: .308"							Bullet: 220 GR. HDY ELD-X Dia: .308"						
Case: Hornady Primer: WIN LR Magnum Col: 3.500"							Case: Hornady Primer: WIN LR Magnum Col: 3.575"						
StaBALL HD	81.5	2962	48,200 PSI	88.8	3232	62,900 PSI	StaBALL HD	73.0	2615	49,200 PSI	80.2	2849	63,100 PSI
Retumbo	81.2	2949	46,800 PSI	87.8C	3223	63,000 PSI	H1000	72.2	2626	50,600 PSI	78.0	2812	62,300 PSI
H1000	80.9	2973	49,100 PSI	87.0C	3205	62,800 PSI	Grand	71.5	2667	50,000 PSI	77.6	2872	62,800 PSI
Grand	81.0	3076	49,900 PSI	86.2	3286	63,100 PSI	Retumbo	70.7	2590	48,100 PSI	76.4	2803	62,800 PSI
IMR 7828 SSC	78.6	3020	53,300 PSI	82.4	3192	62,500 PSI	IMR 7828 SSC	67.6	2602	52,300 PSI	73.0	2778	62,800 PSI
Bullet: 175 GR. BAR LRX BT Dia: .308"							Bullet: 230 GR. HDY A-TIP Dia: .308"						
Case: Hornady Primer: WIN LR Magnum Col: 3.425"							Case: Hornady Primer: WIN LR Magnum Col: 3.685"						
StaBALL HD	79.5	2938	50,600 PSI	87.2C	3179	63,200 PSI	US 869	81.0	2515	48,500 PSI	88.1C	2790	63,400 PSI
Grand	79.0	3036	50,100 PSI	86.0C	3267	62,700 PSI	StaBALL HD	72.0	2531	46,500 PSI	79.5	2806	62,800 PSI
H1000	79.2	2927	50,900 PSI	85.5C	3142	62,700 PSI	Grand	74.0	2675	53,000 PSI	79.2	2830	62,700 PSI
Retumbo	78.5	2957	50,600 PSI	83.6C	3156	62,700 PSI	Retumbo	71.4	2518	46,100 PSI	77.6C	2779	63,900 PSI
IMR 7828 SSC	73.4	2839	47,800 PSI	79.4C	3122	62,400 PSI	H1000	71.1	2603	54,900 PSI	77.3	2757	63,300 PSI
H4831	71.5	2863	51,100 PSI	77.3	3054	62,100 PSI	Suprform	61.8	2479	50,000 PSI	66.5	2668	62,800 PSI
Suprform	68.7	2928	53,000 PSI	72.0	3072	61,400 PSI	Bullet: 250 GR. HDY A-TIP Dia: .308"						
Bullet: 180 GR. NOS E-TIP Dia: .308"							Case: Hornady Primer: WIN LR Magnum Col: 3.685"						
Case: Hornady Primer: FED 215, LR Magnum Col: 3.650"							US 869	79.8	2514	50,700 PSI	86.8C	2728	63,300 PSI
LRT	83.9	2904	57,400 PSI	93.3	3190	63,800 PSI	StaBALL HD	70.0	2453	47,800 PSI	77.2	2691	63,000 PSI
Magnum	73.7	2784	57,300 PSI	81.9	3070	63,600 PSI	Grand	70.0	2488	49,500 PSI	76.0	2698	62,900 PSI
Grand	75.0	2927	50,200 PSI	81.7	3148	62,900 PSI	Retumbo	70.3	2474	52,400 PSI	74.8	2641	63,900 PSI
StaBALL HD	73.5	2771	50,200 PSI	81.6	3055	63,400 PSI	H1000	67.4	2451	52,400 PSI	73.5	2616	62,900 PSI
Magpro	71.5	2785	57,400 PSI	79.5	3041	63,800 PSI	IMR 7828 SSC	65.1	2438	52,500 PSI	71.6	2633	63,900 PSI
Case: Hornady Primer: WIN LR Magnum Col: 3.575"							30 NOSLER						
H1000	75.1	2833	51,600 PSI	80.8	3035	62,400 PSI	Barrel: 24" Twist: 1:10" Trim: 2.556"						
Retumbo	73.7	2826	50,200 PSI	79.3	3042	62,600 PSI	Bullet: 130 GR. BARTSX BT Dia: .308"						
IMR 7828 SSC	70.2	2783	51,900 PSI	75.7	2997	62,400 PSI	Case: Nosler Primer: WIN LR Magnum Col: 3.340"						
Bullet: 190 GR. BER VLD Dia: .308"							StaBALL HD	86.0	3186	46,500 PSI	94.5	3473	59,000 PSI
Case: Hornady Primer: FED 215, LR Magnum Col: 3.575"							H1000	84.7	3232	47,300 PSI	94.1C	3559	62,700 PSI
LRT	86.1	2899	56,500 PSI	95.6	3169	62,700 PSI	Retumbo	83.7	3246	48,400 PSI	93.0C	3565	63,500 PSI
Magnum	75.8	2807	57,300 PSI	84.2	3076	63,700 PSI	Grand	83.0	3315	45,000 PSI	91.7	3619	59,700 PSI
Magpro	73.0	2772	57,500 PSI	81.1	3047	63,900 PSI	H4831	78.9	3234	49,300 PSI	87.7	3527	63,500 PSI
Bullet: 190 GR. NOS ABLR Dia: .308"							IMR 7828	79.2	3277	49,900 PSI	87.0	3582	63,200 PSI
Case: Hornady Primer: WIN LR Magnum Col: 3.575"							Bullet: 150 GR. NOS AB Dia: .308"						
StaBALL HD	76.0	2771	47,400 PSI	84.0	3050	62,900 PSI	Case: Nosler Primer: FED 215, LR Magnum Col: 3.340"						
Grand	78.2	2926	50,000 PSI	83.5	3127	62,900 PSI	Magnum	83.2	3066	58,400 PSI	92.4	3396	64,900 PSI
Retumbo	78.2	2820	48,300 PSI	83.2	3043	62,700 PSI	Magpro	81.2	3085	58,000 PSI	90.2	3402	64,500 PSI
H1000	76.9	2786	47,500 PSI	83.1	3033	62,400 PSI	Bullet: 150 GR. SIE SPBT Dia: .308"						
IMR 7828 SSC	73.4	2797	49,500 PSI	79.4	3037	63,200 PSI	Case: Nosler Primer: WIN LR Magnum Col: 3.340"						
H4831	71.6	2779	49,400 PSI	77.4	2990	62,100 PSI	StaBALL HD	83.0	3067	48,800 PSI	92.0	3367	63,600 PSI
Bullet: 200 GR. SFT A-FRAME Dia: .308"							Grand	82.5	3161	46,200 PSI	91.0	3431	61,800 PSI
Case: Hornady Primer: WIN LR Magnum Col: 3.450"							Retumbo	80.3	3054	47,800 PSI	88.2	3336	62,000 PSI
StaBALL HD	75.5	2650	45,600 PSI	82.2	2920	62,600 PSI	H1000	80.4	3102	51,600 PSI	88.2	3343	63,500 PSI
Grand	75.3	2780	49,300 PSI	81.0	3006	63,000 PSI	H4831	75.5	3046	50,400 PSI	83.0	3307	63,600 PSI
H1000	75.2	2694	49,900 PSI	80.9	2908	62,800 PSI	IMR 7828	75.0	3092	51,000 PSI	82.4	3370	63,500 PSI
Retumbo	74.2	2643	45,600 PSI	80.6	2916	62,000 PSI	Bullet: 165 GR. HDY SST Dia: .308"						
IMR 7828 SSC	71.7	2651	49,900 PSI	77.1	2879	62,600 PSI	Case: Nosler Primer: FED 215, LR Magnum Col: 3.275"						
H4831	70.1	2706	55,100 PSI	74.6	2839	62,200 PSI	Magnum	81.6	2957	58,500 PSI	90.7	3286	65,000 PSI
Bullet: 210 GR. NOS ABLR Dia: .308"							Magpro	78.1	2926	58,400 PSI	86.8	3245	64,900 PSI
Case: Hornady Primer: FED 215, LR Magnum Col: 3.650"							Bullet: 165 GR. SFT A-FRAME Dia: .308"						
LRT	80.4	2726	58,200 PSI	89.4	2999	64,700 PSI	Case: Nosler Primer: WIN LR Magnum Col: 3.340"						
Magnum	72.4	2649	57,500 PSI	80.4	2902	63,900 PSI	US 869	87.8	2851	46,700 PSI	96.5C	3203	63,300 PSI
Bullet: 212 GR. HDY ELD-X Dia: .308"							StaBALL HD	79.5	2901	47,000 PSI	88.7	3207	62,300 PSI
Case: Hornady Primer: WIN LR Magnum Col: 3.575"							Retumbo	79.1	2927	47,200 PSI	86.9C	3236	63,500 PSI
StaBALL HD	74.5	2652	48,300 PSI	81.1	2898	63,100 PSI	Grand	78.5	2987	47,100 PSI	86.8	3289	62,800 PSI
H1000	74.2	2686	51,400 PSI	79.4	2861	62,900 PSI	H1000	79.0	2925	48,800 PSI	86.8	3216	63,300 PSI
Grand	74.0	2739	50,000 PSI	79.2	2945	63,000 PSI	IMR 7828	74.0	2955	50,300 PSI	81.0	3243	63,600 PSI
Retumbo	74.3	2666	47,100 PSI	78.3	2873	62,500 PSI	H4831	73.0	2912	50,900 PSI	80.3	3160	63,100 PSI
IMR 7828 SSC	70.1	2655	50,300 PSI	75.4	2870	63,700 PSI	Bullet: 168 GR. BAR TTSX BT Dia: .308"						
Bullet: 215 GR. BER HYB TGT Dia: .308"							Case: Nosler Primer: FED 215, LR Magnum Col: 3.340"						
Case: Hornady Primer: WIN LR Magnum Col: 3.575"							Magnum	80.2	2901	57,600 PSI	89.1	3220	64,000 PSI
StaBALL HD	75.5	2678	48,800 PSI	82.0	2898	62,800 PSI	Magpro	77.7	2935	58,400 PSI	86.3	3234	64,900 PSI
Retumbo	74.6	2607	46,000 PSI	80.6	2871	63,100 PSI	Bullet: 168 GR. NOS E-TIP Dia: .308"						
Grand	74.8	2733	49,700 PSI	80.5	2953	62,800 PSI	Case: Nosler Primer: WIN LR Magnum Col: 3.340"						
H1000	74.0	2652	49,800 PSI	79.2	2868	63,000 PSI	US 869	86.1	2850	50,100 PSI	94.6C	3156	63,500 PSI
IMR 7828 SSC	67.0	2590	50,600 PSI	73.0	2802	62,500 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure
StaBALL HD	79.5	2875	48,100 PSI	87.5	3185	63,300 PSI
Grand	77.5	3006	49,500 PSI	85.8	3269	62,500 PSI
H1000	75.3	2926	53,000 PSI	82.8	3142	63,200 PSI
Retumbo	74.6	2859	48,200 PSI	82.0	3160	63,800 PSI
H4831	68.3	2827	51,900 PSI	75.0	3070	63,400 PSI
IMR 7828	66.4	2770	47,400 PSI	73.0	3099	62,400 PSI

Bullet: 168 GR. SIE TMK			Dia: .308"			
Case: Nosler		Primer: FED 215, LR Magnum			Col: 3.340"	
Magnum	80.3	2928	58,300 PSI	89.2	3253	64,800 PSI
Magpro	78.3	2937	58,300 PSI	87.0	3251	64,800 PSI

Bullet: 175 GR. SIE TMK			Dia: .308"			
Case: Nosler		Primer: FED 215, LR Magnum			Col: 3.340"	
Magnum	78.8	2874	58,500 PSI	87.6	3188	65,000 PSI
Magpro	76.1	2884	58,400 PSI	84.6	3181	64,800 PSI

Bullet: 180 GR. BAR TTSX BT			Dia: .308"			
Case: Nosler		Primer: FED 215, LR Magnum			Col: 3.340"	
Magnum	79.1	2823	58,400 PSI	87.9	3138	64,900 PSI
Magpro	76.6	2851	58,400 PSI	85.1	3140	64,000 PSI

Bullet: 180 GR. SIE SPBT			Dia: .308"			
Case: Nosler		Primer: WIN LR Magnum			Col: 3.340"	
US 869	86.0	2825	49,400 PSI	94.5C	3105	62,800 PSI
StaBALL HD	79.5	2848	47,100 PSI	88.0	3148	63,500 PSI
Grand	77.0	2894	47,100 PSI	85.5	3193	62,300 PSI
Retumbo	76.0	2853	49,200 PSI	83.0	3099	62,800 PSI
H1000	75.0	2842	49,900 PSI	82.5	3090	63,000 PSI
IMR 7828	71.5	2886	52,000 PSI	78.5	3112	63,000 PSI
H4831	71.1	2854	52,400 PSI	78.1	3059	62,400 PSI

Bullet: 200 GR. BAR LRX BT			Dia: .308"			
Case: Nosler		Primer: FED 215, LR Magnum			Col: 3.340"	
Magnum	75.1	2686	58,500 PSI	83.5	2954	65,000 PSI
Magpro	72.5	2690	58,300 PSI	80.5	2944	64,800 PSI
Case: Nosler		Primer: WIN LR Magnum			Col: 3.340"	
US 869	81.4	2686	50,800 PSI	89.5	2943	63,600 PSI
StaBALL HD	73.0	2705	52,700 PSI	81.2	2915	63,000 PSI
Grand	72.5	2733	48,700 PSI	80.6C	2991	62,200 PSI
H1000	69.5	2686	52,700 PSI	76.4	2890	63,200 PSI
IMR 7828	66.1	2680	52,800 PSI	72.7	2896	63,700 PSI
H4831	66.0	2685	55,300 PSI	71.0	2833	63,300 PSI

Bullet: 200 GR. NOS AB			Dia: .308"			
Case: Nosler		Primer: FED 215, LR Magnum			Col: 3.340"	
Magnum	75.9	2701	58,400 PSI	84.4	2986	64,800 PSI
Magpro	73.8	2721	58,400 PSI	82.0	2998	64,900 PSI

Bullet: 210 GR. BER VLD			Dia: .308"			
Case: Nosler		Primer: FED 215, LR Magnum			Col: 3.340"	
LRT	84.3	2760	58,500 PSI	93.7	3043	65,000 PSI
Magnum	74.3	2641	58,500 PSI	82.5	2922	65,000 PSI
Magpro	73.2	2680	58,400 PSI	81.3	2944	64,900 PSI

Bullet: 210 GR. NOS ABLR			Dia: .308"			
Case: Nosler		Primer: WIN LR Magnum			Col: 3.340"	
US 869	83.4	2621	47,400 PSI	91.7C	2885	60,100 PSI
StaBALL HD	76.0	2662	48,900 PSI	84.3	2934	63,500 PSI
Grand	75.2	2732	48,300 PSI	83.5	2995	62,900 PSI
Retumbo	73.1	2685	51,700 PSI	80.3	2909	63,500 PSI
H1000	66.2	2479	42,900 PSI	78.7	2864	62,500 PSI
IMR 7828	67.9	2645	50,900 PSI	74.6	2883	63,400 PSI

Bullet: 220 GR. HDY ELD-X			Dia: .308"			
Case: Nosler		Primer: WIN LR Magnum			Col: 3.340"	
US 869	82.3	2596	49,200 PSI	90.5	2855	62,600 PSI
StaBALL HD	73.0	2565	48,000 PSI	81.4	2832	63,000 PSI
Retumbo	70.7	2618	52,600 PSI	77.7C	2809	62,900 PSI
H1000	70.1	2618	54,000 PSI	77.1	2795	63,800 PSI
IMR 7828	65.8	2582	52,100 PSI	72.3	2788	63,900 PSI

Bullet: 230 GR. BER TACT			Dia: .308"			
Case: Nosler		Primer: FED 215, LR Magnum			Col: 3.340"	
LRT	82.3	2653	58,500 PSI	91.5	2919	65,000 PSI

Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure
Magnum	72.5	2569	58,400 PSI	80.5	2805	64,900 PSI
Magpro	70.8	2586	58,500 PSI	78.7	2809	65,000 PSI
Case: Nosler		Primer: WIN LR Magnum			Col: 3.340"	
US 869	82.8	2581	48,600 PSI	90.0C	2812	60,800 PSI
StaBALL HD	72.8	2524	48,300 PSI	81.2	2789	63,200 PSI
Retumbo	71.5	2508	45,400 PSI	78.6	2784	62,300 PSI
H1000	70.1	2539	49,900 PSI	77.0	2748	62,500 PSI
IMR 7828	66.4	2552	50,900 PSI	73.0	2761	63,200 PSI

300 NORMA MAG						
Barrel: 24"		Twist: 1:8"		Trim: 2.482"		

Bullet: 208 GR. BAR LRX BT			Dia: .308"			
Case: Norma		Primer: FED 215M, LR Mag Match			Col: 3.640"	
US 869	85.5	2643	44,100 PSI	95.0	2929	58,100 PSI
LRT	77.1	2680	45,800 PSI	85.6	2948	60,300 PSI
H50BMG	78.4	2635	54,800 PSI	82.5	2741	60,000 PSI
StaBALL HD	75.5	2642	51,900 PSI	79.5	2766	59,100 PSI
Retumbo	72.5	2648	52,400 PSI	76.3	2766	59,300 PSI
H1000	71.4	2641	52,200 PSI	75.2	2763	59,000 PSI

Bullet: 210 GR. NOS ABLR			Dia: .308"			
Case: Norma		Primer: FED 215M, LR Mag Match			Col: 3.500"	
US 869	86.9	2702	44,500 PSI	96.6	3001	59,000 PSI
LRT	80.3	2647	46,000 PSI	89.3	2961	60,200 PSI
H50BMG	82.8	2675	53,600 PSI	87.2	2805	59,300 PSI
StaBALL HD	78.3	2730	53,400 PSI	82.4	2861	60,000 PSI
Retumbo	74.7	2735	54,800 PSI	78.7	2849	60,900 PSI
H1000	74.4	2717	53,900 PSI	78.3	2832	59,500 PSI

Bullet: 220 GR. HDY ELD-X			Dia: .308"			
Case: Norma		Primer: FED 215M, LR Mag Match			Col: 3.500"	
US 869	86.1	2641	44,000 PSI	95.6	2937	58,500 PSI
H50BMG	82.9	2661	54,000 PSI	87.3	2784	59,500 PSI
LRT	76.7	2534	44,400 PSI	85.2	2822	59,900 PSI
StaBALL HD	78.9	2670	53,400 PSI	83.1	2801	60,200 PSI
Retumbo	77.2	2711	54,100 PSI	81.3	2839	60,000 PSI
H1000	74.4	2698	55,000 PSI	78.3	2812	60,700 PSI

Bullet: 230 GR. BER OTM			Dia: .308"			
Case: Norma		Primer: FED 215M, LR Mag Match			Col: 3.450"	
US 869	85.4	2600	42,900 PSI	94.9	2885	58,000 PSI
H50BMG	79.0	2488	47,000 PSI	87.7	2747	59,300 PSI
LRT	78.0	2521	44,000 PSI	86.7	2813	59,200 PSI
StaBALL HD	78.9	2627	52,900 PSI	83.1	2762	60,100 PSI
Retumbo	76.3	2628	53,100 PSI	80.3	2754	59,000 PSI
H1000	73.4	2626	54,200 PSI	77.2	2735	59,800 PSI

Bullet: 245 GR. BER EOL			Dia: .308"			
Case: Norma		Primer: FED 215M, LR Mag Match			Col: 3.630"	
US 869	83.4	2475	42,800 PSI	92.7	2800	59,000 PSI
H50BMG	77.2	2420	48,000 PSI	85.8	2674	60,700 PSI
LRT	76.8	2459	46,700 PSI	85.4	2726	60,000 PSI
StaBALL HD	78.0	2565	54,100 PSI	82.1	2683	60,300 PSI
Retumbo	74.0	2530	52,900 PSI	77.9	2649	59,500 PSI
H1000	71.3	2524	54,300 PSI	75.1	2634	60,100 PSI

Bullet: 250 GR. HDY A-TIP			Dia: .308"			
Case: Norma		Primer: FED 215M, LR Mag Match			Col: 3.680"	
US 869	84.6	2472	42,900 PSI	94.0	2790	58,500 PSI
H50BMG	77.6	2395	47,300 PSI	86.2	2646	60,000 PSI
LRT	75.7	2457	46,900 PSI	84.2	2700	60,400 PSI
StaBALL HD	78.0	2542	53,400 PSI	82.1	2673	60,200 PSI
Retumbo	74.1	2517	52,500 PSI	78.0	2636	59,500 PSI
H1000	71.7	2511	54,000 PSI	75.5	2625	59,900 PSI

300 WEATHERBY MAGNUM						
Barrel: 24"		Twist: 1:10"		Trim: 2.810"		

Bullet: 150 GR. BAR TSX			Dia: .308"			
Case: REM		Primer: FED 215M, LR Mag Match			Col: 3.570"	
H1000	83.0	3056	43,500 CUP	88.0C	3220	49,900 CUP
IMR 7828 SSC	79.0	3146	45,600 CUP	86.5C*	3400	54,200 CUP
H4831	77.0	3031	45,200 CUP	84.0C	3275	52,900 CUP

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
IMR 4831	76.0	3154	46,400 CUP	82.7C	3437	54,100 CUP	Bullet: 220 GR. HDY RN Dia: .308"						
IMR 4350	73.0	3151	45,400 CUP	79.5	3396	54,300 CUP	Case: REM Primer: FED 215M, LR Mag Match Col: 3.565"						
Hybrid 100V	70.0	3103	42,500 CUP	76.5	3310	49,100 CUP	StaBALL HD	78.0	2624	42,000 CUP	84.0	2848	54,200 CUP
H4350	70.0	3084	44,700 CUP	76.5	3310	53,800 CUP	Returnbo	79.0	2679	45,900 CUP	84.0C	2853	54,000 CUP
H380	63.0	2908	44,200 CUP	69.5	3142	53,800 CUP	H1000	77.0	2670	45,100 CUP	82.5	2833	53,400 CUP
IMR 4064	62.0	3045	44,200 CUP	67.0	3244	51,900 CUP	H4831	71.0	2630	47,200 CUP	75.7	2766	54,500 CUP
IMR 4895	61.0	3011	44,000 CUP	66.0	3214	53,100 CUP	IMR 7828	70.0	2569	47,200 CUP	75.3	2739	54,100 CUP
Varget	59.0	2935	42,200 CUP	64.5	3155	54,000 CUP	Hybrid 100V	65.0	2579	45,100 CUP	71.0	2762	53,900 CUP
H4895	57.0	2926	42,200 CUP	61.5	3112	54,100 CUP	H4350	66.0	2599	45,900 CUP	70.0	2725	53,800 CUP
Trail Boss	19.0	1334	20,300 CUP	27.5	1656	28,900 CUP	IMR 4831	65.0	2529	46,000 CUP	70.0	2657	53,600 CUP
Bullet: 165 GR. NOS BT Dia: .308"							IMR 4350	63.0	2517	46,300 CUP	67.7	2700	53,500 CUP
Case: REM Primer: FED 215M, LR Mag Match Col: 3.560"							300 REMINGTON ULTRA MAG						
H1000	84.0	3014	45,600 CUP	89.7C	3216	54,200 CUP	Barrel: 24" Twist: 1:10" Trim: 2.840"						
IMR 7828	77.0	2957	46,800 CUP	82.0	3145	53,400 CUP	Bullet: 150 GR. BARTSX BT Dia: .308"						
H4831	75.0	2934	46,400 CUP	80.2	3113	54,000 CUP	Case: REM Primer: FED 215, LR Magnum Col: 3.600"						
IMR 4831	73.0	2981	46,600 CUP	78.0	3175	54,100 CUP	LRT	101.4	3184	57,500 PSI	112.6	3531	63,900 PSI
Hybrid 100V	71.0	2995	45,400 CUP	78.0	3236	53,800 CUP	Magnum	92.1	3108	56,400 PSI	102.3	3453	62,600 PSI
IMR 4350	70.0	2973	46,900 CUP	75.0	3143	53,400 CUP	Bullet: 150 GR. SIE SPBT Dia: .308"						
H4350	69.0	2908	45,400 CUP	74.0	3074	54,100 CUP	Case: REM Primer: FED 215, LR Magnum Col: 3.530"						
W760	65.0	2892	48,200 CUP	70.0	3034	53,700 CUP	Magnum	91.8	3094	55,000 PSI	102.0	3438	61,100 PSI
H380	63.0	2787	46,300 CUP	67.5	2950	53,700 CUP	Case: REM Primer: REM 9 1/2, LR Mag Col: 3.530"						
H4895	58.0	2871	48,000 CUP	62.5	3028	54,200 CUP	Returnbo	100.0	3343	52,600 PSI	106.0C	3531	60,800 PSI
Varget	58.0	2873	46,300 CUP	62.0	3033	54,200 CUP	StaBALL HD	96.5	3210	51,900 PSI	103.5	3446	62,700 PSI
Bullet: 168 GR. NOS E-TIP Dia: .308"							H1000	98.0	3258	53,100 PSI	102.0	3457	62,900 PSI
Case: REM Primer: FED 215M, LR Mag Match Col: 3.590"							H4831	90.0	3243	55,100 PSI	94.0	3408	62,900 PSI
H1000	82.0	2959	44,100 CUP	88.0C	3197	53,700 CUP	IMR 7828	86.5	3105	52,100 PSI	92.0	3319	63,000 PSI
IMR 7828 SSC	78.0	2956	46,700 CUP	84.0C*	3205	54,200 CUP	IMR 4831	85.0	3207	50,600 PSI	90.5	3380	63,700 PSI
H4831	74.0	2865	43,700 CUP	81.0C	3107	54,200 CUP	IMR 4350	81.5	3147	53,200 PSI	86.7	3362	63,500 PSI
IMR 4831	71.0	2907	45,800 CUP	77.5	3158	54,000 CUP	Bullet: 165 GR. NOS PART Dia: .308"						
IMR 4350	70.0	2911	45,300 CUP	76.0	3164	54,300 CUP	Case: REM Primer: FED 215, LR Magnum Col: 3.600"						
Hybrid 100V	68.0	2923	45,000 CUP	74.0	3150	53,700 CUP	LRT	98.6	3049	57,900 PSI	109.5	3381	64,400 PSI
H4350	66.0	2898	46,900 CUP	72.5	3099	53,800 CUP	Magnum	90.0	2967	53,900 PSI	100.0	3297	59,900 PSI
W760	62.0	2750	44,300 CUP	69.0	2994	53,900 CUP	Magpro	86.0	3115	56,800 PSI	96.5	3402	63,700 PSI
H380	63.0	2752	45,700 CUP	68.0	2929	53,800 CUP	Bullet: 165 GR. SFT A-FRAME Dia: .308"						
Varget	59.0	2854	48,000 CUP	63.5	2999	53,800 CUP	Case: REM Primer: REM 9 1/2, LR Mag Col: 3.530"						
H4895	55.0	2773	47,000 CUP	60.0	2968	54,500 CUP	Returnbo	97.0	3241	54,200 PSI	103.0C	3414	62,300 PSI
Bullet: 180 GR. SPR BTSP Dia: .308"							StaBALL HD	91.5	3031	49,600 PSI	98.0	3255	62,400 PSI
Case: REM Primer: FED 215M, LR Mag Match Col: 3.560"							H1000	94.0	3135	53,300 PSI	98.0	3321	62,500 PSI
H1000	83.0	2971	43,800 CUP	88.5C	3151	53,500 CUP	H4831	85.0	3057	52,300 PSI	90.0	3255	62,100 PSI
H4831	76.0	2910	45,300 CUP	81.5	3096	54,000 CUP	IMR 7828	84.5	2985	54,300 PSI	90.0	3178	63,200 PSI
IMR 7828	75.0	2583	47,000 CUP	80.5	3064	53,400 CUP	IMR 4831	80.0	2951	51,100 PSI	87.0	3215	62,900 PSI
Hybrid 100V	70.0	2954	46,100 CUP	77.0	3171	54,600 CUP	IMR 4350	78.0	2985	52,800 PSI	83.0	3181	63,100 PSI
IMR 4831	70.0	2835	47,100 CUP	75.5	2997	53,500 CUP	Bullet: 180 GR. BARTSX BT Dia: .308"						
H4350	69.0	2876	44,600 CUP	73.5	3022	54,000 CUP	Case: REM Primer: FED 215, LR Magnum Col: 3.600"						
IMR 4350	68.0	2865	46,200 CUP	72.6	3018	53,000 CUP	LRT	94.3	2927	57,700 PSI	104.8	3228	64,100 PSI
W760	67.0	2825	45,600 CUP	71.5	2984	53,000 CUP	Magnum	85.3	2835	56,100 PSI	94.8	3150	62,300 PSI
H380	62.0	2734	45,000 CUP	67.0	2896	54,000 CUP	Bullet: 180 GR. BARTTSX BT Dia: .308"						
Bullet: 200 GR. NOS AB Dia: .308"							Case: REM Primer: REM 9 1/2, LR Mag Col: 3.600"						
Case: REM Primer: FED 215M, LR Mag Match Col: 3.590"							US 869	98.0	2861	47,000 PSI	107.0	3155	58,700 PSI
StaBALL HD	80.5	2727	41,800 CUP	86.5C	2941	51,000 CUP	H50BMG	97.0	2977	55,800 PSI	103.5C	3101	62,000 PSI
Returnbo	79.0	2753	45,800 CUP	84.5C	2942	53,100 CUP	StaBALL HD	87.0	2943	54,500 PSI	94.2	3130	62,700 PSI
H1000	77.0	2709	45,800 CUP	83.0C	2884	53,700 CUP	Grand	88.0	2979	54,500 PSI	93.6	3163	63,700 PSI
H4831	70.0	2702	49,300 CUP	75.0	2839	54,400 CUP	Returnbo	86.0	2973	53,200 PSI	92.0	3159	62,600 PSI
Hybrid 100V	68.0	2737	45,900 CUP	73.5	2940	54,000 CUP	H1000	81.5	2890	53,900 PSI	89.0	3083	60,600 PSI
Bullet: 200 GR. SFT A-FRAME Dia: .308"							IMR 7828 SSC	78.0	2938	55,800 PSI	84.0	3110	63,600 PSI
Case: REM Primer: FED 215M, LR Mag Match Col: 3.510"							H4831	77.0	2956	57,400 PSI	83.0	3098	63,300 PSI
Returnbo	80.0	2764	46,100 CUP	85.5C	2981	54,400 CUP	IMR 4831	75.0	2906	54,500 PSI	80.5	3081	63,000 PSI
StaBALL HD	79.5	2713	42,800 CUP	85.0C	2939	52,700 CUP	IMR 4350	73.5	2915	55,200 PSI	78.5	3084	63,600 PSI
H1000	79.0	2766	43,200 CUP	85.0C	2963	53,400 CUP	Bullet: 180 GR. SPR SPBT Dia: .308"						
IMR 7828	73.0	2693	48,100 CUP	78.3	2872	53,800 CUP	Case: REM Primer: REM 9 1/2, LR Mag Col: 3.530"						
H4831	72.0	2708	44,700 CUP	77.5	2869	52,900 CUP	US 869	104.0	2994	53,800 PSI	107.0	3070	57,300 PSI
IMR 4831	68.0	2641	45,800 CUP	73.0	2806	53,400 CUP	H50BMG	103.0	3005	53,700 PSI	108.0C	3159	62,100 PSI
Hybrid 100V	67.0	2699	44,900 CUP	73.0	2906	53,200 CUP	Returnbo	94.0	3182	58,400 PSI	100.5C	3300	62,400 PSI
H4350	66.0	2706	45,800 CUP	71.0	2866	54,300 CUP	StaBALL HD	91.0	2983	52,600 PSI	97.7	3193	63,200 PSI
IMR 4350	66.0	2680	46,000 CUP	70.5	2807	52,800 CUP	H1000	91.0	3018	52,300 PSI	96.0	3218	62,800 PSI
							Grand	88.5	2998	53,400 PSI	95.3	3201	63,400 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
H4831	84.0	2997	54,000 PSI	89.0	3167	62,500 PSI	H335	42.0	2483	43,000 PSI	47.0	2712	53,900 PSI
IMR 7828	81.0	2869	52,000 PSI	86.5	3069	63,200 PSI	Benchmark	42.0	2532	47,900 PSI	47.0C	2768	61,300 PSI
IMR 4831	78.0	2907	53,700 PSI	83.0	3075	63,200 PSI	H322	41.0	2514	46,000 PSI	45.5C	2743	59,700 PSI
IMR 4350	76.0	2869	51,800 PSI	81.0	3071	63,200 PSI	IMR 3031	40.0	2438	42,500 PSI	45.0C	2705	55,200 PSI
Bullet: 190 GR. HDY SPBT Dia: .308"							Bullet: 185 GR. BARTSX Dia: .338"						
Case: REM Primer: REM 9 1/2, LR Mag Col: 3.555"							Case: FED Primer: FED 210M, LR Match Col: 2.800"						
H50BMG	100.0	2938	54,900 PSI	105.0C	3085	63,000 PSI	CFE 223	47.5	2488	39,800 PSI	50.5	2624	46,200 PSI
US 869	100.0	2905	52,600 PSI	104.0	3035	59,200 PSI	W748	44.0	2477	45,200 PSI	49.0	2665	53,100 PSI
Retumbo	90.0	3069	56,500 PSI	96.0	3204	62,500 PSI	BL-C(2)	44.0	2386	41,600 PSI	49.0	2597	51,100 PSI
StaBALL HD	87.5	2910	53,500 PSI	94.5	3095	63,000 PSI	StaBALL Match	43.5	2375	41,600 PSI	48.0C	2548	47,700 PSI
Grand	86.6	2926	54,300 PSI	93.0	3110	63,200 PSI	IMR 8208 XBR	44.2	2601	51,800 PSI	47.0C	2721	59,500 PSI
H1000	88.0	2971	54,900 PSI	93.0	3130	63,500 PSI	Varget	42.0	2364	43,000 PSI	47.0C	2607	54,700 PSI
IMR 7828	80.5	2802	51,700 PSI	85.5	2985	62,000 PSI	H4895	42.0	2456	45,400 PSI	46.5C	2690	58,200 PSI
H4831	80.0	2892	53,000 PSI	85.0	3069	62,500 PSI	H335	41.0	A-2460	46,300 PSI	46.0	2679	56,700 PSI
IMR 4831	77.0	2849	54,300 PSI	82.5	3013	63,900 PSI	IMR 4064	41.0	2388	45,100 PSI	45.0C	2584	53,400 PSI
IMR 4350	75.0	2804	51,800 PSI	80.0	3001	63,100 PSI	IMR 4895	41.0	2342	43,500 PSI	45.0C	2541	51,400 PSI
Bullet: 200 GR. NOS AB Dia: .308"							IMR 3031	39.0	2410	47,200 PSI	44.0C	2666	60,000 PSI
Case: REM Primer: REM 9 1/2, LR Mag Col: 3.600"							Benchmark	39.0	2416	48,000 PSI	44.0C	2637	60,100 PSI
H50BMG	96.0	2762	49,700 PSI	102.0C	2950	58,900 PSI	H322	39.0	2447	49,400 PSI	43.3C	2645	59,700 PSI
Retumbo	89.0	2904	56,400 PSI	95.5C	3048	62,400 PSI	Bullet: 185 GR. BARTSX BT Dia: .338"						
H1000	87.0	2839	56,000 PSI	92.5	2975	62,800 PSI	Case: WIN Primer: WIN LR Col: 2.783"						
StaBALL HD	84.5	2804	56,100 PSI	92.0	2986	63,200 PSI	TAC	43.4	2485	51,200 PSI	48.3	2708	57,000 PSI
Grand	86.0	2872	56,400 PSI	91.5	2991	63,500 PSI	X-Terminator	43.0	2520	54,000 PSI	47.8	2757	60,000 PSI
H4831	79.0	2787	54,700 PSI	85.0	2953	63,600 PSI	A-2230	40.9	2484	53,700 PSI	45.5	2683	59,800 PSI
IMR 7828	77.0	2670	51,200 PSI	82.0	2857	61,800 PSI	A-2015	38.9	2408	52,200 PSI	43.2	2593	58,000 PSI
Bullet: 220 GR. NOS PART Dia: .308"							Bullet: 200 GR. HDY SP Dia: .338"						
Case: REM Primer: REM 9 1/2, LR Mag Col: 3.530"							Case: WIN Primer: WIN LR Col: 2.810"						
US 869	97.0	2758	49,500 PSI	101.0	2875	55,200 PSI	TAC	43.8	2467	54,000 PSI	48.7	2664	60,000 PSI
H50BMG	95.0	2699	54,000 PSI	100.5C	2850	62,500 PSI	X-Terminator	42.4	2476	53,300 PSI	47.1	2656	59,300 PSI
Retumbo	84.0	2800	56,600 PSI	89.0	2905	61,900 PSI	A-2230	40.4	2376	54,100 PSI	44.8	2605	60,000 PSI
StaBALL HD	83.5	2681	54,000 PSI	89.0	2840	63,400 PSI	A-2015	39.2	2369	53,700 PSI	43.5	2532	59,600 PSI
H1000	83.0	2704	54,500 PSI	89.0	2863	63,500 PSI	A-5744	32.6	2200	54,000 PSI	36.2	2426	60,000 PSI
IMR 7828	77.5	2600	53,400 PSI	82.5	2774	63,200 PSI	A-5744		0	0	24.0	1675	0
7.62 x 39MM RUSSIAN							Case: FED Primer: FED 210M, LR Match Col: 2.810"						
Barrel: 24" Twist: 1:9.45" Trim: 1.518"							CFE 223	45.8	2326	33,600 PSI	50.0	2545	44,900 PSI
Bullet: 123 GR. HDY SST Dia: .310"							W748	44.0	2322	37,300 PSI	50.0	2584	49,500 PSI
Case: WIN Primer: WIN LR Col: 2.175"							BL-C(2)	45.0	2289	36,900 PSI	49.0	2442	43,300 PSI
A-5744	Subsonic		12.4	1033	23,900 PSI		StaBALL Match	43.0	2276	37,000 PSI	48.3C	2503	48,800 PSI
No. 2	Subsonic		7.0	1079	23,400 PSI		H335	42.0	2389	44,400 PSI	47.0	2606	56,400 PSI
Titegroup	Subsonic		6.4	1052	12,200 PSI		IMR 8208 XBR	44.0	2504	50,200 PSI	47.0C	2657	60,300 PSI
Bullet: 150 GR. SIE SPT Dia: .310"							Varget	42.0	2264	40,400 PSI	47.0C	2510	52,100 PSI
Case: WIN Primer: WIN LR Col: 2.175"							IMR 4895	42.0	2296	41,400 PSI	47.0C	2535	52,100 PSI
A-5744	Subsonic		11.5	1030	13,000 PSI		H4895	42.0	2350	42,600 PSI	47.0C	2597	55,100 PSI
No. 2	Subsonic		7.3	1075	28,000 PSI		IMR 4064	40.0	2224	37,500 PSI	45.0C	2486	48,600 PSI
Titegroup	Subsonic		6.9	1043	29,000 PSI		IMR 3031	40.0	2316	41,300 PSI	45.0C	2598	57,300 PSI
338 FEDERAL							Benchmark	40.0	2309	43,200 PSI	45.0C	2584	59,700 PSI
Barrel: 24" Twist: 1:10" Trim: 2.005"							H322	40.0	2412	49,500 PSI	44.5	2596	59,300 PSI
Bullet: 160 GR. BARTTSX Dia: .338"							Bullet: 210 GR. SFT SCIR Dia: .338"						
Case: FED Primer: FED 210M, LR Match Col: 2.840"							Case: FED Primer: FED 210M, LR Match Col: 2.820"						
IMR 8208 XBR	46.0	2733	46,500 PSI	50.0C	2910	61,800 PSI	LVR	45.0	2468	48,800 PSI	49.0C	2622	56,400 PSI
Benchmark	45.1	2725	47,900 PSI	49.0C	2894	56,200 PSI	StaBALL Match	43.0	2327	49,000 PSI	48.2C	2531	59,500 PSI
H322	44.6	2761	52,400 PSI	48.5C	2937	54,700 PSI	CFE 223	43.8	2381	45,900 PSI	47.6	2549	57,100 PSI
H335	43.8	2579	39,900 PSI	48.7	2814	49,700 PSI	BL-C(2)	42.0	2270	52,000 PSI	47.0	2548	59,100 PSI
IMR 3031	41.9	2559	41,000 PSI	45.5C	2763	50,400 PSI	Varget	41.0	2248	42,000 PSI	46.0C	2503	56,500 PSI
H4198	40.2	2756	53,600 PSI	42.8	2884	61,500 PSI	W748	41.0	2289	42,200 PSI	45.7	2534	56,300 PSI
IMR 4198	38.5	2706	52,900 PSI	41.0	2850	62,400 PSI	IMR 4895	40.0	2195	39,500 PSI	45.0C	2482	53,900 PSI
Bullet: 180 NOS AB Dia: .338"							H4895	40.0	2281	41,600 PSI	45.0C	2551	58,100 PSI
Case: FED Primer: FED 210M, LR Match Col: 2.810"							IMR 8208 XBR	40.7	2402	52,000 PSI	43.3C	2508	59,400 PSI
CFE 223	46.0	2408	32,700 PSI	50.0	2620	42,100 PSI	IMR 4064	40.0	2254	42,200 PSI	43.0C	2394	48,800 PSI
W748	45.0	2486	40,300 PSI	51.0	2746	51,100 PSI	Benchmark	38.0	2277	45,900 PSI	43.0C	2514	60,800 PSI
BL-C(2)	44.0	2338	34,700 PSI	50.0	2648	47,500 PSI	IMR 3031	38.0	2267	43,700 PSI	42.5C	2499	57,000 PSI
IMR 8208 XBR	44.6	2641	49,600 PSI	48.5C	2811	59,900 PSI	H322	38.0	2296	45,900 PSI	42.3C	2511	59,200 PSI
StaBALL Match	43.2	2375	39,000 PSI	48.2C	2598	48,900 PSI	H335	38.0	2267	45,300 PSI	41.7	2469	57,400 PSI
H4895	43.0	2486	42,400 PSI	47.0C	2682	50,800 PSI	Bullet: 215 GR. SIE SBT GK Dia: .338"						
IMR 4895	42.0	2373	40,700 PSI	47.0C	2624	50,900 PSI	Case: WIN Primer: WIN LR Col: 2.800"						
NEVER EXCEED MAXIMUM LOADS							TAC	42.0	2371	53,500 PSI	46.7	2564	59,500 PSI
							X-Terminator	39.9	2349	53,900 PSI	44.3	2532	59,900 PSI
							A-2230	39.0	2317	53,900 PSI	43.3	2503	59,800 PSI

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Gr	Vel	Pressure	Gr	Vel	Pressure	Powder	Gr	Vel	Pressure	Gr	Vel	Pressure
A-2015	37.0	2242	53,800 PSI	41.1	2399	59,800 PSI	Bullet: 225 GR. HDY SST Dia: .338"						
Bullet: 215 GR. SIE SP Dia: .338"							Case: WBY Primer: FED 215, LR Magnum Col: 3.370"						
Case: FED	Primer: FED 210M, LR Match						H4831	66.5	2560	45,300 PSI	73.5	2787	58,300 PSI
LVR	47.0	2509	50,900 PSI	52.0C	2668	57,900 PSI	IMR 4831	65.5	2559	45,000 PSI	72.5	2837	58,900 PSI
CFE 223	44.5	2330	40,800 PSI	48.4	2494	49,800 PSI	Hybrid 100V	64.0	2684	50,000 PSI	70.5C	2903	61,100 PSI
StaBALL Match	43.0	2321	48,200 PSI	48.0C	2492	55,800 PSI	StaBALL 6.5	63.5	2671	49,400 PSI	70.2	2907	62,900 PSI
BL-C(2)	43.0	2242	39,000 PSI	47.0	2428	47,900 PSI	IMR 4350	63.0	2602	48,300 PSI	69.8	2861	62,000 PSI
W748	41.0	2218	38,000 PSI	46.0	2445	48,900 PSI	H4350	62.5	2609	48,500 PSI	69.3C	2855	63,000 PSI
Varget	41.0	2216	41,000 PSI	46.0C	2452	53,100 PSI	Big Game	62.0	2437	50,600 PSI	68.0	2855	63,400 PSI
H4895	41.0	2297	43,500 PSI	46.0C	2539	57,600 PSI	A-4064	55.0	2523	49,700 PSI	61.2	2757	63,000 PSI
IMR 4064	41.0	2267	43,800 PSI	45.0C	2468	54,400 PSI	StaBALL Match	54.5	2546	52,600 PSI	59.5	2732	63,600 PSI
IMR 4895	41.0	2234	42,400 PSI	45.0C	2448	53,200 PSI	IMR 4064	53.8	2538	48,900 PSI	59.5	2761	63,400 PSI
IMR 8208 XBR	41.9	2396	50,500 PSI	44.6	2519	59,400 PSI	Varget	53.0	2544	51,600 PSI	59.3	2750	63,000 PSI
H335	40.0	2312	46,100 PSI	44.0	2512	58,300 PSI	Bullet: 250 GR. SIE SPBT Dia: .338"						
Benchmark	39.0	2286	47,200 PSI	43.3	2487	60,000 PSI	Case: WBY Primer: FED 215, LR Magnum Col: 3.370"						
IMR 3031	38.0	2227	42,500 PSI	43.0C	2469	56,300 PSI	H1000	67.0	2424	44,500 PSI	74.2C	2688	59,100 PSI
H322	38.0	2305	50,400 PSI	43.0	2504	60,300 PSI	IMR 7828 SSC	65.0	2453	49,200 PSI	71.5C	2700	63,000 PSI
Bullet: 225 GR. NOS AB Dia: .338"							Hunter	64.8	2532	51,700 PSI	71.3	2738	62,800 PSI
Case: WIN	Primer: WIN LR						H4831	63.0	2468	49,800 PSI	69.6C	2674	62,100 PSI
TAC	39.7	2135	53,800 PSI	44.1	2384	59,800 PSI	A-4350	62.5	2471	49,600 PSI	69.0C	2683	62,000 PSI
X-Terminator	38.8	2197	51,800 PSI	43.1	2436	57,500 PSI	IMR 4831	59.5	2424	48,600 PSI	65.6	2667	63,200 PSI
A-2230	38.3	2261	53,900 PSI	42.5	2427	59,900 PSI	Hybrid 100V	59.2	2524	52,700 PSI	65.5	2710	62,700 PSI
Bullet: 225 GR. SFT A-FRAME Dia: .338"							H4350	59.2	2471	50,900 PSI	65.3	2668	63,000 PSI
Case: FED	Primer: FED 210M, LR Match						IMR 4350	59.0	2440	48,700 PSI	65.2	2672	63,000 PSI
LVR	43.0	2293	46,500 PSI	48.0C	2518	61,800 PSI	StaBALL 6.5	59.2	2495	52,000 PSI	65.1	2683	63,300 PSI
BL-C(2)	42.0	2178	41,800 PSI	47.0	2436	57,800 PSI	Big Game	57.7	2454	52,800 PSI	63.2	2627	62,500 PSI
StaBALL Match	42.0	2247	52,300 PSI	46.2C	2428	61,900 PSI	Bullet: 265 GR. NOS ABLR Dia: .338"						
CFE 223	43.2	2278	47,700 PSI	46.0	2423	57,900 PSI	Case: WBY Primer: FED 215, LR Magnum Col: 3.380"						
W748	41.0	2199	42,000 PSI	46.0	2453	57,400 PSI	H1000	69.0	2480	49,900 PSI	73.0C	2612	57,900 PSI
Varget	41.0	2149	43,100 PSI	46.0C	2410	57,900 PSI	IMR 7828 SSC	64.0	2364	47,000 PSI	71.5C	2639	63,100 PSI
H4895	40.0	2167	42,900 PSI	45.3C	2445	60,000 PSI	H4831	62.3	2389	48,300 PSI	69.5C	2620	62,800 PSI
IMR 4895	40.0	2151	45,300 PSI	44.5C	2383	58,200 PSI	Hunter	61.5	2397	48,800 PSI	68.3	2638	62,900 PSI
IMR 4064	39.0	2148	43,800 PSI	43.8C	2386	58,400 PSI	A-4350	61.0	2275	39,800 PSI	68.0C	2574	56,800 PSI
IMR 8208 XBR	40.5	2283	52,400 PSI	43.1	2394	60,500 PSI	StaBALL 6.5	60.5	2423	48,000 PSI	67.0	2656	62,900 PSI
Benchmark	38.0	2150	46,600 PSI	42.8	2365	59,500 PSI	IMR 4831	60.3	2374	47,600 PSI	67.0C	2630	63,100 PSI
H335	38.0	2166	46,100 PSI	42.0	2378	59,200 PSI	Hybrid 100V	59.0	2399	47,200 PSI	65.5C	2637	60,900 PSI
IMR 3031	37.0	2149	45,800 PSI	41.0C	2361	59,500 PSI	IMR 4350	58.0	2366	48,000 PSI	64.4	2603	62,400 PSI
H322	37.0	2204	52,700 PSI	41.0	2357	60,000 PSI	H4350	57.6	2405	52,100 PSI	64.0	2594	62,800 PSI
338 WEATHERBY RPM							Big Game	57.0	2386	50,900 PSI	63.7	2583	62,600 PSI
Barrel: 24" Twist: 1:10" Trim: 2.560"							Bullet: 265 GR. BAR LRX BT Dia: .338"						
Bullet: 185 GR. BARTSX BT Dia: .338"							Case: WBY Primer: FED 215, LR Magnum Col: 3.380"						
Case: WBY	Primer: FED 215, LR Magnum						H1000	64.0	2335	47,900 PSI	70.0C	2535	59,200 PSI
StaBALL 6.5	66.0	2924	51,500 PSI	72.7	3150	63,000 PSI	IMR 7828 SSC	61.0	2330	51,200 PSI	67.5C	2559	63,200 PSI
H4350	65.3	2865	50,600 PSI	71.8	3096	63,500 PSI	H4831	60.0	2336	50,400 PSI	66.0C	2530	63,100 PSI
IMR 4350	64.0	2809	49,200 PSI	70.7C	3075	62,000 PSI	A-4350	59.5	2327	50,500 PSI	65.4C	2545	63,000 PSI
A-4064	58.0	2757	49,700 PSI	63.3	2996	63,200 PSI	Hunter	58.8	2348	51,300 PSI	64.6C	2561	63,100 PSI
IMR4895	56.3	2783	50,200 PSI	61.6	3012	63,400 PSI	StaBALL 6.5	57.0	2342	51,300 PSI	63.9	2576	63,100 PSI
IMR 4064	56.5	2783	50,200 PSI	61.7	3012	63,100 PSI	IMR 4831	57.0	2310	50,500 PSI	63.0C	2532	63,500 PSI
Varget	56.4	2811	52,000 PSI	61.3	3002	63,200 PSI	Hybrid 100V	56.2	2297	50,600 PSI	62.0C	2518	63,200 PSI
StaBALL Match	57.5	2794	52,600 PSI	62.6	2985	63,600 PSI	IMR 4350	54.8	2302	51,300 PSI	60.9C	2519	63,500 PSI
H4895	53.8	2786	53,000 PSI	58.3	2964	63,300 PSI	H4350	53.5	2279	50,400 PSI	59.4C	2486	63,000 PSI
Big Game	64.5	2936	55,900 PSI	70.6	3108	63,200 PSI	Big Game	53.3	2284	52,600 PSI	59.3	2483	63,500 PSI
Bullet: 200 GR. FED FUSION Dia: .338"							33 NOSLER						
Case: WBY	Primer: FED 215, LR Magnum						Barrel: 24" Twist: 1:10" Trim: 2.440"						
StaBALL 6.5	67.0	2825	48,900 PSI	73.5	3065	62,100 PSI	Bullet: 180 GR. NOS AB Dia: .338"						
IMR 4831	66.0	2668	43,100 PSI	73.0C	2962	57,300 PSI	Case: Nosler Primer: WIN LR Magnum Col: 3.340"						
H4350	66.0	2776	48,500 PSI	73.0	3032	62,600 PSI	H4831	81.5	3040	52,200 PSI	85.8C	3201	62,400 PSI
Big Game	65.5	2863	53,300 PSI	72.0	3053	62,900 PSI	IMR 7828	81.2	3064	52,700 PSI	85.5C	3259	62,500 PSI
IMR 4350	64.8	2712	45,300 PSI	71.2C	2983	58,900 PSI	IMR 4831	78.3	3051	52,700 PSI	82.5C	3240	62,200 PSI
Hybrid 100V	65.0	2756	45,700 PSI	71.0C	2983	56,500 PSI	H4350	76.0	3104	54,500 PSI	80.0	3243	62,200 PSI
A-4064	59.0	2709	48,700 PSI	64.8	2953	62,800 PSI	IMR 4350	74.2	2989	50,100 PSI	79.0	3227	61,900 PSI
StaBALL Match	58.5	2728	52,000 PSI	63.9	2911	62,800 PSI	W760	73.0	3074	53,200 PSI	78.5	3255	62,500 PSI
IMR 4064	58.0	2749	49,900 PSI	63.7	2981	63,600 PSI	Bullet: 185 GR. BARTSX Dia: .338"						
IMR 4895	57.8	2766	51,000 PSI	63.2	2960	62,700 PSI	Case: Nosler Primer: WIN LR Magnum Col: 3.260"						
Varget	57.0	2751	51,700 PSI	62.4	2949	63,100 PSI	H4831	81.0	3001	53,800 PSI	85.3C	3157	62,300 PSI
NEVER EXCEED MAXIMUM LOADS							IMR 7828	80.4	3003	52,600 PSI	84.6C	3196	62,500 PSI
*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.							IMR 4831	77.2	2991	51,900 PSI	81.3	3181	62,400 PSI

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
H4350	74.7	3026	52,700 PSI	78.7	3194	61,900 PSI	IMR 7828	67.3	A-2460	53,600 PSI	72.0	2610	62,400 PSI
IMR 4350	73.4	2978	50,700 PSI	77.8	3194	61,800 PSI	H4831	67.1	2465	55,600 PSI	70.7	2564	61,700 PSI
W760	72.2	3053	55,300 PSI	76.0	3181	62,000 PSI	IMR 4831	64.7	2434	53,500 PSI	68.4	2552	62,100 PSI
Bullet: 200 GR. NOS E-TIP Dia: .338"							H4350	61.8	2416	52,900 PSI	65.4	2543	62,200 PSI
Case: Nosler Primer: WIN LR Magnum Col: 3.340"							IMR 4350	61.4	2417	54,500 PSI	65.0	2543	62,700 PSI
IMR 7828	79.1	2932	53,600 PSI	83.3C	3097	62,200 PSI	Bullet: 300 GR. NOS AB Dia: .338"						
H4831	79.0	2894	53,300 PSI	83.2C	3041	62,400 PSI	Case: Nosler Primer: WIN LR Magnum Col: 3.400"						
IMR 4831	76.0	2918	53,100 PSI	79.9	3088	62,500 PSI	Grand	79.0	2493	52,300 PSI	82.0C	2563	56,000 PSI
H4350	72.6	2898	51,800 PSI	76.4	3066	62,500 PSI	StaBALL HD	74.5	2319	51,800 PSI	82.0	2508	62,800 PSI
IMR 4350	72.4	2895	51,200 PSI	76.3	3077	62,200 PSI	Retumbo	75.9	2483	53,800 PSI	81.0C	2589	61,700 PSI
W760	69.9	2900	52,900 PSI	74.4	3072	62,500 PSI	H1000	74.2	2464	54,000 PSI	79.0C	2589	62,100 PSI
Bullet: 210 GR. NOS PART Dia: .338"							IMR 7828	69.3	2430	52,700 PSI	73.8	2580	62,500 PSI
Case: Nosler Primer: WIN LR Magnum Col: 3.300"							IMR 4831	68.0	2454	52,900 PSI	72.5	2606	62,300 PSI
Grand	82.0	2863	51,600 PSI	87.0C	3004	60,700 PSI	H4831	64.8	2376	52,200 PSI	72.0	2526	61,800 PSI
H1000	81.7	2842	51,800 PSI	87.0C	3025	62,300 PSI	H4350	64.3	2426	51,900 PSI	67.9	2557	61,600 PSI
H4831	76.3	2810	52,700 PSI	81.2	2978	62,600 PSI	IMR 4350	63.8	2394	52,800 PSI	68.1	2530	62,300 PSI
IMR 7828	75.1	2818	51,600 PSI	79.9	3021	62,500 PSI	338 WINCHESTER MAGNUM						
IMR 4831	72.2	2818	52,900 PSI	76.9	2983	62,100 PSI	Barrel: 24" Twist: 1:10" Trim: 2.490"						
IMR 4350	70.2	2838	52,900 PSI	74.5	3014	62,400 PSI	Bullet: 160 GR. BAR TTSX Dia: .338"						
H4350	69.3	2815	52,000 PSI	74.5	3005	62,900 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.325"						
H414	67.0	2770	52,400 PSI	71.0	2953	62,100 PSI	StaBALL 6.5	72.0	3088	51,000 PSI	80.0C	3353	62,400 PSI
Bullet: 215 GR. SIE SBT Dia: .338"							W760	70.0	3003	41,100 CUP	75.5	3195	46,400 CUP
Case: Nosler Primer: WIN LR Magnum Col: 3.310"							IMR 4895	62.0	3038	43,300 CUP	69.0	3277	52,100 CUP
H1000	84.0	2855	50,800 PSI	88.0C	2980	59,300 PSI	Varget	62.0	2984	41,600 CUP	68.5	3196	51,100 CUP
Grand	83.3	2829	51,800 PSI	87.2C	2961	59,700 PSI	IMR 4064	61.0	2974	40,200 CUP	68.0C	3246	50,900 CUP
IMR 7828	77.7	2775	49,800 PSI	81.8	2989	62,100 PSI	H4895	60.0	3057	45,000 CUP	67.0	3271	51,600 CUP
H4831	77.7	2786	51,900 PSI	82.7	2966	62,600 PSI	IMR 8208 XBR	58.0	3023	47,000 CUP	64.0	3198	51,900 CUP
IMR 4831	75.5	2814	51,500 PSI	78.9	2993	62,000 PSI	Bullet: 180 GR. NOS BT Dia: .338"						
H4350	72.8	2833	52,100 PSI	77.5	3003	61,800 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.340"						
IMR 4350	70.9	2786	51,100 PSI	76.2	2991	62,200 PSI	H4831	70.0	2776	35,200 CUP	78.0C	3067	49,100 CUP
Bullet: 225 GR. HDY SST Dia: .338"							IMR 4350	70.5	2848	40,800 CUP	75.0C	3038	48,300 CUP
Case: Nosler Primer: WIN LR Magnum Col: 3.400"							IMR 4831	70.0	2822	39,000 CUP	75.0C	3034	47,500 CUP
H1000	81.3	2721	52,400 PSI	86.1C	2878	62,400 PSI	H4350	69.0	2928	41,200 CUP	74.5	3157	52,200 CUP
Grand	81.0	2730	50,100 PSI	84.3C	2828	54,800 PSI	StaBALL 6.5	66.5	2905	51,000 PSI	73.4	3139	62,100 PSI
H4831	75.8	2702	53,600 PSI	79.8	2843	62,000 PSI	W760	66.0	2914	43,200 CUP	72.0	3107	51,800 CUP
IMR 7828	74.8	2688	50,900 PSI	79.6	2895	62,600 PSI	H380	65.0	2886	44,200 CUP	72.5	3111	51,100 CUP
IMR 4831	72.5	2672	50,700 PSI	76.2	2863	62,000 PSI	IMR 4895	62.5	2896	43,000 CUP	66.5	3059	51,200 CUP
IMR 4350	72.0	2810	54,400 PSI	75.0	2939	62,500 PSI	IMR 4064	60.6	2885	43,300 CUP	64.5	3041	51,600 CUP
H4350	69.2	2689	52,400 PSI	73.6	2827	62,000 PSI	H4895	58.0	2893	45,100 CUP	64.0	3066	52,300 CUP
Bullet: 250 GR. HDY BTHP Dia: .338"							Varget	57.0	2871	45,500 CUP	63.5	3087	53,200 CUP
Case: Nosler Primer: WIN LR Magnum Col: 3.400"							Bullet: 185 GR. BAR TTSX Dia: .338"						
H1000	79.4	2688	53,000 PSI	84.0C	2832	62,100 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.290"						
Retumbo	79.1	2694	55,100 PSI	83.9C	2824	62,300 PSI	IMR 4831	70.5	2749	39,500 CUP	75.0C	3031	49,800 CUP
StaBALL HD	76.5	2504	50,300 PSI	83.2	2715	62,700 PSI	H4350	69.6	2896	47,500 CUP	74.0C	3048	52,800 CUP
Grand	80.0	2677	51,900 PSI	82.8C	2759	56,100 PSI	IMR 4350	67.0	2792	41,000 CUP	74.0C	3072	51,900 CUP
IMR 7828	72.9	2657	52,400 PSI	77.1	2814	62,000 PSI	StaBALL 6.5	65.0	2848	51,600 PSI	72.3	3086	61,800 PSI
H4831	71.2	2591	52,800 PSI	75.4	2734	62,200 PSI	W760	66.0	2889	48,400 CUP	70.0	3002	52,000 CUP
IMR 4831	70.1	2627	52,200 PSI	74.2	2789	62,000 PSI	H380	65.8	2870	48,000 CUP	70.0	3007	52,800 CUP
H4350	67.5	2626	52,400 PSI	71.4	2762	62,200 PSI	Hybrid 100V	65.0	2774	40,600 CUP	70.0C	2947	45,800 CUP
IMR 4350	67.3	2620	52,100 PSI	71.2	2773	62,200 PSI	Varget	60.0	2831	47,200 CUP	65.0	3013	52,900 CUP
Bullet: 265 GR. BAR LRX BT Dia: .338"							IMR 4895	60.2	2837	43,900 CUP	64.0	2990	51,400 CUP
Case: Nosler Primer: WIN LR Magnum Col: 3.450"							IMR 4064	59.2	2831	45,400 CUP	63.0	2981	51,600 CUP
Grand	78.0	2584	52,900 PSI	81.5C	2661	54,900 PSI	H4895	56.0	2764	46,600 CUP	59.5	2901	52,300 CUP
StaBALL HD	72.8	2370	51,400 PSI	80.2	2577	62,900 PSI	Bullet: 200 GR. SPR SP Dia: .338"						
Retumbo	71.7	2518	53,600 PSI	76.7C	2650	62,100 PSI	Case: WIN Primer: WIN LR Magnum Col: 3.300"						
H1000	73.9	2536	53,800 PSI	79.0C	2684	62,600 PSI	H4831	70.0	2703	41,300 CUP	77.5C	2965	52,400 CUP
IMR 7828	68.3	2520	54,900 PSI	73.0	2657	62,300 PSI	IMR 4831	70.0	2751	43,500 CUP	74.5C	2934	50,200 CUP
H4831	68.1	2485	55,000 PSI	72.3	2611	62,200 PSI	IMR 4350	69.6	2837	46,700 CUP	74.0C	2979	52,900 CUP
IMR 4831	65.4	2471	54,000 PSI	69.2	2607	62,100 PSI	H4350	65.0	2695	39,900 CUP	72.5	2969	52,200 CUP
IMR 4350	62.6	2458	54,000 PSI	66.3	2595	61,900 PSI	StaBALL 6.5	63.5	2718	50,700 PSI	70.3	2951	62,000 PSI
H4350	62.4	2462	53,900 PSI	66.2	2579	61,300 PSI	Hybrid 100V	65.0	2684	40,600 CUP	70.0C	2870	46,100 CUP
Bullet: 275 GR. SFT A-FRAME Dia: .338"							W760	63.0	2730	43,000 CUP	69.5	2942	52,400 CUP
Case: Nosler Primer: WIN LR Magnum Col: 3.280"							H380	62.0	2685	44,900 CUP	69.0	2921	52,800 CUP
Grand	78.2	2555	52,800 PSI	82.2C	2658	58,500 PSI	IMR 4895	62.3	2830	47,700 CUP	66.3	2958	52,900 CUP
StaBALL HD	72.8	2357	52,400 PSI	80.2	2555	62,800 PSI	IMR 4064	60.2	2793	47,100 CUP	64.0	2918	52,700 CUP
H1000	74.4	2512	54,000 PSI	78.7C	2633	62,100 PSI	H4895	56.0	2702	44,700 CUP	62.0	2877	52,600 CUP
Retumbo	71.4	2472	53,000 PSI	75.6C	2608	62,500 PSI	Varget	53.0	2597	39,100 CUP	58.5	2805	51,100 CUP

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Gr	Vel	Pressure	Gr	Vel	Pressure	Powder	Gr	Vel	Pressure	Gr	Vel	Pressure
Bullet: 210 GR. BARTSX BT Dia: .338"							Hybrid 100V 58.0 2324 44,600 CUP 63.0C 2496 52,000 CUP						
Case: WIN Primer: FED 215, LR Magnum Col: 3.315"							IMR 4831 58.0 2287 43,100 CUP 62.5C 2426 49,600 CUP						
A-4350	64.2	2566	56,300 PSI	71.3	2895	62,500 PSI	IMR 4350	57.0	2304	44,100 CUP	62.0C	2468	49,900 CUP
Big Game	62.9	2624	56,800 PSI	69.9	2915	63,100 PSI	H4350	55.8	2287	48,400 CUP	59.4	2409	52,200 CUP
A-2700	61.2	2560	56,300 PSI	68.0	2800	62,500 PSI	StABALL 6.5	53.0	2259	51,400 PSI	58.0	2445	62,400 PSI
Bullet: 210 GR. NOS PART Dia: .338"							W760 52.2 2223 45,200 CUP 55.5 2329 50,200 CUP						
Case: WIN Primer: WIN LR Magnum Col: 3.330"							Bullet: 275 GR. SPR SP Dia: .338"						
IMR 7828	72.0	2676	43,900 CUP	78.0C*	2895	52,600 CUP	Case: WIN Primer: WIN LR Magnum Col: 3.340"						
H4831	68.0	2648	42,600 CUP	75.5C	2888	52,300 CUP	H1000	70.0	2402	43,400 CUP	76.0 C	2564	51,100 CUP
IMR 4831	68.0	2677	41,000 CUP	73.0C	2877	50,600 CUP	Grand	68.0	2339	48,600 PSI	72.6C	2486	56,500 PSI
Hybrid 100V	68.0	2759	45,200 CUP	72.0C	2887	48,400 CUP	IMR 7828	63.0	2263	42,000 CUP	68.0C	2454	52,700 CUP
IMR 4350	67.0	2711	44,200 CUP	71.5C	2894	52,800 CUP	H4831	62.0	2304	42,600 CUP	69.0	2502	52,300 CUP
H4350	63.0	2618	41,500 CUP	70.0	2855	51,800 CUP	IMR 4831	61.0	2304	47,000 CUP	65.5C	2465	53,100 CUP
StABALL 6.5	62.0	2648	51,400 PSI	68.6	2865	62,300 PSI	Hybrid 100V	60.0	2327	43,800 CUP	65.0C	2472	50,900 CUP
W760	60.0	2617	42,300 CUP	67.0	2848	51,800 CUP	H4350	57.0	2259	41,100 CUP	63.5	2447	52,100 CUP
H380	59.0	2555	42,400 CUP	66.0	2797	53,000 CUP	IMR 4350	58.0	2285	45,600 CUP	62.0	2401	52,500 CUP
IMR 4064	57.0	2651	44,200 CUP	62.0	2843	53,300 CUP	StABALL 6.5	56.0	2229	49,300 PSI	62.0	2441	62,100 PSI
IMR 4895	56.0	2581	41,900 CUP	62.0	2809	52,500 CUP	W760	56.0	2269	44,800 CUP	62.0	2445	52,500 CUP
H4895	54.0	2609	44,100 CUP	60.0	2788	53,000 CUP	Bullet: 300 GR. SIE HPBT Dia: .338"						
Varget	53.0	2577	41,800 CUP	58.5	2784	52,500 CUP	Case: WIN Primer: WIN LR Magnum Col: 3.340"						
Bullet: 215 GR. SIE BTSP Dia: .338"							Grand	66.0	2192	44,200 PSI	71.6C	2362	53,400 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.340"							H1000	66.0	2241	42,200 CUP	70.0C	2347	46,900 CUP
IMR 7828	72.0	2706	46,000 CUP	77.5C*	2889	53,400 CUP	IMR 7828	64.0	2274	45,500 CUP	68.0C*	2434	52,600 CUP
IMR 4831	68.0	2708	45,700 CUP	72.5C	2889	53,000 CUP	H4831	63.0	2255	45,900 CUP	69.0C	2422	52,800 CUP
IMR 4350	67.0	2643	44,200 CUP	71.5	2845	52,900 CUP	IMR 4831	62.0	2293	46,900 CUP	67.0C	2441	53,200 CUP
IMR 4064	57.0	2596	45,800 CUP	62.0	2776	53,100 CUP	IMR 4350	60.0	2263	47,100 CUP	64.0C	2420	52,300 CUP
IMR 4895	56.0	2572	42,600 CUP	61.5	2779	52,600 CUP	StABALL 6.5	57.0	2161	47,800 PSI	63.0	2404	61,900 PSI
Bullet: 225 GR. HDY SP Dia: .338"							H4350	56.0	2202	44,000 CUP	61.5	2362	52,600 CUP
Case: WIN Primer: WIN LR Magnum Col: 3.340"							338 REMINGTON ULTRA MAGNUM						
IMR 7828	72.0	2605	44,100 CUP	77.0C*	2777	49,400 CUP	Barrel: 24" Twist: 1:10" Trim: 2.750"						
H4831	67.0	2542	40,200 CUP	74.5C	2792	52,000 CUP	Bullet: 185 GR. BARTSX Dia: .338"						
IMR 4831	69.0	2637	44,900 CUP	73.5C	2805	50,200 CUP	Case: REM Primer: REM 9 1/2, LR Mag Col: 3.550"						
IMR 4350	67.0	2657	43,600 CUP	72.0C	2832	52,000 CUP	Grand	99.0	3182	50,300 PSI	105.0C	3356	58,100 PSI
Hybrid 100V	67.0	2693	46,200 CUP	71.0C	2815	49,400 CUP	H1000	96.0	3068	52,300 PSI	102.0C	3241	61,500 PSI
H4350	63.0	2571	41,100 CUP	69.5	2785	51,700 CUP	H4831	91.0	3040	52,000 PSI	97.0	3232	62,100 PSI
StABALL 6.5	63.5	2613	52,500 PSI	69.0	2787	61,700 PSI	IMR 7828	88.0	2986	49,800 PSI	95.7	3267	63,400 PSI
W760	62.0	2611	43,200 CUP	69.0	2811	51,700 CUP	IMR 4831	86.0	3075	50,300 PSI	92.5	3313	61,800 PSI
H380	58.0	2490	43,700 CUP	65.0	2708	52,600 CUP	Bullet: 200 GR. SPR SP Dia: .338"						
IMR 4895	58.0	2605	44,400 CUP	62.0	2761	52,600 CUP	Case: REM Primer: REM 9 1/2, LR Mag Col: 3.590"						
IMR 4064	57.0	2583	43,200 CUP	61.7	2764	52,800 CUP	Grand	95.0	3042	50,700 PSI	102.4C	3286	63,700 PSI
H4895	53.0	2505	43,000 CUP	59.0	2688	52,400 CUP	H1000	96.0	2944	48,300 PSI	102.0C	3127	58,600 PSI
Varget	52.0	2481	41,500 CUP	57.5	2680	52,700 CUP	H4831	91.0	2979	54,500 PSI	96.5	3138	63,000 PSI
Bullet: 225 GR. HDY SST Dia: .338"							IMR 7828	87.0	2930	52,900 PSI	93.7	3136	62,500 PSI
Case: WIN Primer: FED 215, LR Magnum Col: 3.340"							IMR 4831	84.0	2971	52,200 PSI	90.5	3186	62,200 PSI
A-4350	62.1	2471	57,600 PSI	69.0	2809	64,000 PSI	H4350	84.0	3011	55,400 PSI	89.5	3156	63,000 PSI
A-2700	62.7	2541	58,800 PSI	66.0	2703	61,900 PSI	IMR 4350	82.0	2940	52,200 PSI	88.0	3149	62,100 PSI
Bullet: 250 GR. HDY SP Dia: .338"							Hybrid 100V	79.0	2914	52,600 PSI	86.0	3126	63,100 PSI
Case: WIN Primer: WIN LR Magnum Col: 3.340"							Bullet: 210 GR. NOS PART Dia: .338"						
H1000	72.0	2512	41,500 CUP	76.0 C	2622	46,500 CUP	Case: REM Primer: REM 9 1/2, LR Mag Col: 3.540"						
IMR 7828	70.0	2423	44,000 CUP	75.0C*	2628	51,800 CUP	H1000	96.0	2952	51,200 PSI	102.0C	3153	62,900 PSI
IMR 4831	67.0	2474	45,300 CUP	71.6C	2632	52,400 CUP	Grand	93.0	2988	50,800 PSI	99.6C	3226	64,300 PSI
H4831	64.0	2424	41,900 CUP	71.5C	2655	52,300 CUP	H4831	89.0	2913	54,600 PSI	94.5	3084	63,100 PSI
IMR 4350	65.0	2468	45,800 CUP	69.5C	2634	52,400 CUP	IMR 7828	86.0	2867	52,500 PSI	93.0	3095	63,400 PSI
Hybrid 100V	63.0	2475	34,700 CUP	68.0C	2643	50,500 CUP	H4350	82.0	2941	53,700 PSI	87.0	3107	62,900 PSI
H4350	61.0	2448	42,000 CUP	67.5	2657	51,900 CUP	Bullet: 215 GR. SIE SPBT Dia: .338"						
W760	59.0	2426	44,100 CUP	65.0	2622	52,900 CUP	Case: REM Primer: REM 9 1/2, LR Mag Col: 3.590"						
StABALL 6.5	58.0	2396	49,400 PSI	64.0	2606	62,200 PSI	H1000	96.0	2947	51,800 PSI	102.0C	3127	62,800 PSI
IMR 4895	55.0	2392	45,700 CUP	59.0	2529	53,200 CUP	IMR7977	94.6	2961	51,100 PSI	101.8C	3215	64,300 PSI
IMR 4064	54.0	2339	43,300 CUP	58.5	2518	52,700 CUP	Grand	94.0	2983	51,100 PSI	101.0C	3190	63,600 PSI
Bullet: 250 GR. SIE SBT Dia: .338"							H4831	89.0	2881	51,800 PSI	94.5	3057	62,800 PSI
Case: WIN Primer: FED 215, LR Magnum Col: 3.340"							IMR 7828	86.0	2810	50,300 PSI	93.0	3059	62,400 PSI
A-4350	58.5	2276	54,600 PSI	65.0	2586	60,700 PSI	IMR 4831	83.0	2940	54,100 PSI	88.0	3088	62,700 PSI
A-2700	59.9	2394	59,700 PSI	63.0	2547	62,800 PSI	Bullet: 250 GR. HDY SP Dia: .338"						
Bullet: 265 GR. BARTTSX BT Dia: .338"							Case: REM Primer: REM 9 1/2, LR Mag Col: 3.580"						
Case: WIN Primer: WIN LR Magnum Col: 3.450"							StABall HD	90.0	2714	51,700 PSI	98.0C	2916	63,500 PSI
IMR 7828 SSC	61.2	2239	42,400 CUP	68.0C*	2443	50,000 CUP	H1000	92.0	2756	52,400 PSI	98.0C	2923	62,400 PSI
H4831	60.3	2236	44,000 CUP	67.0C	2434	52,500 CUP							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads									
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure					
IMR 7977	90.2	2746	50,800 PSI	97.0	2966	63,100 PSI	IMR 4350	83.0	3001	47,400 CUP	88.0	3161	52,700 CUP					
Grand	88.0	2747	51,000 PSI	94.8	2974	63,700 PSI	Hybrid 100V	81.0	2975	47,100 CUP	88.0	3155	53,200 CUP					
H4831	84.0	2662	50,000 PSI	90.0	2858	62,500 PSI	H4350	79.0	2925	45,900 CUP	85.5	3099	52,500 CUP					
Bullet: 275 GR. SFT SP Dia: .338"						Bullet: 210 GR. BAR TSX-BT Dia: .338"												
Case: REM		Primer: REM 9 1/2, LR Mag				Col: 3.490"	Case: Lapua		Primer: WIN LR Magnum				Col: 3.525"					
IMR 8133	88.5	2601	52,500 PSI	96.0	2801	62,400 PSI	Magnum	93.0	2921	58,300 PSI	103.4	3226	64,900 PSI					
Retumbo	88.0	2649	57,900 PSI	94.0C	2764	63,100 PSI	Magpro	92.8	2985	58,400 PSI	103.2	3236	64,900 PSI					
StaBall HD	85.0	2522	50,700 PSI	92.5	2720	63,400 PSI	Bullet: 210 GR. NOS PART Dia: .338"											
Grand	83.0	2567	52,000 PSI	91.0	2787	63,400 PSI	Case: Lapua		Primer: WIN LR Magnum				Col: 3.525"					
H1000	86.0	2602	54,800 PSI	91.0C	2729	62,700 PSI	Magnum	95.0	2946	58,200 PSI	105.5	3268	64,600 PSI					
IMR 7977	81.0	2551	53,900 PSI	89.0C	2733	62,500 PSI	Grand	95.0	2989	51,800 PSI	103.6	3217	62,800 PSI					
Bullet: 300 GR. SIE HPBT Dia: .338"						Magpro						89.5	2955	57,900 PSI	99.4	3224	64,300 PSI	
Case: REM		Primer: REM 9 1/2, LR Mag				Col: 3.580"	Case: Norma		Primer: FED 215M, LR Mag Match				Col: 3.525"					
IMR 8133	88.0	2453	47,200 PSI	96.0C	2722	62,300 PSI	StaBALL HD	94.5	2866	50,300 PSI	103.5	3120	62,800 PSI					
StaBall HD	84.0	2440	51,000 PSI	91.5C	2668	63,700 PSI	Retumbo	92.0	2846	42,100 CUP	102.0C	3142	52,600 CUP					
Grand	82.5	2488	50,400 PSI	90.8C	2731	63,800 PSI	H1000	90.0	2800	42,900 CUP	99.5	3052	52,500 CUP					
Retumbo	84.0	2501	53,900 PSI	90.5C	2662	62,200 PSI	IMR 7828	88.0	2920	47,300 CUP	93.4	3099	52,900 CUP					
IMR 7977	82.1	2396	46,800 PSI	90.3C	2666	61,300 PSI	H4831	80.0	2735	44,600 CUP	89.0	3006	53,000 CUP					
338 LAPUA MAGNUM						IMR 4831						83.0	2920	47,900 CUP	88.5	3076	53,500 CUP	
Barrel: 24" Twist: 1:9" Trim: 2.714"						IMR 4350						80.0	2891	46,400 CUP	85.0	3034	51,900 CUP	
Bullet: 160 GR. BAR TTSX BT Dia: .338"						Hybrid 100V						77.0	2760	45,200 CUP	84.0	2948	52,500 CUP	
Case: Norma		Primer: FED 215M, LR Mag Match				Col: 3.565"	H4350						76.0	2834	47,000 CUP	82.0	3005	52,200 CUP
IMR 7828	98.7	3330	54,000 PSI	105.0	3531	62,800 PSI	Bullet: 215 GR. SIE SBT GK Dia: .338"											
H4831	98.5	3290	52,900 PSI	104.8C	3472	61,200 PSI	Case: Lapua		Primer: WIN LR Magnum				Col: 3.625"					
IMR 4831	93.0	3346	51,500 PSI	99.0	3589	62,500 PSI	Magnum	93.6	2944	58,100 PSI	104.0	3249	64,600 PSI					
Hybrid 100V	90.0	3413	54,000 PSI	96.3C	3606	62,400 PSI	Magpro	92.9	2978	58,100 PSI	103.2	3262	64,600 PSI					
IMR 4350	90.2	3350	53,700 PSI	96.0	3525	61,200 PSI	Bullet: 215 GR. SIE SPBT Dia: .338"											
H4350	89.3	3348	54,100 PSI	95.0	3511	61,800 PSI	Case: Norma		Primer: FED 215M, LR Mag Match				Col: 3.550"					
W760	87.4	3341	54,700 PSI	93.0	3502	62,400 PSI	Retumbo	94.0	2849	43,700 CUP	104.0C	3125	51,900 CUP					
Bullet: 185 GR. BAR TSX Dia: .338"						StaBALL HD						95.5	2862	50,500 PSI	104.0	3108	62,800 PSI	
Case: Norma		Primer: FED 215M, LR Mag Match				Col: 3.530"	Grand						94.0	2905	48,000 PSI	102.6	3190	63,100 PSI
Grand	100.0	3171	50,000 PSI	107.0C	3355	58,600 PSI	H1000	92.0	2809	43,500 CUP	102.0C	3068	53,000 CUP					
H1000	100.0	3051	49,300 PSI	106.0C	3218	57,300 PSI	IMR 7828	87.7	2906	47,600 CUP	93.3	3076	51,900 CUP					
IMR 7828	94.0	3133	54,200 PSI	100.0	3312	62,000 PSI	H4831	82.0	2763	44,500 CUP	91.0	2997	53,000 CUP					
H4831	93.7	3085	52,500 PSI	100.0	3281	61,500 PSI	IMR 4831	83.0	2868	45,900 CUP	88.5	3033	52,600 CUP					
IMR 4831	89.0	3176	53,000 PSI	94.6	3371	62,800 PSI	IMR 4350	80.0	2888	45,900 CUP	85.0	3042	52,200 CUP					
IMR 4350	85.4	3122	53,000 PSI	90.8	3307	61,800 PSI	H4350	76.0	2791	45,000 CUP	84.0	3015	52,800 CUP					
Hybrid 100V	85.2	3198	54,600 PSI	90.6	3354	62,100 PSI	Bullet: 225 GR. BAR TSX FB Dia: .338"											
H4350	85.0	3120	53,200 PSI	90.4	3311	63,400 PSI	Case: Lapua		Primer: WIN LR Magnum				Col: 3.525"					
W760	81.8	3124	56,100 PSI	87.0	3247	62,400 PSI	Magnum	90.7	2792	58,100 PSI	100.7	3081	64,500 PSI					
Bullet: 200 GR. HDY SP Dia: .338"						Magpro						89.5	2828	58,300 PSI	99.5	3108	64,800 PSI	
Case: Lapua		Primer: WIN LR Magnum				Col: 3.530"	Bullet: 225 GR. HDY SP Dia: .338"											
Magpro	97.5	3039	58,100 PSI	108.3	3369	64,500 PSI	Case: Lapua		Primer: WIN LR Magnum				Col: 3.555"					
Magnum	97.5	3016	58,300 PSI	108.3	3340	64,800 PSI	Magnum	93.9	2852	58,100 PSI	104.3	3153	64,600 PSI					
Bullet: 200 GR. NOS BST Dia: .338"						Magpro						92.4	2810	57,900 PSI	102.6	3126	64,300 PSI	
Case: Lapua		Primer: WIN LR Magnum				Col: 3.605"	Bullet: 225 GR. NOS AB Dia: .338"											
Magpro	99.5	3062	54,500 PSI	110.5	3355	60,500 PSI	Case: Lapua		Primer: WIN LR Magnum				Col: 3.730"					
Magnum	98.9	3067	57,000 PSI	109.9	3380	63,300 PSI	Magpro	93.0	2921	58,200 PSI	103.4	3188	64,700 PSI					
Bullet: 200 GR. NOS E-TIP Dia: .338"						Magnum						92.7	2864	58,300 PSI	103.0	3167	64,800 PSI	
Case: Lapua		Primer: WIN LR Magnum				Col: 3.720"	Bullet: 225 GR. NOS PART Dia: .338"											
Magpro	95.3	3108	58,400 PSI	105.9	3342	64,900 PSI	Case: Lapua		Primer: WIN LR Magnum				Col: 3.550"					
Magnum	94.5	2993	58,400 PSI	104.9	3319	64,900 PSI	Magnum	93.0	2842	58,000 PSI	103.3	3150	64,400 PSI					
Bullet: 200 GR. NOS PART Dia: .338"						Magpro						91.8	2927	57,900 PSI	102.0	3169	64,400 PSI	
Case: Lapua		Primer: WIN LR Magnum				Col: 3.740"	Case: Norma		Primer: FED 215M, LR Mag Match				Col: 3.550"					
Magnum	97.2	3053	58,300 PSI	108.0	3376	64,700 PSI	Retumbo	92.0	2744	41,200 CUP	102.0C	3040	52,300 CUP					
Magpro	95.7	3112	57,800 PSI	106.4	3381	64,200 PSI	StaBALL HD	91.0	2714	47,400 PSI	100.0	3010	62,600 PSI					
Bullet: 200 GR. SPR SP Dia: .338"						H1000						91.0	2713	42,100 CUP	101.0C	2995	53,100 CUP	
Case: Norma		Primer: FED 215M, LR Mag Match				Col: 3.525"	IMR 7828	85.0	2831	46,900 CUP	90.5	2966	52,100 CUP					
StaBALL HD	96.5	2942	51,300 PSI	106.0	3193	63,100 PSI	H4831	80.0	2699	44,000 CUP	89.6	2918	52,900 CUP					
Grand	99.0	3048	50,500 PSI	104.8	3282	63,000 PSI	IMR 4831	81.8	2794	47,300 CUP	87.0	2965	53,500 CUP					
Retumbo	96.0	2928	43,700 CUP	104.0C	3189	52,600 CUP	IMR 4350	78.0	2821	45,200 CUP	83.3	2944	52,300 CUP					
H1000	92.0	2854	42,300 CUP	102.0C	3116	52,500 CUP	Hybrid 100V	76.0	2760	45,300 CUP	83.0	2942	52,700 CUP					
IMR 7828	89.0	2965	44,300 CUP	95.0	3133	52,300 CUP	H4350	74.0	2715	45,200 CUP	82.5	2936	52,800 CUP					
IMR 4831	85.5	2970	47,600 CUP	91.0	3162	53,100 CUP	Bullet: 230 GR. LGH MMF Dia: .338"											
H4831	83.0	2855	44,900 CUP	92.0	3086	53,200 CUP	Case: Lapua		Primer: WIN LR Magnum				Col: 3.655"					
						Magnum						92.7	2882	57,900 PSI	103.0	3170	64,300 PSI	

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
Magpro	90.9	2937	58,100 PSI	101.1	3210	64,600 PSI	Magpro	79.9	2473	58,400 PSI	88.7	2721	64,800 PSI
Bullet: 245 GR. LGH M-HYB Dia: .338"							Case: Norma Primer: FED 215M, LR Mag Match Col: 3.680"						
Case: Lapua Primer: WIN LR Magnum Col: 3.970"							US 869	98.5	2567	47,500 CUP	104.0	2677	51,500 CUP
Magpro	90.0	2882	58,200 PSI	100.0	3142	64,600 PSI	Retumbo	85.0	2376	41,100 CUP	94.0C	2654	53,400 CUP
Magnum	88.9	2779	58,100 PSI	98.8	3077	64,600 PSI	H1000	83.0	2383	43,200 CUP	92.0C	2590	53,000 CUP
Bullet: 250 GR. BARTSX-FB Dia: .338"							StaBALL HD	82.5	2405	50,200 PSI	91.0	2633	63,100 PSI
Case: Lapua Primer: WIN LR Magnum Col: 3.525"							Grand	82.0	2462	53,200 PSI	89.0	2635	63,000 PSI
Magnum	88.9	2677	58,500 PSI	98.7	2957	64,900 PSI	IMR 7828	73.0	2376	44,600 CUP	81.0	2566	53,000 CUP
Magpro	85.1	2675	58,300 PSI	94.6	2940	64,800 PSI	H4831	71.0	2307	44,400 CUP	79.0	2511	53,100 CUP
Bullet: 250 GR. HDY SP Dia: .338"							IMR 4831	68.0	2316	43,500 CUP	76.0	2541	53,300 CUP
Case: Norma Primer: FED 215M, LR Mag Match Col: 3.550"							350 LEGEND						
US 869	101.5	2728	47,000 CUP	108.0	2879	51,100 CUP	Barrel: 24" Twist: 1:16" Trim: 1.700"						
Retumbo	90.0	2620	43,200 CUP	98.0C	2853	52,000 CUP	Bullet: 115 GR. LGH FTM-EXP Dia: .355"						
H1000	88.0	2567	41,400 CUP	98.0C	2838	52,800 CUP	Case: WIN Primer: WIN SR Col: 2.060"						
StaBALL HD	88.5	2656	50,400 PSI	97.5	2889	62,800 PSI	Enforcer	27.9	2584	40,400 PSI	31.0	2828	52,100 PSI
Grand	89.0	2691	49,400 PSI	97.0	2942	63,100 PSI	A-4100	27.8	2577	40,000 PSI	30.9	2820	51,700 PSI
IMR 7828	83.0	2636	46,200 CUP	88.5	2802	52,100 CUP	No. 9	25.0	2523	42,700 PSI	27.8	2723	52,000 PSI
IMR 4831	80.0	2657	47,700 CUP	85.0	2801	52,900 CUP	Titegroup	11.1	1847	44,400 PSI	12.3	2003	52,000 PSI
H4831	79.0	2600	46,100 CUP	85.0	2740	52,200 CUP	Bullet: 118 GR. LGH XD Dia: .355"						
Hybrid 100V	75.0	2619	45,500 CUP	81.0	2765	52,200 CUP	Case: WIN Primer: WIN SR Col: 2.100"						
H4350	74.0	2615	48,300 CUP	78.0	2742	52,300 CUP	Enforcer	26.9	2480	37,100 PSI	29.9	2750	52,000 PSI
Bullet: 250 GR. SIE HPBT MK Dia: .338"							A-4100	26.8	2472	36,700 PSI	29.8	2741	51,500 PSI
Case: Lapua Primer: WIN LR Magnum Col: 3.705"							A-5744	26.4	2158	34,100 PSI	29.3	2408	45,000 PSI
LRT	97.3	2838	57,900 PSI	108.1	3114	64,400 PSI	H110	23.0	2159	38,100 PSI	28.0	2518	51,900 PSI
Magnum	89.2	2746	58,400 PSI	99.1	3026	64,900 PSI	W296	23.0	2159	38,100 PSI	28.0	2518	51,900 PSI
Magpro	86.3	2747	58,000 PSI	95.9	3014	64,500 PSI	No. 9	25.1	2489	41,500 PSI	27.9	2700	52,400 PSI
Bullet: 265 GR. BARTAC-TX Dia: .338"							IMR 4227	24.0	1879	30,500 PSI	27.5C	2201	43,200 PSI
Case: Lapua Primer: WIN LR Magnum Col: 3.670"							Bullet: 125 GR. BAR TAC-XP Dia: .355"						
LRT	92.3	2736	57,500 PSI	102.5	2935	63,900 PSI	Case: WIN Primer: WIN SR Col: 2.050"						
Magnum	88.0	2628	58,400 PSI	97.8	2889	64,900 PSI	No. 11FS	25.2	2370	36,300 PSI	28.0	2569	45,500 PSI
Magpro	83.6	2584	58,100 PSI	92.9	2864	64,600 PSI	IMR 4227	24.0	2054	33,000 PSI	27.5C	2307	46,100 PSI
Bullet: 265 GR. BARTTSX BT Dia: .338"							Lil'Gun	24.0	2428	42,400 PSI	27.5	2600	50,300 PSI
Case: Norma Primer: FED 215M, LR Mag Match Col: 3.685"							Enforcer	24.1	2359	38,200 PSI	26.8	2565	51,700 PSI
US 869	93.8	2518	48,400 PSI	100.0	2677	55,900 PSI	A-4100	24.0	2353	37,800 PSI	26.7	2557	51,200 PSI
Grand	84.0	2589	50,600 PSI	92.0	2828	63,200 PSI	H110	23.7	2352	41,300 PSI	26.3	2543	51,800 PSI
StaBALL HD	82.0	2512	50,300 PSI	91.5	2762	62,800 PSI	W296	23.7	2352	41,300 PSI	26.3	2543	51,800 PSI
H1000	77.7	2510	52,800 PSI	83.6	2656	61,100 PSI	No. 9	22.0	2331	39,300 PSI	24.5	2519	52,000 PSI
Retumbo	76.4	2483	50,400 PSI	83.0	2660	60,600 PSI	Bullet: 147 GR. HDY XTP Dia: .355"						
IMR 7828	76.1	2533	54,000 PSI	81.0	2658	60,500 PSI	Case: WIN Primer: WIN SR Col: 2.000"						
H4831	74.6	2518	54,400 PSI	79.4	2642	61,600 PSI	Lil'Gun	27.0	2347	36,400 PSI	28.5	2455	40,500 PSI
IMR 4831	70.5	2503	53,800 PSI	75.0	2634	62,300 PSI	No. 11FS	25.6	2289	34,300 PSI	28.4	2487	50,000 PSI
Bullet: 275 GR. SFT A-FRAME Dia: .338"							H110	27.0	2368	41,900 PSI	28.2	2495	52,100 PSI
Case: Norma Primer: FED 215M, LR Mag Match Col: 3.460"							W296	27.0	2368	41,900 PSI	28.2	2495	52,100 PSI
US 869	99.0	2636	46,200 CUP	104.5	2761	52,200 CUP	IMR 4227	24.0	2066	38,000 PSI	27.5C	2276	45,800 PSI
Grand	85.0	2569	52,500 PSI	92.0	2760	63,100 PSI	A-5744	24.5	2057	33,700 PSI	27.2	2313	50,000 PSI
H1000	83.0	2444	43,500 CUP	91.5C	2648	52,600 CUP	Enforcer	23.9	2227	35,300 PSI	26.6	2440	51,700 PSI
StaBALL HD	82.5	2429	47,300 PSI	91.5	2695	62,900 PSI	A-4100	23.8	2219	34,700 PSI	26.5	2431	51,000 PSI
Retumbo	80.0	2421	41,800 CUP	89.0	2671	52,700 CUP	No. 9	21.7	2182	37,100 PSI	24.1	2375	52,100 PSI
IMR 7828	73.0	2429	44,500 CUP	81.0	2632	53,000 CUP	Bullet: 165 GR. HDY FTX Dia: .355"						
H4831	71.0	2349	42,800 CUP	79.0	2572	52,800 CUP	Case: WIN Primer: WIN SR Col: 2.255"						
IMR 4831	73.0	2450	46,000 CUP	77.3	2584	52,900 CUP	Lil'Gun	25.7	2138	35,200 PSI	28.6	2298	41,200 PSI
Bullet: 285 GR. HDY BTHP-M Dia: .338"							No. 11FS	24.4	2100	38,200 PSI	27.1	2285	51,000 PSI
Case: Lapua Primer: WIN LR Magnum Col: 3.750"							H110	24.3	2104	39,100 PSI	27.0	2270	51,800 PSI
LRT	94.3	2683	57,400 PSI	104.8	2909	63,700 PSI	W296	24.3	2104	39,100 PSI	27.0	2270	51,800 PSI
Magnum	85.3	2550	57,900 PSI	94.8	2821	64,400 PSI	A-5744	24.2	1967	39,900 PSI	26.9	2185	52,000 PSI
Magpro	82.8	2561	57,900 PSI	92.0	2817	64,300 PSI	IMR 4227	22.7	1875	35,100 PSI	25.2	2040	42,800 PSI
Bullet: 300 GR. BER HYB Dia: .338"							Enforcer	22.5	2057	40,600 PSI	24.9	2227	52,000 PSI
Case: Lapua Primer: WIN LR Magnum Col: 3.825"							A-4100	22.4	2051	40,200 PSI	24.8	2220	51,500 PSI
LRT	92.7	2598	57,500 PSI	103.0	2837	63,800 PSI	Bullet: 170 GR. HDY SP Dia: .355"						
Magnum	82.4	2476	58,100 PSI	91.5	2732	64,500 PSI	Case: WIN Primer: WIN SR Col: 2.240"						
Magpro	80.3	2497	58,200 PSI	89.2	2737	64,700 PSI	CFE BLK	27.0	1857	24,000 PSI	30.0C	2075	31,000 PSI
Bullet: 300 GR. SIE HPBT Dia: .338"							Lil'Gun	27.0	2239	43,500 PSI	27.9	2307	45,900 PSI
Case: Lapua Primer: WIN LR Magnum Col: 3.680"							IMR 4227	25.0	1946	38,500 PSI	27.4C	2122	50,900 PSI
LRT	90.9	2592	57,400 PSI	101.0	2807	63,700 PSI	A-5744	24.7	2022	38,800 PSI	27.4	2238	52,000 PSI
Magnum	82.1	2455	58,200 PSI	91.2	2707	64,700 PSI	No. 11FS	24.2	2122	37,700 PSI	26.8	2300	51,900 PSI
							H110	24.0	2049	40,600 PSI	26.7	2221	51,600 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
W296	24.0	2049	40,600 PSI	26.7	2221	51,600 PSI	H4198		Subsonic		16.0	1064	18,800 PSI
Enforcer	22.0	2036	38,500 PSI	24.5	2211	52,500 PSI	A-5744		Subsonic		15.0	1060	48,700 CUP
A-4100	22.0	2030	38,100 PSI	24.4	2204	52,000 PSI							
Bullet: 180 GR. WIN PP Dia: .355"							9.3 x 62						
Case: WIN Primer: WIN SR Col: 2.110"							Barrel: 24" Twist: 1:10" Trim: 2.431"						
CFE BLK	24.7	1691	21,000 PSI	27.5C	1889	28,100 PSI	Bullet: 250 GR. BAR TSX Dia: .366"						
A-1680	24.5	1834	21,600 PSI	27.2	2026	31,000 PSI	Case: Norma Primer: CCI 200 LR Col: 3.200"						
Lil'Gun	23.0	2049	41,300 PSI	25.5	2213	50,600 PSI	Varget	52.0	2199	33,900 CUP	58.0C	2436	48,700 CUP
A-5744	22.5	1891	36,100 PSI	25.0	2069	49,000 PSI	IMR 4895	52.0	2185	39,200 CUP	58.0C	2438	18,800 PSI
IMR 4227	22.7	1880	42,100 PSI	24.7	2032	51,200 PSI	H4895	51.0	2221	37,000 CUP	57.0C	2484	17,200 PSI
H110	22.0	1894	36,700 PSI	24.0	2079	51,100 PSI	H335	49.5	2188	38,800 CUP	56.0	2435	48,800 CUP
No. 11FS	21.6	1966	37,500 PSI	24.0	2133	51,500 PSI	IMR 3031	49.0	2182	36,500 CUP	54.5C	2423	47,700 CUP
W296	22.0	1894	36,700 PSI	24.0	2079	51,100 PSI	Bullet: 270 GR. SPR SP Dia: .366"						
Enforcer	21.0	1957	39,100 PSI	23.3	2126	52,700 PSI	Case: Norma Primer: CCI 200 LR Col: 3.280"						
A-4100	20.9	1950	38,500 PSI	23.2	2118	52,000 PSI	H4350	63.0	2322	38,500 CUP	67.0C	2438	44,600 CUP
Bullet: 250 GR. HDY SUB-X Dia: .357"							BL-C(2)	60.0	2338	39,600 CUP	66.0	2548	47,400 CUP
Case: HORNADY Primer: WIN SR Col: 2.250"							IMR 4350	58.0	2117	38,400 CUP	64.0C	2347	47,600 CUP
TAC		Subsonic		19.5C	1078	21,300 PSI	Varget	55.0	2290	40,100 CUP	59.5	2440	48,100 CUP
Benchmark		Subsonic		19.4C	1059	24,600 PSI	H335	54.0	2283	40,700 CUP	58.0	2411	47,600 CUP
IMR 3031		Subsonic		18.6C	1062	31,300 PSI	H4895	52.0	2244	39,800 CUP	56.5	2406	48,000 CUP
H322		Subsonic		18.0C	1062	25,100 PSI	IMR 4895	50.0	2092	37,200 CUP	56.0	2328	48,300 CUP
LT-30		Subsonic		16.8C	1073	48,900 PSI	IMR 4064	50.0	2139	40,200 CUP	54.5	2317	48,300 CUP
A-5744		Subsonic		14.0	1058	24,200 PSI	IMR 3031	48.0	2154	36,900 CUP	53.5	2380	48,800 CUP
360 BUCKHAMMER							Bullet: 286 GR. NOS PART Dia: .366"						
Barrel: 20" Twist: 1:12" Trim: 1.800"							Case: Norma Primer: CCI 200 LR Col: 3.225"						
Bullet: 180 GR. CORE-LOKT Dia: .358"							H4350	64.0	2321	40,800 CUP	67.0C	2407	46,300 CUP
Case: REM Primer: REM 9 1/2, LR Col: 2.380"							W760	60.0	2205	40,700 CUP	63.0C	2305	47,800 CUP
A-1680	34.2	2274	37,100 PSI	38.0C	2503	48,300 PSI	Varget	55.0	2242	39,800 CUP	59.0C	2350	47,500 CUP
CFE BLK	35.0	2275	34,000 PSI	37.5C	2431	42,200 PSI	W748	52.0	2056	34,300 CUP	57.0	2241	43,200 CUP
A-5744	28.0	2124	37,400 PSI	31.0	2349	23,900 PSI	IMR 4895	51.0	2108	38,200 CUP	56.0C	2279	48,000 CUP
IMR 4227	27.2	2109	41,600 PSI	30.2C	2270	48,700 PSI	H4895	51.0	2131	39,000 CUP	55.5	2331	47,800 CUP
NO. 11FS	24.8	2167	45,500 PSI	27.0	2259	48,200 PSI	H335	51.0	2178	41,300 CUP	55.0	2323	48,100 CUP
Bullet: 200 GR. CORE-LOKT Dia: .358"							IMR 4064	49.0	2015	35,700 CUP	54.5C	2218	46,100 CUP
Case: REM Primer: REM 9 1/2, LR Col: 2.380"							IMR 3031	47.0	2058	35,700 CUP	51.5C	2219	46,900 CUP
CFE BLK	34.0	2155	36,800 PSI	37.0C	2342	48,100 PSI	Bullet: 300 GR. SFT AF/SS Dia: .366"						
A-1680	32.0	2096	36,300 PSI	35.5C	2327	49,100 PSI	Case: Norma Primer: CCI 200 LR Col: 3.150"						
LT-30	32.0	2053	36,400 PSI	34.0C	2165	41,400 PSI	H4350	60.0	2142	40,000 CUP	64.0C	2288	48,100 CUP
A-5744	26.7	2007	38,000 PSI	29.6	2215	48,700 PSI	W760	59.0	2136	41,500 CUP	62.0C	2242	46,200 CUP
IMR 4227	26.0	1975	42,300 PSI	29.0C	2129	49,200 PSI	Hybrid 100V	56.0	2041	39,300 CUP	60.0C	2158	42,600 CUP
A-5744		Subsonic		14.0	1045	13,500 PSI	BL-C(2)	54.0	2140	42,900 CUP	57.5	2211	47,900 CUP
NO. 2		Subsonic		7.8	1079	23,000 PSI	W748	52.0	2096	36,700 CUP	56.5	2234	44,500 CUP
Titegroup		Subsonic		7.2	1075	22,900 PSI	Varget	52.0	2083	42,000 CUP	56.0	2194	47,800 CUP
Bullet: 223 GR. HAM SHOCK Dia: .358"							IMR 4895	49.0	2020	38,800 CUP	54.7C	2224	48,500 CUP
Case: REM Primer: REM 9 1/2, LR Col: 2.380"							IMR 4064	49.0	2002	38,600 CUP	54.5C	2205	48,900 CUP
A-1680	28.8	2019	42,100 PSI	32.0C	2155	48,600 PSI	H4895	47.0	1979	40,200 CUP	52.0	2133	48,200 CUP
CFE BLK	29.4	2000	40,600 PSI	32.0C	2108	48,800 PSI	IMR 3031	46.0	2002	37,200 CUP	52.0C	2230	48,600 CUP
A-5744	21.6	1714	40,400 PSI	24.0C	1860	19,800 PSI	375 H & H MAGNUM						
IMR 4227	20.7	1591	36,900 PSI	23.0C	1781	43,900 PSI	Barrel: 24" Twist: 1:12" Trim: 2.840"						
A-5744		Subsonic		16.0	1055	39,200 PSI	Bullet: 200 GR. SIE JFP Dia: .375"						
H4895		Subsonic		13.0	1040	37,500 PSI	Case: REM Primer: WIN LR Magnum Col: 3.350"						
NO. 2		Subsonic		9.5	1066	48,800 PSI	CFE 223	81.8	2985	41,600 CUP	89.0	3186	46,200 CUP
Titegroup		Subsonic		9.0	1080	48,700 PSI	Varget	69.5	2915	45,200 CUP	77.3	3109	51,000 CUP
Bullet: 225 GR. SFT SP Dia: .358"							IMR 4064	68.4	2819	46,000 CUP	76.0C	3013	50,800 CUP
Case: REM Primer: REM 9 1/2, LR Col: 2.385"							H4895	67.7	2924	42,200 CUP	75.2	3117	51,300 CUP
CFE BLK	29.0	1896	36,500 PSI	32.3C	2050	42,700 PSI	IMR 4895	67.6	2834	43,700 CUP	75.1	3022	51,000 CUP
A-1680	28.0	1866	36,700 PSI	31.2C	2056	48,600 PSI	Bullet: 235 GR. SPR SP Dia: .375"						
LT-30	28.0	1810	36,300 PSI	31.0C	2014	48,700 PSI	Case: REM Primer: WIN LR Magnum Col: 3.600"						
A-5744	23.0	1758	38,500 PSI	25.5C	1944	19,000 PSI	StaBALL 6.5	83.0	2721	42,800 CUP	91.5C	2926	48,500 CUP
IMR 4227	22.0	1689	38,300 PSI	24.3C	1838	48,400 PSI	W760	79.2	2714	42,300 CUP	87.0	2912	46,600 CUP
Bullet: 250 GR. HDY SUB-X Dia: .357"							CFE 223	76.6	2858	43,700 CUP	84.2	3026	50,600 CUP
Case: REM Primer: REM 9 1/2, LR Col: 2.350"							Varget	65.0	2718	43,600 CUP	71.5	2874	51,400 CUP
H4895		Subsonic		19.7	1062	18,700 PSI	IMR 4064	65.0	2641	42,700 CUP	71.5	2824	50,900 CUP
Benchmark		Subsonic		19.2	1041	48,400 PSI	Bullet: 250 GR. SFT AF/SS Dia: .375"						
H322		Subsonic		18.0	1068	16,900 PSI	Case: REM Primer: WIN LR Magnum Col: 3.555"						
LT-32		Subsonic		17.0	1063	47,200 CUP	H4350	76.0	2641	44,000 CUP	83.0C	2841	51,200 CUP
LT-30		Subsonic		16.2	1075	18,200 PSI	W760	77.0	2750	44,500 CUP	82.5	2820	48,800 CUP

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads				
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
StaBALL 6.5	73.8	2579	44,600 CUP	82.0	2789	50,100 CUP	Titegroup	5.0	956	8,400 PSI	6.2	1117	12,900 PSI
IMR 4350	71.0	2423	41,300 CUP	79.0C	2695	48,400 CUP	Clays	4.2	845	8,200 PSI	5.0	924	11,700 PSI
44 REMINGTON MAGNUM													
Bullet: 260 GR. NOS PART			Dia: .375"										
Case: REM		Primer: WIN LR Magnum				Col: 3.580"							
H4831	76.0	2371	41,800 CUP	83.0C	2616	46,300 CUP							
IMR 4831	76.0	2508	44,200 CUP	83.0C	2727	49,900 CUP							
H4350	73.5	2611	43,300 CUP	81.5	2818	51,400 CUP							
StaBALL 6.5	72.5	2551	44,900 CUP	80.6	2771	51,000 CUP							
IMR 4350	70.0	2406	41,500 CUP	78.6C	2710	50,700 CUP							
Hybrid 100V	73.0	2542	44,800 CUP	77.0C	2700	48,500 CUP							
W760	67.0	2459	43,000 CUP	74.5	2663	50,300 CUP							
Bullet: 270 GR. BARTSX			Dia: .375"										
Case: REM		Primer: WIN LR Magnum				Col: 3.550"							
W760	72.0	2511	46,300 CUP	79.0	2650	48,400 CUP							
StaBALL 6.5	71.0	2442	42,600 CUP	79.0C	2653	51,500 CUP							
IMR 4350	69.0	2300	39,500 CUP	76.0C	2555	46,700 CUP							
Hybrid 100V	69.0	2304	40,000 CUP	75.0C	2517	45,300 CUP							
H4350	69.0	2379	41,600 CUP	75.0C	2563	44,400 CUP							
Bullet: 300 GR. SFT AF/SS			Dia: .375"										
Case: REM		Primer: WIN LR Magnum				Col: 3.570"							
StaBALL 6.5	72.0	2425	45,100 CUP	80.0	2570	50,700 CUP							
H4350	68.0	2304	41,300 CUP	76.0C	2548	48,400 CUP							
W760	69.0	2314	40,600 CUP	75.0	2484	44,200 CUP							
IMR 4350	67.5	2253	43,200 CUP	75.0C	2481	47,800 CUP							
Hybrid 100V	65.7	2194	40,400 CUP	73.0C	2406	44,300 CUP							
400 LEGEND													
Barrel: 20"			Twist: 1:16"			Trim: 1.640"							
Bullet: 140 GR. BAR TAC-XP			Dia: .400"										
Case: WIN		Primer: WIN SR				Col: 2.050"							
NO. 11FS	35.0	2700	35,900 PSI	38.2C	2890	44,100 PSI							
Enforcer	33.4	2639	35,100 PSI	36.4C	2835	43,800 PSI							
IMR 4227	33.0	2276	30,800 PSI	36.0C	2498	40,300 PSI							
A-5744	33.0	2341	34,500 PSI	35.8C	2562	44,000 PSI							
Bullet: 165 GR. SIE JHP			Dia: .400"										
Case: WIN		Primer: WIN SR				Col: 2.050"							
NO. 11FS	34.0	2515	37,800 PSI	37.0	2657	43,800 PSI							
A-5744	33.0	2262	34,000 PSI	36.0	2483	44,200 PSI							
IMR 4227	33.0	2269	35,900 PSI	35.0C	2392	40,400 PSI							
Bullet: 165 GR. FED SYNTech			Dia: .400"										
Case: WIN		Primer: WIN SR				Col: 2.050"							
NO.11FS	35.0	2533	33,800 PSI	39.0	2788	44,200 PSI							
A-5744	34.0	2308	34,300 PSI	37.0	2503	43,900 PSI							
IMR 4227	33.0	2212	32,100 PSI	36.0C	2398	37,400 PSI							
Bullet: 180 GR. SPR GDHP			Dia: .400"										
Case: WIN		Primer: WIN SR				Col: 2.050"							
A-5744	32.5	2173	34,900 PSI	35.4	2391	44,200 PSI							
IMR 4227	31.0	2088	34,500 PSI	34.0C	2316	43,900 PSI							
NO. 11FS	29.0	2237	37,500 PSI	31.6	2409	43,800 PSI							
Bullet: 200 GR. HDY XTP			Dia: .400"										
Case: WIN		Primer: WIN SR				Col: 2.050"							
A-5744	30.5	2061	35,500 PSI	33.2	2258	43,800 PSI							
IMR 4227	29.0	1948	32,500 PSI	31.5C	2180	44,100 PSI							
NO. 11FS	27.2	2044	33,300 PSI	29.6	2265	43,900 PSI							
Bullet: 215 GR. WIN POWER PT			Dia: .400"										
Case: WIN		Primer: WIN SR				Col: 2.200"							
A-5744	30.5	2043	36,300 PSI	33.3	2218	44,500 PSI							
IMR 4227	30.0	2008	36,900 PSI	33.0C	2174	43,800 PSI							
NO. 11FS	29.0	2096	35,300 PSI	31.5	2269	43,400 PSI							
44-40 WINCHESTER													
Barrel: 20"			Twist: 1:36"			Trim: 1.295"							
Bullet: 200 GR. LEAD RNFP			Dia: .428"										
Case: WIN		Primer: WIN LP				Col: 1.600"							
Universal	6.6	950	10,000 PSI	7.3	1069	11,100 PSI							
231	5.5	901	9,800 PSI	6.5	1020	12,400 PSI							
44 REMINGTON MAGNUM													
Barrel: 20"			Twist: 1:38"			Trim: 1.280"							
Bullet: 165 GR. LRNFP CAST			Dia: .430"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.500"							
Universal	6.5	1009	7,700 CUP	7.2	1138	11,500 CUP							
Titegroup	5.3	1127	11,800 CUP	6.5	1280	16,400 CUP							
Clays	4.4	949	8,500 CUP	5.5	1147	15,500 CUP							
Bullet: 180 GR. HDY XTP			Dia: .430"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.600"							
H110	29.0	2170	21,800 CUP	31.5	2286	29,900 CUP							
H4227	27.5	2005	24,000 CUP	29.0	2114	31,200 CUP							
Bullet: 185 GR. LRNFP CAST			Dia: .430"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.540"							
Universal	6.4	993	8,400 CUP	7.4	1180	12,600 CUP							
Titegroup	5.3	1072	9,500 CUP	6.6	1248	16,500 CUP							
Clays	4.2	859	8,900 CUP	6.0	1162	18,400 CUP							
Bullet: 200 GR. LRNFP CAST			Dia: .430"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.570"							
Universal	6.8	1065	10,500 CUP	7.8	1209	15,400 CUP							
Titegroup	5.0	1004	11,000 CUP	6.6	1217	17,300 CUP							
Clays	4.2	874	8,500 CUP	6.4	1172	20,200 CUP							
Bullet: 200 GR. NOS JHP			Dia: .429"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.600"							
H110	27.5	2064	29,000 CUP	28.5	2106	37,800 CUP							
IMR 4227	25.0	1840	29,800 CUP	27.0	1982	37,800 CUP							
Bullet: 210 GR. SIE JHC			Dia: .430"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.600"							
H110	26.0	1969	29,900 CUP	27.0	2030	31,100 CUP							
IMR 4227	25.0	1843	29,200 CUP	27.0	1970	37,600 CUP							
Bullet: 225 GR. HDY FTX			Dia: .430"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.665"							
IMR 4227	19.8	1330	26,800 PSI	22.0	1484	34,500 PSI							
W296	19.4	1480	26,700 PSI	21.5	1669	33,400 PSI							
H110	19.4	1480	26,700 PSI	21.5	1669	33,400 PSI							
Li'l'Gun	18.6	1595	26,600 PSI	20.7	1749	34,300 PSI							
Bullet: 240 GR. LSWC CAST			Dia: .430"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.620"							
Universal	6.5	927	11,700 CUP	10.2	1374	37,500 CUP							
HP-38	5.5	907	12,000 CUP	11.0	1437	38,100 CUP							
Titegroup	4.7	908	11,100 CUP	10.0	1423	38,400 CUP							
Clays	4.3	839	14,000 CUP	6.2	1062	21,800 CUP							
Bullet: 240 GR. NOS JHP			Dia: .429"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.600"							
H110	23.0	1750	25,200 CUP	24.0	1817	36,200 CUP							
IMR 4227	22.0	1624	28,400 CUP	24.0	1778	36,100 CUP							
Bullet: 270 GR. SPR GDSP			Dia: .429"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.600"							
IMR 4227	20.5	1476	28,400 CUP	22.5	1638	37,400 CUP							
H110	19.5	1502	29,300 CUP	21.5	1637	37,700 CUP							
Bullet: 280 GR. SFT AF/HP			Dia: .430"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.700"							
IMR 4227	20.0	1354	27,600 CUP	22.0	1544	37,800 CUP							
H110	18.5	1358	27,000 CUP	20.5	1510	36,100 CUP							
Bullet: 300 GR. HDY XTP			Dia: .430"										
Case: WIN		Primer: REM 2 1/2, LP				Col: 1.600"							
IMR 4227	18.0	1318	30,600 CUP	20.0	1452	38,600 CUP							
H110	18.0	1393	35,100 CUP	19.0	1473	38,800 CUP							

RIFLE DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
444 MARLIN							Bullet: 300 GR. SFT AF/HP Dia: .430"						
Barrel: 24" Twist: 1:38" Trim: 2.215"							Case: REM Primer: REM 9 1/2, LR Col: 2.620"						
Bullet: 200 GR. BAR XFB Dia: .429"							H335	49.0	1935	37,600 CUP	52.0	2023	42,300 CUP
Case: REM Primer: REM 9 1/2, LR Col: 2.550"							IMR 4064	47.2	1738	30,900 CUP	51.3C	1908	38,000 CUP
H335	53.0	2080	27,800 CUP	56.0	2215	33,800 CUP	StaBALL Match	47.0	1756	27,800 CUP	50.0C	1873	33,700 CUP
Benchmark	50.0	2040	27,600 CUP	54.0	2212	35,800 CUP	Varget	47.0	1784	30,700 CUP	50.0C	1914	35,700 CUP
H322	50.0	2139	30,200 CUP	52.0C	2206	33,600 CUP	H4895	47.0	1839	33,600 CUP	50.0C	1931	35,600 CUP
H4198	46.0	2309	34,400 CUP	51.2C	2566	42,900 CUP	IMR 4895	46.6	1762	33,300 CUP	50.6C	1915	38,300 CUP
IMR 4198	42.6	2171	31,800 CUP	47.3C	2396	40,300 CUP	IMR 8208 XBR	46.0	1829	35,700 CUP	49.0	2029	41,600 CUP
Bullet: 225 GR. BAR XFB Dia: .429"							IMR 3031	44.9	1859	35,600 CUP	48.8C	2004	40,100 CUP
Case: REM Primer: REM 9 1/2, LR Col: 2.550"							Benchmark	46.0	1899	36,200 CUP	48.5	1993	41,900 CUP
H335	49.0	1891	25,500 CUP	52.0	2031	34,500 CUP	H322	43.0	1776	30,600 CUP	48.0	2038	42,600 CUP
Benchmark	49.0	2028	34,500 CUP	52.0C	2127	38,100 CUP	H4198	38.5	1917	36,200 CUP	42.5	2082	42,500 CUP
H322	47.0	2029	33,400 CUP	50.0C	2144	37,000 CUP	IMR 4198	36.8	1796	37,700 CUP	39.2	1911	42,100 CUP
H4198	42.2	2107	32,300 CUP	46.9	2361	42,300 CUP	450 BUSHMASTER						
IMR 4198	41.6	2137	36,900 CUP	46.2C	2324	43,200 CUP	Barrel: 16" Twist: 1:24" Trim: 1.695"						
Bullet: 240 GR. SIE JHP Dia: .430"							Bullet: 200 GR. HDY FTX Dia: .451"						
Case: REM Primer: REM 9 1/2, LR Col: 2.535"							Case: Hornady Primer: WIN SR Col: 2.190"						
H335	52.5	2049	29,200 CUP	56.0	2222	38,900 CUP	Enforcer	39.4	2236	35,600 PSI	43.8	2531	39,500 PSI
Benchmark	51.0	2042	31,600 CUP	55.0C	2234	40,600 CUP	A-4100	39.4	2236	35,600 PSI	43.8	2531	39,500 PSI
H4895	51.0	1999	29,600 CUP	53.0C	2069	33,100 CUP	A-5744	38.0	2052	35,800 PSI	42.2	2273	39,800 PSI
H322	49.5	2049	31,400 CUP	52.0C	2185	35,900 CUP	No. 9	36.1	2252	35,300 PSI	40.2	2472	39,300 PSI
H4198	44.0	2206	36,100 CUP	49.2C	2499	42,100 CUP	Bullet: 200 GR. SIE FPJ Dia: .451"						
IMR 4198	42.0	2112	36,000 CUP	45.6	2276	42,600 CUP	Case: Hornady Primer: WIN SR Col: 2.000"						
Bullet: 260 GR. FA JFP Dia: .430"							Enforcer	40.5	2334	35,500 PSI	45.0	2522	39,500 PSI
Case: REM Primer: REM 9 1/2, LR Col: 2.550"							A-4100	40.5	2334	35,500 PSI	45.0	2522	39,500 PSI
H335	52.5	2034	31,600 CUP	56.0	2200	41,400 CUP	A-5744	40.1	2104	35,800 PSI	44.5	2336	39,800 PSI
H4895	50.0	1913	32,700 CUP	53.0C	2057	36,800 CUP	No. 9	35.3	2289	35,200 PSI	39.2	2417	39,200 PSI
H322	47.0	1944	33,400 CUP	52.0C	2159	41,400 CUP	Bullet: 225 GR. HDY FTX Dia: .452"						
H4198	41.0	2016	35,600 CUP	45.5	2194	40,900 CUP	Case: Starline Primer: WIN SR Col: 2.150"						
Bullet: 265 GR. HDY JFP Dia: .430"							H110	40.4	2169	26,300 PSI	44.4	2426	36,100 PSI
Case: REM Primer: REM 9 1/2, LR Col: 2.550"							Lil'Gun	38.0	2309	31,300 PSI	42.2	2495	36,300 PSI
H335	52.5	2032	32,100 CUP	56.0	2187	39,700 CUP	IMR 4227	37.9	1942	25,700 PSI	41.7	2221	36,600 PSI
IMR 8208 XBR	51.0	2030	34,700 CUP	53.5C	2135	39,100 CUP	Case: Hornady Primer: WIN SR Col: 2.150"						
H4895	50.0	1944	29,300 CUP	53.0C	2080	34,800 CUP	Enforcer	36.5	2082	35,400 PSI	40.5	2332	39,300 PSI
Benchmark	49.0	1911	31,000 CUP	53.0C	2139	40,700 CUP	A-4100	36.5	2082	35,400 PSI	40.5	2332	39,300 PSI
H322	47.0	1991	33,200 CUP	52.0C	2164	38,300 CUP	A-5744	36.1	1927	35,800 PSI	40.1	2129	39,800 PSI
H4198	42.0	2034	31,100 CUP	47.0	2273	41,100 CUP	No. 9	33.8	2098	35,700 PSI	37.6	2288	39,600 PSI
IMR 4198	42.6	2105	39,800 CUP	44.4	2187	42,100 CUP	Bullet: 230 GR. SIE FMJ Dia: .451"						
Bullet: 270 GR. SPR JFP Dia: .430"							Case: Hornady Primer: WIN SR Col: 2.135"						
Case: REM Primer: REM 9 1/2, LR Col: 2.540"							A-1680	48.3	2231	35,700 PSI	53.7	2430	39,700 PSI
H335	51.0	1992	31,800 CUP	55.8	2200	42,100 CUP	A-5744	38.5	1954	35,900 PSI	42.8	2196	39,800 PSI
Benchmark	50.0	1978	33,500 CUP	54.0C	2166	41,700 CUP	Enforcer	34.3	2080	35,300 PSI	38.2	2226	39,200 PSI
IMR 8208 XBR	51.0	2019	34,300 CUP	53.5C	2107	38,300 CUP	A-4100	34.3	2080	35,300 PSI	38.2	2226	39,200 PSI
H4895	50.0	1950	29,300 CUP	53.0C	2080	33,400 CUP	No. 9	32.6	2053	35,500 PSI	36.2	2214	39,400 PSI
H322	47.0	1973	31,700 CUP	52.0C	2169	38,100 CUP	Bullet: 250 GR. HDY FTX Dia: .452"						
H4198	42.0	2092	34,900 CUP	46.5	2261	41,400 CUP	Case: Starline Primer: WIN SR Col: 2.225"						
IMR 4198	41.4	2050	37,300 CUP	44.0	2169	43,100 CUP	H110	37.3	2010	27,900 PSI	41.0	2240	36,100 PSI
Bullet: 275 GR. BAR FP Dia: .430"							Lil'Gun	35.0	2158	32,500 PSI	38.5	2289	35,900 PSI
Case: REM Primer: REM 9 1/2, LR Col: 2.520"							IMR 4227	34.5	1848	28,900 PSI	38.0	2044	36,400 PSI
H335	50.0	1984	35,400 CUP	53.5	2120	41,100 CUP	Bullet: 250 GR. NOS HP Dia: .451"						
H4895	47.0	1780	27,100 CUP	52.0C	2021	36,200 CUP	Case: Hornady Primer: WIN SR Col: 2.025"						
Benchmark	48.0	1930	35,900 CUP	51.0C	2069	42,300 CUP	A-1680	42.2	1970	35,200 PSI	46.9	2207	39,200 PSI
H322	46.0	1930	33,800 CUP	51.0C	2146	43,100 CUP	A-5744	35.2	1837	35,800 PSI	39.1	2042	39,800 PSI
H4198	40.0	1973	33,500 CUP	44.5	2172	41,800 CUP	Enforcer	34.6	1963	34,600 PSI	38.5	2147	38,400 PSI
Bullet: 280 GR. SFT AF/HP Dia: .430"							A-4100	34.6	1963	34,600 PSI	38.5	2147	38,400 PSI
Case: REM Primer: REM 9 1/2, LR Col: 2.620"							No. 9	33.0	1944	35,400 PSI	36.7	2145	39,400 PSI
H335	49.5	1983	36,100 CUP	52.8	2109	42,000 CUP	Bullet: 275 GR. BARTSX-FB Dia: .452"						
StaBALL Match	49.2	1854	27,000 CUP	52.2C	1938	31,300 CUP	Case: Starline Primer: WIN SR Col: 2.225"						
Varget	49.0	1914	33,000 CUP	52.0C	2025	36,800 CUP	H4198	39.1	1772	24,000 PSI	43.0C	1986	31,600 PSI
IMR 8208 XBR	48.0	1942	35,900 CUP	52.0	2099	41,600 CUP	CFE BLK	34.4	1731	25,400 PSI	37.8	1931	36,200 PSI
H4895	47.0	1875	30,300 CUP	52.0C	2089	37,600 CUP	H110	33.4	1869	33,500 PSI	37.6	2036	36,100 PSI
Benchmark	46.0	1935	38,300 CUP	49.5C	2070	42,600 CUP	IMR 4227	32.9	1698	30,400 PSI	36.6	1878	36,400 PSI
H322	44.5	1901	33,400 CUP	49.5	2120	42,400 CUP	Lil'Gun	30.4	1892	33,100 PSI	35.4	2084	36,200 PSI
IMR 4198	38.7	1907	36,500 CUP	42.0	2050	42,500 CUP							
H4198	38.0	1938	37,300 CUP	42.5	2108	42,300 CUP							

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads				
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 300 GR. HDY XTP Dia: .451"													
Case: Hornady		Primer: WIN SR		Col: 2.085"									
A-1680	37.5	1741	35,300 PSI	41.7	1900	39,300 PSI							
A-5744	31.8	1617	35,800 PSI	35.4	1808	39,700 PSI							
Enforcer	28.4	1640	35,200 PSI	31.6	1788	39,100 PSI							
A-4100	28.4	1640	35,200 PSI	31.6	1788	39,100 PSI							
No. 9	26.0	1622	35,400 PSI	28.9	1761	39,300 PSI							
Bullet: 300 GR. SFT AF/HP Dia: .452"													
Case: Starline		Primer: WIN SR		Col: 2.065"									
H4198	39.0	1776	27,700 PSI	42.8C	1973	35,400 PSI							
CFE BLK	33.7	1604	25,600 PSI	37.0	1811	34,100 PSI							
IMR 4227	31.8	1631	29,200 PSI	35.0	1793	35,500 PSI							
H110	26.4	1484	28,200 PSI	28.7	1657	35,900 PSI							
Li'l Gun	25.0	1661	32,200 PSI	27.0	1758	36,000 PSI							
Bullet: 325 GR. BAR BSTR Dia: .451"													
Case: Hornady		Primer: WIN SR		Col: 2.190"									
A-1680	32.1	1529	35,700 PSI	35.7	1720	39,700 PSI							
A-5744	31.6	1536	35,500 PSI	35.1	1733	39,500 PSI							
Enforcer	24.2	1427	35,900 PSI	26.9	1598	39,900 PSI							
A-4100	24.2	1427	35,900 PSI	26.9	1598	39,900 PSI							
No. 9	22.4	1394	35,300 PSI	24.9	1529	39,200 PSI							
458 SOCOM													
Barrel: 16" Twist: 1:14" Trim: 1.575"													
Bullet: 250 GR. BARTSX-FN Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.125"									
LT-30	38.7	1648	28,100 PSI	43.0	1867	31,200 PSI							
H4198	36.5	1693	24,500 CUP	41.0C	1948	38,700 CUP							
CFE BLK	35.7	1742	22,100 CUP	41.7	1991	39,100 CUP							
IMR 4198	34.0	1602	23,200 CUP	38.7	1857	39,200 CUP							
IMR 4227	29.6	1538	26,300 CUP	34.5	1783	38,900 CUP							
Bullet: 300 GR. HDY HP Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.015"									
A-5744	Subsonic			22.0	1046	21,900 PSI							
No. 2	Subsonic			11.3	1073	19,500 PSI							
Titegroup	Subsonic			10.2	1037	12,500 PSI							
Bullet: 300 GR. BARTSX-FN Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.015"									
A-2200	42.9	1766	31,400 PSI	47.7	1968	34,900 PSI							
X-Terminator	40.3	1591	31,400 PSI	44.7	1740	34,900 PSI							
A-2230	40.3	1591	31,400 PSI	44.7	1740	34,900 PSI							
LT-30	38.6	1631	31,000 PSI	42.9	1825	34,500 PSI							
A-1680	37.8	1782	31,100 PSI	42.0	1961	34,600 PSI							
A-5744	33.6	1679	31,000 PSI	37.4	1844	34,500 PSI							
Enforcer	25.3	1635	31,100 PSI	28.1	1750	34,500 PSI							
A-4100	25.3	1635	31,100 PSI	28.1	1750	34,500 PSI							
Bullet: 300 GR. BARTTSX BT Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.245"									
CFE BLK	35.4	1672	24,600 CUP	37.3	1794	33,800 CUP							
H4198	33.1	1534	24,600 CUP	36.1C	1727	39,000 CUP							
IMR 4198	31.7	1531	27,300 CUP	35.0	1673	39,100 CUP							
IMR 4227	27.4	1435	26,000 CUP	31.3	1629	38,800 CUP							
Bullet: 300 GR. NOS RN BT Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.040"									
CFE BLK	38.0	1748	23,300 CUP	41.0	1892	39,500 CUP							
H4198	35.6	1590	25,600 CUP	38.2	1787	39,100 CUP							
IMR 4198	34.8	1631	25,400 CUP	38.2	1768	39,400 CUP							
IMR 4227	28.2	1518	28,000 CUP	33.3	1716	40,000 CUP							
Bullet: 325 GR. HDY FTX Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.160"									
A-2200	38.1	1561	31,200 PSI	42.3	1739	34,700 PSI							
CFE BLK	35.5	1644	23,800 CUP	39.9	1812	38,700 CUP							
LT-30	35.4	1449	27,500 PSI	39.3	1644	30,500 PSI							
H4198	34.0	1506	21,000 CUP	35.8C	1661	33,300 CUP							
IMR 4198	33.2	1518	24,800 CUP	34.7C	1614	34,300 CUP							
A-1680	32.3	1581	31,000 PSI	35.9	1752	34,400 PSI							
A-5744 29.4 1463 31,500 PSI 32.6 1632 35,000 PSI													
IMR 4227 27.7 1404 26,100 CUP 32.1 1622 40,000 CUP													
Bullet: 350 GR. HDY FP Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.018"									
A-5744	Subsonic			22.8	1066	29,700 PSI							
No. 2	Subsonic			12.5	1071	29,500 PSI							
Titegroup	Subsonic			11.8	1067	16,300 PSI							
Bullet: 350 GR. HDY RN Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.040"									
A-2200	39.0	1564	31,200 PSI	43.3	1745	34,700 PSI							
LT-32	37.7	1427	27,500 PSI	41.9	1610	34,700 PSI							
LT-30	36.4	1480	31,200 PSI	40.4	1663	30,600 PSI							
A-1680	32.5	1552	30,800 PSI	36.1	1708	34,200 PSI							
A-5744	30.4	1479	31,400 PSI	33.8	1630	34,900 PSI							
Bullet: 350 GR. SFT AF/HP Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.050"									
Benchmark	38.2	1358	22,800 CUP	42.0C	1596	39,400 CUP							
H322	34.9	1338	22,900 CUP	39.7	1627	38,900 CUP							
CFE BLK	34.3	1544	22,700 CUP	37.5	1688	38,800 CUP							
H4198	33.0	1410	23,100 CUP	35.2	1611	39,000 CUP							
IMR 4198	31.3	1391	24,800 CUP	34.0	1576	38,700 CUP							
IMR 4227	26.3	1285	24,600 CUP	30.0	1470	39,200 CUP							
Bullet: 400 GR. BAR BSTR Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.030"									
A-2200	33.8	1443	30,900 PSI	37.6	1580	34,400 PSI							
LT-32	32.0	1228	30,200 PSI	35.6	1390	33,600 PSI							
LT-30	30.2	1227	30,800 PSI	33.5	1383	34,200 PSI							
A-1680	28.2	1281	31,000 PSI	31.3	1437	34,400 PSI							
A-5744	25.7	1245	31,000 PSI	28.6	1402	34,400 PSI							
Bullet: 400 GR. SPR FN Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.040"									
A-2200	37.4	1492	31,200 PSI	41.6	1649	34,700 PSI							
Benchmark	37.4	1302	24,700 CUP	41.0C	1521	38,800 CUP							
H322	35.9	1398	22,300 CUP	39.5C	1565	39,400 CUP							
CFE BLK	34.8	1502	25,000 CUP	38.9	1662	39,400 CUP							
H4198	32.3	1379	24,700 CUP	35.1	1582	39,600 CUP							
A-1680	31.5	1448	31,200 PSI	35.0	1570	34,600 PSI							
IMR 4198	31.2	1323	22,900 CUP	33.9	1490	39,200 CUP							
A-5744	28.6	1392	31,400 PSI	31.8	1538	34,900 PSI							
IMR 4227	26.9	1261	25,600 CUP	29.5	1391	39,100 CUP							
Bullet: 410 GR. HDY SUB-X Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.038"									
IMR 8208 XBR	Subsonic			31.9C	1045	22,500 PSI							
A-2495	Subsonic			31.7C	1038	23,000 PSI							
Benchmark	Subsonic			31.5C	1055	18,300 PSI							
IMR 3031	Subsonic			30.2C	1074	33,300 PSI							
A-2015	Subsonic			30.0C	1079	33,100 PSI							
LT-32	Subsonic			28.5C	1075	19,100 PSI							
LT-30	Subsonic			27.2C	1055	23,800 PSI							
A-5744	Subsonic			22.8	1071	23,800 PSI							
Bullet: 576 GR. ACME RNFP Dia: .458"													
Case: Starline		Primer: WIN LP		Col: 2.100"									
H322	Subsonic			26.0C	1046	27,200 PSI							
A-2200	Subsonic			25.3C	1071	31,200 PSI							
LT-30	Subsonic			23.5C	1046	28,500 PSI							
IMR 4198	Subsonic			22.2C	1064	30,700 PSI							
A-5744	Subsonic			20.0	1034	26,800 PSI							
45-70 GOVERNMENT (TRAPDOOR RIFLES)*													
Barrel: 24" Twist: 1:20" Trim: 2.095"													
Bullet: 250 GR. BARTSX FN Dia: .458"													
Case: WIN		Primer: CCI 200 LR		Col: 2.525"									
Varget	56.3	1846	19,200 PSI	62.5C	2102	29,800 PSI							
H335	55.2	1979	22,500 PSI	60.1	2107	26,100 PSI							
H4895	53.8	1925	22,000 PSI	60.0C	2112	26,600 PSI							
IMR 4064	55.0	1832	20,400 PSI	60.0C	2012	25,500 PSI							
IMR 3031	51.9	1756	18,000 PSI	58.0C	2048	27,000 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
IMR 4895	53.2	1745	19,200 PSI	57.9	1940	24,600 PSI	H4198	27.0	1251	14,200 CUP	31.0	1459	17,100 CUP
IMR 8208 XBR	52.1	1801	18,000 PSI	57.8	2106	27,000 PSI	Trail Boss	12.0	971	24,500 CUP	13.0	1007	25,600 CUP
Benchmark	51.5	1852	19,800 PSI	56.2	2085	27,300 PSI	Bullet: 420 GR. CPB L LFN GC Dia: .458"						
H322	48.3	1849	19,900 PSI	53.3	2080	26,100 PSI	Case: REM			Primer: WIN LR			Col: 2.600"
H4198	45.9	1994	21,600 PSI	48.3	2118	26,200 PSI	A-5744	25.6	1210	14,500 PSI	28.5	1375	16,100 PSI
IMR 4198	39.8	1781	18,900 PSI	47.4	2067	26,300 PSI	Bullet: 460 GR. CPB L WLN GC Dia: .458"						
Bullet: 300 GR. CPB L FN GC Dia: .458"							Case: REM			Primer: WIN LR			Col: 2.515"
A-5744	25.0	1351	15,700 PSI	29.5	1538	18,500 PSI	A-5744	19.9	1089	15,800 PSI	23.9	1254	19,000 PSI
Bullet: 300 GR. CAST LFP Dia: .458"							Bullet: 500 GR. MCB L RN FP Dia: .458"						
Case: WIN			Primer: CCI 200 LR			Col: 2.465"	Case: REM			Primer: WIN LR			Col: 2.700"
Benchmark	54.0	1788	18,300 CUP	58.0	1940	21,900 CUP	A-5744	20.2	1068	15,900 PSI	23.8	1210	18,800 PSI
Varget	45.0	1599	17,800 CUP	55.0	1880	20,600 CUP	45-70 GOVERNMENT (LEVER ACTIONS)*						
IMR 8208 XBR	51.2	1723	19,500 CUP	55.0	1924	24,700 CUP	Barrel: 24" Twist: 1:20" Trim: 2.095"						
IMR 3031	51.7	1839	18,700 CUP	55.0	1995	24,900 CUP	Bullet: 250 GR. BARTSX FN Dia: .458"						
IMR 4064	49.8	1685	19,400 CUP	53.0	1813	21,800 CUP	Case: REM			Primer: WIN LR			Col: 2.525"
H4895	45.0	1572	14,400 CUP	51.0	1703	15,500 CUP	A-2200	47.3	1847	20,300 PSI	55.0	2142	23,700 PSI
IMR 4895	47.5	1590	16,500 CUP	50.5	1703	20,400 CUP	LT-30	44.3	1771	23,400 PSI	52.1	2069	27,500 PSI
IMR 4198	33.8	1649	15,500 CUP	36.0	1752	20,200 CUP	A-5744	31.9	1556	23,500 PSI	37.5	1851	27,700 PSI
H4198	30.0	1390	14,400 CUP	35.5	1641	16,100 CUP	Case: WIN			Primer: CCI 200 LR			Col: 2.525"
Trail Boss	14.0	1199	19,400 CUP	16.5	1285	20,900 CUP	H335	60.2	2131	27,900 PSI	67.5	2371	38,300 PSI
Bullet: 300 GR. SIE HP Dia: .458"							IMR 8208 XBR	54.3	1897	20,600 PSI	64.1C	2308	32,700 PSI
Case: WIN			Primer: CCI 200 LR			Col: 2.525"	Benchmark	56.2	2085	27,300 PSI	62.5C	2298	34,000 PSI
Benchmark	59.5	1907	19,400 CUP	63.5C	2113	27,400 CUP	H322	53.3	2080	26,100 PSI	61.9C	2423	38,100 PSI
H335	57.0	1901	17,500 CUP	63.5	2143	27,400 CUP	H4198	49.4	2152	26,400 PSI	56.5C	2487	38,700 PSI
Varget	57.0	1770	16,300 CUP	63.0C	2020	23,800 CUP	IMR 4198	47.0	2079	25,700 PSI	55.3	2432	38,600 PSI
H4895	58.0	1805	16,500 CUP	62.0C	1974	21,000 CUP	Bullet: 300 GR. SIE HP Dia: .458"						
IMR 4895	57.0	1826	21,700 CUP	61.0C	1968	23,900 CUP	Case: REM			Primer: WIN LR			Col: 2.525"
IMR 4064	57.0	1865	22,500 CUP	60.5C	1992	25,100 CUP	LT-32	47.4	1736	22,900 PSI	57.8	2099	27,900 PSI
H322	54.0	1850	18,100 CUP	60.0	2142	28,000 CUP	A-2200	50.5	1931	25,000 PSI	56.1	2115	27,800 PSI
IMR 8208 XBR	54.0	1728	18,800 CUP	60.0	2023	25,400 CUP	LT-30	44.3	1758	23,800 PSI	52.1	2018	28,000 PSI
IMR 3031	56.0	1884	21,100 CUP	59.5C	2021	22,000 CUP	X-Terminator	42.0	1740	25,400 PSI	46.0	1900	27,800 PSI
H4198	45.0	1807	16,700 CUP	55.0	2221	27,600 CUP	A-2230	42.0	1740	25,400 PSI	46.0	1900	27,800 PSI
IMR 4198	45.0	2008	23,500 CUP	48.0	2138	27,800 CUP	A-5744	36.7	1712	24,500 PSI	40.8	1874	27,200 PSI
Bullet: 325 GR. HDY FTX Dia: .458"							Case: WIN			Primer: CCI 200 LR			Col: 2.525"
Case: WIN			Primer: CCI 200 LR			Col: 2.590"	H335	61.0	2073	22,500 CUP	68.0	2326	38,800 CUP
StaBALL Match	56.0	1658	18,900 CUP	61.5C	1876	27,100 CUP	StaBALL Match	60.0	1745	15,100 PSI	66.0C	2010	23,700 PSI
IMR 8208 XBR	48.5	1618	18,400 CUP	56.8C	1936	25,800 CUP	IMR 4064	59.0	1858	20,300 CUP	65.5C	2125	28,700 CUP
H335	48.8	1688	17,800 CUP	56.8	1958	26,300 CUP	IMR 8208 XBR	60.0	2023	25,400 CUP	65.0C	2240	32,900 CUP
IMR 3031	46.3	1491	16,600 CUP	54.3	1862	24,700 CUP	IMR 4895	58.5	1800	19,900 CUP	65.0C	2087	30,000 CUP
H4895	41.8	1327	13,700 CUP	53.3C	1834	23,500 CUP	IMR 3031	58.0	1971	21,900 CUP	64.0C	2196	29,500 CUP
H322	36.5	1401	17,100 CUP	51.5	1951	26,000 CUP	H322	57.0	2002	21,400 CUP	63.0C	2252	32,600 CUP
Bullet: 385 GR. CAST LFP Dia: .458"							H4198	55.0	2221	27,600 CUP	60.0	2424	40,000 CUP
Case: WIN			Primer: CCI 200 LR			Col: 2.505"	IMR 4198	53.7	2293	33,100 CUP	57.2	2407	39,100 CUP
Benchmark	50.0	1621	16,300 CUP	53.0	1779	21,300 CUP	Bullet: 325 GR. HDY FTX Dia: .458"						
Varget	42.5	1537	15,400 CUP	52.5	1805	21,800 CUP	Case: REM			Primer: WIN LR			Col: 2.590"
IMR 3031	49.0	1684	22,300 CUP	52.0	1819	25,900 CUP	A-2200	45.3	1772	25,100 PSI	50.4	1956	27,900 PSI
IMR 4064	47.0	1545	18,800 CUP	50.0	1661	24,000 CUP	LT-32	40.7	1524	20,800 PSI	49.0	1831	25,100 PSI
IMR 4895	44.2	1412	16,200 CUP	47.0	1486	18,100 CUP	LT-30	40.8	1611	23,400 PSI	48.0	1879	27,500 PSI
H4895	35.0	1280	11,900 CUP	42.0	1526	23,100 CUP	A-2015	39.2	1504	23,700 PSI	46.1	1757	27,800 PSI
IMR 4198	31.0	1405	15,000 CUP	33.0	1491	17,400 CUP	X-Terminator	37.5	1484	25,000 PSI	41.6	1622	27,800 PSI
H4198	28.0	1302	13,300 CUP	32.0	1483	14,700 CUP	A-2230	37.5	1484	25,000 PSI	41.6	1622	27,800 PSI
Trail Boss	14.0	1075	19,400 CUP	16.0	1142	23,200 CUP	A-5744	29.0	1423	23,500 PSI	34.1	1672	27,600 PSI
Bullet: 405 GR. LC L FP Dia: .458"							Bullet: 350 GR. HDY JRN Dia: .458"						
Case: REM			Primer: WIN LR			Col: 2.550"	Case: REM			Primer: WIN LR			Col: 2.550"
A-5744	24.3	1226	14,500 PSI	27.0	1394	16,100 PSI	A-2015	47.3	1703	25,000 PSI	52.5	1890	27,800 PSI
Bullet: 405 GR. CAST LFP Dia: .458"							A-2200	45.4	1758	26,200 PSI	48.3	1858	27,900 PSI
Case: WIN			Primer: CCI 200 LR			Col: 2.540"	LT-32	38.4	1473	22,500 PSI	46.9	1757	27,400 PSI
StaBALL Match	54.4	1657	21,700 PSI	58.7C	1772	27,000 PSI	LT-30	37.0	1478	23,300 PSI	43.5	1702	27,400 PSI
H335	48.0	1674	21,500 PSI	51.0	1781	25,600 PSI	X-Terminator	37.7	1487	24,900 PSI	41.8	1626	27,600 PSI
IMR 8208 XBR	47.9	1637	21,800 CUP	51.0	1727	23,600 CUP	A-2230	37.7	1487	24,900 PSI	41.8	1626	27,600 PSI
Varget	40.0	1392	15,600 CUP	50.0	1718	20,900 CUP	A-5744	33.8	1529	25,000 PSI	37.5	1676	27,700 PSI
Benchmark	47.0	1564	17,100 CUP	50.0	1695	22,600 CUP	Case: WIN			Primer: CCI 200 LR			Col: 2.550"
IMR 4064	46.0	1534	17,900 CUP	49.5	1660	23,200 CUP	StaBALL Match	59.0	1850	28,000 PSI	65.0C	2012	36,000 PSI
IMR 4895	45.6	1496	18,900 CUP	48.5	1598	23,000 CUP	IMR 4064	58.0	1967	32,700 CUP	62.0C	2085	36,700 CUP
IMR 3031	45.5	1597	17,300 CUP	48.5	1706	21,100 CUP	IMR 4895	57.5	1891	29,200 CUP	61.0C	2026	37,200 CUP
H4895	40.0	1424	14,900 CUP	48.0	1645	18,900 CUP	IMR 8208 XBR	55.0	1930	26,800 CUP	61.0C	2152	36,200 CUP

NEVER EXCEED MAXIMUM LOADS

RIFLE DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
IMR 3031	56.5	2022	31,400 CUP	60.0C	2135	37,100 CUP	LT-30	30.0	1174	24,800 PSI	33.4	1295	27,600 PSI
H335	54.0	1903	26,000 CUP	60.0	2094	38,800 CUP	Bullet: 500 GR. HDY RN Dia: .458"						
Benchmark	56.0	1886	26,900 CUP	60.0C	2092	39,300 CUP	Case: REM Primer: WIN LR Col: 2.550"						
Varget	54.0	1786	21,800 CUP	60.0C	2013	29,500 CUP	A-2015	34.7	1350	25,100 PSI	38.5	1510	27,900 PSI
H4895	53.0	1784	21,700 CUP	59.0C	2045	32,900 CUP	X-Terminator	30.0	1150	23,600 PSI	35.0	1320	27,500 PSI
H4198	48.5	2036	32,200 CUP	54.0	2191	39,300 CUP	A-2230	30.0	1150	23,600 PSI	35.0	1320	27,500 PSI
IMR 4198	47.0	2032	32,500 CUP	50.0	2131	36,600 CUP	Bullet: 500 GR. LC FP Dia: .458"						
Bullet: 400 GR. BARTSX FN Dia: .458"							Case: REM Primer: WIN LR Col: 2.550"						
A-2200	40.1	1583	25,800 PSI	42.3	1654	27,200 PSI	X-Terminator	33.3	1320	24,800 PSI	37.0	1450	27,500 PSI
A-2015	33.3	1261	21,600 PSI	42.2	1551	27,300 PSI	A-2230	33.3	1320	24,800 PSI	37.0	1450	27,500 PSI
LT-32	33.7	1293	22,600 PSI	41.6	1578	28,000 PSI	A-5744	25.2	1265	25,100 PSI	28.0	1400	27,900 PSI
LT-30	32.4	1334	23,700 PSI	38.1	1535	27,900 PSI	Bullet: 500 GR. MCB RNFP Dia: .458"						
X-Terminator	34.1	1327	24,700 PSI	37.9	1453	27,400 PSI	Case: REM Primer: WIN LR Col: 2.700"						
A-2230	34.1	1327	24,700 PSI	37.9	1453	27,400 PSI	A-2015	29.6	1224	21,800 PSI	38.0	1451	27,900 PSI
Bullet: 400 GR. SPR JFP Dia: .458"							LT-32	31.3	1296	23,000 PSI	37.3	1465	27,300 PSI
Case: WIN Primer: CCI 200 LR Col: 2.540"							LT-30	30.7	1352	24,600 PSI	34.9	1468	27,900 PSI
StaBALL Match	57.7	1754	28,600 PSI	63.5C	1907	38,100 PSI	A-5744	23.9	1213	23,000 PSI	28.4	1393	27,400 PSI
Benchmark	55.0	1856	29,600 CUP	58.5C	1986	40,000 CUP	45-70 GOVERNMENT (MODERN RIFLES)*						
IMR 4895	54.0	1785	30,500 CUP	58.0C	1930	38,600 CUP	Barrel: 24" Twist: 1:20" Trim: 2.095"						
H335	52.0	1798	25,400 CUP	58.0	1995	40,000 CUP	Bullet: 250 GR. BARTSX FN Dia: .458"						
IMR 4064	53.5	1808	29,700 CUP	57.0C	1918	36,400 CUP	Case: WIN Primer: CCI 200 LR Col: 2.525"						
IMR 3031	51.0	1809	26,900 CUP	55.0C	1971	37,300 CUP	H4198	51.9	2260	29,500 PSI	60.0C	2607	44,600 PSI
Varget	50.0	1655	18,600 CUP	55.0C	1845	25,000 CUP	IMR 4198	50.0	2188	31,100 PSI	57.5C	2513	43,100 PSI
H4895	50.0	1614	19,200 CUP	55.0C	1859	26,500 CUP	Bullet: 300 GR. BARTTSX Dia: .458"						
H322	50.0	1767	23,700 CUP	55.0C	1984	39,200 CUP	Case: WIN Primer: CCI 200 LR Col: 2.775"						
H4198	46.0	1854	29,500 CUP	50.5	2002	39,400 CUP	H4198	53.0	2346	39,800 CUP	56.0C	2445	46,700 CUP
IMR 4198	43.0	1868	31,600 CUP	46.0	1960	37,600 CUP	IMR 4198	50.0	2207	37,700 CUP	53.0C	2323	45,000 CUP
Bullet: 410 GR. HDY SUB-X Dia: .458"							Bullet: 300 GR. SIE HP Dia: .458"						
Case: REM Primer: WIN LR Col: 2.547"							Case: WIN Primer: CCI 200 LR Col: 2.525"						
Titegroup	Subsonic			13.0	1005	27,900 PSI	H4198	59.5	2394	37,300 CUP	63.0	2532	50,000 CUP
A-5744	Subsonic			24.5	1049	17,200 PSI	IMR 4198	54.0	2253	31,800 CUP	58.5C	2450	43,000 CUP
A-2495	Subsonic			33.0	1024	17,300 PSI	Bullet: 325 GR. HDY FTX Dia: .458"						
IMR 4064	Subsonic			34.0	1036	15,000 PSI	Case: WIN Primer: CCI 200 LR Col: 2.650"						
Bullet: 405 GR. CP WLNGC Dia: .458"							H335	63.0	2170	37,000 CUP	66.0C	2272	44,000 CUP
Case: REM Primer: WIN LR Col: 2.550"							H322	59.4	2250	37,600 CUP	63.0C	2375	45,900 CUP
A-2015	44.3	1666	24,700 PSI	49.2	1817	27,400 PSI	H4198	52.0	2242	37,700 CUP	56.0C	2378	46,500 CUP
A-2200	44.4	1712	26,200 PSI	46.7	1792	27,600 PSI	IMR 4198	50.0	2149	37,000 CUP	54.0C	2292	44,100 CUP
LT-32	37.4	1483	22,600 PSI	46.2	1769	28,000 PSI	Bullet: 350 GR. HDY JRN Dia: .458"						
LT-30	34.5	1497	22,300 PSI	42.1	1732	27,300 PSI	Case: WIN Primer: CCI 200 LR Col: 2.540"						
X-Terminator	35.5	1490	24,800 PSI	39.4	1604	27,500 PSI	H335	57.0	2016	32,200 CUP	63.0	2174	47,300 CUP
A-2230	35.5	1490	24,800 PSI	39.4	1604	27,500 PSI	H322	52.0	1898	25,800 CUP	57.0C	2143	41,100 CUP
Bullet: 420 GR. CP LFNGC Dia: .458"							H4198	50.5	2104	35,100 CUP	56.0	2300	50,000 CUP
Case: REM Primer: WIN LR Col: 2.550"							IMR 4198	49.0	2118	37,700 CUP	52.0	2212	43,900 CUP
A-2015	42.6	1584	24,700 PSI	47.3	1763	27,400 PSI	Bullet: 400 GR. SPR JFP Dia: .458"						
X-Terminator	38.0	1523	24,700 PSI	42.2	1646	27,400 PSI	Case: WIN Primer: CCI 200 LR Col: 2.540"						
A-2230	38.0	1523	24,700 PSI	42.2	1646	27,400 PSI	H335	54.0	1883	31,900 CUP	60.0	2057	49,800 CUP
A-5744	29.3	1401	24,300 PSI	32.5	1538	27,000 PSI	H4198	48.0	1915	31,800 CUP	53.0	2108	49,100 CUP
Bullet: 460 GR. CP WLNGC Dia: .458"							IMR 4198	47.0	1954	35,400 CUP	50.0	2089	47,100 CUP
Case: REM Primer: WIN LR Col: 2.550"							470 NITRO EXPRESS						
A-2200	37.6	1520	25,700 PSI	40.0	1596	27,300 PSI	Barrel: 24" Twist: 1:20" Trim: 3.240"						
LT-32	31.8	1321	22,000 PSI	39.7	1567	27,500 PSI	Bullet: 500 GR. WDLGH RN Dia: .475"						
Bullet: 460 GR. CP WFNGC Dia: .458"							Case: Hornady Primer: FED 215M, LR Mag Match Col: 3.875"						
Case: REM Primer: WIN LR Col: 2.550"							Retumbo	118.0	2088	30,600 PSI	125.0C	2202	34,800 PSI
X-Terminator	34.4	1404	24,600 PSI	38.2	1511	27,300 PSI	H1000	118.0	2172	33,900 PSI	124.0C	2300	40,500 PSI
A-2230	34.4	1404	24,600 PSI	38.2	1511	27,300 PSI	IMR 7828	113.0	2172	37,000 PSI	117.0	2252	40,500 PSI
A-5744	27.5	1321	24,500 PSI	30.5	1444	27,200 PSI	H4831	108.0	2184	38,000 PSI	112.0	2247	40,800 PSI
Bullet: 460 GR. CP WLNGC Dia: .458"							IMR 4831	104.0	2157	36,200 PSI	108.0	2248	40,800 PSI
Case: REM Primer: WIN LR Col: 2.550"							IMR 4350	99.0	2111	35,700 PSI	105.0	2229	40,800 PSI
A-5744	23.9	1253	22,700 PSI	28.8	1452	27,300 PSI	H4350	95.0	2134	36,900 PSI	100.0	2234	41,700 PSI
Bullet: 473 GR. LGH SLD Dia: .458"							Trail Boss				45.5	1257	
Case: REM Primer: WIN LR Col: 2.850"													
A-2200	36.3	1339	26,200 PSI	38.2	1408	27,600 PSI							
X-Terminator	31.7	1044	24,800 PSI	35.2	1196	27,600 PSI							
A-2230	31.7	1044	24,800 PSI	35.2	1196	27,600 PSI							
LT-32	29.7	1119	24,600 PSI	33.8	1279	28,000 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

RIFLE DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads		
		Vel	Pressure			Vel	Pressure				Vel	Pressure			Vel	Pressure

50 BROWNING MACHINE GUN

Barrel: 45" Twist: 1:16.5" Trim: 3.900"

Bullet: 750 GR. HDY A-MAX				Dia: .510"			
Case: FNB		Primer: CCI 35, 50 BMG				Col: 5.450"	
US 869				250.0		2944	
H50BMG				233.0		2800	

Bullet: 800 GR. BAR SOLID				Dia: .510"			
Case: FNB		Primer: CCI 35, 50 BMG				Col: 5.630"	
US 869				250.0		2895	
H50BMG				225.0		2725	

PISTOL DATA

Starting Loads							Maximum Loads						
Powder	Gr	Vel	Pressure	Gr	Vel	Pressure	Powder	Gr	Vel	Pressure	Gr	Vel	Pressure
FN 5.7x28MM							No. 2	3.7	1061	27,900 PSI	4.4	1204	33,200 PSI
Barrel: 5" Twist: 1:9" Trim: 1.130"							30 CARBINE						
Barrel: 5" Twist: 1:9" Trim: 1.130"							Barrel: 7" Twist: 1:20" Trim: 1.286"						
Bullet: 35 GR. HDY V-MAX Dia: .224"							Bullet: 85 GR. SIE RN Dia: .308"						
Case: FNH Primer: WIN SP, Small Pistol Col: 1.490"							Case: WIN Primer: CCI 400, Small Rifle Col: 1.625"						
No. 7	7.4	2041	40,800 PSI	8.2	2197	45,200 PSI	H110	16.5	1834	26,000 CUP	17.5	1966	34,800 CUP
No. 5	6.0	1955	40,700 PSI	6.7	2100	45,500 PSI	H4227	14.5	1643	25,200 CUP	15.5C	1745	30,700 CUP
True Blue	5.7	1923	40,500 PSI	6.4	2007	45,500 PSI	Bullet: 100 GR. SPR SP Dia: .308"						
Bullet: 40 GR. HDY V-MAX Dia: .224"							Case: WIN Primer: CCI 400, Small Rifle Col: 1.625"						
Case: FNH Primer: WIN SP, Small Pistol Col: 1.580"							H110	14.5	1660	28,200 CUP	15.5	1762	36,100 CUP
No. 7	6.1	1679	43,200 PSI	6.8	1880	48,200 PSI	H4227	13.0	1503	28,900 CUP	14.5C	1621	33,600 CUP
No. 5	5.1	1657	42,900 PSI	5.7	1875	48,000 PSI	Bullet: 110 GR. HDY JRN Dia: .308"						
True Blue	5.0	1660	43,600 PSI	5.6	1850	48,800 PSI	Case: WIN Primer: CCI 400, Small Rifle Col: 1.680"						
Bullet: 40 GR. SIE HORNET Dia: .224"							H110	14.0	1605	32,000 CUP	15.0	1685	36,500 CUP
Case: FNH Primer: WIN SP, Small Pistol Col: 1.490"							H4227	13.0	1461	30,100 CUP	14.5C	1602	38,800 CUP
No. 7	7.0	1896	41,000 PSI	7.7	2044	45,100 PSI	32 H&R MAG						
No. 5	5.8	1850	40,300 PSI	6.5	1975	45,200 PSI	Barrel: 5" Twist: 1:16" Trim: 1.070"						
True Blue	5.6	1813	40,300 PSI	6.3	1961	45,300 PSI	Bullet: 77 GR. CAST LFP Dia: .314"						
Bullet: 45 GR. SIE HORNET Dia: .224"							Case: FED Primer: FED 100, Small P Col: 1.335"						
Case: FNH Primer: WIN SP, Small Pistol Col: 1.490"							W572	3.4	828	8,400 CUP	4.0	1013	13,000 CUP
No. 7	6.7	1782	41,100 PSI	7.4	1913	45,400 PSI	CPE Pistol	3.4	864	9,300 CUP	4.0	1003	13,500 CUP
No. 5	5.7	1740	40,400 PSI	6.4	1875	45,400 PSI	AutoComp	3.0	773	6,700 CUP	4.0	1016	12,800 CUP
True Blue	5.4	1700	40,400 PSI	6.1	1858	45,600 PSI	WSF	3.4	831	8,800 CUP	3.8	926	11,100 CUP
Bullet: 45 GR. SIE SPT Dia: .224"							W231	2.4	797	6,700 CUP	3.4	998	12,300 CUP
Case: FNH Primer: WIN SP, Small Pistol Col: 1.580"							W244	2.5	749	7,800 CUP	3.3	987	11,700 CUP
No. 7	5.9	1568	43,800 PSI	6.5	1782	48,300 PSI	Titegroup	2.0	745	5,300 CUP	3.0	993	11,300 CUP
No. 5	5.0	1558	42,700 PSI	5.6	1746	47,800 PSI	700-X	2.3	832	9,900 CUP	2.7	913	11,500 CUP
True Blue	4.8	1562	41,100 PSI	5.4	1725	46,200 PSI	Bullet: 85 GR. HDY HP Dia: .312"						
22 TCM							Case: FED Primer: FED 100, Small P Col: 1.290"						
Barrel: 5" Twist: 1:12" Trim: 1.015"							Lil'Gun	10.5	1163	13,700 CUP	12.0	1263	16,800 CUP
Bullet: 35 GR. HDY V-MAX Dia: .224"							H4227	8.5	989	19,300 CUP	9.5	1151	21,000 CUP
Case: Armscor Primer: CCI 500, Small Pistol Col: 1.290"							HS-6	5.2	902	17,100 CUP	5.6	1146	20,200 CUP
No. 11 FS	10.0	1791	34,400 PSI	11.1	2054	38,200 PSI	Longshot	4.0	948	11,500 CUP	5.0	1167	20,200 CUP
Enforcer	9.5	1877	34,000 PSI	10.5	2064	37,800 PSI	WSF	4.2	1030	15,900 CUP	4.8	1147	20,400 CUP
A-4100	9.4	1858	33,200 PSI	10.4	2043	36,900 PSI	CPE Pistol	4.2	1014	16,400 CUP	4.7	1147	21,000 CUP
TCM	9.1	1918	34,500 PSI	10.2	2095	38,400 PSI	AutoComp	4.2	1037	15,500 CUP	4.6	1114	19,200 CUP
Bullet: 39 GR. ARMSCOR HP Dia: .224"							Universal	4.0	1090	18,400 CUP	4.3	1123	19,000 CUP
Case: Armscor Primer: CCI 500, Small Pistol Col: 1.150"							W244	3.6	980	15,000 CUP	4.1	1111	20,300 CUP
No. 11 FS	9.6	1682	34,100 PSI	10.7	1914	37,900 PSI	W231	3.2	785	15,200 CUP	3.8	1003	20,700 CUP
Enforcer	9.1	1777	34,100 PSI	10.1	1921	37,900 PSI	Titegroup	3.0	929	14,000 CUP	3.7	1110	20,900 CUP
A-4100	9.0	1762	33,400 PSI	10.0	1904	37,100 PSI	700-X	3.2	951	14,600 CUP	3.7	1071	18,700 CUP
TCM	8.5	1806	34,400 PSI	9.4	1943	38,200 PSI	Bullet: 90 GR. SIE JHP Dia: .312"						
Bullet: 40 GR. SIE HORNET Dia: .224"							Case: FED Primer: FED 100, Small P Col: 1.340"						
Case: Armscor Primer: CCI 500, Small Pistol Col: 1.285"							Lil'Gun	10.0	1156	14,900 CUP	11.5	1227	18,000 CUP
No. 11 FS	10.0	1762	34,600 PSI	11.2	1945	38,500 PSI	H4227	9.5	1042	15,000 CUP	10.0	1079	17,000 CUP
Enforcer	9.3	1791	34,100 PSI	10.3	1929	37,900 PSI	HS-6	5.4	1026	16,400 CUP	6.0	1140	20,200 CUP
A-4100	9.2	1774	33,500 PSI	10.2	1911	37,100 PSI	Longshot	4.0	945	12,100 CUP	5.0	1139	19,500 CUP
TCM	8.7	1807	34,400 PSI	9.6	1958	38,200 PSI	W572	4.0	920	14,000 CUP	4.7	1098	20,600 CUP
30 LUGER (7.65x21 PARABELLUM)							CPE Pistol	3.8	927	14,500 CUP	4.5	1076	20,200 CUP
Barrel: 6" Twist: 1:11" Trim: .845"							AutoComp	4.0	957	15,700 CUP	4.5	1082	20,300 CUP
Bullet: 86 GR. HDY RN SP Dia: .308"							WSF	4.0	966	15,900 CUP	4.5	1065	19,500 CUP
Case: Fiocchi Primer: WIN SP, Small Pistol Col: 1.175"							W244	3.5	945	15,100 CUP	4.1	1070	20,200 CUP
No. 7	6.8	1247	24,000 PSI	7.6	1417	26,800 PSI	Universal	3.7	1008	16,900 CUP	4.0	1072	20,000 CUP
No. 5	5.6	1240	25,300 PSI	6.2	1409	28,000 PSI	W231	3.5	930	16,200 CUP	4.0	1033	20,300 CUP
No. 2	4.3	1190	28,800 PSI	4.8	1316	32,100 PSI	Titegroup	3.1	932	15,300 CUP	3.6	1060	20,600 CUP
Bullet: 90 GR. HDY XTP Dia: .308"							700-X	3.0	914	14,500 CUP	3.5	1036	19,400 CUP
Case: Fiocchi Primer: WIN SP, Small Pistol Col: 1.170"							Bullet: 100 GR. SPR JHP Dia: .312"						
No. 7	6.5	1177	23,800 PSI	7.2	1338	26,400 PSI	Case: FED Primer: FED 100, Small P Col: 1.345"						
No. 5	5.2	1145	23,600 PSI	5.8	1301	26,300 PSI	Lil'Gun	10.0	1151	17,900 CUP	11.0	1208	19,900 CUP
No. 2	4.1	1106	25,500 PSI	4.5	1257	28,000 PSI	H4227	9.0	980	15,700 CUP	10.0	1060	19,300 CUP
Bullet: 100 GR. SPR PLINKR Dia: .308"							HS-6	4.8	885	15,800 CUP	5.4	1023	20,200 CUP
Case: Fiocchi Primer: WIN SP, Small Pistol Col: 1.180"							Longshot	4.0	903	13,900 CUP	4.7	1056	19,300 CUP
No. 7	6.2	1139	23,500 PSI	6.9	1294	26,200 PSI	WSF	3.8	858	15,100 CUP	4.3	1000	20,300 CUP
No. 5	5.0	1126	24,300 PSI	5.5	1280	26,700 PSI	AutoComp	3.7	867	15,200 CUP	4.2	964	18,900 CUP
							Universal	3.3	847	14,300 CUP	3.7	973	19,900 CUP

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

Pistol Data

Starting Loads				Maximum Loads			Starting Loads				Maximum Loads		
Powder	Grains	Velocity	Pressure	Grains	Velocity	Pressure	Powder	Grains	Velocity	Pressure	Grains	Velocity	Pressure
W231	3.3	860	15,600 CUP	3.7	947	19,400 CUP	CFE Pistol	4.0	1140	30,100 PSI	5.0	1364	48,700 PSI
700-X	3.1	857	15,900 CUP	3.5	976	20,200 CUP	WSF	4.0	1114	32,800 PSI	5.0	1322	48,600 PSI
Titegroup	2.8	833	15,000 CUP	3.3	956	19,900 CUP	W244	3.5	1109	33,300 PSI	4.5	1334	49,000 PSI
32-20 WINCHESTER													
Barrel: 5.5"		Twist: 1:20"		Trim: 1.305"									
Bullet: 77 GR. LFP				Dia: .314"									
Case: REM		Primer: WIN SP, Small Pistol				Col: 1.555"							
W231	3.4	957	11,000 CUP	3.8	1031	12,700 CUP							
Titegroup	2.9	945	10,300 CUP	3.2	1020	11,700 CUP							
Bullet: 85 GR. HDY JHP				Dia: .312"									
Case: REM		Primer: WIN SP, Small Pistol				Col: 1.550"							
Lil'Gun	7.5	1048	13,200 CUP	8.0	1102	15,700 CUP							
Titegroup	3.1	866	11,600 CUP	3.5	961	15,900 CUP							
Bullet: 90 GR. CAST LRNFP				Dia: .314"									
Case: REM		Primer: WIN SP, Small Pistol				Col: 1.490"							
W231	3.2	833	11,900 CUP	3.5	969	16,000 CUP							
Titegroup	3.0	937	12,900 CUP	3.4	1012	15,800 CUP							
Trail Boss	2.5	785	11,400 CUP	2.8	830	13,900 CUP							
Bullet: 100 GR. REM JFP				Dia: .312"									
Case: REM		Primer: WIN SP, Small Pistol				Col: 1.580"							
Lil'Gun	7.0	947	12,200 CUP	7.5	1018	15,700 CUP							
Titegroup	3.0	839	14,100 CUP	3.5	908	16,000 CUP							
Bullet: 115 GR. CAST LRNFP				Dia: .314"									
Case: REM		Primer: WIN SP, Small Pistol				Col: 1.580"							
W231	3.2	839	11,100 CUP	3.5	915	15,600 CUP							
Universal	3.0	808	14,200 CUP	3.2	869	16,000 CUP							
Titegroup	2.7	815	12,900 CUP	3.0	857	15,300 CUP							
Trail Boss	2.2	642	11,300 CUP	2.5	707	15,300 CUP							
30 SUPER CARRY													
Barrel: 4.0"		Twist: 1:10"		Trim: .827"									
Bullet: 71 GR. Magtech JHP				Dia: .312"									
Case: REM		Primer: FED 205, Small Rifle				Col: 1.100"							
No. 7	8.0	1466	35,400 PSI	9.0C	1606	41,200 PSI							
W572	7.2	1538	35,700 PSI	8.0C	1642	40,600 PSI							
HS-6	6.7	1434	34,300 PSI	7.7C	1658	48,900 PSI							
Silhouette	5.6	1400	32,800 PSI	7.0C	1600	41,300 PSI							
True Blue	5.8	1367	31,800 PSI	7.0	1624	49,100 PSI							
CFE Pistol	5.4	1420	32,200 PSI	6.4	1672	49,200 PSI							
WSF	5.0	1365	32,800 PSI	6.0C	1564	47,200 PSI							
No. 2	4.2	1285	33,700 PSI	5.7C	1500	43,700 PSI							
W244	4.4	1327	31,600 PSI	5.4	1589	48,300 PSI							
W231	4.4	1313	32,400 PSI	5.2	1532	49,000 PSI							
Titegroup	4.2	1388	34,200 PSI	5.0	1537	49,500 PSI							
Bullet: 85 GR. HDY XTP				Dia: .312"									
Case: REM		Primer: FED 205, Small Rifle				Col: 1.080"							
No. 7	6.5	1245	35,800 PSI	7.8	1450	48,900 PSI							
W572	4.6	1245	35,000 PSI	6.8C	1469	48,500 PSI							
No. 5	5.6	1209	34,000 PSI	6.6	1412	48,700 PSI							
Silhouette	4.7	1199	33,500 PSI	6.0	1414	48,100 PSI							
True Blue	5.0	1184	33,500 PSI	6.0	1400	49,000 PSI							
CFE Pistol	4.3	1191	31,100 PSI	5.3	1429	48,100 PSI							
WSF	4.4	1190	33,700 PSI	5.3	1393	48,900 PSI							
No. 2	3.6	1124	32,500 PSI	5.0C	1325	48,600 PSI							
W244	3.6	1169	31,400 PSI	4.6	1403	48,000 PSI							
W231	3.6	1119	31,000 PSI	4.5	1334	48,700 PSI							
Titegroup	3.3	1127	32,000 PSI	4.2	1354	48,800 PSI							
Bullet: 90 GR. SIE JHC				Dia: .312"									
Case: REM		Primer: FED 205, Small Rifle				Col: 1.090"							
No. 7	6.4	1216	37,000 PSI	7.4	1388	48,900 PSI							
No. 5	5.3	1134	32,800 PSI	6.3	1333	48,600 PSI							
True Blue	5.0	1164	35,600 PSI	6.0	1362	48,500 PSI							
Silhouette	4.7	1204	36,700 PSI	5.7	1374	49,000 PSI							
W572	4.2	1183	34,200 PSI	5.5	1394	48,500 PSI							
WST	4.3	1106	35,100 PSI	5.0C	1218	40,600 PSI							
No. 2	3.5	1065	33,800 PSI	4.8C	1239	48,800 PSI							
Bullet: 100 GR. ACME RNFP-CTD				Dia: .313"									
Case: REM		Primer: FED 205, Small Rifle				Col: 1.120"							
Longshot	4.5	1210	41,000 PSI	6.6C	1374	49,500 PSI							
No. 7	5.3	1123	35,800 PSI	6.6	1283	48,400 PSI							
No. 5	4.5	1047	30,900 PSI	5.5	1262	48,400 PSI							
True Blue	4.4	1138	37,700 PSI	5.3	1276	49,000 PSI							
Silhouette	4.0	1122	36,700 PSI	5.0	1285	48,900 PSI							
WST	3.8	1057	36,100 PSI	4.8C	1201	48,100 PSI							
W572	3.8	1134	36,200 PSI	4.6	1285	48,800 PSI							
CFE Pistol	3.7	1119	35,000 PSI	4.5	1273	48,100 PSI							
WSF	3.4	1035	31,800 PSI	4.4	1243	48,600 PSI							
No. 2	3.4	1071	38,900 PSI	4.3	1200	48,700 PSI							
W244	3.0	1058	33,300 PSI	4.0	1243	48,700 PSI							
W231	3.0	1010	32,000 PSI	3.7	1163	48,300 PSI							
Titegroup	3.0	1076	36,200 PSI	3.6	1195	48,800 PSI							
Bullet: 100 GR. HDY XTP				Dia: .312"									
Case: REM		Primer: FED 205, Small Rifle				Col: 1.090"							
Longshot	5.1	1190	38,700 PSI	6.7C	1336	47,200 PSI							
No. 7	5.4	1056	33,600 PSI	6.7	1283	48,600 PSI							
W572	4.0	1071	35,800 PSI	5.4	1282	48,100 PSI							
No. 5	4.1	963	31,700 PSI	5.2	1185	48,300 PSI							
WST	4.0	1044	38,600 PSI	5.0C	1186	46,400 PSI							
True Blue	4.1	1021	35,600 PSI	5.0	1198	49,500 PSI							
Silhouette	4.1	1058	37,200 PSI	5.0	1235	48,200 PSI							
WSF	3.6	1030	38,500 PSI	5.0	1221	49,200 PSI							
CFE Pistol	3.9	1109	38,400 PSI	4.6	1250	49,200 PSI							
No. 2	3.5	1004	38,900 PSI	4.0	1121	47,900 PSI							
W244	3.3	1029	35,600 PSI	3.8	1158	48,900 PSI							
W231	3.2	983	39,200 PSI	3.7	1095	48,400 PSI							
Titegroup	3.0	984	34,800 PSI	3.5	1133	48,300 PSI							
Bullet: 115 GR. SPR GDHP				Dia: .312"									
Case: REM		Primer: FED 205, Small Rifle				Col: 1.120"							
Longshot	4.2	1015	35,100 PSI	6.0C	1188	43,800 PSI							
No. 7	4.8	960	38,300 PSI	5.7	1114	48,800 PSI							
WSF	3.6	984	38,700 PSI	5.1	1145	49,000 PSI							
HS-6	4.2	968	38,000 PSI	5.0	1130	49,500 PSI							
HS-6	4.2	958	36,400 PSI	4.9	1139	49,200 PSI							
W572	4.0	1020	38,400 PSI	4.8	1160	49,300 PSI							
Silhouette	4.0	1000	39,700 PSI	4.5	1130	49,100 PSI							
True Blue	3.8	871	37,500 PSI	4.4	1074	48,200 PSI							
WST	3.0	811	33,200 PSI	4.0C	993	41,400 PSI							
CFE Pistol	3.4	970	36,600 PSI	3.9	1085	49,500 PSI							
No. 2	3.0	843	38,200 PSI	3.6	989	48,600 PSI							
W244	3.0	912	35,000 PSI	3.5	1054	48,600 PSI							
W231	2.8	823	35,000 PSI	3.4	1002	48,800 PSI							
Titegroup	2.5	835	36,300 PSI	3.0	961	48,300 PSI							
327 FEDERAL MAG													
Barrel: 5"		Twist: 1:16"		Trim: 1.190"									
Bullet: 77 GR. CAST LFP				Dia: .314"									
Case: FED		Primer: FED 200, Small P Mag				Col: 1.460"							
AutoComp	5.9	1251	17,700 PSI	6.7	1393	21,900 PSI							
W572	5.5	1233	18,500 PSI	6.2	1381	24,300 PSI							
CFE Pistol	5.1	1254	18,600 PSI	5.8	1382	23,100 PSI							
W231	5.1	1273	20,700 PSI	5.8	1380	25,000 PSI							
Universal	4.9	1190	15,700 PSI	5.5	1357	22,800 PSI							
W244	4.9	1267	19,500 PSI	5.5	1383	23,500 PSI							
Titegroup	4.5	1225	17,200 PSI	5.3	1391	24,700 PSI							
700-X	4.5	1236	17,500 PSI	5.3	1388	24,600 PSI							
Clays	3.7	1121	18,000 PSI	4.5	1297	30,900 PSI							
Trail Boss	3.0	919	12,300 PSI	3.5	1024	18,700 PSI							

PISTOL DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 78 GR. LC LRN Dia: .313"							IMR 4227	11.5	1239	27,100 PSI	12.5C	1318	30,000 PSI
Case: FED Primer: WIN SP, Small Pistol Col: 1.454"							HS-6	7.0	1289	34,100 PSI	7.7	1384	42,000 PSI
No. 7	10.1	1616	37,000 PSI	11.2	1796	41,000 PSI	CFE Pistol	5.9	1298	31,800 PSI	7.0	1451	42,300 PSI
No. 5	8.4	1585	39,300 PSI	9.3	1761	43,500 PSI	800-X	6.0	1252	28,900 PSI	6.9	1434	39,400 PSI
True Blue	8.1	1572	38,300 PSI	9.0	1747	42,500 PSI	Longshot	6.0	1287	35,400 PSI	6.7	1400	43,500 PSI
Bullet: 85 GR. HDY XTP Dia: .312"							AutoComp	5.5	1190	32,500 PSI	6.2	1328	41,400 PSI
Case: FED Primer: WIN SP, Small Pistol Col: 1.450"							W244	5.3	1269	32,100 PSI	6.0	1407	42,500 PSI
No. 7	9.4	1503	39,800 PSI	10.4	1670	44,000 PSI	W231	4.8	1146	31,100 PSI	5.4	1261	39,800 PSI
True Blue	7.8	1480	39,200 PSI	8.7	1644	43,500 PSI	Universal	4.5	1087	28,000 PSI	5.4	1250	40,800 PSI
No. 5	7.7	1448	39,400 PSI	8.5	1609	43,500 PSI	Titegroup	4.3	1102	33,300 PSI	5.2	1261	42,800 PSI
Case: FED Primer: FED 200, Small P Mag Col: 1.450"							Bullet: 115 GR. LC LFP Dia: .313"						
HS-6	7.6	1402	30,800 PSI	8.5	1561	41,600 PSI	Case: FED Primer: WIN SP, Small Pistol Col: 1.500"						
800-X	6.7	1376	25,300 PSI	7.5	1548	36,700 PSI	Enforcer	11.5	1343	31,400 PSI	12.8	1492	34,900 PSI
CFE Pistol	6.7	1474	33,400 PSI	7.5	1600	41,200 PSI	No. 9	10.8	1355	34,900 PSI	12.0	1506	38,800 PSI
Longshot	6.5	1404	32,700 PSI	7.2	1549	41,800 PSI	No. 7	7.9	1276	40,000 PSI	8.8	1418	44,600 PSI
AutoComp	6.3	1387	32,700 PSI	7.0	1518	42,100 PSI	No. 5	6.6	1209	39,900 PSI	7.3	1343	44,100 PSI
WSF	6.4	1359	31,900 PSI	7.0	1475	38,200 PSI	True Blue	6.3	1209	37,200 PSI	7.0	1343	41,300 PSI
W244	5.8	1384	28,800 PSI	6.6	1571	40,100 PSI	Bullet: 115 GR. MEI LRNFP Dia: .312"						
Universal	5.3	1253	32,100 PSI	6.0	1378	38,700 PSI	Case: FED Primer: FED 200, Small P Mag Col: 1.460"						
W231	5.5	1299	34,000 PSI	6.0	1416	39,800 PSI	AutoComp	4.7	1062	22,100 PSI	5.5	1194	33,500 PSI
Titegroup	5.0	1294	27,000 PSI	5.8	1438	37,600 PSI	W572	4.6	1068	23,500 PSI	5.4	1222	33,800 PSI
Bullet: 90 GR. CAST LRNFP Dia: .312"							W231	4.3	1053	27,400 PSI	5.3	1218	41,200 PSI
Case: FED Primer: FED 200, Small P Mag Col: 1.460"							Universal	4.2	1059	25,200 PSI	5.0	1184	40,200 PSI
AutoComp	5.5	1210	19,900 PSI	6.3	1348	28,700 PSI	W244	4.0	1066	23,500 PSI	5.0	1226	33,700 PSI
W231	4.5	1118	18,400 PSI	5.5	1299	30,400 PSI	Titegroup	3.6	1012	23,900 PSI	4.6	1173	40,600 PSI
Universal	4.3	1090	16,600 PSI	5.2	1274	27,800 PSI	700-X	3.8	1024	26,400 PSI	4.6	1158	35,300 PSI
Titegroup	3.8	1066	16,300 PSI	5.0	1283	28,800 PSI	Clays	3.0	913	26,600 PSI	3.7	1017	39,500 PSI
700-X	4.1	1108	17,800 PSI	5.0	1277	28,100 PSI	Trail Boss	2.5	733	15,200 PSI	3.0	804	19,600 PSI
Clays	3.5	1065	26,400 PSI	4.2	1186	37,900 PSI	380 Auto						
Trail Boss	2.7	789	11,200 PSI	3.2	890	14,800 PSI	Barrel: 3.75" Twist: 1:16" Trim: .675"						
Bullet: 90 GR. HDY LSWC Dia: .314"							Bullet: 56 GR. PLYCS ARX Dia: .355"						
Case: FED Primer: WIN SP, Small Pistol Col: 1.487							Case: REM Primer: CCI 500, Small Pistol Col: .975"						
No. 9	13.1	1544	33,600 PSI	14.5	1715	37,200 PSI	W572	4.7	1213	17,900 PSI	5.5	1326	20,000 PSI
No. 7	9.0	1445	39,700 PSI	10.0	1605	44,200 PSI	AutoComp	4.3	1072	15,500 PSI	5.2	1310	20,300 PSI
No. 5	7.4	1400	39,200 PSI	8.2	1555	43,500 PSI	CFE Pistol	4.3	1103	15,700 PSI	5.1	1356	20,400 PSI
True Blue	7.1	1382	37,100 PSI	7.9	1536	41,300 PSI	Universal	3.6	1025	14,800 PSI	4.2	1274	20,000 PSI
Bullet: 90 GR. LHBWC Dia: .314"							W244	3.4	1113	16,700 PSI	4.0	1297	20,200 PSI
Case: FED Primer: FED 200, Small P Mag Col: 1.200"							W231	3.3	1073	16,400 PSI	3.9	1257	20,400 PSI
Universal	2.4	721	9,100 PSI	2.8	869	12,500 PSI	Titegroup	3.1	1102	15,700 PSI	3.7	1309	20,200 PSI
W244	2.3	769	10,600 PSI	2.7	878	13,600 PSI	Bullet: 60 GR. PLYCS RNP Dia: .355"						
W231	2.3	781	14,600 PSI	2.7	878	15,000 PSI	Case: REM Primer: CCI 500, Small Pistol Col: .975"						
700-X	2.2	810	12,700 PSI	2.5	885	14,200 PSI	W572	4.5	1134	16,900 PSI	5.2	1272	20,300 PSI
Titegroup	2.0	773	13,200 PSI	2.3	859	14,000 PSI	CFE Pistol	4.1	1090	15,800 PSI	4.8	1303	20,200 PSI
Clays	1.9	792	17,800 PSI	2.2	856	20,600 PSI	AutoComp	4.1	1065	16,200 PSI	4.8	1250	20,100 PSI
Bullet: 90 GR. SIE JHC Dia: .312"							Universal	3.4	1005	15,300 PSI	4.0	1228	20,000 PSI
Case: FED Primer: FED 200, Small P Mag Col: 1.460"							W244	3.2	1058	16,100 PSI	3.8	1234	20,300 PSI
HS-6	8.0	1337	23,400 PSI	8.8	1491	36,400 PSI	W231	3.1	1020	15,700 PSI	3.7	1213	20,300 PSI
W572	6.5	1377	33,400 PSI	7.4	1531	42,100 PSI	Titegroup	2.9	1033	15,300 PSI	3.5	1240	20,100 PSI
Longshot	6.6	1340	26,400 PSI	7.3	1512	42,600 PSI	Bullet: 65 GR. LGH XD Dia: .355"						
CFE Pistol	6.4	1395	31,800 PSI	7.3	1530	41,500 PSI	Case: REM Primer: CCI 500, Small Pistol Col: .950"						
800-X	6.5	1321	24,900 PSI	7.2	1446	31,700 PSI	HS-6	5.0	956	13,800 PSI	6.0	1215	20,100 PSI
AutoComp	6.4	1337	29,200 PSI	7.2	1493	42,900 PSI	Longshot	4.8	1057	14,500 PSI	5.2	1276	19,500 PSI
WSF	6.0	1320	29,300 PSI	6.6	1426	41,900 PSI	AutoComp	4.2	1027	14,100 PSI	4.9	1245	19,900 PSI
W244	5.7	1342	29,100 PSI	6.4	1492	41,600 PSI	CFE Pistol	4.4	1053	13,800 PSI	4.8	1278	20,500 PSI
W231	5.4	1279	32,100 PSI	6.1	1415	43,000 PSI	W572	4.2	997	13,400 PSI	4.7	1230	20,200 PSI
Universal	5.3	1275	26,800 PSI	5.7	1372	40,900 PSI	Universal	3.8	882	11,800 PSI	4.3	1248	20,400 PSI
Titegroup	5.0	1287	28,200 PSI	5.7	1402	39,600 PSI	W244	3.4	1005	14,600 PSI	4.0	1214	20,400 PSI
Bullet: 100 GR. HDY XTP Dia: .312"							W231	3.1	969	14,700 PSI	3.6	1161	20,300 PSI
Case: FED Primer: WIN SP, Small Pistol Col: 1.450"							Titegroup	3.1	1004	14,300 PSI	3.6	1194	20,200 PSI
No. 9	11.7	1417	33,300 PSI	13.0	1574	37,000 PSI	Bullet: 75 GR. CEB RAPTOR Dia: .355"						
Enforcer	12.2	1370	27,000 PSI	13.6	1522	30,000 PSI	Case: REM Primer: CCI 500, Small Pistol Col: .950"						
No. 7	8.5	1355	39,000 PSI	9.4	1505	43,100 PSI	HS-6	4.7	941	15,900 PSI	5.4	1079	19,700 PSI
True Blue	6.9	1297	37,800 PSI	7.7	1441	42,000 PSI	Longshot	3.9	951	16,200 PSI	4.5	1071	19,100 PSI
Case: FED Primer: FED 200, Small P Mag Col: 1.450"							AutoComp	3.7	939	15,300 PSI	4.4	1108	19,600 PSI
Lil'Gun	12.7	1347	25,600 PSI	14.0	1431	27,900 PSI	W572	3.5	918	15,200 PSI	4.2	1090	19,400 PSI
W296	12.2	1419	31,400 PSI	13.2	1525	38,500 PSI	CFE Pistol	3.5	927	15,200 PSI	4.2	1095	19,200 PSI
H110	12.2	1419	31,400 PSI	13.2	1525	38,500 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads				Maximum Loads			Starting Loads				Maximum Loads		
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Universal	3.7	954	15,700 PSI	4.1	1125	19,600 PSI	W231	2.9	819	13,800 CUP	3.1	843	15,400 CUP
W244	3.0	933	16,100 PSI	3.5	1066	19,900 PSI	Titegroup	2.6	793	11,400 CUP	3.0	912	14,700 CUP
W231	2.8	848	15,000 PSI	3.3	1025	20,000 PSI	700-X				2.7	840	15,200 CUP
Titegroup	2.7	919	16,100 PSI	3.2	1064	19,800 PSI							
Bullet: 80 GR. BAR TAC XP Dia: .355"							Bullet: 100 GR. RAIN RN Dia: .355"						
Case: REM			Primer: CCI 500, Small Pistol			Col: .980"	Case: WIN			Primer: CCI 500, Small Pistol			Col: .960"
W572	3.3	901	16,100 PSI	3.8	1043	19,700 PSI	No. 5	4.2	801	18,300 PSI	5.0	948	21,500 PSI
AutoComp	3.3	911	16,100 PSI	3.8	1024	20,200 PSI	Silhouette	3.7	819	18,200 PSI	4.4	973	21,400 PSI
CFE Pistol	2.9	814	12,600 PSI	3.7	1036	20,300 PSI	True Blue	3.7	820	18,300 PSI	4.4	941	21,500 PSI
W244	2.9	930	16,200 PSI	3.3	1053	19,900 PSI	ZIP	2.8	781	18,100 PSI	3.3	918	21,300 PSI
Universal	2.8	889	16,100 PSI	3.0	964	17,900 PSI	No. 2	2.7	769	18,200 PSI	3.2	897	21,400 PSI
W231	2.4	817	15,000 PSI	2.7	936	20,300 PSI	Competition	1.9	692	18,300 PSI	2.2	799	21,500 PSI
Titegroup	2.3	865	15,700 PSI	2.6	970	19,300 PSI	Nitro 100 NF	1.9	683	18,300 PSI	2.2	799	21,500 PSI
700-X	2.3	846	15,900 PSI	2.6	960	19,700 PSI							
Bullet: 80 GR. BAR XPB Dia: .355"							Bullet: 102 GR. REM GSBF Dia: .355"						
Case: WIN			Primer: CCI 500, Small Pistol			Col: .970"	Case: WIN			Primer: CCI 500, Small Pistol			Col: .965"
No. 5	3.6	807	18,100 PSI	4.0	897	20,100 PSI	No. 5	4.1	777	18,300 PSI	4.8	917	21,500 PSI
Silhouette	3.4	856	18,300 PSI	3.8	951	20,400 PSI	True Blue	3.6	788	18,200 PSI	4.2	905	21,400 PSI
True Blue	3.2	790	18,500 PSI	3.5	878	20,500 PSI	ZIP	2.9	765	18,200 PSI	3.4	892	21,500 PSI
No. 2	2.6	807	18,800 PSI	2.9	897	20,900 PSI	No. 2	2.6	748	18,300 PSI	3.1	863	21,500 PSI
ZIP	2.3	776	18,100 PSI	2.6	862	20,100 PSI							
Competition	2.1	786	18,300 PSI	2.3	873	20,400 PSI							
Nitro 100 NF	1.8	772	18,200 PSI	2.1	867	21,500 PSI							
Bullet: 90 GR. HDY XTP Dia: .355"							9MM LUGER						
Case: WIN			Primer: CCI 500, Small Pistol			Col: .960"	Barrel: 4" Twist: 1:10" Trim: .750"						
No. 5	4.3	810	18,300 PSI	4.8	920	20,400 PSI	Bullet: 65 GR. PLYCS ARX Dia: .355"						
True Blue	3.7	800	15,400 PSI	4.5	960	18,700 PSI	Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.155"
No. 2	3.3	818	18,700 PSI	3.7	930	20,900 PSI	W572	7.8	1526	25,800 PSI	8.5	1621	28,500 PSI
ZIP	2.7	800	14,700 PSI	3.4	980	18,500 PSI	CFE Pistol	6.3	1552	28,100 PSI	7.3	1713	33,000 PSI
Case: REM			Primer: CCI 500, Small Pistol			Col: .960"	AutoComp	6.2	1489	26,600 PSI	7.1	1634	32,700 PSI
AutoComp	4.1	893	11,200 CUP	4.5	1012	15,000 CUP	Universal	5.2	1453	28,200 PSI	5.8	1593	33,000 PSI
CFE Pistol	3.7	880	11,900 PSI	4.2	1010	19,500 PSI	W244	4.8	1400	27,000 PSI	5.5	1562	33,400 PSI
800-X				4.1	870	15,500 CUP	W231	4.7	1359	27,900 PSI	5.3	1480	32,900 PSI
W244	3.2	930	15,600 PSI	3.7	1061	19,800 PSI	Titegroup	4.5	1422	27,000 PSI	5.1	1554	33,600 PSI
Universal	3.2	815	10,700 CUP	3.6	955	15,700 CUP	Bullet: 65 GR. PLYCS RNP Dia: .355"						
W231	3.2	917	13,900 CUP	3.5	957	15,400 CUP	Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.125"
Titegroup	2.7	826	10,800 CUP	3.2	970	15,600 CUP	CFE Pistol	6.2	1504	27,100 PSI	7.1	1697	33,200 PSI
700-X				2.9	895	15,900 CUP	AutoComp	6.2	1503	27,500 PSI	7.1	1626	32,900 PSI
Bullet: 95 GR. SIE FMJ Dia: .355"							Universal	4.9	1368	23,700 PSI	5.7	1592	32,800 PSI
Case: WIN			Primer: CCI 500, Small Pistol			Col: 0.945"	W231	4.8	1384	26,300 PSI	5.6	1537	33,100 PSI
No. 5	4.3	784	16,400 PSI	4.8	891	18,300 PSI	W244	4.7	1369	23,900 PSI	5.5	1575	33,300 PSI
No. 2	3.3	822	16,300 PSI	3.7	934	18,300 PSI	Titegroup	4.7	1438	26,200 PSI	5.5	1610	33,700 PSI
Bullet: 95 GR. SPR FMJ Dia: .355"							Bullet: 80 GR. BAR TAC-XP Dia: .355"						
Case: REM			Primer: CCI 500, Small Pistol			Col: .970"	Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.025"
AutoComp	3.9	816	10,600 CUP	4.3	937	14,100 CUP	Longshot	5.7	1239	31,100 PSI	6.6	1327	33,500 PSI
W572	3.5	785	13,700 PSI	4.2	982	19,900 PSI	W572	5.4	1311	27,400 PSI	6.2	1424	31,200 PSI
CFE Pistol	3.7	822	12,000 PSI	4.2	986	19,900 PSI	CFE Pistol	5.0	1221	26,100 PSI	5.9	1420	33,500 PSI
W244	3.2	848	14,800 PSI	3.7	995	19,600 PSI	HS-6	5.4	1102	28,000 PSI	5.7	1167	32,100 PSI
Universal	3.1	814	12,500 CUP	3.5	901	15,500 CUP	AutoComp	4.4	1101	27,700 PSI	4.8	1207	31,800 PSI
W231	2.9	802	13,100 CUP	3.2	884	15,400 CUP	W244	4.0	1212	26,400 PSI	4.6	1356	33,000 PSI
Titegroup	2.7	796	10,600 CUP	3.2	953	15,600 CUP	Universal	3.7	1156	31,400 PSI	3.9	1166	31,500 PSI
Bullet: 100 GR. BERB RNHB Dia: .355"							W231	3.3	1021	26,300 PSI	3.8	1125	32,000 PSI
Case: WIN			Primer: CCI 500, Small Pistol			Col: .960"	Titegroup	3.0	1015	25,700 PSI	3.6	1174	32,900 PSI
No. 5	4.3	813	18,300 PSI	5.1	952	21,500 PSI	700-X	3.1	1038	25,800 PSI	3.5	1119	31,000 PSI
True Blue	3.8	823	18,200 PSI	4.5	951	21,400 PSI	Bullet: 90 GR. CEB RAPTOR Dia: .355"						
Silhouette	3.7	791	18,300 PSI	4.4	960	21,500 PSI	Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.140"
ZIP	3.0	786	18,200 PSI	3.5	923	21,500 PSI	HS-6	6.5	1140	28,200 PSI	7.3	1292	32,600 PSI
No. 2	2.8	766	18,200 PSI	3.2	895	21,400 PSI	Longshot	6.0	1210	28,100 PSI	6.6	1315	29,700 PSI
Competition	2.0	693	18,300 PSI	2.3	794	21,500 PSI	W572	5.4	1189	28,500 PSI	6.0	1312	32,800 PSI
Nitro 100 NF	1.9	686	18,200 PSI	2.3	800	21,500 PSI	AutoComp	5.2	1108	25,500 PSI	5.8	1270	32,600 PSI
Bullet: 100 GR. HDY FMJ Dia: .355"							WSF	5.1	1129	27,600 PSI	5.7	1272	32,800 PSI
Case: REM			Primer: CCI 500, Small Pistol			Col: .980"	CFE Pistol	5.2	1169	27,800 PSI	5.6	1277	32,800 PSI
AutoComp	3.8	822	11,000 CUP	4.2	934	14,400 CUP	Universal	5.0	1157	28,200 PSI	5.4	1246	31,200 PSI
800-X				4.0	840	14,700 CUP	W244	4.3	1114	27,200 PSI	4.9	1271	32,900 PSI
CFE Pistol	3.3	794	12,400 PSI	4.0	955	19,800 PSI	W231	4.1	1029	26,800 PSI	4.7	1187	32,500 PSI
W244	3.0	851	15,600 PSI	3.5	994	19,500 PSI	Titegroup	4.0	1085	27,500 PSI	4.5	1232	32,500 PSI
Universal	3.0	721	11,400 CUP	3.4	889	16,100 CUP	Bullet: 90 GR. HDY XTP Dia: .355"						
Bullet: 100 GR. RAIN RN Dia: .355"							Case: WIN			Primer: WIN SP, Small Pistol			Col: 1.070"
Case: WIN			Primer: CCI 500, Small Pistol			Col: .960"	Silhouette	6.2	1253	31,200 PSI	6.9	1368	34,700 PSI
No. 5	4.2	801	18,300 PSI	5.0	948	21,500 PSI	No. 2	4.8	1214	31,400 PSI	5.4	1293	34,900 PSI
Silhouette	3.7	819	18,200 PSI	4.4	973	21,400 PSI	ZIP	4.6	1172	31,400 PSI	5.1	1280	34,900 PSI
True Blue	3.7	820	18,300 PSI	4.4	941	21,500 PSI							
ZIP	2.8	781	18,100 PSI	3.3	918	21,300 PSI							
No. 2	2.7	769	18,200 PSI	3.2	897	21,400 PSI							
Competition	1.9	692	18,300 PSI	2.2	799	21,500 PSI							
Nitro 100 NF	1.9	683	18,300 PSI	2.2	799	21,500 PSI							

PISTOL DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads			
	Grs	Vel	Pressure		Vel	Pressure	Vel			Pressure	Vel	Pressure					
Competition	3.9	1145	31,100 PSI	4.4	1209	34,600 PSI		ZIP	4.1	1005	30,800 PSI	4.6	1089	34,200 PSI			
Nitro 100 NF	3.8	1140	31,300 PSI	4.2	1206	34,800 PSI		Competition	3.5	980	30,900 PSI	3.9	1018	34,300 PSI			
Bullet: 90 GR. SPR GDHP Dia: .355"								Bullet: 115 GR. LC LRN Dia: .356"									
Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.010"			Case: WIN			Primer: WIN SP, Small Pistol			Col: 1.070"		
HS-6	7.9	1361	27,400 CUP	8.2	1413	30,900 CUP		No. 7	6.4	1052	28,600 PSI	7.5	1178	33,600 PSI			
Longshot	6.0	1278	29,400 PSI	7.0	1378	32,300 PSI		No. 5	5.2	1034	29,300 PSI	6.1	1179	34,400 PSI			
AutoComp	6.1	1255	27,700 PSI	6.5	1332	32,100 PSI		True Blue	4.8	1041	29,500 PSI	5.7	1174	34,800 PSI			
W572	5.5	1239	25,000 PSI	6.4	1419	33,500 PSI		Silhouette	5.1	1126	31,200 PSI	5.7	1199	34,700 PSI			
CFE Pistol	6.0	1310	27,200 PSI	6.4	1404	32,900 PSI		No. 2	3.9	1055	31,300 PSI	4.4	1109	34,800 PSI			
W231	5.5	1312	25,400 CUP	5.8	1349	30,100 CUP		ZIP	3.8	1041	31,000 PSI	4.2	1125	34,400 PSI			
Universal	5.0	1170	25,700 CUP	5.5	1266	30,100 CUP		Competition	3.5	1038	31,200 PSI	3.8	1084	34,600 PSI			
W244	4.5	1212	25,000 PSI	5.2	1378	31,800 PSI		Nitro 100 NF	2.9	980	31,000 PSI	3.3	1032	34,500 PSI			
Titegroup	4.7	1239	25,700 CUP	5.0	1305	30,000 CUP		Bullet: 115 GR. LRN Dia: .356"									
700-X	4.1	1215	27,700 PSI	4.5	1279	32,200 PSI		Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.100"			
Bullet: 95 GR. BARTAC-XP Dia: .355"								HS-6	6.4	1117	27,900 CUP	6.9	1170	32,200 CUP			
Case: WIN			Primer: WIN SP, Small Pistol			Col: 1.160"			Longshot	5.0	1032	20,200 CUP	6.0	1166	27,300 CUP		
No. 7	6.8	1071	29,700 PSI	8.0	1242	34,900 PSI		CFE Pistol	4.9	1124	28,800 PSI	5.4	1209	33,800 PSI			
No. 5	5.6	1066	29,300 PSI	6.6	1228	34,500 PSI		W572	4.6	1118	26,300 PSI	5.1	1200	31,900 PSI			
Silhouette	5.7	1179	31,400 PSI	6.3	1281	34,900 PSI		AutoComp	4.4	1002	24,800 PSI	5.1	1145	31,500 PSI			
True Blue	5.2	1071	29,500 PSI	6.1	1226	34,700 PSI		W231	4.3	1079	28,400 CUP	4.8	1135	32,000 CUP			
ZIP	4.2	1070	30,900 PSI	4.7	1172	34,300 PSI		Universal	4.0	1034	24,400 CUP	4.5	1124	31,300 CUP			
No. 2	4.2	1083	31,300 PSI	4.7	1158	34,800 PSI		W244	4.0	1092	25,300 PSI	4.5	1199	32,900 PSI			
Competition	3.7	1052	31,100 PSI	4.1	1115	34,600 PSI		Titegroup	3.9	1075	25,800 CUP	4.3	1151	30,500 CUP			
Nitro 100 NF	3.4	1023	30,700 PSI	3.7	1109	34,100 PSI		700-X	3.3	986	25,200 PSI	3.7	1082	31,900 PSI			
Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.125"			Clays	3.0	954	25,300 CUP	3.4	1039	31,000 CUP		
HS-6	6.0	1104	24,900 PSI	6.7	1249	30,700 PSI		Bullet: 115 GR. NOS JHP Dia: .355"									
Longshot	5.5	1162	26,800 PSI	6.5	1277	27,900 PSI		Case: WIN			Primer: WIN SP, Small Pistol			Col: 1.100"			
W572	5.1	1197	26,900 PSI	6.0	1340	33,200 PSI		No. 7	6.5	1000	29,100 PSI	7.6	1139	34,300 PSI			
CFE Pistol	5.0	1171	25,700 PSI	5.8	1336	33,100 PSI		No. 5	5.3	987	29,700 PSI	6.3	1137	34,900 PSI			
AutoComp	5.1	1176	26,900 PSI	5.8	1329	32,700 PSI		True Blue	5.2	1046	31,200 PSI	5.8	1132	34,700 PSI			
Universal	4.4	1122	25,100 PSI	5.1	1329	32,600 PSI		Silhouette	5.1	1060	30,800 PSI	5.7	1136	34,200 PSI			
W244	4.4	1158	26,100 PSI	5.0	1297	33,300 PSI		No. 2	4.2	1016	31,300 PSI	4.7	1077	34,700 PSI			
W231	4.1	1103	26,600 PSI	4.7	1240	32,600 PSI		ZIP	4.1	990	31,200 PSI	4.5	1083	34,600 PSI			
Titegroup	3.9	1156	28,700 PSI	4.6	1299	33,200 PSI		Competition	3.2	919	31,300 PSI	3.6	992	34,800 PSI			
Bullet: 95 GR. SIE FMJ Dia: .355"								Nitro 100 NF	3.1	912	31,200 PSI	3.4	972	34,700 PSI			
Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.020"			Bullet: 115 GR. SIE FMJ Dia: .355"								
HS-6	7.3	1232	26,500 CUP	7.8	1339	31,300 CUP		Case: WIN			Primer: WIN SP, Small Pistol			Col: 1.100"			
Longshot	5.8	1192	25,800 PSI	6.8	1356	33,300 PSI		No. 7	6.6	1036	29,400 PSI	7.8	1166	34,600 PSI			
CFE Pistol	5.9	1207	27,900 PSI	6.4	1362	32,200 PSI		No. 5	5.3	1001	29,100 PSI	6.3	1148	34,200 PSI			
W572	5.4	1233	25,900 PSI	6.3	1379	33,400 PSI		True Blue	5.0	1006	29,300 PSI	5.9	1147	34,500 PSI			
AutoComp	5.6	1216	27,300 PSI	6.1	1306	32,600 PSI		Silhouette	5.3	1109	31,500 PSI	5.9	1180	35,000 PSI			
W231	4.8	1189	26,300 CUP	5.3	1273	31,400 CUP		No. 2	3.7	971	27,500 PSI	4.6	1088	34,200 PSI			
Universal	4.6	1182	26,800 CUP	5.2	1292	31,700 CUP		ZIP	4.0	1016	31,500 PSI	4.5	1106	35,000 PSI			
W244	4.5	1199	25,700 PSI	5.2	1340	32,300 PSI		Competition	3.3	958	30,500 PSI	3.7	1020	33,900 PSI			
Titegroup	4.7	1241	28,500 CUP	5.0	1298	32,000 CUP		Nitro 100 NF	2.9	926	30,500 PSI	3.3	986	33,900 PSI			
700-X	4.1	1137	26,300 PSI	4.5	1224	31,500 PSI		Bullet: 115 GR. SPR GDHP Dia: .355"									
Bullet: 100 GR. SPR FMJ Dia: .355"								Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.125"			
Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.050"			HS-6	6.7	1171	26,700 CUP	7.0	1234	29,400 CUP		
HS-6	7.2	1270	23,900 CUP	7.5	1313	28,600 CUP		Longshot	5.0	1127	29,000 PSI	6.0	1203	32,300 PSI			
Longshot	5.5	1158	26,500 PSI	6.5	1315	33,300 PSI		CFE Pistol	5.3	1059	23,200 PSI	5.9	1185	31,800 PSI			
W231	5.1	1218	25,200 CUP	5.5	1282	28,400 CUP		AutoComp	5.1	1078	28,200 PSI	5.6	1161	32,500 PSI			
Universal	4.8	1119	27,200 CUP	5.3	1212	31,500 CUP		W231	4.7	1075	25,300 CUP	5.1	1167	28,100 CUP			
Titegroup	4.7	1234	28,300 CUP	5.0	1289	30,300 CUP		Universal	4.5	1029	27,400 CUP	5.0	1149	31,200 CUP			
Bullet: 115 GR. BAR XPB Dia: .355"								Titegroup	4.5	1135	29,500 CUP	4.8	1158	30,500 CUP			
Case: WIN			Primer: WIN SP, Small Pistol			Col: 1.160"			W244	4.2	1071	25,400 PSI	4.7	1197	33,100 PSI		
No. 5	5.0	959	30,500 PSI	5.5	1065	33,900 PSI		Clays	3.7	1066	30,900 CUP	3.9	1095	32,600 CUP			
Silhouette	4.8	1003	30,600 PSI	5.3	1114	34,000 PSI		Bullet: 118 GR. LGH XD Dia: .355"									
True Blue	4.4	902	28,900 PSI	4.9	1002	32,200 PSI		Case: WIN			Primer: CCI 500, Small Pistol			Col: 1.135"			
No. 2	4.1	905	30,000 PSI	4.6	1005	33,300 PSI		HS-6	5.2	877	27,400 PSI	5.7	1035	33,200 PSI			
ZIP	3.3	876	29,300 PSI	3.7	973	32,500 PSI		Longshot	4.8	944	26,900 PSI	5.5	1128	33,300 PSI			
Bullet: 115 GR. BERB RNDS Dia: .355"								W572	4.4	940	28,400 PSI	5.2	1098	33,100 PSI			
Case: WIN			Primer: WIN SP, Small Pistol			Col: 1.130"			CFE Pistol	4.2	936	27,400 PSI	4.8	1066	32,900 PSI		
No. 7	7.0	1037	29,700 PSI	8.2	1185	34,900 PSI		AutoComp	4.2	915	27,000 PSI	4.8	1059	33,200 PSI			
No. 5	5.6	1007	29,500 PSI	6.6	1162	34,700 PSI		Universal	3.9	863	26,600 PSI	4.4	1018	32,100 PSI			
Silhouette	5.5	1099	31,300 PSI	6.2	1189	34,800 PSI		W244	3.5	848	27,000 PSI	4.0	985	32,800 PSI			
True Blue	5.1	1019	29,500 PSI	6.0	1161	34,700 PSI		Titegroup	3.0	742	23,300 PSI	3.8	989	32,700 PSI			
No. 2	4.2	1043	31,400 PSI	4.7	1103	34,900 PSI											

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 124 GR. BERB HBRN TPDia: .356"							Bullet: 124 GR. WIN FMJ Dia: .355"						
Case: WIN		Primer: CCI 500, Small Pistol				Col: 1.150"	Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.100"
HS-6	6.0	1016	28,200 PSI	6.6	1116	32,400 PSI	No. 7	6.4	975	29,800 PSI	7.5	1139	34,900 PSI
Longshot	4.8	958	23,000 PSI	5.8	1135	32,300 PSI	No. 5	5.3	950	30,500 PSI	6.0	1075	34,600 PSI
W572	5.3	1131	27,200 PSI	5.8	1212	32,600 PSI	No. 2	3.6	880	29,700 PSI	4.2	992	34,700 PSI
CFE Pistol	4.9	1006	27,300 PSI	5.5	1120	33,800 PSI	Solo 1000	3.1	827	29,500 PSI	3.6	945	34,300 PSI
AutoComp	4.8	1020	28,400 PSI	5.4	1120	32,900 PSI	Nitro 100 NF	2.6	761	29,300 PSI	3.0	864	33,800 PSI
W244	4.0	1010	26,300 PSI	4.5	1131	32,600 PSI	Bullet: 125 GR. LCN Dia: .356"						
Universal	3.8	904	26,300 PSI	4.4	1045	33,500 PSI	Case: WIN		Primer: CCI 500, Small Pistol				Col: 1.125"
W231	3.9	920	27,400 PSI	4.4	1037	31,900 PSI	HS-6	5.9	1023	24,400 CUP	6.6	1124	30,700 CUP
700-X	3.7	894	24,700 PSI	4.2	1068	33,400 PSI	Longshot	5.0	1052	24,700 CUP	5.7	1115	28,300 CUP
Titegroup	3.6	957	27,700 PSI	4.1	1057	32,700 PSI	CFE Pistol	4.4	1041	27,200 PSI	5.0	1156	33,000 PSI
Titewad	2.9	847	28,700 PSI	3.4	942	32,200 PSI	AutoComp	4.3	1012	26,700 PSI	4.8	1101	32,800 PSI
Clays	2.7	791	27,900 PSI	3.0	857	31,200 PSI	W231	3.9	1009	25,700 CUP	4.4	1086	31,200 CUP
Bullet: 124 GR. BERB RN Dia: .355"							Universal	3.8	993	24,400 CUP	4.3	1096	31,300 CUP
Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.160"	W244	3.6	1009	26,100 PSI	4.1	1119	33,300 PSI
No. 7	6.5	966	29,200 PSI	7.6	1120	34,300 PSI	Titegroup	3.6	1002	22,900 CUP	4.0	1096	30,400 CUP
No. 5	5.4	956	29,500 PSI	6.4	1116	34,700 PSI	700-X	2.9	899	23,700 PSI	3.4	1003	31,600 PSI
True Blue	5.1	970	29,700 PSI	6.0	1133	34,900 PSI	Clays	2.9	899	22,700 CUP	3.3	993	30,900 CUP
Silhouette	5.2	1023	31,500 PSI	5.8	1133	35,000 PSI	Bullet: 125 GR. SIE FMJ Dia: .355"						
ZIP	4.1	938	31,300 PSI	4.6	1033	34,800 PSI	Case: WIN		Primer: CCI 500, Small Pistol				Col: 1.090"
No. 2	4.0	962	30,800 PSI	4.4	1042	34,200 PSI	HS-6	6.4	1131	25,600 CUP	6.8	1169	27,100 CUP
Nitro 100 NF	3.2	901	31,200 PSI	3.6	965	34,600 PSI	Longshot	4.7	1022	28,100 PSI	5.7	1162	33,400 PSI
Competition	3.1	875	31,200 PSI	3.5	948	34,600 PSI	AutoComp	4.7	1055	28,900 PSI	5.2	1120	33,300 PSI
Bullet: 124 GR. HDY XTP Dia: .355"							CFE Pistol	4.6	1009	26,900 PSI	5.1	1118	33,000 PSI
Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.060"	Universal	4.3	1031	26,900 CUP	4.9	1118	30,600 CUP
No. 7	6.2	978	29,500 PSI	7.3	1150	34,800 PSI	W231	4.4	1009	24,600 CUP	4.8	1088	28,800 CUP
No. 5	4.8	905	29,100 PSI	5.7	1075	34,500 PSI	Titegroup	4.1	1069	27,300 CUP	4.4	1136	30,600 CUP
Silhouette	4.6	945	29,700 PSI	5.4	1072	34,900 PSI	W244	3.6	996	27,100 PSI	4.1	1091	32,500 PSI
True Blue	4.7	892	29,500 PSI	5.5	1060	34,500 PSI	Clays	3.5	1010	28,000 CUP	3.7	1056	32,500 CUP
ZIP	3.3	888	31,400 PSI	3.7	967	34,900 PSI	700-X	3.0	845	21,600 PSI	3.6	1007	31,000 PSI
No. 2	3.3	877	31,100 PSI	3.6	938	34,500 PSI	Bullet: 125 GR. SIE JHP Dia: .355"						
Competition	2.7	846	31,200 PSI	3.0	898	34,700 PSI	Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.035"
Nitro 100 NF	2.6	839	31,400 PSI	2.9	883	34,800 PSI	No. 7	5.6	897	29,500 PSI	6.5	1035	34,700 PSI
Case: WIN		Primer: CCI 500, Small Pistol				Col: 1.060"	No. 5	4.6	899	29,700 PSI	5.4	1027	35,000 PSI
Longshot	4.8	1051	26,200 PSI	6.2	1209	32,900 PSI	Silhouette	4.6	984	31,200 PSI	5.1	1060	34,700 PSI
HS-6	5.6	1050	28,100 PSI	6.1	1136	33,100 PSI	True Blue	4.2	879	29,500 PSI	5.0	1008	34,700 PSI
CFE Pistol	4.5	1061	27,300 PSI	5.1	1181	33,600 PSI	No. 2	3.6	889	31,200 PSI	4.0	961	34,700 PSI
W572	4.3	996	25,600 PSI	5.1	1126	32,500 PSI	ZIP	3.4	886	30,900 PSI	3.8	970	34,300 PSI
Universal	4.0	993	25,400 PSI	4.5	1126	33,300 PSI	Competition	2.8	836	30,700 PSI	3.1	897	34,200 PSI
W244	3.7	968	26,000 PSI	4.2	1090	33,000 PSI	Nitro 100 NF	2.6	827	30,600 PSI	2.9	882	34,000 PSI
W231	3.7	957	26,300 PSI	4.2	1050	33,600 PSI	Bullet: 135 GR. ACME RN CTD Dia: .356"						
Titegroup	3.4	953	26,700 PSI	3.9	1069	32,800 PSI	Case: WIN		Primer: CCI 500, Small Pistol				Col: 1.150"
700-X	3.2	910	24,600 PSI	3.7	1040	31,300 PSI	HS-6	5.3	969	27,100 PSI	5.9	1080	33,400 PSI
CLAYS	3.0	891	24,300 PSI	3.4	1007	31,500 PSI	Longshot	4.5	964	25,000 PSI	5.5	1112	32,900 PSI
Titewad	2.9	838	26,400 PSI	3.4	958	31,200 PSI	W572	4.6	1009	27,900 PSI	5.2	1108	33,500 PSI
Bullet: 124 GR. LC LRN Dia: .356"							AutoComp	4.3	969	26,700 PSI	5.0	1087	33,800 PSI
Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.050"	CFE Pistol	4.2	974	25,900 PSI	4.8	1092	33,500 PSI
No. 7	5.5	944	29,400 PSI	6.5	1086	34,500 PSI	Universal	3.8	973	27,700 PSI	4.3	1073	33,300 PSI
No. 5	4.6	939	29,400 PSI	5.4	1078	34,600 PSI	W231	3.6	937	28,400 PSI	4.2	1028	33,200 PSI
True Blue	4.3	944	29,700 PSI	5.0	1070	34,900 PSI	W244	3.6	934	27,300 PSI	4.1	1044	33,200 PSI
Silhouette	4.5	1020	31,200 PSI	5.0	1096	34,600 PSI	Titegroup	3.3	938	28,500 PSI	3.8	1040	33,400 PSI
No. 2	3.4	953	31,300 PSI	3.8	1012	34,800 PSI	700-X	3.4	947	27,500 PSI	3.8	1033	33,200 PSI
ZIP	3.4	958	31,200 PSI	3.7	1035	34,700 PSI	Clays	2.9	883	26,100 PSI	3.4	997	33,300 PSI
Competition	2.6	894	31,200 PSI	2.9	954	34,700 PSI	Bullet: 145 GR. ACME RN CTD Dia: .356"						
Nitro 100 NF	2.6	896	31,500 PSI	2.9	947	35,000 PSI	Case: WIN		Primer: CCI 500, Small Pistol				Col: 1.150"
Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.105"	HS-6	4.5	852	25,500 PSI	5.3	995	33,100 PSI
No. 7	6.3	944	29,500 PSI	7.4	1090	34,700 PSI	Longshot	4.1	907	27,500 PSI	4.9	1049	33,200 PSI
No. 5	5.1	924	29,700 PSI	6.0	1067	35,000 PSI	W572	3.7	865	25,700 PSI	4.4	1008	33,700 PSI
True Blue	4.9	929	29,700 PSI	5.7	1075	34,900 PSI	AutoComp	3.7	862	25,300 PSI	4.4	1006	33,400 PSI
Silhouette	5.0	1002	31,500 PSI	5.6	1090	35,000 PSI	CFE Pistol	3.6	867	25,800 PSI	4.3	1001	33,700 PSI
No. 2	3.9	917	30,900 PSI	4.3	989	34,300 PSI	Universal	3.2	853	25,100 PSI	3.8	985	33,100 PSI
ZIP	3.8	888	30,800 PSI	4.2	979	34,200 PSI	W244	3.0	829	26,500 PSI	3.6	978	33,900 PSI
Competition	3.0	816	31,200 PSI	3.3	884	34,600 PSI	Titegroup	2.9	851	26,700 PSI	3.4	957	33,400 PSI
Nitro 100 NF	2.9	761	31,800 PSI	3.2	865	35,000 PSI	700-X	2.9	835	26,900 PSI	3.4	948	33,300 PSI

NEVER EXCEED MAXIMUM LOADS

PISTOL DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads		
	Grs	Vel	Pressure		Grs	Vel	Pressure			Grs	Vel	Pressure		Grs	Vel	Pressure
Bullet: 147 GR. HDY XTP Dia: .355"																
Case: WIN		Primer: CCI 500, Small Pistol					Col: 1.100"									
HS-6	4.3	773	20,200 CUP	5.0	885	27,900 CUP										
Longshot	3.8	851	25,700 PSI	4.7	1004	33,800 PSI										
CFE Pistol	3.7	864	26,700 PSI	4.2	963	33,000 PSI										
W572	3.5	855	25,600 PSI	4.1	957	32,200 PSI										
AutoComp	3.6	827	27,900 PSI	4.0	916	32,800 PSI										
Titegroup	3.2	855	22,500 CUP	3.6	929	27,500 CUP										
W244	3.0	827	26,200 PSI	3.4	931	33,000 PSI										
W231	3.0	755	30,100 PSI	3.4	845	34,300 PSI										
Universal	3.0	803	24,100 CUP	3.3	869	31,000 CUP										
700-X	2.6	764	27,300 PSI	2.9	838	32,000 PSI										
Bullet: 147 GR. LC LFP Dia: .356"																
Case: WIN		Primer: WIN SP, Small Pistol					Col: 1.145"									
No. 7	5.4	881	29,500 PSI	6.3	996	34,700 PSI										
No. 5	4.4	867	29,700 PSI	5.2	990	35,000 PSI										
True Blue	4.0	868	29,400 PSI	4.7	979	34,600 PSI										
Silhouette	4.1	906	30,600 PSI	4.6	981	34,000 PSI										
No. 2	3.2	852	31,000 PSI	3.6	911	34,400 PSI										
ZIP	3.2	867	31,300 PSI	3.5	941	34,700 PSI										
Competition	2.6	835	31,500 PSI	2.9	896	35,000 PSI										
Nitro 100 NF	2.5	806	30,800 PSI	2.7	854	34,200 PSI										
Bullet: 147 GR. SPR TMJ Dia: .355"																
Case: WIN		Primer: WIN SP, Small Pistol					Col: 1.130"									
No. 7	5.3	818	29,600 PSI	6.2	948	34,900 PSI										
No. 5	4.3	826	29,700 PSI	5.1	938	35,000 PSI										
True Blue	4.0	819	29,400 PSI	4.7	932	34,600 PSI										
Silhouette	4.2	880	31,300 PSI	4.7	955	34,800 PSI										
No. 2	3.3	814	31,400 PSI	3.6	869	34,900 PSI										
ZIP	3.2	784	31,100 PSI	3.5	857	34,500 PSI										
Nitro 100 NF	2.5	737	31,000 PSI	2.8	782	34,400 PSI										
Competition	2.5	709	29,500 PSI	2.8	777	32,800 PSI										
Bullet: 160 GR. BLUE RN CTD Dia: .355"																
Case: WIN		Primer: WIN SP, Small Pistol					Col: 1.150"									
No. 7	4.2	733	26,700 PSI	4.7	849	34,200 PSI										
No. 5	3.7	778	29,400 PSI	4.2	849	34,200 PSI										
HS-6	3.0	681	24,800 PSI	3.7	800	32,800 PSI										
Longshot	3.2	790	27,700 PSI	3.6	888	34,300 PSI										
True Blue	3.2	750	28,600 PSI	3.6	853	34,200 PSI										
Silhouette	3.0	732	26,100 PSI	3.4	843	34,300 PSI										
W572	2.9	789	29,800 PSI	3.3	866	34,200 PSI										
CFE Pistol	2.8	760	28,000 PSI	3.1	830	32,100 PSI										
No. 2	2.6	749	31,800 PSI	2.9	795	34,500 PSI										
ZIP	2.5	742	28,000 PSI	2.8	816	34,300 PSI										
WSF	2.5	683	26,100 PSI	2.8	790	33,700 PSI										
Universal	2.5	755	26,700 PSI	2.7	837	34,200 PSI										
Titegroup	2.1	705	27,000 PSI	2.6	820	34,400 PSI										
38 SUPER AUTO +P																
Barrel: 5"		Twist: 1:16"		Trim: .895"												
Bullet: 90 GR. SFIRE RHFP Dia: .355"																
Case: WIN		Primer: WIN SP, Small Pistol					Col: 1.260"									
Silhouette	7.7	1441	32,800 PSI	8.5	1601	36,400 PSI										
No. 5	7.7	1379	32,500 PSI	8.5	1532	36,100 PSI										
True Blue	7.3	1344	32,700 PSI	8.1	1493	36,300 PSI										
No. 2	6.1	1305	32,300 PSI	6.8	1450	35,900 PSI										
ZIP	5.5	1310	32,300 PSI	6.1	1455	35,900 PSI										
Bullet: 100 GR. SFIRE RHFP Dia: .355"																
Case: WIN		Primer: WIN SP, Small Pistol					Col: 1.260"									
No. 5	7.2	1287	32,400 PSI	8.0	1430	36,000 PSI										
Silhouette	6.9	1333	32,200 PSI	7.7	1481	35,800 PSI										
True Blue	6.6	1236	32,200 PSI	7.3	1373	35,800 PSI										
No. 2	5.6	1204	32,500 PSI	6.2	1338	36,100 PSI										
ZIP	5.0	1207	32,800 PSI	5.6	1341	36,400 PSI										
Bullet: 100 GR. SPR JHP Dia: .355"																
Case: REM		Primer: REM 1 1/2, Small Pistol					Col: 1.215"									
HS-6	8.5	1284	25,500 CUP	9.4	1347	32,500 CUP										
W231	5.7	1206	26,300 CUP	6.4	1272	31,500 CUP										
Universal	5.4	1233	25,200 CUP	6.0	1327	32,500 CUP										
Titegroup	5.1	1204	25,300 CUP	5.8	1292	31,400 CUP										
Bullet: 115 GR. HDY XTP Dia: .355"																
Case: REM		Primer: REM 1 1/2, Small Pistol					Col: 1.245"									
HS-6	7.8	1212	25,500 CUP	8.5	1314	31,500 CUP										
Longshot	6.5	1214	25,500 CUP	7.1	1301	31,600 CUP										
W572	6.2	1212	26,900 PSI	7.1	1355	34,400 PSI										
CFE Pistol	6.3	1246	27,700 CUP	6.9	1340	32,600 CUP										
AutoComp	5.7	1152	27,400 CUP	6.2	1238	32,000 CUP										
W231	5.7	1198	29,000 CUP	6.1	1261	32,700 CUP										
W244	5.2	1187	27,300 PSI	6.0	1317	34,900 PSI										
800-X				5.9	1015	21,900 CUP										
Universal	4.9	1141	25,300 CUP	5.5	1225	32,300 CUP										
Titegroup	4.7	1107	25,000 CUP	5.3	1208	31,800 CUP										
700-X				4.0	955	22,900 CUP										
Bullet: 115 GR. LC LRN Dia: .356"																
Case: WIN		Primer: WIN SP, Small Pistol					Col: 1.240"									
No. 7	9.9	1367	32,100 PSI	11.0	1519	35,700 PSI										
No. 5	7.6	1296	32,000 PSI	8.4	1440	35,500 PSI										
Silhouette	7.3	1306	32,500 PSI	8.1	1451	36,100 PSI										
True Blue	7.2	1259	31,600 PSI	8.0	1399	35,100 PSI										
Bullet: 115 GR. LRN Dia: .356"																
Case: REM		Primer: REM 1 1/2, Small Pistol					Col: 1.250"									
HS-6	7.8	1204	24,700 CUP	8.7	1307	31,100 CUP										
Longshot	6.5	1180	20,400 CUP	7.3	1289	30,900 CUP										
W572	5.8	1212	25,700 PSI	6.7	1355	34,500 PSI										
CFE Pistol	6.0	1200	20,300 CUP	6.5	1310	30,900 CUP										
AutoComp	6.0	1178	26,400 CUP	6.5	1246	32,000 CUP										
W244	5.0	1171	25,800 PSI	5.8	1312	33,500 PSI										
Universal	5.0	1115	21,900 CUP	5.7	1216	31,900 CUP										
W231	4.9	1059	19,700 CUP	5.7	1191	30,700 CUP										
Titegroup	4.8	1156	26,700 CUP	5.4	1213	31,900 CUP										
Clays	4.0	1046	28,600 CUP	4.6	1104	31,600 CUP										
Bullet: 115 GR. SIE FMJ Dia: 0.355																
Case: WIN		Primer: WIN SP, Small Pistol					Col: 1.240"									
No. 7	9.7	1324	32,700 PSI	10.8	1471	36,300 PSI										
No. 5	7.6	1225	32,000 PSI	8.4	1361	35,500 PSI										
Silhouette	7.3	1247	32,400 PSI	8.1	1386	36,000 PSI										
True Blue	7.2	1193	32,100 PSI	8.0	1326	35,700 PSI										
Bullet: 118 GR. LGH XD Dia: .355"																
Case: REM		Primer: REM 1 1/2, Small Pistol					Col: 1.260"									
HS-6	6.7	1035	25,700 PSI	7.7	1217	34,400 PSI										
Longshot	5.9	1101	27,700 PSI	6.8	1252	34,600 PSI										
W572	5.5	1076	28,300 PSI	6.2	1202	34,500 PSI										
CFE Pistol	5.3	1042	26,900 PSI	6.0	1188	35,100 PSI										
AutoComp	5.1	958	24,200 PSI	5.9	1154	33,200 PSI										
Universal	4.8	953	25,500 PSI	5.4	1151	33,800 PSI										
W244	4.6	993	28,300 PSI	5.2	1136	34,500 PSI										
W231	4.3	872	27,000 PSI	4.9	1038	32,900 PSI										
Titegroup	4.0	919	27,500 PSI	4.6	1052	33,600 PSI										
Bullet: 124 GR. BERB HBRN TPDia: .356"																
Case: REM		Primer: REM 1 1/2, Small Pistol					Col: 1.250"									
Lil'Gun	12.5	1271	23,100 CUP	13.0	1315	26,600 CUP										
HS-6	7.1	1160	26,100 CUP	8.0	1280	32,500 CUP										
Longshot	5.9	1140	22,400 CUP	6.8	1286	31,300 CUP										
W572	5.8	1160	26,100 PSI	6.7	1297	35,300 PSI										
CFE Pistol	5.8	1170	26,100 CUP	6.4	1260	32,200 CUP										
AutoComp	5.7	1126	25,100 CUP	6.3	1222	32,100 CUP										
W244	5.0	1119	24,800 PSI	5.8	1255	34,800 PSI										
W231	4.7	1062	26,100 CUP	5.4	1200	32,400 CUP										
Universal	4.8	1088	24,300 CUP	5.2	1182	32,100 CUP										
Titegroup	4.3	1086	25,100 CUP	4.9	1181	31,000 PSI										
Titewad	4.0	1068	28,600 CUP	4.6	1140	32,000 CUP										
Clays	3.8	1000	26,700 CUP	4.4	1126	31,900 CUP										

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

Pistol Data

Starting Loads				Maximum Loads			Starting Loads				Maximum Loads				
Powder	Grains	Vel	Pressure	Grains	Vel	Pressure	Powder	Grains	Vel	Pressure	Grains	Vel	Pressure		
Bullet: 124 GR. HDY FMJ Dia: .355"															
Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.270"									
No. 7	9.0	1249	32,300 PSI	10.0	1388	35,900 PSI	W231	4.8	1045	27,600 CUP	5.4	1120	31,900 CUP		
No. 5	7.3	1174	32,400 PSI	8.1	1304	36,000 PSI	W244	4.6	1085	26,400 PSI	5.3	1190	34,300 PSI		
True Blue	6.9	1148	32,500 PSI	7.7	1275	36,100 PSI	Universal	4.5	1011	22,800 CUP	5.1	1108	30,900 CUP		
Silhouette	6.8	1179	31,700 PSI	7.6	1310	35,300 PSI	Titegroup	4.1	1011	23,700 CUP	4.9	1123	31,700 CUP		
							Clays	3.5	928	25,600 CUP	4.2	998	32,500 CUP		
Bullet: 124 GR. LC LRN Dia: .356"							Bullet: 147 GR. HDY XTP Dia: .355"								
Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.270"		Case: REM		Primer: REM 1 1/2, Small Pistol				Col: 1.260"	
No. 7	9.1	1283	32,600 PSI	10.1	1425	36,200 PSI	LIL'GUN	10.0	1111	22,200 CUP	11.0	1207	28,100 CUP		
No. 5	7.2	1230	32,300 PSI	8.0	1367	35,900 PSI	HS-6	6.3	997	24,500 CUP	7.0	1106	31,900 CUP		
True Blue	6.7	1193	31,600 PSI	7.4	1326	35,100 PSI	Longshot	5.4	1042	25,300 CUP	6.0	1119	30,900 CUP		
Silhouette	6.5	1220	32,400 PSI	7.2	1355	36,000 PSI	W572	5.2	1052	29,400 PSI	5.9	1147	34,700 PSI		
							CFE Pistol	5.0	1000	23,600 CUP	5.5	1105	31,200 CUP		
Bullet: 125 GR. CAST LCN Dia: .356"							AutoComp	5.0	943	25,300 CUP	5.5	1056	32,900 CUP		
Case: REM		Primer: REM 1 1/2, Small Pistol				Col: 1.230"		W244	4.4	982	26,700 PSI	5.1	1110	34,200 PSI	
LIL'GUN	12.6	1288	25,900 CUP	14.0C	1379	30,500 CUP	W231	4.4	965	24,300 CUP	4.9	1032	31,800 CUP		
HS-6	7.2	1151	24,300 CUP	8.1	1264	31,300 CUP	Universal	4.3	960	26,900 CUP	4.8	1017	32,500 CUP		
Longshot	6.0	1157	25,100 CUP	6.8	1243	31,200 CUP	Titegroup	3.9	976	25,600 CUP	4.4	1066	31,700 CUP		
W572	5.8	1191	26,600 PSI	6.6	1303	34,500 PSI	Bullet: 147 GR. LC LRN Dia: .356"								
CFE Pistol	5.0	1195	26,100 CUP	6.3	1271	31,800 CUP	Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.270"		
AutoComp	5.5	1109	26,300 CUP	6.1	1174	31,700 CUP	No. 7	8.3	1170	32,500 PSI	9.2	1300	36,100 PSI		
W231	5.1	1129	27,900 CUP	5.7	1214	32,600 CUP	No. 5	6.4	1099	32,000 PSI	7.1	1221	35,600 PSI		
Universal	4.7	1110	25,200 CUP	5.3	1171	32,300 CUP	Silhouette	6.0	1096	32,400 PSI	6.7	1218	36,000 PSI		
W244	4.6	1124	26,600 PSI	5.3	1230	34,200 PSI	True Blue	6.0	1063	31,900 PSI	6.7	1181	35,400 PSI		
Titegroup	4.5	1114	23,400 CUP	5.1	1199	32,200 CUP	No. 2	4.6	1026	30,900 PSI	5.4	1112	36,200 PSI		
Clays	3.9	1014	27,300 CUP	4.4	1063	31,600 CUP	Bullet: 147 GR. SPR TMJ Dia: .355"								
Bullet: 125 GR. HDY HAP Dia: .356"							Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.270"		
Case: REM		Primer: REM 1 1/2, Small Pistol				Col: 1.210"		No. 7	8.1	1114	32,200 PSI	9.0	1238	35,800 PSI	
Lil'Gun	12.2	1285	23,900 CUP	13.6C	1399	29,700 CUP	No. 5	6.6	1072	32,000 PSI	7.3	1191	35,600 PSI		
HS-6	6.9	1175	25,700 CUP	7.7	1300	32,300 CUP	True Blue	6.3	1043	32,100 PSI	7.0	1159	35,700 PSI		
Longshot	5.8	1170	25,500 CUP	6.6	1294	32,400 CUP	Silhouette	6.1	1067	32,200 PSI	6.8	1185	35,800 PSI		
W572	5.5	1135	26,000 PSI	6.3	1266	34,800 PSI	Bullet: 150 GR. CAST LRN Dia: .356"								
CFE Pistol	5.5	1166	26,500 CUP	6.1	1259	32,300 CUP	Case: REM		Primer: REM 1 1/2, Small Pistol				Col: 1.230"		
AutoComp	5.5	1148	24,800 CUP	6.0	1240	31,200 CUP	HS-6	6.4	1078	25,400 CUP	7.1	1175	30,900 CUP		
W244	4.6	1103	27,200 PSI	5.4	1234	34,900 PSI	Longshot	5.0	1076	27,200 CUP	6.2	1162	32,200 CUP		
W231	4.8	1113	27,100 CUP	5.4	1237	31,900 CUP	W231	4.5	1026	26,000 CUP	5.1	1135	31,400 CUP		
Universal	4.5	1105	25,500 CUP	5.1	1202	31,700 CUP	Universal	4.5	1038	27,600 CUP	5.0	1111	32,000 CUP		
Titegroup	4.2	1082	25,400 CUP	4.8	1200	31,600 CUP	Titegroup	4.3	1066	27,400 CUP	4.8	1131	31,800 CUP		
Titewad	3.8	1050	26,300 CUP	4.4	1136	31,200 CUP	W244	3.9	967	26,700 PSI	4.5	1076	34,400 PSI		
Clays	3.6	1034	25,900 CUP	4.2	1132	32,100 CUP	Bullet: 150 GR. SIE JFP Dia: .356"								
Bullet: 125 GR. SIE FMJ Dia: .355"							Case: REM		Primer: REM 1 1/2, Small Pistol				Col: 1.265"		
Case: REM		Primer: REM 1 1/2, Small Pistol				Col: 1.275"		LIL'GUN	10.0	1106	23,500 CUP	11.0	1206	29,700 CUP	
LIL'GUN	13.5	1317	27,600 CUP	14.0	1353	29,800 CUP	HS-6	6.5	1029	26,000 CUP	7.2	1137	31,200 CUP		
HS-6	7.5	1158	24,600 CUP	8.3	1271	32,100 CUP	Longshot	5.5	1040	26,900 CUP	6.0	1126	31,800 CUP		
Longshot	6.0	1109	24,600 CUP	6.9	1247	32,600 CUP	W231	4.5	968	26,000 CUP	5.0	1066	32,100 CUP		
W572	5.9	1171	27,700 PSI	6.7	1287	34,400 PSI	Universal	4.4	984	26,600 CUP	4.9	1059	32,100 CUP		
CFE Pistol	5.9	1162	25,500 CUP	6.4	1240	32,500 CUP	Titegroup	4.0	976	27,000 CUP	4.6	1063	32,100 CUP		
AutoComp	5.7	1067	26,200 CUP	6.2	1173	31,400 CUP	38 SPECIAL								
W244	4.9	1092	26,100 PSI	5.8	1250	35,100 PSI	Barrel: 7.7" Twist: 1:18.75" Trim: 1.145"								
W231	5.1	1098	26,500 CUP	5.7	1159	31,200 CUP	Bullet: 77 GR. PLYCS ARX Dia: .357"								
Universal	4.9	1069	27,600 CUP	5.5	1179	32,300 CUP	Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.475"		
Titegroup	4.4	1020	23,800 CUP	5.0	1124	31,800 CUP	W572	6.1	1278	12,900 PSI	7.0	1473	17,000 PSI		
Bullet: 130 GR. BERB RN Dia: .355"							CFE Pistol	6.0	1266	13,300 PSI	6.9	1472	16,800 PSI		
Case: REM		Primer: REM 1 1/2, Small Pistol				Col: 1.270"		AutoComp	6.3	1290	13,800 PSI	6.9	1429	16,900 PSI	
Lil'Gun	10.5	1119	25,400 CUP	12.0C	1204	28,300 CUP	Universal	5.5	1243	12,900 PSI	6.1	1431	16,400 PSI		
HS-6	6.5	1010	26,000 CUP	7.5	1127	31,100 CUP	W244	4.6	1197	13,100 PSI	5.4	1359	16,900 PSI		
Longshot	5.5	1058	27,400 CUP	6.5	1166	32,300 CUP	W231	4.7	1171	13,200 PSI	5.3	1300	16,800 PSI		
AutoComp	5.3	1035	25,800 CUP	5.8	1109	31,100 CUP	Titegroup	4.2	1193	13,000 PSI	5.0	1377	17,100 PSI		
W244	5.0	1118	26,300 PSI	5.8	1214	34,500 PSI	Bullet: 84 GR. PLYCS RNP Dia: .357"								
Universal	4.4	984	23,000 CUP	4.9	1073	30,500 CUP	Case: WIN		Primer: WIN SP, Small Pistol				Col: 1.475"		
Bullet: 135 GR. LRN Dia: .356"							W572	6.9	1360	14,400 PSI	7.5	1470	16,700 PSI		
Case: REM		Primer: REM 1 1/2, Small Pistol				Col: 1.275"		AutoComp	6.6	1247	12,900 PSI	7.3	1456	17,000 PSI	
LIL'GUN	11.7	1203	26,400 CUP	13.0C	1314	31,500 CUP	CFE Pistol	6.6	1294	13,400 PSI	7.2	1451	16,700 PSI		
HS-6	7.2	1123	27,200 CUP	8.0	1190	32,000 CUP	Universal	5.7	1289	13,600 PSI	6.4	1420	16,600 PSI		
Longshot	5.8	1087	26,600 CUP	6.5	1178	32,200 CUP	W231	5.4	1230	13,600 PSI	6.0	1338	16,200 PSI		
W572	5.4	1133	26,300 PSI	6.1	1236	34,600 PSI	W244	5.2	1242	13,500 PSI	5.9	1392	16,700 PSI		
AutoComp	5.3	1065	25,400 CUP	5.8	1139	31,400 CUP	Titegroup	4.6	1224	13,300 PSI	5.4	1378	16,900 PSI		
CFE Pistol	5.1	1068	25,600 CUP	5.7	1160	32,000 CUP									

PISTOL DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 90 GR. CAST LRNFP Dia: .358"							Universal	5.0	553	15,500 PSI	5.2	673	16,800 PSI
Case: WIN Primer: WIN SP, Small Pistol Col: 1.325"							Bullet: 125 GR. BAR TAC-XP Dia: .357"						
CFE Pistol	3.7	751	7,500 PSI	5.2	1077	10,800 PSI	Case: Starline Primer: WIN SP, Small Pistol Col: 1.455"						
AutoComp	3.7	790	7,500 PSI	5.1	1089	10,800 PSI	No. 5	5.2	791	15,100 PSI	5.8	907	16,900 PSI
Trail Boss	3.0	740	7,800 PSI	5.0	904	8,100 PSI	True Blue	4.7	775	15,000 PSI	5.3	883	16,900 PSI
Titegroup	3.0	755	7,700 PSI	3.5	969	11,300 PSI	No. 2	3.6	709	15,200 PSI	4.0	814	16,900 PSI
Clays	2.5	705	7,900 PSI	3.0	938	11,400 PSI	Bullet: 125 GR. CAST LRNFP Dia: .358"						
Bullet: 100 GR. LGH XD Dia: .357"							Case: WIN Primer: WIN SP, Small Pistol Col: 1.445"						
Case: WIN Primer: WIN SP, Small Pistol Col: 1.530"							CFE Pistol	5.2	1044	13,500 PSI	6.2	1201	16,100 PSI
HS-6	8.2	1070	15,600 PSI	9.0	1202	16,800 PSI	Case: WIN Primer: WIN SP, Small Pistol Col: 1.455"						
Longshot	7.2	1116	14,900 PSI	7.5	1183	16,700 PSI	AutoComp	5.7	1048	7,300 PSI	6.2	1139	10,800 PSI
AutoComp	6.5	1074	15,200 PSI	7.1	1188	17,000 PSI	Case: WIN Primer: WIN SP, Small Pistol Col: 1.445"						
W572	6.2	1015	14,800 PSI	6.8	1159	17,000 PSI	W572	5.0	972	13,300 PSI	5.8	1112	16,000 PSI
CFE Pistol	6.2	1066	15,500 PSI	6.7	1151	16,600 PSI	Trail Boss	3.0	753	11,600 PSI	5.3	952	13,400 PSI
Universal	6.2	1054	15,300 PSI	6.7	1148	16,700 PSI	W244	4.4	994	13,400 PSI	5.2	1142	16,600 PSI
W244	5.0	919	13,900 PSI	5.6	1068	16,700 PSI	W231	3.8	876	10,300 CUP	4.8	1071	16,900 CUP
Titegroup	4.8	970	15,400 PSI	5.2	1057	17,000 PSI	Universal	4.3	872	8,700 CUP	4.7	1036	16,800 CUP
Bullet: 105 GR. CEB RAPTOR Dia: .357"							700-X	3.7	982	14,500 PSI	4.2	1076	16,200 PSI
Case: WIN Primer: WIN SP, Small Pistol Col: 1.430"							Titegroup	3.2	856	8,400 CUP	3.8	985	12,000 CUP
HS-6	6.2	801	14,500 PSI	6.6	935	16,400 PSI	Clays	2.5	810	8,400 CUP	3.5	978	16,900 CUP
Longshot	5.5	723	13,400 PSI	6.0	962	16,100 PSI	Bullet: 125 GR. HDY XTP Dia: .357"						
W572	5.1	689	13,100 PSI	5.6	944	16,200 PSI	Case: Starline Primer: WIN SP, Small Pistol Col: 1.455"						
CFE Pistol	5.2	833	14,000 PSI	5.6	972	16,400 PSI	No. 5	6.1	981	14,900 PSI	6.8	1081	16,700 PSI
AutoComp	5.1	732	13,300 PSI	5.5	943	16,500 PSI	Silhouette	5.8	1039	15,600 PSI	6.2	1109	16,800 PSI
Universal	4.7	698	14,600 PSI	5.3	901	16,100 PSI	True Blue	5.6	995	15,300 PSI	6.2	1081	16,900 PSI
WSF	5.0	618	12,700 PSI	5.2	886	16,000 PSI	No. 2	4.3	933	15,100 PSI	4.8	1017	16,900 PSI
W244	4.1	622	14,100 PSI	4.4	789	16,200 PSI	Case: WIN Primer: WIN SP, Small Pistol Col: 1.455"						
Bullet: 110 GR. BAR TAC-XP Dia: .357"							HS-6	6.5	931	13,100 CUP	7.2	1048	16,600 CUP
Case: WIN Primer: WIN SP, Small Pistol Col: 1.500"							CFE Pistol	5.4	995	12,600 PSI	6.3	1133	16,000 PSI
HS-6	6.8	1007	14,000 PSI	7.3	1094	16,700 PSI	AutoComp	5.7	985	13,600 PSI	6.2	1068	16,500 PSI
Longshot	5.6	1016	14,700 PSI	6.2	1146	16,800 PSI	Universal	4.7	918	12,600 CUP	5.2	1019	17,000 CUP
AutoComp	5.2	992	13,900 PSI	5.9	1137	17,000 PSI	W244	4.7	951	14,000 PSI	5.2	1077	16,600 PSI
W572	5.0	973	14,200 PSI	5.7	1111	17,000 PSI	W231	4.3	826	13,300 CUP	4.9	934	16,300 CUP
Universal	5.0	884	14,200 PSI	5.7	1078	16,700 PSI	Titegroup	4.3	953	12,800 CUP	4.6	1010	15,600 CUP
CFE Pistol	5.0	995	14,400 PSI	5.6	1128	17,000 PSI	700-X	3.6	863	14,300 PSI	4.2	969	17,000 PSI
Bullet: 110 GR. HDY XTP Dia: .357"							Clays	3.5	843	12,400 CUP	3.9	937	16,100 CUP
Case: Starline Primer: WIN SP, Small Pistol Col: 1.455"							Bullet: 125 GR. LC LFN Dia: .358"						
Silhouette	6.3	1159	14,800 PSI	6.9	1267	16,200 PSI	Case: Starline Primer: WIN SP, Small Pistol Col: 1.440"						
True Blue	5.9	1066	14,700 PSI	6.6	1184	16,300 PSI	True Blue	5.6	999	14,800 PSI	6.2	1110	16,500 PSI
ZIP	5.0	1013	15,100 PSI	5.5	1125	16,800 PSI	Silhouette	5.7	1066	14,800 PSI	6.2	1157	16,200 PSI
Competition	3.6	949	14,800 PSI	4.0	1054	16,400 PSI	ZIP	4.4	1001	15,100 PSI	4.9	1112	16,800 PSI
Case: WIN Primer: WIN SP, Small Pistol Col: 1.455"							Competition	3.2	903	15,100 PSI	3.6	1003	16,800 PSI
HS-6	7.0	1071	14,500 CUP	7.8	1178	17,000 CUP	Bullet: 125 GR. SIE JHC Dia: .357"						
CFE Pistol	6.5	1195	13,900 PSI	6.8	1283	17,300 PSI	Case: Starline Primer: WIN SP, Small Pistol Col: 1.447"						
W572	5.9	992	12,700 PSI	6.5	1163	16,300 PSI	No. 5	6.1	966	15,200 PSI	6.8	1055	17,000 PSI
AutoComp	5.8	860	11,700 PSI	6.4	1101	16,000 PSI	Silhouette	6.2	1105	15,400 PSI	6.7	1192	16,600 PSI
W244	5.0	1070	12,700 PSI	5.6	1205	16,900 PSI	True Blue	5.7	990	14,700 PSI	6.3	1100	16,300 PSI
Universal	5.0	968	11,800 CUP	5.6	1143	16,700 CUP	ZIP	4.8	988	15,000 PSI	5.3	1098	16,600 PSI
W231	4.6	948	12,600 CUP	5.5	1096	16,300 CUP	Competition	3.5	878	14,800 PSI	3.9	975	16,400 PSI
Titegroup	4.3	1011	12,100 CUP	4.8	1109	16,000 CUP	Bullet: 130 GR. MEI CAST LRNFP Dia: .358"						
700-X	4.0	986	14,500 PSI	4.6	1078	16,500 PSI	Case: WIN Primer: WIN SP, Small Pistol Col: 1.460"						
Clays	4.0	1002	14,400 CUP	4.2	1073	17,000 CUP	CFE Pistol	5.3	1053	13,200 PSI	6.1	1175	17,100 PSI
Bullet: 110 GR. SIE JHC Dia: .357"							AutoComp	5.5	981	13,600 PSI	6.0	1072	15,800 PSI
Case: Starline Primer: WIN SP, Small Pistol Col: 1.435"							W572	5.1	980	14,100 PSI	5.8	1103	17,000 PSI
No. 5	6.4	1075	14,900 PSI	7.1	1181	16,600 PSI	Universal	4.7	957	13,500 PSI	5.2	1056	16,000 PSI
True Blue	6.0	1099	15,200 PSI	6.7	1187	16,900 PSI	W244	4.6	1035	14,000 PSI	5.1	1129	16,800 PSI
Silhouette	6.1	1122	15,500 PSI	6.7	1221	16,900 PSI	W231	4.1	880	13,200 PSI	4.7	1008	16,100 PSI
No. 2	4.4	1023	15,000 PSI	4.9	1102	16,600 PSI	Titegroup	3.6	922	14,000 PSI	4.2	1018	15,900 PSI
Solo 1000	4.3	1013	15,300 PSI	4.8	1083	17,000 PSI	700-X	3.5	870	13,300 PSI	4.1	996	16,500 PSI
Nitro 100 NF	3.3	909	15,200 PSI	3.6	978	16,800 PSI	Clays	3.0	828	12,500 PSI	3.5	924	16,100 PSI
Bullet: 120 GR. LGH XD Dia: .357"							Bullet: 135 GR. CAST LRNFP Dia: .358"						
Case: WIN Primer: WIN SP, Small Pistol Col: 1.440"							Case: WIN Primer: WIN SP, Small Pistol Col: 1.418"						
HS-6	6.3	557	14,000 PSI	7.0	851	16,800 PSI	W244	4.2	968	13,300 PSI	4.8	1067	15,900 PSI
Longshot	5.7	639	14,700 PSI	6.2	887	16,800 PSI	W231	3.7	872	12,500 CUP	4.7	1024	17,000 CUP
AutoComp	4.9	575	14,300 PSI	5.4	803	16,700 PSI	Universal	4.1	924	13,400 CUP	4.6	1025	16,900 CUP
W572	4.7	555	14,700 PSI	5.2	735	17,000 PSI	Titegroup	3.1	824	9,600 CUP	3.6	927	12,900 CUP
CFE Pistol	4.8	645	14,800 PSI	5.2	800	16,500 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Clays	2.6	767	11,400 CUP	3.3	910	16,200 CUP	AutoComp	3.7	820	14,100 PSI	4.1	881	15,200 PSI
Bullet: 140 GR. HDY COWBOY Dia: .358"							W231	3.5	869	14,200 CUP	4.0	956	15,900 CUP
Case: WIN Primer: WIN SP, Small Pistol Col: 1.450"							CFE Pistol	3.5	849	14,000 PSI	3.9	914	15,700 PSI
HS-6	6.1	960	13,100 PSI	6.8	1091	16,300 PSI	Universal	2.9	709	7,400 CUP	3.8	940	15,600 CUP
CFE Pistol	5.0	940	13,000 PSI	5.8	1107	16,200 PSI	W572	2.6	668	13,400 PSI	3.3	799	16,100 PSI
AutoComp	5.2	971	14,000 PSI	5.8	1055	16,100 PSI	Titegroup	2.7	771	7,700 CUP	3.3	908	11,800 CUP
W572	4.2	846	13,400 PSI	5.0	996	16,200 PSI	W244	2.5	736	13,400 PSI	2.8	817	15,900 PSI
Universal	4.4	889	12,800 PSI	4.9	1009	15,600 PSI	WST	2.5	680	13,000 PSI	2.8	735	16,000 PSI
W244	4.2	955	13,600 PSI	4.9	1072	16,800 PSI	700-X	2.0	686	11,600 PSI	2.5	804	16,000 PSI
W231	4.1	861	12,400 PSI	4.6	980	16,100 PSI	Clays	2.3	784	10,900 CUP	2.5	836	13,200 CUP
Titegroup	2.5	675	9,400 PSI	4.4	1010	16,500 PSI	Trail Boss	2.0	625	15,100 PSI	2.3	675	15,700 PSI
700-X	2.5	693	10,000 PSI	4.3	993	16,400 PSI	Bullet: 148 GR. LC L WCDBB Dia: .358"						
WST	3.5	825	12,600 PSI	3.9	903	15,900 PSI	Case: Starline Primer: WIN SP, Small Pistol Col: 1.230"						
Trail Boss	3.0	697	11,200 PSI	3.7	806	13,400 PSI	Silhouette	4.5	925	15,600 PSI	4.9	1006	16,900 PSI
Clays	2.5	706	10,700 PSI	3.4	862	16,200 PSI	True Blue	4.2	849	14,900 PSI	4.7	943	16,600 PSI
Bullet: 140 GR. HDY XTP Dia: .357"							No. 5	3.6	710	14,600 PSI	4.0	807	16,200 PSI
Case: Starline Primer: WIN SP, Small Pistol Col: 1.445"							Solo 1000	2.8	796	15,100 PSI	3.1	851	16,800 PSI
No. 5	5.5	889	14,800 PSI	6.2	976	16,600 PSI	No. 2	2.6	634	13,900 PSI	2.9	720	15,500 PSI
Silhouette	5.3	937	15,500 PSI	5.6	1003	16,500 PSI	Bullet: 148 GR. LC LBBWC Dia: .358"						
True Blue	5.1	886	15,200 PSI	5.6	974	16,800 PSI	Case: Starline Primer: WIN SP, Small Pistol Col: 1.231"						
Case: Starline Primer: WIN SP, Small Pistol Col: 1.455"							ZIP	3.2	835	14,900 PSI	3.6	928	16,500 PSI
ZIP	4.1	840	14,900 PSI	4.5	933	16,600 PSI	Competition	2.3	727	14,800 PSI	2.5	808	16,400 PSI
Case: Starline Primer: WIN SP, Small Pistol Col: 1.445"							Bullet: 150 GR. NOS JHP Dia: .357"						
No. 2	3.9	802	14,600 PSI	4.3	897	16,200 PSI	Case: Starline Primer: WIN SP, Small Pistol Col: 1.450"						
Case: Starline Primer: WIN SP, Small Pistol Col: 1.455"							No. 5	5.9	715	15,100 PSI	6.5	813	16,600 PSI
Competition	3.2	748	15,000 PSI	3.5	831	16,700 PSI	No. 2	4.2	751	15,200 PSI	4.7	853	17,000 PSI
Case: WIN Primer: WIN SP, Small Pistol Col: 1.455"							Bullet: 158 GR. BERB FP Dia: .357"						
HS-6	5.8	808	11,000 CUP	6.5	933	16,000 CUP	Case: Starline Primer: WIN SP, Small Pistol Col: 1.430"						
CFE Pistol	5.2	934	13,300 PSI	5.7	1008	16,300 PSI	No. 5	5.2	807	15,000 PSI	5.8	897	16,800 PSI
W572	4.8	816	13,900 PSI	5.5	958	16,900 PSI	Silhouette	4.8	817	15,200 PSI	5.3	891	16,700 PSI
AutoComp	5.0	880	14,400 PSI	5.5	989	16,600 PSI	True Blue	4.6	754	15,000 PSI	5.2	837	16,900 PSI
Universal	4.3	832	12,400 CUP	4.8	939	15,400 CUP	No. 2	3.6	709	14,500 PSI	4.0	800	16,300 PSI
W231	4.2	809	13,900 CUP	4.6	861	15,800 CUP	Bullet: 158 GR. CAST LSWC Dia: .358"						
W244	3.9	797	13,400 PSI	4.5	934	16,700 PSI	Case: WIN Primer: WIN SP, Small Pistol Col: 1.475"						
Titegroup	3.9	864	13,100 CUP	4.2	919	15,800 CUP	H4227	9.0	887	12,100 CUP	10.0	983	15,700 CUP
700-X	3.3	736	13,300 PSI	3.8	849	16,400 PSI	HS-6	5.7	928	13,700 CUP	6.3	1010	16,200 CUP
Clays	3.0	703	13,400 CUP	3.7	869	16,700 CUP	CFE Pistol	4.8	960	13,900 PSI	5.3	1048	16,100 PSI
Bullet: 140 GR. LC LFN Dia: .358"							AutoComp	4.8	870	14,300 PSI	5.3	984	16,800 PSI
Case: Starline Primer: WIN SP, Small Pistol Col: 1.445"							W572	3.7	776	13,400 PSI	4.5	926	16,400 PSI
ZIP	4.1	945	15,000 PSI	4.5	1050	16,600 PSI	Universal	3.5	756	9,600 CUP	4.5	974	16,700 CUP
Competition	3.1	850	15,100 PSI	3.4	944	16,800 PSI	Trail Boss	2.7	661	11,400 PSI	4.2	804	13,700 PSI
Bullet: 140 GR. LC LFP Dia: .358"							W244	3.6	862	13,400 PSI	4.0	955	16,100 PSI
Case: Starline Primer: WIN SP, Small Pistol Col: 1.435"							Titegroup	3.2	815	11,500 CUP	3.8	920	15,400 CUP
No. 5	5.6	960	15,200 PSI	6.2	1049	16,800 PSI	W231	3.1	782	11,900 CUP	3.7	834	14,600 CUP
Silhouette	5.2	1004	15,500 PSI	5.6	1068	16,600 PSI	WST	3.3	705	12,800 PSI	3.7	770	15,700 PSI
True Blue	4.9	949	14,900 PSI	5.4	1028	16,400 PSI	Clays	2.8	812	12,900 CUP	3.1	871	15,100 CUP
No. 2	3.8	903	15,100 PSI	4.2	979	16,800 PSI	Bullet: 158 GR. HDY XTP Dia: .357"						
Nitro 100 NF	2.7	829	15,300 PSI	3.0	884	17,000 PSI	Case: Starline Primer: WIN SP, Small Pistol Col: 1.455"						
Bullet: 140 GR. SIE JHP Dia: .357"							No. 5	5.2	740	14,800 PSI	5.8	841	16,500 PSI
Case: Starline Primer: WIN SP, Small Pistol Col: 1.445"							Silhouette	5.2	902	15,200 PSI	5.6	969	16,400 PSI
No. 5	5.8	757	15,100 PSI	6.4	860	16,700 PSI	True Blue	4.8	813	14,900 PSI	5.3	903	16,600 PSI
No. 2	4.2	781	14,900 PSI	4.7	888	16,700 PSI	ZIP	3.7	756	14,700 PSI	4.1	840	16,400 PSI
Bullet: 146 GR. SPR JHP Dia: .357"							No. 2	3.6	665	14,900 PSI	4.0	756	16,500 PSI
Case: WIN Primer: WIN SP, Small Pistol Col: 1.370"							Competition	2.9	665	15,100 PSI	3.2	739	16,700 PSI
H4227	9.6	908	12,600 CUP	10.7	979	15,700 CUP	Case: WIN Primer: WIN SP, Small Pistol Col: 1.455"						
HS-6	5.6	808	11,700 CUP	6.3	969	16,100 CUP	H4227	9.0	769	12,400 CUP	10.0	864	15,500 CUP
CFE Pistol	4.7	845	13,000 PSI	5.1	964	15,700 PSI	HS-6	5.6	761	13,400 CUP	6.2	862	16,300 CUP
AutoComp	4.6	796	13,100 PSI	5.0	881	14,700 PSI	CFE Pistol	4.6	816	13,600 PSI	5.0	914	16,200 PSI
Universal	4.0	788	11,100 CUP	4.5	933	16,100 CUP	AutoComp	4.5	751	14,000 PSI	4.9	865	16,800 PSI
W231	4.0	773	12,700 CUP	4.5	876	15,500 CUP	W572	3.8	574	13,300 PSI	4.5	770	16,600 PSI
W244	3.6	791	14,400 PSI	4.1	898	16,800 PSI	Universal	4.0	678	12,600 CUP	4.4	778	16,200 CUP
Titegroup	3.5	808	12,800 CUP	4.0	914	16,000 CUP	W231	3.8	661	12,600 CUP	4.3	779	15,900 CUP
700-X	3.2	724	13,800 PSI	3.6	815	16,000 PSI	Titegroup	3.5	704	12,400 CUP	3.9	798	15,900 CUP
Bullet: 148 GR. HDY LHBWC Dia: .358"							W244	3.4	665	14,300 PSI	3.8	772	16,200 PSI
Case: WIN Primer: WIN SP, Small Pistol Col: 1.160"							700-X	3.2	688	13,000 PSI	3.7	798	15,900 PSI
HS-6	4.5	816	9,200 CUP	5.2	943	14,300 CUP	Clays	3.0	633	13,400 CUP	3.1	721	16,600 CUP

NEVER EXCEED MAXIMUM LOADS

PISTOL DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
Bullet: 158 GR. LC LSWC Dia: .358"							CFE Pistol 5.9 1080 18,100 PSI						
Case: Starline Primer: WIN SP, Small Pistol Col: 1.470"							AutoComp 5.9 1049 17,900 PSI						
Silhouette	5.2	972	15,500 PSI	5.6	1046	16,700 PSI	WSF 5.7 1007 18,200 PSI						
True Blue	5.0	912	14,800 PSI	5.6	1013	16,500 PSI	Universal 5.3 937 18,100 PSI						
ZIP	3.8	870	14,800 PSI	4.2	967	16,400 PSI	W244 4.7 929 18,200 PSI						
Solo 1000	3.2	813	15,000 PSI	3.6	871	16,800 PSI	Bullet: 110 GR. BAR TAC-XP Dia: .357"						
Nitro 100 NF	2.4	737	14,400 PSI	2.7	789	16,300 PSI	Case: WIN Primer: WIN SP, Small Pistol Col: 1.500"						
Bullet: 158 GR. MCB LSWC Dia: .358"							HS-6 7.8 1166 18,100 PSI						
Case: Starline Primer: WIN SP, Small Pistol Col: 1.481"							Longshot 6.6 1173 17,600 PSI						
No. 5	5.3	827	14,500 PSI	5.9	940	16,100 PSI	AutoComp 6.2 1169 18,200 PSI						
No. 2	3.6	764	12,700 PSI	4.0	868	14,100 PSI	W572 6.0 1173 18,500 PSI						
Bullet: 158 GR. MEI CAST LSWC Dia: .358"							CFE Pistol 6.0 1199 18,500 PSI						
Case: WIN Primer: WIN SP, Small Pistol Col: 1.475"							Universal 6.0 1130 18,300 PSI						
CFE Pistol	4.4	927	13,800 PSI	5.0	1029	16,700 PSI	Bullet: 110 GR. BAR XPB Dia: .357"						
700-X	3.0	795	13,700 PSI	3.4	867	15,800 PSI	Case: REM Primer: WIN SP, Small Pistol Col: 1.515"						
Bullet: 158 GR. NOS HP Dia: .357"							No. 7 8.1 1165 18,100 PSI						
Case: Starline Primer: WIN SP, Small Pistol Col: 1.430"							No. 5 6.6 1140 17,900 PSI						
No. 5	5.0	795	14,800 PSI	5.6	882	16,600 PSI	Silhouette 6.3 1165 18,300 PSI						
Silhouette	4.8	841	15,300 PSI	5.2	913	16,600 PSI	True Blue 6.2 1081 18,100 PSI						
True Blue	4.6	797	15,300 PSI	5.1	879	16,800 PSI	ZIP 4.9 1019 18,100 PSI						
No. 2	3.6	718	15,000 PSI	4.0	806	16,500 PSI	No. 2 4.6 1005 18,100 PSI						
Bullet: 170 GR. SIE JHC Dia: .357"							Bullet: 110 GR. HDY XTP Dia: .357"						
Case: WIN Primer: WIN SP, Small Pistol Col: 1.450"							Case: WIN Primer: WIN SP, Small Pistol Col: 1.455"						
H4227	8.8	762	12,900 CUP	9.8	888	15,900 CUP	HS-6 8.4 1268 19,600 CUP						
HS-6	5.3	710	12,200 CUP	5.9	832	16,100 CUP	Longshot 7.6 1337 17,700 PSI						
AutoComp	4.3	736	14,300 PSI	4.8	820	16,000 PSI	CFE Pistol 7.0 1303 18,400 PSI						
Universal	3.8	744	14,100 CUP	4.2	823	16,100 CUP	AutoComp 7.0 1228 17,400 PSI						
W231	3.8	683	12,200 CUP	4.1	752	15,800 CUP	W572 6.6 1216 18,400 PSI						
Titegroup	3.0	635	11,100 CUP	3.6	764	16,000 CUP	W244 6.2 1274 18,400 PSI						
700-X	3.1	639	14,100 PSI	3.5	735	16,700 PSI	Universal 6.0 1204 18,700 CUP						
38 SPECIAL +P							W231 5.9 1155 18,700 CUP						
Barrel: 7.7" Twist: 1:18.75" Trim: 1.145"							Titegroup 5.2 1185 18,800 CUP						
Bullet: 77 GR. PLYCS ARX Dia: .357"							700-X 4.8 1140 17,700 PSI						
Case: WIN Primer: WIN SP, Small Pistol Col: 1.475"							Bullet: 110 GR. SIE JHC Dia: .357"						
W572			7.1 1514 18,100 PSI				Case: REM Primer: WIN SP, Small Pistol Col: 1.435"						
CFE Pistol			7.0 1493 17,900 PSI				No. 5 7.9 1302 20,000 PSI						
AutoComp			7.0 1486 18,500 PSI				True Blue 7.4 1279 19,800 PSI						
Universal			6.2 1470 17,600 PSI				Silhouette 7.1 1304 19,800 PSI						
W244			5.5 1389 17,800 PSI				No. 2 5.3 1183 20,000 PSI						
W231			5.4 1355 17,600 PSI				Solo 1000 5.2 1153 20,000 PSI						
Titegroup			5.1 1412 18,300 PSI				Nitro 100 NF 4.0 1053 20,000 PSI						
Bullet: 84 GR. PLYCS RNP Dia: .357"							Bullet: 120 GR. LGH XD Dia: .357"						
Case: WIN Primer: WIN SP, Small Pistol Col: 1.475"							Case: WIN Primer: WIN SP, Small Pistol Col: 1.440"						
W572			7.6 1515 18,100 PSI				HS-6 7.3 913 17,900 PSI						
AutoComp			7.5 1506 18,200 PSI				Longshot 6.6 964 18,100 PSI						
CFE Pistol			7.4 1516 18,100 PSI				AutoComp 5.5 849 18,100 PSI						
Universal			6.5 1469 18,100 PSI				W572 5.4 835 18,400 PSI						
W231			6.1 1392 18,200 PSI				Universal 5.4 774 17,400 PSI						
W244			6.0 1424 17,900 PSI				CFE Pistol 5.3 886 18,300 PSI						
Titegroup			5.6 1416 17,800 PSI				Bullet: 125 GR. BAR TAC-XP Dia: .357"						
Bullet: 100 GR. LGH XD Dia: .357"							Case: REM Primer: WIN SP, Small Pistol Col: 1.455"						
Case: WIN Primer: WIN SP, Small Pistol Col: 1.530"							No. 5 6.3 1014 20,000 PSI						
HS-6			9.4 1267 18,300 PSI				True Blue 5.7 982 19,900 PSI						
Longshot			7.8 1268 17,900 PSI				No. 2 4.3 907 20,000 PSI						
AutoComp			7.3 1224 18,000 PSI				Bullet: 125 GR. HDY HP/XTP Dia: .357"						
W572			7.1 1205 17,600 PSI				Case: REM Primer: WIN SP, Small Pistol Col: 1.455"						
CFE Pistol			7.0 1222 17,800 PSI				No. 5 7.5 1184 19,800 PSI						
Universal			7.0 1222 18,200 PSI				True Blue 6.9 1174 20,000 PSI						
W244			5.9 1136 18,100 PSI				Silhouette 6.7 1188 20,000 PSI						
Titegroup			5.4 1110 18,500 PSI				No. 2 5.3 1098 19,900 PSI						
Bullet: 105 GR. CEB RAPTOR Dia: .357"							Bullet: 125 GR. HDY XTP Dia: .357"						
Case: WIN Primer: WIN SP, Small Pistol Col: 1.430"							Case: WIN Primer: WIN SP, Small Pistol Col: 1.455"						
HS-6			6.9 1007 18,300 PSI				HS-6 7.8 1138 19,500 CUP						
Longshot			6.5 1071 18,200 PSI				Longshot 7.0 1228 18,300 PSI						
W572			6.0 1042 18,300 PSI				CFE Pistol 6.4 1199 18,600 PSI						
							AutoComp 6.4 1073 17,600 PSI						

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads				Maximum Loads				Starting Loads				Maximum Loads			
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	
				5.6	1124	18,400 PSI		Bullet: 158 GR. BERB FP				Dia: .357"			
W244				5.4	1072	18,900 CUP		Case: REM				Primer: WIN SP, Small Pistol			
Universal				5.3	1018	19,800 CUP		No. 5				6.4	980	19,900 PSI	
W231				5.0	1069	18,700 CUP		Silhouette				5.8	985	19,900 PSI	
Titegroup				4.4	1023	18,100 PSI		True Blue				5.7	920	19,900 PSI	
700-X								No. 2				4.4	880	19,900 PSI	
Bullet: 125 GR. RAIN HP								Dia: .357"							
Case: REM								Primer: WIN SP, Small Pistol				Col: 1.440"			
No. 5				7.8	1204	19,300 PSI		ZIP				4.3	849	19,900 PSI	
True Blue				7.2	1200	19,800 PSI		Solo 1000				4.0	796	19,800 PSI	
Silhouette				7.1	1232	20,000 PSI		Nitro 100 NF				3.3	712	20,000 PSI	
ZIP				5.5	1121	20,000 PSI		Bullet: 158 GR. HDY XTP				Dia: .357"			
No. 2				5.1	1074	19,800 PSI		Case: WIN				Primer: WIN SP, Small Pistol			
Solo 1000				5.0	1054	20,000 PSI		H4227				11.0	964	17,600 CUP	
Nitro 100 NF				3.9	954	20,000 PSI		HS-6				6.6	926	18,700 CUP	
Bullet: 125 GR. REM GSBR								Dia: .357"							
Case: REM								Primer: WIN SP, Small Pistol				Col: 1.440"			
No. 5				7.8	1219	20,000 PSI		Longshot				5.5	965	17,000 PSI	
Silhouette				7.1	1226	19,800 PSI		CFE Pistol				5.4	986	18,500 PSI	
True Blue				7.0	1199	20,000 PSI		AutoComp				5.0	885	17,000 PSI	
No. 2				5.4	1119	19,800 PSI		Universal				4.7	837	19,200 CUP	
Bullet: 140 GR. HDY XTP								Dia: .357"							
Case: REM								Primer: WIN SP, Small Pistol				Col: 1.440"			
No. 5				6.8	1071	19,900 PSI		W231				4.6	807	18,100 CUP	
True Blue				6.3	1071	19,900 PSI		Titegroup				4.3	905	19,300 CUP	
Silhouette				6.2	1095	20,000 PSI		W244				4.0	815	17,800 PSI	
No. 2				4.7	979	19,600 PSI		700-X				4.0	866	18,500 PSI	
Case: WIN								Primer: WIN SP, Small Pistol				Col: 1.455"			
H4227				12.4	1121	19,400 CUP		Bullet: 158 GR. LC LSWC				Dia: .358"			
HS-6				7.0	992	18,300 CUP		Case: REM				Primer: WIN SP, Small Pistol			
Longshot				6.4	1126	17,700 PSI		Solo 1000				4.0	941	20,000 PSI	
CFE Pistol				6.0	1097	18,600 PSI		Nitro 100 NF				3.0	851	19,300 PSI	
W572				5.7	987	18,600 PSI		Bullet: 158 GR. NOS HP				Dia: .357"			
AutoComp				5.7	1031	18,000 PSI		Case: REM				Primer: WIN SP, Small Pistol			
Universal				5.1	1022	19,100 CUP		No. 5				6.2	983	19,900 PSI	
W244				4.9	994	17,900 PSI		True Blue				5.7	978	20,000 PSI	
W231				4.9	892	18,600 CUP		Silhouette				5.6	1002	19,900 PSI	
Titegroup				4.6	984	19,300 CUP		No. 2				4.3	889	19,900 PSI	
700-X				4.1	913	18,200 PSI		Bullet: 170 GR. SIE JHC				Dia: .357"			
Bullet: 140 GR. LC LFP								Dia: .358"							
Case: REM								Primer: WIN SP, Small Pistol				Col: 1.435"			
No. 5				6.8	1128	20,000 PSI		Case: WIN				Primer: WIN SP, Small Pistol			
Silhouette				6.1	1150	19,800 PSI		H4227				10.6	950	17,600 CUP	
True Blue				6.0	1116	19,900 PSI		HS-6				6.3	897	18,600 CUP	
No. 2				4.7	1055	20,000 PSI		Longshot				5.3	939	17,800 PSI	
Nitro 100 NF				3.4	948	20,000 PSI		AutoComp				4.8	844	18,200 PSI	
Bullet: 146 GR. SPR JHP								Dia: .357"							
Case: WIN								Primer: WIN SP, Small Pistol				Col: 1.370"			
H4227				12.0	1085	18,400 CUP		W231				4.4	819	18,100 CUP	
HS-6				6.7	1035	18,400 CUP		Universal				4.3	847	18,600 CUP	
Longshot				5.7	1036	17,400 PSI		Titegroup				4.0	846	19,000 CUP	
CFE Pistol				5.5	1023	17,700 PSI		700-X				3.7	775	18,000 PSI	
AutoComp				5.2	957	17,500 PSI		Bullet: 230 GR. BADMAN L B-PIN				Dia: .357"			
W231				4.9	975	17,700 CUP		Case: REM				Primer: WIN SP, Small Pistol			
Universal				4.7	987	18,100 CUP		No. 7				5.2	767	20,000 PSI	
Titegroup				4.4	981	19,300 CUP		No. 5				4.4	740	20,000 PSI	
W244				4.3	924	18,200 PSI		Bullet: 230 GR. PENN L T-HEAD				Dia: .358"			
700-X				3.8	854	17,400 PSI		Case: REM				Primer: WIN SP, Small Pistol			
Bullet: 148 GR. BERB DEWC								Dia: .357"							
Case: REM								Primer: WIN SP, Small Pistol				Col: 1.140"			
No. 5				5.0	843	19,900 PSI		No. 9				6.7	855	20,000 PSI	
Silhouette				4.6	883	19,900 PSI		True Blue				4.0	723	19,900 PSI	
True Blue				4.4	818	19,900 PSI		357 SIG							
Bullet: 148 GR. LC LWC SGG								Dia: .357"							
Case: REM								Primer: WIN SP, Small Pistol				Col: 1.231"			
Solo 1000				3.5	914	19,900 PSI		Bullet: 90 GR. CEB RAPTOR				Dia: .355"			
Nitro 100 NF				2.7	856	20,000 PSI		Case: FED				Primer: WIN SP, Small Pistol			
								HS-6				9.8	1484	28,200 PSI	
												10.8			
												1634			
												38,700 PSI			

NEVER EXCEED MAXIMUM LOADS

PISTOL DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads		
	Grs	Vel	Pressure		Grs	Vel	Pressure			Grs	Vel	Pressure		Grs	Vel	Pressure
W572	8.8	1526	28,300 PSI	10.3	1696	38,900 PSI		CFE Pistol	6.6	1181	27,400 PSI	7.6	1342	37,800 PSI		
CFE Pistol	8.0	1401	27,600 PSI	9.5	1642	38,200 PSI		W244	6.0	1219	28,500 PSI	6.7	1331	38,700 PSI		
Universal	7.2	1428	27,000 PSI	8.1	1578	36,900 PSI		Universal	5.2	1134	27,500 PSI	5.8	1235	38,500 PSI		
W244	7.2	1468	27,000 PSI	8.1	1629	37,900 PSI		Bullet: 125 GR BAR XPB Dia: .355"								
W231	6.6	1404	29,000 PSI	7.3	1509	37,500 PSI		Case: Win	Primer: WIN SP, Small Pistol			Col: 1.140"				
Bullet: 95 GR. BAR TAC-XP Dia: .355"								No. 5	6.6	1069	37,000 PSI	7.3	1188	41,100 PSI		
Case: FED	Primer: WIN SP, Small Pistol			Col: 1.140"				True Blue	5.9	1020	35,500 PSI	6.6	1133	39,500 PSI		
HS-6	8.8	1410	29,400 PSI	10.1	1593	38,200 PSI		Silhouette	5.8	1053	35,400 PSI	6.4	1170	39,300 PSI		
W572	8.5	1521	30,900 PSI	9.5	1647	37,300 PSI		Bullet: 125 GR SIE FMJ Dia: .355"								
CFE Pistol	7.8	1449	27,600 PSI	8.9	1644	38,700 PSI		Case: Win	Primer: WIN SP, Small Pistol			Col: 1.140"				
AutoComp	7.7	1463	29,300 PSI	8.8	1617	38,500 PSI		No. 9	11.7	1220	35,200 PSI	13.0	1387	39,100 PSI		
WSF	7.6	1430	30,000 PSI	8.7	1586	38,600 PSI		No. 5	8.3	1166	35,700 PSI	9.2	1325	39,600 PSI		
Universal	6.5	1398	28,900 PSI	7.5	1571	38,500 PSI		No. 2	5.4	1066	35,000 PSI	6.0	1212	38,900 PSI		
W244	6.3	1378	29,200 PSI	7.3	1555	38,600 PSI		Bullet: 125 GR SIE JHP Dia: .355"								
W231	6.2	1354	29,600 PSI	7.2	1526	38,400 PSI		Case: Win	Primer: WIN SP, Small Pistol			Col: 1.140"				
Titegroup	5.9	1381	30,300 PSI	6.9	1545	38,700 PSI		True Blue	7.9	1164	33,100 PSI	8.8	1293	36,900 PSI		
Bullet: 115 GR LC LRN Dia: .356"								Silhouette	7.9	1261	35,000 PSI	8.3	1320	36,800 PSI		
Case: Win	Primer: WIN SP, Small Pistol			Col: 1.140"				ZIP	5.8	1098	33,700 PSI	6.4	1220	37,200 PSI		
No. 9	12.1	1258	35,000 PSI	13.5	1430	39,000 PSI		Bullet: 125 GR. BAR TAC-XP Dia: .355"								
No. 7	9.9	1182	34,000 PSI	11.0	1344	37,800 PSI		Case: FED	Primer: WIN SP, Small Pistol			Col: 1.140"				
No. 5	8.1	1160	34,600 PSI	9.0	1319	38,500 PSI		HS-6	7.2	1168	30,600 PSI	8.1	1317	38,500 PSI		
No. 2	5.6	1099	34,500 PSI	6.2	1249	38,200 PSI		Longshot	7.0	1254	30,200 PSI	8.0	1351	35,800 PSI		
Bullet: 115 GR NOS JHP Dia: .355"								W572	5.9	1171	29,800 PSI	7.0	1318	38,500 PSI		
Case: Win	Primer: WIN SP, Small Pistol			Col: 1.140"				AutoComp	5.7	1149	29,400 PSI	6.7	1276	38,400 PSI		
No. 9	12.1	1261	33,100 PSI	13.5	1434	36,900 PSI		CFE Pistol	5.7	1162	28,400 PSI	6.6	1297	38,900 PSI		
No. 5	8.4	1191	33,900 PSI	9.4	1354	37,900 PSI		W244	4.8	1093	29,500 PSI	5.9	1245	38,700 PSI		
True Blue	8.2	1217	31,900 PSI	9.1	1352	35,400 PSI		Titegroup	4.5	1088	29,100 PSI	5.5	1226	39,000 PSI		
Silhouette	8.4	1343	33,800 PSI	8.8	1389	35,400 PSI		Bullet: 125 GR. SPR GD-HP Dia: .355"								
ZIP	6.1	1189	34,900 PSI	6.8	1321	38,900 PSI		Case: FED	Primer: WIN SP, Small Pistol			Col: 1.135"				
No. 2	5.7	1122	34,400 PSI	6.4	1276	38,600 PSI		800-X			10.0C	1438	36,100 PSI			
Bullet: 115 GR. BAR TAC-XP Dia: .355"								W572	7.2	1149	28,300 PSI	8.4	1399	38,000 PSI		
Case: FED	Primer: WIN SP, Small Pistol			Col: 1.140"				CFE Pistol	7.0	1222	29,700 PSI	8.0	1346	38,900 PSI		
HS-6	7.7	1244	30,200 PSI	8.8	1415	39,000 PSI		W244	6.1	1196	27,400 PSI	7.0	1340	38,100 PSI		
Longshot	7.5	1333	30,300 PSI	8.5	1449	36,800 PSI		Bullet: 147 GR HDY XTP Dia: .355"								
W572	6.7	1268	29,100 PSI	7.7	1429	38,800 PSI		Case: Win	Primer: WIN SP, Small Pistol			Col: 1.140"				
WSF	6.5	1242	30,200 PSI	7.4	1384	38,700 PSI		No. 9	9.4	1018	30,800 PSI	10.5	1158	34,400 PSI		
CFE Pistol	6.3	1260	29,200 PSI	7.2	1405	38,100 PSI		No. 7	8.3	1020	34,800 PSI	9.2	1160	38,600 PSI		
AutoComp	6.2	1233	28,400 PSI	7.1	1387	38,000 PSI		No. 5	7.1	1019	34,500 PSI	7.9	1159	38,400 PSI		
Universal	5.7	1238	30,400 PSI	6.7	1380	38,500 PSI		True Blue	6.8	1022	32,900 PSI	7.6	1135	36,700 PSI		
W244	5.3	1185	29,300 PSI	6.3	1343	38,900 PSI		Silhouette	6.5	1082	33,400 PSI	6.9	1128	35,500 PSI		
Titegroup	5.1	1193	30,100 PSI	6.1	1343	38,900 PSI		No. 2	4.7	933	35,300 PSI	5.3	1061	39,800 PSI		
W231	5.2	1162	30,000 PSI	6.0	1277	38,200 PSI		ZIP	4.7	950	34,600 PSI	5.2	1056	38,300 PSI		
Bullet: 115 GR. HDY XTP Dia: .355"								Bullet: 147 GR LC LRN Dia: .356"								
Case: FED	Primer: WIN SP, Small Pistol			Col: 1.135"				Case: Win	Primer: WIN SP, Small Pistol			Col: 1.140"				
Longshot	9.0	1339	35,200 PSI	10.0	1497	37,300 PSI		No. 9	9.4	1029	29,500 PSI	10.5	1170	33,000 PSI		
HS-6	8.7	1319	31,300 PSI	9.4	1412	38,800 PSI		No. 7	8.6	1071	35,800 PSI	9.6	1218	40,000 PSI		
W572	7.6	1327	29,200 PSI	8.8	1482	39,000 PSI		Bullet: 147 GR MCB L RNBB Dia: .356"								
CFE Pistol	7.2	1277	29,100 PSI	8.2	1431	38,400 PSI		Case: Win	Primer: WIN SP, Small Pistol			Col: 1.140"				
Universal	6.5	1272	31,600 PSI	7.3	1375	39,200 PSI		No. 2	4.2	923	32,900 PSI	4.7	1049	36,800 PSI		
W244	6.1	1272	28,900 PSI	6.9	1387	38,300 PSI		Bullet: 147 GR. HDY XTP Dia: .355"								
Bullet: 118 GR. LGH XD Dia: .355"								Case: FED	Primer: WIN SP, Small Pistol			Col: 1.140"				
Case: FED	Primer: WIN SP, Small Pistol			Col: 1.135"				800-X			9.0	1317	38,000 PSI			
HS-6	7.9	1218	30,400 PSI	8.7	1362	38,300 PSI		HS-6	6.8	1069	27,800 PSI	7.6	1173	36,600 PSI		
Longshot	7.5	1276	29,700 PSI	8.5	1410	37,100 PSI		Longshot	6.5	1158	32,100 PSI	7.5	1254	38,700 PSI		
W572	6.5	1198	26,700 PSI	7.5	1375	38,500 PSI		W572	6.1	1113	29,000 PSI	7.1	1213	38,100 PSI		
WSF	6.7	1212	31,300 PSI	7.4	1333	38,300 PSI		WSF			7.1	1260	33,800 PSI			
AutoComp	6.6	1215	29,200 PSI	7.3	1348	38,700 PSI		CFE Pistol	5.4	1029	27,600 PSI	6.3	1148	39,200 PSI		
CFE Pistol	6.4	1221	28,100 PSI	7.2	1365	38,100 PSI		W244	5.2	1070	28,400 PSI	5.9	1177	38,900 PSI		
Universal	5.8	1160	30,000 PSI	6.8	1319	38,400 PSI		Universal	5.0	1026	29,200 PSI	5.6	1110	38,600 PSI		
W244	5.4	1139	28,800 PSI	6.5	1288	39,100 PSI		357 MAG								
W231	5.2	1058	28,100 PSI	6.2	1245	38,700 PSI		Barrel: 10" Twist: 1:18.75" Trim: 1.285"								
Titegroup	4.9	1111	29,400 PSI	5.9	1263	38,300 PSI		Bullet: 110 GR. HDY XTP Dia: .357"								
Bullet: 124 GR. HDY XTP Dia: .355"								Case: WIN	Primer: WIN SPM, Small P Mag			Col: 1.580"				
Case: FED	Primer: WIN SP, Small Pistol			Col: 1.135"				No. 9	15.3	1478	30,900 PSI	16.9	1677	34,100 PSI		
Longshot	8.3	1344	33,500 PSI	9.3	1429	37,900 PSI		ZIP	7.7	1373	28,700 PSI	8.6	1525	32,100 PSI		
HS-6	8.0	1233	30,300 PSI	9.0	1339	38,700 PSI										
W572	7.0	1228	28,300 PSI	8.2	1400	38,600 PSI										

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads		
	Grains	Vel	Pressure		Grains	Vel	Pressure			Grains	Vel	Pressure		Grains	Vel	Pressure
No. 2	7.2	1227	29,600 PSI	8.4	1374		34,900 PSI	CFE Pistol	3.4	711	9,100 PSI	4.1	904		9,900 PSI	
Bullet: 110 GR. SIE JHC				Dia: .357"				Universal	3.3	767	8,800 PSI	3.9	902		10,600 PSI	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.575"		W231	2.9	718	8,500 PSI	3.7	897		11,200 PSI	
No. 7	11.6	1362	29,200 PSI	12.9	1548		32,500 PSI	W244	2.7	745	10,500 PSI	3.5	902		12,900 PSI	
No. 5	9.9	1355	29,200 PSI	11.0	1540		32,400 PSI	Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.550"		
Bullet: 125 GR. BAR XPB				Dia: .357"				Titegroup	2.7	782	8,900 PSI	3.2	899		10,800 PSI	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.585"		Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.550"		
Enforcer	14.9	1575	31,100 PSI	16.5	1750		34,500 PSI	700-X	2.6	769	8,800 PSI	3.2	892		11,900 PSI	
A-4100	14.7	1372	30,600 PSI	16.4	1525		34,000 PSI	Bullet: 140 GR. HDY FTX				Dia: .357"				
No. 9	12.6	1399	30,000 PSI	14.0	1554		33,300 PSI	Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.600"		
No. 7	9.0	1220	30,600 PSI	10.0	1355		34,000 PSI	H110	12.0	1405	27,800 PSI	14.5	1607		31,100 PSI	
No. 5	7.5	1166	30,600 PSI	8.3	1295		34,000 PSI	IMR 4227	11.0	1176	29,900 PSI	13.0	1320		33,000 PSI	
Bullet: 125 GR. HDY XTP				Dia: .357"				HS-6	6.0	1046	22,500 PSI	7.7	1326		33,400 PSI	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.580"		W572	5.9	1144	23,200 PSI	7.2	1371		33,400 PSI	
Enforcer	16.2	1500	29,300 PSI	18.0	1667		32,600 PSI	Longshot	5.5	1091	22,000 PSI	7.0	1358		33,800 PSI	
A-4100	16.1	1485	28,900 PSI	17.9	1650		32,100 PSI	CFE Pistol	5.4	1110	19,400 PSI	6.6	1328		32,200 PSI	
No. 7	10.9	1278	30,000 PSI	12.1	1453		33,300 PSI	AutoComp	5.0	1038	22,500 PSI	6.3	1279		33,200 PSI	
No. 5	9.6	1273	30,200 PSI	10.6	1446		33,400 PSI	W244	4.5	998	21,500 PSI	5.7	1249		32,900 PSI	
No. 2	6.8	1096	29,600 PSI	8.0	1248		34,900 PSI	Universal	4.0	922	19,700 PSI	5.3	1205		34,200 PSI	
Bullet: 125 GR. LC LFP				Dia: .358"				700-X	3.5	849	19,800 PSI	5.2	1205		31,900 PSI	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.575"		Titegroup	3.5	895	20,700 PSI	5.0	1213		33,800 PSI	
True Blue	7.7	1246	29,600 PSI	9.1	1414		34,900 PSI	Bullet: 140 GR. HDY XTP				Dia: .357"				
No. 2	6.4	1178	29,700 PSI	7.6	1307		35,000 PSI	Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.590"		
ZIP	6.0	1142	29,700 PSI	7.0	1294		35,000 PSI	W296	17.1	1597	28,400 CUP	19.0	1762		40,900 CUP	
Solo 1000	5.9	1112	29,700 PSI	7.0	1236		35,000 PSI	H110	17.1	1597	28,400 CUP	19.0	1762		40,900 CUP	
Bullet: 125 GR. RAIN HP				Dia: .357"				H4227	16.2	1541	33,100 CUP	18.0	1685		42,600 CUP	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.560"		HS-6	9.5	1411	35,800 CUP	10.5	1539		43,000 CUP	
No. 2	6.7	1125	29,200 PSI	7.9	1270		34,300 PSI	Longshot	8.0	1396	31,300 CUP	9.1	1534		41,000 CUP	
Solo 1000	6.3	1077	29,100 PSI	7.4	1213		34,200 PSI	W572	6.9	1210	24,000 PSI	8.5	1442		33,700 PSI	
ZIP	6.2	1097	29,600 PSI	7.3	1263		34,800 PSI	W231	6.5	1219	30,800 CUP	7.7	1378		41,900 CUP	
Bullet: 130 GR. MEI CAST LRNFP				Dia: .358"				AutoComp	6.5	1164	22,000 PSI	7.6	1346		32,400 PSI	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.580"		CFE Pistol	6.1	1149	22,600 PSI	7.5	1347		33,000 PSI	
W244	5.5	1244	19,400 PSI	6.7	1421		27,400 PSI	No. 2	6.2	992	29,500 PSI	7.3	1126		34,700 PSI	
700-X	4.0	1059	15,000 PSI	5.5	1299		24,800 PSI	W244	6.3	1209	28,100 PSI	7.1	1323		33,200 PSI	
Bullet: 135 GR. CAST LRNFP				Dia: .358"				Universal	6.5	1218	34,800 CUP	7.0	1299		40,200 CUP	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.580"		Titegroup	6.3	1262	35,600 CUP	7.0	1376		41,900 CUP	
W572	5.1	1042	13,100 PSI	7.0	1343		23,400 PSI	700-X	4.0	927	17,000 PSI	6.0	1267		30,000 PSI	
Universal	4.8	986	11,700 CUP	6.5	1314		27,800 CUP	Bullet: 140 GR. LGH XP				Dia: .357"				
W244	4.7	1114	16,700 PSI	6.4	1360		26,400 PSI	Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.580"		
W231	4.1	946	11,700 CUP	5.3	1027		19,400 CUP	Lil'Gun	15.5	1425	23,700 PSI	18.7	1639		27,500 PSI	
Titegroup	3.5	906	13,100 CUP	5.2	1186		24,500 CUP	W296	14.4	1331	25,400 PSI	16.7	1571		32,500 PSI	
Clays	3.4	914	12,200 CUP	5.1	1207		30,200 CUP	H110	14.4	1331	25,400 PSI	16.7	1571		32,500 PSI	
Bullet: 140 GR. BAR XPB				Dia: .357"				IMR 4227	13.4	1061	26,500 PSI	15.7	1288		32,400 PSI	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.590"		HS-6	8.0	1029	21,100 PSI	9.8	1358		31,400 PSI	
Enforcer	13.1	1377	30,600 PSI	14.5	1530		34,000 PSI	Longshot	7.2	1049	21,900 PSI	8.5	1377		32,800 PSI	
A-4100	13.0	1199	30,100 PSI	14.4	1333		33,500 PSI	CFE Pistol	6.5	1049	23,000 PSI	8.0	1318		33,500 PSI	
TCM	11.5	1075	29,600 PSI	13.5	1294		34,800 PSI	AutoComp	6.6	1030	22,700 PSI	8.0	1304		32,600 PSI	
No. 9	11.3	1204	30,300 PSI	12.5	1338		33,700 PSI	W572	6.5	1051	23,300 PSI	7.8	1314		33,400 PSI	
No. 7	8.6	1060	31,100 PSI	9.5	1178		34,500 PSI	Universal	6.2	960	25,200 PSI	7.2	1209		33,200 PSI	
No. 5	6.9	1032	30,200 PSI	7.7	1147		33,600 PSI	W244	5.8	991	25,100 PSI	6.7	1177		33,300 PSI	
No. 2	5.4	803	29,500 PSI	6.3	914		34,800 PSI	Titegroup	5.0	799	25,200 PSI	6.0	1071		33,200 PSI	
Bullet: 140 GR. SIE JHC				Dia: .357"				Bullet: 146 GR. SPR JHP				Dia: .357"				
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.580"		Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.535"		
Enforcer	14.4	1311	30,800 PSI	16.0	1457		34,200 PSI	W296	15.5	1512	29,200 CUP	17.2	1691		42,600 CUP	
A-4100	14.3	1298	30,300 PSI	15.9	1442		33,700 PSI	H110	15.5	1512	29,200 CUP	17.2	1691		42,600 CUP	
TCM	11.5	1216	28,800 PSI	13.6	1446		33,900 PSI	H4227	14.5	1440	34,300 CUP	16.0	1566		42,700 CUP	
Bullet: 140 GR. SIE JHP				Dia: .357"				HS-6	8.5	1330	32,900 CUP	9.5	1461		41,800 CUP	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.580"		Longshot	7.5	1358	33,400 CUP	8.6	1483		42,600 CUP	
No. 9	12.8	1252	30,300 PSI	14.2	1422		33,600 PSI	W572	6.5	1212	24,300 PSI	7.5	1394		33,100 PSI	
No. 7	10.1	1178	30,700 PSI	11.2	1339		34,000 PSI	AutoComp	6.4	1193	26,000 PSI	7.1	1288		32,300 PSI	
No. 5	9.1	1202	30,400 PSI	10.1	1366		33,700 PSI	W231	6.0	1176	32,100 CUP	7.1	1330		42,200 CUP	
Bullet: 140 GR. HDY CBOY				Dia: .358"				CFE Pistol	6.0	1157	23,200 PSI	6.9	1338		32,600 PSI	
Case: WIN		Primer: WIN SPM, Small P Mag				Col: 1.550"		Titegroup	5.9	1223	34,600 CUP	6.6	1317		42,900 CUP	
AutoComp	3.6	793	8,800 PSI	4.3	883		9,900 PSI	Universal	6.0	1160	33,500 CUP	6.5	1261		39,900 CUP	
W572	3.7	811	10,300 PSI	4.2	907		12,200 PSI	W244	5.8	1158	24,900 PSI	6.5	1296		33,300 PSI	
								700-X	4.5	1025	21,500 PSI	5.7	1233		30,300 PSI	

NEVER EXCEED MAXIMUM LOADS

PISTOL DATA

Starting Loads							Maximum Loads						
Powder	Gr	Vel	Pressure	Gr	Vel	Pressure	Powder	Gr	Vel	Pressure	Gr	Vel	Pressure
Bullet: 147 GR. MCB LFPBB Dia: .358"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.580"								
No. 9	11.9	1151	29,600 PSI	13.2	1308	32,800 PSI							
No. 7	9.5	1085	31,100 PSI	10.5	1234	34,300 PSI							
Bullet: 148 GR. HDY LHBWC Dia: .358"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.290"								
AutoComp	4.0	943	18,000 PSI	4.7	1064	24,300 PSI							
W572	3.7	923	17,100 PSI	4.6	1064	22,900 PSI							
CFE Pistol	3.6	927	17,300 PSI	4.5	1085	23,000 PSI							
Universal	3.5	880	13,700 CUP	4.0	989	17,700 CUP							
W244	3.2	897	18,600 PSI	4.0	1032	23,900 PSI							
700-X	3.0	892	17,600 PSI	3.5	989	22,300 PSI							
W231	3.0	845	14,300 CUP	3.4	908	17,600 CUP							
Titegroup	2.9	830	14,700 CUP	3.3	909	18,900 CUP							
Bullet: 158 GR. CAST LSWC Dia: .358"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.610"								
HS-6	6.0	990	12,900 CUP	7.0	1106	15,500 CUP							
W572	5.6	1112	18,600 PSI	6.7	1275	27,000 PSI							
CFE Pistol	5.3	1123	18,100 PSI	6.6	1321	28,500 PSI							
AutoComp	5.0	1025	17,600 PSI	6.5	1237	27,000 PSI							
Universal	4.0	890	15,700 CUP	6.2	1247	33,400 CUP							
W244	3.9	922	14,800 PSI	6.0	1250	27,800 PSI							
W231	3.4	796	12,600 CUP	5.0	1109	23,900 CUP							
Titegroup	4.5	1028	19,300 CUP	5.0	1108	24,900 CUP							
700-X	3.4	867	13,100 PSI	4.9	1137	24,400 PSI							
Clays	3.2	867	14,400 CUP	4.6	1079	33,600 CUP							
Trail Boss	3.2	754	16,500 CUP	4.2	865	20,400 CUP							
Bullet: 158 GR. HDY XTP Dia: .357"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.580"								
Lil'Gun	16.0	1504	24,100 CUP	18.0	1577	25,800 CUP							
W296	15.0	1418	28,600 CUP	16.7	1591	40,700 CUP							
H110	15.0	1418	28,600 CUP	16.7	1591	40,700 CUP							
H4227	14.5	1402	34,600 CUP	16.0	1520	42,600 CUP							
Enforcer	12.5	1206	30,400 PSI	14.0	1320	34,000 PSI							
A-4100	12.5	1176	30,100 PSI	13.9	1307	33,500 PSI							
No. 9	12.4	1202	31,500 PSI	13.8	1367	35,000 PSI							
No. 5	8.6	1097	29,400 PSI	9.7	1256	33,200 PSI							
HS-6	8.0	1182	28,000 CUP	9.5	1375	41,900 CUP							
Longshot	7.3	1258	31,700 CUP	8.4	1394	43,200 CUP							
W572	6.5	1092	26,800 PSI	7.4	1241	33,200 PSI							
AutoComp	6.2	1058	25,700 PSI	7.0	1181	33,200 PSI							
CFE Pistol	6.1	1107	26,100 PSI	6.9	1233	33,700 PSI							
W231	6.2	1108	33,700 CUP	6.9	1220	40,000 CUP							
Universal	5.8	1026	32,100 CUP	6.3	1133	39,300 CUP							
W244	5.5	1061	26,200 PSI	6.2	1204	33,100 PSI							
Titegroup	5.4	1135	32,600 CUP	6.1	1229	41,900 CUP							
700-X	4.5	949	21,900 PSI	5.7	1149	31,200 PSI							
Bullet: 158 GR. LC LSWC Dia: .358"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.580"								
No. 9	11.2	1104	29,100 PSI	12.4	1255	32,200 PSI							
No. 7	9.1	1041	29,900 PSI	10.1	1183	33,200 PSI							
No. 5	8.0	1100	30,700 PSI	9.0	1220	34,500 PSI							
Bullet: 165 GR. CEB SOLID Dia: .357"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.570"								
Lil'Gun	14.0	1259	25,800 PSI	17.0	1444	28,400 PSI							
IMR 4227	12.0	773	25,600 PSI	14.4C	1082	32,700 PSI							
W296	12.5	1071	25,200 PSI	14.1	1277	32,400 PSI							
H110	12.5	1071	25,200 PSI	14.1	1277	32,400 PSI							
HS-6	6.8	751	24,200 PSI	7.9	1038	32,900 PSI							
Longshot	6.0	740	23,300 PSI	7.0	1032	32,700 PSI							
W572	5.9	681	25,700 PSI	6.8	999	33,000 PSI							
AutoComp	5.8	681	23,500 PSI	6.7	971	33,300 PSI							
CFE Pistol	5.7	671	24,000 PSI	6.6	956	33,200 PSI							
W244	5.0	598	25,400 PSI	5.8	865	33,000 PSI							
Bullet: 170 GR. SIE FMJ Dia: .357"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.585"								
No. 11 FS	13.7	1134	28,800 PSI	16.1	1364	33,900 PSI							
							No. 9	11.2	1092	31,700 PSI	12.4	1241	35,100 PSI
							TCM	10.2	992	28,400 PSI	12.0	1201	33,400 PSI
							No. 7	8.7	1010	31,200 PSI	9.7	1147	34,800 PSI
Bullet: 170 GR. SIE JHC Dia: .357"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.580"								
Lil'Gun	15.0	1422	25,100 CUP	17.0	1576	35,500 CUP							
W296	14.0	1328	25,900 CUP	15.5	1497	40,800 CUP							
H110	14.0	1328	25,900 CUP	15.5	1497	40,800 CUP							
H4227	13.0	1272	32,300 CUP	14.5	1395	41,200 CUP							
HS-6	8.0	1181	30,900 CUP	9.2	1321	42,900 CUP							
Longshot	6.8	1182	32,700 CUP	7.9	1322	42,600 CUP							
Titegroup	5.4	1031	34,700 CUP	6.0	1156	41,800 CUP							
700-X	4.0	833	22,100 PSI	5.2	1107	32,200 PSI							
Bullet: 180 GR. CPB LWFNGC Dia: .358"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.575"								
No. 9	10.4	1008	28,100 PSI	11.6	1145	31,400 PSI							
No. 7	8.3	938	30,500 PSI	9.2	1067	33,900 PSI							
ZIP	5.6	1042	29,500 PSI	6.2	1158	32,700 PSI							
Bullet: 180 GR. NOS PART Dia: .357"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.575"								
Lil'Gun	13.0	1279	27,500 CUP	15.0	1422	34,500 CUP							
H4227	12.7	1247	36,900 CUP	13.7	1308	40,900 CUP							
W296	13.0	1352	36,800 CUP	13.5	1396	39,100 CUP							
H110	13.0	1352	36,800 CUP	13.5	1396	39,100 CUP							
Longshot	6.1	1025	32,700 CUP	7.2	1167	41,700 CUP							
W572	5.4	882	27,100 PSI	6.1	1024	33,700 PSI							
AutoComp	5.3	869	27,700 PSI	5.9	997	33,700 PSI							
CFE Pistol	5.2	903	27,200 PSI	5.8	1018	33,100 PSI							
Titegroup	5.0	948	38,100 CUP	5.5	1020	40,300 CUP							
W244	4.4	763	25,800 PSI	5.2	934	32,900 PSI							
700-X	4.0	668	25,500 PSI	4.7	846	32,500 PSI							
Bullet: 187 GR. CPB LFNGC Dia: .358"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.600"								
A-4100	11.7	1074	29,700 PSI	13.8	1222	35,000 PSI							
Enforcer	11.7	1074	29,700 PSI	13.8	1222	35,000 PSI							
No. 9	9.5	1047	29,700 PSI	11.1	1195	35,000 PSI							
No. 7	7.4	935	29,700 PSI	8.7	1091	34,900 PSI							
No. 5	6.8	922	29,600 PSI	8.0	1064	34,800 PSI							
True Blue	6.3	929	29,200 PSI	7.4	1063	34,400 PSI							
No. 2	5.2	855	29,700 PSI	6.1	963	35,000 PSI							
ZIP	4.8	827	29,100 PSI	5.6	945	34,300 PSI							
Solo 1000	4.6	791	29,300 PSI	5.4	886	34,500 PSI							
Bullet: 200 GR. CPB LWLNGC Dia: .358"													
Case: WIN		Primer: WIN SPM, Small P Mag			Col: 1.615"								
No. 11 FS	12.0	1092	29,300 PSI	14.1	1272	34,500 PSI							
TCM	9.3	997	28,800 PSI	10.9	1158	33,900 PSI							
No. 2	4.6	781	29,700 PSI	5.4	884	34,900 PSI							
9 x 18MM MAKAROV													
Barrel: 4" Twist: 1:10" Trim: .708"													
Bullet: 90 GR. SPR FP Dia: .364"													
Case: WIN		Primer: WIN SP, Small Pistol			Col: .970"								
W231	3.6	948	21,300 PSI	4.0	1031	24,000 PSI							
Universal	3.5	885	17,900 PSI	3.9	1022	23,000 PSI							
Titegroup	3.3	959	19,200 PSI	3.7	1053	22,900 PSI							
Bullet: 95 GR. HDY XTP Dia: .364"													
Case: WIN		Primer: WIN SP, Small Pistol			Col: .965"								
Universal	3.6	923	20,100 PSI	4.0	1030	23,800 PSI							
W231	3.4	900	20,500 PSI	3.8	990	24,000 PSI							
Titegroup	3.2	926	18,500 PSI	3.6	1022	22,500 PSI							
40 S&W													
Barrel: 4" Twist: 1:16" Trim: .845"													
Bullet: 88 GR. PLYCS ARX Dia: .400"													
Case: Hornady		Primer: WIN SP, Small Pistol			Col: 1.135"								
W572	9.1	1469	25,200 PSI	10.8	1673	33,200 PSI							
AutoComp	8.0	1440	25,500 PSI	9.3	1652	32,700 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Starting Loads			Grs	Maximum Loads		
	Grs	Vel	Pressure		Grs	Vel	Pressure		Grs	Vel	Pressure		Grs	Vel	Pressure
CFE Pistol	8.0	1503	27,200 PSI	9.2	1668	33,200 PSI		Case: Hornady	Primer: WIN SP, Small Pistol				Col: 1.125"		
Universal	6.6	1424	26,300 PSI	7.8	1607	32,400 PSI		Longshot	8.5	1241	25,100 PSI	11.5	1434	31,900 PSI	
W244	5.8	1332	24,900 PSI	6.8	1520	33,200 PSI		HS-6	9.0	1180	27,400 PSI	10.2	1321	33,600 PSI	
W231	5.6	1307	25,800 PSI	6.6	1465	33,700 PSI		CFE Pistol	8.0	1303	29,500 PSI	8.9	1392	33,800 PSI	
Titegroup	5.4	1360	26,000 PSI	6.3	1511	33,100 PSI		AutoComp	8.0	1236	26,600 PSI	8.8	1342	32,700 PSI	
Bullet: 97 GR. PLYCS RNP Dia: .400"								W572	7.3	1188	26,800 PSI	8.1	1302	33,200 PSI	
Case: Hornady	Primer: WIN SP, Small Pistol					Col: 1.135"		WSF	7.1	1166	26,000 PSI	7.8	1273	32,200 PSI	
W572	9.0	1426	25,700 PSI	10.4	1626	33,800 PSI		W231	6.3	1152	29,900 PSI	7.0	1244	33,100 PSI	
AutoComp	7.6	1416	27,400 PSI	9.1	1575	33,100 PSI		Universal	6.2	1109	22,000 PSI	6.8	1250	32,000 PSI	
CFE Pistol	7.5	1397	25,400 PSI	8.8	1597	33,900 PSI		W244	6.2	1180	26,000 PSI	6.8	1282	32,800 PSI	
Universal	6.5	1370	26,700 PSI	7.7	1540	32,100 PSI		700-X	6.0	1172	27,500 PSI	6.6	1263	32,200 PSI	
W244	5.6	1285	25,000 PSI	6.6	1458	33,200 PSI		Titegroup	5.8	1155	27,300 PSI	6.4	1251	33,200 PSI	
W231	5.6	1240	24,300 PSI	6.6	1420	33,000 PSI		WST	5.5	1089	27,900 PSI	5.9	1143	31,200 PSI	
Titegroup	5.3	1295	24,700 PSI	6.3	1476	33,500 PSI		Clays	4.0	940	22,600 PSI	4.5	1071	32,900 PSI	
Bullet: 105 GR. SFIRE RHFP Dia: .400"								Bullet: 135 GR. RAIN FP Dia: .400"							
Case: Win	Primer: WIN SP, Small Pistol					Col: 1.120"		Case: Win	Primer: WIN SP, Small Pistol					Col: 1.115"	
Silhouette	8.3	1306	30,800 PSI	9.2	1451	34200 PSI		No. 7	9.4	1148	29,100 PSI	11.1	1293	34,200 PSI	
No. 5	8.1	1201	29,900 PSI	9.0	1334	33,200 PSI		No. 5	8.1	1102	29,600 PSI	9.5	1270	34,900 PSI	
True Blue	7.4	1168	29,800 PSI	8.2	1298	33,100 PSI		Silhouette	7.4	1139	29,600 PSI	8.7	1309	34,900 PSI	
No. 2	5.6	1136	30,900 PSI	6.2	1262	34,300 PSI		True Blue	7.2	1087	29,700 PSI	8.4	1250	35,000 PSI	
Bullet: 115 GR. LGH XD Dia: .400"								No. 2	5.7	1106	29,500 PSI	6.7	1204	34,700 PSI	
Case: Win	Primer: WIN SP, Small Pistol					Col: 1.125"		ZIP	5.3	1045	29,200 PSI	6.3	1204	34,400 PSI	
Silhouette	7.0	1161	29,500 PSI	8.3	1297	34,700 PSI		Solo 1000	5.2	1072	29,500 PSI	6.1	1184	34,800 PSI	
No. 5	6.8	998	29,400 PSI	8.0	1164	34,600 PSI		Nitro 100 NF	4.3	1017	29,600 PSI	5.0	1121	34,800 PSI	
True Blue	6.2	975	29,600 PSI	7.3	1147	34,800 PSI		Competition	4.2	1015	29,100 PSI	5.0	1109	34,300 PSI	
Case: Hornady	Primer: WIN SP, Small Pistol					Col: 1.125"		Bullet: 140 GR. BAR TAC-XP Dia: .400"							
HS-6	8.2	1176	26,800 PSI	9.2	1307	32,100 PSI		Case: Hornady	Primer: WIN SP, Small Pistol					Col: 1.135"	
Longshot	7.8	1245	24,200 PSI	8.5	1367	30,300 PSI		HS-6	6.8	1025	28,500 PSI	7.2	1096	33,700 PSI	
W572	7.5	1293	28,500 PSI	8.2	1377	32,400 PSI		Longshot	6.4	1090	25,800 PSI	7.0	1185	31,400 PSI	
CFE Pistol	7.1	1240	25,300 PSI	8.0	1398	33,200 PSI		AutoComp	5.9	1089	27,400 PSI	6.3	1154	33,000 PSI	
AutoComp	7.1	1219	26,200 PSI	8.0	1386	33,800 PSI		WSF	5.3	995	26,700 PSI	6.2	1109	34,000 PSI	
WSF	6.8	1177	25,900 PSI	7.7	1329	33,500 PSI		CFE Pistol	5.6	1095	28,600 PSI	6.1	1159	33,800 PSI	
Universal	6.0	1157	24,700 PSI	6.8	1325	33,300 PSI		W572	5.5	1033	27,900 PSI	6.0	1117	33,900 PSI	
W244	5.8	1173	27,200 PSI	6.6	1315	33,300 PSI		W244	4.5	1016	26,100 PSI	5.0	1103	32,800 PSI	
W231	5.5	1110	26,300 PSI	6.2	1240	33,200 PSI		Universal	4.3	958	23,100 PSI	4.8	1070	31,200 PSI	
Titegroup	5.3	1165	26,500 PSI	6.0	1301	33,300 PSI		W231	4.4	965	27,300 PSI	4.8	1016	30,400 PSI	
Bullet: 120 GR. CEB RAPTOR Dia: .400"								WST	3.6	819	28,200 PSI	4.0	863	31,200 PSI	
Case: Hornady	Primer: WIN SP, Small Pistol					Col: 1.120"		Titegroup	3.5	848	27,800 PSI	4.0	937	32,900 PSI	
Longshot	7.0	1135	26,000 PSI	8.5	1291	31,300 PSI		700-X	3.3	820	26,900 PSI	3.9	933	32,900 PSI	
HS-6	6.7	925	23,600 PSI	7.9	1178	33,000 PSI		Clays	2.6	713	24,800 PSI	3.0	783	31,900 PSI	
W572	6.4	1168	28,600 PSI	7.2	1257	32,400 PSI		Bullet: 140 GR. BAR XPB Dia: .400"							
CFE Pistol	5.9	1107	26,800 PSI	6.7	1259	33,200 PSI		Case: Win	Primer: WIN SP, Small Pistol					Col: 1.135"	
AutoComp	5.9	1048	25,100 PSI	6.7	1240	33,500 PSI		Silhouette	5.5	918	29,600 PSI	6.5	1080	35,000 PSI	
WSF	5.5	1027	26,200 PSI	6.2	1166	33,200 PSI		No. 5	5.7	873	29,300 PSI	6.3	970	32,500 PSI	
Universal	5.2	1024	25,600 PSI	5.9	1230	33,500 PSI		True Blue	5.2	872	28,800 PSI	5.8	969	32,000 PSI	
W244	4.8	1035	26,900 PSI	5.4	1151	33,100 PSI		Bullet: 140 GR. LC LTCBB Dia: .400"							
W231	4.5	951	26,700 PSI	5.1	1080	33,600 PSI		Case: Win	Primer: WIN SP, Small Pistol					Col: 1.120"	
Titegroup	4.4	1019	27,500 PSI	4.9	1134	33,100 PSI		No. 7	9.0	1030	30,300 PSI	10.0	1171	33,700 PSI	
Bullet: 125 GR. SFIRE Dia: .400"								True Blue	7.7	1125	30,300 PSI	8.5	1250	33,400 PSI	
Case: Win	Primer: WIN SP, Small Pistol					Col: 1.120"		Silhouette	7.3	1132	29,900 PSI	8.1	1258	33,300 PSI	
No. 5	6.5	1013	30,900 PSI	7.2	1125	34,300 PSI		No. 5	7.2	1038	31,400 PSI	8.0	1179	34,900 PSI	
Silhouette	6.2	1040	29,400 PSI	6.9	1156	32,700 PSI		No. 2	5.9	1016	29,900 PSI	6.6	1155	33,400 PSI	
True Blue	5.8	970	29,800 PSI	6.4	1078	33,100 PSI		ZIP	5.8	1113	30,700 PSI	6.4	1237	33,800 PSI	
No. 2	4.6	949	31,300 PSI	5.1	1054	34,700 PSI		Competition	4.1	1039	29,000 PSI	4.9	1119	34,100 PSI	
Case: Hornady	Primer: WIN SP, Small Pistol					Col: 1.120"		Bullet: 150 GR. NOS JHP Dia: .400"							
W572	5.8	1120	28,300 PSI	6.8	1229	33,200 PSI		Case: Win	Primer: WIN SP, Small Pistol					Col: 1.125"	
CFE Pistol	5.6	1077	21,800 PSI	6.4	1237	32,800 PSI		No. 7	9.2	1000	30,900 PSI	10.2	1136	34,300 PSI	
W244	4.8	1100	26,100 PSI	5.5	1221	32,600 PSI		No. 5	7.5	1030	31,600 PSI	8.3	1170	35,000 PSI	
W231	4.8	1060	29,500 PSI	5.4	1132	31,500 PSI		True Blue	7.3	1052	29,300 PSI	8.1	1169	32,500 PSI	
Universal	4.7	1059	23,500 PSI	5.3	1172	32,300 PSI		Silhouette	7.0	1110	30,600 PSI	7.5	1190	32,800 PSI	
700-X	4.6	1069	27,900 PSI	5.2	1143	31,200 PSI		No. 2	5.9	988	31,200 PSI	6.6	1098	34,900 PSI	
Titegroup	4.3	1041	24,700 PSI	4.8	1145	31,300 PSI		Case: Hornady	Primer: WIN SP, Small Pistol					Col: 1.125"	
Bullet: 135 GR. NOS JHP Dia: .400"								Longshot	7.5	1184	26,400 PSI	9.3	1320	33,600 PSI	
Case: Win	Primer: WIN SP, Small Pistol					Col: 1.125"		HS-6	7.8	1076	25,700 PSI	8.7	1201	32,500 PSI	
No. 7	10.1	1089	30,600 PSI	11.2	1237	33,900 PSI		CFE Pistol	7.0	1141	25,000 PSI	7.8	1267	33,500 PSI	
True Blue	8.3	1149	29,100 PSI	9.2	1277	32,200 PSI		W572	6.5	1117	26,700 PSI	7.3	1194	33,000 PSI	
No. 2	6.8	1097	31,000 PSI	7.6	1247	34,700 PSI		AutoComp	6.6	1105	24,300 PSI	7.3	1220	32,100 PSI	
								WSF	6.6	1137	29,800 PSI	6.8	1185	33,300 PSI	

NEVER EXCEED MAXIMUM LOADS

PISTOL DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads		
	Grains	Vel	Pressure		Grains	Vel	Pressure			Grains	Vel	Pressure		Grains	Vel	Pressure
W244	5.6	1086	26,800 PSI	6.3	1183	32,600 PSI		Titegroup	5.4	1058	28,400 PSI		5.9	1139	31,700 PSI	
Universal	5.4	1066	25,700 PSI	5.9	1165	32,900 PSI		700-X	5.2	1054	26,600 PSI		5.8	1138	33,700 PSI	
W231	5.2	1024	26,900 PSI	5.8	1116	33,500 PSI		WST	4.6	957	25,400 PSI		5.3	1039	32,500 PSI	
WST	5.5	1047	29,400 PSI	5.8	1088	32,300 PSI		Clays	3.6	854	23,300 PSI		4.0	942	30,900 PSI	
Titegroup	5.1	1079	27,700 PSI	5.5	1147	32,600 PSI		Bullet: 155 GR. LC LRNSWC Dia: .401"								
700-X	5.2	1080	27,100 PSI	5.5	1143	32,600 PSI		Case: Win		Primer: WIN SP, Small Pistol				Col: 1.130"		
Clays	3.8	923	28,400 PSI	4.0	960	31,700 PSI		No. 5	6.8	1019	31,700 PSI	7.5	1158	35,000 PSI		
Bullet: 155 GR. BAR TAC-XP Dia: .400"								Silhouette	6.5	1036	30,700 PSI	7.2	1151	34,100 PSI		
Case: Hornady								True Blue	6.5	963	30,200 PSI	7.2	1070	33,500 PSI		
Longshot	5.9	1042	28,500 PSI	6.6	1090	32,500 PSI		No. 2	5.7	982	30,900 PSI	6.3	1116	34,100 PSI		
HS-6	5.7	877	26,100 PSI	6.3	984	33,000 PSI		ZIP	5.1	1005	28,400 PSI	5.7	1117	31,700 PSI		
W572	5.1	973	26,800 PSI	5.6	1065	33,400 PSI		Competition	3.6	941	29,100 PSI	4.2	1015	34,200 PSI		
CFE Pistol	4.8	956	25,700 PSI	5.3	1065	33,300 PSI		Bullet: 155 GR. RAIN FP Dia: .400"								
AutoComp	4.8	945	25,900 PSI	5.3	1028	32,800 PSI		Case: Win		Primer: WIN SP, Small Pistol				Col: 1.125"		
WSF	4.7	892	26,300 PSI	5.2	987	33,100 PSI		No. 7	9.3	998	31,000 PSI	10.3	1135	34,300 PSI		
Universal	4.3	921	27,100 PSI	4.8	1028	32,800 PSI		No. 5	6.9	963	28,800 PSI	7.7	1095	32,100 PSI		
W244	3.8	863	26,400 PSI	4.3	955	33,300 PSI		Competition	4.0	914	28,400 PSI	4.7	1008	33,400 PSI		
Titegroup	3.5	850	25,700 PSI	4.0	967	32,800 PSI		Bullet: 165 GR. BERB FP Dia: .400"								
Bullet: 155 GR. BAR XPB Dia: .400"								Case: Hornady		Primer: WIN SP, Small Pistol				Col: 1.125"		
Case: Win								HS-6	7.4	1027	26,900 PSI	8.1	1108	31,300 PSI		
No. 5	4.6	736	28,800 PSI	5.1	818	32,000 PSI		Longshot	6.9	1091	24,500 PSI	7.8	1199	32,300 PSI		
Silhouette	4.4	774	27,100 PSI	4.9	860	30,100 PSI		CFE Pistol	6.9	1124	28,000 PSI	7.5	1205	33,900 PSI		
True Blue	4.2	730	29,300 PSI	4.7	811	32,500 PSI		AutoComp	6.3	1051	25,900 PSI	7.0	1171	33,300 PSI		
Bullet: 155 GR. BERB FP Dia: .400"								W572	6.0	1016	25,500 PSI	6.7	1124	33,100 PSI		
Case: Hornady								WSF	6.1	1034	27,600 PSI	6.5	1081	31,000 PSI		
HS-6	7.8	1054	24,300 PSI	8.8	1200	32,600 PSI		W244	5.0	986	25,400 PSI	5.7	1101	33,000 PSI		
CFE Pistol	7.2	1162	26,400 PSI	7.8	1232	31,900 PSI		WST	4.8	944	27,600 PSI	5.5	1003	30,700 PSI		
AutoComp	6.7	1091	24,800 PSI	7.3	1200	31,600 PSI		Universal	4.8	951	24,200 PSI	5.4	1051	30,500 PSI		
W572	6.5	1087	25,900 PSI	7.2	1174	32,700 PSI		W231	4.7	933	25,200 PSI	5.4	1049	33,400 PSI		
WSF	6.2	1030	23,500 PSI	7.1	1164	32,300 PSI		Titegroup	4.5	960	24,300 PSI	5.1	1060	31,800 PSI		
W244	5.5	1058	25,700 PSI	6.2	1156	32,500 PSI		700-X	4.6	994	28,100 PSI	5.0	1043	32,100 PSI		
Universal	5.5	1049	26,000 PSI	6.0	1145	33,500 PSI		Clays	3.4	829	27,500 PSI	3.7	888	32,000 PSI		
W231	5.1	979	24,100 PSI	6.0	1130	33,900 PSI		Bullet: 165 GR. RAIN RNFP Dia: .400"								
WST	5.1	996	27,400 PSI	5.9	1091	33,400 PSI		Case: Win		Primer: WIN SP, Small Pistol				Col: 1.115"		
Titegroup	5.1	1051	26,200 PSI	5.7	1151	33,600 PSI		No. 7	7.9	965	29,100 PSI	9.3	1107	34,300 PSI		
700-X	4.9	1010	23,300 PSI	5.5	1134	32,700 PSI		No. 5	6.5	912	29,700 PSI	7.6	1066	35,000 PSI		
Clays	3.7	879	23,500 PSI	4.1	959	31,300 PSI		Silhouette	6.1	978	29,300 PSI	7.2	1118	34,500 PSI		
Bullet: 155 GR. BERB HBRN Dia: .400"								True Blue	5.9	924	29,500 PSI	6.9	1056	34,700 PSI		
Case: Win								No. 2	4.6	915	29,600 PSI	5.4	1014	34,800 PSI		
No. 7	8.2	1005	29,400 PSI	9.6	1161	34,600 PSI		Solo 1000	4.4	917	29,600 PSI	5.1	1009	34,800 PSI		
No. 5	7.0	975	29,700 PSI	8.2	1139	35,000 PSI		ZIP	4.3	901	29,500 PSI	5.1	1016	34,700 PSI		
Silhouette	6.4	1008	29,500 PSI	7.6	1175	34,800 PSI		Competition	3.6	844	29,400 PSI	4.2	943	34,600 PSI		
True Blue	6.4	979	29,700 PSI	7.5	1153	35,000 PSI		Nitro 100 NF	3.4	837	29,300 PSI	4.0	923	34,500 PSI		
No. 2	5.0	953	29,700 PSI	5.9	1112	35,000 PSI		Bullet: 165 GR. SIE JHP Dia: .400"								
Competition	3.8	884	29,200 PSI	4.5	969	34,300 PSI		Case: Win		Primer: WIN SP, Small Pistol				Col: 1.125"		
Nitro 100 NF	3.6	875	28,600 PSI	4.2	960	33,700 PSI		No. 7	7.5	940	29,400 PSI	8.8	1086	34,600 PSI		
Bullet: 155 GR. BERB RS Dia: .400"								No. 5	6.2	886	29,200 PSI	7.3	1049	34,400 PSI		
Case: Win								Silhouette	5.9	942	29,600 PSI	6.9	1101	34,900 PSI		
No. 2	5.6	968	31,600 PSI	6.2	1100	35,000 PSI		True Blue	5.8	891	29,600 PSI	6.8	1033	34,800 PSI		
Competition	4.0	923	29,700 PSI	4.7	1015	35,000 PSI		ZIP	5.1	925	26,000 PSI	5.7	1028	29,100 PSI		
Bullet: 155 GR. HDY XTP Dia: .400"								No. 2	4.5	897	29,700 PSI	5.3	996	34,900 PSI		
Case: Win								Case: Hornady		Primer: WIN SP, Small Pistol				Col: 1.125"		
No. 7	9.0	995	31,100 PSI	10.0	1124	34,500 PSI		HS-6	7.3	1013	28,700 PSI	8.0	1098	32,700 PSI		
No. 5	7.2	1010	31,300 PSI	8.0	1128	34,800 PSI		Longshot	7.3	1139	29,600 PSI	7.8	1185	33,400 PSI		
Silhouette	6.9	1100	31,200 PSI	7.4	1170	33,500 PSI		AutoComp	6.5	1037	25,600 PSI	7.1	1124	31,500 PSI		
No. 2	5.9	966	31,200 PSI	6.5	1073	34,400 PSI		CFE Pistol	6.0	1038	25,500 PSI	6.8	1149	32,400 PSI		
ZIP	5.4	1008	29,300 PSI	6.0	1120	32,500 PSI		WSF	6.3	1055	28,100 PSI	6.7	1115	32,700 PSI		
Case: Hornady								W572	5.5	976	26,100 PSI	6.2	1111	32,900 PSI		
Longshot	7.5	1129	24,900 PSI	9.3	1283	31,900 PSI		Universal	5.1	976	26,800 PSI	5.6	1061	32,900 PSI		
HS-6	7.7	1035	26,500 PSI	8.5	1137	33,200 PSI		W244	4.9	994	26,100 PSI	5.5	1092	32,600 PSI		
AutoComp	7.0	1109	25,800 PSI	7.8	1223	33,800 PSI		700-X	5.0	997	28,000 PSI	5.5	1066	32,900 PSI		
CFE Pistol	6.6	1103	25,800 PSI	7.4	1219	32,600 PSI		W231	4.8	946	28,100 PSI	5.3	1001	32,500 PSI		
W572	6.0	1034	26,000 PSI	6.9	1161	33,000 PSI		WST	4.5	916	26,400 PSI	5.1	995	33,300 PSI		
WSF	6.2	1070	26,100 PSI	6.8	1159	32,500 PSI		Titegroup	4.6	961	27,000 PSI	5.1	1047	33,600 PSI		
Universal	5.7	1056	23,900 PSI	6.2	1138	31,800 PSI		Clays	3.5	851	29,900 PSI	3.9	897	33,300 PSI		
W244	5.1	1032	24,800 PSI	6.0	1155	33,100 PSI										
W231	5.0	937	22,900 PSI	6.0	1103	33,000 PSI										

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads				Maximum Loads			Starting Loads				Maximum Loads		
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 170 GR. LC LSWC Dia: .401"							Nitro 100 NF 3.0 743 29,100 PSI 3.5 822 34,200 PSI						
Case: Win Primer: WIN SP, Small Pistol Col: 1.130"							Competition 2.9 723 26,500 PSI 3.4 795 31,100 PSI						
True Blue	5.9	878	29,100 PSI	6.6	975	32,500 PSI	Bullet: 180 GR. SIE JHP Dia: .400"						
Silhouette	5.5	932	30,800 PSI	6.1	1035	34,200 PSI	Case: Win Primer: WIN SP, Small Pistol Col: 1.135"						
No. 5	5.5	868	31,600 PSI	6.1	986	35,000 PSI	No. 7	7.2	870	28,600 PSI	8.5	1023	33,800 PSI
ZIP	4.0	873	31,000 PSI	4.4	970	34,500 PSI	Silhouette	5.5	920	29,500 PSI	6.2	1020	33,200 PSI
Competition	3.1	839	29,500 PSI	3.6	917	34,700 PSI	Bullet: 185 GR. LC LRNSWC Dia: .401"						
Bullet: 175 GR. MCB LSWC Dia: .401"							Case: Win Primer: WIN SP, Small Pistol Col: 1.174"						
Case: Win Primer: WIN SP, Small Pistol Col: 1.115"							No. 7	7.4	871	31,600 PSI	8.2	990	35,000 PSI
No. 7	7.6	892	31,700 PSI	8.4	1014	35,000 PSI	No. 2	4.6	829	29,800 PSI	5.1	942	33,000 PSI
No. 2	4.8	858	31,000 PSI	5.3	975	34,200 PSI	Competition	2.9	770	26,700 PSI	3.5	861	31,400 PSI
Bullet: 180 GR. BERB FP Dia: .400"							Bullet: 190 GR. SIE FPJ Dia: .400"						
Case: Win Primer: WIN SP, Small Pistol Col: 1.125"							Case: Win Primer: WIN SP, Small Pistol Col: 1.125"						
No. 7	6.8	865	29,600 PSI	8.0	1001	34,800 PSI	No. 7	7.7	848	30,700 PSI	8.6	964	34,300 PSI
No. 5	5.7	828	29,500 PSI	6.7	960	34,800 PSI	No. 5	6.0	828	31,300 PSI	6.7	950	35,000 PSI
Silhouette	5.4	885	29,600 PSI	6.3	1032	34,800 PSI	Bullet: 200 GR. HDY XTP Dia: .400"						
True Blue	5.2	844	29,600 PSI	6.1	967	34,800 PSI	Case: Win Primer: WIN SP, Small Pistol Col: 1.125"						
No. 2	4.0	823	29,400 PSI	4.8	920	34,600 PSI	No. 7	6.7	748	31,700 PSI	7.4	850	35,000 PSI
Competition	3.2	791	29,500 PSI	3.7	863	34,700 PSI	True Blue	5.4	802	29,000 PSI	6.0	891	32,200 PSI
Nitro 100 NF	3.0	754	29,600 PSI	3.5	834	34,800 PSI	Silhouette	4.8	800	27900 PSI	5.6	920	32,600 PSI
Competition	2.9	736	26,900 PSI	3.4	816	31,500 PSI	Case: Hornady Primer: WIN SP, Small Pistol Col: 1.125"						
Case: Hornady Primer: WIN SP, Small Pistol Col: 1.125"							HS-6	5.5	810	27,000 PSI	6.3	900	32,800 PSI
Longshot	6.3	1013	26,200 PSI	7.5	1150	33,400 PSI	Longshot	5.0	836	23,900 PSI	6.0	954	32,500 PSI
HS-6	6.6	924	25,400 PSI	7.4	1041	31,800 PSI	AutoComp	4.8	838	27,900 PSI	5.2	894	32,100 PSI
CFE Pistol	5.9	1007	25,500 PSI	6.5	1092	32,600 PSI	CFE Pistol	4.4	833	27,800 PSI	4.8	897	33,500 PSI
AutoComp	5.7	971	26,700 PSI	6.2	1060	33,000 PSI	WSF	4.4	786	27,300 PSI	4.8	867	33,100 PSI
W572	5.4	952	28,000 PSI	6.0	1033	32,900 PSI	Universal	4.0	824	25,000 PSI	4.7	903	33,600 PSI
WSF	5.5	952	27,600 PSI	6.0	1020	33,500 PSI	W231	3.9	737	25,900 PSI	4.7	857	33,400 PSI
W244	4.8	974	27,400 PSI	5.3	1041	32,900 PSI	W244	3.8	809	27,300 PSI	4.3	894	33,200 PSI
Universal	4.6	925	28,300 PSI	5.1	1002	33,100 PSI	700-X	3.5	744	27,000 PSI	3.9	810	30,700 PSI
W231	4.4	872	26,400 PSI	5.1	984	33,500 PSI	Titegroup	3.4	744	27,200 PSI	3.8	822	31,700 PSI
WST	4.4	868	26,900 PSI	4.9	932	32,000 PSI	WST	3.0	654	25,300 PSI	3.4	733	31,100 PSI
Titegroup	4.2	901	27,400 PSI	4.7	988	31,900 PSI	10MM AUTO						
700-X	4.2	900	25,800 PSI	4.7	986	33,500 PSI	Barrel: 5" Twist: 1:16" Trim: .987"						
Clays	3.0	732	25,400 PSI	3.4	809	32,100 PSI	Bullet: 135 GR. NOS JHP Dia: .400"						
Bullet: 180 GR. HDY XTP Dia: .400"							Case: WIN Primer: WIN LP, Large Pistol Col: 1.260"						
Case: Win Primer: WIN SP, Small Pistol Col: 1.125"							No. 7	12.2	1299	31,300 PSI	13.6	1476	34,900 PSI
No. 7	7.7	861	31,300 PSI	8.5	978	34,600 PSI	Silhouette	9.9	1440	32,300 PSI	11.0	1575	35,900 PSI
No. 5	5.9	849	29,100 PSI	6.6	965	32,500 PSI	Bullet: 140 GR. LC LTCBB Dia: .401"						
No. 2	4.8	828	31,200 PSI	5.3	920	34,500 PSI	Case: WIN Primer: WIN LP, Large Pistol Col: 1.250"						
ZIP	4.1	845	31,900 PSI	4.5	921	35,000 PSI	No. 7	10.8	1203	30,300 PSI	12.0	1367	33,700 PSI
Case: Hornady Primer: WIN SP, Small Pistol Col: 1.125"							No. 5	8.7	1190	30,000 PSI	9.7	1352	33,400 PSI
Case: Hornady Primer: WIN SP, Small Pistol Col: 1.125"							Bullet: 150 GR. SIE JHP Dia: .400"						
Longshot	6.5	1009	25,000 PSI	8.0	1159	32,300 PSI	Case: WIN Primer: WIN LP, Large Pistol Col: 1.245"						
HS-6	6.1	876	25,900 PSI	6.9	976	32,500 PSI	No. 7	11.7	1236	32,800 PSI	13.0	1405	36,400 PSI
AutoComp	5.8	975	27,700 PSI	6.3	1053	33,200 PSI	Silhouette	8.7	1290	31,500 PSI	9.8	1395	35,500 PSI
CFE Pistol	5.4	949	25,800 PSI	6.0	1051	32,200 PSI	Bullet: 155 GR. BAR TAC-XP Dia: .400"						
Universal	5.0	973	26,500 PSI	5.8	1046	33,400 PSI	Case: WIN Primer: WIN LP, Large Pistol Col: 1.260"						
WSF	5.4	946	28,000 PSI	5.8	1013	32,900 PSI	AutoComp	6.1	1076	26,900 PSI	7.0	1194	36,100 PSI
W244	4.5	929	28,000 PSI	5.0	1006	33,100 PSI	WSF	6.0	1058	28,800 PSI	7.0	1168	36,800 PSI
W231	4.1	797	23,800 PSI	5.0	947	32,900 PSI	Universal	5.2	1018	25,200 PSI	6.2	1178	36,200 PSI
700-X	4.3	904	27,700 PSI	4.8	966	32,500 PSI	W244	4.9	1011	27,000 PSI	5.9	1150	36,000 PSI
Titegroup	4.2	877	26,500 PSI	4.7	978	33,300 PSI	W231	4.7	967	26,800 PSI	5.6	1104	36,300 PSI
WST	3.9	830	28,300 PSI	4.3	888	32,400 PSI	Titegroup	4.6	1026	28,000 PSI	5.5	1140	35,900 PSI
Clays	3.0	727	26,000 PSI	3.5	847	34,300 PSI	Bullet: 155 GR. HDY XTP Dia: .400"						
Bullet: 180 GR. LC LTC Dia: .401"							Case: WIN Primer: WIN LP, Large Pistol Col: 1.260"						
Case: Win Primer: WIN SP, Small Pistol Col: 1.120"							No. 9	14.3	1244	29,400 PSI	15.9	1414	32,700 PSI
No. 5	5.4	858	31,500 PSI	6.0	975	35,000 PSI	No. 7	11.4	1214	33,700 PSI	12.7	1379	37,500 PSI
Silhouette	5.3	895	30,700 PSI	5.9	994	34,100 PSI	HS-6	8.8	1095	22,400 PSI	11.0	1350	35,000 PSI
True Blue	5.1	853	30,600 PSI	5.7	948	34,100 PSI	No. 5	9.0	1174	31,800 PSI	10.0	1334	35,300 PSI
ZIP	3.7	842	30,700 PSI	4.1	935	34,100 PSI	800-X				9.8	1350	30,000 PSI
Competition	2.8	766	26,400 PSI	3.3	849	31,000 PSI	Silhouette	8.8	1255	32,100 PSI	9.7	1355	35,400 PSI
Competition	2.8	766	26,300 PSI	3.3	849	31,000 PSI	CFE Pistol	8.2	1269	26,300 PSI	9.2	1409	34,900 PSI
Bullet: 180 GR. RAIN RNFP Dia: .400"							AutoComp	8.0	1254	29,000 PSI	8.9	1362	35,700 PSI
Case: Win Primer: WIN SP, Small Pistol Col: 1.120"							WSF	6.8	1100	23,000 PSI	8.4	1320	35,600 PSI
No. 2	4.3	794	29,900 PSI	4.8	903	33,400 PSI							
ZIP	3.9	818	29,200 PSI	4.6	925	34,300 PSI							
Solo 1000	3.8	830	29,600 PSI	4.5	907	34,800 PSI							

PISTOL DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
Universal	6.5	1135	22,600 PSI	7.5	1279	35,200 PSI	Silhouette	6.9	1025	31,600 PSI	7.8	1115	35,700 PSI
W244	6.6	1192	27,800 PSI	7.5	1325	34,900 PSI	Bullet: 200 GR. LC LTC Dia: .401"						
W231	5.8	1030	23,000 PSI	7.3	1253	35,700 PSI	Case: WIN Primer: WIN LP, Large Pistol Col: 1.260"						
Titegroup	6.4	1211	26,800 PSI	7.2	1315	35,700 PSI	No. 9	10.6	1018	32,500 PSI	11.8	1157	36,200 PSI
Bullet: 165 GR. SIE JHP Dia: .400"							Silhouette	5.8	980	29,600 PSI	6.7	1000	34,300 PSI
Case: WIN Primer: WIN LP, Large Pistol Col: 1.250"							Bullet: 220 GR. RROCK LEAD FP Dia: .400"						
No. 9	13.5	1180	30,700 PSI	15.0	1341	34,100 PSI	Case: WIN Primer: WIN LP, Large Pistol Col: 1.260"						
No. 7	10.8	1148	33,800 PSI	12.0	1305	37,500 PSI	CFE Pistol	4.9	878	27,700 PSI	5.8	983	36,800 PSI
No. 5	8.7	1122	32,500 PSI	9.7	1275	36,200 PSI	W572	5.0	886	27,300 PSI	5.7	987	36,100 PSI
Bullet: 170 GR. LC LSWC Dia: .401"							Universal	4.8	891	28,400 PSI	5.2	961	36,200 PSI
Case: WIN Primer: WIN LP, Large Pistol Col: 1.250"							W244	4.2	842	28,100 PSI	5.0	941	36,800 PSI
No. 9	12.2	1131	31,300 PSI	13.6	1285	34,900 PSI	41 REM MAG						
No. 7	9.9	1120	32,000 PSI	11.0	1273	35,500 PSI	Barrel: 10.125" Twist: 1:18.75" Trim: 1.280"						
No. 5	7.8	1085	28,500 PSI	8.7	1233	31,800 PSI	Bullet: 170 GR. SIE JHC Dia: .410"						
Silhouette	7.4	1175	30,800 PSI	8.2	1220	34,100 PSI	Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.580"						
Bullet: 175 GR. MCB LSWCBB Dia: .401"							Enforcer	22.5	1760	31,100 PSI	25.0	1910	34,500 PSI
Case: WIN Primer: WIN LP, Large Pistol Col: 1.245"							TCM	17.8	1594	29,100 PSI	20.9	1838	34,300 PSI
No. 7	9.4	1055	31,800 PSI	10.4	1199	35,200 PSI	No. 9	16.6	1425	30,600 PSI	18.5	1620	34,100 PSI
No. 5	7.5	1026	28,500 PSI	8.3	1166	31,500 PSI	No. 7	13.2	1300	29,400 PSI	14.6	1477	32,600 PSI
Bullet: 180 GR. HDY XTP Dia: .400"							True Blue	10.0	1150	27,400 PSI	12.5	1390	34,200 PSI
Case: WIN Primer: WIN LP, Large Pistol Col: 1.250"							No. 5	10.2	1248	30,100 PSI	11.3	1418	33,400 PSI
No. 9	12.2	1093	30,800 PSI	13.5	1242	34,100 PSI	Bullet: 180 GR. BAR XPB Dia: .410"						
No. 7	9.6	1041	31,700 PSI	10.7	1183	35,300 PSI	Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.590"						
No. 5	7.8	1053	33,000 PSI	8.7	1197	36,800 PSI	Enforcer	18.5	1520	30,500 PSI	20.5	1689	33,800 PSI
Bullet: 180 GR. RAIN HP Dia: .400"							No. 9	15.8	1369	32,100 PSI	17.6	1521	35,700 PSI
Case: WIN Primer: WIN LP, Large Pistol Col: 1.260"							No. 7	11.4	1260	31,700 PSI	12.7	1400	35,300 PSI
No. 9	12.1	1086	31,800 PSI	13.5	1235	35,500 PSI	Bullet: 200 GR. MCB LSWCBB Dia: .410"						
No. 7	9.9	1051	32,600 PSI	11.0	1195	36,200 PSI	Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.675"						
Bullet: 180 GR. SIE JHC Dia: .400"							No. 9	15.2	1322	30,600 PSI	16.9	1503	34,000 PSI
Case: WIN Primer: WIN LP, Large Pistol Col: 1.260"							No. 7	12.3	1206	29,400 PSI	13.6	1370	32,500 PSI
Longshot	7.0	1087	29,200 PSI	8.2	1205	36,100 PSI	No. 5	10.6	1201	29,000 PSI	11.8	1364	32,300 PSI
HS-6	7.4	940	22,000 PSI	9.4	1127	35,800 PSI	Bullet: 210 GR. HDY XTP Dia: .410"						
800-X				8.7	1210	30,000 PSI	Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.575"						
Silhouette	7.5	1110	30,700 PSI	8.4	1210	34,400 PSI	No. 9	15.2	1271	31,700 PSI	16.9	1445	35,200 PSI
AutoComp	7.0	1119	29,800 PSI	7.7	1199	36,000 PSI	No. 7	12.0	1153	31,300 PSI	13.3	1310	34,700 PSI
CFE Pistol	6.7	1082	25,600 PSI	7.6	1208	34,000 PSI	True Blue	9.0	1050	26,200 PSI	11.0	1200	32,000 PSI
WSF	5.7	950	25,000 PSI	7.1	1150	35,600 PSI	No. 5	9.8	1105	31,300 PSI	10.8	1256	34,500 PSI
W244	5.5	1019	26,800 PSI	6.5	1157	35,100 PSI	Bullet: 210 GR. NOS JHP Dia: .410"						
Universal	5.4	965	22,300 PSI	6.4	1122	32,200 PSI	Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.580"						
Titegroup	5.4	1051	27,400 PSI	6.0	1141	34,300 PSI	A-5744	20.7	1321	31,900 PSI	23.0	1468	35,400 PSI
W231	5.2	944	29,700 PSI	5.8	1061	34,900 PSI	No. 11 FS	18.8	1398	29,000 PSI	22.1	1659	34,200 PSI
Bullet: 185 GR. LC LRNSWC Dia: .401"							Enforcer	19.1	1492	32,200 PSI	21.2	1658	35,800 PSI
Case: WIN Primer: WIN LP, Large Pistol Col: 1.245"							A-4100	18.9	1477	31,600 PSI	21.1	1641	35,300 PSI
No. 9	11.7	1098	31,200 PSI	13.0	1248	34,700 PSI	TCM	15.0	1346	28,800 PSI	17.6	1545	33,900 PSI
No. 7	9.2	1032	31,100 PSI	10.2	1173	34,500 PSI	Bullet: 215 GR. LC LSWC Dia: .412"						
Bullet: 190 GR. SIE FPJ Dia: .400"							Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.600"						
Case: WIN Primer: WIN LP, Large Pistol Col: 1.250"							No. 11 FS	18.2	1411	25,700 PSI	21.4	1643	30,300 PSI
No. 7	10.1	1054	32,500 PSI	11.2	1198	36,000 PSI	A-4100	19.0	1450	32,000 PSI	21.1	1601	35,500 PSI
Silhouette	7.4	1100	30,900 PSI	8.3	1185	34,700 PSI	Enforcer	19.0	1450	32,000 PSI	21.1	1601	35,500 PSI
Bullet: 200 GR. HDY FMJ Dia: .400"							TCM	15.5	1435	29,400 PSI	18.3	1633	34,600 PSI
Case: WIN Primer: WIN LP, Large Pistol Col: 1.260"							No. 9	14.4	1265	30,100 PSI	16.0	1422	33,500 PSI
HS-6	7.5	957	26,000 PSI	8.6	1089	35,900 PSI	No. 7	12.2	1156	30,300 PSI	13.5	1335	33,500 PSI
Longshot	7.0	1034	23,900 PSI	8.2	1172	35,000 PSI	No. 5	10.4	1175	30,300 PSI	11.5	1325	33,500 PSI
800-X				7.8	1130	32,500 PSI	Bullet: 220 GR. RAIN FP Dia: .410"						
CFE Pistol	6.1	1007	26,200 PSI	7.1	1123	35,600 PSI	Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.590"						
AutoComp	6.0	959	25,900 PSI	7.0	1100	36,100 PSI	No. 9	14.7	1240	30,800 PSI	16.3	1409	34,100 PSI
WSF	5.2	880	26,200 PSI	6.2	1020	35,600 PSI	No. 7	12.1	1174	30,400 PSI	13.4	1335	33,700 PSI
W244	5.1	946	25,900 PSI	6.0	1068	35,700 PSI	No. 5	9.7	1129	31,500 PSI	10.8	1283	35,100 PSI
Universal	4.9	846	24,300 PSI	5.9	1015	36,900 PSI	Bullet: 240 GR. LY LRN Dia: .410"						
W231	4.6	827	24,200 PSI	5.6	1011	35,700 PSI	Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.710"						
Titegroup	4.8	946	28,900 PSI	5.3	1024	36,100 PSI	A-4100	18.6	1395	31,400 PSI	20.7	1575	35,000 PSI
Bullet: 200 GR. HDY XTP Dia: .400"							Enforcer	18.6	1395	31,400 PSI	20.7	1575	35,000 PSI
Case: WIN Primer: WIN LP, Large Pistol Col: 1.250"							No. 9	14.0	1235	30,900 PSI	15.6	1375	34,500 PSI
No. 9	11.3	1030	33,400 PSI	12.5	1170	37,000 PSI	No. 7	11.8	1137	29,700 PSI	13.2	1292	33,300 PSI
No. 7	8.8	960	32,800 PSI	9.8	1091	36,500 PSI	No. 5	10.2	1134	31,700 PSI	11.3	1289	35,100 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 245 GR. CAST LSWC Dia: .410"							44-40 WIN						
Case: REM Primer: WIN LP, Large Pistol Col: 1.630"							Barrel: 6" Twist: 1:36" Trim: 1.295"						
H110	18.5	1372	22,800 CUP	21.0	1563	37,400 CUP	Bullet: 160 GR. CAST LFP Dia: .430"						
Longshot	9.0	1208	29,200 CUP	10.0	1293	37,900 CUP	Case: WIN Primer: WIN LP, Large Pistol Col: 1.600"						
AutoComp	8.3	1123	26,300 CUP	9.5	1232	36,200 CUP	Titegroup	4.5	750	7,700 PSI	6.2	983	12,200 PSI
Universal	6.3	1001	21,200 CUP	8.0	1164	36,000 CUP	Clays	4.2	747	7,400 PSI	5.5	916	12,700 PSI
Titegroup	6.5	1075	28,800 CUP	7.8	1202	39,500 CUP	Bullet: 200 GR. CAST LRNFP Dia: .430"						
Trail Boss	3.5	683	12,600 CUP	6.0	834	16,100 CUP	Case: WIN Primer: WIN LP, Large Pistol Col: 1.600"						
Bullet: 245 GR. LHG WFN Dia: .410"							800-X	8.0	870	9,400 CUP	8.8	965	12,600 CUP
Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.6							Universal	6.6	722	10,000 PSI	7.3	777	11,100 PSI
Enforcer	13.0	961	29,000 PSI	15.3	1166	34,100 PSI	W231	5.5	711	9,800 PSI	6.5	820	12,400 PSI
A-4100	12.9	954	28,300 PSI	15.2	1159	33,400 PSI	Trail Boss	5.5	723	7,800 PSI	6.5	826	11,900 PSI
No. 9	11.9	975	29,300 PSI	14.0	1168	34,500 PSI	Titegroup	5.0	758	8,400 PSI	6.2	901	12,900 PSI
Bullet: 250 GR. CPB LWFNPB Dia: .410"							700-X	5.0	788	7,100 CUP	5.6	860	11,400 CUP
Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.674"							Clays	4.2	648	8,200 PSI	5.0	765	11,700 PSI
No. 11 FS	17.6	1330	29,700 PSI	20.7	1539	34,900 PSI	44 REM MAG						
Enforcer	18.3	1379	31,200 PSI	20.3	1532	34,700 PSI	Barrel: 8.275" Twist: 1:20" Trim: 1.280"						
A-4100	18.1	1365	30,600 PSI	20.2	1517	34,100 PSI	Bullet: 180 GR. HDY XTP Dia: .429"						
TCM	13.8	1273	29,400 PSI	16.3	1451	34,600 PSI	Case: REM Primer: WIN LP, Large Pistol Col: 1.600"						
Bullet: 250 GR. WFNCG Dia: .410"							No. 11 FS	25.4	1632	29,600 PSI	29.9	1909	34,900 PSI
Case: REM Primer: WIN LP, Large Pistol Col: 1.540"							No. 9	21.6	1455	30,400 PSI	24.0	1675	33,800 PSI
W296	17.4	1391	29,400 CUP	18.5	1479	38,700 CUP	Bullet: 180 GR. SIE JHC Dia: .429"						
H110	17.4	1391	29,400 CUP	18.5	1479	38,700 CUP	Case: REM Primer: WIN LP, Large Pistol Col: 1.585"						
H4227	17.0	1302	33,600 CUP	18.4	1398	39,700 CUP	Enforcer	24.3	1683	29,300 PSI	27.0	1870	32,500 PSI
Lil'Gun	17.2	1399	30,300 CUP	18.3	1474	36,700 CUP	A-4100	24.3	1683	29,000 PSI	26.8	1851	32,000 PSI
CFE Pistol	7.6	1126	30,800 CUP	8.6	1222	38,700 CUP	No. 7	17.2	1382	31,400 PSI	19.1	1570	34,800 PSI
AutoComp	7.5	1075	29,600 CUP	8.5	1163	37,600 CUP	True Blue	14.9	1476	30,500 PSI	16.5	1640	33,800 PSI
Titegroup	6.0	1018	30,400 CUP	6.7	1083	38,600 CUP	Bullet: 200 GR. BAR XPB Dia: .429"						
Trail Boss	3.7	611	14,600 CUP	5.0	748	20,300 CUP	Case: REM Primer: WIN LP, Large Pistol Col: 1.600"						
Bullet: 255 GR. CPB LWFNGC Dia: .410"							Enforcer	20.3	1428	29,400 PSI	22.5	1587	32,700 PSI
Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.662"							A-4100	20.1	1414	29,000 PSI	22.3	1571	32,200 PSI
No. 11 FS	17.7	1321	29,700 PSI	20.8	1535	35,000 PSI	No. 11 FS	18.6	1351	30,000 PSI	21.8	1593	35,300 PSI
Enforcer	17.9	1366	32,400 PSI	19.9	1518	36,000 PSI	No. 9	18.9	1382	32,000 PSI	21.0	1535	35,500 PSI
A-4100	17.8	1353	31,800 PSI	19.8	1503	35,400 PSI	Bullet: 200 GR. HDY XTP Dia: .429"						
TCM	13.9	1270	29,600 PSI	16.4	1443	34,900 PSI	Case: REM Primer: WIN LP, Large Pistol Col: 1.595"						
Bullet: 255 GR. WFNCG Dia: .410"							Enforcer	22.5	1550	31,100 PSI	25.0	1740	34,500 PSI
Case: REM Primer: WIN LP, Large Pistol Col: 1.660"							True Blue	14.0	1368	31,200 PSI	15.5	1520	34,500 PSI
H4227	18.8	1378	33,900 CUP	20.0	1446	38,800 CUP	Bullet: 200 GR. MCB LRNFP Dia: .429"						
Lil'Gun	18.8	1424	26,600 CUP	20.0	1500	32,800 CUP	Case: REM Primer: WIN LP, Large Pistol Col: 1.565"						
W296	18.0	1327	21,000 CUP	19.5	1491	37,200 CUP	Enforcer	22.6	1500	23,400 PSI	25.1	1667	26,000 PSI
H110	18.0	1327	21,000 CUP	19.5	1491	37,200 CUP	A-4100	22.6	1500	23,300 PSI	24.9	1650	25,600 PSI
CFE Pistol	8.1	1123	26,900 CUP	9.1	1224	36,800 CUP	No. 7	15.3	1229	31,400 PSI	17.0	1397	34,800 PSI
AutoComp	7.7	1044	25,300 CUP	8.7	1141	36,000 CUP	Bullet: 200 GR. NOS JHP Dia: .429"						
Titegroup	7.0	1062	33,300 CUP	7.6	1124	38,600 CUP	Case: REM Primer: WIN LP, Large Pistol Col: 1.595"						
Bullet: 265 GR. TS LWNFP GC Dia: .411"							No. 11 FS	23.2	1479	29,700 PSI	27.3	1777	35,000 PSI
Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.720"							No. 9	20.9	1357	29,600 PSI	23.3	1542	32,900 PSI
No. 11 FS	16.6	1275	29,600 PSI	19.5	1473	34,900 PSI	No. 7	15.6	1245	29,300 PSI	17.4	1415	32,600 PSI
Enforcer	17.2	1319	31,800 PSI	19.1	1466	35,300 PSI	Bullet: 220 GR. BERB FP Dia: .430"						
TCM	13.2	1223	29,400 PSI	15.6	1405	34,600 PSI	Case: WIN Primer: REM 2 1/2, Large Pistol Col: 1.610"						
Bullet: 265 GR. CPB LWFNGC Dia: .410"							W244	7.3	972	17,200 PSI	9.4	1204	22,800 PSI
Case: REM Primer: Fed 155M, Large P Mag Match Col: 1.710"							W231	6.8	811	12,600 PSI	9.4	1104	20,700 PSI
A-4100	17.1	1306	31,300 PSI	19.0	1451	34,800 PSI	700-X	5.0	717	11,400 PSI	8.4	1085	20,700 PSI
No. 9	13.5	1218	31,300 PSI	15.0	1354	34,800 PSI	Titegroup	5.8	807	12,300 PSI	8.0	1066	20,600 PSI
Bullet: 265 GR. WLNGC Dia: .410"							Bullet: 220 GR. BSC LRNFP Dia: .429"						
Case: REM Primer: WIN LP, Large Pistol Col: 1.710"							Case: REM Primer: WIN LP, Large Pistol Col: 1.577"						
Lil'Gun	20.0	1479	28,700 CUP	21.3	1558	35,400 CUP	Enforcer	22.6	1527	29,900 PSI	26.6	1781	35,200 PSI
W296	19.5	1410	24,400 CUP	20.8	1540	37,600 CUP	A-4100	22.5	1519	29,500 PSI	26.5	1771	34,800 PSI
H110	19.5	1410	24,400 CUP	20.8	1540	37,600 CUP	Bullet: 220 GR. LHG XP Dia: .429"						
H4227	18.6	1366	31,900 CUP	19.8	1429	35,700 CUP	Case: REM Primer: WIN LP, Large Pistol Col: 1.600"						
CFE Pistol	8.2	1132	27,700 CUP	9.2	1220	35,800 CUP	No. 11 FS	19.3	1255	29,600 PSI	22.7	1502	34,800 PSI
AutoComp	7.7	1040	26,300 CUP	8.7	1132	35,700 CUP	Enforcer	18.3	1260	30,000 PSI	21.6	1482	35,300 PSI
Titegroup	7.0	1064	32,200 CUP	7.6	1116	37,900 CUP	A-4100	18.2	1252	29,500 PSI	21.4	1472	34,700 PSI
							No. 9	16.1	1237	30,000 PSI	19.0	1439	35,200 PSI

NEVER EXCEED MAXIMUM LOADS

PISTOL DATA

Starting Loads			Maximum Loads			Starting Loads			Maximum Loads																																				
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure																																
Bullet: 225 GR. BAR XPB Dia: .429"						800-X								14.2	1415	39,600 CUP																													
Case: REM			Primer: WIN LP, Large Pistol			Col: 1.600"			Longshot			11.0	1249	29,400 PSI	12.1	1331	34,500 PSI																												
Enforcer	18.0	1274	32,200 PSI	20.0	1416	35,700 PSI	CFE Pistol			10.2	1164	25,700 PSI	12.0	1304	35,000 PSI																														
A-4100	17.9	1262	31,700 PSI	19.9	1402	35,200 PSI	AutoComp			10.0	1129	26,000 PSI	11.5	1250	34,100 PSI																														
No. 11 FS	16.4	1207	29,700 PSI	19.2	1411	35,000 PSI	W231			8.0	1021	23,800 CUP	11.0	1272	37,800 CUP																														
No. 9	16.2	1184	32,000 PSI	18.0	1315	35,600 PSI	W244			8.8	1173	25,600 PSI	10.5	1294	34,800 PSI																														
Bullet: 225 GR. HDY FTX Dia: .430"						Universal			8.0	1018	21,900 CUP	10.2	1246	38,200 CUP																															
Case: WIN			Primer: REM 2 1/2, Large Pistol			Col: 1.665"			Titegroup			9.0	1219	33,500 CUP	10.0	1292	37,700 CUP																												
IMR 4227	19.8	1130	26,800 PSI	22.0	1307	34,500 PSI	Bullet: 240 GR. NOS JSP Dia: .429"						Case: REM			Primer: WIN LP, Large Pistol			Col: 1.590"																										
W296	19.4	1338	26,700 PSI	21.5	1482	33,400 PSI	Enforcer			19.8	1368	32,000 PSI	22.0	1520	35,600 PSI	A-4100			19.8	1368	31,800 PSI	21.8	1505	35,100 PSI																					
H110	19.4	1338	26,700 PSI	21.5	1482	33,400 PSI	Li'l'Gun			11.9	1188	30,800 PSI	13.2	1320	34,200 PSI	Bullet: 240 GR. RAIN FP Dia: .429"																													
Li'l'Gun	18.6	1358	26,600 PSI	20.7	1530	34,300 PSI	Case: REM			Primer: WIN LP, Large Pistol			Col: 1.575"			No. 9			16.7	1220	31,300 PSI	18.6	1386	34,800 PSI																					
Bullet: 225 GR. SPR JHP Dia: .429"						No. 7			14.0	1163	29,000 PSI	15.6	1322	32,500 PSI	Bullet: 240 GR. SIE JHC Dia: .429"																														
Case: WIN			Primer: REM 2 1/2, Large Pistol			Col: 1.575"			Case: REM			Primer: WIN LP, Large Pistol			Col: 1.590"			No. 11 FS			19.2	1321	30,400 PSI	22.6	1554	35,700 PSI																			
IMR 4227	23.0	1383	27,400 CUP	25.5	1537	35,700 CUP	No. 9			17.8	1214	31,200 PSI	19.8	1380	34,800 PSI	Bullet: 255 GR. CPB LWFNGC Dia: .429"																													
W296	23.0	1468	25,600 CUP	25.0	1617	36,300 CUP	Enforcer			18.5	1285	23,400 PSI	20.6	1428	26,100 PSI	Case: REM			Primer: WIN LP, Large Pistol			Col: 1.610"																							
H110	23.0	1468	25,600 CUP	25.0	1617	36,300 CUP	A-4100			18.5	1285	23,300 PSI	20.5	1414	25,700 PSI	Bullet: 270 GR. SPR GDSP Dia: .429"																													
Li'l'Gun	22.5	1508	31,600 CUP	24.7	1623	37,700 CUP	Case: WIN			Primer: REM 2 1/2, Large Pistol			Col: 1.600"			A-5744			18.9	1218	31,400 PSI	21.0	1370	34,900 PSI																					
HS-6	11.5	1103	20,100 CUP	15.5	1434	38,000 CUP	IMR 4227			20.5	1275	28,400 CUP	22.5	1425	37,400 CUP	A-4100			18.5	1265	32,400 PSI	20.5	1374	35,900 PSI																					
800-X				15.4	1525	39,800 CUP	W296			19.5	1295	29,300 CUP	21.5	1421	37,700 CUP	Enforcer			17.1	1265	32,000 PSI	19.0	1395	35,500 PSI																					
Longshot	11.2	1291	29,300 PSI	12.5	1402	35,200 PSI	H110			19.5	1295	29,300 CUP	21.5	1421	37,700 CUP	No. 9			15.8	1203	32,500 PSI	17.5	1305	36,000 PSI																					
AutoComp	10.8	1266	28,300 PSI	11.8	1352	34,200 PSI	Li'l'Gun			19.0	1305	31,800 CUP	21.5	1439	38,300 CUP	No. 7			14.0	1025	32,400 PSI	15.5	1200	35,900 PSI																					
W572	10.4	1254	28,700 PSI	11.6	1357	33,600 PSI	HS-6			11.0	1036	22,200 CUP	14.0	1305	36,900 CUP	Case: WIN																													
CFE Pistol	10.5	1248	29,600 PSI	11.6	1333	34,800 PSI	Longshot			9.8	1112	27,900 PSI	11.0	1213	34,100 PSI	IMR 4227			20.5	1275	28,400 CUP	22.5	1425	37,400 CUP																					
W231	8.4	1101	23,900 CUP	11.0	1344	38,200 CUP	AutoComp			9.7	1106	28,000 PSI	10.8	1199	34,600 PSI	W296			19.5	1295	29,300 CUP	21.5	1421	37,700 CUP																					
Universal	8.0	1041	18,900 CUP	10.5	1291	37,300 CUP	CFE Pistol			9.4	1081	29,100 PSI	10.5	1181	35,300 PSI	H110			19.5	1295	29,300 CUP	21.5	1421	37,700 CUP																					
Titegroup	9.3	1262	31,900 CUP	10.4	1360	38,100 CUP	W572			9.1	1075	27,400 PSI	10.3	1185	33,600 PSI	Li'l'Gun			19.0	1305	31,800 CUP	21.5	1439	38,300 CUP																					
W244	8.7	1205	27,900 PSI	10.3	1290	34,800 PSI	W231			8.0	992	26,000 CUP	10.2	1194	37,400 CUP	HS-6			11.0	1036	22,200 CUP	14.0	1305	36,900 CUP																					
700-X				9.8	1235	40,000 CUP	Titegroup			8.6	1100	33,100 CUP	9.6	1175	37,700 CUP	Longshot			9.8	1112	27,900 PSI	11.0	1213	34,100 PSI																					
Bullet: 240 GR. BSC LRNFP Dia: .429"						Universal			8.5	1049	32,100 CUP	9.5	1128	36,700 CUP	AutoComp			9.7	1106	28,000 PSI	10.8	1199	34,600 PSI																						
Case: REM			Primer: WIN LP, Large Pistol			Col: 1.577"			W244			8.1	1067	29,000 PSI	9.3	1183	34,900 PSI	CFE Pistol			9.4	1081	29,100 PSI	10.5	1181	35,300 PSI																			
Enforcer	19.9	1392	30,300 PSI	23.5	1604	35,600 PSI	Bullet: 275 GR. CPB LWFNPB Dia: .429"						Case: REM			Primer: WIN LP, Large Pistol			Col: 1.695"			W572			9.1	1075	27,400 PSI	10.3	1185	33,600 PSI															
A-4100	19.8	1382	29,600 PSI	23.3	1591	34,900 PSI	No. 11 FS			19.4	1284	30,000 PSI	22.8	1502	35,300 PSI	No. 9			15.9	1106	31,300 PSI	17.7	1242	34,800 PSI	W231			8.0	992	26,000 CUP	10.2	1194	37,400 CUP												
Bullet: 240 GR. HDY XTP Dia: .429"						True Blue			10.8	1076	29,900 PSI	12.0	1195	33,200 PSI	Bullet: 280 GR. SFT JHP Dia: .430"						Case: WIN			Primer: REM 2 1/2, Large Pistol			Col: 1.700"																		
Case: REM			Primer: WIN LP, Large Pistol			Col: 1.600"			IMR 4227			20.0	1215	27,600 CUP	22.0	1373	37,800 CUP	No. 11 FS			19.4	1284	30,000 PSI	22.8	1502	35,300 PSI	Li'l'Gun			18.5	1278	34,300 CUP	20.8	1384	38,400 CUP										
A-5744	21.6	1243	31,500 PSI	24.0	1413	35,000 PSI	No. 9			18.5	1214	27,000 CUP	20.5	1342	36,100 CUP	True Blue			10.8	1076	29,900 PSI	12.0	1195	33,200 PSI	W296			18.5	1214	27,000 CUP	20.5	1342	36,100 CUP												
A-4100	20.3	1303	32,300 PSI	22.5	1472	35,800 PSI	HS-6			11.0	1006	23,800 CUP	14.0	1251	37,400 CUP	Case: WIN						Primer: REM 2 1/2, Large Pistol			Col: 1.600"			H110			18.5	1214	27,000 CUP	20.5	1342	36,100 CUP									
No. 9	18.5	1256	31,100 PSI	20.5	1425	34,500 PSI	Longshot			9.8	1076	28,400 PSI	11.0	1189	34,600 PSI	IMR 4227			20.0	1215	27,600 CUP	22.0	1373	37,800 CUP	Li'l'Gun			18.5	1278	34,300 CUP	20.8	1384	38,400 CUP												
No. 7	14.5	1145	31,400 PSI	16.1	1302	34,800 PSI	AutoComp			9.7	1106	28,000 PSI	10.8	1199	34,600 PSI	W296			18.5	1214	27,000 CUP	20.5	1342	36,100 CUP	W231			5.5	800	12,000 CUP	11.0	1334	38,100 CUP												
Bullet: 240 GR. LC LSWC Dia: .431"						CFE Pistol			9.4	1081	29,100 PSI	10.5	1181	35,300 PSI	Universal						6.5	852	11,700 CUP	10.2	1276	37,500 CUP	W244			8.5	1176	24,800 PSI	10.2	1327	34,400 PSI										
Case: REM			Primer: WIN LP, Large Pistol			Col: 1.610"			Titegroup			8.6	1100	33,100 CUP	9.6	1175	37,700 CUP	700-X			9.5	1185	40,000 CUP	Trail Boss			6.0	828	19,100 PSI	7.3	917	21,600 PSI	Titegroup			4.7	801	11,100 CUP	10.0	1288	38,400 CUP				
A-5744	21.6	1272	31,100 PSI	24.0	1446	34,500 PSI	Universal			8.5	1049	32,100 CUP	9.5	1128	36,700 CUP	700-X			9.5	1185	40,000 CUP	Trail Boss			6.0	828	19,100 PSI	7.3	917	21,600 PSI	700-X			9.5	1185	40,000 CUP									
A-4100	19.3	1287	31,700 PSI	21.4	1407	35,200 PSI	Bullet: 240 GR. LSWC CAST Dia: .430"						Case: WIN			Primer: REM 2 1/2, Large Pistol			Col: 1.620"			IMR 4227			22.0	1301	28,400 CUP	24.0	1458	36,100 CUP	W296			23.0	1413	25,200 CUP	24.0	1522	36,200 CUP						
Enforcer	19.3	1287	31,700 PSI	21.4	1407	35,200 PSI	IMR 4227			22.0	1301	28,400 CUP	24.0	1458	36,100 CUP	No. 9			18.1	1255	31,000 PSI	20.2	1426	34,500 PSI	H110			23.0	1413	25,200 CUP	24.0	1522	36,200 CUP	Titegroup			4.7	801	11,100 CUP	10.0	1288	38,400 CUP			
No. 9	18.1	1255	31,000 PSI	20.2	1426	34,500 PSI	700-X			9.5	1185	40,000 CUP	700-X			9.5	1185	40,000 CUP	True Blue			11.5	1152	32,100 PSI	12.8	1259	35,800 PSI	Clays			4.3	759	14,000 CUP	6.2	940	21,800 CUP	Clays			4.3	759	14,000 CUP	6.2	940	21,800 CUP
True Blue	11.5	1152	32,100 PSI	12.8	1259	35,800 PSI	Bullet: 240 GR. NOS JHP Dia: .429"						Case: WIN			Primer: REM 2 1/2, Large Pistol			Col: 1.600"			Li'l'Gun			22.5	1465	30,100 CUP	24.5	1582	38,100 CUP	IMR 4227			22.0	1301	28,400 CUP	24.0	1458	36,100 CUP						
Case: REM			Primer: WIN LP, Large Pistol			Col: 1.600"			Li'l'Gun			22.5	1465	30,100 CUP	24.5	1582	38,100 CUP	IMR 4227			22.0	1301	28,400 CUP	24.0	1458	36,100 CUP	W296			23.0	1413	25,200 CUP	24.0	1522	36,200 CUP	H110			23.0	1413	25,200 CUP	24.0	1522	36,200 CUP	
Case: REM			Primer: WIN LP, Large Pistol			Col: 1.600"			HS-6			12.0	1144	22,800 CUP	15.1	1417	38,200 CUP	NEVER EXCEED MAXIMUM LOADS																											

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads							Maximum Loads								
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		
Bullet: 300 GR. CPB LWFNGC Dia: .429"															
Case: REM		Primer: WIN LP, Large Pistol					Col: 1.590"								
Enforcer	16.7	1225	29,600 PSI	18.5	1361	32,800 PSI	W572	8.6	995	28,200 PSI	9.8	1087	35,200 PSI		
A-4100	16.7	1225	29,300 PSI	18.4	1347	32,300 PSI	AutoComp	8.8	976	25,200 PSI	9.8	1056	30,900 PSI		
Bullet: 300 GR. HDY XTP Dia: .429"															
Case: REM		Primer: WIN LP, Large Pistol					Col: 1.600"								
A-5744	18.0	1048	28,300 PSI	20.0	1191	31,400 PSI	CFE Pistol	8.6	978	28,500 PSI	9.7	1057	35,100 PSI		
Enforcer	16.2	1170	31,900 PSI	18.0	1300	35,500 PSI	W231	8.5	992	33,700 CUP	9.7	1081	38,700 CUP		
A-4100	16.2	1170	31,700 PSI	17.9	1287	35,000 PSI	Universal	8.0	943	27,800 CUP	9.5	1058	37,000 CUP		
No. 9	14.8	1031	29,900 PSI	16.5	1172	33,300 PSI	Titegroup	7.5	952	29,700 CUP	8.5	1035	38,000 CUP		
No. 7	12.2	963	29,900 PSI	13.5	1095	33,100 PSI	W244	7.3	962	28,200 PSI	8.4	1052	34,900 PSI		
Case: WIN		Primer: REM 2 1/2, Large Pistol					Col: 1.600"								
IMR 4227	18.0	1180	30,600 CUP	20.0	1312	38,600 CUP	Bullet: 355 GR. BTB LFN GC Dia: .430"								
W296	18.0	1266	35,100 CUP	19.0	1325	38,800 CUP	Case: WIN		Primer: REM 2 1/2, Large Pistol				Col: 1.710"		
H110	18.0	1266	35,100 CUP	19.0	1325	38,800 CUP	IMR 4227	17.5	1125	28,100 CUP	19.0	1223	37,800 CUP		
Lil'Gun	15.5	1168	29,600 CUP	17.7	1280	37,600 CUP	W296	17.5	1168	29,300 CUP	18.8	1245	38,000 CUP		
HS-6	11.0	1048	28,400 CUP	13.0	1214	37,900 CUP	H110	17.5	1168	29,300 CUP	18.8	1245	38,000 CUP		
W231	8.0	966	29,400 CUP	10.0	1149	38,100 CUP	Lil'Gun	16.0	1178	31,700 CUP	17.5	1247	37,900 CUP		
Titegroup	8.6	1079	34,200 CUP	9.6	1186	38,400 CUP	HS-6	11.0	1019	26,800 CUP	12.0	1091	37,400 CUP		
Universal	8.0	972	31,200 CUP	9.6	1113	38,200 CUP	Longshot	9.0	987	28,400 CUP	10.5	1096	37,800 CUP		
Longshot	8.5	983	28,600 PSI	9.5	1071	34,700 PSI	Universal	7.8	922	30,700 CUP	8.8	991	37,300 CUP		
AutoComp	8.0	866	26,300 PSI	9.0	927	33,500 PSI	W231	7.8	928	31,000 CUP	8.8	1001	38,700 CUP		
CFE Pistol	7.6	876	27,600 PSI	8.7	987	34,800 PSI	W572	7.6	909	28,400 PSI	8.7	1001	35,200 PSI		
W244	6.7	882	28,300 PSI	7.8	991	34,900 PSI	AutoComp	7.8	906	25,600 PSI	8.5	959	29,900 PSI		
Bullet: 300 GR. LC LTC Dia: .431"															
Case: REM		Primer: WIN LP, Large Pistol					Col: 1.605"								
No. 11 FS	15.4	1125	30,100 PSI	18.1	1306	35,400 PSI	CFE Pistol	7.6	896	29,000 PSI	8.3	953	34,000 PSI		
True Blue	10.1	1031	29,300 PSI	11.2	1145	32,500 PSI	Titegroup	7.0	907	29,900 CUP	8.2	994	37,600 CUP		
Bullet: 300 GR. SIE JSP Dia: .429"															
Case: REM		Primer: WIN LP, Large Pistol					Col: 1.735"								
No. 9	15.9	1018	31,300 PSI	17.7	1156	34,800 PSI	W244	6.4	878	26,800 PSI	7.4	967	34,600 PSI		
No. 7	13.6	988	31,400 PSI	15.1	1123	34,800 PSI	45 S&W (SCHOFIELD)								
Bullet: 320 GR. CPB LWLNGC Dia: .429"															
Case: REM		Primer: WIN LP, Large Pistol					Col: 1.695"								
No. 11 FS	17.1	1170	30,600 PSI	20.2	1349	35,900 PSI	Barrel: 5"		Twist: 1:16"		Trim: 1.095"				
Enforcer	16.4	1179	29,100 PSI	18.2	1310	32,300 PSI	Bullet: 200 GR. LRNFP Dia: .452"								
A-4100	16.4	1179	28,900 PSI	18.1	1297	31,800 PSI	Case: Starline		Primer: WIN LP, Large Pistol				Col: 1.430"		
Bullet: 320 GR. CPB LWFNGC Dia: .429"															
Case: REM		Primer: WIN LP, Large Pistol					Col: 1.695"								
A-5744	16.2	952	25,000 PSI	18.0	1082	27,800 PSI	Universal	6.0	773	9,100 CUP	7.0	938	13,100 CUP		
No. 9	14.6	1070	31,100 PSI	16.3	1216	34,600 PSI	W231	5.2	745	8,800 CUP	6.2	877	13,000 CUP		
Bullet: 320 GR. CPB LWLNGC Dia: .429"															
Case: REM		Primer: WIN LP, Large Pistol					Col: 1.695"								
True Blue	9.7	972	29,200 PSI	10.8	1080	32,500 PSI	Titegroup	4.5	715	6,700 CUP	6.0	925	12,100 CUP		
Bullet: 325 GR. BTB LFN GC Dia: .430"															
Case: WIN		Primer: REM 2 1/2, Large Pistol					Col: 1.730"								
IMR 4227	17.0	1041	19,200 CUP	21.0C	1278	34,200 CUP	Trail Boss	4.0	684	9,000 CUP	5.0	791	13,200 CUP		
W296	20.0	1264	30,800 CUP	22.0	1368	38,100 CUP	Clays	4.0	733	8,300 CUP	5.0	845	13,100 CUP		
H110	20.0	1264	30,800 CUP	22.0	1368	38,100 CUP	Bullet: 230 GR. LRNFP Dia: .452"								
Lil'Gun	17.0	1217	29,400 CUP	20.0	1360	38,600 CUP	Case: Starline		Primer: WIN LP, Large Pistol				Col: 1.430"		
HS-6	13.0	1155	33,200 CUP	14.0	1218	38,000 CUP	Universal	5.5	738	9,400 CUP	6.0	816	11,400 CUP		
Longshot	10.0	1069	28,500 CUP	11.8	1195	38,700 CUP	Titegroup	4.5	702	7,800 CUP	5.8	866	12,300 CUP		
W231	9.0	1035	32,100 CUP	10.3	1125	38,700 CUP	W231	5.0	719	9,900 CUP	5.7	816	12,700 CUP		
CFE Pistol	9.0	997	27,500 PSI	10.2	1093	35,200 PSI	Trail Boss	4.0	649	9,000 CUP	5.0	739	13,000 CUP		
AutoComp	9.0	1008	26,100 PSI	10.0	1075	30,900 PSI	Clays	4.0	697	9,400 CUP	4.7	783	13,600 CUP		
Universal	8.0	942	27,700 CUP	10.0	1090	38,000 CUP	Bullet: 250 GR. LRNFP Dia: .452"								
Titegroup	8.0	1001	28,700 CUP	9.2	1091	38,300 CUP	Case: Starline		Primer: WIN LP, Large Pistol				Col: 1.430"		
W244	7.7	991	27,800 PSI	8.8	1088	35,200 PSI	Universal	6.0	724	9,900 CUP	6.3	830	13,800 CUP		
Bullet: 330 GR. BTB LFN GC Dia: .430"															
Case: WIN		Primer: REM 2 1/2, Large Pistol					Col: 1.730"								
IMR 4227	18.0	1132	25,900 CUP	20.7C	1278	34,200 CUP	Titegroup	4.5	716	7,900 CUP	5.3	811	11,600 CUP		
W296	19.0	1239	30,200 CUP	20.8	1350	38,800 CUP	W231	4.5	664	10,100 CUP	5.2	741	12,100 CUP		
H110	19.0	1239	30,200 CUP	20.8	1350	38,800 CUP	Trail Boss	3.5	537	7,300 CUP	4.8	685	13,200 CUP		
Lil'Gun	16.0	1186	29,800 CUP	19.0	1332	38,000 CUP	Clays	4.0	674	11,000 CUP	4.2	710	12,500 CUP		
HS-6	12.0	1098	29,900 CUP	13.6	1202	39,000 CUP	45 ACP								
Longshot	9.5	1026	27,600 CUP	11.3	1158	38,700 CUP	Barrel: 5" Twist: 1:16" Trim: .893"								
Bullet: 120 GR. LGH XD Dia: .451"															
Case: WIN		Primer: FED 150, Large Pistol					Col: 1.230"								
HS-6	11.0	1132	15,300 PSI	12.8	1346	20,100 PSI	Bullet: 118 GR. PLYCS ARX Dia: .452"								
Longshot	8.8	1126	15,400 PSI	10.6	1315	20,200 PSI	Case: WIN		Primer: FED 150, Large Pistol				Col: 1.260"		
AutoComp	8.8	1148	15,600 PSI	10.0	1307	19,800 PSI	W572	8.8	1242	16,600 PSI	9.7	1349	20,200 PSI		
W572	8.0	1118	15,900 PSI	9.8	1326	20,100 PSI	CFE Pistol	8.4	1206	15,200 PSI	9.3	1352	20,200 PSI		
CFE Pistol	7.8	1106	15,100 PSI	9.6	1304	19,500 PSI	AutoComp	8.2	1157	14,400 PSI	9.2	1303	20,000 PSI		
Universal	7.8	1084	15,600 PSI	9.3	1341	20,200 PSI	Universal	7.1	1157	16,000 PSI	8.1	1291	20,200 PSI		
W231	7.0	1063	16,400 PSI	8.2	1259	20,000 PSI	W244	6.4	1135	14,600 PSI	7.1	1260	20,100 PSI		
W244	7.0	1113	15,600 PSI	8.1	1266	19,500 PSI	Titegroup	5.6	1126	14,100 PSI	6.5	1255	20,000 PSI		
Titegroup	6.0	1047	15,600 PSI	7.3	1258	19,600 PSI	Bullet: 120 GR. LGH XD Dia: .451"								

PISTOL DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Grs	Vel	Pressure	Grs	Vel	Pressure		Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 120 GR. LHG XP Dia: .451"							AutoComp	6.2	875	15,000 PSI	7.0	1000	18,600 PSI
Case: REM Primer: FED 150, Large Pistol Col: 1.232"							W231	5.6	944	13,800 CUP	6.2	1057	16,700 CUP
No. 5	10.3	1135	18,900 PSI	11.5	1283	21,000 PSI	W244	5.5	964	15,400 PSI	6.1	1068	19,700 PSI
Silhouette	9.8	1181	18,900 PSI	10.9	1351	20,900 PSI	Universal	5.4	828	12,300 CUP	6.0	1050	16,900 CUP
True Blue	9.2	1127	18,800 PSI	10.2	1255	20,900 PSI	700-X	5.3	955	14,500 CUP	5.8	1045	16,200 CUP
Bullet: 135 GR. PLYCS RNP Dia: .452"							Titegroup	5.0	974	13,600 CUP	5.5	1036	16,900 CUP
Case: WIN Primer: FED 150, Large Pistol Col: 1.260"							Bullet: 160 GR. BAR TAC-XP Dia: .451"						
W572	8.5	1177	15,700 PSI	9.4	1294	20,300 PSI	Case: REM Primer: FED 150, Large Pistol Col: 1.200"						
CFE Pistol	8.2	1163	15,400 PSI	9.1	1288	20,300 PSI	No. 7	8.8	934	17600 PSI	10.4	1082	20700 PSI
AutoComp	8.2	1133	15,600 PSI	9.1	1250	20,400 PSI	No. 5	7.3	946	17300 PSI	8.5	1086	20300 PSI
Universal	7.0	1059	14,400 PSI	7.9	1242	20,100 PSI	True Blue	6.8	948	17300 PSI	7.9	1081	20400 PSI
W244	6.1	1043	13,700 PSI	7.0	1200	20,300 PSI	Silhouette	6.7	961	17400 PSI	7.9	1125	20400 PSI
Titegroup	5.6	1074	14,900 PSI	6.5	1204	20,100 PSI	No. 2	4.7	923	17600 PSI	5.5	1016	20700 PSI
Bullet: 140 GR. SFIRE RHFP Dia: .451"							Case: WIN Primer: FED 150, Large Pistol Col: 1.200"						
Case: REM Primer: FED 150, Large Pistol Col: 1.210"							HS-6	7.6	951	17,200 PSI	8.5	1048	20,000 PSI
No. 5	8.7	1044	18,300 PSI	9.7	1160	20,400 PSI	800-X	7.2	1046	17,800 PSI	7.6	1078	18,800 PSI
Silhouette	8.0	1060	17,500 PSI	8.9	1178	19,400 PSI	CFE Pistol	6.7	1034	16,900 PSI	7.6	1154	20,000 PSI
True Blue	7.7	1009	18,200 PSI	8.6	1121	20,300 PSI	W572	6.2	929	15,400 PSI	7.2	1085	19,400 PSI
ZIP	6.2	1022	18,100 PSI	6.9	1136	20,100 PSI	AutoComp	6.7	1036	18,400 PSI	7.2	1105	20,100 PSI
No. 2	5.2	978	18,400 PSI	5.8	1087	20,500 PSI	WSF	6.2	972	17,400 PSI	6.8	1043	20,100 PSI
Bullet: 150 GR. CEB RAPTOR Dia: .4515"							Universal	5.4	938	17,100 PSI	5.9	1047	19,500 PSI
Case: WIN Primer: FED 150, Large Pistol Col: 1.200"							W244	5.1	971	16,700 PSI	5.5	1034	19,500 PSI
HS-6	8.8	902	16,200 PSI	9.8	1038	20,100 PSI	W231	5.0	940	17,900 PSI	5.4	992	20,100 PSI
Longshot	8.0	976	16,000 PSI	8.9	1127	19,900 PSI	Titegroup	4.7	970	17,100 PSI	5.1	1040	19,900 PSI
W572	7.3	967	15,900 PSI	8.3	1124	20,000 PSI	700-X	4.3	913	16,600 PSI	4.7	982	19,700 PSI
AutoComp	7.4	949	15,700 PSI	8.3	1091	20,000 PSI	WST	4.2	895	17,200 PSI	4.6	946	19,700 PSI
CFE Pistol	7.2	959	15,400 PSI	8.0	1119	19,700 PSI	Clays	3.4	833	17,100 PSI	3.9	906	20,000 PSI
WSF	6.9	909	16,400 PSI	7.7	1035	20,100 PSI	Bullet: 170 GR. LHG CF Dia: .451"						
Universal	6.3	856	15,000 PSI	7.0	1040	20,100 PSI	Case: REM Primer: FED 150, Large Pistol Col: 1.235"						
W244	5.8	883	15,800 PSI	6.5	1013	20,000 PSI	No. 5	7.5	892	18,800 PSI	8.3	990	20,900 PSI
W231	5.6	823	16,300 PSI	6.2	965	20,100 PSI	Silhouette	7.0	919	18,600 PSI	7.7	1040	20,700 PSI
Titegroup	5.0	832	15,800 PSI	5.6	961	19,900 PSI	True Blue	6.7	865	18,700 PSI	7.4	962	20,700 PSI
Bullet: 155 GR. CAST LSWC Dia: .451"							Bullet: 170 GR. MCB LSWC Dia: .451"						
Case: WIN Primer: FED 150, Large Pistol Col: 1.230"							Case: REM Primer: FED 150, Large Pistol Col: 1.130"						
HS-6	9.0	988	12,000 CUP	10.0	1126	16,300 CUP	No. 7	11.3	1031	18,800 PSI	12.5	1172	20,800 PSI
CFE Pistol	7.9	1081	14,900 PSI	8.6	1187	19,200 PSI	No. 5	8.1	945	16,000 PSI	9.0	1074	17,800 PSI
800-X	7.8	1019	13,600 CUP	8.5	1117	17,000 CUP	No. 2	5.9	950	17,600 PSI	6.5	1079	19,400 PSI
AutoComp	7.6	1006	13,700 CUP	8.2	1079	16,600 CUP	Solo 1000	5.3	931	16,000 PSI	5.9	1059	17,800 PSI
WSF	7.1	934	11,600 CUP	7.9	1064	15,900 CUP	Bullet: 180 GR. LC LSWC Dia: .452"						
W244	6.5	1062	15,200 PSI	7.2	1166	19,200 PSI	Case: REM Primer: FED 150, Large Pistol Col: 1.267"						
Universal	6.5	1015	13,000 CUP	7.0	1135	16,700 CUP	Silhouette	8.0	991	16,400 PSI	8.9	1101	18,300 PSI
W231	6.0	998	13,400 CUP	6.7	1112	17,100 CUP	True Blue	7.7	947	17,600 PSI	8.5	1052	19,500 PSI
Titegroup	5.7	1039	14,300 CUP	6.2	1132	17,000 CUP	ZIP	6.0	957	18,500 PSI	6.7	1063	20,500 PSI
700-X	5.4	1004	13,500 CUP	6.0	1076	16,400 CUP	Competition	4.2	861	17,600 PSI	4.7	957	19,600 PSI
WST	4.9	919	13,100 CUP	5.4	1017	16,700 CUP	Bullet: 180 GR. LFP Dia: .452"						
Clays	4.9	1040	16,100 CUP	5.2	1082	17,700 CUP	Case: WIN Primer: FED 150, Large Pistol Col: 1.140"						
Titewad	4.6	1015	15,800 PSI	5.0	1082	18,800 PSI	HS-6	7.8	805	10,900 CUP	9.0	961	16,600 CUP
Bullet: 155 GR. LC LSWC Dia: .452"							Longshot	6.5	788	9,800 CUP	8.0	1015	16,900 CUP
Case: REM Primer: FED 150, Large Pistol Col: 1.240"							800-X	7.2	925	13,100 CUP	8.0	1031	16,800 CUP
No. 7	12.0	1076	18,200 PSI	13.3	1223	20,200 PSI	CFE Pistol	7.1	1006	15,500 PSI	8.0	1114	19,500 PSI
No. 5	9.0	1046	16,700 PSI	10.0	1189	18,500 PSI	W572	6.8	965	14,800 PSI	7.6	1076	18,800 PSI
True Blue	8.4	1049	18,000 PSI	9.3	1165	20,000 PSI	AutoComp	6.8	903	12,800 CUP	7.6	1008	16,500 CUP
Silhouette	7.5	1058	17,600 PSI	8.9	1230	20,700 PSI	WSF	6.6	887	12,200 CUP	7.3	1003	16,500 CUP
ZIP	6.5	1060	18,800 PSI	7.2	1178	20,900 PSI	Universal	5.3	755	11,100 CUP	6.4	1019	17,600 CUP
No. 2	5.8	1004	17,600 PSI	6.8	1138	20,600 PSI	W244	5.2	944	15,300 PSI	6.2	1058	19,300 PSI
Solo 1000	5.9	1029	17,300 PSI	6.5	1170	19,100 PSI	W231	5.0	778	11,300 CUP	6.0	950	16,800 CUP
Competition	4.5	950	17,300 PSI	5.0	1056	19,200 PSI	700-X	5.0	903	13,300 CUP	5.6	982	16,000 CUP
Bullet: 155 GR. SFIRE Dia: .451"							Titegroup	4.2	771	10,200 CUP	5.2	946	16,600 CUP
Case: REM Primer: FED 150, Large Pistol Col: 1.220"							Trail Boss	3.5	664	7,100 CUP	5.0	852	13,700 CUP
No. 5	7.3	923	17,500 PSI	8.1	1025	19,400 PSI	WST	4.4	846	13,300 CUP	4.9	912	16,100 CUP
Silhouette	7.1	990	18,700 PSI	7.9	1100	20,700 PSI	Clays	3.8	783	11,600 CUP	4.5	910	16,700 CUP
True Blue	6.8	916	18,300 PSI	7.6	1018	20,300 PSI	Titewad	3.7	855	14,800 PSI	4.3	948	19,200 PSI
ZIP	5.2	901	17,100 PSI	5.8	1001	19,000 PSI	Bullet: 185 GR. BAR TAC-XP Dia: .451"						
No. 2	4.6	882	18,400 PSI	5.1	980	20,400 PSI	Case: REM Primer: FED 150, Large Pistol Col: 1.235"						
Case: WIN Primer: FED 150, Large Pistol Col: 1.220"							No. 7	8.1	827	18,100 PSI	9.0	919	20,200 PSI
W572	6.5	933	15,700 PSI	7.7	1130	19,700 PSI	Silhouette	6.2	870	17,300 PSI	7.3	1017	20,400 PSI
CFE Pistol	6.3	890	15,200 PSI	7.1	1024	18,400 PSI	No. 5	6.5	813	18,300 PSI	7.2	903	20,400 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Starting Loads			Grs	Maximum Loads		
	Grs	Vel	Pressure		Vel	Pressure	Grs		Vel	Pressure	Vel		Pressure		
True Blue	5.9	857	17,200 PSI	7.0	965	20,200 PSI	Competition	4.6	847	18,500 PSI	5.1	941	20,500 PSI		
ZIP	4.8	803	18,000 PSI	5.3	892	20,000 PSI	Bullet: 185 GR. MCB LSWC Dia: .451"								
No. 2	4.5	770	18,200 PSI	5.0	856	20,300 PSI	Case: REM		Primer: FED 150, Large Pistol			Col: 1.230"			
Case: WIN	Primer: FED 150, Large Pistol			Col: 1.235"			No. 5	8.0	925	16,600 PSI	8.9	1050	18,500 PSI		
HS-6	7.1	862	15,600 PSI	8.0	971	20,100 PSI	No. 2	5.6	895	16,700 PSI	6.2	1000	18,500 PSI		
Longshot	6.0	848	13,400 PSI	7.0	991	17,400 PSI	Bullet: 185 GR. NOS JHP Dia: .451"								
AutoComp	5.8	871	14,700 PSI	6.6	1008	20,400 PSI	Case: REM		Primer: FED 150, Large Pistol			Col: 1.200"			
W572	5.4	841	13,600 PSI	6.4	1012	20,200 PSI	No. 5	8.2	929	17,800 PSI	9.7	1071	21,000 PSI		
CFE Pistol	5.5	860	14,000 PSI	6.3	1005	19,900 PSI	No. 2	5.7	948	17,700 PSI	6.7	1106	20,800 PSI		
Universal	5.4	839	15,000 PSI	6.1	997	20,100 PSI	Competition	4.3	845	17,700 PSI	5.1	954	20,900 PSI		
W244	4.7	836	16,300 PSI	5.3	931	20,200 PSI	Bullet: 185 GR. RAIN HP Dia: .451"								
W231	4.4	773	14,000 PSI	5.1	870	19,800 PSI	Case: REM		Primer: FED 150, Large Pistol			Col: 1.220"			
Titegroup	4.3	815	15,100 PSI	5.0	940	19,800 PSI	No. 7	10.0	915	17,800 PSI	11.7	1092	20,900 PSI		
Bullet: 185 GR. BERB FP Dia: .451"							No. 5	8.1	940	17,600 PSI	9.5	1080	20,700 PSI		
Case: REM	Primer: FED 150, Large Pistol			Col: 1.195"			Silhouette	7.8	926	17,600 PSI	9.1	1092	20,700 PSI		
No. 7	10.1	909	17,700 PSI	11.9	1096	20,800 PSI	True Blue	7.6	924	17,300 PSI	9.0	1068	20,400 PSI		
No. 5	8.2	924	17,300 PSI	9.7	1079	20,400 PSI	No. 2	5.6	885	17,500 PSI	6.6	1011	20,600 PSI		
True Blue	7.7	936	17,800 PSI	9.1	1091	20,900 PSI	Bullet: 185 GR. REM GSBR Dia: .451"								
Silhouette	7.7	930	17,500 PSI	9.1	1095	20,600 PSI	Case: REM		Primer: FED 150, Large Pistol			Col: 1.225"			
ZIP	6.0	929	17,200 PSI	7.1	1066	20,200 PSI	No. 7	10.1	929	17,600 PSI	11.9	1095	20,700 PSI		
No. 2	5.4	892	17,700 PSI	6.3	1014	20,900 PSI	No. 5	8.1	929	17,400 PSI	9.5	1088	20,500 PSI		
Solo 1000	5.1	917	17,700 PSI	6.0	1021	20,800 PSI	True Blue	7.6	947	17,700 PSI	9.0	1087	20,800 PSI		
Competition	4.4	866	17,400 PSI	5.2	980	20,400 PSI	Silhouette	7.6	972	17,600 PSI	8.9	1118	20,700 PSI		
Nitro 100 NF	4.3	891	17,600 PSI	5.0	978	20,700 PSI	ZIP	6.2	948	17,500 PSI	7.3	1078	20,600 PSI		
Bullet: 185 GR. BERB HBRN Dia: .451"							No. 2	5.5	871	17,700 PSI	6.4	1018	20,900 PSI		
Case: REM	Primer: FED 150, Large Pistol			Col: 1.270"			Solo 1000	5.2	883	17,500 PSI	6.1	1008	20,600 PSI		
No. 7	10.8	920	17,700 PSI	12.7	1109	20,900 PSI	Competition	4.4	882	17,400 PSI	5.1	967	20,400 PSI		
No. 5	8.8	916	17,400 PSI	10.3	1088	20,400 PSI	Nitro 100 NF	4.2	845	17,700 PSI	4.9	940	20,800 PSI		
Silhouette	8.3	929	17,600 PSI	9.7	1123	20,700 PSI	Bullet: 185 GR. SIE JHP Dia: .451"								
True Blue	8.1	954	17,400 PSI	9.6	1091	20,500 PSI	Case: REM		Primer: FED 150, Large Pistol			Col: 1.210"			
ZIP	6.5	944	17,200 PSI	7.6	1087	20,300 PSI	No. 7	11.7	962	16,200 PSI	13.0	1093	18,000 PSI		
No. 2	6.0	880	17,200 PSI	7.0	1014	20,200 PSI	Solo 1000	5.5	862	17,500 PSI	6.1	980	19,400 PSI		
Solo 1000	5.5	903	17,700 PSI	6.5	1021	20,900 PSI	Bullet: 200 GR. BERB HP Dia: .451"								
Competition	4.6	872	17,600 PSI	5.4	977	20,700 PSI	Case: REM		Primer: FED 150, Large Pistol			Col: 1.205"			
Nitro 100 NF	4.5	877	17,500 PSI	5.3	977	20,600 PSI	No. 7	9.4	868	17,400 PSI	11.0	1031	20,500 PSI		
Bullet: 185 GR. BERB SWC Dia: .451"							No. 5	7.7	892	17,000 PSI	9.1	1022	20,100 PSI		
Case: REM	Primer: FED 150, Large Pistol			Col: 1.195"			True Blue	7.4	893	17,700 PSI	8.7	1038	20,800 PSI		
No. 7	9.7	904	17,400 PSI	11.4	1073	20,500 PSI	Silhouette	7.2	885	17,300 PSI	8.5	1034	20,300 PSI		
No. 5	8.0	926	17,300 PSI	9.4	1080	20,400 PSI	ZIP	5.7	863	17,500 PSI	6.7	1012	20,600 PSI		
Silhouette	7.5	949	17,700 PSI	8.9	1116	20,800 PSI	No. 2	5.3	846	17,500 PSI	6.3	962	20,600 PSI		
True Blue	7.5	942	17,800 PSI	8.8	1086	21,000 PSI	Solo 1000	4.8	811	17,600 PSI	5.6	947	20,700 PSI		
ZIP	5.8	884	17,100 PSI	6.8	1041	20,100 PSI	Competition	4.0	810	17,400 PSI	4.7	902	20,500 PSI		
No. 2	5.4	913	17,600 PSI	6.4	1022	20,700 PSI	Nitro 100 NF	3.8	790	17,800 PSI	4.5	893	20,900 PSI		
Solo 1000	5.0	863	17,600 PSI	5.9	998	20,700 PSI	Bullet: 200 GR. BERB FP Dia: .451"								
Competition	4.2	848	17,400 PSI	4.9	952	20,400 PSI	Case: REM		Primer: FED 150, Large Pistol			Col: 1.205"			
Nitro 100 NF	3.9	861	17,200 PSI	4.6	937	20,200 PSI	No. 7	9.9	887	17,400 PSI	11.6	1054	20,500 PSI		
Bullet: 185 GR. HDY JSWC Dia: .451"							No. 5	7.9	870	17,500 PSI	9.3	1024	20,600 PSI		
Case: WIN	Primer: FED 150, Large Pistol			Col: 1.135"			True Blue	7.7	919	17,700 PSI	9.1	1065	20,800 PSI		
HS-6	8.6	888	12,200 CUP	9.5	996	16,800 CUP	Silhouette	7.4	878	17,300 PSI	8.7	1034	20,300 PSI		
Longshot	7.2	919	11,300 CUP	8.2	1044	17,000 CUP	ZIP	6.0	904	17,700 PSI	7.1	1039	20,800 PSI		
CFE Pistol	7.1	1008	15,800 PSI	8.1	1139	19,700 PSI	No. 2	5.4	844	17,200 PSI	6.3	958	20,200 PSI		
800-X	7.1	883	13,600 CUP	7.9	991	16,700 CUP	Solo 1000	4.8	830	17,300 PSI	5.7	943	20,300 PSI		
WSF	6.8	886	13,400 CUP	7.5	981	17,400 CUP	Competition	4.2	813	17,800 PSI	4.9	915	20,900 PSI		
AutoComp	6.7	856	12,600 CUP	7.4	958	16,200 CUP	Nitro 100 NF	3.9	813	17,500 PSI	4.5	901	20,600 PSI		
Universal	6.0	908	13,100 CUP	6.4	977	16,800 CUP	Bullet: 200 GR. BERB SWC Dia: .451"								
W244	5.5	915	15,000 PSI	6.2	1022	19,600 PSI	Case: REM		Primer: FED 150, Large Pistol			Col: 1.210"			
W231	5.0	762	12,000 CUP	5.9	906	15,800 CUP	No. 5	7.5	868	17,100 PSI	8.8	1010	20,100 PSI		
Titegroup	5.0	892	14,600 CUP	5.5	956	17,000 CUP	True Blue	7.0	884	17,400 PSI	8.2	1009	20,400 PSI		
700-X	4.9	873	14,000 CUP	5.5	959	17,100 CUP	Silhouette	6.9	886	17,200 PSI	8.2	1032	20,200 PSI		
WST	4.4	794	14,100 CUP	4.9	866	16,500 CUP	ZIP	5.5	908	17,600 PSI	6.5	1013	20,700 PSI		
Clays	4.5	855	14,500 CUP	4.9	981	17,400 CUP	No. 2	5.1	845	17,600 PSI	6.0	958	20,700 PSI		
Titewad	3.5	754	14,900 PSI	4.2	887	19,400 PSI	Solo 1000	4.8	824	17,000 PSI	5.6	950	20,000 PSI		
Bullet: 185 GR. HDY XTP Dia: .451"							Competition	4.0	838	17,800 PSI	4.7	919	21,000 PSI		
Case: REM	Primer: FED 150, Large Pistol			Col: 1.230"			Nitro 100 NF	3.7	828	17,400 PSI	4.4	895	20,400 PSI		
No. 5	9.2	970	17,900 PSI	10.2	1102	19,900 PSI									
Silhouette	8.9	1037	18,800 PSI	9.9	1152	20,900 PSI									
True Blue	8.5	980	18,700 PSI	9.4	1089	20,800 PSI									
ZIP	6.6	946	17,600 PSI	7.3	1051	19,600 PSI									

NEVER EXCEED MAXIMUM LOADS

PISTOL DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads							
	Gr	Vel	Pressure		Gr	Vel	Pressure			Gr	Vel	Pressure		Gr	Vel	Pressure					
Bullet: 200 GR. CAST LSWC Dia: .451"																					
Case: WIN		Primer: FED 150, Large Pistol				Col: 1.225"				Case: WIN		Primer: FED 150, Large Pistol				Col: 1.200"					
HS-6	8.2	860	14,400 CUP	8.4	907	16,300 CUP	True Blue									6.6	820	17,500 PSI	7.8	933	20,600 PSI
CFE Pistol	7.4	1042	15,000 PSI	8.2	1142	19,600 PSI	ZIP									5.1	778	17,500 PSI	6.0	899	20,500 PSI
800-X	6.9	861	12,200 CUP	7.7	958	15,700 CUP	No. 2									4.6	730	17,400 PSI	5.4	842	20,400 PSI
W572	6.4	897	15,900 PSI	7.2	1018	19,600 PSI	Solo 1000									4.4	760	17,600 PSI	5.1	846	20,700 PSI
AutoComp	6.5	843	11,500 CUP	7.2	914	15,100 CUP	Nitro 100 NF									3.7	753	17,800 PSI	4.4	829	20,900 PSI
WSF	6.0	870	15,200 PSI	6.7	970	19,400 PSI	Bullet: 230 GR. HDY FMJ FP Dia: .451"														
Universal	5.8	889	13,900 CUP	6.3	962	16,800 CUP	Case: WIN		Primer: FED 150, Large Pistol				Col: 1.200"								
W244	5.1	880	15,500 PSI	5.8	992	19,800 PSI	HS-6	8.0	790	14,400 CUP	8.2	825	15,400 CUP								
W231	4.4	771	11,000 CUP	5.6	914	16,900 CUP	800-X	6.3	817	13,300 CUP	7.0	900	16,900 CUP								
Trail Boss	3.5	652	9,200 CUP	5.5	816	16,100 CUP	Longshot	6.3	848	14,100 CUP	6.8	908	17,200 CUP								
Titegroup	4.8	877	13,400 CUP	5.4	957	16,800 CUP	CFE Pistol	6.0	815	16,000 PSI	6.8	934	19,800 PSI								
700-X	4.6	821	12,100 CUP	5.3	921	16,300 CUP	AutoComp	6.0	789	13,800 CUP	6.6	871	17,100 CUP								
WST	4.4	830	15,400 PSI	5.1	910	19,900 PSI	WSF	5.7	766	12,100 CUP	6.4	851	15,700 CUP								
Titewad	3.6	816	15,400 PSI	4.5	940	20,000 PSI	Universal	5.1	716	11,800 CUP	5.6	844	16,800 CUP								
Clays	3.6	759	11,800 CUP	4.3	888	17,000 CUP	W244	5.1	793	15,300 PSI	5.6	885	19,700 PSI								
Bullet: 200 GR. HDY FMJ CT Dia: .451"																					
Case: REM		Primer: FED 150, Large Pistol				Col: 1.230"				Case: REM		Primer: FED 150, Large Pistol				Col: 1.210"					
Silhouette	7.6	937	18,200 PSI	8.4	1041	20,200 PSI	No. 7	7.8	743	17,800 PSI	9.2	895	20,900 PSI								
True Blue	7.2	866	17,500 PSI	8.0	962	19,500 PSI	No. 5	6.6	751	17,800 PSI	7.7	869	21,000 PSI								
ZIP	5.8	879	18,600 PSI	6.4	977	20,700 PSI	Silhouette	6.2	785	17,700 PSI	7.3	916	20,900 PSI								
Competition	4.0	774	18,500 PSI	4.4	860	20,600 PSI	True Blue	5.8	722	17,800 PSI	6.8	851	20,900 PSI								
Bullet: 200 GR. HDY XTP Dia: .451"																					
Case: REM		Primer: FED 150, Large Pistol				Col: 1.225"				Case: REM		Primer: FED 150, Large Pistol				Col: 1.210"					
No. 7	10.8	912	17,300 PSI	12.0	1036	19,200 PSI	ZIP	4.5	703	17,600 PSI	5.3	816	20,700 PSI								
Solo 1000	5.2	804	16,900 PSI	5.8	914	18,800 PSI	No. 2	4.3	697	17,800 PSI	5.1	799	21,000 PSI								
No. 2	5.1	855	17,500 PSI	5.8	970	19,900 PSI	Solo 1000	4.0	695	17,500 PSI	4.7	789	20,600 PSI								
Bullet: 200 GR. LC LSWC Dia: .452"																					
Case: REM		Primer: FED 150, Large Pistol				Col: 1.190"				Case: REM		Primer: FED 150, Large Pistol				Col: 1.230"					
No. 7	10.4	899	16,900 PSI	11.5	1022	18,700 PSI	Competition	3.3	672	17,600 PSI	3.9	746	20,700 PSI								
No. 5	7.8	902	17,400 PSI	8.7	1025	19,400 PSI	Nitro 100 NF	3.3	664	17,600 PSI	3.8	741	20,700 PSI								
Silhouette	7.6	964	18,300 PSI	8.4	1071	20,300 PSI	Bullet: 230 GR. LC LRN Dia: .452"														
ZIP	5.6	897	18,300 PSI	6.2	997	20,300 PSI	Case: REM		Primer: FED 150, Large Pistol				Col: 1.230"								
No. 2	5.2	826	15,600 PSI	5.8	939	17,400 PSI	No. 7	9.9	862	17,500 PSI	11.0	979	19,400 PSI								
Solo 1000	4.8	838	16,600 PSI	5.3	952	18,300 PSI	No. 2	5.0	766	15,400 PSI	5.6	870	17,200 PSI								
Competition	3.9	806	18,000 PSI	4.3	896	20,000 PSI	Solo 1000	4.6	790	16,500 PSI	5.1	898	18,300 PSI								
Bullet: 200 GR. LHG XP Dia: .451"																					
Case: REM		Primer: FED 150, Large Pistol				Col: 1.235"				Case: REM		Primer: FED 150, Large Pistol				Col: 1.267"					
No. 5	7.0	769	18,800 PSI	7.8	869	20,900 PSI	Nitro 100 NF	3.6	770	18,800 PSI	4.0	823	20,900 PSI								
Silhouette	6.5	789	18,600 PSI	7.2	900	20,700 PSI	Bullet: 230 GR. LC LSWC Dia: .452"														
True Blue	6.3	760	18,600 PSI	7.0	846	20,600 PSI	Case: REM		Primer: FED 150, Large Pistol				Col: 1.267"								
Bullet: 200 GR. SIE FPJ Dia: .451"																					
Case: REM		Primer: FED 150, Large Pistol				Col: 1.155"				Case: REM		Primer: FED 150, Large Pistol				Col: 1.267"					
No. 5	7.6	854	17,500 PSI	8.9	996	20,500 PSI	True Blue	6.7	822	17,500 PSI	7.4	913	19,500 PSI								
Competition	4.0	782	17,500 PSI	4.7	881	20,700 PSI	ZIP	5.2	824	18,300 PSI	5.8	915	20,300 PSI								
Bullet: 200 GR. SPR JHP Dia: .451"																					
Case: WIN		Primer: FED 150, Large Pistol				Col: 1.155"				Case: REM		Primer: FED 150, Large Pistol				Col: 1.250"					
HS-6	8.2	868	14,000 CUP	9.0	948	16,400 CUP	Competition	3.6	725	17,300 PSI	4.0	805	19,200 PSI								
Longshot	7.0	918	13,300 CUP	7.8	1013	16,900 CUP	Bullet: 230 GR. LRN Dia: .452"														
800-X	6.8	877	13,600 CUP	7.4	954	16,600 CUP	Case: WIN		Primer: FED 150, Large Pistol				Col: 1.200"								
CFE Pistol	6.3	877	14,900 PSI	7.2	1010	20,200 PSI	HS-6	7.0	751	12,900 CUP	8.0	859	16,600 CUP								
AutoComp	6.4	856	12,600 CUP	7.0	930	16,000 CUP	Case: WIN		Primer: FED 150, Large Pistol				Col: 1.200"								
WSF	6.1	807	12,500 CUP	6.8	929	16,700 CUP	800-X	6.5	867	15,100 CUP	7.0	939	17,300 CUP								
Universal	5.8	889	15,100 CUP	6.2	949	17,200 CUP	Longshot	6.0	747	12,000 CUP	6.8	875	16,800 CUP								
W244	5.2	862	15,300 PSI	5.9	957	19,700 PSI	AutoComp	6.1	832	13,700 CUP	6.6	896	16,400 CUP								
W231	5.2	794	12,700 CUP	5.9	906	16,700 CUP	W572	5.6	846	16,200 PSI	6.4	935	20,100 PSI								
700-X	4.8	844	14,400 CUP	5.3	911	16,700 CUP	WSF	5.8	832	14,500 CUP	6.3	892	16,800 CUP								
Titegroup	4.7	812	13,700 CUP	5.2	884	16,900 CUP	CFE Pistol	5.4	816	14,600 PSI	6.2	942	20,100 PSI								
WST	4.6	789	15,900 CUP	5.1	898	17,500 CUP	Universal	4.5	703	11,400 CUP	5.4	857	16,800 CUP								
Clays	3.9	714	15,200 CUP	4.3	785	17,700 CUP	W231	4.3	699	12,200 CUP	5.3	834	16,900 CUP								
Titewad	3.4	680	15,200 PSI	4.0	834	19,500 PSI	700-X	4.5	831	14,500 CUP	5.0	893	17,700 CUP								
Bullet: 230 GR. BERB RN Dia: .451"																					
Case: REM		Primer: FED 150, Large Pistol				Col: 1.237"				Case: WIN		Primer: FED 150, Large Pistol				Col: 1.200"					
No. 7	8.6	800	17,700 PSI	10.1	945	20,800 PSI	W244	4.1	761	15,100 PSI	4.9	868	20,100 PSI								
No. 5	7.1	784	17,100 PSI	8.3	929	20,100 PSI	Titegroup	4.0	751	12,500 CUP	4.8	855	17,000 CUP								
Silhouette	6.6	811	17,800 PSI	7.8	957	20,900 PSI	Trail Boss	3.5	658	11,200 CUP	4.5	761	15,100 CUP								
Bullet: 230 GR. NOS FMJ Dia: .451"																					
Case: REM		Primer: FED 150, Large Pistol				Col: 1.250"				Case: REM		Primer: FED 150, Large Pistol				Col: 1.250"					
No. 5	7.8	816	17,300 PSI	8.7	927	19,300 PSI	WST	4.0	776	14,300 CUP	4.3	812	16,400 CUP								
Solo 1000	4.9	746	16,800 PSI	5.5	848	18,900 PSI	Clays	3.5	716	13,700 CUP	4.0	793	16,800 CUP								

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads				Maximum Loads				Starting Loads				Maximum Loads			
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure		Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	
Bullet: 230 GR. RAIN HP				Dia: .451"				Bullet: 200 GR. HDY XTP				Dia: .452"			
Case: REM		Primer: FED 150, Large Pistol				Col: 1.237"		Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.600"	
No. 7	8.3	778	17,600 PSI	9.8	930	20,700 PSI		HS-6	11.7	994	9,700 CUP	13.0	1111	13,900 CUP	
No. 5	7.0	807	17,700 PSI	8.2	934	20,800 PSI		CFE Pistol	8.6	927	9,300 PSI	10.0	1065	13,300 PSI	
True Blue	6.4	807	17,700 PSI	7.6	925	20,800 PSI		W572	7.6	804	8,800 PSI	9.3	1021	13,700 PSI	
Silhouette	6.4	808	17,400 PSI	7.5	943	20,500 PSI		Universal	8.0	915	9,600 CUP	9.0	1068	13,900 CUP	
ZIP	5.0	748	17,400 PSI	5.9	862	20,500 PSI		800-X	6.5	808	10,200 PSI	8.8	996	13,400 PSI	
No. 2	4.6	721	17,600 PSI	5.4	831	20,700 PSI		W231	7.8	956	11,000 CUP	8.7	1048	14,000 CUP	
Solo 1000	4.3	705	17,200 PSI	5.1	802	20,200 PSI		W244	7.3	915	9,400 PSI	8.5	1079	12,900 PSI	
Competition	3.7	642	17,600 PSI	4.4	747	20,700 PSI		Titegroup	6.7	899	9,600 CUP	7.5	989	12,700 CUP	
Nitro 100 NF	3.5	610	17,200 PSI	4.1	728	20,200 PSI		700-X	5.0	795	10,500 PSI	6.3	940	13,400 PSI	
Bullet: 230 GR. REM GSBR				Dia: .451"				Bullet: 200 GR. LC LRNFP				Dia: .452"			
Case: REM		Primer: FED 150, Large Pistol				Col: 1.225"		Case: REM		Primer: REM 2 1/2, Large Pistol				Col: 1.586"	
No. 7	8.5	822	17,800 PSI	10.0	943	21,000 PSI		Zip	7.2	925	11,900 PSI	8.4	1044	13,900 PSI	
No. 5	7.0	810	17,600 PSI	8.2	935	20,700 PSI		No. 2	6.8	898	11,800 PSI	8.0	1012	13,800 PSI	
Silhouette	6.5	838	17,500 PSI	7.6	966	20,500 PSI		Solo 1000	6.0	897	11,800 PSI	7.1	989	13,900 PSI	
True Blue	6.2	810	17,100 PSI	7.3	909	20,100 PSI		Competition	5.2	893	11,800 PSI	6.1	972	13,900 PSI	
ZIP	4.8	773	17,400 PSI	5.7	873	20,500 PSI		Nitro 100 NF	4.9	887	11,700 PSI	5.8	963	13,800 PSI	
No. 2	4.5	742	17,400 PSI	5.3	853	20,500 PSI		Bullet: 215 GR. CAST LRNFP				Dia: .452"			
Solo 1000	4.3	753	17,300 PSI	5.0	831	20,400 PSI		Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.650"	
Competition	3.6	716	17,700 PSI	4.2	792	20,800 PSI		CFE Pistol	8.2	919	10,100 PSI	9.5	1037	12,400 PSI	
Bullet: 230 GR. SIE FMJ				Dia: .451"				800-X	7.5	845	10,600 PSI	9.2	995	13,200 PSI	
Case: REM		Primer: FED 150, Large Pistol				Col: 1.250"		W572	7.8	854	9,400 PSI	9.1	1013	13,400 PSI	
No. 5	7.4	814	17,800 PSI	8.7	939	20,900 PSI		Universal	6.8	777	6,300 CUP	8.6	1001	13,800 CUP	
Silhouette	7.3	868	17,800 PSI	8.1	964	19,700 PSI		W244	6.5	839	7,700 PSI	8.6	1091	13,200 PSI	
True Blue	6.8	800	17,700 PSI	7.6	889	19,700 PSI		W231	5.9	758	5,900 CUP	7.8	965	13,500 CUP	
ZIP	5.6	814	18,600 PSI	6.2	904	20,700 PSI		Titegroup	6.2	881	8,600 CUP	7.2	983	12,100 CUP	
No. 2	4.6	769	17,700 PSI	5.4	881	20,800 PSI		Trail Boss	5.5	725	8,100 PSI	6.5	820	10,300 PSI	
Competition	3.8	691	17,400 PSI	4.5	793	20,700 PSI		700-X	4.7	752	8,500 PSI	6.2	921	12,800 PSI	
Bullet: 250 GR. BERB FP				Dia: .451"				Clays	4.6	754	6,400 CUP	5.7	889	13,400 CUP	
Case: REM		Primer: FED 150, Large Pistol				Col: 1.200"		Bullet: 225 GR. HDY FTX				Dia: .452"			
No. 7	7.3	744	17,600 PSI	8.6	845	20,700 PSI		Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.600"	
No. 5	6.0	718	17,400 PSI	7.1	838	20,500 PSI		HS-6	8.8	790	9,200 PSI	10.8	987	13,200 PSI	
True Blue	5.7	731	17,800 PSI	6.7	839	20,900 PSI		800-X	6.2	654	7,800 PSI	8.9	937	12,800 PSI	
Silhouette	5.6	741	17,300 PSI	6.6	866	20,400 PSI		AutoComp	7.1	750	8,700 PSI	8.9	973	13,600 PSI	
No. 2	3.9	645	17,200 PSI	4.6	749	20,200 PSI		Universal	6.4	684	7,800 PSI	8.2	916	13,200 PSI	
Bullet: 250 GR. RAIN FP				Dia: .451"				W231	5.7	663	9,000 PSI	7.5	897	13,200 PSI	
Case: REM		Primer: FED 150, Large Pistol				Col: 1.212"		Titegroup	5.1	670	9,700 PSI	6.4	863	13,200 PSI	
No. 7	7.5	731	17,100 PSI	8.8	863	20,100 PSI		700-X	5.1	738	10,200 PSI	6.4	885	13,400 PSI	
No. 5	6.2	737	17,800 PSI	7.3	864	20,900 PSI		Clays	4.4	538	9,400 PSI	5.5	761	13,600 PSI	
True Blue	5.8	739	17,700 PSI	6.8	854	20,900 PSI		Bullet: 230 GR. CAST LRNFP				Dia: .452"			
Silhouette	5.8	766	17,600 PSI	6.8	893	20,700 PSI		Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.580"	
No. 2	4.1	680	17,500 PSI	4.8	780	20,600 PSI		800-X	6.2	746	9,100 PSI	9.0	1003	13,200 PSI	
45 COLT								Universal	6.5	761	7,600 CUP	8.1	975	13,800 CUP	
Barrel: 7.25" Twist: 1:16" Trim: 1.280"								W244	6.0	849	9,000 PSI	7.7	1044	13,500 PSI	
Bullet: 180 GR. CAST LRNFP				Dia: .452"				W231	5.8	738	7,300 CUP	7.3	941	13,700 CUP	
Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.540"		Trail Boss	5.5	685	9,100 PSI	6.5	802	12,400 PSI	
Universal	6.5	791	7,100 CUP	9.2	1161	13,900 CUP		Titegroup	5.8	857	10,300 CUP	6.5	934	13,000 CUP	
W244	6.8	914	8,100 PSI	9.1	1201	13,500 PSI		700-X	4.7	771	10,100 PSI	6.0	904	13,500 PSI	
W231	6.0	838	6,500 CUP	8.2	1087	13,900 CUP		Clays	4.4	734	7,600 CUP	5.4	865	13,900 CUP	
Trail Boss	6.0	818	9,400 PSI	7.3	935	12,700 PSI		Bullet: 250 GR. CAST LRNFP				Dia: .452"			
Titegroup	6.0	918	8,600 CUP	6.9	1020	10,900 CUP		Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.600"	
700-X	5.0	850	9,100 PSI	6.5	1014	12,600 PSI		HS-6	9.0	787	7,800 CUP	10.5	946	13,300 CUP	
Clays	4.8	840	7,900 CUP	6.0	1016	13,800 CUP		CFE Pistol	8.4	930	10,300 PSI	9.2	1014	13,000 PSI	
Bullet: 200 GR. CAST LRNFP				Dia: .452"				AutoComp	7.8	867	12,600 PSI	8.5	923	13,200 PSI	
Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.600"		800-X	6.5	778	9,100 PSI	8.0	911	13,300 PSI	
W572	8.3	886	9,200 PSI	9.8	1080	13,300 PSI		Universal	6.5	742	9,200 CUP	7.8	941	13,000 CUP	
800-X	7.2	842	8,700 PSI	9.3	1042	13,500 PSI		W572	7.1	851	11,800 PSI	7.6	898	13,600 PSI	
W244	6.7	883	7,600 PSI	9.0	1150	12,900 PSI		W244	6.1	807	9,400 PSI	7.4	972	13,400 PSI	
Universal	6.4	749	5,700 CUP	8.8	1067	13,600 CUP		W231	5.8	785	9,100 CUP	7.1	916	13,900 CUP	
W231	5.9	761	5,800 CUP	8.0	1002	13,800 CUP		Titegroup	5.0	716	7,600 CUP	6.2	881	13,000 CUP	
Titegroup	6.5	933	9,300 CUP	7.7	1050	12,700 CUP		Trail Boss	4.5	606	8,800 PSI	5.8	727	12,700 PSI	
Trail Boss	5.5	706	8,000 PSI	6.5	855	11,000 PSI		700-X	4.8	765	11,300 PSI	5.7	856	13,200 PSI	
700-X	5.0	822	8,800 PSI	6.2	933	12,400 PSI		Clays	4.2	713	8,500 CUP	5.1	817	13,400 CUP	
Clays	4.6	777	5,900 CUP	5.9	931	13,100 CUP		Bullet: 250 GR. HDY XTP				Dia: .452"			
								Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.595"	
								HS-6	9.7	743	9,700 CUP	10.8	862	13,500 CUP	

NEVER EXCEED MAXIMUM LOADS

PISTOL DATA

Powder	Starting Loads			Grs	Maximum Loads			Powder	Grs	Starting Loads			Grs	Maximum Loads			
	Vel	Pressure			Vel	Pressure				Vel	Pressure			Vel	Pressure		
CFE Pistol	8.0	832	10,400 PSI	8.8	915	13,300 PSI		Bullet: 200 GR. LC LRNFP			Dia: .452"						
Universal	7.5	705	10,300 CUP	8.5	856	14,000 CUP		Case: REM			Primer: REM 2 1/2, Large Pistol			Col: 1.586"			
AutoComp	7.7	757	12,200 PSI	8.4	839	13,500 PSI		ZIP	11.0	1276	25,500 PSI	12.9	1450	29,900 PSI			
800-X	6.0	646	10,800 PSI	7.4	790	13,100 PSI		No. 2	10.4	1231	25,300 PSI	12.3	1398	29,900 PSI			
W231	6.5	692	10,500 CUP	7.3	797	14,000 CUP		Solo 1000	9.7	1206	25,300 PSI	11.4	1350	29,700 PSI			
W572	6.7	692	11,900 PSI	7.1	742	13,400 PSI		Competition	8.3	1160	25,200 PSI	9.8	1284	29,800 PSI			
W244	6.5	737	11,400 PSI	7.1	845	13,300 PSI		Nitro 100 NF	8.0	1152	25,300 PSI	9.4	1272	29,700 PSI			
Titegroup	5.5	739	9,700 CUP	6.3	830	12,700 CUP		Bullet: 225 GR. BAR XPB			Dia: .451"						
700-X	4.0	539	10,200 PSI	5.2	710	13,200 PSI		Case: REM			Primer: REM 2 1/2, Large Pistol			Col: 1.600"			
	17.6	922	12,600 PSI	19.5	1011	14,000 PSI		Enforcer	21.2	1351	26,500 PSI	23.5	1501	29,500 PSI			
.45 COLT																	
Barrel: 7.25" Twist: 1:16" Trim: 1.280"																	
Bullet: 255 GR. LC LSWC			Dia: .452"						Case: REM			Primer: REM 2 1/2, Large Pistol			Col: 1.604"		
No. 5	8.2	818	11,400 PSI	9.6	936	13,400 PSI		No. 9	18.0	1226	25,500 PSI	20.0	1362	28,300 PSI			
.45 COLT																	
Barrel: 7.25" Twist: 1:16" Trim: 1.280"																	
Bullet: 255 GR. LC LSWC			Dia: .452"						Case: WIN			Primer: WIN LP, Large Pistol			Col: 1.600"		
Silhouette	8.1	826	11,900 PSI	9.5	953	14,000 PSI		IMR 4227	20.9	1077	19,900 CUP	24.9	1312	29,800 CUP			
True Blue	7.5	852	11,900 PSI	8.8	954	14,000 PSI		W296	23.1	1344	26,200 CUP	24.0	1410	29,300 CUP			
Zip	6.0	796	11,800 PSI	7.1	898	13,900 PSI		H110	23.1	1344	26,200 CUP	24.0	1410	29,300 CUP			
No. 2	5.9	790	11,600 PSI	7.0	888	13,800 PSI		Lil'Gun	22.3	1377	22,900 CUP	23.7	1476	30,200 CUP			
Solo 1000	5.2	760	11,800 PSI	6.1	845	13,900 PSI		Longshot	10.5	1140	21,800 CUP	12.2	1305	30,500 CUP			
Competition	4.3	749	11,500 PSI	5.1	820	13,700 PSI		Titegroup	7.0	1011	19,400 CUP	9.0	1207	29,800 CUP			
Nitro 100 NF	4.1	730	11,500 PSI	4.9	802	13,800 PSI		Bullet: 225 GR. HDY FTX			Dia: .452"						
Case: REM			Primer: REM 2 1/2, Large Pistol			Col: 1.604"			Case: WIN			Primer: WIN LP, Large Pistol			Col: 1.700"		
Lil'Gun	26.5	1551	28,500 PSI	27.5	1594	30,100 PSI		Lil'Gun	26.5	1551	28,500 PSI	27.5	1594	30,100 PSI			
W296	26.2	1493	26,600 PSI	27.2	1542	29,900 PSI		W296	26.2	1493	26,600 PSI	27.2	1542	29,900 PSI			
H110	26.2	1493	26,600 PSI	27.2	1542	29,900 PSI		H110	26.2	1493	26,600 PSI	27.2	1542	29,900 PSI			
IMR 4227	20.6	1146	20,200 PSI	25.7	1383	30,400 PSI		IMR 4227	20.6	1146	20,200 PSI	25.7	1383	30,400 PSI			
Longshot	11.7	1221	21,400 PSI	13.2	1351	28,400 PSI		Longshot	11.7	1221	21,400 PSI	13.2	1351	28,400 PSI			
Titegroup	7.8	1058	19,700 PSI	9.8	1242	29,400 PSI		Titegroup	7.8	1058	19,700 PSI	9.8	1242	29,400 PSI			
Bullet: 240 GR. SIE JHC			Dia: .452"						Case: WIN			Primer: WIN LP, Large Pistol			Col: 1.600"		
H110	27.2	1483	27,900 CUP	28.0	1532	30,000 CUP		H110	27.2	1483	27,900 CUP	28.0	1532	30,000 CUP			
Lil'Gun	27.0	1431	23,800 CUP	27.8	1489	29,200 CUP		Lil'Gun	27.0	1431	23,800 CUP	27.8	1489	29,200 CUP			
H4227	20.0	1169	20,100 CUP	26.0	1413	30,000 CUP		H4227	20.0	1169	20,100 CUP	26.0	1413	30,000 CUP			
Longshot	12.3	1179	21,900 CUP	13.7	1292	29,200 CUP		Longshot	12.3	1179	21,900 CUP	13.7	1292	29,200 CUP			
Titegroup	8.0	1028	19,000 CUP	10.0	1157	29,100 CUP		Titegroup	8.0	1028	19,000 CUP	10.0	1157	29,100 CUP			
Bullet: 250 GR. HDY XTP			Dia: .452"						Case: WIN			Primer: WIN LP, Large Pistol			Col: 1.600"		
H110	25.7	1398	27,000 CUP	26.5	1455	29,800 CUP		H110	25.7	1398	27,000 CUP	26.5	1455	29,800 CUP			
Lil'Gun	23.5	1331	25,800 CUP	25.5	1410	29,800 CUP		Lil'Gun	23.5	1331	25,800 CUP	25.5	1410	29,800 CUP			
H4227	20.0	1150	23,500 CUP	24.6	1343	30,300 CUP		H4227	20.0	1150	23,500 CUP	24.6	1343	30,300 CUP			
Longshot	12.0	1129	22,100 CUP	13.4	1252	29,900 CUP		Longshot	12.0	1129	22,100 CUP	13.4	1252	29,900 CUP			
Titegroup	8.0	983	21,100 CUP	9.5	1124	29,100 CUP		Titegroup	8.0	983	21,100 CUP	9.5	1124	29,100 CUP			
Bullet: 255 GR. LC LSWC			Dia: .452"						Case: REM			Primer: REM 2 1/2, Large Pistol			Col: 1.604"		
No. 11 FS	24.2	1287	24,700 PSI	28.4	1549	29,000 PSI		No. 11 FS	24.2	1287	24,700 PSI	28.4	1549	29,000 PSI			
A-5744	23.8	1205	25,500 PSI	28.0	1396	30,000 PSI		A-5744	23.8	1205	25,500 PSI	28.0	1396	30,000 PSI			
Enforcer	22.9	1265	25,400 PSI	27.0	1559	30,000 PSI		Enforcer	22.9	1265	25,400 PSI	27.0	1559	30,000 PSI			
A-4100	22.9	1265	25,500 PSI	26.8	1547	29,900 PSI		A-4100	22.9	1265	25,500 PSI	26.8	1547	29,900 PSI			
No. 9	20.6	1303	25,500 PSI	24.2	1524	30,000 PSI		No. 9	20.6	1303	25,500 PSI	24.2	1524	30,000 PSI			
TCM	18.7	1282	24,600 PSI	22.0	1457	29,000 PSI		TCM	18.7	1282	24,600 PSI	22.0	1457	29,000 PSI			
No. 7	15.4	1196	25,500 PSI	18.1	1400	30,000 PSI		No. 7	15.4	1196	25,500 PSI	18.1	1400	30,000 PSI			
No. 5	13.2	1223	25,400 PSI	15.5	1410	29,900 PSI		No. 5	13.2	1223	25,400 PSI	15.5	1410	29,900 PSI			
True Blue	12.1	1196	25,600 PSI	14.2	1354	30,000 PSI		True Blue	12.1	1196	25,600 PSI	14.2	1354	30,000 PSI			
Silhouette	11.8	1144	25,500 PSI	13.8	1322	29,900 PSI		Silhouette	11.8	1144	25,500 PSI	13.8	1322	29,900 PSI			
ZIP	9.4	1111	25,600 PSI	11.0	1263	30,000 PSI		ZIP	9.4	1111	25,600 PSI	11.0	1263	30,000 PSI			
No. 2	9.0	1066	25,300 PSI	10.6	1207	29,800 PSI		No. 2	9.0	1066	25,300 PSI	10.6	1207	29,800 PSI			
Solo 1000	8.3	1044	25,300 PSI	9.8	1174	29,900 PSI		Solo 1000	8.3	1044	25,300 PSI	9.8	1174	29,900 PSI			
Nitro 100 NF	6.9	998	25,400 PSI	8.1	1114	29,900 PSI		Nitro 100 NF	6.9	998	25,400 PSI	8.1	1114	29,900 PSI			
Competition	6.9	983	25,100 PSI	8.1	1093	29,500 PSI		Competition	6.9	983	25,100 PSI	8.1	1093	29,500 PSI			
Bullet: 260 GR. NOS PART			Dia: .451"						Case: WIN			Primer: WIN LP, Large Pistol			Col: 1.650"		
H110	23.5	1351	27,700 CUP	24.0	1374	30,100 CUP		H110	23.5	1351	27,700 CUP	24.0	1374	30,100 CUP			
Lil'Gun	19.0	1196	24,500 CUP	21.0	1312	30,000 CUP		Lil'Gun	19.0	1196	24,500 CUP	21.0	1312	30,000 CUP			
Longshot	11.5	1068	24,500 CUP	12.7	1188	30,000 CUP		Longshot	11.5	1068	24,500 CUP	12.7	1188	30,000 CUP			
Titegroup	8.0	945	21,900 CUP	9.3	1065	28,800 CUP		Titegroup	8.0	945	21,900 CUP	9.3	1065	28,800 CUP			

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 300 GR. LC LFP Dia: .452"							Bullet: 395 GR. LC LWLNGC Dia: .452"						
Case: REM		Primer: REM 2 1/2, Large Pistol				Col: 1.566"	Case: REM		Primer: REM 2 1/2, Large Pistol				Col: 1.658"
A-5744	19.4	1021	24,700 PSI	22.8	1182	29,000 PSI	A-5744	16.0	844	25,000 PSI	18.8	985	29,400 PSI
No. 11 FS	19.4	1146	25,000 PSI	22.8	1353	29,400 PSI	Enforcer	13.9	936	24,600 PSI	16.3	1064	28,900 PSI
Enforcer	17.9	1105	24,700 PSI	21.0	1322	29,000 PSI	454 CASULL						
A-4100	17.9	1105	24,900 PSI	20.8	1307	29,000 PSI	Barrel: 9.375" Twist: 1:24" Trim: 1.380"						
No. 9	16.0	1127	24,700 PSI	18.8	1281	29,000 PSI	Bullet: 240 GR. FA JHP Dia: .452"						
TCM	15.6	1093	24,100 PSI	18.4	1277	28,400 PSI	Case: Freedom Arms		Primer: WIN SR, Small Rifle				Col: 1.765"
No. 7	12.1	1007	24,200 PSI	14.3	1164	28,600 PSI	W296	36.0	1923	38,800 CUP	38.2	2065	51,300 CUP
No. 5	10.1	999	25,200 PSI	11.8	1141	29,400 PSI	H110	36.0	1923	38,800 CUP	38.2	2065	51,300 CUP
True Blue	9.4	992	25,300 PSI	11.1	1120	29,900 PSI	Lil'Gun	35.0	1952	39,800 CUP	38.0	2033	43,100 CUP
Silhouette	9.4	965	24,900 PSI	11.0	1111	29,100 PSI	H4227	29.0	1512	22,300 CUP	34.0C	1834	43,300 CUP
ZIP	7.6	936	24,600 PSI	8.9	1063	28,800 PSI	Bullet: 240 GR. SIE JHC Dia: .452"						
No. 2	7.2	899	25,200 PSI	8.5	1016	29,700 PSI	Case: Hornady		Primer: CCI 400, Small Rifle				Col: 1.680"
Solo 1000	6.4	857	24,700 PSI	7.5	961	29,000 PSI	A-1680	32.4	1498	38,000 PSI	36.0	1702	42,200 PSI
Nitro 100 NF	5.5	835	25,300 PSI	6.5	935	29,900 PSI	No. 9	28.8	1678	42,400 PSI	32.0	1884	47,100 PSI
Competition	5.5	824	25,300 PSI	6.5	914	29,900 PSI	Enforcer	28.8	1656	38,900 PSI	32.0	1840	43,300 PSI
Bullet: 300 GR. SPR JFP Dia: .451"							A-4100	28.6	1639	38,300 PSI	31.8	1822	42,600 PSI
Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.650"	A-5744	27.9	1363	27,700 PSI	31.0	1484	30,800 PSI
H4227	19.0	1051	23,600 CUP	22.3	1202	29,900 CUP	True Blue	19.8	1496	47,900 PSI	22.0	1662	53,200 PSI
H110	21.8	1191	26,700 CUP	22.2	1198	30,100 CUP	Case: Freedom Arms		Primer: WIN SR, Small Rifle				Col: 1.680"
Lil'Gun	18.0	1140	24,500 CUP	20.2	1203	29,800 CUP	HS-6	15.5	1360	27,100 CUP	17.5	1508	36,600 CUP
Longshot	11.2	1005	21,100 CUP	12.5	1136	29,200 CUP	Longshot	14.0	1375	23,800 CUP	16.0	1541	36,200 CUP
Titegroup	7.5	851	20,400 CUP	9.0	1004	28,500 CUP	Universal	10.2	1212	24,400 CUP	11.5	1325	37,500 CUP
Bullet: 320 GR. BME PUNCH Dia: .452"							Titegroup	10.0	1214	24,500 CUP	11.0	1309	34,700 CUP
Case: REM		Primer: REM 2 1/2, Large Pistol				Col: 1.640"	Bullet: 250 GR. BAR X Dia: .451"						
A-5744	18.6	902	24,800 PSI	21.8	1076	29,000 PSI	Case: Freedom Arms		Primer: WIN SR, Small Rifle				Col: 1.780"
Enforcer	17.8	1040	25,100 PSI	21.0	1255	29,700 PSI	H4227	26.0	1580	40,800 CUP	28.5C	1685	50,000 CUP
A-4100	17.8	1040	25,100 PSI	20.9	1241	29,500 PSI	W296	27.5	1725	45,100 CUP	28.5	1785	52,300 CUP
No. 9	15.9	1058	25,200 PSI	18.7	1214	29,700 PSI	H110	27.5	1725	45,100 CUP	28.5	1785	52,300 CUP
Bullet: 325 GR. CPB LFN PB Dia: .452"							Lil'Gun	26.0	1620	30,100 CUP	28.0	1738	41,700 CUP
Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.680"	Bullet: 250 GR. NOS JHP Dia: .451"						
H110	21.0	1109	18,100 CUP	24.0	1266	27,400 CUP	Case: Freedom Arms		Primer: WIN SR, Small Rifle				Col: 1.700"
H4227	20.0	1053	22,300 CUP	23.0	1189	28,000 CUP	HS-6	15.0	1295	25,400 CUP	17.0	1428	34,600 CUP
Lil'Gun	17.0	1061	20,700 CUP	20.5	1235	29,700 CUP	Longshot	14.5	1377	26,400 CUP	15.5	1492	36,100 CUP
Bullet: 325 GR. MBW LSWCGCDC Dia: .452"							Universal	10.8	1221	25,700 CUP	12.0	1290	35,300 CUP
Case: REM		Primer: REM 2 1/2, Large Pistol				Col: 1.570"	Titegroup	9.7	1193	24,600 CUP	11.2	1298	36,000 CUP
No. 11 FS	17.1	1031	24,600 PSI	20.2	1223	29,000 PSI	Bullet: 260 GR. FA JFP Dia: .452"						
TCM	14.7	1030	25,200 PSI	17.3	1191	29,700 PSI	Case: Freedom Arms		Primer: WIN SR, Small Rifle				Col: 1.765"
Bullet: 335 GR. CPB LFN GC Dia: .452"							W296	34.0	1817	37,100 CUP	36.0	1954	51,600 CUP
Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.680"	H110	34.0	1817	37,100 CUP	36.0	1954	51,600 CUP
H110	20.5	1109	19,200 CUP	23.5	1240	28,000 CUP	Lil'Gun	33.4	1744	28,800 CUP	35.5	1895	37,900 CUP
H4227	20.0	1011	21,100 CUP	22.5C	1155	28,300 CUP	H4227	28.0	1421	19,000 CUP	33.0C	1762	42,100 CUP
Lil'Gun	17.0	1052	20,100 CUP	20.0	1206	29,600 CUP	Bullet: 260 GR. NOS PART Dia: .452"						
Bullet: 335 GR. CPB LWLNGC Dia: .452"							Case: Hornady		Primer: CCI 400, Small Rifle				Col: 1.735"
Case: REM		Primer: REM 2 1/2, Large Pistol				Col: 1.665"	Enforcer	27.0	1575	48,200 PSI	30.0	1750	53,500 PSI
No. 11 FS	19.7	1124	25,500 PSI	23.2	1317	30,000 PSI	A-4100	26.8	1559	47,400 PSI	29.8	1733	52,700 PSI
TCM	15.2	1048	24,300 PSI	17.9	1220	28,600 PSI	Bullet: 260 GR. SPR JHP Dia: .451"						
Bullet: 360 GR. CPB LFN GC Dia: .452"							Case: Freedom Arms		Primer: WIN SR, Small Rifle				Col: 1.675"
Case: WIN		Primer: WIN LP, Large Pistol				Col: 1.680"	HS-6	14.5	1252	25,000 CUP	16.8	1420	36,400 CUP
H4227	19.5	1004	21,100 CUP	22.0C	1167	29,800 CUP	Longshot	14.0	1353	28,200 CUP	15.0	1443	36,600 CUP
H110	18.0	1012	20,200 CUP	21.0	1151	28,300 CUP	Universal	10.3	1157	25,500 CUP	11.5	1245	34,900 CUP
Lil'Gun	15.5	984	22,400 CUP	18.0	1131	29,700 CUP	Titegroup	9.5	1159	25,200 CUP	11.0	1270	35,900 CUP
Bullet: 360 GR. CPB LWLNGC Dia: .452"							Bullet: 300 GR. FA JFP Dia: .452"						
Case: REM		Primer: REM 2 1/2, Large Pistol				Col: 1.670"	Case: Freedom Arms		Primer: WIN SR, Small Rifle				Col: 1.775"
No. 11 FS	17.9	1059	25,300 PSI	21.1	1231	29,800 PSI	H4227	27.0	1541	41,100 CUP	31.0C	1702	52,400 CUP
TCM	14.4	981	24,300 PSI	16.9	1163	28,500 PSI	Lil'Gun	29.0	1666	39,800 CUP	31.0	1746	45,000 CUP
Bullet: 395 GR. CPB LWLNGC Dia: .452"							W296	28.5	1618	44,200 CUP	30.0	1716	53,700 CUP
Case: REM		Primer: REM 2 1/2, Large Pistol				Col: 1.670"	H110	28.5	1618	44,200 CUP	30.0	1716	53,700 CUP
No. 11 FS	15.5	954	25,400 PSI	18.2	1120	29,900 PSI	Bullet: 300 GR. HDY XTP Dia: .452"						
A-4100	13.9	936	24,800 PSI	16.1	1042	28,700 PSI	Case: Hornady		Primer: CCI 400, Small Rifle				Col: 1.760"
TCM	13.2	914	24,300 PSI	15.6	1073	28,600 PSI	A-1680	30.2	1403	44,700 PSI	33.5	1594	49,600 PSI
No. 7	10.3	845	24,400 PSI	12.2	970	28,900 PSI	No. 9	24.8	1494	50,000 PSI	27.5	1691	55,400 PSI
							A-5744	23.4	1134	29,400 PSI	26.0	1275	32,600 PSI
							True Blue	16.7	1278	48,400 PSI	18.5	1420	53,600 PSI

NEVER EXCEED MAXIMUM LOADS

PISTOL DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 300 GR. NOS PART Dia: .452"							H4227	41.0	2077	35,200 PSI	45.5C	2238	42,200 PSI
Case: Hornady Primer: CCI 400, Small Rifle Col: 1.750"							Longshot	20.0	1752	30,300 PSI	27.0	2161	56,500 PSI
Enforcer	25.2	1463	46,300 PSI	28.0	1625	51,400 PSI	Bullet: 225 GR. BAR X Dia: .451"						
A-4100	25.0	1448	45,600 PSI	27.8	1609	50,600 PSI	Case: Starline Primer: WIN LRM, Large Rifle Mag Col: 2.110"						
Bullet: 325 GR. CPB LFN PB Dia: .452"							W296	39.0	2045	39,400 PSI	42.0	2243	51,800 PSI
Case: Freedom Arms Primer: WIN SR, Small Rifle Col: 1.760"							H110	39.0	2045	39,400 PSI	42.0	2243	51,800 PSI
W296	25.2	1345	19,700 CUP	26.0	1511	34,300 CUP	H4227	37.0	2007	42,100 PSI	41.0C	2191	54,400 PSI
H110	25.2	1345	19,700 CUP	26.0	1511	34,300 CUP	Bullet: 240 GR. HDY XTP Dia: .452"						
H4227	24.7	1389	30,300 CUP	25.5C	1452	36,900 CUP	Case: Hornady Primer: WIN LR, Large Rifle Col: 2.160"						
Lil'Gun	23.2	1468	33,200 CUP	24.0	1526	38,900 CUP	A-1680	45.0	1713	48,000 PSI	50.0	1985	53,300 PSI
Trail Boss	5.0	636	13,600 CUP	7.0	798	23,700 CUP	Enforcer	42.0	1936	53,200 PSI	47.0	2195	59,500 PSI
Bullet: 325 GR. SFT HP Dia: .451"							A-4100	41.4	1895	52,800 PSI	46.0	2145	58,700 PSI
Case: Freedom Arms Primer: WIN SR, Small Rifle Col: 1.750"							A-5744	40.0	1836	52,900 PSI	44.0	2035	58,200 PSI
W296	23.0	1379	36,800 CUP	26.0	1545	52,600 CUP	No. 9	34.0	1820	53,100 PSI	38.0	2000	59,300 PSI
H110	23.0	1379	36,800 CUP	26.0	1545	52,600 CUP	Case: Starline Primer: WIN LRM, Large Rifle Mag Col: 2.160"						
H4227	23.0	1323	42,600 CUP	25.5	1460	52,600 CUP	H4227	40.0	2018	43,200 PSI	45.0C	2198	51,800 PSI
Lil'Gun	21.0	1395	41,400 CUP	24.0	1558	52,600 CUP	W296	45.0	2084	43,600 PSI	48.5	2254	52,100 PSI
Bullet: 335 GR. CPB LFN GC Dia: .452"							H110	45.0	2084	43,600 PSI	48.5	2254	52,100 PSI
Case: Freedom Arms Primer: WIN SR, Small Rifle Col: 1.770"							Bullet: 250 GR. BAR X Dia: .451"						
W296	23.0	1321	22,200 CUP	26.0	1531	41,600 CUP	Case: Starline Primer: WIN LRM, Large Rifle Mag Col: 2.200"						
H110	23.0	1321	22,200 CUP	26.0	1531	41,600 CUP	Lil'Gun	39.0	1945	41,400 PSI	42.0	2044	43,600 PSI
H4227	23.0	1306	30,000 CUP	25.5	1460	42,800 CUP	W296	39.0	1985	43,500 PSI	41.5	2133	56,800 PSI
Lil'Gun	21.0	1377	34,000 CUP	24.0	1517	44,200 CUP	H110	39.0	1985	43,500 PSI	41.5	2133	56,800 PSI
Trail Boss	4.8	618	15,500 CUP	6.8	778	25,600 CUP	H4227	36.0	1938	45,700 PSI	40.0C	2074	57,200 PSI
Bullet: 335 GR. CPB LWLNGC Dia: .452"							Bullet: 260 GR. NOS PART Dia: .451"						
Case: Hornady Primer: CCI 400, Small Rifle Col: 1.760"							Case: Hornady Primer: WIN LR, Large Rifle Col: 2.175"						
Enforcer	23.4	1377	48,000 PSI	26.0	1530	53,400 PSI	A-1680	41.5	1628	46,500 PSI	46.0	1860	51,500 PSI
A-4100	23.2	1363	47,300 PSI	25.8	1515	52,500 PSI	Case: Enforcer Primer: WIN LR, Large Rifle Col: 2.175"						
True Blue	16.2	1256	48,100 PSI	18.0	1395	53,400 PSI	Enforcer	38.3	1895	52,200 PSI	42.5	2092	57,900 PSI
Bullet: 360 GR. CPB LFN GC Dia: .452"							Case: Hornady Primer: WIN LR, Large Rifle Col: 2.175"						
Case: Freedom Arms Primer: WIN SR, Small Rifle Col: 1.760"							A-4100	36.9	1843	52,400 PSI	41.0	2048	58,200 PSI
H4227	21.0	1205	31,000 CUP	24.0	1406	48,300 CUP	A-5744	36.0	1685	49,500 PSI	40.0	1880	55,000 PSI
W296	21.0	1265	24,000 CUP	24.0	1447	43,400 CUP	No. 9	31.5	1740	53,100 PSI	35.0	1895	59,000 PSI
H110	21.0	1265	24,000 CUP	24.0	1447	43,400 CUP	Case: Starline Primer: WIN LRM, Large Rifle Mag Col: 2.175"						
Lil'Gun	20.0	1330	38,000 CUP	23.0	1477	48,200 CUP	W296	41.0	1959	41,600 PSI	46.0	2178	54,000 PSI
Trail Boss	5.0	615	18,000 CUP	6.0	699	27,300 CUP	H110	41.0	1959	41,600 PSI	46.0	2178	54,000 PSI
Bullet: 360 GR. CPB LWLNGC Dia: .452"							Lil'Gun	43.0	1971	39,200 PSI	46.0	2080	43,400 PSI
Case: Hornady Primer: CCI 400, Small Rifle Col: 1.770"							H4227	38.0	1939	45,000 PSI	43.0C	2098	51,300 PSI
No. 11 FS	22.5	1299	42,700 PSI	26.4	1525	50,200 PSI	Bullet: 265 GR. SFT HP Dia: .451"						
True Blue	12.5	1075	37,100 PSI	16.0	1262	47,500 PSI	Case: Starline Primer: WIN LRM, Large Rifle Mag Col: 2.180"						
Bullet: 370 GR. CPB LWLNGC Dia: .452"							W296	41.0	1932	43,300 PSI	46.5	2183	56,400 PSI
Case: Hornady Primer: CCI 400, Small Rifle Col: 1.770"							H110	41.0	1932	43,300 PSI	46.5	2183	56,400 PSI
Enforcer	21.6	1258	43,400 PSI	24.0	1398	48,200 PSI	Lil'Gun	43.0	1988	40,800 PSI	46.5	2118	45,900 PSI
A-4100	21.4	1245	42,700 PSI	23.8	1384	47,500 PSI	H4227	38.0	1940	44,800 PSI	43.5C	2109	53,100 PSI
Bullet: 395 GR. CPB LFN GC Dia: .452"							Bullet: 275 GR. BAR XPB Dia: .452"						
Case: Freedom Arms Primer: WIN SR, Small Rifle Col: 1.770"							Case: Hornady Primer: WIN LR, Large Rifle Col: 2.289"						
H4227	18.0	1076	29,600 CUP	21.0	1269	48,300 CUP	4100	34.9	1757	48,000 PSI	38.7	1952	53,300 PSI
W296	18.5	1169	27,200 CUP	21.0	1309	43,200 CUP	No. 9	34.2	1805	52,000 PSI	38.0	2006	57,800 PSI
H110	18.5	1169	27,200 CUP	21.0	1309	43,200 CUP	Bullet: 300 GR. HDY XTP MAG Dia: .452"						
Lil'Gun	17.5	1212	40,100 CUP	20.0	1331	47,100 CUP	Case: Starline Primer: WIN LRM, Large Rifle Mag Col: 2.160"						
Trail Boss	4.0	519	19,200 CUP	5.0	607	23,600 CUP	CFE BLK	45.2	1682	30,600 PSI	50.0C	1874	40,900 PSI
Bullet: 395 GR. CPB LWLNGC Dia: .452"							Lil'Gun	40.0	1970	46,300 PSI	44.0	2067	53,600 PSI
Case: Hornady Primer: CCI 400, Small Rifle Col: 1.770"							W296	38.0	1825	43,200 PSI	42.5	2034	56,100 PSI
No. 11 FS	19.4	1180	41,600 PSI	22.9	1364	49,000 PSI	H110	38.0	1825	43,200 PSI	42.5	2034	56,100 PSI
Enforcer	19.8	1193	43,500 PSI	22.0	1325	48,300 PSI	H4227	36.0	1852	49,000 PSI	40.0C	1988	57,000 PSI
A-4100	19.7	1181	42,800 PSI	21.8	1312	47,600 PSI	Bullet: 300 GR. NOS PART Dia: .452"						
460 S&W MAG							Case: Hornady Primer: WIN LR, Large Rifle Col: 2.187"						
Barrel: 10.743" Twist: 1:20" Trim: 1.790"							Enforcer	35.6	1855	49,500 PSI	39.8	2042	55,400 PSI
Bullet: 200 GR. BAR XPB Dia: .451"							A-4100	35.1	1820	52,000 PSI	39.0	2042	57,800 PSI
Case: Hornady Primer: WIN LR, Large Rifle Col: 2.320"							Bullet: 300 GR. SIE JSP Dia: .452"						
Enforcer	42.3	2050	42,500 PSI	47.0	2278	47,200 PSI	Case: Hornady Primer: WIN LR, Large Rifle Col: 2.208"						
No. 9	41.4	2168	51,000 PSI	46.0	2409	56,700 PSI	A-1680	40.5	1590	51,300 PSI	45.0	1810	57,000 PSI
Case: Starline Primer: WIN LRM, Large Rifle Mag Col: 2.320"							A-5744	34.0	1590	51,700 PSI	38.0	1785	57,800 PSI
H110	45.0	2237	38,500 PSI	46.5	2315	42,900 PSI	No. 9	30.0	1620	53,800 PSI	34.0	1790	61,000 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Bullet: 325 GR. CPB LFN PB Dia: .452"													
Case: Starline		Primer: WIN LRM, Large Rifle Mag				Col: 2.200"							
CFE BLK	45.5	1716	30,200 PSI	50.0C	1912	38,600 PSI							
W296	38.0	1810	45,300 PSI	42.0	1953	54,900 PSI							
H110	38.0	1810	45,300 PSI	42.0	1953	54,900 PSI							
Lil'Gun	39.0	1843	43,700 PSI	42.0	1925	46,400 PSI							
H4227	34.0	1790	51,100 PSI	38.0	1897	56,400 PSI							
Titegroup	15.0	1353	48,200 PSI	17.6	1470	55,100 PSI							
Trail Boss	7.0	734	16,500 PSI	11.0	914	20,400 PSI							
Bullet: 325 GR. SFT HP Dia: .451"													
Case: Starline		Primer: WIN LRM, Large Rifle Mag				Col: 2.175"							
CFE BLK	42.8	1672	33,600 PSI	47.0C	1810	40,600 PSI							
H4198	37.0	1556	36,200 PSI	41.0C	1695	42,500 PSI							
Lil'Gun	36.0	1769	44,500 PSI	41.0	1955	55,600 PSI							
W296	35.0	1749	46,300 PSI	39.0	1907	56,800 PSI							
H110	35.0	1749	46,300 PSI	39.0	1907	56,800 PSI							
H4227	33.0	1716	46,700 PSI	37.0	1859	57,300 PSI							
Bullet: 335 GR. CPB LWLNGC Dia: .452"													
Case: Hornady		Primer: WIN LR, Large Rifle				Col: 2.180"							
A-1680	38.0	1500	54,000 PSI	42.0	1684	59,700 PSI							
No. 11 FS	33.3	1572	51,000 PSI	39.2	1863	60,000 PSI							
A-5744	32.0	1500	52,300 PSI	36.5	1710	59,600 PSI							
A-4100	31.0	1520	53,900 PSI	34.5	1675	60,000 PSI							
No. 9	28.0	1510	54,200 PSI	31.5	1660	61,000 PSI							
Bullet: 335 GR. CPB WLN GC Dia: .452"													
Case: Starline		Primer: WIN LRM, Large Rifle Mag				Col: 2.180"							
CFE BLK	44.1	1673	30,300 PSI	49.0C	1883	39,800 PSI							
Lil'Gun	39.0	1834	45,000 PSI	41.5	1919	49,300 PSI							
W296	38.0	1790	46,100 PSI	41.0	1917	55,800 PSI							
H110	38.0	1790	46,100 PSI	41.0	1917	55,800 PSI							
H4227	33.0	1719	50,000 PSI	37.5	1849	55,700 PSI							
Titegroup	15.0	1333	46,800 PSI	17.5	1446	55,800 PSI							
Trail Boss	7.0	726	17,700 PSI	10.0	887	22,200 PSI							
Bullet: 360 GR. CPB LWLNGC Dia: .452"													
Case: Hornady		Primer: WIN LR, Large Rifle				Col: 2.199"							
A-1680	36.0	1400	52,400 PSI	39.5	1600	57,500 PSI							
No. 11 FS	31.5	1533	50,900 PSI	37.1	1775	59,900 PSI							
A-5744	31.5	1480	53,800 PSI	35.0	1640	59,800 PSI							
A-4100	29.7	1450	53,200 PSI	33.0	1595	59,100 PSI							
No. 9	27.0	1450	54,400 PSI	30.0	1580	60,400 PSI							
Bullet: 360 GR. CPB WLN GC Dia: .452"													
Case: Starline		Primer: WIN LRM, Large Rifle Mag				Col: 2.190"							
CFE BLK	41.8	1599	30,000 PSI	46.0C	1803	39,600 PSI							
H4198	37.0	1531	38,200 PSI	40.0C	1644	43,200 PSI							
Lil'Gun	36.0	1752	45,100 PSI	40.0	1882	52,600 PSI							
W296	35.0	1713	47,600 PSI	38.0	1836	56,900 PSI							
H110	35.0	1713	47,600 PSI	38.0	1836	56,900 PSI							
IMR 4198	34.0	1433	34,600 PSI	37.0C	1538	38,800 PSI							
H4227	31.0	1632	49,500 PSI	35.5	1776	56,500 PSI							
Titegroup	13.0	1208	40,300 PSI	15.6	1340	55,700 PSI							
Trail Boss	7.0	712	19,600 PSI	9.0	827	24,200 PSI							
Bullet: 395 GR. CPB WLN GC Dia: .452"													
Case: Starline		Primer: WIN LRM, Large Rifle Mag				Col: 2.185"							
CFE BLK	40.1	1631	35,700 PSI	44.0C	1747	42,200 PSI							
H4198	35.0	1484	40,000 PSI	38.0C	1596	46,600 PSI							
Lil'Gun	33.0	1665	47,200 PSI	36.8	1796	56,400 PSI							

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Powder	Starting Loads			Maximum Loads			Powder	Starting Loads			Maximum Loads		
	Gr	Vel	Pressure	Gr	Vel	Pressure		Gr	Vel	Pressure	Gr	Vel	Pressure
W296	18.0	1115	34,400 PSI	20.5	1258	46,600 PSI	H110	42.0	1813	40,000 PSI	45.3	1951	48,900 PSI
H110	18.0	1115	34,400 PSI	20.5	1258	46,600 PSI	Lil'Gun	40.0	1862	43,700 PSI	44.5	2002	49,100 PSI
A-4100	18.5	1158	39,900 PSI	20.5	1265	44,300 PSI	H4227	40.0	1788	40,700 PSI	43.0	1920	49,200 PSI
Enforcer	18.5	1158	39,900 PSI	20.5	1265	44,300 PSI	Longshot	22.5	1599	43,300 PSI	24.5	1684	49,500 PSI
No. 9	17.0	1130	39,900 PSI	19.0	1240	44,600 PSI	Titegroup	12.0	1144	25,600 PSI	20.0	1575	50,700 PSI
Lil'Gun	15.0	1067	34,200 PSI	18.0	1229	45,600 PSI	Bullet: 335 GR. RAIN HP Dia: .500"						
No. 7	13.0	1050	39,200 PSI	15.0	1180	45,200 PSI	Case: Hornady		Primer: WIN LR, Large Rifle			Col: 1.960"	
Longshot	9.5	965	37,900 PSI	11.0	1082	46,900 PSI	A-5744	41.7	1585	45,100 PSI	49.0	1880	53,000 PSI
Titegroup	7.0	816	35,000 PSI	8.5	959	46,800 PSI	Enforcer	38.3	1718	44,500 PSI	45.0	1930	52,300 PSI
Bullet: 405 GR. CPB (w/GCK) Dia: .475"							A-4100	38.0	1709	43,700 PSI	44.7	1917	51,400 PSI
Case: Hornady		Primer: WIN LP, Large Pistol			Col: 1.620"		No. 9	37.6	1773	49,100 PSI	41.8	1909	54,600 PSI
W296	20.0	1213	35,500 PSI	22.3	1328	45,200 PSI	No. 2	20.0	1432	47,000 PSI	23.5	1579	55,200 PSI
H110	20.0	1213	35,500 PSI	22.3	1328	45,200 PSI	Bullet: 350 GR. HDY XTP Dia: .500"						
H4227	19.0	1112	33,200 PSI	21.7	1255	45,500 PSI	Case: Hornady		Primer: WIN LR, Large Rifle			Col: 1.985"	
Lil'Gun	19.0	1219	34,400 PSI	21.0	1337	43,900 PSI	A-1680	48.2	1626	38,400 PSI	53.6	1820	42,700 PSI
Longshot	10.0	1023	33,400 PSI	11.8	1140	46,100 PSI	A-5744	42.0	1599	45,600 PSI	49.4	1868	53,600 PSI
Titegroup	7.5	927	36,100 PSI	8.8	1019	46,500 PSI	Enforcer	38.2	1685	46,700 PSI	45.0	1914	55,000 PSI
Trail Boss	3.5	469	15,200 PSI	5.5	645	25,700 PSI	A-4100	38.1	1682	46,300 PSI	44.9	1909	54,500 PSI
Bullet: 420 GR. BTB LFN GC Dia: .476"							No. 9	37.6	1749	49,300 PSI	41.8	1878	54,800 PSI
Case: Hornady		Primer: WIN LP, Large Pistol			Col: 1.640"		Case: Starline		Primer: WIN LRM, Large Rifle Mag			Col: 1.985"	
H4227	19.5	1125	39,100 PSI	21.3C	1214	46,400 PSI	CFE BLK	46.0	1528	24,600 PSI	54.0C	1836	35,700 PSI
W296	19.0	1145	34,200 PSI	20.0	1203	38,700 PSI	W296	39.0	1712	41,500 PSI	43.0	1877	50,600 PSI
H110	19.0	1145	34,200 PSI	20.0	1203	38,700 PSI	H110	39.0	1712	41,500 PSI	43.0	1877	50,600 PSI
Lil'Gun	18.0	1157	37,000 PSI	20.0	1267	46,000 PSI	H4227	38.0	1675	41,400 PSI	42.5	1863	49,900 PSI
Longshot	9.8	994	37,500 PSI	11.0	1080	46,600 PSI	Lil'Gun	35.0	1697	41,500 PSI	42.0	1912	48,100 PSI
Titegroup	7.0	862	34,100 PSI	8.3	962	46,100 PSI	Longshot	21.0	1482	41,400 PSI	23.0	1602	50,000 PSI
Trail Boss	3.5	467	16,200 PSI	5.0	597	24,300 PSI	Titegroup	11.0	1032	23,100 PSI	18.5	1461	50,000 PSI
500 S&W MAG													
Barrel: 10" Twist: 1:18" Trim: 1.615"													
Bullet: 275 GR. BAR XPB Dia: .500"							Bullet: 350 GR. MBW LLFNGC Dia: .500"						
Case: Starline		Primer: WIN LRM, Large Rifle Mag			Col: 2.085"		Case: Hornady		Primer: WIN LR, Large Rifle			Col: 1.950"	
CFE BLK	46.0	1616	22,500 PSI	54.0C	1861	31,000 PSI	A-1680	47.0	1635	35,100 PSI	52.3	1837	39,100 PSI
W296	42.0	1965	43,900 PSI	45.0	2082	49,300 PSI	A-5744	40.4	1379	41,600 PSI	47.5	1831	48,900 PSI
H110	42.0	1965	43,900 PSI	45.0	2082	49,300 PSI	Enforcer	38.7	1706	46,200 PSI	45.5	1979	54,300 PSI
H4227	40.0	1891	41,000 PSI	44.0	2047	48,400 PSI	A-4100	38.7	1701	45,900 PSI	45.4	1973	53,800 PSI
Lil'Gun	40.5	1977	41,100 PSI	44.0	2137	50,800 PSI	No. 9	35.1	1676	42,100 PSI	44.3	1917	53,200 PSI
Longshot	20.0	1594	35,000 PSI	24.5	1824	48,900 PSI	Bullet: 350 GR. SIE JHP Dia: .500"						
Titegroup	11.0	1170	22,800 PSI	20.0	1707	50,300 PSI	Case: Hornady		Primer: WIN LR, Large Rifle			Col: 2.050"	
Bullet: 275 GR. RAIN HP Dia: .500"							A-1680	50.1	1651	38,800 PSI	55.7	1849	43,200 PSI
Case: Hornady		Primer: WIN LR, Large Rifle			Col: 1.965"		A-5744	43.3	1620	46,400 PSI	51.0	1892	54,600 PSI
A-5744	46.5	1771	43,600 PSI	54.7	2079	51,300 PSI	Enforcer	39.6	1686	46,500 PSI	46.5	1916	54,600 PSI
Enforcer	42.4	1822	40,100 PSI	49.9	2111	47,200 PSI	No. 11 FS	40.3	1661	47,900 PSI	46.3	1882	55,000 PSI
A-4100	42.1	1813	39,300 PSI	49.6	2099	46,400 PSI	A-4100	39.3	1677	45,700 PSI	46.2	1904	53,700 PSI
No. 2	23.0	1671	46,800 PSI	27.0	1833	55,000 PSI	No. 9	38.1	1726	49,300 PSI	42.3	1868	54,700 PSI
Bullet: 300 GR. HDY FTX Dia: .500"							Bullet: 370 GR. CPB LGC Dia: .500"						
Case: Hornady		Primer: WIN LR, Large Rifle			Col: 2.175"		Case: Starline		Primer: WIN LRM, Large Rifle Mag			Col: 2.020"	
A-1680	48.5	1661	31,500 PSI	53.9	1852	35,000 PSI	CFE BLK	46.0	1470	22,300 PSI	54.0C	1752	31,600 PSI
No. 11 FS	43.1	1849	47,900 PSI	49.6	2095	55,100 PSI	W296	44.5	1801	42,800 PSI	47.0	1909	49,900 PSI
Enforcer	41.4	1829	46,900 PSI	48.7	2130	55,200 PSI	H110	44.5	1801	42,800 PSI	47.0	1909	49,900 PSI
A-4100	41.3	1826	46,500 PSI	48.6	2127	54,700 PSI	Lil'Gun	41.0	1831	44,900 PSI	44.5	1949	50,400 PSI
A-5744	40.8	1576	36,800 PSI	48.0	1847	43,200 PSI	H4227	40.0	1688	38,700 PSI	42.0	1784	48,900 PSI
No. 9	38.6	1815	47,100 PSI	45.4	2099	55,400 PSI	Longshot	21.5	1476	42,000 PSI	23.3	1576	50,000 PSI
Bullet: 300 GR. RAIN FP Dia: .500"							Titegroup	16.0	1326	40,600 PSI	18.5	1431	49,600 PSI
Case: Hornady		Primer: WIN LR, Large Rifle			Col: 2.005"		Trail Boss	8.0	746	13,500 PSI	12.0	926	19,000 PSI
A-5744	45.2	1691	43,900 PSI	53.2	2003	51,600 PSI	Bullet: 370 GR. CPB LWFNGC Dia: .501"						
Enforcer	42.5	1824	44,200 PSI	50.0	2085	52,000 PSI	Case: Hornady		Primer: WIN LR, Large Rifle			Col: 1.995"	
A-4100	42.3	1817	43,600 PSI	49.8	2076	51,300 PSI	A-1680	47.4	1628	37,400 PSI	52.7	1826	41,600 PSI
No. 9	37.9	1777	38,000 PSI	44.6	1977	44,800 PSI	A-5744	41.3	1573	46,100 PSI	48.6	1833	54,200 PSI
No. 2	21.7	1561	46,300 PSI	25.6	1705	54,600 PSI	Enforcer	37.8	1670	46,900 PSI	44.4	1898	55,100 PSI
Bullet: 325 GR. BAR XPB Dia: .500"							A-4100	37.5	1662	46,000 PSI	44.2	1888	54,200 PSI
Case: Hornady		Primer: WIN LR, Large Rifle			Col: 2.290"		No. 9	35.2	1656	47,300 PSI	41.5	1874	55,800 PSI
A-4100	38.0	1680	51,600 PSI	42.0	1820	57,000 PSI	Bullet: 375 GR. BAR XPB Dia: .500"						
Enforcer	38.0	1680	51,600 PSI	42.0	1820	57,000 PSI	Case: Hornady		Primer: WIN LR, Large Rifle			Col: 2.290"	
Case: Starline		Primer: WIN LRM, Large Rifle Mag			Col: 2.290"		A-1680	38.0	1250	33,000 PSI	42.0	1450	36,500 PSI
CFE BLK	46.9	1540	22,800 PSI	54.0C	1793	31,200 PSI	No. 11 FS	36.0	1544	51,000 PSI	39.9	1695	56,700 PSI
W296	42.0	1813	40,000 PSI	45.3	1951	48,900 PSI	A-4100	33.0	1475	50,200 PSI	37.5	1665	57,000 PSI
							Enforcer	33.0	1475	50,200 PSI	37.5	1665	57,000 PSI
							No. 9	29.0	1460	50,900 PSI	32.5	1650	57,000 PSI

NEVER EXCEED MAXIMUM LOADS

*Max loads that show an asterisk following the "C" for compressed load will not fit with standard IMR 7828. Reduce by 4%.

PISTOL DATA

Starting Loads							Maximum Loads						
Powder	Grs	Vel	Pressure	Grs	Vel	Pressure	Powder	Grs	Vel	Pressure	Grs	Vel	Pressure
Case: Starline							Case: Starline						
Primer: WIN LRM, Large Rifle Mag							Primer: WIN LRM, Large Rifle Mag						
Col: 2.290"							Col: 2.290"						
CFE BLK	41.6	1431	24,900 PSI	49.0C	1641	35,300 PSI	A-4100	33.4	1474	46,200 PSI	39.3	1656	54,400 PSI
H4227	33.0	1550	38,000 PSI	36.8	1717	50,500 PSI	No. 9	31.0	1475	46,200 PSI	36.4	1626	54,300 PSI
Lil'Gun	31.0	1605	39,700 PSI	34.0	1738	49,900 PSI	Bullet: 450 GR. MTB LLFNGC Dia: .501"						
Longshot	18.0	1347	38,300 PSI	21.0	1487	49,600 PSI	Case: Hornady						
Titegroup	14.0	1213	37,000 PSI	17.0	1375	50,500 PSI	Primer: WIN LR, Large Rifle						
Bullet: 385 GR. REM. HP Dia: .500"							Col: 2.050"						
Case: Starline							Case: Starline						
Primer: WIN LRM, Large Rifle Mag							Primer: WIN LRM, Large Rifle Mag						
Col: 2.150"							Col: 2.150"						
W296	39.0	1648	38,700 PSI	42.5	1794	47,300 PSI	A-1680	42.2	1537	45,900 PSI	46.9	1697	51,000 PSI
H110	39.0	1648	38,700 PSI	42.5	1794	47,300 PSI	A-5744	35.8	1401	46,500 PSI	42.1	1641	54,700 PSI
H4227	37.0	1644	41,900 PSI	41.0	1788	51,800 PSI	Enforcer	31.0	1466	46,800 PSI	36.4	1639	55,000 PSI
Lil'Gun	38.0	1727	42,700 PSI	41.0	1852	51,100 PSI	A-4100	30.6	1454	46,700 PSI	36.0	1625	55,000 PSI
Longshot	20.0	1398	39,900 PSI	23.0	1523	49,300 PSI	No. 9	28.2	1463	47,000 PSI	33.1	1597	55,200 PSI
Titegroup	15.5	1250	38,300 PSI	18.5	1396	49,500 PSI	Bullet: 500 GR. HDY SP Dia: .500"						
Bullet: 400 GR. BAR FNFB Dia: .500"							Case: Starline						
Case: Hornady							Primer: WIN LRM, Large Rifle Mag						
Col: 2.030"							Col: 2.065"						
A-1680	40.3	1451	37,200 PSI	44.8	1582	41,300 PSI	CFE BLK	40.8	1444	36,700 PSI	48.0C	1628	51,100 PSI
A-5744	36.8	1408	45,300 PSI	43.2	1662	53,200 PSI	W296	31.0	1400	34,400 PSI	33.0	1482	51,900 PSI
Enforcer	32.8	1545	47,100 PSI	38.5	1718	55,200 PSI	H110	31.0	1400	34,400 PSI	33.0	1482	51,900 PSI
A-4100	32.1	1527	45,400 PSI	37.8	1694	53,500 PSI	H4227	30.0	1360	42,300 PSI	32.2	1436	49,300 PSI
No. 9	29.3	1496	46,400 PSI	34.4	1673	54,500 PSI	Lil'Gun	27.0	1356	41,700 PSI	30.0	1463	50,100 PSI
Bullet: 400 GR. SIE JSP Dia: .500"							Longshot	16.0	1115	39,200 PSI	18.5	1222	50,400 PSI
Case: Hornady							Titegroup	13.0	1020	40,200 PSI	15.0	1111	50,000 PSI
Primer: WIN LR, Large Rifle							Bullet: 500 GR. HDY XTP Dia: .500"						
Col: 2.050"							Case: Hornady						
A-1680	45.0	1506	39,400 PSI	50.0	1699	43,800 PSI	Primer: WIN LR, Large Rifle						
A-5744	39.7	1484	46,100 PSI	46.7	1743	54,300 PSI	Col: 2.070"						
Enforcer	38.3	1632	49,600 PSI	42.0	1749	54,400 PSI	A-1680	39.4	1405	49,300 PSI	43.7	1533	54,700 PSI
A-4100	35.5	1554	45,400 PSI	41.8	1738	53,500 PSI	A-5744	33.9	1276	44,500 PSI	39.9	1503	52,300 PSI
No. 9	31.5	1527	45,200 PSI	37.0	1669	53,100 PSI	Enforcer	28.3	1306	44,600 PSI	33.2	1466	52,300 PSI
Case: Starline							A-4100	28.1	1301	43,600 PSI	33.0	1458	51,200 PSI
Primer: WIN LRM, Large Rifle Mag							No. 11 FS	29.6	1307	50,900 PSI	32.9	1441	56,600 PSI
Col: 2.050"							No. 9	25.3	1257	43,200 PSI	29.7	1403	50,700 PSI
CFE BLK	44.2	1481	27,500 PSI	52.0C	1759	40,900 PSI	Bullet: 440 GR. CPB LGC Dia: .500"						
W296	34.0	1514	38,000 PSI	40.0	1721	49,700 PSI	Case: Starline						
H110	34.0	1514	38,000 PSI	40.0	1721	49,700 PSI	Primer: WIN LRM, Large Rifle Mag						
H4227	36.5	1585	42,000 PSI	39.5	1698	49,100 PSI	Col: 2.025"						
Lil'Gun	31.0	1520	38,500 PSI	37.0	1725	49,300 PSI	CFE BLK	41.6	1473	28,300 PSI	49.0C	1672	36,600 PSI
Longshot	18.0	1274	36,500 PSI	22.0	1458	49,000 PSI	W296	34.0	1509	40,700 PSI	38.0	1654	49,900 PSI
Titegroup	15.0	1208	39,700 PSI	17.5	1335	49,900 PSI	H110	34.0	1509	40,700 PSI	38.0	1654	49,900 PSI
Bullet: 410 GR. MBW LLFNGC Dia: .501"							H4227	34.0	1496	41,900 PSI	37.0	1609	49,400 PSI
Case: Hornady							Lil'Gun	30.0	1483	40,200 PSI	35.0	1653	50,500 PSI
Primer: WIN LR, Large Rifle							Longshot	18.5	1300	41,900 PSI	20.7	1393	50,500 PSI
Col: 2.085"							Titegroup	14.5	1191	42,700 PSI	16.5	1278	50,600 PSI
A-1680	47.5	1637	43,900 PSI	52.8	1813	48,800 PSI	Trail Boss	7.0	643	14,600 PSI	10.0	799	21,200 PSI
A-5744	40.1	1508	46,500 PSI	47.2	1753	54,700 PSI	Bullet: 440 GR. CPB LWFNGC Dia: .501"						
No. 11 FS	37.1	1521	47,100 PSI	43.7	1759	55,400 PSI	Case: Hornady						
Enforcer	35.1	1531	46,700 PSI	41.3	1744	54,900 PSI	Primer: WIN LR, Large Rifle						
A-4100	35.0	1527	46,400 PSI	41.1	1739	54,500 PSI	Col: 2.005"						
No. 9	34.9	1604	48,700 PSI	38.8	1718	54,100 PSI	A-1680	42.7	1540	42,900 PSI	47.5	1701	47,700 PSI
Bullet: 440 GR. CPB LWFNGC Dia: .501"							A-5744	36.3	1425	47,100 PSI	42.7	1655	55,400 PSI
Case: Starline							Enforcer	32.0	1512	47,700 PSI	37.6	1676	56,000 PSI
Primer: WIN LRM, Large Rifle Mag							A-4100	31.6	1500	46,600 PSI	37.1	1661	54,700 PSI
Col: 2.025"							No. 9	28.1	1463	46,700 PSI	33.0	1602	54,900 PSI
CFE BLK	41.6	1473	28,300 PSI	49.0C	1672	36,600 PSI	Bullet: 440 GR. MBW LLFNGC Dia: .501"						
W296	34.0	1509	40,700 PSI	38.0	1654	49,900 PSI	Case: Hornady						
H110	34.0	1509	40,700 PSI	38.0	1654	49,900 PSI	Primer: WIN LR, Large Rifle						
H4227	34.0	1496	41,900 PSI	37.0	1609	49,400 PSI	Col: 2.105"						
Lil'Gun	30.0	1483	40,200 PSI	35.0	1653	50,500 PSI	A-1680	44.7	1541	42,800 PSI	49.7	1722	47,500 PSI
Longshot	18.5	1300	41,900 PSI	20.7	1393	50,500 PSI	A-5744	38.1	1435	46,200 PSI	44.8	1669	54,300 PSI
Titegroup	14.5	1191	42,700 PSI	16.5	1278	50,600 PSI	No. 11 FS	36.7	1474	48,500 PSI	42.2	1682	55,800 PSI
Trail Boss	7.0	643	14,600 PSI	10.0	799	21,200 PSI	Enforcer	33.4	1476	46,400 PSI	39.4	1659	54,700 PSI

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL data

Shotshell loading data is shown in a format that provides convenient indexing of the load components and performance. Loads are listed in the following sequence:

- Gauge – largest to smallest
- Length – shortest to longest hull length
- Alphabetical order listing by hull manufacturer
- Shot Weight – lightest to heaviest
- Alphabetical order listing by primer manufacturer

For every load component set, multiple velocity levels are shown. Factory standard velocities are given to allow the handloader to duplicate their favorite offerings. Additional velocity levels may also be listed so the handloader can adjust load performance faster or slower than the standard factory loads.

A common concern with shotshell is recoil. Recoil can be controlled significantly through the use of lower shot weights and lower velocity levels. This shotshell loading data contains a number of such loads for those who want reduced recoil. Note that lower recoil loads may not function semi-automatic shotguns.

Primarily, the data for this edition was developed through the use of pressure barrels. All loads for standard U.S. cartridges adhere to the guidelines provided by the Sporting Arms and Ammunition Manufacturers' Institute (S.A.A.M.I.).

Wad Chart

The following chart shows wads designed to perform as replacements for current popular models as listed in the ensuing data.

BP/SPTG16: BP ULTRA SHORT EURO	BPG/BP, BPG/BP, BP/CS125, G/BP16, SG16	WAA12:	CB1118-12, CBO118-12, WT12, BLUE DUSTER, DRA12, DR XL 1 1/8 BLUE, MEC 118T4, MEC118BIOT4
FEDERAL 12C1:	CB3118-12AR	REMINGTON TGT12:	DR12, CB 8100-12
FEDERAL 12SO:	CB2100-12, DR XXL ORANGE, DR HFO, DR FO, MEC100S4	WAA12SL:	CB1100-12, GREEN DUSTER, JAMMER XL-1, DR XL1 GREEN, SG-1, DRA 12 PINK, MEC100T4, MEC100BIOT4
FEDERAL 12S3:	CB2118-12, DRF3, DR HF3, MEC118T8	WAA12L:	CB0178-12, DR XXL PINK, MEC78T4
HOR. VERSALITE:	DRV-12	WAA12F114:	CB1114-12, DRA-12 YELLOW
HOR. VERSALITE 20:	DRV-20	WAA20:	CB1078-20, YELLOW DUSTER
PATTERN CONTROL RED:	PC-12-POST	WAA28:	CB1034-28, RED DUSTER
REMINGTON TGT 12:	CB8100-12, DR RT 12, DR RHT 12	WAA28HS:	CB5034-28HS
REMINGTON FIG 8:	CB8118-12, DR RF8, DR HRF8, CB3118-12A, MEC118T8	WAA41, WAA410HS, SP410, 410SC:	CB5050-410 HS
REMINGTON SP 20:	REMINGTON SP20S	WAA16:	CB0100-16
WAA12R:	CB1138-12	WINDJAMMER:	CB4118-12B, DR WJRPL, SG-12

Notes on Recoil

In physics we learned that for every force there is an equal and opposite force. In a firearm, the gases generated by burning powder push the ejecta (shot and wad) down the barrel and in turn push the shotgun in the opposite direction creating what we call recoil. According to physics, the momentum of a free recoiling firearm is equal and opposite in direction to the momentum of the ejecta and powder charge. The formula for free recoil of a firearm is:

Recoil Energy in ft. lbs. = $(Bw Mv + 4700 Pw)^2$

64.348 Gw

Where Gw = the weight of the gun in pounds

Bw = weight of the ejecta (shot and wad) in pounds

Pw = powder weight in pounds

Mv = muzzle velocity in feet per second

Example: Our shooter has an 8 lb. target gun with a load using 18.0 grs. of Clays, a wad weighing 33.0 gr., shot charge of 1 1/8 oz. and giving 1200 f/s muzzle velocity. First, we must convert the ejecta weight to lbs. (1 1/8 oz. = 492.0 gr.) Dividing grains by 7000 converts to pounds.

Gw = 8 lb.

Bw = $492.0 + 33.0 = 525 = .075$ lb.

7000 7000

Pw = $18 = .003$ lb.

7000

Mv = 1200 ft/sec

Substituting the numbers in the formula we find the

Recoil energy of the shooters load = $[(.075 \times 1200) + (4700 \times .003)]^2 = 21.05$ ft/lbs

64.348 x 8

Unfortunately, too many shooters think that pressure has an effect on recoil. In truth, it doesn't. It is not included in the formula for calculating recoil as noted in our example. However, there are factors that effect our perception of recoil. A major factor is muzzle blast. Clean burning powders help limit muzzle blast, are quieter, and therefore seem lower in recoil.

Some people think slow burning powders produce less recoil. What they are perceiving is the longer time it takes the powder to reach peak pressure, which gives the same recoil as a faster burning powder, just over a longer period of time. Others like the faster burning powders which peak quicker, although still the same recoil, just a shorter period of recoil. Perception can be everything to a shooter, so he should shoot what he “feels” is the most comfortable. That is why Hodgdon has a complete range of powders to cover all perceptions and needs. The only real way to lessen recoil is to lower velocities, or lessen shot charge, or both.

Lee

BUSHING #	CLAYS	INTER	UNIV	HS-6	H110	PRF PATT	TITEWAD	LIL' GUN	W572 & LGSH	HIGH GUN	TITE GROUP	700-X	800-X	WST	WSF	SUPER HDCP
0.095	10.7	12.3	15.2	21.9	22.5	16.9	12.4	23.5	19.1	18.4	18.4	10.9	11.0	12.1	18.1	17.4
0.100	11.3	13.0	16.0	23.0	23.7	17.8	13.0	24.7	20.1	19.2	19.2	11.5	11.6	12.7	19.0	18.3
0.105	11.8	13.7	16.8	24.2	24.9	18.7	13.7	26.0	21.1	20.0	20.0	12.0	13.0	13.4	20.0	19.2
0.110	12.4	14.3	17.6	25.3	26.1	19.6	14.3	27.2	22.1	20.8	20.8	12.6	13.7	14.0	21.0	20.1
0.116	13.0	15.1	18.5	26.7	27.5	20.7	15.1	28.7	23.3	21.7	21.7	13.3	15.9	14.8	22.1	21.3
0.122	13.7	15.9	19.5	28.1	28.9	21.7	15.9	30.2	24.5	22.9	22.9	14.0	16.7	15.6	23.2	22.4
0.128	14.4	16.6	20.4	29.4	30.3	22.8	16.7	31.7	25.7	24.1	24.1	14.7	17.5	16.3	24.4	23.5
0.134	15.0	17.5	21.4	30.8	31.8	23.9	17.5	33.1	26.9	25.3	25.3	15.4	18.3	17.1	25.5	24.6
0.141	15.8	18.4	22.5	32.4	33.4	25.1	18.4	34.9	28.3	26.5	26.5	16.0	19.2	18.1	26.9	25.9
0.148	16.6	19.3	23.6	34.0	35.1		19.3	36.5	29.8			16.7	20.3	19.0	28.2	27.2
0.151	16.7	19.6	24.0				19.7	37.2	30.4			17.1	20.7	19.4	28.8	27.7
0.155	17.3	20.1	24.7	35.7	36.7		20.4	38.2	31.1			17.5	21.2	19.9	29.6	28.5
0.163	18.2	21.1	25.9	37.5	38.6		21.4	40.2	32.7			18.4	22.3	21.0	31.2	30.0
0.171	19.1	22.0	27.1	39.3	40.5		22.5	42.1	34.2			19.3	23.4	22.0	32.9	31.5
0.180	20.1	23.1	28.5	41.4	42.7		23.6	44.4	36.1			20.4	24.6	23.2	34.4	33.2
0.189	21.2	24.1	29.9	43.5	44.8			46.6	37.9			21.4	25.9	24.3	36.2	34.8
0.198	22.1	25.2	31.3	45.5	46.9		26.0	48.8	39.7			22.4	27.1	25.5	37.7	36.5

INTERNATIONAL---INTER
TITEGROUP---TITE GRP

LONGSHOT---LGSH
UNIVERSAL---UNIV

PERFECT PATTERN---PRF PATT

Ponsness Warren

BUSHING #	CLAYS	INTER	UNIV	HS-6	H110	PRF PATT	TITEWAD	LIL' GUN	W572 & LGSH	HIGH GUN	TITE GROUP	700-X	800-X	WST	WSF	SUPER HDCP
1AX						8.8		12.0								
2AX						9.0		12.7								
3AX						9.3		13.1								
1A					13.7	9.9										
2A					14.8	11.4										
3A				15.3	15.6	11.5		15.0	13.0							11.8
A				16.8	17.5	13.4		17.8	15.0							13.5
B				17.6		13.5		18.1	15.5	14.5	14.5					13.8
C			12.5	18.5		14.6		19.6	16.5	15.0	15.0					14.8
C1			13.0	19.6		15.0		20.1	17.0	16.0	16.0				16.4	15.5
D			13.2	20.4		15.5		21.4	17.3	16.3	16.3				16.6	15.7
D1			14.0	21.3		16.2		22.4	18.2	17.0	17.0			12.6	17.7	17.0
E			15.7	23.5		18.1		25.2	20.7	19.4	19.4		13.3	14.1	20.1	19.0
E1			16.2	24.0		18.8		26.5	21.6	20.0	20.0		14.0	14.6	20.8	19.8
E2			17.2	26.1		19.8	14.7	27.0	22.8	21.3	21.3	12.9	14.9	15.2	21.9	20.9
F			18.1	27.5		20.9	15.6	27.9	24.2	22.7	22.7	13.9	16.0	16.4	23.2	22.1
F1			18.3	28.3		21.2	15.8		24.4	22.9	22.9	14.0	16.2	16.5	23.4	22.2
F2						22.1	16.4		25.3	23.5	23.5	14.6	16.6	16.9	24.2	23.1
F6			18.9			23.9										
G			20.2	31.2		24.2	17.4		26.8	24.7	24.7	15.6	17.6	18.1	25.7	23.3
G1			20.6	32.7			17.7		27.1			15.9	17.8	18.5	26.0	24.0
H	16.0	18.5	22.0	34.0			18.9		29.0			17.1	19.0	19.7	28.0	
I	16.7	19.3	22.8	34.4			19.6		30.0			17.6	19.6	20.3	29.0	
J	17.2	19.8	23.9	35.5			20.3		31.2			18.4	20.4	20.9	30.2	
J1	17.6	20.3	24.5	36.9			21.0		32.0			19.2	20.9	21.7	31.1	
K	17.8	20.6	24.8	37.1			21.3		32.5			19.5	21.2	22.0	31.8	
L	18.7	21.6	25.7	39.5			22.2		34.0			20.1	22.1	23.1		
M	19.7	22.5	26.8	41.2			23.4		35.7			21.5	23.7	24.6		
N	20.8	23.7	28.2				25.2		38.0			22.9	25.3			
O	21.0	24.0	28.5						38.5				25.8			
P	21.5	24.5							39.9				26.2			
Q	21.9	25.0							40.1				26.4			
R									41.8				27.5			
S									42.5				28.0			
T									45.4				29.4			
U													31.7			
V													32.3			
W													34.9			
X																
Y																

INTERNATIONAL---INTER
TITEGROUP---TITE GRP

LONGSHOT---LGSH
UNIVERSAL---UNIV

PERFECT PATTERN---PRF PATT

Hornady/Spolar

GRS	CLAYS	INTER	UNIV	HS-6	H110	PRF PATT	TITEWAD	LIL' GUN	W572 & LGSH	HIGH GUN	TITE GROUP	700-X	800-X	WST	WSF	SUPER HDCP
11.0		333														
12.0		348				291		250						333		300
13.0		363	330		256	300		259					360	348		
13.5						309		266						354		309
14.0		375	342		266	318		272	300				372	360		318
14.7										318	318			372		321
15.0		390	354			327	384		309	324	324	408	381	378		324
16.0	429	402	366			336	396	291	318	330	330	420		387		336
16.5	435	408	372			345	402	300	327	336	336	423	396	393	330	339
17.0	441	414	378	300			408		330	342	342	429		399	336	342
17.4	447	417	384			354	414	303	336	345	345	435	414	405	339	348
18.0	456	423	390	309		360	420	309	339	351	351	441	420	411	345	354
18.5	462	429	393			366	426		345	357	357	447	426	417	348	360
19.0	468	435	402	318		369	432		348	360	360	450	429	423	354	363
19.4	474	438	405			372	435	318	354	363	363	459	435	426	357	369
20.0	483	447	411	327		375	441		357	369	369	465	441	432	363	372
20.6	489	453	417			381	450	330	363	375	375	468	447	441	369	375
21.0	495	459	420	336		390	453		366	378	378	471	453	444	372	381
21.5	501	465	423			393	459	333	369	381	381	474	459	450	378	384
22.0	507	471	429	345		396	462		372	387	387	486	462	456	381	390
22.5		477	432			402	468	345	378	390	390		468	459	387	396
23.0		483	438	351		408	474		381	396	396		471	465	390	399
23.5		489	441					351	384	399	399		474	468	396	405
24.0		495	447	360		414	486	354	390	405	405			474	399	408
24.5		501	450			417	489		393				486	477	402	
25.0		507	456	366			492	366	396					483	408	
26.0			468	375				372	405						417	
27.0			480	381				381	414						423	
28.0			489	387					423				525		429	
29.0			501	393					429						438	
30.0				402					435				534		444	
31.0				408					444						450	
32.0				414					450						456	
33.0				423					459						459	
34.0				429					465							
35.0				435					471							
36.0				441					480							
37.0				444					486							
38.0				450					492							

INTERNATIONAL---INTER
TITEGROUP---TITE GRP

LONGSHOT---LGSH
UNIVERSAL---UNIV

PERFECT PATTERN---PRF PATT

Mec

BUSHING #	CLAYS	INTER	UNIV	HS-6	H110	PRF PATT	TITEWAD	LIL' GUN	W572 & LGSH	HIGH GUN	TITE GROUP	700-X	800-X	WST	WSF	SUPER-HDCP
7								11.0								
8								12.5								
9								12.9								
10					13.5			13.4	11.0							
11					14.4			13.8	11.7							
12					15.4			14.8	12.4							
12A				15.5	16.4			15.9	13.2							
13				16.1	17.0	13.0		16.4	13.9							12.3
14				17.9		13.7		18.6	15.4	13.8	13.8					13.6
15			12.0	18.8		14.2		19.4	16.1	14.5	14.5					14.6
16		10.8	12.9	19.8		15.2		20.7	17.0	15.4	15.4				16.2	15.4
17		11.4	13.5	20.7		15.8		21.4	17.8	16.2	16.2			11.9	17.0	16.1
18		11.8	14.0	21.6		16.4		22.6	18.7	17.1	17.1			12.5	17.8	17.0
19		12.3	14.6	22.6		17.2		23.6	19.5	18.1	18.1		12.2	13.1	18.6	17.6
20		12.9	15.5	23.7		17.8	13.3	25.0	20.3	19.0	19.0		12.9	13.8	19.6	18.6
21		13.3	16.0	24.7		18.7	13.9	25.9	21.2	19.7	19.7		13.6	14.3	20.4	19.3
22		14.3	16.8	25.8		19.6	14.5	27.2	22.1	20.2	20.2	12.5	14.4	14.9	21.3	20.4
23		14.6	17.4	26.8		20.4	15.2	28.1	23.1	21.1	21.1	13.1	15.1	15.5	22.1	21.2
24		15.5	18.3	27.9		21.2	15.8		24.0	21.9	21.9	13.7	15.7	16.2	23.0	22.1
25		16.0	18.9	28.9		21.9	16.2		24.8	22.7	22.7	14.3	16.5	16.8	23.8	22.8
26		16.6	19.1	30.3		23.5	16.9		25.9	23.7	23.7	15.0	16.9	17.6	24.9	23.8
27	14.6	17.1	20.2	31.2		23.8	17.6		26.9	24.7	24.7	15.6	17.6	18.2	25.7	
28	15.2	17.7	21.1	32.6		24.8	18.3		28.0	25.8	25.8	16.3	18.2	18.9	26.6	
29	15.9	18.3	21.7	33.6		25.6	19.0		29.0			16.9	18.8	19.5	27.6	

BUSHING #	CLAYS	INTER	UNIV	HS-6	H110	PRF PATT	TITEWAD	LIL' GUN	W572 & LGSH	HIGH GUN	TITE GROUP	700-X	800-X	WST	WSF	SUPER- HDCP
30	16.3	19.1	22.7	35.0		26.7	19.7		30.1			17.6	19.6	20.4	29.0	
31	16.9	19.9	23.4	36.2			20.4		31.1			18.3	20.3	21.0	30.0	
32	17.5	20.6	24.4	37.8			21.4		32.2			19.3	21.0	21.8	31.4	
33	18.2	21.2	25.2	39.0			22.2		33.3			19.7	21.7	22.6	32.4	
34	18.9	21.9	26.0	40.4			23.0		34.5			20.4	22.5	23.4		
35	19.4	22.6	26.7	41.1			23.4		35.6			21.2	23.4	24.2		
36	20.1	23.4	27.6	43.0			24.0		36.7			21.9	24.2	25.2		
37	20.7	24.2	28.7	44.4			25.3		38.0			22.7	25.1			
38	21.4	25.1	29.7	46.2					39.3				25.9			
38A	22.0	26.0							40.6				26.7			
39	22.8	26.9		47.6					42.0				27.5			
39A									43.1				28.3			
40									44.4				29.1			
41									47.3				31.0			
41A									48.8							
42									50.2							
42A									51.5							
43									53.0							
43A																

INTERNATIONAL---INTER
TITEGROUP---TITE GRP

LONGSHOT---LGSH
UNIVERSAL---UNIV

PERFECT PATTERN---PRF PATT

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12 GA CHEDDITE 2 3/4" PLASTIC SHELLS-1.0oz LEAD SHOT						
			1180fps	1235fps	1290fps	1345fps
Perfect Pattern	Ched 209	DRF0	16.1/ 6,200 PSI	17.4/ 7,500 PSI	18.8/ 8,800 PSI	20.2/10,100 PSI
Perfect Pattern	Ched 209	CB 6100-12		17.6/ 7,100 PSI	18.7/ 8,400 PSI	19.9/ 9,800 PSI
Perfect Pattern	Ched 209	WAA12L	16.0/ 6,300 PSI	17.2/ 7,900 PSI	18.5/ 9,400 PSI	19.8/11,000 PSI
Perfect Pattern	Fed 209A	DRF0	15.8/ 6,400 PSI	17.2/ 7,600 PSI	18.5/ 8,800 PSI	19.9/10,000 PSI
Perfect Pattern	Fed 209A	CB 6100-12	15.3/ 6,100 PSI	16.8/ 7,400 PSI	18.2/ 8,700 PSI	19.7/11,000 PSI
Perfect Pattern	Fed 209A	WAA12L	16.5/ 6,300 PSI	17.7/ 7,900 PSI	18.9/ 9,500 PSI	20.1/11,000 PSI
Perfect Pattern	Rem 209P	DRF0	16.8/ 6,000 PSI	18.1/ 7,300 PSI	19.4/ 8,500 PSI	20.7/ 9,800 PSI
Perfect Pattern	Rem 209P	CB 6100-12	—	18.2/ 6,600 PSI	19.3/ 8,000 PSI	20.4/ 9,400 PSI
Perfect Pattern	Rem 209P	WAA12L	16.4/ 6,300 PSI	17.8/ 7,700 PSI	19.2/ 9,100 PSI	20.5/10,400 PSI
Perfect Pattern	Win 209	DRF0	—	17.9/ 7,100 PSI	19.2/ 8,300 PSI	20.5/ 9,400 PSI
Perfect Pattern	Win 209	CB 6100-12	—	17.8/ 6,800 PSI	19.0/ 8,000 PSI	20.1/ 9,200 PSI
Perfect Pattern	Win 209	WAA12L	16.3/ 6,400 PSI	17.6/ 7,800 PSI	18.8/ 9,200 PSI	20.1/10,700 PSI
Perfect Pattern	CCI 209	DRF0	16.6/ 6,200 PSI	18.0/ 7,400 PSI	19.4/ 8,600 PSI	20.8/ 9,800 PSI
Perfect Pattern	CCI 209	CB 6100-12	—	17.8/ 7,000 PSI	19.1/ 8,200 PSI	20.4/ 9,400 PSI
Perfect Pattern	CCI 209	WAA12L	16.4/ 6,400 PSI	17.7/ 7,900 PSI	18.9/ 9,500 PSI	20.1/11,000 PSI
High Gun	Ched 209	CB 6100-12	—	19.6/ 5,600 PSI	20.8/ 6,600 PSI	21.8/ 7,400 PSI
High Gun	Ched 209	DR XXL ORANGE	—	19.0/ 6,500 PSI	20.5/ 7,400 PSI	21.8/ 8,300 PSI
High Gun	Fed 209A	CB 6100-12	—	19.1/ 6,000 PSI	20.4/ 6,900 PSI	21.6/ 7,600 PSI
High Gun	Fed 209A	DR XXL ORANGE	17.1/ 6,300 PSI	18.5/ 7,500 PSI	19.9/ 8,600 PSI	21.1/ 9,700 PSI
High Gun	Rem 209P	CB 6100-12	—	—	21.5/ 6,300 PSI	22.6/ 7,100 PSI
High Gun	Rem 209P	DR XXL ORANGE	—	19.7/ 6,800 PSI	20.7/ 7,900 PSI	21.7/ 9,000 PSI
High Gun	Fio 616	CB 6100-12	—	—	21.9/ 6,100 PSI	23/ 7,000 PSI
High Gun	Fio 616	DR XXL ORANGE	—	19.3/ 6,300 PSI	20.5/ 7,400 PSI	21.6/ 8,400 PSI
High Gun	Win 209	CB 6100-12	—	—	21.1/ 6,100 PSI	22.1/ 6,900 PSI
High Gun	Win 209	DR XXL ORANGE	—	19.3/ 6,900 PSI	20.5/ 8,100 PSI	21.5/ 9,200 PSI
High Gun	CCI 209	CB 6100-12	—	—	20.5/ 6,800 PSI	21.8/ 7,800 PSI
High Gun	CCI 209	DR XXL ORANGE	—	18.6/ 7,100 PSI	19.9/ 8,300 PSI	21.2/ 9,500 PSI
12 GA CHEDDITE 2 3/4" PLASTIC SHELLS-1.125oz LEAD SHOT						
			1090fps	1145fps	1200fps	1255fps
Perfect Pattern	Ched 209	CB6118-12	16.0/ 6,600 PSI	17.0/ 8,000 PSI	18.0/ 9,300 PSI	18.9/10,600 PSI
Perfect Pattern	Ched 209	DRF3	15.1/ 7,500 PSI	16.3/ 8,900 PSI	17.4/10,300 PSI	—
Perfect Pattern	Ched 209	CB3118-12AR	15.4/ 7,100 PSI	16.5/ 8,200 PSI	17.6/ 9,400 PSI	18.7/10,500 PSI
Perfect Pattern	Fed 209A	CB6118-12	15.4/ 7,500 PSI	16.5/ 8,700 PSI	17.6/ 9,900 PSI	18.8/11,200 PSI
Perfect Pattern	Fed 209A	DRF3	15.2/ 7,700 PSI	16.5/ 9,000 PSI	17.7/10,300 PSI	—
Perfect Pattern	Fed 209A	CB3118-12AR	14.8/ 7,000 PSI	16.1/ 8,600 PSI	17.3/10,200 PSI	—
Perfect Pattern	Rem 209P	CB6118-12	16.3/ 6,900 PSI	17.6/ 8,300 PSI	18.9/ 9,800 PSI	20.1/11,300 PSI
Perfect Pattern	Rem 209P	DRF3	15.3/ 7,400 PSI	16.5/ 8,700 PSI	17.7/10,100 PSI	18.9/11,500 PSI
Perfect Pattern	Rem 209P	CB3118-12AR	15.5/ 7,100 PSI	16.5/ 8,400 PSI	17.6/ 9,600 PSI	18.7/10,900 PSI
Perfect Pattern	Win 209	CB6118-12	16.0/ 6,500 PSI	17.1/ 7,900 PSI	18.2/ 9,300 PSI	19.3/10,700 PSI
Perfect Pattern	Win 209	DRF3	15.6/ 7,100 PSI	16.8/ 8,500 PSI	18.0/ 9,900 PSI	19.2/11,300 PSI
Perfect Pattern	Win 209	CB3118-12AR	15.5/ 7,000 PSI	16.7/ 8,300 PSI	17.8/ 9,600 PSI	18.9/10,900 PSI
Perfect Pattern	CCI 209	CB6118-12	15.6/ 7,100 PSI	16.7/ 8,200 PSI	17.8/ 9,400 PSI	18.9/10,500 PSI
Perfect Pattern	CCI 209	DRF3	15.3/ 7,400 PSI	16.5/ 8,600 PSI	17.7/ 9,700 PSI	18.9/10,900 PSI
Perfect Pattern	CCI 209	CB3118-12AR	15.5/ 7,200 PSI	16.5/ 8,300 PSI	17.6/ 9,400 PSI	18.7/10,500 PSI
Titewad	Ched 209	Fed12S3	16.5/ 7,400 PSI	17.0/ 9,000 PSI	18.0/10,100 PSI	—
Titewad	Ched 209	Rem Fig 8	16.5/ 8,800 PSI	17.3/ 8,800 PSI	18.0/10,400 PSI	—
Titewad	Ched 209	WAA12SL	16.5/ 7,300 PSI	17.0/ 8,500 PSI	18.0/ 9,800 PSI	—
Clays	Ched 209	Fed12S3	16.3/ 7,700 PSI	17.5/ 8,500 PSI	18.7/ 9,700 PSI	20.5/11,400 PSI
Clays	Ched 209	WAA12	16.3/ 7,700 PSI	17.3/ 8,500 PSI	18.5/10,000 PSI	20.5/11,500 PSI
High Gun	Ched 209	Rem TGT-12	—	18.1/ 6,900 PSI	19.3/ 7,800 PSI	20.5/ 8,700 PSI
High Gun	Ched 209	CB4100-12B	—	17.9/ 6,500 PSI	19.1/ 7,400 PSI	20.3/ 8,300 PSI
High Gun	Ched 209	DRF0	—	18.2/ 6,800 PSI	19.3/ 7,900 PSI	20.9/ 8,900 PSI
High Gun	Fed 209A	Rem TGT-12	—	16.6/ 6,100 PSI	18.1/ 7,300 PSI	19.7/ 8,500 PSI
High Gun	Fed 209A	CB4100-12B	—	17.5/ 6,500 PSI	18.9/ 7,600 PSI	20.2/ 8,700 PSI
High Gun	Fed 209A	DRF0	—	18.4/ 6,800 PSI	19.7/ 7,900 PSI	20.9/ 8,900 PSI
High Gun	Rem 209P	Rem TGT-12	—	17.0/ 5,900 PSI	18.6/ 7,100 PSI	20.1/ 8,400 PSI
High Gun	Rem 209P	CB4100-12B	—	19.0/ 5,300 PSI	20.1/ 6,600 PSI	21.1/ 7,900 PSI
High Gun	Rem 209P	DRF0	—	19.0/ 6,100 PSI	20.2/ 7,000 PSI	21.5/ 7,900 PSI

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12 GA CHEDDITE 2 3/4" PLASTIC SHELLS-1.125OZ LEAD SHOT—CONT.						
			1090fps	1145fps	1200fps	1255fps
High Gun	Fio 616	Rem TGT-12	—	18.1/ 6,600 PSI	19.4/ 7,500 PSI	20.7/ 8,300 PSI
High Gun	Fio 616	CB4100-12B	—	18.7/ 6,600 PSI	19.7/ 7,500 PSI	20.7/ 8,500 PSI
High Gun	Fio 616	DRFO	—	19.2/ 6,600 PSI	20.3/ 7,600 PSI	21.3/ 8,600 PSI
High Gun	Win 209	Rem TGT-12	—	17.7/ 6,000 PSI	19.1/ 7,100 PSI	20.4/ 8,300 PSI
High Gun	Win 209	CB4100-12B	—	17.9/ 5,700 PSI	19.4/ 6,800 PSI	20.9/ 7,900 PSI
High Gun	Win 209	DRFO	—	18.5/ 6,500 PSI	19.7/ 7,600 PSI	20.9/ 8,800 PSI
High Gun	CCI 209	Rem TGT-12	—	18.0/ 6,700 PSI	19.2/ 7,600 PSI	20.4/ 8,500 PSI
High Gun	CCI 209	CB4100-12B	—	—	19.2/ 7,200 PSI	20.5/ 8,500 PSI
High Gun	CCI 209	DRFO	—	18.4/ 6,700 PSI	19.6/ 7,700 PSI	20.8/ 8,600 PSI
Internat'l	Ched 209	Fed12S3	19.5/ 7,200PSI	20.0/ 8,400PSI	21.0/ 8,500PSI	—
Internat'l	Ched 209	WAA12	19.0/ 7,300PSI	19.5/ 7,800PSI	20.5/ 8,400PSI	21.5/ 9,900PSI
12 GA CHEDDITE 2 3/4" PLASTIC SHELLS-1.125OZ LEAD SHOT-HIGH VELOCITY						
			1420fps	1475fps	1530fps	1585fps
Longshot	Ched 209	Fed12S3	33.6/ 7,100PSI	35.2/ 8,200PSI	36.8/ 9,200PSI	38.4/10,300PSI
Longshot	Ched 209	RemR12L	32.9/ 7,600PSI	34.6/ 8,400PSI	36.4/ 9,300PSI	38.1/10,100PSI
Longshot	Ched 209	Windjammer	34.7/ 7,400PSI	36.1/ 8,000PSI	37.5/ 8,700PSI	38.9/ 9,400PSI
12 GA FEDERAL GOLD MEDAL 2 3/4" PLASTIC SHELLS - 1OZ LEAD SHOT						
			1125 fps	1180 fps	1235 fps	1290 fps
Perfect Pattern	Ched 209	DRFO	—	15.8/ 7,400 PSI	17.0/ 8,800 PSI	18.1/10,200 PSI
Perfect Pattern	Ched 209	CB 6100-12	—	15.8/ 7,400 PSI	17.0/ 8,900 PSI	18.3/10,300 PSI
Perfect Pattern	Ched 209	WAA12L	—	15.5/ 8,500 PSI	16.9/ 9,900 PSI	18.3/11,300 PSI
Perfect Pattern	Fed 209A	DRFO	—	15.4/ 7,800 PSI	16.7/ 9,200 PSI	18.1/10,500 PSI
Perfect Pattern	Fed 209A	CB 6100-12	—	15.3/ 7,700 PSI	16.7/ 9,000 PSI	18.2/10,400 PSI
Perfect Pattern	Fed 209A	WAA12L	—	14.9/ 8,500 PSI	16.3/ 9,900 PSI	17.8/11,200 PSI
Perfect Pattern	Rem 209P	DRFO	—	16.6/ 6,700 PSI	17.7/ 8,200 PSI	18.8/ 9,700 PSI
Perfect Pattern	Rem 209P	CB 6100-12	—	16.5/ 5,900 PSI	17.6/ 7,700 PSI	18.6/ 9,500 PSI
Perfect Pattern	Rem 209P	WAA12L	—	15.4/ 8,100 PSI	16.7/ 9,600 PSI	18.1/11,200 PSI
Perfect Pattern	Win 209	DRFO	—	16.3/ 7,000 PSI	17.5/ 8,300 PSI	18.7/ 9,600 PSI
Perfect Pattern	Win 209	CB 6100-12	—	15.5/ 6,800 PSI	16.9/ 8,100 PSI	18.2/ 9,300 PSI
Perfect Pattern	Win 209	WAA12L	—	15.6/ 7,600 PSI	16.8/ 9,000 PSI	18.1/10,400 PSI
Perfect Pattern	CCI 209	DRFO	—	16.0/ 7,200 PSI	17.3/ 8,600 PSI	18.6/10,000 PSI
Perfect Pattern	CCI 209	CB 6100-12	—	15.8/ 6,900 PSI	17.1/ 8,300 PSI	18.4/ 9,700 PSI
Perfect Pattern	CCI 209	WAA12L	—	15.5/ 7,500 PSI	16.8/ 9,200 PSI	18.1/10,800 PSI
Titewad	CCI 209	Fed 12SO	—	17.6/ 8,400 PSI	18.6/ 9,700 PSI	19.6/11,000 PSI
Titewad	CCI 209	G/BP SF12	—	16.3/ 9,200 PSI	17.7/10,600 PSI	—
Titewad	CCI 209	Purple PC	—	17.8/ 7,000 PSI	19.1/ 8,100 PSI	20.5/ 9,300 PSI
Titewad	CCI 209	Rem TGT-12	—	16.9/ 7,700 PSI	18.4/ 8,900 PSI	19.8/10,200 PSI
Titewad	CCI 209	WAA12L	—	17.2/ 7,900 PSI	18.5/ 9,200 PSI	19.8/10,400 PSI
Titewad	Ched 209	CB 6100-12	16.6/ 6,400 PSI	17.6/ 7,400 PSI	18.7/ 8,300 PSI	19.8/ 9,300 PSI
Titewad	Ched 209	Fed 12SO	16.0/ 7,400 PSI	17.1/ 8,800 PSI	18.2/10,200 PSI	—
Titewad	Ched 209	Rem TGT-12	16.2/ 6,600 PSI	17.3/ 7,800 PSI	18.4/ 9,000 PSI	19.5/10,200 PSI
Titewad	Ched 209	WAA12SL	—	16.4/ 7,400 PSI	17.8/ 8,800 PSI	19.2/10,200 PSI
Titewad	Fed 209A	Fed 12SO	—	17.8/ 7,100 PSI	19.3/ 8,500 PSI	20.8/ 9,600 PSI
Titewad	Fed 209A	Purple PC	—	—	19.3/ 7,400 PSI	20.8/ 8,700 PSI
Titewad	Fed 209A	Rem TGT-12	—	17.0/ 7,500 PSI	18.4/ 8,700 PSI	19.7/ 9,800 PSI
Titewad	Fed 209A	WAA12L	—	17.0/ 7,400 PSI	18.4/ 9,000 PSI	19.9/10,700 PSI
Titewad	Rem 209P	Fed 12SO	—	17.3/ 8,400 PSI	18.5/ 9,800 PSI	19.6/11,200 PSI
Titewad	Rem 209P	Purple PC	—	—	19.0/ 7,900 PSI	20.3/ 9,200 PSI
Titewad	Rem 209P	Rem TGT-12	—	16.7/ 8,000 PSI	18.0/ 9,100 PSI	19.4/10,300 PSI
Titewad	Rem 209P	WAA12L	—	16.9/ 7,400 PSI	18.3/ 9,000 PSI	19.6/10,400 PSI
Titewad	Win 209	Fed 12SO	—	18.0/ 7,100 PSI	19.1/ 8,600 PSI	20.3/10,300 PSI
Titewad	Win 209	Purple PC	—	—	20.0/ 7,300 PSI	21.2/ 8,300 PSI
Titewad	Win 209	Rem TGT-12	—	17.3/ 7,100 PSI	18.7/ 8,500 PSI	20.0/ 9,700 PSI
Titewad	Win 209	WAA12L	—	17.4/ 6,900 PSI	18.8/ 8,300 PSI	20.3/ 9,800 PSI
Clays	CCI 209	Fed 12SO	—	18.1/ 7,300 PSI	19.6/ 8,900 PSI	21.0/10,500 PSI
Clays	CCI 209	Purple PC	18.4 /5,300 LUP	19.6/5,900 LUP	20.7/6,400 LUP	21.8/7,000 LUP
Clays	CCI 209	Rem TGT-12	—	—	19.7/ 7,600 PSI	20.9/ 8,800 PSI

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12 GA FEDERAL GOLD MEDAL 2 3/4" PLASTIC SHELLS - 1oz LEAD SHOT—CONT.						
			1125 fps	1180 fps	1235 fps	1290 fps
Clays	CCI 209	WAA12SL	—	19.6/ 7,100 PSI	20.2/ 8,100 PSI	20.9/ 9,200 PSI
Clays	CCI 209SC	Purple PC	—	18.0/ 6,600 PSI	19.0/ 8,000 PSI	20.0/ 9,300 PSI
Clays	Ched 209	CB 6100-12	15.8/ 6,300 PSI	16.9/ 7,200 PSI	17.9/ 8,100 PSI	19.0/ 9,000 PSI
Clays	Ched 209	Fed 12SO	15.5/ 7,200 PSI	16.6/ 8,100 PSI	17.8/ 9,000 PSI	18.9/ 9,900 PSI
Clays	Ched 209	Rem TGT-12	15.7/ 6,800 PSI	16.8/ 7,700 PSI	17.9/ 8,500 PSI	19.0/ 9,400 PSI
Clays	Ched 209	WAA12SL	15.3/ 7,000 PSI	16.4/ 7,900 PSI	17.6/ 8,900 PSI	18.8/ 9,800 PSI
Clays	Fed 209A	Fed 12SO	16.8/ 6,700 PSI	17.9/ 7,700 PSI	19.3/ 9,200 PSI	20.3/10,800 PSI
Clays	Fed 209A	Purple PC	—	17.8/ 7,000 PSI	18.9/ 8,300 PSI	20.3/10,000 PSI
Clays	Fed 209A	Rem TGT-12	—	17.2/ 7,400 PSI	18.7/ 8,900 PSI	20.0/10,200 PSI
Clays	Fed 209A	WAA12SL	—	17.2/ 7,700 PSI	18.6/ 9,200 PSI	19.9/10,500 PSI
Clays	Rem 209P	Fed 12SO	—	18.1/ 7,900 PSI	19.2/ 9,200 PSI	20.3/10,400 PSI
Clays	Rem 209P	Purple PC	—	—	19.9/ 7,400 PSI	21.1/ 8,800 PSI
Clays	Rem 209P	Rem TGT-12	18.2/5,900 LUP	19.2/6,300 LUP	20.2/6,800 LUP	21.2/7,300 LUP
Clays	Rem 209P	WAA12SL	—	—	19.3/ 7,900 PSI	20.1/ 8,700 PSI
Clays	Win 209	Fed 12SO	—	18.5/ 7,900 PSI	19.7/ 9,100 PSI	21.0/10,400 PSI
Clays	Win 209	G/BP SF12	—	18.2/ 7,200 PSI	19.4/ 8,800 PSI	20.1/ 9,700 PSI
Clays	Win 209	Purple PC	—	—	20.2/ 7,300 PSI	21.5/ 8,600 PSI
Clays	Win 209	Rem TGT-12	—	—	19.5/ 7,600 PSI	20.9/ 9,000 PSI
Clays	Win 209	WAA12SL	17.2/6,200 LUP	18.2/7,000 LUP	19.1/7,600 LUP	20.0/8,300 LUP
700-X	Ched 209	CB 6100-12	—	17.1/ 6,700 PSI	18.0/ 7,500 PSI	19.0/ 8,200 PSI
700-X	Ched 209	Fed 12SO	16.1/ 7,600 PSI	17.1/ 8,600 PSI	18.0/ 9,600 PSI	19.0/10,600 PSI
700-X	Ched 209	Rem TGT-12	16.3/ 6,100 PSI	17.3/ 6,800 PSI	18.4/ 7,600 PSI	19.5/ 8,400 PSI
700-X	Ched 209	WAA12SL	16.1/ 7,100 PSI	17.2/ 8,000 PSI	18.2/ 8,900 PSI	19.3/ 9,700 PSI
700-X	Fed 209A	CB 2100-12	15.5/ 6,300 PSI	16.6/ 7,000 PSI	17.7/ 7,700 PSI	18.8/ 8,400 PSI
700-X	Fed 209A	Fed 12SO	15.6/ 6,400 PSI	16.9/ 7,200 PSI	18.2/ 8,000 PSI	19.4/ 8,800 PSI
700-X	Fed 209A	Rem TGT-12	15.6/ 6,300 PSI	16.9/ 7,100 PSI	18.2/ 7,900 PSI	19.4/ 8,700 PSI
700-X	Fed 209A	WAA12SL	15.6/ 6,400 PSI	16.9/ 7,300 PSI	18.2/ 8,200 PSI	19.4/ 9,200 PSI
700-X	Rem 209P	CB 2100-12	16.2/ 6,200 PSI	17.6/ 6,700 PSI	19.1/ 7,300 PSI	20.6/ 7,800 PSI
700-X	Rem 209P	Fed 12SO	15.7/ 6,100 PSI	17.4/ 6,900 PSI	19.0/ 7,800 PSI	20.7/ 8,600 PSI
700-X	Rem 209P	Rem TGT-12	16.6/ 6,000 PSI	17.9/ 6,600 PSI	19.2/ 7,100 PSI	20.4/ 7,700 PSI
700-X	Rem 209P	WAA12SL	16.1/ 6,200 PSI	17.4/ 7,200 PSI	18.6/ 8,100 PSI	19.9/ 9,100 PSI
700-X	Win 209	CB 2100-12	16.1/ 6,400 PSI	17.4/ 7,100 PSI	18.6/ 7,900 PSI	19.9/ 8,700 PSI
700-X	Win 209	Fed 12SO	16.0/ 6,200 PSI	17.1/ 6,900 PSI	18.2/ 7,600 PSI	19.3/ 8,300 PSI
700-X	Win 209	Rem TGT-12	16.0/ 6,200 PSI	17.1/ 6,900 PSI	18.2/ 7,600 PSI	19.3/ 8,300 PSI
700-X	Win 209	WAA12SL	16.0/ 6,400 PSI	17.1/ 7,300 PSI	18.2/ 8,200 PSI	19.3/ 9,200 PSI
High Gun	Ched 209	CB 6100-12	—	17.5/ 5,700 PSI	18.7/ 6,900 PSI	19.9/ 8,100 PSI
High Gun	Ched 209	DR XXL ORANGE	—	17.2/ 6,600 PSI	18.5/ 7,900 PSI	19.7/ 9,300 PSI
High Gun	Fed 209A	CB 6100-12	—	17.3/ 5,700 PSI	18.5/ 6,800 PSI	19.8/ 7,900 PSI
High Gun	Fed 209A	DR XXL ORANGE	—	16.5/ 7,500 PSI	17.8/ 8,800 PSI	19.2/10,000 PSI
High Gun	Rem 209P	CB 6100-12	—	18.1/ 5,000 PSI	19.2/ 6,200 PSI	20.3/ 7,400 PSI
High Gun	Rem 209P	DR XXL ORANGE	—	17.8/ 5,800 PSI	19.0/ 7,100 PSI	20.2/ 8,300 PSI
High Gun	Win 209	CB 6100-12	—	17.6/ 5,200 PSI	18.9/ 6,200 PSI	20.1/ 7,300 PSI
High Gun	Win 209	DR XXL ORANGE	—	17.0/ 6,400 PSI	18.3/ 7,700 PSI	19.6/ 9,100 PSI
High Gun	CCI 209	CB 6100-12	—	17.4/ 5,800 PSI	18.8/ 6,800 PSI	20.1/ 7,900 PSI
High Gun	CCI 209	DR XXL ORANGE	—	16.3/ 7,300 PSI	17.7/ 8,600 PSI	19.1/ 9,800 PSI
Internat'l	CCI 209	Fed 12SO	—	—	21.0/ 7,600 PSI	22.2/ 9,000 PSI
Internat'l	CCI 209	Rem TGT-12	—	—	21.2/ 6,800 PSI	22.5/ 7,800 PSI
Internat'l	CCI 209	WAA12SL	—	—	21.5/ 7,300 PSI	22.3/ 8,000 PSI
Internat'l	Ched 209	CB 6100-12	—	19.6/ 6,100 PSI	20.6/ 6,700 PSI	21.6/ 7,400 PSI
Internat'l	Ched 209	Fed 12SO	—	18.6/ 6,500 PSI	20.0/ 7,300 PSI	21.4/ 8,100 PSI
Internat'l	Ched 209	Rem TGT-12	—	19.3/ 6,100 PSI	20.5/ 6,800 PSI	21.7/ 7,500 PSI
Internat'l	Ched 209	WAA12SL	—	18.5/ 6,200 PSI	20.0/ 7,000 PSI	21.5/ 7,800 PSI
Internat'l	Fed 209A	Fed 12SO	—	—	19.9/ 8,300 PSI	21.3/ 9,900 PSI
Internat'l	Fed 209A	Purple PC	—	—	20.0/ 7,400 PSI	21.4/ 8,600 PSI
Internat'l	Fed 209A	Rem TGT-12	—	—	19.9/ 7,400 PSI	21.4/ 9,000 PSI
Internat'l	Fed 209A	WAA12SL	—	—	19.7/ 7,700 PSI	21.0/ 9,100 PSI
Internat'l	Rem 209P	Fed 12SO	—	—	19.3/ 6,800 PSI	21.4/ 8,900 PSI
Internat'l	Rem 209P	Rem TGT-12	—	—	20.8/ 7,200 PSI	21.2/ 7,500 PSI
Internat'l	Rem 209P	WAA12SL	—	—	20.5/ 7,300 PSI	21.8/ 8,700 PSI

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
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12 GA FEDERAL GOLD MEDAL 2 3/4" PLASTIC SHELLS - 1 OZ LEAD SHOT—CONT.

			1125 fps	1180 fps	1235 fps	1290 fps
Internat'l	Win 209	Fed 12SO	—	—	20.7/ 8,000 PSI	22.0/ 9,200 PSI
Internat'l	Win 209	Rem TGT-12	—	—	20.8/ 7,000 PSI	22.3/ 8,200 PSI
Internat'l	Win 209	WAA12SL	—	—	20.5/ 7,200 PSI	22.0/ 8,400 PSI
Competition	Ched 209	CB 6100-12	—	18.2/ 6,800 PSI	19.3/ 7,800 PSI	20.4/ 8,900 PSI
Competition	Ched 209	Fed 12SO	—	17.2/ 7,200 PSI	18.6/ 8,700 PSI	20.1/10,300 PSI
Competition	Ched 209	Rem TGT-12	17.0/ 6,000 PSI	18.1/ 7,100 PSI	19.3/ 8,100 PSI	20.4/ 9,200 PSI
Competition	Ched 209	WAA12SL	17.0/ 6,000 PSI	18.2/ 6,900 PSI	19.4/ 7,900 PSI	20.6/ 8,900 PSI
Competition	Fed 209A	CB 6100-12	17.1/ 6,400 PSI	18.2/ 7,400 PSI	19.2/ 8,500 PSI	20.3/ 9,600 PSI
Competition	Fed 209A	Fed 12SO	17.1/ 6,800 PSI	18.2/ 8,100 PSI	19.4/ 9,300 PSI	20.6/10,600 PSI
Competition	Fed 209A	Rem TGT-12	17.1/ 6,800 PSI	18.2/ 8,000 PSI	19.2/ 9,100 PSI	20.2/10,300 PSI
Competition	Fed 209A	WAA12SL	—	18.5/ 6,900 PSI	19.6/ 8,000 PSI	20.6/ 9,100 PSI
Competition	Win 209	CB 6100-12	—	19.0/ 6,700 PSI	19.8/ 7,800 PSI	20.6/ 8,900 PSI
Competition	Win 209	Fed 12SO	17.3/ 7,400 PSI	18.3/ 8,500 PSI	19.2/ 9,600 PSI	—
Competition	Win 209	Rem TGT-12	—	17.8/ 6,700 PSI	19.0/ 8,000 PSI	20.2/ 9,200 PSI
Competition	Win 209	WAA12SL	17.1/ 6,600 PSI	18.2/ 7,700 PSI	19.4/ 8,700 PSI	20.5/ 9,800 PSI
WST	CCI 209	Fed 12SO	—	—	21.0/ 8,500 PSI	22.5/ 9,500 PSI
WST	Ched 209	CB 6100-12	—	19.4/ 6,100 PSI	21.0/ 7,000 PSI	22.5/ 7,900 PSI
WST	Ched 209	Fed 12SO	18.0/ 6,000 PSI	19.5/ 7,400 PSI	21.0/ 8,700 PSI	22.5/10,000 PSI
WST	Ched 209	Rem TGT-12	—	19.2/ 7,000 PSI	20.8/ 8,000 PSI	22.3/ 9,100 PSI
WST	Ched 209	WAA12SL	—	19.2/ 6,600 PSI	20.9/ 7,400 PSI	22.5/ 8,200 PSI
WST	Win 209	Fed 12SO	—	20.5/ 7,400 PSI	22.0/ 8,500 PSI	23.0/ 9,300 PSI
Super Hcp	Ched 209	WAA12L	—	19.6/ 5,500 PSI	20.8/ 6,500 PSI	22.0/ 7,500 PSI
Super Hcp	Fed 209A	WAA12L	—	19.5/ 5,700 PSI	20.9/ 6,600 PSI	22.3/ 7,500 PSI
Super Hcp	Fio 616	Fed 12SO	—	—	22.2/ 6,500 PSI	23.3/ 7,800 PSI
Super Hcp	Rem 209P	WAA12L	—	20.4/ 5,200 PSI	21.6/ 6,100 PSI	22.8/ 7,100 PSI

12G FEDERAL GOLD MEDAL 2 3/4" PLASTIC SHELLS - 1 1/8OZ LEAD SHOT

			1090 fps	1145 fps	1200 fps	1255 fps
Perfect Pattern	Ched 209	CB6118-12	14.8/ 8,300 PSI	15.9/ 9,500 PSI	16.9/10,700 PSI	—
Perfect Pattern	Ched 209	DRF3	14.9/ 8,400 PSI	16.0/ 9,700 PSI	17.1/11,000 PSI	—
Perfect Pattern	Ched 209	CB3118-12AR	15.0/ 8,500 PSI	16.0/ 9,800 PSI	17.0/11,000 PSI	—
Perfect Pattern	Fed 209A	CB6118-12	14.8/ 8,500 PSI	15.8/ 9,800 PSI	16.9/11,200 PSI	—
Perfect Pattern	Fed 209A	DRF3	14.6/ 8,600 PSI	15.6/ 9,800 PSI	16.5/11,000 PSI	—
Perfect Pattern	Fed 209A	CB3118-12AR	14.4/ 8,900 PSI	15.4/10,200 PSI	16.5/11,400 PSI	—
Perfect Pattern	Rem 209P	CB6118-12	14.1/ 6,000 PSI	15.5/ 7,800 PSI	16.8/ 9,700 PSI	18.2/11,500 PSI
Perfect Pattern	Rem 209P	DRF3	15.0/ 7,900 PSI	16.0/ 9,400 PSI	17.1/10,800 PSI	—
Perfect Pattern	Rem 209P	CB3118-12AR	15.0/ 7,400 PSI	16.0/ 8,800 PSI	17.0/10,100 PSI	18.0/11,400 PSI
Perfect Pattern	Win 209	CB6118-12	15.0/ 7,100 PSI	16.1/ 8,700 PSI	17.2/10,300 PSI	—
Perfect Pattern	Win 209	DRF3	14.6/ 7,500 PSI	15.8/ 8,900 PSI	17.0/10,400 PSI	—
Perfect Pattern	Win 209	CB3118-12AR	14.8/ 7,500 PSI	15.9/ 9,700 PSI	17.0/10,600 PSI	—
Perfect Pattern	CCI 209	CB6118-12	14.8/ 8,100 PSI	16.0/ 9,400 PSI	17.1/10,700 PSI	—
Perfect Pattern	CCI 209	DRF3	14.9/ 8,300 PSI	16.0/ 9,700 PSI	17.1/11,000 PSI	—
Perfect Pattern	CCI 209	CB3118-12AR	14.8/ 8,200 PSI	15.9/ 9,600 PSI	17.1/11,000 PSI	—
Titewad	CCI 209	Fed 12S3	15.5/ 8,300 PSI	16.8/ 9,700 PSI	18.0/10,900 PSI	—
Titewad	CCI 209	Rem Fig 8	15.8/ 7,600 PSI	17.0/ 8,900 PSI	18.1/10,200 PSI	—
Titewad	CCI 209	WAA12SL	16.0/ 7,500 PSI	17.1/ 8,900 PSI	18.4/10,200 PSI	—
Titewad	CCI 209M	G/BP CS12	14.9/ 9,800 PSI	15.9/10,800 PSI	—	—
Titewad	Ched 209	CB 6118-12	15.8/ 8,700 PSI	16.7/ 9,800 PSI	17.7/10,800 PSI	—
Titewad	Ched 209	DR XL-1	15.7/ 8,600 PSI	16.7/ 9,900 PSI	—	—
Titewad	Ched 209	Fed 12S3	15.4/ 9,100 PSI	16.7/10,300 PSI	—	—
Titewad	Ched 209	Rem Fig 8	15.4/ 8,800 PSI	16.7/ 9,900 PSI	18.1/11,100 PSI	—
Titewad	Ched 209	Windjammer	16.0/ 8,100 PSI	17.2/ 9,400 PSI	18.5/10,900 PSI	—
Titewad	Fed 209A	Fed 12S3	16.3/ 8,300 PSI	17.3/ 8,900 PSI	18.8/10,300 PSI	—
Titewad	Fed 209A	Rem Fig 8	15.8/ 8,000 PSI	16.9/ 9,600 PSI	18.1/11,300 PSI	—
Titewad	Fed 209A	WAA12	15.4/ 8,200 PSI	16.8/ 9,800 PSI	18.0/11,100 PSI	—
Titewad	Rem 209P	Fed 12S3	15.6/ 8,700 PSI	16.6/ 9,800 PSI	17.7/10,900 PSI	—
Titewad	Rem 209P	Rem Fig 8	16.0/ 7,500 PSI	17.0/ 8,600 PSI	18.0/ 9,500 PSI	—
Titewad	Rem 209P	WAA12	15.1/ 8,200 PSI	16.3/ 9,600 PSI	17.6/11,100 PSI	—
Titewad	Win 209	Fed 12S3	16.0/ 7,300 PSI	17.2/ 9,000 PSI	18.4/10,600 PSI	—

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G FEDERAL GOLD MEDAL 2 3/4" PLASTIC SHELLS - 1 1/8oz LEAD SHOT—CONT.						
			1090 fps	1145 fps	1200 fps	1255 fps
Titewad	Win 209	G/BP 072	15.5/ 9,300 PSI	16.7/10,500 PSI	18.0/11,300 PSI	—
Titewad	Win 209	Rem TGT-12	15.9/ 7,500 PSI	17.1/ 9,100 PSI	18.2/10,600 PSI	—
Titewad	Win 209	WAA12SL	16.5/ 7,900 PSI	17.5/ 9,100 PSI	18.2/ 9,800 PSI	—
Clays	CCI 209	Fed 12S3	16.7/ 7,600 PSI	17.8/ 9,200 PSI	19.1/11,100 PSI	—
Clays	CCI 209	Hdy Versalite	17.3/6,500 LUP	18.5/7,300 LUP	19.7/8,100 LUP	—
Clays	CCI 209	Red PC	16.8/ 7,200 PSI	18.0/ 8,500 PSI	19.2/ 9,800 PSI	20.5/11,200 PSI
Clays	CCI 209	Rem Fig 8	16.6/ 7,000 PSI	18.0/ 8,100 PSI	19.5/ 9,400 PSI	—
Clays	CCI 209	WAA12	16.5/ 7,000 PSI	17.7/ 8,300 PSI	19.1/ 9,900 PSI	20.5/11,400 PSI
Clays	CCI 209	Windjammer	17.2/ 7,000 PSI	18.2/ 7,900 PSI	19.6/ 9,200 PSI	20.9/10,500 PSI
Clays	Ched 209	CB 6118-12	15.0/ 6,900 PSI	16.5/ 7,900 PSI	18.0/ 9,000 PSI	19.4/10,100 PSI
Clays	Ched 209	DR XL-1	14.8/ 6,400 PSI	16.3/ 7,700 PSI	17.8/ 8,900 PSI	19.3/10,200 PSI
Clays	Ched 209	Fed 12S3	16.8/ 8,000 PSI	18.0/ 9,500 PSI	19.2/10,900 PSI	—
Clays	Ched 209	Rem Fig 8	16.5/ 7,600 PSI	17.9/ 9,000 PSI	19.3/10,500 PSI	—
Clays	Ched 209	Windjammer	16.9/ 7,000 PSI	18.2/ 8,400 PSI	19.5/ 9,900 PSI	20.9/11,400 PSI
Clays	Fed 209A	Fed 12S3	16.8/ 7,900 PSI	17.1/ 8,600 PSI	19.0/10,400 PSI	—
Clays	Fed 209A	G/BP Z21	15.9/ 8,900 PSI	17.1/10,300 PSI	—	—
Clays	Fed 209A	Red PC	16.2/ 7,500 PSI	17.6/ 8,900 PSI	18.9/10,200 PSI	—
Clays	Fed 209A	Rem Fig 8	17.0/ 7,400 PSI	17.5/ 7,900 PSI	19.0/ 9,600 PSI	—
Clays	Fed 209A	WAA12	16.5/ 7,700 PSI	17.0/ 8,100 PSI	18.5/10,300 PSI	—
Clays	Fed 209A	Windjammer	16.5/ 7,400 PSI	17.6/ 8,700 PSI	18.8/10,100 PSI	—
Clays	Rem 209P	Fed 12S3	16.5/ 7,500 PSI	17.7/ 9,400 PSI	18.8/11,200 PSI	—
Clays	Rem 209P	Red PC	17.0/ 7,000 PSI	17.9/ 7,900 PSI	19.3/ 9,500 PSI	20.7/11,000 PSI
Clays	Rem 209P	Rem Fig 8	16.6/ 7,200 PSI	17.8/ 8,600 PSI	18.9/ 9,900 PSI	20.1/11,300 PSI
Clays	Rem 209P	WAA12	16.5/ 7,200 PSI	17.6/ 8,700 PSI	18.8/10,300 PSI	—
Clays	Rem 209P	Windjammer	—	17.8/ 7,900 PSI	19.1/ 9,300 PSI	20.5/10,900 PSI
Clays	Win 209	Fed 12S3	16.4/ 7,500 PSI	17.7/ 9,100 PSI	19.1/10,700 PSI	—
Clays	Win 209	G/BP P-Skt	16.6/ 8,800 PSI	17.7/10,100 PSI	18.8/11,300 PSI	—
Clays	Win 209	Red PC	17.0/ 7,000 PSI	18.2/ 8,300 PSI	19.4/ 9,700 PSI	21.0/11,300 PSI
Clays	Win 209	Rem Fig 8	16.7/ 7,000 PSI	17.9/ 8,400 PSI	19.2/ 9,900 PSI	20.5/10,800 PSI
Clays	Win 209	Trapper	16.7/ 7,600 PSI	17.8/ 9,000 PSI	18.8/10,300 PSI	—
Clays	Win 209	WAA12	16.5/ 7,300 PSI	17.3/ 8,300 PSI	18.6/ 9,700 PSI	19.9/11,000 PSI
Clays	Win 209	Windjammer	17.3/6,300 LUP	18.3/7,200 LUP	19.4/8,100 LUP	—
700-X	Ched 209	CB 6118-12	15.7/ 7,300 PSI	16.9/ 8,300 PSI	18.1/ 9,300 PSI	19.3/10,300 PSI
700-X	Ched 209	DR XL-1	15.3/ 7,100 PSI	16.7/ 8,200 PSI	18.1/ 9,400 PSI	19.4/10,500 PSI
700-X	Ched 209	Fed 12S3	15.6/ 7,600 PSI	16.8/ 8,700 PSI	17.9/ 9,800 PSI	19.1/10,900 PSI
700-X	Ched 209	Rem Fig 8	15.7/ 7,100 PSI	16.9/ 8,100 PSI	18.1/ 9,000 PSI	19.3/10,000 PSI
700-X	Fed 209A	CB 2118-12	15.0/ 7,700 PSI	17.1/ 8,800 PSI	18.3/ 9,800 PSI	19.0/10,900 PSI
700-X	Fed 209A	Fed 12S3	15.7/ 7,700 PSI	17.2/ 8,600 PSI	18.7/ 9,600 PSI	20.0/10,500 PSI
700-X	Fed 209A	Rem TGT-12	15.8/ 7,000 PSI	17.1/ 8,300 PSI	18.3/ 9,500 PSI	19.0/10,600 PSI
700-X	Fed 209A	WAA12SL	15.8/ 7,700 PSI	17.1/ 8,700 PSI	18.3/ 9,700 PSI	19.0/10,700 PSI
700-X	Rem 209P	CB 2118-12	15.7/ 7,000 PSI	17.2/ 7,900 PSI	18.7/ 8,800 PSI	20.1/ 9,700 PSI
700-X	Rem 209P	Fed 12S3	15.7/ 7,300 PSI	17.2/ 8,200 PSI	18.7/ 9,000 PSI	20.1/ 9,900 PSI
700-X	Rem 209P	Rem TGT-12	15.7/ 6,700 PSI	17.2/ 7,700 PSI	18.7/ 8,600 PSI	20.1/ 9,600 PSI
700-X	Rem 209P	WAA12SL	16.3/ 7,400 PSI	17.6/ 8,100 PSI	18.8/ 8,800 PSI	20.1/ 9,600 PSI
700-X	Win 209	CB 2118-12	15.8/ 7,000 PSI	17.1/ 8,000 PSI	18.3/ 9,100 PSI	19.6/10,100 PSI
700-X	Win 209	Fed 12S3	15.8/ 7,600 PSI	17.1/ 8,700 PSI	18.3/ 9,700 PSI	19.6/10,800 PSI
700-X	Win 209	Rem TGT-12	15.8/ 6,600 PSI	17.1/ 7,600 PSI	18.3/ 8,700 PSI	19.6/ 9,700 PSI
700-X	Win 209	WAA12SL	15.8/ 7,000 PSI	17.1/ 8,000 PSI	18.3/ 9,000 PSI	19.6/10,000 PSI
High Gun	Ched 209	Rem TGT-12	16.1/ 6,400 PSI	17.4/ 7,500 PSI	18.7/ 8,500 PSI	20.0/ 9,600 PSI
High Gun	Ched 209	CB4100-12B	16.0/ 6,300 PSI	17.1/ 7,400 PSI	18.3/ 8,500 PSI	19.5/ 9,500 PSI
High Gun	Ched 209	DRFO	16.9/ 6,600 PSI	17.9/ 7,700 PSI	18.9/ 8,900 PSI	19.9/10,100 PSI
High Gun	Ched 209	DR XL-1	16.1/ 6,600 PSI	17.2/ 8,000 PSI	18.3/ 9,300 PSI	19.4/10,600 PSI
High Gun	Fed 209A	Rem TGT-12	16.1/ 6,600 PSI	17.3/ 7,600 PSI	18.5/ 8,600 PSI	19.7/ 9,700 PSI
High Gun	Fed 209A	CB4100-12B	16.3/ 6,500 PSI	17.5/ 7,600 PSI	18.6/ 8,800 PSI	19.8/ 9,900 PSI
High Gun	Fed 209A	CB2118-12	—	17.4/ 8,200 PSI	18.7/ 9,300 PSI	20.0/10,300 PSI
High Gun	Fed 209A	DRFO	16.6/ 6,800 PSI	17.7/ 8,100 PSI	18.8/ 9,300 PSI	19.8/10,500 PSI
High Gun	Fed 209A	DR XL-1	16.0/ 7,300 PSI	17.2/ 8,500 PSI	18.4/ 9,700 PSI	19.5/11,000 PSI
High Gun	Rem 209P	Rem TGT-12	16.7/ 6,400 PSI	17.9/ 7,400 PSI	19.1/ 8,500 PSI	20.3/ 9,600 PSI
High Gun	Rem 209P	CB4100-12B	16.3/ 6,100 PSI	17.5/ 7,200 PSI	18.7/ 8,300 PSI	19.9/ 9,400 PSI

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G FEDERAL GOLD MEDAL 2 3/4" PLASTIC SHELLS - 1 1/8oz LEAD SHOT—CONT.						
			1090 fps	1145 fps	1200 fps	1255 fps
High Gun	Rem 209P	DRF0	17.2/ 6,100 PSI	18.2/ 7,200 PSI	19.3/ 8,300 PSI	20.4/ 9,500 PSI
High Gun	Rem 209P	DR XL-1	16.2/ 6,900 PSI	17.3/ 8,000 PSI	18.5/ 9,200 PSI	19.7/10,300 PSI
High Gun	Fio 616	Rem TGT-12	16.7/ 6,600 PSI	17.9/ 7,600 PSI	19.1/ 8,700 PSI	20.2/ 9,700 PSI
High Gun	Fio 616	CB4100-12B	16.3/ 6,200 PSI	17.5/ 7,200 PSI	18.6/ 8,300 PSI	19.7/ 9,300 PSI
High Gun	Fio 616	DRF0	17.5/ 5,800 PSI	18.5/ 6,800 PSI	19.6/ 7,900 PSI	20.7/ 8,900 PSI
High Gun	Fio 616	DR XL-1	16.2/ 6,500 PSI	17.3/ 7,800 PSI	18.4/ 9,100 PSI	19.5/10,400 PSI
High Gun	Win 209	Rem TGT-12	16.4/ 6,300 PSI	17.6/ 7,400 PSI	18.9/ 8,400 PSI	20.1/ 9,500 PSI
High Gun	Win 209	CB4100-12B	17.1/ 6,000 PSI	18.2/ 7,000 PSI	19.3/ 8,000 PSI	20.3/ 8,900 PSI
High Gun	Win 209	DRF0	16.7/ 6,000 PSI	17.9/ 7,300 PSI	19.0/ 8,500 PSI	20.2/ 9,700 PSI
High Gun	Win 209	DR XL-1	16.6/ 6,200 PSI	17.7/ 7,400 PSI	18.8/ 8,600 PSI	19.9/ 9,800 PSI
High Gun	CCI 209	Rem TGT-12	16.8/ 6,500 PSI	17.9/ 7,600 PSI	19.0/ 8,800 PSI	20.1/ 9,900 PSI
High Gun	CCI 209	CB4100-12B	16.6/ 6,600 PSI	17.7/ 7,600 PSI	18.8/ 8,500 PSI	19.9/ 9,500 PSI
High Gun	CCI 209	DRF0	16.6/ 6,200 PSI	17.8/ 7,400 PSI	19.0/ 8,700 PSI	20.1/ 9,900 PSI
High Gun	CCI 209	DR XL-1	15.2/ 8,000 PSI	16.3/ 9,400 PSI	17.3/10,700 PSI	—
Internat'l	CCI 209	Fed 12S3	—	19.0/ 8,200 PSI	20.3/ 9,500 PSI	21.5/10,600 PSI
Internat'l	CCI 209	Hdy Versalite	—	20.4/6,900 LUP	22.5/7,300 LUP	24.2/8,700 LUP
Internat'l	CCI 209	Rem Fig 8	—	19.6/ 7,200 PSI	20.7/ 8,300 PSI	21.9/ 9,400 PSI
Internat'l	CCI 209	WAA12	—	19.0/ 7,200 PSI	20.5/ 8,500 PSI	21.8/ 9,600 PSI
Internat'l	CCI 209	Windjammer	—	—	21.3/ 7,400 PSI	22.4/ 8,900 PSI
Internat'l	CCI 209M	Rem TGT-12	19.5 /6,800 LUP	20.0/7,000 LUP	20.6/7,800 LUP	22.5/8,600 LUP
Internat'l	Ched 209	CB 6118-12	17.8/ 6,100 PSI	18.9/ 6,900 PSI	20.1/ 7,700 PSI	21.3/ 8,500 PSI
Internat'l	Ched 209	DR XL-1	17.8 /6,200 PSI	18.9/ 6,900 PSI	20.0/ 7,700 PSI	21.1/ 8,400 PSI
Internat'l	Ched 209	Fed 12S3	18.2/ 7,300 PSI	19.4/ 8,300 PSI	20.6/ 9,400 PSI	21.8/10,500 PSI
Internat'l	Ched 209	Rem Fig 8	18.1/ 6,100 PSI	19.2/ 6,900 PSI	20.4/ 7,700 PSI	21.5/ 8,500 PSI
Internat'l	Ched 209	Windjammer	18.3/ 6,700 PSI	19.5/ 7,800 PSI	20.8/ 9,000 PSI	22.0/10,000 PSI
Internat'l	Fed 209A	Fed 12S3	18.5/ 7,000 PSI	19.0/ 7,200 PSI	20.5/ 8,800 PSI	22.2/10,600 PSI
Internat'l	Fed 209A	Red PC	19.0/ 6,300 PSI	19.7/ 6,800 PSI	21.0/ 8,000 PSI	22.3/ 9,600 PSI
Internat'l	Fed 209A	Rem Fig 8	—	18.7/ 8,300 PSI	19.9/ 9,300 PSI	21.0/10,300 PSI
Internat'l	Fed 209A	WAA12	—	18.4/ 8,200 PSI	19.6/ 9,500 PSI	20.7/10,700 PSI
Internat'l	Fed 209A	Windjammer	19.0/ 6,200 PSI	19.5/ 6,500 PSI	20.8/ 8,000 PSI	22.5/ 9,200 PSI
Internat'l	Fio 616	Fed 12S3	—	18.9/ 8,300 PSI	20.0/ 9,500 PSI	21.0/10,700 PSI
Internat'l	Fio 616	Red PC	—	19.2/ 7,500 PSI	20.4/ 8,700 PSI	21.6/10,000 PSI
Internat'l	Fio 616	CB 6118-12	18.6/ 6,000 PSI	19.5/ 6,800 PSI	20.3/ 7,600 PSI	21.2/ 8,500 PSI
Internat'l	Fio 616	Rem Fig 8	—	19.9/ 7,000 PSI	21.2/ 8,300 PSI	22.4/ 9,600 PSI
Internat'l	Fio 616	WAA12	—	19.7/ 6,900 PSI	20.9/ 8,000 PSI	22.3/ 9,200 PSI
Internat'l	Rem 209P	Fed 12S3	—	19.1/ 8,200 PSI	20.2/ 9,500 PSI	21.3/10,700 PSI
Internat'l	Rem 209P	G/BP CS12	—	18.8/ 8,100 PSI	20.0/ 9,100 PSI	21.2/10,500 PSI
Internat'l	Rem 209P	Red PC	—	19.5/ 7,200 PSI	20.7/ 8,300 PSI	21.9/ 9,400 PSI
Internat'l	Rem 209P	Rem Fig 8	—	19.2/ 7,000 PSI	20.4/ 8,300 PSI	21.6/ 9,700 PSI
Internat'l	Rem 209P	WAA12	—	19.1/ 7,600 PSI	20.2/ 8,600 PSI	21.4/ 9,800 PSI
Internat'l	Rem 209P	Windjammer	—	19.3/ 7,200 PSI	20.5/ 8,200 PSI	21.7/ 9,300 PSI
Internat'l	Win 209	Fed 12S3	—	19.0/ 8,000 PSI	20.2/ 9,200 PSI	21.3/10,300 PSI
Internat'l	Win 209	Red PC	—	19.8/ 7,300 PSI	21.1/ 8,300 PSI	22.5/ 9,300 PSI
Internat'l	Win 209	Rem Fig 8	—	19.0/ 7,300 PSI	20.4/ 8,500 PSI	21.9/ 9,800 PSI
Internat'l	Win 209	Trapper	—	19.4/ 8,000 PSI	20.6/ 9,200 PSI	21.7/10,300 PSI
Internat'l	Win 209	WAA12SL	19.1 /6,600 LUP	20.1/7,100 LUP	21.0/7,500 LUP	22.4/8,900 LUP
Internat'l	Win 209	Windjammer	—	19.5/ 7,000 PSI	20.8/ 8,000 PSI	22.2/ 9,000 PSI
Universal	CCI 209	Windjammer	—	—	25.2/ 7,300 PSI	26.5/ 8,200 PSI
Universal	CCI 209M	Hdy Versalite	—	—	23.0/ 8,400 PSI	24.2/ 9,400 PSI
Universal	Fed 209A	Fed 12S3	—	—	23.0/ 8,700 PSI	24.4/ 9,600 PSI
Universal	Win 209	Rem Fig 8	—	—	24.0/ 8,000 PSI	25.0/ 8,700 PSI
Universal	Win 209	WAA12	—	—	23.2/ 8,800 PSI	24.5/ 9,700 PSI
Competition	Ched 209	CB 6118-12	16.5/ 7,200 PSI	17.9/ 8,500 PSI	19.4/ 9,800 PSI	20.8/11,100 PSI
Competition	Ched 209	DR XL-1	—	—	19.4/ 9,600 PSI	20.8/10,800 PSI
Competition	Ched 209	Fed 12S3	16.8/ 7,300 PSI	18.2/ 8,700 PSI	19.5/10,100 PSI	—
Competition	Ched 209	Rem Fig 8	17.3/ 6,900 PSI	18.5/ 8,100 PSI	19.7/ 9,400 PSI	20.9/10,600 PSI
Competition	Fed 209A	CB 6118-12	17.3/ 7,400 PSI	18.4/ 8,600 PSI	19.5/ 9,800 PSI	20.6/11,000 PSI
Competition	Fed 209A	DR XL-1	16.7/ 7,300 PSI	18.0/ 8,500 PSI	19.4/ 9,800 PSI	20.7/11,000 PSI
Competition	Fed 209A	Fed 12S3	17.0/ 7,100 PSI	18.2/ 8,500 PSI	19.4/ 9,800 PSI	20.6/11,100 PSI

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G FEDERAL GOLD MEDAL 2 3/4" PLASTIC SHELLS - 1 1/8oz LEAD SHOT—CONT.						
			1090 fps	1145 fps	1200 fps	1255 fps
Competition	Fed 209A	Rem Fig 8	17.1/ 7,000 PSI	18.2/ 8,300 PSI	19.4/ 9,600 PSI	20.6/10,800 PSI
Competition	Fio 616	CB 6118-12	16.9/ 7,300 PSI	18.2/ 8,600 PSI	19.4/ 9,800 PSI	20.6/11,000 PSI
Competition	Fio 616	DR XL-1	17.4/ 6,700 PSI	18.6/ 7,900 PSI	19.8/ 9,100 PSI	21.0/10,400 PSI
Competition	Fio 616	Fed 12S3	17.0/ 7,300 PSI	17.9/ 8,600 PSI	18.9/ 9,900 PSI	19.9/11,200 PSI
Competition	Fio 616	Rem Fig 8	17.0/ 7,100 PSI	18.2/ 8,400 PSI	19.4/ 9,800 PSI	20.6/11,100 PSI
Competition	Win 209	CB 6118-12	17.5/ 6,500 PSI	18.6/ 7,900 PSI	19.6/ 9,300 PSI	20.6/10,700 PSI
Competition	Win 209	DR XL-1	17.9/ 6,800 PSI	18.9/ 7,900 PSI	19.9/ 9,000 PSI	20.9/10,100 PSI
Competition	Win 209	Fed 12S3	17.2/ 7,400 PSI	18.3/ 8,500 PSI	19.5/ 9,700 PSI	20.6/10,800 PSI
Competition	Win 209	Rem Fig 8	17.3/ 6,900 PSI	18.5/ 8,100 PSI	19.7/ 9,300 PSI	20.9/10,500 PSI
WST	CCI 209	Fed 12S3	—	19.5/ 8,500 PSI	21.0/10,300 PSI	—
WST	Ched 209	CB 6118-12	18.6 / 7,000 PSI	19.8/ 8,000 PSI	21.0/ 9,000 PSI	22.2/ 9,900 PSI
WST	Ched 209	DR XL-1	18.5/ 6,600 PSI	19.8/ 7,400 PSI	21.2/ 8,200 PSI	22.6/ 9,000 PSI
WST	Ched 209	Fed 12S3	18.1/ 7,300 PSI	19.5/ 8,300 PSI	21.0/ 9,300 PSI	22.4/10,200 PSI
WST	Ched 209	Rem Fig 8	18.6/ 6,900 PSI	19.9/ 7,800 PSI	21.2/ 8,700 PSI	22.6/ 9,500 PSI
WST	Fio 616	CB 6118-12	18.8/ 7,100 PSI	20.1/ 8,000 PSI	21.4/ 8,900 PSI	22.7/ 9,900 PSI
WST	Fio 616	Fed 12S3	—	20.5/ 7,600 PSI	22.1/ 9,900 PSI	—
WST	Fio 616	Rem Fig 8	—	20.6/ 7,600 PSI	22.0/ 9,800 PSI	23.5/10,400 PSI
WST	Fio 616	WAA12	—	20.5/ 7,500 PSI	21.9/ 8,900 PSI	23.5/10,500 PSI
WST	Win 209	Fed 12S3	—	—	21.0/ 9,500 PSI	—
Super Hcp	Ched 209	Fed 12SO	—	19.4/ 6,400 PSI	20.9/ 7,800 PSI	22.4/10,200 PSI
Super Hcp	Ched 209	Rem TGT-12	—	—	20.5/ 7,000 PSI	22.0/ 8,100 PSI
Super Hcp	Ched 209	WAA12SL	—	—	21.1/ 6,900 PSI	22.3/ 8,200 PSI
Super Hcp	Fed 209A	Fed 12SO	—	18.8/ 6,600 PSI	20.5/ 7,800 PSI	21.3/ 8,400 PSI
Super Hcp	Fed 209A	Jam XL-1	—	—	20.7/ 7,500 PSI	22.3/ 8,600 PSI
Super Hcp	Fed 209A	Rem TGT-12	—	—	21.0/ 7,400 PSI	22.2/ 8,500 PSI
Super Hcp	Fed 209A	WAA12SL	—	19.0/ 6,600 PSI	20.5/ 7,800 PSI	22.0/ 8,900 PSI
Super Hcp	Fio 616	Fed 12SO	—	—	21.2/ 7,700 PSI	23.0/ 9,400 PSI
Super Hcp	Fio 616	Rem TGT-12	—	—	21.0/ 7,600 PSI	22.2/ 8,700 PSI
Super Hcp	Fio 616	WAA12SL	—	—	21.1/ 7,300 PSI	22.5/ 8,400 PSI
Super Hcp	Rem 209P	Fed 12SO	—	19.9/ 6,100 PSI	21.3/ 7,700 PSI	22.7/ 9,000 PSI
Super Hcp	Rem 209P	Jam XL-1	—	—	21.6/ 7,000 PSI	22.8/ 8,200 PSI
Super Hcp	Rem 209P	Rem TGT-12	—	—	21.2/ 6,900 PSI	22.7/ 8,200 PSI
Super Hcp	Rem 209P	WAA12SL	—	—	21.2/ 7,000 PSI	22.8/ 8,200 PSI
Super Hcp	Win 209	Fed 12SO	—	—	21.9/ 7,200 PSI	23.3/ 8,700 PSI
Super Hcp	Win 209	Rem TGT-12	—	—	21.6/ 7,100 PSI	23.0/ 8,100 PSI
Super Hcp	Win 209	WAA12SL	—	—	21.4/ 7,100 PSI	23.0/ 8,300 PSI

12G FEDERAL GOLD MEDAL 2 3/4" PLASTIC SHELLS - 1 1/8oz LEAD SHOT - HIGH VELOCITY

			1420 fps	1475 fps	1530 fps	1585 fps
Longshot	CCI 209M	Fed 12S3	32.2/ 8,400 PSI	33.6/ 9,500 PSI	34.9/10,600 PSI	—
Longshot	CCI 209M	Hdy Versalite	31.6/ 8,700 PSI	33.2/ 9,500 PSI	34.8/10,300 PSI	36.4/11,200 PSI
Longshot	CCI 209M	Rem Fig 8	32.2/ 8,500 PSI	33.8/ 9,400 PSI	35.5/10,400 PSI	37.1/11,400 PSI
Longshot	CCI 209M	WAA12	31.4/ 8,800 PSI	33.2/ 9,500 PSI	35.0/10,300 PSI	36.8/11,000 PSI
Longshot	Fed 209A	Fed 12S3	32.0/ 9,000 PSI	33.3/10,000 PSI	34.6/11,500 PSI	—
Longshot	Fed 209A	Hdy Versalite	31.7/ 8,800 PSI	33.2/ 9,600 PSI	34.8/10,500 PSI	36.4/11,400 PSI
Longshot	Fed 209A	Rem Fig 8	32.2/ 8,600 PSI	33.6/ 9,500 PSI	35.0/10,500 PSI	36.4/11,400 PSI
Longshot	Fed 209A	WAA12	31.7/ 8,900 PSI	33.1/ 9,700 PSI	34.6/10,700 PSI	36.0/11,500 PSI
Longshot	Fed 209A	Windjammer	32.3/ 8,200 PSI	33.9/ 9,200 PSI	35.5/10,200 PSI	37.1/11,200 PSI
Longshot	Rem 209P	Fed 12S3	32.9/ 8,400 PSI	34.1/ 9,300 PSI	35.3/10,200 PSI	—
Longshot	Rem 209P	Hdy Versalite	32.3/ 8,500 PSI	33.9/ 9,500 PSI	35.4/10,500 PSI	37.0/11,500 PSI
Longshot	Rem 209P	Rem Fig 8	32.1/ 8,200 PSI	33.9/ 9,100 PSI	35.6/10,000 PSI	37.4/10,900 PSI
Longshot	Rem 209P	WAA12	32.4/ 8,200 PSI	33.9/ 9,100 PSI	35.4/10,000 PSI	36.9/10,900 PSI
Longshot	Rem 209P	Windjammer	32.9/ 7,900 PSI	34.4/ 8,800 PSI	35.9/ 9,600 PSI	37.5/10,500 PSI
Longshot	Win 209	Fed 12S3	34.2/ 7,100 PSI	35.5/ 8,200 PSI	36.8/ 9,400 PSI	38.1/10,600 PSI
Longshot	Win 209	Hdy Versalite	34.6/ 7,200 PSI	35.7/ 8,200 PSI	36.9/ 9,300 PSI	38.0/10,200 PSI
Longshot	Win 209	Rem Fig 8	34.9/ 7,100 PSI	36.0/ 8,100 PSI	37.1/ 9,100 PSI	38.2/10,000 PSI
Longshot	Win 209	WAA12	34.0/ 7,600 PSI	35.2/ 8,500 PSI	36.4/ 9,400 PSI	37.8/10,400 PSI
Longshot	Win 209	Windjammer	35.0/ 7,100 PSI	36.2/ 8,000 PSI	37.4/ 8,900 PSI	38.5/10,100 PSI

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" REMINGTON STS, NITRO 27, OR GUN CLUB PLASTIC SHELLS - 1oz LEAD SHOT						
			1125 fps	1180 fps	1235 fps	1290 fps
Perfect Pattern	Ched 209	CB 4100-12B	—	15.5/ 8,300 PSI	16.6/ 9,900 PSI	17.7/11,400 PSI
Perfect Pattern	Ched 209	Rem TGT-12	—	15.2/ 9,000 PSI	16.4/10,300 PSI	—
Perfect Pattern	Ched 209	WAA12SL	—	15.0/ 9,300 PSI	16.2/10,800 PSI	—
Perfect Pattern	Fed 209A	CB 4100-12B	—	15.2/ 8,700 PSI	16.5/10,200 PSI	—
Perfect Pattern	Fed 209A	Rem TGT-12	—	15.0/ 9,200 PSI	16.2/10,500 PSI	—
Perfect Pattern	Fed 209A	WAA12SL	—	15.6/ 9,300 PSI	16.5/11,000 PSI	—
Perfect Pattern	Rem 209P	CB 4100-12B	—	15.1/ 7,700 PSI	16.3/ 9,400 PSI	17.4/11,200 PSI
Perfect Pattern	Rem 209P	Rem TGT-12	—	15.3/ 8,000 PSI	16.5/ 9,500 PSI	17.7/11,100 PSI
Perfect Pattern	Rem 209P	WAA12SL	—	14.6/ 8,900 PSI	15.9/10,700 PSI	—
Perfect Pattern	Fio 616	CB 4100-12B	—	15.2/ 7,900 PSI	16.5/ 9,300 PSI	17.8/10,600 PSI
Perfect Pattern	Fio 616	Rem TGT-12	—	15.4/ 8,300 PSI	16.6/ 9,600 PSI	17.8/10,800 PSI
Perfect Pattern	Fio 616	WAA12SL	—	15.3/ 8,700 PSI	16.5/10,500 PSI	—
Perfect Pattern	Win 209	CB 4100-12B	—	15.4/ 8,200 PSI	16.4/ 9,600 PSI	17.5/10,900 PSI
Perfect Pattern	Win 209	Rem TGT-12	—	15.3/ 8,700 PSI	16.5/10,100 PSI	17.6/11,500 PSI
Perfect Pattern	Win 209	WAA12SL	—	15.2/ 9,200 PSI	16.5/10,900 PSI	—
Perfect Pattern	CCI 209	CB 4100-12B	—	15.1/ 8,000 PSI	16.3/ 9,600 PSI	17.6/11,200 PSI
Perfect Pattern	CCI 209	Rem TGT-12	—	15.1/ 8,000 PSI	16.5/ 9,500 PSI	17.8/11,100 PSI
Perfect Pattern	CCI 209	WAA12SL	—	14.6/ 9,500 PSI	16.0/11,300 PSI	—
Titewad	CCI 209	Purple PC	—	17.0/ 8,200 PSI	18.0/10,100 PSI	19.0/10,500 PSI
Titewad	CCI 209	Rem TGT-12	15.2/ 8,200 PSI	16.4/ 9,100 PSI	17.7/10,500 PSI	19.0/11,400 PSI
Titewad	CCI 209	WAA12L	15.8/ 8,200 PSI	16.8/ 9,000 PSI	17.8/10,500 PSI	—
Titewad	Ched 209	CB 4100-12B	—	16.9/ 8,000 PSI	17.9/ 9,000 PSI	19.0/ 9,900 PSI
Titewad	Ched 209	Rem TGT-12	—	16.7/ 8,800 PSI	17.8/ 9,900 PSI	18.9/10,900 PSI
Titewad	Ched 209	WAA12L	—	16.7/ 9,500 PSI	17.9/10,800 PSI	—
Titewad	Fed 209A	Fed 12SO	16.2/ 7,500 PSI	17.2/ 7,900 PSI	18.5/10,000 PSI	19.7/11,200 PSI
Titewad	Fed 209A	Purple PC	16.2/ 6,500 PSI	17.2/ 7,200 PSI	18.4/ 8,000 PSI	20.0/ 9,800 PSI
Titewad	Fed 209A	Rem TGT-12	15.5/ 7,500 PSI	16.5/ 8,800 PSI	17.8/10,000 PSI	—
Titewad	Fed 209A	WAA12SL	15.8/ 8,000 PSI	17.0/ 8,600 PSI	18.2/10,100 PSI	19.4/11,000 PSI
Titewad	Fio 616	Rem TGT-12	15.3/ 8,100 PSI	16.5/ 9,000 PSI	17.7/10,200 PSI	18.7/11,100 PSI
Titewad	Fio 616	Windjammer	—	—	18.0/ 9,600 PSI	19.2/10,800 PSI
Titewad	Fio 616	CB 4100-12B	—	17.0/ 8,100 PSI	18.1/ 9,000 PSI	19.1/ 9,800 PSI
Titewad	Fio 616	WAA12L	—	15.9/ 8,800 PSI	17.5/10,800 PSI	—
Titewad	Fio 616	WAA12SL	15.6/ 8,300 PSI	17.1/ 9,700 PSI	18.6/11,100 PSI	—
Titewad	Rem 209P	CB-4100-12	15.7/ 6,800 PSI	17.0/ 8,100 PSI	18.2/ 9,300 PSI	19.5/10,600 PSI
Titewad	Rem 209P	Purple PC	16.0/ 7,400 PSI	17.0/ 7,800 PSI	18.0/ 9,200 PSI	19.4/10,600 PSI
Titewad	Rem 209P	Rem TGT-12	—	16.7/ 7,800 PSI	18.2/ 9,600 PSI	19.4/11,300 PSI
Titewad	Rem 209P	WAA12SL	15.5/ 7,900 PSI	16.7/ 9,200 PSI	18.0/10,000 PSI	19.0/11,300 PSI
Titewad	Win 209	CB-4100-12	15.8/ 6,800 PSI	17.1/ 7,900 PSI	18.4/ 9,200 PSI	19.6/10,200 PSI
Titewad	Win 209	Purple PC	—	17.7/ 6,900 PSI	19.0/ 8,400 PSI	20.2/ 9,800 PSI
Titewad	Win 209	Rem TGT-12	15.3/ 7,400 PSI	16.6/ 8,600 PSI	17.9/ 9,800 PSI	19.2/11,000 PSI
Titewad	Win 209	WAA12SL	15.5/ 7,900 PSI	16.5/ 8,900 PSI	18.0/11,000 PSI	—
Titewad	Win 209	Windjammer	16.4/ 7,100 PSI	17.6/ 8,300 PSI	18.8/ 9,500 PSI	20.0/10,700 PSI
Clays	CCI 209	Purple PC	17.1/6,400 LUP	18.3/7,100 LUP	19.5/7,700 LUP	20.7/8,400 LUP
Clays	CCI 209	Rem TGT-12	15.4/ 8,700 PSI	16.6/ 9,600 PSI	18.2/11,400 PSI	—
Clays	CCI 209	WAA12SL	15.1/ 8,500 PSI	16.3/10,100 PSI	17.5/11,200 PSI	—
Clays	Fed 209A	Purple PC	16.0/ 7,900 PSI	17.0/ 9,100 PSI	18.5/10,300 PSI	—
Clays	Fed 209A	Rem TGT-12	15.6/ 8,400 PSI	16.7/ 9,900 PSI	18.0/11,500 PSI	—
Clays	Fed 209A	WAA12SL	15.6/ 9,200 PSI	16.5/10,800 PSI	17.7/11,300 PSI	—
Clays	Fio 616	WAA12SL	15.5/ 8,800 PSI	17.0/ 9,000 PSI	18.3/10,500 PSI	—
Clays	Fio 616	CB 4100-12B	—	16.9/ 8,700 PSI	17.9/ 9,700 PSI	19.0/10,800 PSI
Clays	Fio 616	Rem TGT-12	15.8/ 7,700 PSI	17.4/ 9,600 PSI	—	—
Clays	Fio 616	WAA12SL	16.0/ 8,400 PSI	17.3/10,200 PSI	—	—
Clays	Rem 209P	CB-4100-12	—	18.0/ 7,200 PSI	19.2/ 8,500 PSI	20.4/ 9,800 PSI
Clays	Rem 209P	Purple PC	16.6/ 6,100 PSI	17.8/ 7,400 PSI	19.1/ 8,800 PSI	20.3/10,100 PSI
Clays	Rem 209P	Rem TGT-12	16.8/6,600 LUP	17.9/7,400 LUP	18.9/8,100 LUP	19.9/8,800 LUP
Clays	Rem 209P	WAA12SL	16.4/ 6,700 PSI	17.6/ 8,100 PSI	18.7/ 9,400 PSI	19.9/10,900 PSI
Clays	Win 209	CB-4100-12	—	17.8/ 7,200 PSI	19.1/ 8,600 PSI	20.4/10,000 PSI
Clays	Win 209	Purple PC	16.8/ 5,700 PSI	18.1/ 7,000 PSI	19.4/ 8,300 PSI	20.6/ 9,500 PSI
Clays	Win 209	Rem TGT-12	16.3/ 6,500 PSI	17.6/ 7,900 PSI	18.8/ 9,200 PSI	20.1/10,500 PSI

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" REMINGTON STS, NITRO 27, OR GUN CLUB PLASTIC SHELLS - 1oz LEAD SHOT—CONT.						
			1125 fps	1180 fps	1235 fps	1290 fps
Clays	Win 209	WAA12SL	15.7/7,100 LUP	17.0/8,200 LUP	18.4/9,500 LUP	19.8/10,700 LUP
Clays	Win 209	Windjammer	—	18.4/ 7,100 PSI	19.0/ 8,600 PSI	20.6/10,200 PSI
700-X	Fed 209A	CB 1100-12	15.4/ 7,100 PSI	16.4/ 8,200 PSI	17.0/ 9,300 PSI	18.9/10,400 PSI
700-X	Fed 209A	Fed 12S3	15.1/ 8,500 PSI	16.4/ 9,700 PSI	17.7/10,900 PSI	—
700-X	Fed 209A	Rem TGT-12	15.0/ 7,700 PSI	16.1/ 8,700 PSI	17.2/ 9,700 PSI	18.3/10,700 PSI
700-X	Fed 209A	WAA12SL	15.1/ 8,200 PSI	16.4/ 9,400 PSI	17.7/10,500 PSI	—
700-X	Fio 616	Rem TGT-12	15.7/ 7,400 PSI	17.1/ 8,600 PSI	18.6/ 9,900 PSI	20.1/11,100 PSI
700-X	Fio 616	WAA12SL	15.3/ 7,700 PSI	16.8/ 8,700 PSI	18.2/ 9,800 PSI	19.6/10,900 PSI
700-X	Rem 209P	CB 1100-12	15.6/ 7,000 PSI	16.9/ 8,000 PSI	18.2/ 9,100 PSI	19.4/10,200 PSI
700-X	Rem 209P	Fed 12S3	15.1/ 7,900 PSI	16.4/ 9,100 PSI	17.7/10,300 PSI	—
700-X	Rem 209P	Rem TGT-12	15.1/ 7,100 PSI	16.4/ 8,100 PSI	17.7/ 9,200 PSI	18.9/10,300 PSI
700-X	Rem 209P	WAA12SL	15.1/ 7,800 PSI	16.4/ 9,000 PSI	17.7/10,200 PSI	—
700-X	Win 209	CB 1100-12	15.5/ 6,800 PSI	16.6/ 7,800 PSI	17.7/ 8,900 PSI	18.8/10,000 PSI
700-X	Win 209	Fed 12S3	15.1/ 8,300 PSI	16.4/ 9,600 PSI	17.7/10,800 PSI	—
700-X	Win 209	Rem TGT-12	15.5/ 7,700 PSI	16.6/ 8,600 PSI	17.7/ 9,600 PSI	18.8/10,500 PSI
700-X	Win 209	WAA12SL	15.5/ 7,900 PSI	16.6/ 8,900 PSI	17.7/10,000 PSI	18.8/11,100 PSI
High Gun	Ched 209	CB 4100-12B	—	16.3/ 7,000 PSI	17.6/ 8,200 PSI	18.8/ 9,400 PSI
High Gun	Ched 209	Rem TGT-12	—	15.9/ 7,600 PSI	17.3/ 8,800 PSI	18.6/10,000 PSI
High Gun	Ched 209	WAA12SL	—	15.8/ 7,500 PSI	17.2/ 8,800 PSI	18.6/10,200 PSI
High Gun	Fed 209A	CB 4100-12B	—	16.2/ 7,300 PSI	17.6/ 8,700 PSI	18.9/10,000 PSI
High Gun	Fed 209A	Rem TGT-12	—	16.1/ 7,500 PSI	17.5/ 8,800 PSI	18.9/10,100 PSI
High Gun	Fed 209A	WAA12SL	—	16.2/ 7,900 PSI	18.3/ 9,300 PSI	20.3/10,700 PSI
High Gun	Rem 209P	CB 4100-12B	—	16.8/ 6,400 PSI	18.0/ 7,700 PSI	19.2/ 9,000 PSI
High Gun	Rem 209P	Rem TGT-12	—	16.1/ 7,900 PSI	17.3/ 8,900 PSI	18.6/10,100 PSI
High Gun	Rem 209P	WAA12SL	—	16.4/ 7,700 PSI	17.6/ 9,100 PSI	18.8/10,400 PSI
High Gun	Fio 616	CB 4100-12B	—	16.8/ 6,300 PSI	18.1/ 7,500 PSI	19.4/ 8,700 PSI
High Gun	Fio 616	Rem TGT-12	—	17.1/ 8,000 PSI	18.2/ 9,000 PSI	19.4/10,000 PSI
High Gun	Fio 616	WAA12SL	—	16.2/ 7,000 PSI	17.6/ 8,100 PSI	18.9/ 9,200 PSI
High Gun	Win 209	CB 4100-12B	—	16.2/ 7,000 PSI	17.6/ 8,300 PSI	19.0/ 9,500 PSI
High Gun	Win 209	Rem TGT-12	—	16.0/ 7,700 PSI	17.5/ 8,900 PSI	18.9/10,000 PSI
High Gun	Win 209	WAA12SL	—	16.3/ 8,100 PSI	17.6/ 9,100 PSI	18.9/10,200 PSI
High Gun	CCI 209	CB 4100-12B	—	16.2/ 6,900 PSI	17.6/ 8,300 PSI	19.0/ 9,700 PSI
High Gun	CCI 209	Rem TGT-12	—	16.6/ 7,300 PSI	17.9/ 8,600 PSI	19.2/10,000 PSI
High Gun	CCI 209	WAA12SL	—	16.0/ 7,800 PSI	17.4/ 9,200 PSI	18.9/10,700 PSI
Internat'l	CCI 209	Purple PC	—	20.6/6,300 LUP	21.6/7,000 LUP	22.7/8,300 LUP
Internat'l	CCI 209	Rem TGT-12	—	19.0/ 6,800 PSI	20.0/ 7,900 PSI	21.0/ 9,000 PSI
Internat'l	CCI 209	WAA12SL	—	18.6/ 7,400 PSI	19.8/ 8,500 PSI	21.0/ 9,500 PSI
Internat'l	Ched 209	CB 4100-12B	—	18.9/ 7,300 PSI	20.0/ 8,100 PSI	21.0/ 9,000 PSI
Internat'l	Ched 209	Rem TGT-12	—	18.4/ 7,400 PSI	19.4/ 8,200 PSI	20.4/ 9,000 PSI
Internat'l	Ched 209	WAA12L	—	18.6/ 7,800 PSI	19.8/ 8,700 PSI	20.9/ 9,600 PSI
Internat'l	Fed 209A	Fed 12S0	—	18.0/ 7,700 PSI	19.3/ 9,700 PSI	21.0/11,300 PSI
Internat'l	Fed 209A	Purple PC	—	18.4/ 7,100 PSI	19.6/ 8,200 PSI	20.9/ 9,400 PSI
Internat'l	Fed 209A	Rem TGT-12	—	18.2/ 7,900 PSI	19.2/ 9,000 PSI	20.2/10,000 PSI
Internat'l	Fed 209A	WAA12SL	—	17.8/ 7,500 PSI	19.0/ 8,800 PSI	20.3/10,200 PSI
Internat'l	Fio 616	WAA12SL	—	18.6/ 7,400 PSI	19.6/ 8,600 PSI	20.5/ 9,700 PSI
Internat'l	Fio 616	CB 4100-12B	—	18.7/ 7,000 PSI	19.8/ 7,800 PSI	20.9/ 8,600 PSI
Internat'l	Fio 616	Rem TGT-12	—	18.7/ 7,600 PSI	19.9/ 8,900 PSI	21.0/10,100 PSI
Internat'l	Rem 209P	Purple PC	—	19.2/ 6,800 PSI	20.5/ 7,900 PSI	21.7/ 8,900 PSI
Internat'l	Rem 209P	Rem TGT-12	—	20.2/6,800 LUP	20.9/7,700 LUP	21.4/8,900 LUP
Internat'l	Rem 209P	WAA12SL	—	19.0/ 6,800 PSI	20.2/ 8,100 PSI	21.3/ 9,300 PSI
Internat'l	Win 209	Purple PC	—	20.2/ 6,500 PSI	21.3/ 7,500 PSI	22.4/ 8,500 PSI
Internat'l	Win 209	Rem TGT-12	—	18.9/ 7,100 PSI	20.2/ 8,200 PSI	21.5/ 9,300 PSI
Internat'l	Win 209	WAA12SL	—	18.4/7,100 LUP	20.1/8,600 LUP	21.0/10,000 LUP
Competition	Ched 209	CB 4100-12B	—	17.3/ 7,700 PSI	18.5/ 8,400 PSI	19.7/ 9,100 PSI
Competition	Ched 209	Rem TGT-12	—	17.3/ 8,100 PSI	18.6/ 9,100 PSI	19.8/10,000 PSI
Competition	Ched 209	WAA12L	—	16.7/ 8,700 PSI	18.3/ 9,800 PSI	19.8/10,900 PSI
Competition	Fed 209A	CB 4100-12B	—	17.5/ 8,100 PSI	18.5/ 9,000 PSI	19.5/ 9,800 PSI
Competition	Fed 209A	Rem TGT-12	—	16.7/ 8,300 PSI	18.3/ 9,900 PSI	—
Competition	Fed 209A	WAA12L	—	16.7/ 8,500 PSI	18.1/10,200 PSI	—

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" REMINGTON STS, NITRO 27, OR GUN CLUB PLASTIC SHELLS - 1oz LEAD SHOT—CONT.						
			1125 fps	1180 fps	1235 fps	1290 fps
Competition	Fio 616	CB 4100-12B	—	17.6/ 8,500 PSI	18.5/ 9,400 PSI	19.3/10,400 PSI
Competition	Fio 616	Rem TGT-12	—	16.9/ 8,100 PSI	18.3/ 9,300 PSI	19.6/10,400 PSI
Competition	Fio 616	WAA12L	—	17.5/ 9,200 PSI	18.4/10,400 PSI	—
Competition	Win 209	CB 4100-12B	—	17.4/ 7,300 PSI	18.6/ 8,100 PSI	19.8/ 8,900 PSI
Competition	Win 209	Rem TGT-12	—	17.4/ 8,900 PSI	18.6/10,200 PSI	19.9/11,400 PSI
Competition	Win 209	WAA12L	—	17.2/ 9,100 PSI	18.5/10,300 PSI	—
WST	CCI 209	Fed 12SO	—	18.5/ 8,800 PSI	19.5/ 9,500 PSI	20.5/10,800 PSI
WST	CCI 209	WAA12SL	—	19.0/ 8,000 PSI	20.0/ 9,000 PSI	20.5/10,800 PSI
WST	Ched 209	CB 4100-12B	—	19.3/ 8,300 PSI	20.4/ 9,400 PSI	21.5/10,500 PSI
WST	Ched 209	Rem TGT-12	—	18.7/ 8,700 PSI	20.1/10,000 PSI	21.5/11,300 PSI
WST	Ched 209	WAA12L	—	18.6/ 9,100 PSI	20.0/10,500 PSI	—
WST	Fio 616	CB 4100-12B	—	19.8/ 8,300 PSI	21.1/ 9,200 PSI	22.4/10,200 PSI
WST	Fio 616	Rem TGT-12	—	19.6/ 8,200 PSI	21.1/ 9,700 PSI	22.5/11,000 PSI
WST	Fio 616	WAA12SL	—	19.6/ 8,300 PSI	21.1/ 9,400 PSI	22.7/10,600 PSI
WST	Win 209	Fed 12SO	—	19.0/ 8,200 PSI	20.0/ 8,900 PSI	21.0/ 9,700 PSI
WST	Win 209	WAA12SL	—	—	19.5/ 8,000 PSI	21.0/10,000 PSI
Super Hcp	Ched 209	CB 4100-12B	—	18.9/ 6,800 PSI	19.8/ 7,600 PSI	20.7/ 8,300 PSI
Super Hcp	Ched 209	Jam XL-1	—	18.1/ 6,800 PSI	19.6/ 8,100 PSI	21.0/ 9,200 PSI
Super Hcp	Ched 209	Purple PC	—	—	20.4/ 7,100 PSI	21.6/ 8,300 PSI
Super Hcp	Ched 209	Rem TGT-12	—	18.5/ 6,700 PSI	20.1/ 7,800 PSI	21.8/ 9,100 PSI
Super Hcp	Ched 209	WAA12SL	—	18.6/ 6,900 PSI	19.9/ 8,000 PSI	21.2/ 9,000 PSI
Super Hcp	Fed 209A	Jam XL-1	—	18.0/ 7,300 PSI	19.3/ 8,300 PSI	20.6/ 9,400 PSI
Super Hcp	Fed 209A	Purple PC	—	—	20.2/ 7,300 PSI	21.2/ 8,400 PSI
Super Hcp	Fed 209A	Rem TGT-12	—	18.1/ 7,000 PSI	19.4/ 8,100 PSI	20.8/ 9,300 PSI
Super Hcp	Fed 209A	WAA12SL	—	18.1/ 7,200 PSI	19.3/ 8,300 PSI	20.6/ 9,400 PSI
Super Hcp	Fio 616	CB 4100-12B	—	19.5/ 6,300 PSI	20.6/ 7,000 PSI	21.6/ 7,600 PSI
Super Hcp	Fio 616	Rem TGT-12	—	—	20.1/ 7,900 PSI	21.4/ 9,100 PSI
Super Hcp	Fio 616	WAA12SL	—	—	20.1/ 8,000 PSI	21.5/ 9,200 PSI
Super Hcp	Rem 209P	Jam XL-1	—	18.4/ 6,700 PSI	19.5/ 7,600 PSI	20.8/ 8,600 PSI
Super Hcp	Rem 209P	Purple PC	—	—	21.5/ 6,800 PSI	22.4/ 7,700 PSI
Super Hcp	Rem 209P	Rem TGT-12	—	18.7/ 6,500 PSI	19.9/ 7,500 PSI	21.0/ 8,400 PSI
Super Hcp	Rem 209P	WAA12SL	—	18.7/ 6,200 PSI	20.0/ 7,400 PSI	21.2/ 8,500 PSI
Super Hcp	Win 209	Jam XL-1	—	19.0/ 6,200 PSI	20.3/ 7,500 PSI	21.5/ 8,700 PSI
Super Hcp	Win 209	Purple PC	—	—	21.4/ 6,500 PSI	22.5/ 7,900 PSI
Super Hcp	Win 209	Rem TGT-12	—	20.0/ 6,400 PSI	20.7/ 7,300 PSI	21.7/ 8,500 PSI
Super Hcp	Win 209	WAA12SL	—	19.2/ 6,100 PSI	20.5/ 7,400 PSI	21.7/ 8,600 PSI

12G, 2 3/4" REMINGTON STS, NITRO 27, OR GUN CLUB PLASTIC SHELLS - 1.125OZ LEAD SHOT

			1090 fps	1145 fps	1200 fps	1255 fps
Perfect Pattern	Ched 209	WAA12	14.2/ 9,600 PSI	15.1/11,200 PSI	—	—
Perfect Pattern	Ched 209	Rem Fig 8	14.5/ 9,100 PSI	15.5/10,400 PSI	—	—
Perfect Pattern	Ched 209	CB4118-12B	14.4/ 8,500 PSI	15.4/ 9,800 PSI	16.4/11,000 PSI	—
Perfect Pattern	Fed 209A	WAA12	13.9/10,100 PSI	—	—	—
Perfect Pattern	Fed 209A	Rem Fig 8	14.2/ 9,300 PSI	15.2/10,700 PSI	—	—
Perfect Pattern	Fed 209A	CB4118-12B	14.1/ 9,300 PSI	15.2/10,400 PSI	—	—
Perfect Pattern	Rem 209P	WAA12	14.1/ 9,200 PSI	15.0/10,700 PSI	—	—
Perfect Pattern	Rem 209P	Rem Fig 8	14.5/ 8,900 PSI	15.6/10,000 PSI	16.6/11,100 PSI	—
Perfect Pattern	Rem 209P	CB4118-12B	14.7/ 8,300 PSI	15.8/ 9,800 PSI	17.0/11,300 PSI	—
Perfect Pattern	Fio 616	WAA12	14.1/ 9,300 PSI	15.2/10,500 PSI	—	—
Perfect Pattern	Fio 616	Rem Fig 8	14.6/ 8,300 PSI	15.7/ 9,900 PSI	16.9/11,500 PSI	—
Perfect Pattern	Fio 616	CB4118-12B	14.5/ 8,300 PSI	15.6/ 9,700 PSI	16.6/11,100 PSI	—
Perfect Pattern	Win 209	WAA12	14.1/ 9,800 PSI	15.2/11,200 PSI	—	—
Perfect Pattern	Win 209	Rem Fig 8	14.5/ 8,700 PSI	15.6/10,100 PSI	16.8/11,500 PSI	—
Perfect Pattern	Win 209	CB4118-12B	14.3/ 8,600 PSI	15.4/10,000 PSI	16.4/11,400 PSI	—
Perfect Pattern	CCI 209	WAA12	14.3/10,100 PSI	15.3/11,400 PSI	—	—
Perfect Pattern	CCI 209	Rem Fig 8	14.5/ 8,800 PSI	15.6/10,200 PSI	16.7/11,500 PSI	—
Perfect Pattern	CCI 209	CB4118-12B	14.4/ 8,700 PSI	15.5/ 9,900 PSI	16.6/11,200 PSI	—
Titewad	CCI 209	Hdy Versalite	15.0/ 9,900 PSI	15.9/11,100 PSI	—	—
Titewad	CCI 209	Red PC	15.5/10,200 PSI	16.0/10,800 PSI	—	—

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" REMINGTON STS, NITRO 27, OR GUN CLUB PLASTIC SHELLS - 1.125OZ LEAD SHOT—CONT.						
			1090 fps	1145 fps	1200 fps	1255 fps
Titewad	CCI 209	Rem Fig 8	15.0/10,600 PSI	15.8/11,300 PSI	—	—
Titewad	Ched 209	DR XL-1	14.9/ 9,800 PSI	16.1/11,100 PSI	—	—
Titewad	Ched 209	DRV-12	14.8/10,000 PSI	16.1/11,200 PSI	—	—
Titewad	Ched 209	Rem Fig 8	15.3/10,400 PSI	16.2/11,000 PSI	—	—
Titewad	Ched 209	WAA12	15.0/10,400 PSI	15.8/11,400 PSI	—	—
Titewad	Ched 209	Windjammer	15.5/ 9,400 PSI	16.5/10,500 PSI	—	—
Titewad	Fed 209A	Fed 12S3	15.4/ 9,200 PSI	16.7/10,300 PSI	17.5/11,300 PSI	—
Titewad	Fed 209A	Hdy Versalite	15.0/ 9,400 PSI	16.0/10,800 PSI	—	—
Titewad	Fed 209A	Red PC	15.5/ 9,200 PSI	16.5/ 9,700 PSI	18.0/11,300 PSI	—
Titewad	Fed 209A	Rem Fig 8	15.2/ 9,600 PSI	16.3/10,700 PSI	—	—
Titewad	Fed 209A	WAA12	15.2/ 9,800 PSI	16.0/10,500 PSI	—	—
Titewad	Fed 209A	Windjammer	15.3/ 9,000 PSI	16.3/ 9,500 PSI	17.8/11,100 PSI	—
Titewad	Fio 616	Red PC	15.7/ 8,800 PSI	16.7/ 9,800 PSI	17.8/11,100 PSI	—
Titewad	Fio 616	Rem Fig 8	15.0/10,000 PSI	16.0/11,000 PSI	—	—
Titewad	Fio 616	WAA12	15.0/ 9,400 PSI	16.0/10,600 PSI	—	—
Titewad	Fio 616	Windjammer	15.3/ 9,100 PSI	16.3/10,300 PSI	17.3/11,300 PSI	—
Titewad	Fio 616	DR XL-1	15.3/ 9,100 PSI	16.4/10,600 PSI	—	—
Titewad	Fio 616	DRV-12	15.0/ 9,300 PSI	16.3/10,900 PSI	—	—
Titewad	Rem 209P	Fed 12S3	15.3/10,000 PSI	16.3/11,500 PSI	—	—
Titewad	Rem 209P	Hdy Versalite	14.9/ 9,500 PSI	16.0/10,800 PSI	—	—
Titewad	Rem 209P	Red PC	15.5/ 8,600 PSI	16.7/10,200 PSI	18.0/11,300 PSI	—
Titewad	Rem 209P	Rem Fig 8	15.2/ 9,100 PSI	16.5/10,100 PSI	17.9/10,900 PSI	—
Titewad	Rem 209P	Trapper	15.0/10,200 PSI	16.0/11,000 PSI	—	—
Titewad	Rem 209P	WAA12	15.1/ 9,700 PSI	16.1/10,900 PSI	—	—
Titewad	Rem 209P	Windjammer	15.3/ 9,000 PSI	16.5/10,200 PSI	17.6/11,400 PSI	—
Titewad	Win 209	Fed 12S3	16.0/ 9,600 PSI	17.0/10,900 PSI	—	—
Titewad	Win 209	Hdy Versalite	15.5/ 8,900 PSI	16.4/10,100 PSI	17.5/11,000 PSI	—
Titewad	Win 209	Red PC	15.8/ 8,000 PSI	17.1/ 9,500 PSI	18.3/10,900 PSI	—
Titewad	Win 209	Rem Fig 8	15.8/ 9,200 PSI	16.8/10,400 PSI	17.8/11,300 PSI	—
Titewad	Win 209	Trapper	15.1/ 9,900 PSI	16.3/11,200 PSI	—	—
Titewad	Win 209	WAA12	15.4/ 8,700 PSI	16.7/10,000 PSI	17.9/11,400 PSI	—
Titewad	Win 209	Windjammer	16.1/ 9,100 PSI	17.2/10,400 PSI	18.5/11,500 PSI	—
Clays	CCI 209	Fed 12S3	16.0/ 9,300 PSI	17.2/10,600 PSI	—	—
Clays	CCI 209	Hdy Versalite	16.0/ 8,300 PSI	17.5/ 9,800 PSI	18.9/11,200 PSI	—
Clays	CCI 209	Red PC	16.0/ 8,400 PSI	17.4/ 9,800 PSI	18.8/11,300 PSI	—
Clays	CCI 209	Rem Fig 8	16.8/ 7,400 PSI	18.0/ 9,300 PSI	19.3/11,400 PSI	—
Clays	CCI 209	WAA12	15.9/ 8,500 PSI	17.2/10,300 PSI	18.2/11,500 PSI	—
Clays	CCI 209	Windjammer	16.6/6,400 LUP	18.0/7,500 LUP	19.4/8,600 LUP	—
Clays	Ched 209	DR XL-1	15.1/ 8,200 PSI	16.2/ 9,400 PSI	17.2/10,500 PSI	—
Clays	Ched 209	DRV-12	15.1/ 8,200 PSI	16.2/ 9,600 PSI	17.2/11,000 PSI	—
Clays	Ched 209	Rem Fig 8	16.0/ 9,100 PSI	17.2/10,400 PSI	—	—
Clays	Ched 209	WAA12	15.5/ 9,500 PSI	16.4/10,600 PSI	—	—
Clays	Ched 209	Windjammer	15.7/ 8,100 PSI	17.0/ 9,500 PSI	18.3/10,800 PSI	—
Clays	Fed 209A	Hdy Versalite	15.5/ 9,600 PSI	16.6/11,000 PSI	—	—
Clays	Fed 209A	Red PC	15.8/ 8,900 PSI	16.6/10,200 PSI	18.0/11,300 PSI	—
Clays	Fed 209A	Rem Fig 8	15.8/ 9,500 PSI	16.9/10,700 PSI	—	—
Clays	Fed 209A	WAA12	15.5/ 9,900 PSI	16.6/11,200 PSI	—	—
Clays	Fed 209A	Windjammer	16.2/ 8,500 PSI	17.3/10,000 PSI	18.4/11,400 PSI	—
Clays	Fio 616	Rem Fig 8	15.8/ 8,600 PSI	17.0/10,500 PSI	—	—
Clays	Fio 616	WAA12	15.8/ 9,100 PSI	16.8/10,600 PSI	—	—
Clays	Fio 616	Windjammer	15.9/ 8,100 PSI	17.2/ 9,500 PSI	18.4/10,800 PSI	—
Clays	Fio 616	DR XL-1	15.1/ 8,500 PSI	16.2/ 9,700 PSI	17.3/11,000 PSI	—
Clays	Fio 616	DRV-12	14.8/ 8,600 PSI	16.0/ 9,800 PSI	17.2/11,000 PSI	—
Clays	Rem 209P	Fed 12S3	16.4/7,600 LUP	17.6/8,600 LUP	18.8/9,600 LUP	—
Clays	Rem 209P	Hdy Versalite	15.9/ 8,800 PSI	16.9/10,300 PSI	18.1/11,500 PSI	—
Clays	Rem 209P	Red PC	16.5/ 8,200 PSI	17.7/ 9,900 PSI	18.8/11,500 PSI	—
Clays	Rem 209P	Rem Fig 8	16.9/6,900 LUP	18.0/7,900 LUP	19.2/9,000 LUP	—
Clays	Rem 209P	Trapper	15.9/ 9,400 PSI	17.0/11,200 PSI	—	—
Clays	Rem 209P	WAA12	16.6/7,700 LUP	17.7/9,000 LUP	18.8/10,300 LUP	—

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" REMINGTON STS, NITRO 27, OR GUN CLUB PLASTIC SHELLS - 1.125oz LEAD SHOT—CONT.						
			1090 fps	1145 fps	1200 fps	1255 fps
Clays	Rem 209P	Windjammer	16.3/ 8,100 PSI	17.5/ 9,500 PSI	18.8/11,100 PSI	—
Clays	Win 209	Hdy Versalite	15.8/7,600 LUP	17.2/9,100 LUP	18.6/10,500 LUP	—
Clays	Win 209	Red PC	16.5/ 7,800 PSI	17.7/ 9,400 PSI	19.0/11,100 PSI	—
Clays	Win 209	Rem Fig 8	16.4/ 8,400 PSI	17.5/ 9,700 PSI	18.6/11,000 PSI	—
Clays	Win 209	Trapper	16.2/ 9,200 PSI	17.3/10,500 PSI	—	—
Clays	Win 209	WAA12	16.2/ 8,100 PSI	17.3/ 9,700 PSI	18.4/11,300 PSI	—
Clays	Win 209	Windjammer	16.8/ 7,700 PSI	18.1/ 9,100 PSI	19.4/10,500 PSI	—
700-X	Ched 209	DR XL-1	15.2/ 8,300 PSI	16.2/ 9,600 PSI	17.3/10,800 PSI	—
700-X	Ched 209	DRV-12	14.9/ 8,600 PSI	16.0/ 9,800 PSI	17.1/10,900 PSI	—
700-X	Fed 209A	CB 1118-12	15.5/ 8,500 PSI	16.5/ 9,700 PSI	17.5/10,800 PSI	—
700-X	Fed 209A	Fed 12S3	15.0/ 9,300 PSI	16.0/10,200 PSI	17.5/11,500 PSI	—
700-X	Fed 209A	Rem Fig 8	15.5/ 8,900 PSI	16.5/10,000 PSI	17.5/11,000 PSI	—
700-X	Fed 209A	WAA12	15.0/ 9,500 PSI	16.5/10,900 PSI	—	—
700-X	Fed 209A	Windjammer	15.5/ 8,400 PSI	16.5/ 9,500 PSI	17.5/10,400 PSI	18.5/11,100 PSI
700-X	Fio 616	DR XL-1	15.1/ 7,800 PSI	16.4/ 9,000 PSI	17.7/10,300 PSI	19.0/11,500 PSI
700-X	Fio 616	DRV-12	15.2/ 8,000 PSI	16.3/ 9,200 PSI	17.5/10,400 PSI	—
700-X	Fio 616	Rem Fig 8	15.7/ 8,300 PSI	16.9/ 9,300 PSI	18.0/10,200 PSI	—
700-X	Fio 616	WAA12	15.5/ 8,400 PSI	16.5/ 9,400 PSI	17.7/10,600 PSI	—
700-X	Fio 616	Windjammer	15.5/ 7,400 PSI	16.8/ 8,600 PSI	18.2/ 9,800 PSI	19.5/11,200 PSI
700-X	Rem 209P	CB 1118-12	15.5/ 8,000 PSI	16.5/ 8,900 PSI	17.5/ 9,800 PSI	19.0/11,100 PSI
700-X	Rem 209P	Fed 12S3	15.0/ 8,900 PSI	16.5/10,200 PSI	17.5/11,100 PSI	—
700-X	Rem 209P	Rem Fig 8	15.5/ 8,100 PSI	16.5/ 9,000 PSI	18.0/10,400 PSI	19.0/11,300 PSI
700-X	Rem 209P	WAA12	15.0/ 8,500 PSI	16.0/ 9,600 PSI	17.5/11,200 PSI	—
700-X	Rem 209P	Windjammer	15.5/ 7,600 PSI	16.5/ 8,400 PSI	18.0/ 9,600 PSI	19.0/10,500 PSI
700-X	Win 209	CB 1118-12	15.5/ 7,700 PSI	16.5/ 8,700 PSI	17.5/ 9,800 PSI	19.0/11,400 PSI
700-X	Win 209	Fed 12S3	15.5/ 9,000 PSI	16.5/ 9,800 PSI	17.5/10,900 PSI	—
700-X	Win 209	Rem Fig 8	15.5/ 8,500 PSI	16.5/ 9,400 PSI	18.0/10,800 PSI	—
700-X	Win 209	WAA12	15.5/ 9,300 PSI	16.5/10,200 PSI	17.5/11,200 PSI	—
700-X	Win 209	Windjammer	15.5/ 8,000 PSI	16.5/ 8,900 PSI	17.5/ 9,800 PSI	19.0/11,100 PSI
High Gun	Ched 209	Rem Fig 8	15.5/ 8,000 PSI	16.6/ 9,100 PSI	17.7/10,100 PSI	18.8/11,200 PSI
High Gun	Ched 209	WAA12	15.2/ 8,800 PSI	16.2/ 9,900 PSI	17.2/11,000 PSI	—
High Gun	Ched 209	CB4118-12B	16.0/ 7,300 PSI	17.1/ 8,400 PSI	18.2/ 9,500 PSI	19.4/10,700 PSI
High Gun	Fed 209A	Rem Fig 8	15.6/ 7,600 PSI	16.8/ 9,000 PSI	18.0/10,300 PSI	—
High Gun	Fed 209A	WAA12	15.3/ 7,600 PSI	16.5/ 8,900 PSI	17.7/10,200 PSI	—
High Gun	Fed 209A	CB4118-12B	15.5/ 7,400 PSI	16.7/ 8,600 PSI	17.8/ 9,800 PSI	19.0/11,000 PSI
High Gun	Rem 209P	Rem Fig 8	14.9/ 8,200 PSI	16.0/ 9,100 PSI	17.1/10,000 PSI	18.5/11,500 PSI
High Gun	Rem 209P	WAA12	14.9/ 8,000 PSI	15.8/ 9,200 PSI	16.7/10,300 PSI	—
High Gun	Rem 209P	CB4118-12B	15.7/ 6,700 PSI	16.9/ 7,900 PSI	18.2/ 9,200 PSI	19.4/10,400 PSI
High Gun	Fio 616	Rem Fig 8	15.8/ 7,600 PSI	17.0/ 8,700 PSI	18.1/ 9,800 PSI	19.3/10,900 PSI
High Gun	Fio 616	WAA12	15.9/ 8,300 PSI	17.0/ 9,400 PSI	18.2/10,400 PSI	19.3/11,500 PSI
High Gun	Fio 616	CB4118-12B	16.9/ 6,500 PSI	17.9/ 7,700 PSI	18.9/ 8,900 PSI	19.9/10,100 PSI
High Gun	Win 209	Rem Fig 8	15.1/ 8,000 PSI	16.1/ 8,900 PSI	17.1/ 9,900 PSI	—
High Gun	Win 209	WAA12	14.7/ 8,300 PSI	15.8/ 9,400 PSI	16.8/10,500 PSI	—
High Gun	Win 209	CB4118-12B	15.9/ 6,600 PSI	17.1/ 7,900 PSI	18.3/ 9,100 PSI	19.4/10,400 PSI
High Gun	CCI 209	Rem Fig 8	15.8/ 7,200 PSI	17.0/ 8,500 PSI	18.3/ 9,700 PSI	19.5/11,000 PSI
High Gun	CCI 209	WAA12	15.2/ 7,200 PSI	16.6/ 8,500 PSI	18.0/ 9,700 PSI	19.4/11,000 PSI
High Gun	CCI 209	CB4118-12B	15.8/ 7,200 PSI	17.0/ 8,300 PSI	18.1/ 9,500 PSI	19.3/10,600 PSI
Internat'l	CCI 209	Hdy Versalite	17.2/ 7,600 PSI	18.4/ 8,900 PSI	19.7/10,400 PSI	20.9/11,500 PSI
Internat'l	CCI 209	Red PC	17.9/ 6,800 PSI	19.0/ 8,200 PSI	20.1/ 9,600 PSI	21.2/11,100 PSI
Internat'l	CCI 209	Rem Fig 8	17.8/ 7,400 PSI	19.0/ 8,800 PSI	20.2/10,200 PSI	21.3/11,400 PSI
Internat'l	CCI 209	WAA12	17.1/ 7,800 PSI	18.3/ 8,900 PSI	19.6/10,200 PSI	20.9/11,400 PSI
Internat'l	CCI 209	Windjammer	19.2/6,100 LUP	19.8/6,500 LUP	21.2/7,500 LUP	22.3/8,300 LUP
Internat'l	Ched 209	DR XL-1	16.9/ 6,900 PSI	18.0/ 7,800 PSI	19.2/ 8,700 PSI	20.3/ 9,600 PSI
Internat'l	Ched 209	DRV-12	16.7/ 6,900 PSI	17.9/ 7,900 PSI	19.1/ 8,800 PSI	20.3/ 9,800 PSI
Internat'l	Ched 209	Rem Fig 8	17.6/ 7,800 PSI	18.7/ 8,900 PSI	19.8/10,100 PSI	21.0/11,300 PSI
Internat'l	Ched 209	WAA12	17.1/ 8,000 PSI	18.3/ 9,200 PSI	19.5/10,400 PSI	—
Internat'l	Ched 209	Windjammer	17.7/ 7,500 PSI	18.8/ 8,600 PSI	19.9/ 9,600 PSI	21.1/10,800 PSI
Internat'l	Fed 209A	Hdy Versalite	16.8/ 8,700 PSI	17.7/ 9,700 PSI	18.9/11,100 PSI	—
Internat'l	Fed 209A	Red PC	17.1/ 8,100 PSI	18.3/ 9,200 PSI	19.5/10,300 PSI	20.6/11,300 PSI

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" REMINGTON STS, NITRO 27, OR GUN CLUB PLASTIC SHELLS - 1.125OZ LEAD SHOT—CONT.						
			1090 fps	1145 fps	1200 fps	1255 fps
Internat'l	Fed 209A	Rem Fig 8	16.9/ 8,200 PSI	18.0/ 9,300 PSI	19.3/10,700 PSI	—
Internat'l	Fed 209A	WAA12	16.7/ 8,300 PSI	17.9/ 9,600 PSI	19.1/10,800 PSI	—
Internat'l	Fed 209A	Windjammer	16.9/ 7,600 PSI	18.2/ 8,900 PSI	19.6/10,200 PSI	20.9/11,400 PSI
Internat'l	Fio 616	Red PC	17.7/ 7,200 PSI	18.8/ 8,700 PSI	20.0/10,300 PSI	—
Internat'l	Fio 616	Rem Fig 8	17.3/ 7,900 PSI	18.5/ 9,000 PSI	19.7/10,100 PSI	20.9/11,300 PSI
Internat'l	Fio 616	WAA12	17.2/ 8,300 PSI	18.3/ 9,500 PSI	19.4/10,700 PSI	—
Internat'l	Fio 616	Windjammer	17.3/ 6,900 PSI	18.7/ 8,400 PSI	20.0/ 9,800 PSI	21.4/11,200 PSI
Internat'l	Fio 616	DR XL-1	16.9/ 7,300 PSI	18.0/ 8,300 PSI	19.2/ 9,200 PSI	20.3/10,200 PSI
Internat'l	Fio 616	DRV-12	17.1/ 7,200 PSI	18.2/ 8,200 PSI	19.3/ 9,200 PSI	20.4/10,100 PSI
Internat'l	Rem 209P	Fed 12S3	17.6/6,900 LUP	18.3/7,800 LUP	19.4/9,000 LUP	20.6/10,200 LUP
Internat'l	Rem 209P	Hdy Versalite	17.2/ 7,700 PSI	18.4/ 8,900 PSI	19.6/10,100 PSI	20.8/11,300 PSI
Internat'l	Rem 209P	Red PC	17.6/ 7,300 PSI	18.9/ 8,600 PSI	20.2/ 9,900 PSI	21.4/11,100 PSI
Internat'l	Rem 209P	Rem Fig 8	18.6/6,400 LUP	19.6/7,000 LUP	20.9/7,500 LUP	21.7/9,100 LUP
Internat'l	Rem 209P	Trapper	17.3/ 8,400 PSI	18.4/ 9,200 PSI	19.8/10,300 PSI	21.2/11,400 PSI
Internat'l	Rem 209P	WAA12	18.3/7,000 LUP	18.8/7,600 LUP	19.7/8,700 LUP	20.9/10,400 LUP
Internat'l	Rem 209P	Windjammer	—	19.2/ 8,400 PSI	20.3/ 9,400 PSI	21.5/10,500 PSI
Internat'l	Win 209	Fed 12S3	17.7/ 8,100 PSI	19.0/ 9,300 PSI	20.1/10,300 PSI	21.4/11,500 PSI
Internat'l	Win 209	Hdy Versalite	17.8/6,900 LUP	18.4/7,800 LUP	19.5/9,100 LUP	20.6/10,400 LUP
Internat'l	Win 209	Red PC	17.7/ 7,600 PSI	19.0/ 8,600 PSI	20.3/ 9,600 PSI	21.5/10,500 PSI
Internat'l	Win 209	Rem Fig 8	17.5/ 7,900 PSI	18.6/ 9,000 PSI	19.7/10,200 PSI	20.8/11,300 PSI
Internat'l	Win 209	Trapper	17.0/ 7,900 PSI	18.5/ 9,100 PSI	19.9/10,100 PSI	21.3/11,500 PSI
Internat'l	Win 209	WAA12	17.0/ 7,100 PSI	18.4/ 8,600 PSI	19.8/10,100 PSI	21.1/11,500 PSI
Internat'l	Win 209	Windjammer	19.4/ 8,200 PSI	20.1/ 8,900 PSI	22.1/10,300 PSI	—
Universal	CCI 209	Windjammer	—	—	23.2/ 8,400 PSI	24.4/ 9,100 PSI
Universal	CCI 209M	Hdy Versalite	—	—	21.1/ 9,600 PSI	22.5/10,600 PSI
Universal	Fed 209A	Fed 12S3	—	—	21.7/10,200 PSI	22.7/11,000 PSI
Universal	Win 209	Rem Fig 8	—	—	22.5/ 8,900 PSI	23.7/ 9,900 PSI
Universal	Win 209	WAA12	—	—	21.5/ 9,800 PSI	23.0/10,700 PSI
Competition	Ched 209	CB 4118-12B	16.1/ 8,600 PSI	17.2/ 9,700 PSI	18.4/10,800 PSI	—
Competition	Ched 209	DR XL-1	15.5/ 9,400 PSI	16.8/10,500 PSI	—	—
Competition	Ched 209	DRV-12	15.6/ 9,100 PSI	16.9/10,100 PSI	18.3/11,200 PSI	—
Competition	Ched 209	Rem Fig 8	16.0/ 9,200 PSI	17.2/10,300 PSI	—	—
Competition	Ched 209	WAA12	15.5/ 9,100 PSI	16.7/10,000 PSI	—	—
Competition	Fed 209A	CB 4118-12B	15.5/ 8,600 PSI	16.5/10,000 PSI	—	—
Competition	Fed 209A	DR XL-1	15.6/ 9,300 PSI	16.7/10,900 PSI	—	—
Competition	Fed 209A	DRV-12	15.6/ 9,600 PSI	16.9/10,900 PSI	—	—
Competition	Fed 209A	Rem Fig 8	16.4/ 8,700 PSI	17.5/10,200 PSI	—	—
Competition	Fed 209A	WAA12	15.6/ 9,500 PSI	16.7/10,500 PSI	—	—
Competition	Fio 616	CB 4118-12B	16.4/ 8,300 PSI	17.6/ 9,500 PSI	18.7/10,600 PSI	—
Competition	Fio 616	DR XL-1	16.1/ 8,300 PSI	17.3/ 9,600 PSI	18.6/11,000 PSI	—
Competition	Fio 616	DRV-12	16.1/ 8,100 PSI	17.4/ 9,500 PSI	18.6/10,800 PSI	—
Competition	Fio 616	Rem Fig 8	16.3/ 8,400 PSI	17.6/ 9,600 PSI	18.8/10,800 PSI	—
Competition	Fio 616	WAA12	15.9/ 9,400 PSI	17.0/10,400 PSI	18.1/11,400 PSI	—
Competition	Win 209	CB 4118-12B	16.3/ 8,200 PSI	17.4/ 9,400 PSI	18.6/10,700 PSI	—
Competition	Win 209	DR XL-1	16.0/ 8,600 PSI	17.0/10,000 PSI	18.0/11,400 PSI	—
Competition	Win 209	DRV-12	15.6/ 8,800 PSI	16.8/10,100 PSI	18.0/11,300 PSI	—
Competition	Win 209	Rem Fig 8	16.4/ 8,600 PSI	17.4/ 9,800 PSI	18.5/11,100 PSI	—
Competition	Win 209	WAA12	15.7/ 8,700 PSI	16.9/10,000 PSI	18.0/11,300 PSI	—
WST	CCI 209	Rem Fig 8	—	18.5/10,200 PSI	—	—
WST	CCI 209	Rem RXP12	—	18.5/10,800 PSI	—	—
WST	CCI 209	WAA12	—	18.0/10,800 PSI	—	—
WST	Ched 209	DR XL-1	17.5/ 8,400 PSI	18.8/ 9,600 PSI	20.1/10,800 PSI	—
WST	Ched 209	DRV-12	17.5/ 8,500 PSI	18.8/ 9,800 PSI	20.2/11,100 PSI	—
WST	Fio 616	DR XL-1	18.3/ 7,400 PSI	19.7/ 8,700 PSI	21.0/10,000 PSI	22.4/11,400 PSI
WST	Fio 616	DRV-12	17.7/ 7,400 PSI	19.2/ 8,600 PSI	20.8/ 9,900 PSI	—
WST	Fio 616	Rem Fig 8	18.0/ 7,500 PSI	19.4/ 9,000 PSI	20.7/10,300 PSI	—
WST	Fio 616	WAA12	17.9/ 7,400 PSI	19.1/ 8,900 PSI	20.4/10,500 PSI	—
WST	Fio 616	Windjammer	18.4/ 7,000 PSI	19.8/ 8,400 PSI	21.1/ 9,800 PSI	22.5/11,100 PSI
WST	Win 209	Rem Fig 8	—	19.0/10,400 PSI	—	—

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
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12G, 2 3/4" REMINGTON STS, NITRO 27, OR GUN CLUB PLASTIC SHELLS - 1.125oz LEAD SHOT—CONT.

			1090 fps	1145 fps	1200 fps	1255 fps
WST	Win 209	Rem RXP12	—	19.0/10,500 PSI	—	—
Super Hcp	Ched 209	DR XL-1	16.7/ 7,100 PSI	17.8/ 8,200 PSI	19.0/ 9,300 PSI	20.2/10,000 PSI
Super Hcp	Ched 209	DRV-12	—	18.0/ 8,500 PSI	19.4/10,000 PSI	20.8/11,500 PSI
Super Hcp	Ched 209	Rem Fig 8	—	17.8/ 8,400 PSI	19.3/ 9,800 PSI	20.9/11,400 PSI
Super Hcp	Ched 209	WAA12	—	17.9/ 8,300 PSI	19.3/ 9,800 PSI	20.8/11,300 PSI
Super Hcp	Ched 209	WJ-12-RPL	—	18.0/ 7,200 PSI	19.5/ 8,400 PSI	21.1/ 9,900 PSI
Super Hcp	Fed 209A	DRV-12	—	17.8/ 9,200 PSI	19.3/10,600 PSI	—
Super Hcp	Fed 209A	Rem Fig 8	—	17.6/ 8,600 PSI	19.1/10,200 PSI	—
Super Hcp	Fed 209A	WAA12	—	17.4/ 8,800 PSI	19.2/10,300 PSI	—
Super Hcp	Fed 209A	WJ-12-RPL	—	18.0/ 7,500 PSI	19.3/ 8,600 PSI	20.6/ 9,900 PSI
Super Hcp	Fio 616	DR XL-1	17.7/ 6,300 PSI	18.8/ 7,300 PSI	19.9/ 8,300 PSI	21.0/ 9,300 PSI
Super Hcp	Fio 616	DRV-12	18.0/ 6,000 PSI	18.9/ 7,000 PSI	19.8/ 8,000 PSI	20.7/ 9,000 PSI
Super Hcp	Fio 616	Rem Fig 8	—	18.4/ 7,200 PSI	20.0/ 8,600 PSI	21.5/ 9,800 PSI
Super Hcp	Fio 616	WAA12	—	18.2/ 7,000 PSI	19.6/ 8,500 PSI	21.0/10,000 PSI
Super Hcp	Fio 616	Windjammer	—	18.6/ 7,000 PSI	20.8/ 8,100 PSI	21.3/ 9,400 PSI
Super Hcp	Rem 209P	DRV-12	—	18.3/ 8,700 PSI	19.6/10,000 PSI	20.9/11,200 PSI
Super Hcp	Rem 209P	Rem Fig 8	—	18.4/ 8,400 PSI	19.6/ 9,700 PSI	20.9/11,100 PSI
Super Hcp	Rem 209P	WAA12	—	18.5/ 8,700 PSI	19.8/10,000 PSI	21.0/11,400 PSI
Super Hcp	Rem 209P	WJ-12-RPL	—	18.0/ 6,800 PSI	19.8/ 8,100 PSI	21.5/ 9,400 PSI
Super Hcp	Win 209	DRV-12	—	18.5/ 8,600 PSI	19.8/10,000 PSI	21.0/11,300 PSI
Super Hcp	Win 209	Rem Fig 8	—	18.2/ 8,200 PSI	19.6/ 9,700 PSI	20.9/11,100 PSI
Super Hcp	Win 209	WAA12	—	18.4/ 8,100 PSI	19.7/ 9,600 PSI	21.0/11,200 PSI
Super Hcp	Win 209	WJ-12-RPL	—	18.0/ 6,700 PSI	19.8/ 8,100 PSI	21.5/ 9,500 PSI

12G, 2 3/4" REMINGTON STS, NITRO 27, OR GUN CLUB PLASTIC SHELLS - 1.125oz LEAD SHOT - HIGH VELOCITY

			1420 fps	1475 fps	1530 fps	
Longshot	CCI 209M	Fed 12S3	30.6/10,000 PSI	31.9/11,000 PSI	—	—
Longshot	CCI 209M	Hdy Versalite	31.7/ 9,000 PSI	32.9/ 9,900 PSI	34.1/10,900 PSI	—
Longshot	CCI 209M	Rem R12L	31.0/ 9,600 PSI	32.7/10,400 PSI	34.5/11,400 PSI	—
Longshot	CCI 209M	WAA12	30.9/ 9,800 PSI	32.3/10,600 PSI	33.6/11,400 PSI	—
Longshot	CCI 209M	Windjammer	31.7/ 9,000 PSI	33.3/ 9,800 PSI	34.8/10,600 PSI	—
Longshot	Fed 209A	Fed 12S3	29.4/10,700 PSI	31.1/11,600 PSI	—	—
Longshot	Fed 209A	Hdy Versalite	29.1/10,500 PSI	31.0/11,500 PSI	—	—
Longshot	Fed 209A	Rem R12L	29.8/10,200 PSI	31.2/11,100 PSI	—	—
Longshot	Fed 209A	WAA12	29.4/10,900 PSI	—	—	—
Longshot	Fed 209A	Windjammer	30.6/ 9,300 PSI	32.1/10,300 PSI	33.6/11,300 PSI	—
Longshot	Rem 209P	Fed 12S3	30.3/ 9,700 PSI	31.4/10,700 PSI	—	—
Longshot	Rem 209P	Hdy Versalite	31.0/ 9,100 PSI	32.4/10,000 PSI	33.7/10,900 PSI	—
Longshot	Rem 209P	Rem R12L	31.1/ 9,400 PSI	32.5/10,400 PSI	33.9/11,400 PSI	—
Longshot	Rem 209P	WAA12	30.6/ 9,300 PSI	31.7/10,400 PSI	32.7/11,500 PSI	—
Longshot	Rem 209P	Windjammer	32.0/ 8,600 PSI	33.5/ 9,700 PSI	35.0/10,900 PSI	—
Longshot	Win 209	Fed 12S3	31.9/ 8,500 PSI	33.0/ 9,800 PSI	34.2/11,100 PSI	—
Longshot	Win 209	Hdy Versalite	32.2/ 8,300 PSI	33.5/ 9,200 PSI	34.7/10,100 PSI	—
Longshot	Win 209	Rem R12L	31.5/ 8,800 PSI	32.0/10,100 PSI	34.5/11,400 PSI	—
Longshot	Win 209	WAA12	31.7/ 9,100 PSI	32.8/10,100 PSI	33.5/11,200 PSI	—
Longshot	Win 209	Windjammer	33.4/ 7,700 PSI	34.3/ 8,800 PSI	35.3/10,000 PSI	—

12G, 2 3/4" WINCHESTER COMPRESSION-FORMED AA & HS TYPE PLASTIC SHELLS - 1oz LEAD SHOT

			1125 fps	1180 fps	1235 fps	1290 fps
Perfect Pattern	Ched 209	CB 4100-12B	—	14.7/ 8,900 PSI	16.0/10,400 PSI	—
Perfect Pattern	Ched 209	Rem TGT-12	—	14.9/ 9,100 PSI	16.0/10,800 PSI	—
Perfect Pattern	Ched 209	WAA12SL	—	14.8/ 9,100 PSI	16.1/10,700 PSI	—
Perfect Pattern	Fed 209A	CB 4100-12B	—	14.8/ 9,300 PSI	16.0/10,800 PSI	—
Perfect Pattern	Fed 209A	Rem TGT-12	—	14.7/ 9,600 PSI	16.1/11,000 PSI	—
Perfect Pattern	Fed 209A	WAA12SL	—	14.9/ 9,500 PSI	16.1/11,100 PSI	—
Perfect Pattern	Rem 209P	CB 4100-12B	—	14.7/ 8,100 PSI	16.1/ 9,700 PSI	17.5/11,300 PSI
Perfect Pattern	Rem 209P	Rem TGT-12	—	15.1/ 8,400 PSI	16.4/10,000 PSI	17.8/11,500 PSI
Perfect Pattern	Rem 209P	WAA12SL	—	15.0/ 8,300 PSI	16.3/10,100 PSI	—
Perfect Pattern	Fio 616	CB 4100-12B	—	15.2/ 8,300 PSI	16.4/10,000 PSI	—

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" WINCHESTER COMPRESSION-FORMED AA & HS TYPE PLASTIC SHELLS - 1oz LEAD SHOT—CONT.						
			1125 fps	1180 fps	1235 fps	1290 fps
Perfect Pattern	Fio 616	Rem TGT-12	—	15.0/ 8,800 PSI	16.1/10,400 PSI	—
Perfect Pattern	Fio 616	WAA12SL	—	14.7/ 9,000 PSI	15.9/10,600 PSI	—
Perfect Pattern	Win 209	CB 4100-12B	—	14.9/ 8,700 PSI	16.1/10,200 PSI	—
Perfect Pattern	Win 209	Rem TGT-12	—	15.0/ 8,700 PSI	16.3/10,200 PSI	—
Perfect Pattern	Win 209	WAA12SL	—	15.1/ 9,100 PSI	16.4/10,600 PSI	—
Perfect Pattern	CCI 209	CB 4100-12B	—	15.3/ 8,800 PSI	16.4/10,300 PSI	—
Perfect Pattern	CCI 209	Rem TGT-12	—	15.4/ 8,600 PSI	16.6/10,200 PSI	—
Perfect Pattern	CCI 209	WAA12SL	—	15.0/ 8,800 PSI	16.5/10,600 PSI	—
Titewad	CCI 209	Fed 12SO	15.2/ 9,900 PSI	16.0/11,100 PSI	—	—
Titewad	CCI 209	Purple PC	15.5/ 6,900 PSI	17.0/ 8,000 PSI	18.5/ 9,100 PSI	20.0/10,200 PSI
Titewad	CCI 209	Rem TGT-12	15.3/ 8,700 PSI	16.5/ 9,200 PSI	17.6/10,900 PSI	—
Titewad	CCI 209	WAA12SL	15.7/ 8,000 PSI	16.7/ 8,200 PSI	17.7/10,400 PSI	—
Titewad	Ched 209	CB 4100-12B	15.2/ 7,900 PSI	16.3/ 9,000 PSI	17.5/10,100 PSI	—
Titewad	Ched 209	Rem TGT-12	15.2/ 8,200 PSI	16.3/ 9,400 PSI	17.4/10,600 PSI	—
Titewad	Ched 209	WAA12SL	15.1/ 8,300 PSI	16.2/ 9,400 PSI	17.2/10,400 PSI	—
Titewad	Fed 209A	Fed 12SO	16.0/ 8,200 PSI	17.2/ 9,000 PSI	18.6/10,400 PSI	—
Titewad	Fed 209A	Rem TGT-12	15.7/ 7,600 PSI	17.3/ 8,800 PSI	18.1/10,000 PSI	19.4/11,200 PSI
Titewad	Fed 209A	WAA12SL	16.4/ 7,300 PSI	17.4/ 7,700 PSI	18.4/ 9,600 PSI	20.1/10,600 PSI
Titewad	Fed 209A	Windjammer	—	17.1/ 8,400 PSI	18.1/ 9,300 PSI	19.3/10,600 PSI
Titewad	Fio 616	Windjammer	—	16.6/ 8,300 PSI	18.2/ 9,600 PSI	19.5/10,700 PSI
Titewad	Fio 616	CB 4100-12B	15.1/ 8,300 PSI	16.3/ 9,300 PSI	17.4/10,300 PSI	—
Titewad	Fio 616	Rem TGT-12	15.3/ 8,600 PSI	16.4/ 9,600 PSI	17.5/10,700 PSI	18.1/11,400 PSI
Titewad	Fio 616	WAA12SL	15.0/ 7,100 PSI	16.7/ 9,300 PSI	18.3/11,300 PSI	—
Titewad	Rem 209P	Fed 12SO	15.7/ 8,700 PSI	16.5/10,000 PSI	18.0/11,200 PSI	—
Titewad	Rem 209P	Purple PC	15.9/ 6,500 PSI	17.3/ 7,300 PSI	18.8/ 9,200 PSI	20.3/10,400 PSI
Titewad	Rem 209P	Rem TGT-12	15.9/ 6,900 PSI	16.8/ 7,800 PSI	18.4/ 8,900 PSI	20.2/10,600 PSI
Titewad	Rem 209P	Windjammer	—	17.3/ 7,900 PSI	18.3/ 9,400 PSI	19.5/ 9,900 PSI
Titewad	Win 209	Fed 12SO	15.6/ 9,000 PSI	16.8/10,300 PSI	—	—
Titewad	Win 209	Purple PC	15.9/ 6,900 PSI	17.1/ 7,400 PSI	18.5/ 9,000 PSI	19.5/10,400 PSI
Titewad	Win 209	Rem TGT-12	15.2/ 8,200 PSI	16.4/ 9,200 PSI	17.7/10,200 PSI	19.0/11,300 PSI
Titewad	Win 209	WAA12SL	15.5/ 7,300 PSI	17.1/ 8,000 PSI	18.5/ 9,600 PSI	19.5/11,200 PSI
Titewad	Win 209	Windjammer	—	16.6/ 8,400 PSI	17.6/ 9,800 PSI	19.2/10,700 PSI
Clays	CCI 209	Fed 12SO	15.8/ 9,000 PSI	17.0/10,500 PSI	—	—
Clays	CCI 209	Purple PC	16.0/ 7,400 PSI	17.2/ 8,200 PSI	18.5/ 9,900 PSI	20.0/10,800 PSI
Clays	CCI 209	Rem TGT-12	16.6/6,700 LUP	17.7/7,700 LUP	18.7/8,500 LUP	19.8/9,500 LUP
Clays	CCI 209	WAA12SL	15.7/ 7,900 PSI	17.0/ 8,700 PSI	18.4/10,900 PSI	—
Clays	CCI 209	Windjammer	16.3/ 6,500 PSI	17.5/ 7,600 PSI	18.8/ 9,000 PSI	20.3/10,700 PSI
Clays	Ched 209	CB 4100-12B	14.5/ 7,500 PSI	15.8/ 8,600 PSI	17.0/ 9,700 PSI	18.3/10,800 PSI
Clays	Ched 209	Rem TGT-12	14.4/ 7,600 PSI	15.7/ 8,700 PSI	16.9/ 9,700 PSI	18.1/10,800 PSI
Clays	Ched 209	WAA12SL	14.3/ 7,600 PSI	15.6/ 8,800 PSI	16.9/10,000 PSI	18.3/11,300 PSI
Clays	Fed 209A	Purple PC	15.5/ 7,400 PSI	17.3/ 9,200 PSI	18.5/10,400 PSI	19.8/11,100 PSI
Clays	Fed 209A	Rem TGT-12	15.2/ 7,800 PSI	16.7/ 9,500 PSI	18.2/11,000 PSI	—
Clays	Fed 209A	WAA12SL	15.4/ 8,500 PSI	16.9/ 9,000 PSI	18.4/10,900 PSI	—
Clays	Fed 209A	Windjammer	15.1/ 7,900 PSI	16.8/ 9,200 PSI	18.2/11,200 PSI	—
Clays	Fio 616	CB 4100-12B	15.1/ 7,700 PSI	16.2/ 8,600 PSI	17.2/ 9,600 PSI	18.3/10,500 PSI
Clays	Fio 616	Rem TGT-12	14.7/ 8,200 PSI	15.8/ 9,200 PSI	17.0/10,200 PSI	18.1/11,200 PSI
Clays	Fio 616	WAA12SL	14.5/ 7,500 PSI	15.7/ 8,700 PSI	17.0/10,000 PSI	18.2/11,200 PSI
Clays	Rem 209P	Fed 12SO	16.0/ 8,200 PSI	17.4/ 9,400 PSI	18.7/11,400 PSI	—
Clays	Rem 209P	Purple PC	17.6/6,400 LUP	18.6/6,800 LUP	19.5/7,200 LUP	20.5/7,600 LUP
Clays	Rem 209P	Rem TGT-12	16.1/ 7,500 PSI	17.3/ 8,400 PSI	18.5/ 9,900 PSI	—
Clays	Rem 209P	WAA12SL	16.2/ 6,500 PSI	17.4/ 8,000 PSI	18.6/ 9,200 PSI	20.4/10,600 PSI
Clays	Rem 209P	Windjammer	—	17.2/ 7,700 PSI	18.5/ 8,900 PSI	20.0/10,600 PSI
Clays	Win 209	Purple PC	15.7/ 7,000 PSI	17.2/ 8,500 PSI	18.5/ 9,900 PSI	20.0/10,400 PSI
Clays	Win 209	Rem TGT-12	15.8/ 7,700 PSI	16.8/ 8,500 PSI	18.2/10,300 PSI	—
Clays	Win 209	WAA12SL	16.0/7,400 LUP	17.2/8,300 LUP	18.5/9,200 LUP	19.8/10,200 LUP
700-X	Ched 209	CB 4100-12B	15.0/ 8,000 PSI	16.2/ 9,000 PSI	17.3/10,000 PSI	18.4/11,000 PSI
700-X	Ched 209	Rem TGT-12	14.9/ 8,000 PSI	16.0/ 9,000 PSI	17.2/ 9,900 PSI	18.3/10,800 PSI
700-X	Ched 209	WAA12SL	14.9/ 8,300 PSI	15.9/ 9,400 PSI	17.0/10,500 PSI	—
700-X	Fed 209A	CB 1100-12	15.6/ 6,700 PSI	16.9/ 7,600 PSI	18.2/ 8,500 PSI	19.4/ 9,300 PSI

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" WINCHESTER COMPRESSION-FORMED AA & HS TYPE PLASTIC SHELLS - 1oz LEAD SHOT—CONT.						
			1125 fps	1180 fps	1235 fps	1290 fps
700-X	Fed 209A	Fed 12S3	15.1/ 8,400 PSI	16.4/ 9,400 PSI	17.7/10,400 PSI	18.9/11,400 PSI
700-X	Fed 209A	Rem TGT-12	15.6/ 7,300 PSI	16.9/ 8,200 PSI	18.2/ 9,200 PSI	19.4/10,100 PSI
700-X	Fed 209A	WAA12SL	15.6/ 7,700 PSI	16.9/ 8,600 PSI	18.2/ 9,500 PSI	19.4/10,300 PSI
700-X	Fio 616	Rem TGT-12	15.4/ 7,800 PSI	16.6/ 8,800 PSI	17.7/ 9,800 PSI	18.8/10,800 PSI
700-X	Fio 616	WAA12SL	15.4/ 7,800 PSI	16.6/ 9,000 PSI	17.9/10,200 PSI	19.1/11,400 PSI
700-X	Rem 209P	CB 1100-12	—	17.9/ 6,100 PSI	19.2/ 6,800 PSI	20.4/ 7,500 PSI
700-X	Rem 209P	Fed 12S3	15.6/ 7,500 PSI	16.9/ 8,300 PSI	18.2/ 9,100 PSI	19.4/ 9,900 PSI
700-X	Rem 209P	Rem TGT-12	16.1/ 6,100 PSI	17.4/ 6,800 PSI	18.6/ 7,500 PSI	19.9/ 8,200 PSI
700-X	Rem 209P	WAA12SL	15.7/ 6,600 PSI	17.1/ 7,000 PSI	18.6/ 7,500 PSI	20.1/ 7,900 PSI
700-X	Win 209	CB 1100-12	15.1/ 7,000 PSI	16.4/ 8,000 PSI	17.7/ 9,000 PSI	18.9/10,000 PSI
700-X	Win 209	Fed 12S3	15.1/ 8,600 PSI	16.4/ 9,400 PSI	17.7/10,300 PSI	18.9/11,100 PSI
700-X	Win 209	Rem TGT-12	15.1/ 7,100 PSI	16.4/ 8,100 PSI	17.7/ 9,100 PSI	18.9/10,100 PSI
700-X	Win 209	WAA12SL	15.1/ 7,900 PSI	16.4/ 8,900 PSI	17.7/ 9,800 PSI	18.9/10,800 PSI
High Gun	Ched 209	CB 4100-12B	—	16.2/ 6,900 PSI	17.5/ 8,200 PSI	18.7/ 9,500 PSI
High Gun	Ched 209	Rem TGT-12	—	15.4/ 7,600 PSI	16.8/ 9,000 PSI	18.1/10,300 PSI
High Gun	Ched 209	WAA12SL	—	15.3/ 7,500 PSI	16.8/ 9,000 PSI	18.2/10,400 PSI
High Gun	Fed 209A	CB 4100-12B	—	16.0/ 7,400 PSI	17.3/ 8,800 PSI	18.7/10,200 PSI
High Gun	Fed 209A	Rem TGT-12	—	16.2/ 7,800 PSI	17.5/ 9,200 PSI	18.9/10,500 PSI
High Gun	Fed 209A	WAA12SL	—	15.7/ 7,700 PSI	17.1/ 9,200 PSI	18.5/10,700 PSI
High Gun	Rem 209P	CB 4100-12B	—	16.2/ 6,700 PSI	17.6/ 8,100 PSI	18.9/ 9,400 PSI
High Gun	Rem 209P	Rem TGT-12	—	16.0/ 7,700 PSI	17.3/ 9,000 PSI	18.6/10,200 PSI
High Gun	Rem 209P	WAA12SL	—	16.2/ 7,800 PSI	17.4/ 9,100 PSI	18.6/10,400 PSI
High Gun	Fio 616	CB 4100-12B	—	16.2/ 6,400 PSI	17.6/ 7,700 PSI	18.9/ 9,000 PSI
High Gun	Fio 616	Rem TGT-12	—	15.9/ 7,900 PSI	17.2/ 9,100 PSI	18.5/10,300 PSI
High Gun	Fio 616	WAA12SL	—	15.6/ 7,300 PSI	17.0/ 8,700 PSI	18.4/10,000 PSI
High Gun	Win 209	CB 4100-12B	—	16.1/ 6,400 PSI	17.5/ 7,900 PSI	18.8/ 9,400 PSI
High Gun	Win 209	Rem TGT-12	—	15.7/ 7,900 PSI	17.1/ 9,100 PSI	18.5/10,200 PSI
High Gun	Win 209	WAA12SL	—	16.5/ 7,500 PSI	17.7/ 8,800 PSI	18.9/10,100 PSI
High Gun	CCI 209	CB 4100-12B	—	16.3/ 7,100 PSI	17.7/ 8,500 PSI	19.1/10,000 PSI
High Gun	CCI 209	Rem TGT-12	—	16.4/ 7,400 PSI	17.7/8,700 PSI	19.1/10,000 PSI
High Gun	CCI 209	WAA12SL	—	16.3/ 7,900 PSI	17.6/ 9,400 PSI	18.8/10,900 PSI
Internat'l	CCI 209	Fed 12SO	—	17.7/ 8,800 PSI	19.4/10,500 PSI	—
Internat'l	CCI 209	Purple PC	—	18.8/ 7,300 PSI	20.0/ 8,500 PSI	21.0/ 9,100 PSI
Internat'l	CCI 209	Rem TGT-12	—	18.0/ 7,400 PSI	19.2/ 8,700 PSI	20.2/10,000 PSI
Internat'l	CCI 209	WAA12SL	—	19.2/6,700 LUP	20.6/7,500 LUP	22.3/8,800 LUP
Internat'l	Ched 209	CB 4100-12B	—	18.3/ 7,100 PSI	19.5/ 8,000 PSI	20.6/ 8,900 PSI
Internat'l	Ched 209	Rem TGT-12	—	18.0/ 7,600 PSI	19.1/ 8,500 PSI	20.3/ 9,500 PSI
Internat'l	Ched 209	WAA12SL	—	18.0/ 7,500 PSI	19.1/ 8,500 PSI	20.3/ 9,600 PSI
Internat'l	Fed 209A	Fed 12SO	—	18.0/ 9,700 PSI	19.0/10,800 PSI	—
Internat'l	Fed 209A	Purple PC	—	19.2/ 7,000 PSI	20.6/ 7,900 PSI	21.7/ 9,600 PSI
Internat'l	Fed 209A	Rem TGT-12	—	17.8/ 9,000 PSI	18.8/ 9,700 PSI	20.0/10,500 PSI
Internat'l	Fed 209A	WAA12SL	—	18.0/ 8,700 PSI	19.0/10,400 PSI	20.0/11,300 PSI
Internat'l	Fio 616	CB 4100-12B	—	17.0/ 7,200 PSI	18.4/ 8,200 PSI	19.8/ 9,200 PSI
Internat'l	Fio 616	Rem TGT-12	—	18.3/ 7,400 PSI	19.5/ 9,000 PSI	20.5/10,300 PSI
Internat'l	Fio 616	WAA12SL	—	18.0/ 7,500 PSI	19.6/ 9,200 PSI	21.0/11,100 PSI
Internat'l	Rem 209P	Fed 12SO	—	18.8/ 9,100 PSI	20.0/ 9,900 PSI	—
Internat'l	Rem 209P	Purple PC	—	19.8/ 7,700 PSI	20.7/ 8,900 PSI	21.6/ 9,400 PSI
Internat'l	Rem 209P	Rem TGT-12	—	20.8/5,900 LUP	21.5/7,100 LUP	22.3/7,800 LUP
Internat'l	Rem 209P	WAA12SL	—	19.0/ 7,700 PSI	20.0/ 9,200 PSI	21.2/ 9,700 PSI
Internat'l	Win 209	Fed 12SO	—	18.4/ 8,700 PSI	19.6/10,500 PSI	20.7/11,100 PSI
Internat'l	Win 209	Purple PC	—	18.6/ 7,700 PSI	20.0/ 8,100 PSI	21.2/ 9,300 PSI
Internat'l	Win 209	Rem TGT-12	—	18.4/ 7,700 PSI	19.6/ 8,600 PSI	20.7/ 9,600 PSI
Internat'l	Win 209	WAA12SL	—	18.9/6,900 LUP	20.4/8,300 LUP	21.3/8,900 LUP
Competition	Ched 209	CB 4100-12B	16.4/ 7,900 PSI	17.6/ 9,000 PSI	18.9/10,100 PSI	20.1/11,200 PSI
Competition	Ched 209	Rem TGT-12	15.9/ 8,000 PSI	17.0/ 9,000 PSI	18.1/10,000 PSI	—
Competition	Ched 209	WAA12SL	15.6/ 7,900 PSI	16.9/ 9,100 PSI	18.2/10,300 PSI	—
Competition	Fed 209A	CB 4100-12B	15.7/ 7,700 PSI	16.9/ 8,800 PSI	18.0/ 9,900 PSI	—
Competition	Fed 209A	Rem TGT-12	15.7/ 8,400 PSI	16.8/ 9,500 PSI	17.9/10,600 PSI	—
Competition	Fed 209A	WAA12SL	15.6/ 8,400 PSI	16.7/ 9,500 PSI	17.8/10,700 PSI	—

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
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12G, 2 3/4" WINCHESTER COMPRESSION-FORMED AA & HS TYPE PLASTIC SHELLS - 1oz LEAD SHOT—CONT.

			1125 fps	1180 fps	1235 fps	1290 fps
Competition	Fio 616	CB 4100-12B	16.0/ 7,900 PSI	17.1/ 9,100 PSI	18.2/10,300 PSI	—
Competition	Fio 616	Rem TGT-12	15.6/ 8,100 PSI	16.8/ 9,400 PSI	18.1/10,600 PSI	—
Competition	Fio 616	WAA12SL	15.6/ 7,800 PSI	16.7/ 9,100 PSI	17.9/10,400 PSI	—
Competition	Win 209	CB 4100-12B	15.9/ 7,500 PSI	17.1/ 8,600 PSI	18.3/ 9,700 PSI	19.5/10,800 PSI
Competition	Win 209	Rem TGT-12	16.0/ 7,700 PSI	17.2/ 8,800 PSI	18.4/10,000 PSI	19.5/11,100 PSI
Competition	Win 209	WAA12SL	15.7/ 7,800 PSI	16.8/ 8,900 PSI	17.9/10,100 PSI	—
WST	CCI 209	Fed 12SO	—	19.0/ 8,300 PSI	20.5/ 9,500 PSI	21.5/10,700 PSI
WST	CCI 209	WAA12L	—	—	21.0/ 8,400 PSI	22.5/10,200 PSI
WST	CCI 209	WAA12SL	—	—	21.5/ 7,900 PSI	22.5/ 9,400 PSI
WST	Ched 209	CB 4100-12B	17.4/ 7,300 PSI	18.5/ 8,500 PSI	19.6/ 9,700 PSI	20.7/10,900 PSI
WST	Ched 209	Rem TGT-12	17.8/ 7,500 PSI	19.1/ 8,500 PSI	20.3/ 9,500 PSI	21.6/10,600 PSI
WST	Ched 209	WAA12SL	17.2/ 7,400 PSI	18.4/ 8,600 PSI	19.7/ 9,800 PSI	20.9/11,100 PSI
WST	Fed 209A	WAA12SL	—	19.0/ 7,900 PSI	20.0/ 8,900 PSI	21.0/ 9,800 PSI
WST	Fio 616	CB 4100-12B	17.7/ 6,800 PSI	19.1/ 8,000 PSI	20.4/ 9,200 PSI	21.8/10,400 PSI
WST	Fio 616	Rem TGT-12	—	19.4/ 7,300 PSI	20.8/ 8,700 PSI	22.3/10,200 PSI
WST	Fio 616	WAA12SL	—	19.6/ 7,100 PSI	20.9/ 8,600 PSI	22.5/10,300 PSI
WST	Win 209	Fed 12SO	—	19.0/ 8,000 PSI	20.5/ 9,500 PSI	22.0/10,900 PSI
WST	Win 209	WAA12L	—	19.5/ 8,500 PSI	21.0/ 9,600 PSI	22.5/11,100 PSI
WST	Win 209	WAA12SL	—	19.5/ 7,400 PSI	21.0/ 8,100 PSI	22.0/ 9,000 PSI
Super Hcp	Ched 209	CB 4100-12B	—	18.2/ 6,400 PSI	19.5/ 7,300 PSI	20.7/ 8,100 PSI
Super Hcp	Ched 209	Jam XL-1	—	18.9/ 7,300 PSI	19.8/ 8,400 PSI	20.8/ 9,600 PSI
Super Hcp	Ched 209	Purple PC	—	19.5/ 6,900 PSI	20.4/ 7,900 PSI	21.2/ 8,800 PSI
Super Hcp	Ched 209	Rem TGT-12	—	18.6/ 7,400 PSI	19.9/ 8,600 PSI	21.2/ 9,800 PSI
Super Hcp	Ched 209	WAA12SL	—	18.6/ 7,400 PSI	19.8/ 8,600 PSI	21.0/ 9,900 PSI
Super Hcp	Fed 209A	Jam XL-1	—	18.1/ 7,800 PSI	19.5/ 8,900 PSI	20.8/ 9,900 PSI
Super Hcp	Fed 209A	Purple PC	—	18.6/ 7,400 PSI	20.0/ 8,400 PSI	21.4/ 9,400 PSI
Super Hcp	Fed 209A	Rem TGT-12	—	18.2/ 7,900 PSI	19.5/ 9,100 PSI	20.7/10,200 PSI
Super Hcp	Fed 209A	WAA12SL	—	18.3/ 8,000 PSI	19.5/ 9,100 PSI	20.8/10,300 PSI
Super Hcp	Fio 616	CB 4100-12B	—	18.5/ 6,700 PSI	19.6/ 7,600 PSI	20.8/ 8,400 PSI
Super Hcp	Fio 616	Rem TGT-12	—	—	19.7/ 7,400 PSI	21.0/ 8,400 PSI
Super Hcp	Fio 616	WAA12SL	—	—	20.0/ 7,500 PSI	21.2/ 8,800 PSI
Super Hcp	Rem 209P	Jam XL-1	—	19.0/ 7,200 PSI	20.0/ 8,300 PSI	21.0/ 9,400 PSI
Super Hcp	Rem 209P	Purple PC	—	19.6/ 6,600 PSI	20.7/ 7,800 PSI	21.8/ 8,900 PSI
Super Hcp	Rem 209P	Rem TGT-12	—	19.0/ 7,300 PSI	20.2/ 8,500 PSI	21.3/ 9,600 PSI
Super Hcp	Rem 209P	WAA12SL	—	18.6/ 7,300 PSI	19.8/ 8,600 PSI	20.9/ 9,800 PSI
Super Hcp	Win 209	Jam XL-1	—	19.3/ 7,000 PSI	20.3/ 8,100 PSI	21.2/ 9,000 PSI
Super Hcp	Win 209	Purple PC	—	19.7/ 6,000 PSI	20.8/ 7,200 PSI	22.0/ 8,500 PSI
Super Hcp	Win 209	Rem TGT-12	—	18.2/ 7,100 PSI	19.6/ 8,500 PSI	20.9/ 9,900 PSI
Super Hcp	Win 209	WAA12SL	—	18.5/ 7,400 PSI	19.7/ 8,600 PSI	20.8/ 9,800 PSI

12G, 2 3/4" WINCHESTER COMPRESSION-FORMED AA & HS TYPE PLASTIC SHELLS - 1.125oz LEAD SHOT

			1090 fps	1145 fps	1200 fps	1255 fps
Perfect Pattern	Ched 209	WAA12	14.2/ 9,200 PSI	15.1/10,600 PSI	—	—
Perfect Pattern	Ched 209	Rem Fig 8	14.0/ 9,400 PSI	15.0/10,900 PSI	—	—
Perfect Pattern	Ched 209	CB4118-12B	14.0/ 9,000 PSI	15.0/10,300 PSI	—	—
Perfect Pattern	Fed 209A	WAA12	14.2/ 9,600 PSI	15.2/11,000 PSI	—	—
Perfect Pattern	Fed 209A	Rem Fig 8	14.1/ 9,900 PSI	15.2/11,300 PSI	—	—
Perfect Pattern	Fed 209A	CB4118-12B	14.1/ 9,400 PSI	15.0/10,700 PSI	—	—
Perfect Pattern	Rem 209P	WAA12	14.2/ 8,800 PSI	15.3/10,300 PSI	—	—
Perfect Pattern	Rem 209P	Rem Fig 8	13.9/ 9,200 PSI	15.1/10,500 PSI	—	—
Perfect Pattern	Rem 209P	CB4118-12B	14.1/ 8,700 PSI	15.1/ 9,900 PSI	16.1/11,200 PSI	—
Perfect Pattern	Fio 616	WAA12	14.2/ 9,300 PSI	15.2/10,500 PSI	—	—
Perfect Pattern	Fio 616	Rem Fig 8	14.1/ 9,000 PSI	15.1/10,400 PSI	—	—
Perfect Pattern	Fio 616	CB4118-12B	14.2/ 8,800 PSI	15.3/10,300 PSI	—	—
Perfect Pattern	Win 209	WAA12	13.9/ 9,600 PSI	15.0/11,000 PSI	—	—
Perfect Pattern	Win 209	Rem Fig 8	14.2/ 9,500 PSI	15.2/10,900 PSI	—	—
Perfect Pattern	Win 209	CB4118-12B	14.2/ 8,800 PSI	15.3/10,300 PSI	—	—
Perfect Pattern	CCI 209	WAA12	14.2/ 9,100 PSI	15.2/10,500 PSI	—	—
Perfect Pattern	CCI 209	Rem Fig 8	14.4/ 9,600 PSI	15.4/10,700 PSI	—	—

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" WINCHESTER COMPRESSION-FORMED AA & HS TYPE PLASTIC SHELLS - 1.125OZ LEAD SHOT—CONT.						
			1090 fps	1145 fps	1200 fps	1255 fps
Perfect Pattern	CCI 209	CB4118-12B	14.1/ 8,800 PSI	15.3/10,100 PSI	16.4/11,300 PSI	—
Titewad	CCI 209	Hdy Versalite	15.3/10,200 PSI	16.6/10,700 PSI	17.0/11,400 PSI	—
Titewad	CCI 209	Rem Fig 8	15.3/10,300 PSI	16.5/11,200 PSI	—	—
Titewad	CCI 209	WAA12	15.3/10,300 PSI	16.0/10,900 PSI	—	—
Titewad	CCI 209	Windjammer	15.3/ 8,600 PSI	16.6/ 9,400 PSI	17.8/10,900 PSI	—
Titewad	Ched 209	DR XL-1	14.8/ 9,900 PSI	15.9/11,200 PSI	—	—
Titewad	Ched 209	DRV-12	14.6/10,200 PSI	15.7/11,200 PSI	—	—
Titewad	Ched 209	Rem Fig 8	15.7/ 9,500 PSI	16.6/10,700 PSI	—	—
Titewad	Ched 209	WAA12	15.3/ 9,900 PSI	16.4/10,900 PSI	—	—
Titewad	Ched 209	Windjammer	15.9/ 8,700 PSI	16.8/10,100 PSI	—	—
Titewad	Fed 209A	Fed 12S3	15.5/ 9,900 PSI	16.8/10,800 PSI	—	—
Titewad	Fed 209A	Hdy Versalite	15.3/10,600 PSI	16.3/11,400 PSI	—	—
Titewad	Fed 209A	Red PC	15.6/ 9,600 PSI	16.6/11,000 PSI	—	—
Titewad	Fed 209A	Rem Fig 8	15.6/10,000 PSI	16.6/10,600 PSI	—	—
Titewad	Fed 209A	WAA12	15.4/ 9,700 PSI	16.4/10,800 PSI	—	—
Titewad	Fed 209A	Windjammer	15.4/ 9,400 PSI	16.0/10,600 PSI	—	—
Titewad	Fio 616	DR XL-1	14.5/ 9,900 PSI	15.4/10,600 PSI	—	—
Titewad	Fio 616	DRV-12	14.4/10,400 PSI	15.6/11,200 PSI	—	—
Titewad	Fio 616	Rem Fig 8	15.5/ 8,800 PSI	16.6/10,000 PSI	—	—
Titewad	Fio 616	WAA12	14.8/ 9,200 PSI	16.0/10,800 PSI	—	—
Titewad	Fio 616	Windjammer	15.6/ 8,400 PSI	16.6/ 9,700 PSI	—	—
Titewad	Rem 209P	Fed 12S3	14.8/ 9,800 PSI	15.5/11,100 PSI	—	—
Titewad	Rem 209P	Rem Fig 8	15.7/ 8,500 PSI	16.8/ 9,300 PSI	18.3/10,400 PSI	—
Titewad	Rem 209P	WAA12	15.5/10,100 PSI	16.4/11,200 PSI	—	—
Titewad	Rem 209P	Windjammer	15.5/ 9,100 PSI	16.2/10,000 PSI	17.0/11,100 PSI	—
Titewad	Win 209	CB3118-12-AR	15.2/ 9,300 PSI	16.3/10,700 PSI	17.7/11,400 PSI	—
Titewad	Win 209	Hdy Versalite	15.0/10,100 PSI	15.5/10,500 PSI	—	—
Titewad	Win 209	Red PC	15.1/ 8,900 PSI	15.9/ 9,700 PSI	—	—
Titewad	Win 209	Rem Fig 8	15.2/ 9,000 PSI	16.2/ 9,700 PSI	17.5/11,100 PSI	—
Titewad	Win 209	WAA12	15.2/ 9,500 PSI	16.5/10,400 PSI	17.8/11,100 PSI	—
Titewad	Win 209	Windjammer	15.3/ 8,300 PSI	16.3/ 9,600 PSI	17.8/10,500 PSI	—
Clays	CCI 209	Fed 12S3	16.2/7,200 LUP	17.6/8,700 LUP	19.0/10,100 LUP	—
Clays	CCI 209	Hdy Versalite	15.8/ 9,900 PSI	16.8/10,400 PSI	—	—
Clays	CCI 209	Red PC	16.5/ 8,400 PSI	17.0/10,000 PSI	18.3/11,400 PSI	—
Clays	CCI 209	Rem Fig 8	16.0/ 8,700 PSI	16.8/ 9,600 PSI	—	—
Clays	CCI 209	WAA12	16.0/ 8,900 PSI	17.0/ 9,800 PSI	18.1/11,300 PSI	—
Clays	CCI 209	Windjammer	16.0/ 8,200 PSI	16.8/ 8,600 PSI	18.5/11,100 PSI	—
Clays	Ched 209	DR XL-1	14.8/ 8,400 PSI	16.0/ 9,600 PSI	17.1/10,800 PSI	—
Clays	Ched 209	DRV-12	14.5/ 8,300 PSI	15.9/ 9,400 PSI	17.2/10,500 PSI	—
Clays	Ched 209	Rem Fig 8	16.4/ 8,800 PSI	17.5/10,200 PSI	—	—
Clays	Ched 209	WAA12	15.8/ 9,400 PSI	17.2/10,700 PSI	—	—
Clays	Ched 209	Windjammer	15.7/ 7,900 PSI	17.4/ 9,500 PSI	19.0/11,100 PSI	—
Clays	Fed 209A	Red PC	15.8/ 9,400 PSI	16.7/10,300 PSI	—	—
Clays	Fed 209A	Rem Fig 8	15.8/10,700 PSI	16.6/11,100 PSI	—	—
Clays	Fed 209A	WAA12	15.0/ 9,700 PSI	16.0/10,800 PSI	—	—
Clays	Fed 209A	Windjammer	16.0/ 9,100 PSI	16.7/10,300 PSI	18.0/11,400 PSI	—
Clays	Fio 616	Rem Fig 8	15.5/ 9,200 PSI	16.5/10,700 PSI	—	—
Clays	Fio 616	WAA12	15.5/ 9,400 PSI	16.0/10,900 PSI	—	—
Clays	Fio 616	Windjammer	15.3/ 8,400 PSI	16.3/ 9,500 PSI	17.7/11,200 PSI	—
Clays	Fio 616	DR XL-1	14.5/ 8,800 PSI	15.7/10,000 PSI	16.8/11,300 PSI	—
Clays	Fio 616	DRV-12	14.7/ 8,700 PSI	15.7/10,000 PSI	16.7/11,200 PSI	—
Clays	Rem 209P	Hdy Versalite	16.0/ 8,800 PSI	16.5/ 9,200 PSI	18.0/11,100 PSI	—
Clays	Rem 209P	Red PC	17.1/7,200 LUP	18.4/7,800 LUP	19.6/8,400 LUP	—
Clays	Rem 209P	Rem Fig 8	16.3/ 9,000 PSI	17.3/10,100 PSI	18.5/11,500 PSI	—
Clays	Rem 209P	WAA12	15.9/ 8,900 PSI	17.0/ 9,400 PSI	—	—
Clays	Rem 209P	Windjammer	16.5/ 8,100 PSI	17.5/ 9,400 PSI	18.5/10,400 PSI	—
Clays	Win 209	Hdy Versalite	16.4/8,300 LUP	17.6/9,400 LUP	18.8/10,600 LUP	—
Clays	Win 209	Red PC	16.3/ 7,900 PSI	17.0/ 9,100 PSI	18.3/10,900 PSI	—
Clays	Win 209	Rem Fig 8	16.0/7,700 LUP	17.0/8,500 LUP	18.1/9,400 LUP	—

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
12G, 2 3/4" WINCHESTER COMPRESSION-FORMED AA & HS TYPE PLASTIC SHELLS - 1.125oz LEAD SHOT—CONT.						
			1090 fps	1145 fps	1200 fps	1255 fps
Clays	Win 209	WAA12	16.1/7,700 LUP	17.3/8,800 LUP	18.2/9,800 LUP	—
Clays	Win 209	Windjammer	—	17.3/10,100 PSI	18.2/10,900 PSI	—
700-X	Ched 209	CB 4118-12B	14.8/ 8,400 PSI	15.9/ 9,500 PSI	17.0/10,600 PSI	—
700-X	Ched 209	DR XL-1	15.2/ 8,300 PSI	16.2/ 9,600 PSI	17.2/10,900 PSI	—
700-X	Ched 209	DRV-12	14.3/ 8,700 PSI	15.5/10,000 PSI	16.7/11,200 PSI	—
700-X	Ched 209	Rem Fig 8	14.4/ 8,500 PSI	15.8/ 9,500 PSI	17.2/10,600 PSI	—
700-X	Ched 209	WAA12	15.0/ 8,900 PSI	16.0/ 9,900 PSI	17.1/10,900 PSI	—
700-X	Fed 209A	CB 1118-12	14.8/ 8,300 PSI	16.1/ 9,400 PSI	17.3/10,500 PSI	18.6/11,600 PSI
700-X	Fed 209A	Fed 12S3	15.2/ 8,800 PSI	16.6/10,000 PSI	18.0/11,200 PSI	—
700-X	Fed 209A	Rem Fig 8	15.3/ 8,700 PSI	16.6/ 9,600 PSI	17.8/10,400 PSI	19.1/11,300 PSI
700-X	Fed 209A	WAA12	14.8/ 8,900 PSI	16.1/10,100 PSI	17.5/11,300 PSI	—
700-X	Fed 209A	Windjammer	14.7/ 8,000 PSI	16.2/ 9,000 PSI	17.7/10,100 PSI	19.1/11,100 PSI
700-X	Fio 616	DR XL-1	14.7/ 9,300 PSI	16.1/10,200 PSI	17.4/11,000 PSI	—
700-X	Fio 616	DRV-12	14.8/ 8,600 PSI	16.1/ 9,600 PSI	17.4/10,600 PSI	—
700-X	Fio 616	Rem Fig 8	16.0 8,000 PSI	17.5/ 9,200 PSI	19.0/10,400 PSI	—
700-X	Fio 616	WAA12	15.5/ 8,400 PSI	17.0/ 9,500 PSI	18.4/10,700 PSI	—
700-X	Fio 616	Windjammer	16.2/ 7,900 PSI	17.2/ 8,800 PSI	18.5/10,000 PSI	19.8/11,100 PSI
700-X	Rem 209P	CB 1118-12	15.2/ 6,700 PSI	16.7/ 7,900 PSI	18.2/ 9,200 PSI	19.6/10,500 PSI
700-X	Rem 209P	Fed 12S3	15.2/ 7,600 PSI	16.7/ 8,700 PSI	18.2/ 9,900 PSI	19.6/11,000 PSI
700-X	Rem 209P	Rem Fig 8	15.8/ 7,700 PSI	17.1/ 8,600 PSI	18.3/ 9,400 PSI	19.6/10,300 PSI
700-X	Rem 209P	WAA12	15.2/ 8,000 PSI	16.8/ 9,000 PSI	18.5/ 9,900 PSI	20.1/10,900 PSI
700-X	Rem 209P	Windjammer	15.7/ 6,600 PSI	17.4/ 7,600 PSI	19.0/ 8,500 PSI	20.6/ 9,400 PSI
700-X	Win 209	CB 1118-12	15.3/ 8,400 PSI	16.6/ 9,400 PSI	17.8/10,300 PSI	19.1/11,300 PSI
700-X	Win 209	Fed 12S3	15.3/ 9,300 PSI	16.4/10,200 PSI	17.5/11,100 PSI	—
700-X	Win 209	Rem Fig 8	15.2/ 8,100 PSI	16.7/ 9,200 PSI	18.2/10,400 PSI	—
700-X	Win 209	WAA12	15.3/ 9,000 PSI	16.4/ 9,900 PSI	17.5/10,800 PSI	—
700-X	Win 209	Windjammer	15.3/ 7,900 PSI	16.6/ 9,000 PSI	17.8/10,000 PSI	19.1/11,100 PSI
High Gun	Ched 209	Rem Fig 8	15.5/ 8,200 PSI	16.6/ 9,300 PSI	17.7/10,400 PSI	18.8/11,500 PSI
High Gun	Ched 209	WAA12	15.4/ 7,900 PSI	16.5/ 9,300 PSI	17.6/10,600 PSI	—
High Gun	Ched 209	CB4118-12B	15.4/ 7,000 PSI	16.5/ 8,400 PSI	17.6/ 9,700 PSI	18.7/11,100 PSI
High Gun	Fed 209A	Rem Fig 8	15.0/ 8,300 PSI	16.2/ 9,500 PSI	17.4/10,700 PSI	—
High Gun	Fed 209A	WAA12	15.2/ 8,200 PSI	16.3/ 9,400 PSI	17.5/10,600 PSI	—
High Gun	Fed 209A	CB4118-12B	15.1/ 7,600 PSI	16.2/ 8,800 PSI	17.3/10,000 PSI	18.5/11,200 PSI
High Gun	Rem 209P	Rem Fig 8	14.7/ 8,500 PSI	15.9/ 9,700 PSI	17.0/10,700 PSI	—
High Gun	Rem 209P	WAA12	14.6/ 8,400 PSI	15.6/ 9,600 PSI	16.5/10,600 PSI	—
High Gun	Rem 209P	CB4118-12B	15.5/ 7,100 PSI	16.7/ 8,300 PSI	18.0/ 9,600 PSI	19.2/10,800 PSI
High Gun	Fio 616	Rem Fig 8	15.8/ 7,800 PSI	16.8/ 8,700 PSI	17.9/ 9,600 PSI	19.0/10,600 PSI
High Gun	Fio 616	WAA12	15.5/ 7,900 PSI	16.6/ 9,100 PSI	17.7/10,200 PSI	18.8/11,400 PSI
High Gun	Fio 616	CB4118-12B	15.9/ 6,900 PSI	17.0/ 8,200 PSI	18.1/ 9,400 PSI	19.2/10,600 PSI
High Gun	Win 209	Rem Fig 8	14.9/ 8,200 PSI	15.9/ 9,200 PSI	16.9/10,200 PSI	—
High Gun	Win 209	WAA12	14.9/ 7,900 PSI	15.9/ 9,000 PSI	17.4/10,200 PSI	18.4/11,400 PSI
High Gun	Win 209	CB4118-12B	15.0/ 7,000 PSI	16.3/ 8,300 PSI	17.6/ 9,500 PSI	18.9/10,700 PSI
High Gun	CCI 209	Rem Fig 8	15.4/ 7,700 PSI	16.6/ 9,000 PSI	17.8/10,200 PSI	19.0/11,400 PSI
High Gun	CCI 209	WAA12	15.4/ 7,600 PSI	16.5/ 8,900 PSI	17.7/10,200 PSI	18.9/11,500 PSI
High Gun	CCI 209	CB4118-12B	15.4/ 7,700 PSI	16.6/ 8,900 PSI	17.8/10,200 PSI	19.0/11,400 PSI
Internat'l	CCI 209	Fed 12S3	—	19.2/7,900 LUP	20.0/8,300 LUP	21.6/10,200 LUP
Internat'l	CCI 209	Hdy Versalite	16.7/ 8,600 PSI	17.2/ 9,600 PSI	18.2/11,300 PSI	—
Internat'l	CCI 209	Red PC	17.3/ 8,900 PSI	17.7/ 9,400 PSI	19.0/10,700 PSI	20.5/11,300 PSI
Internat'l	CCI 209	Rem Fig 8	17.0/ 9,300 PSI	17.8/10,100 PSI	18.5/11,200 PSI	—
Internat'l	CCI 209	WAA12	17.0/ 9,700 PSI	17.4/10,500 PSI	18.2/11,400 PSI	—
Internat'l	CCI 209	Windjammer	17.0/ 8,300 PSI	17.7/ 8,800 PSI	19.5/ 9,800 PSI	20.5/11,500 PSI
Internat'l	CCI 209	Trapper	16.5/ 9,400 PSI	17.5/ 9,900 PSI	—	—
Internat'l	Ched 209	DR XL-1	16.5/ 7,600 PSI	17.5/ 8,600 PSI	18.6/ 9,500 PSI	19.6/10,500 PSI
Internat'l	Ched 209	DRV-12	16.3/ 7,600 PSI	17.5/ 8,600 PSI	18.6/ 9,700 PSI	19.8/10,800 PSI
Internat'l	Ched 209	Rem Fig 8	17.4/ 7,900 PSI	18.5/ 9,200 PSI	19.7/10,500 PSI	—
Internat'l	Ched 209	WAA12	16.9/ 8,100 PSI	18.1/ 9,600 PSI	19.3/11,100 PSI	—
Internat'l	Ched 209	Windjammer	17.9/ 8,000 PSI	18.9/ 9,200 PSI	19.8/10,300 PSI	20.8/11,500 PSI
Internat'l	Fed 209A	Hdy Versalite	16.0/10,200 PSI	16.9/11,100 PSI	—	—
Internat'l	Fed 209A	Red PC	16.0/ 9,200 PSI	17.2/10,400 PSI	18.5/11,500 PSI	—

NEVER EXCEED MAXIMUM LOADS

SHOTSHELL DATA

Powder	Primer	Wad	Charge/Pressure			
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12G, 2 3/4" WINCHESTER COMPRESSION-FORMED AA & HS TYPE PLASTIC SHELLS - 1.125OZ LEAD SHOT—CONT.

			1090 fps	1145 fps	1200 fps	1255 fps
Internat'l	Fed 209A	Rem Fig 8	16.5/ 9,700 PSI	17.0/10,100 PSI	18.0/10,900 PSI	—
Internat'l	Fed 209A	WAA12	16.0/ 9,500 PSI	16.8/10,300 PSI	17.5/10,900 PSI	—
Internat'l	Fed 209A	Windjammer	17.4/ 6,900 PSI	18.0/ 7,700 PSI	19.5/ 9,500 PSI	21.3/11,200 PSI
Internat'l	Fio 616	Rem Fig 8	16.3/ 8,600 PSI	17.6/ 9,500 PSI	18.3/10,200 PSI	—
Internat'l	Fio 616	DR XL-1	16.4/ 7,700 PSI	17.5/ 8,700 PSI	18.7/ 9,700 PSI	19.9/10,700 PSI
Internat'l	Fio 616	DRV-12	16.6/ 7,600 PSI	17.6/ 8,600 PSI	18.5/ 9,600 PSI	19.6/10,600 PSI
Internat'l	Fio 616	WAA12	16.9/ 7,300 PSI	18.0/ 8,700 PSI	19.0/ 9,900 PSI	—
Internat'l	Fio 616	Windjammer	—	19.0/ 7,000 PSI	20.3/ 8,600 PSI	21.6/10,200 PSI
Internat'l	Rem 209P	Hdy Versalite	16.8/ 9,000 PSI	17.8/10,000 PSI	19.0/11,300 PSI	—
Internat'l	Rem 209P	Red PC	17.3/ 8,300 PSI	18.0/ 8,700 PSI	19.4/10,200 PSI	20.7/10,900 PSI
Internat'l	Rem 209P	Rem Fig 8	—	20.1/6,300 LUP	21.1/7,700 LUP	22.1/8,000 LUP
Internat'l	Rem 209P	WAA12	16.5/ 8,900 PSI	17.8/ 9,500 PSI	18.7/11,100 PSI	—
Internat'l	Rem 209P	Windjammer	17.2/ 8,100 PSI	18.3/ 8,300 PSI	19.2/ 9,000 PSI	20.8/10,800 PSI
Internat'l	Win 209	Hdy Versalite	17.4/7,900 LUP	18.1/8,600 LUP	19.2/9,800 LUP	—
Internat'l	Win 209	Red PC	18.3/6,800 LUP	18.9/7,200 LUP	20.2/8,300 LUP	21.3/9,700 LUP
Internat'l	Win 209	Rem Fig 8	17.3/ 8,100 PSI	18.3/ 9,500 PSI	—	—
Internat'l	Win 209	Trapper	17.0/ 8,100 PSI	18.0/ 9,300 PSI	19.0/10,400 PSI	—
Internat'l	Win 209	WAA12	17.6/7,400 LUP	18.1/8,300 LUP	19.2/9,600 LUP	21.3/10,800 LUP
Internat'l	Win 209	Windjammer	17.3/ 7,900 PSI	18.0/ 8,600 PSI	19.5/ 9,800 PSI	20.8/10,300 PSI
Universal	CCI 209M	Hdy Versalite	—	—	22.0/ 9,900 PSI	23.0/10,700 PSI
Universal	CCI 209	Windjammer	—	—	23.3/ 8,000 PSI	24.3/ 9,300 PSI
Universal	CCI 209	Hdy Versalite	—	—	22.3/ 8,800 PSI	23.5/ 9,400 PSI
Universal	Fed 209A	WAA12	—	—	21.5/ 9,600 PSI	22.8/10,700 PSI
Universal	Win 209	Rem Fig 8	—	—	22.5/ 9,000 PSI	23.5/10,000 PSI
Universal	Win 209	WAA12	—	—	22.0/10,000 PSI	22.7/10,600 PSI

12G, 2 3/4" WINCHESTER COMPRESSION-FORMED AA & HS TYPE PLASTIC SHELLS - 1.125OZ LEAD SHOT - HIGH VELOCITY

			1420 fps	1475 fps	1530 fps	
Longshot	CCI 209M	Fed 12S3	30.9/10,200 PSI	32.4/11,300 PSI	—	—
Longshot	CCI 209M	Hdy Versalite	31.0/ 9,600 PSI	32.7/10,500 PSI	34.3/11,300 PSI	—
Longshot	CCI 209M	Rem R12H	31.5/ 9,200 PSI	32.9/10,200 PSI	34.2/11,200 PSI	—
Longshot	CCI 209M	WAA12	30.9/10,000 PSI	32.5/10,900 PSI	—	—
Longshot	CCI 209M	Windjammer	32.2/ 8,700 PSI	33.7/ 9,600 PSI	35.1/10,500 PSI	—
Longshot	Fed 209A	Fed 12S3	31.1/10,300 PSI	32.2/11,300 PSI	—	—
Longshot	Fed 209A	Hdy Versalite	30.7/10,100 PSI	32.4/11,000 PSI	—	—
Longshot	Fed 209A	Rem R12H	31.0/ 9,800 PSI	32.6/10,500 PSI	—	—
Longshot	Fed 209A	WAA12	31.0/ 9,800 PSI	32.3/10,800 PSI	—	—
Longshot	Rem 209P	Fed 12S3	30.3/10,500 PSI	31.7/11,400 PSI	—	—
Longshot	Rem 209P	Hdy Versalite	31.1/ 9,500 PSI	32.4/10,400 PSI	—	—
Longshot	Rem 209P	Rem R12H	31.3/ 9,200 PSI	32.5/10,200 PSI	33.7/11,300 PSI	—
Longshot	Rem 209P	WAA12	30.8/ 9,500 PSI	32.1/10,500 PSI	—	—
Longshot	Rem 209P	Windjammer	31.9/ 8,800 PSI	33.7/ 9,600 PSI	35.4/10,200 PSI	—
Longshot	Win 209	Fed 12S3	32.6/ 8,800 PSI	34.1/ 9,500 PSI	35.7/10,300 PSI	—
Longshot	Win 209	Hdy Versalite	32.2/ 8,600 PSI	33.6/ 9,500 PSI	34.9/10,300 PSI	—
Longshot	Win 209	Rem R12L	33.4/ 8,100 PSI	34.6/ 9,100 PSI	35.9/10,200 PSI	—
Longshot	Win 209	WAA12	32.1/ 9,200 PSI	33.2/10,100 PSI	34.4/11,100 PSI	—

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