



ALLIANT POWDER

*Technically Superior by Design*

2012  
**RELOADER'S GUIDE**

## Our Mission: PREMIUM PERFORMANCE, CONSISTENT QUALITY.

Every container of Alliant smokeless powder is backed by a century of manufacturing experience, and the most exacting quality control procedures in the industry. We check and control chemical composition, the shape and size of powder grains, even the propellants' density and porosity. We send samples of every batch to our ballistics lab, testing, among other things, for burning speed. Then, after blending batches together for exactly the right ballistic characteristics, we use our advanced computerized equipment to test again.



**The result:** a line of products known and respected for consistent quality and performance—not only in the lab, but especially on the firing line. One of the reasons you're a reloader, after all, is so you'll know exactly what to expect every time you pull the trigger. With Alliant powders you will. Not only shell after shell, but also year after year.

### DANGER!

READ THE SAFETY SECTION (PAGES 4-15) OF THIS MANUAL PRIOR TO ENGAGING IN RELOADING.

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## **SMOKELESS POWDER: PROPERTIES AND STORAGE**

Ammunition handloading has become increasingly popular in recent years. This leaflet discusses properties of smokeless powder and offers recommendations for its storage.

This information is intended to increase the knowledge of all concerned individuals and groups regarding smokeless powder. The statements and recommendations made are not intended to supersede local, state or Federal regulations. Proper authorities should be consulted on regulations for storage and use of smokeless powder in each specific community. A second set of information entitled, "SPORTING AMMUNITION PRIMERS: PROPERTIES, HANDLING, & STORAGE FOR HANDLOADING" supplements this information on smokeless powder.

### **PROPERTIES OF SMOKELESS POWDER**

Smokeless powders, or propellants, are essentially mixtures of chemicals designed to burn under controlled conditions at the proper rate to propel a projectile from a gun.

Smokeless powders are made in three forms:

1. Thin, circular flakes or wafers
2. Small cylinders, both perforated and unperforated
3. Small spheres or flattened spheres

Single-base smokeless powders derive their main source of energy from nitrocellulose.

The energy released from double-base smokeless powders is derived from both nitrocellulose and nitroglycerin.

All smokeless powders are extremely flammable; by design, they are intended to burn rapidly and vigorously when ignited.

Oxygen from the air is not necessary for the combustion of smokeless powders since they contain sufficient built-in oxygen to burn completely, even in an enclosed space such as the chamber of a firearm.

Ignition occurs when the powder granules are heated above their ignition temperature. This can occur by exposing the powder to:

1. A flame such as a match or a primer flash.
2. An electrical spark or the sparks from welding, grinding, etc.
3. Heat from an electric hot plate or a fire directed against or near a closed container even if the powder itself is not exposed to the flame.

When smokeless powder burns, a great deal of gas at high temperature is formed. If the powder is confined, this gas will create pressure in the surrounding structure. The rate of gas generation is such, however, that the pressure can be kept at a low level if sufficient space is available or if the gas can escape.

In this respect smokeless powder differs from blasting agents or high explosives such as dynamite or blasting gelatin, although smokeless powder may contain chemical ingredients common to both of these products.



Smokeless powder does not detonate like high explosives as it has a controlled rate of burn and differs considerably in its burning characteristics from common "black powder." Black powder burns at essentially the same rate out in the open (unconfined) as when in a gun.

When ignited in an unconfined state, smokeless powder burns inefficiently with an orange-colored flame. It may produce a considerable amount of light brown noxious smelling smoke. It leaves a residue of ash and partially burned powder. The flame is hot enough to cause severe burns.

When it burns under pressure as in a cartridge fired in a gun, smokeless powder produces very little smoke, a small glow, and leaves very little or no residue. The burning rate of smokeless powder increases with increased pressure.

If burning smokeless powder is confined, gas pressure will rise and eventually can cause the container to burst. Under such circumstances, the bursting of a strong container creates effects similar to an explosion.

For this reason, the U.S. Department of Transportation (formerly Interstate Commerce Commission) sets requirements for shipping containers for propellants and requires tests of loaded containers under actual fire conditions before approving them for use.

When smokeless powder in DOT approved containers is ignited during such tests, the container seams split open or lids pop off to release gases and powder from confinement at low pressure.

Additional details are available in a SAAMI video "Smokeless Powder and the Fire Service."

### **HOW TO CHECK SMOKELESS POWDER FOR DETERIORATION**

Although modern smokeless powders contain stabilizers and are basically free from deterioration under proper storage conditions, safe practices require a recognition of the signs of deterioration and its possible effects.

Deteriorating smokeless powders produce an acidic odor and may produce a reddish brown fume. (Don't confuse this with common solvent odors such as alcohol, ether and acetone.) Powder deterioration can be checked by opening the cap on the container and smelling the contents. Powder undergoing deterioration has an irritating acidic odor.

Dispose of deteriorating smokeless powders immediately. Check to make certain that powder is not exposed to extreme heat as this may cause deterioration. Such exposure produces an acidity which accelerates further reaction and has been known, because of the heat generated by the reaction, to cause spontaneous combustion.

Never salvage powder from old cartridges and do not attempt to blend salvaged powder with new powder or attempt to blend two types of powder to make a "custom" blend. Don't accumulate old powder stocks.

Smokeless powder is intended to function by burning, so it must be protected against accidental exposure to flame, sparks or high temperatures.

For these reasons, storage enclosures should be made of insulating materials to protect the powder from external heat sources.

Once smokeless powder begins to burn, it will continue to burn (and generate gas pressure) until it is consumed.

DOT-approved containers are constructed to open up at low internal pressures to avoid the effects normally produced by the rupture or bursting of a strong container.

Storage enclosures for smokeless powder should be constructed in a similar manner:

1. Of fire-resistant and heat-insulating materials to protect contents from external heat.

2. Sufficiently large to vent the gaseous products of combustion satisfactorily which would result if the quantity of smokeless powder within the enclosure accidentally ignited.

If a small, tightly enclosed storage enclosure is loaded to capacity with containers of smokeless powder, the enclosure will expand or move outwards to release the gas pressure - if the powder in storage is accidentally ignited.

Under such conditions, the effects of the release of gas pressure are similar or identical to the effects produced by an explosion.

Therefore, storage of smokeless powder should be in strict compliance with all applicable regulations and recommendations of the National Fire Protection Association.

## **RECOMMENDATIONS FOR STORAGE OF SMOKELESS POWDER**

**Store in a cool, dry place.** Be sure the storage area selected is free from any possible sources of excess heat and is isolated from open flame, furnaces, hot water heaters, etc. Do not store smokeless powder where it will be exposed to the sun's rays. Avoid storage in areas where mechanical or electrical equipment is in operation. Restrict from the storage areas heat or sparks which may result from improper, defective or overloaded electrical circuits.

**Do not store smokeless powder in the same area with solvents, flammable gases or highly combustible materials. Store only in department of transportation approved containers.**

**Do not transfer** the smokeless powder from an approved container into one which is not approved.

**Do not smoke** in areas where powder is stored or used. Place appropriate "No Smoking" signs in these areas.

**Do not subject the storage cabinets to close confinement.**

**Storage cabinets should be constructed of insulating materials and with a weak wall, seams or joints to provide an easy means of self-venting.**

**Do not keep old or salvaged powders.** Check old powders for deterioration regularly. Destroy deteriorated powders immediately.

**Obey all regulations regarding quantity and methods of storing.** Do not store all your smokeless powders in one place. If you can, maintain separate storage locations. Many small containers are safer than one large container.

**Keep your storage and use area clean.** Clean up spilled powder promptly. Make sure the surrounding area is free of trash or other readily combustible materials

## **11-3 SMOKELESS PROPELLANTS**

**11-3.1** Quantities of smokeless propellants not exceeding 25 lb. (11.3kg), in shipping containers approved by the U.S. Department of Transportation, may be transported in a private vehicle.

**11-3.2** Quantities of smokeless propellants exceeding 25 lb. (11.3kg) but not exceeding 50 lb. (22.7 kg), transported in a private vehicle, shall be transported in a portable magazine having wood walls of at least 1-inc. (25.4-mm) nominal thickness.

**11-3.3** Transportation of more than 50 lb. (22.7 kg) of smokeless propellants in a private vehicle is prohibited.

**11-3.4** Commercial shipments of smokeless propellants in quantities not exceeding 100 lb. (45.4kg) may be reclassified for transportation purposes as flammable solids (Division 4.1) when packaged according to U.S. Department of Transportation Hazardous Materials Regulation (Title 49, Code of Federal Regulations, Part 173.171), and shall be transported accordingly.

**11-3.5** Commercial shipments of smokeless propellants exceeding 100 lb. (45.4 kg) or not packaged in accordance with the regulations cited in 11-3.4 shall be transported according to the U. S. Department of Transportation regulations for Division 1.3C propellant explosives.

**11-3.6** Smokeless propellants shall be stored in shipping containers approved by U.S. Department of Transportation.

**11-3.7** Smokeless propellants intended for personal use in quantities not exceeding 20 lb. (9.1 kg) shall be permitted to be stored in original containers in residences. Quantities exceeding 20 lb. (9.1 kg), but not exceeding 50 lb. (22.7 kg), shall be permitted to be stored in residences where kept in a wooden box or cabinet having walls of at least 1-in. (25.4-mm) nominal thickness.

**11-3.8** Not more than 20 lb. (9.1 kg) of smokeless propellants, in containers of 1 lb. (0.45 kg) maximum capacity, shall be displayed in commercial establishments.

**11-3.9** Commercial stocks of smokeless propellants should be stored as follows:

(a) Quantities exceeding 20 lb. (9.1 kg), but not exceeding 100 lb. (45.4 kg) shall be stored in portable wooden boxes having walls of at least 1 in. (25.4 mm) thickness.

(b) Quantities exceeding 100 lb. (45.4 kg), but not exceeding 800 lb. (363 kg), shall be stored in non-portable storage cabinets having walls of at least 1 in. (25.4 mm) thickness. Not more than 400 lb. (181 kg) shall be permitted to be stored in any one cabinet and cabinets shall be separated by a distance of at least 25 ft (7.63 m) or by a fire partition having a fire resistance of at least 1 hour.

(c) Quantities exceeding 800 lb. (363 kg), but not exceeding 5,000 lb. (2268 kg), shall be permitted to be stored in a building, provided the following requirements are met:

1. The warehouse or storage room shall not be accessible to unauthorized personnel.
2. Smokeless propellant shall be stored in non-portable storage cabinets having wood walls at least 1 in. (25.4 mm) thickness and having shelves with no more than 3 ft (0.92 m) of separation between shelves.
3. No more than 400 lb. (181 kg) shall be stored in any one cabinet.
4. Cabinets shall be located against the walls of the storage room or warehouse with at least 40 ft (12.2 m) between cabinets.

5. The separation between cabinets may be reduced to 20 ft (6.1m) where barricades twice the height of the cabinets are attached to the wall, mid-way between each cabinet. The barricades shall extend at least 10 ft (3m) outward, shall be firmly attached to the wall, and shall be constructed of  $\frac{1}{4}$  in. (6.4-mm) boiler plate, 2 in (51-mm) thick wood, brick, or concrete block.

6. Smokeless propellant shall be separated from materials classified by the US Department of Transportation as flammable liquids, flammable solids, and oxidizing materials by a distance of 25 ft (7.63mm) or by a fire partition having a fire resistance of at least 1 hour.

7. The building shall be protected by an automatic sprinkler system installed in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.

(d) Smokeless propellants not stored according to 11.39 (a), (b) and (c) above shall be stored in a Type 4 magazine constructed and located in accordance with Chapter 6.

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## **▲ DANGER!**

Millions of men and women reload ammunition as a hobby, or because the cost savings allow them to enjoy shooting more often. You should always reload so that the safest and most accurate loads on the shooting line will be yours, and always remember that to become or to continue to be a safe reloader, **you must be careful at all times.** As a reloader, you are dealing with and manufacturing explosive materials; handling powders and primers that can, if misused, explode or burn, causing property damage, serious personal injury--even death! Later, when you shoot the ammunition you've produced and checked, you will be the person closest to the gun, the one most likely to be injured if improperly loaded ammunition causes your gun to malfunction.

**Protect yourself by studying books that describe safe reloading techniques in detail. When using smokeless powders, use only the exact type and quantity described herein. Always store and use your smokeless powders in accordance with the guidelines listed in this booklet.**

## **▲ POWDER WARNINGS!**

- **NEVER** substitute smokeless powder for black powder, or for black powder substitutes.
- **NEVER** mix together any two powders, regardless of type, brand, style, or source.
- **NEVER** use the data in this *Reloaders' Guide* for any other powders, even if advertised "similar to Bullseye" or "burns the same as Red Dot," etc.

**Violation of any of the above could result in severe personal injury (including death) or gun damage.**

## **▲ WARNING! — BE SURE TO:**

- **The powder charge weights listed in our data tables are maximum.** For rifle and pistol loads, the maximum powder charge should be reduced by 10% to establish a minimum or starting powder charge.
- All loads have been tested in our ballistics lab with SAAMI approved, un-vented test barrels. Keep in mind that such test equipment often yields higher velocities than are usually obtained with sporting arms.
- Instructions for proper handling, storage and disposal are given on pages 4-7 (SAAMI instructions).

## **BALLISTICS**

The ballistic data shown in this booklet were obtained in the laboratory under strictly controlled conditions. **You must load only the exact combinations that are listed.** Even then, different reloading techniques, plus industrial tolerances of each component, likely will cause your ammunition, or ammunition loaded by other competent laboratories, to yield slightly different ballistic data. Therefore, **powder charge recommendations in this booklet must never be exceeded.** Safe shooters and hunters know that accuracy, not maximum power, is their key to success.

## **FOR TECHNICAL ASSISTANCE**

For Technical Assistance or for any information not included in this *Reloaders' Guide*, please call 1-800-276-9337.

For our interactive Reloaders' Guide on the Web, click onto [www.alliantpowder.com](http://www.alliantpowder.com). Our e-mail address is: [alliant.reloading@atk.com](mailto:alliant.reloading@atk.com)

## **DISCLAIMER**

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## **▲ DANGER! HANDLOADING PRECAUTIONS & TECHNICAL DATA**

### **Pistol and Revolver Cartridges Special Reloading Precautions**

Most pistols and revolvers function best when loaded with a quick-burning powder such as Bullseye. Since peak pressure is reached very quickly, the seating depth of the bullet is very important: the deeper the bullet, the higher the pressure. If the bullet is seated too deeply, dangerous pressures will be generated, which could burst the gun and cause severe personal injury (including death).

Equally critical is the powder charge. Guard against multiple charges when reloading. Certain cartridges (notably .38 Special) have been reloaded accidentally with double and even triple charges, with catastrophic results when fired in the gun.

#### **A. Prevent deeply seated bullets.**

1. Your assembled cartridges must be as long as, or longer than, the minimum length listed for the combination you are reloading.
2. Set your bullet station accordingly and lock tool securely.
3. Keep bullet station clean of accumulating lead and grease.
4. Inspect all loaded rounds for overall length.
5. Be sure every bullet is held tightly by shell mouth, especially pistol loads (recoil drives magazine against bullet noses of contained cartridges).

#### **B. Prevent multiple charges.**

1. **Handloading:** Keep track of every powder charge, then look inside all shells and compare powder levels.
2. **Progressive reloading:** Be sure every shell is truly empty; don't back up the turret; don't jiggle the handle; don't use a shell to clean out the powder train (use a paper cup or equivalent).

#### **C. Inspection.**

1. Discard cases with split mouths.
2. Discard cases with enlarged primer pockets.
3. Do not use cases that are designed for primer-propelled practice cartridges; such cases may not be designed for full power loads.

## Physical Effect of Gun Recoil (Kick)

The rearward motion of every gun, its recoil, increases when heavier shot or heavier bullets are fired, and when higher velocity loads are fired. This motion must be opposed by the shoulder, or the pistol hand, of the shooter. Whenever the recoil is perceptibly annoying to the shooter, accuracy on succeeding firings undoubtedly diminishes.

When the shooting condition demands heavy loads and high velocity, recoil kick can be reduced by using a heavier gun, and by spreading the force over a larger area of the anatomy, such as by using a wider stock, larger grip, plus shoulder pad or softer grip.

Excellent publications available to the reloader, plus his or her own growing sophistication, have generated a wholesome trend away from maximum loads and toward accuracy of loads no more powerful than needed for the intended purpose. Reducing recoil increases accuracy.

Contributing to increased accuracy as well as the pleasantness of shooting is in two main areas:

1. This *Reloaders' Guide* includes many reduced loads.
2. Our research indicates that the burning rate of powders has a modest effect on recoil. For example, whenever two or more powders are listed for the same load, the slower one usually is chosen by the expert shooter as giving milder felt recoil. An intriguing aspect of reloading at home is the freedom to assemble, for example, trap loads with Red Dot or Green Dot powder, then to shoot them alternately to decide which seems more comfortable.

## **⚠ DANGER! Handloading Precautions**

1. **Understand what you are doing and why.** Read handbooks and manuals on reloading. Talk to experienced reloaders. Write or call suppliers of components if you have questions or are in doubt.
2. **Stay alert when reloading. Do not reload when distracted.**
3. Establish a loading procedure and follow it. **Do not vary your sequence of operations.**
4. **Examine empty cases** (shotshell or metallic) to be sure they are in good condition before reloading. Never force live cartridges into or out of the chamber of a gun.
5. **Do not use cases that are designed for primer-propelled practice cartridges;** such cases may not be designed for full power loads.
6. **Do not ream out or enlarge flash holes of metallic cartridge cases.** This may change the ignition rate and result in dangerous pressures.
7. **Do not punch out live primers.** Fire the empty primed shells in a gun.
8. **Do not mix primers.** Primers differ in brisance of ignition, which affects pressure and velocity. Use only the primer listed.
9. **The shotshell loading data in the *Reloaders' Guide* are for LEAD SHOT only. Use steel shot only as specified in the steel shot data section (pgs. 18-20).**
10. One-piece plastic wads for shotshells vary in compressibility and gas-sealing effectiveness. Use only the wad listed.
11. If you "throw," or measure powder charges by volume, check-weigh the charge frequently. Do not mix powders.
12. **Do not use powders near a flame, spark-producing machinery, or heating device.** Do not expose powders to temperatures above 100°F.
13. Keep out of reach of children.
14. **Do not smoke while reloading.**

## Smokeless Powders for Reloading

We currently offer 31 powders for use in reloading. These are listed in the order of decreasing burning rates. Each powder listed is "slower" than those preceding it and "faster" than those following it. Among these Alliant smokeless powders, for example, Red Dot® burns more slowly than Bullseye®, but faster than Green Dot®.

Powder	Principal Use <sup>1</sup>	Can Also be Used In <sup>1</sup>
Bullseye®	Handgun Loads	.45 ACP Target
Extra-Lite™	7/8 ounce 12-Gauge Target Loads	1 ounce 12-Gauge Target Loads
e3®	12-Gauge Target Loads	Light Target Loads
Red Dot®	Light and Standard Shotshell Loads, 12-Gauge	Handgun Loads
Promo®	Light and Standard Shotshell Loads, 12-Gauge	Handgun Loads
Clay Dot®	12-Gauge Target Loads	Light Target Loads
American Select®	12-Gauge Target Loads	Handgun Loads
Green Dot®	Standard and Medium Shotshell Loads, 12- and 16-Gauge	Handgun Loads
20/28®	28-Gauge Target Loads	20-Gauge Target Loads
Unique®	All-Around Shotshell Powder, 12-, 16-, 20-, and 28-Gauge High performance pistol loads such as the 9mm, .40 S&W, and 10mm	Handgun Loads Moderate pressure pistol cartridges like the .38 Special, .380 Auto, and .45 ACP
Power Pistol®		
Herco®	Heavy Shotshell Loads, 10-, 12-, 16-, 20-, and 28-Gauge	Heavy Handgun Loads
Blue Dot®	Magnum Shotshell Loads, 10-, 12-, 16-, 20-, and 28-Gauge	Magnum Handgun Loads
Pro Reach®	Long Range Target	Hunting Loads
Steel®	Steel Shotshell, 10- and 12-Gauge	Magnum, Shotshell and Turkey Loads
410®	410 Bore Target Loads	
2400®	Magnum Handgun Loads	Some Rifle and Shotshell Loads
Power Pro® 300-MP	Magnum Handgun Loads	
Reloder® 7	Light Rifle Loads	Silhouette Loads
Reloder 10X®	Light Varmint/Light Bullet Loads	Bench rest calibers; Light Bullet 308
Power Pro® Varmint	Standard Varmint	Medium Rifle Loads
Power Pro® 2000-MR	Heavy 308	
AR-Comp™	Heavy 223 and 308 Match	
Reloder® 15	Medium Rifle Loads	Silhouette Loads
Reloder® 17	Short Magnum Loads	Medium Rifle Loads
Reloder® 19	Large Rifle Loads	Target and hunting rifle loads
Reloder® 22	Magnum Rifle Loads	Maximum hunting loads
Power Pro® 4000-MR	Heavy 308	
Reloder® 25	Large Magnum Rifle Loads	Maximum hunting loads
Reloder® 50	50-caliber Target	

<sup>1</sup>Use only in the loads printed in this Guide.

## Black Powder Substitute

Powder	Principal Use	Can Also be Used In
Black MZ™	Muzzleloaders	Black powder cartridges

## Packaging

Powder	1-lb Canister	4-lb Canister	5-lb Canister	8-lb Keg
Bullseye, Red Dot, American Select, Green Dot, Unique, Herco, 2400, e3, 410, 20/28	X	X		X
Power Pistol	X	X		
Pro Reach, Extra-Lite	X			X
Power Pro Series , AR-Comp	X			X
Blue Dot	X			X
Reloder Series	X		X	
Steel	X	X		
Promo, Clay Dot				
Black MZ	X			

All 31 powders are always in stock at distributors' magazines throughout the U.S.A., and in most countries where reloading is legally permitted and popular. Any reloader unable to purchase these powders at retail stores that handle powders should write to the address on the back cover. We cannot ship directly, but we will endeavor to correct supply shortages in your area.

## Powder Information

Smokeless sporting propellants are of two basic types – single-base and double-base. Single-base propellants derive their energy from nitrocellulose and double-base from a combination of nitrocellulose and nitroglycerin. Alliant propellants range from the “near” single-base American Select (2% nitroglycerin) to the high nitroglycerin (40%) double-base Bullseye. In addition, our propellants contain stabilizers for long storage life and various other ballistic modifiers which reduce flash, improve combustion efficiency, and promote clean burning.

Some of our propellants also have a chemical coating on the surface to control the burning rate. This creates a progressive burn for achieving higher velocities at lower pressures. All of our propellants have a graphite glaze, which ensures smooth, consistent metering of charges through volumetric reloaders.

Alliant propellants are extruded and cut into circular flakes or cylinders by precision dies and cutting equipment. Granule size tolerances are very tight and uniform to prevent separation of different size granules and to ensure consistent ballistic performance, load after load.

By utilizing a precise combination of chemical formulation, granule size, and chemical coatings, we are able to tailor the burning characteristics of our propellants to achieve the best overall performance in a wide range of loads.

Because each of our propellants is specifically engineered to have different burn rates and performance characteristics, **NEVER BLEND OR MIX DIFFERENT POWDERS, AND USE ONLY THE POWDER AND QUANTITY RECOMMENDED IN THIS RELOADER'S GUIDE.**

All powders burn with great precision and rapidity inside the gun chamber, generating the hot, high-pressure gas that accelerates the bullet (or shot) and drives it toward the target. **It is critically important for safety that the powder used is matched to the bullet (or shot) weight and other factors; otherwise, the gun parts may be deformed or may even burst and cause serious personal injury (including death).** Shot-to-shot accuracy can also be degraded by deviations from recommended loads. Even after 80 years of producing and testing powders, ballisticians are unable to calculate and predict **exact** ballistic results; we must test-fire our powders with each set of components and record the results. Therefore, **the ballistic values and recommended combinations listed in this booklet must be followed without deviation.**

**Working up charges.** For shotgun loads, use the charge weight shown. However, for all rifle and pistol loads, first load and fire a few cartridges at the starting charge weight, watching for any sign of excessive pressure (difficult extraction, flattened or blown primers, unusual recoil).

**Handgun loads.** Many pistol and revolver loads require only small amounts of fast-burning powders; therefore: (1) guard against accidental double charges, and even multiple charges, whether loading with handtools or with progressive loading devices; (2) be sure that each bullet is positioned in the case so that the minimum overall length is not violated.

## Dram Equivalent

Prior to the commercialization of smokeless powder, shotgun shells were loaded with black powder. The weight measurement system used for black powder was “drams.” Compared with black powder, **smokeless powder is more dense and much more energetic, so it cannot safely be measured and used like black powder.** Indeed, a different weight system was selected for smokeless powder: “grains,” wherein 7,000 grains equal one pound.

Since many shooters still wanted to be able to compare their smokeless powder loads with the original black powder loads, the term “dram equivalent” evolved. Simply stated, the dram equivalent is an indicator of the velocity of a particular shot load. **But note that the charge and weight of smokeless powder must not be calculated from the dram equivalent.**

## Notice

We have inserted information on the properties and storage of smokeless powder for your understanding, so that you can avoid unnecessary risks when using it. This information, on pages 4-7, was published initially by the Sporting Arms and Ammunition Manufacturers' Institute, Inc., several years ago in the interest of safety. You must read these pages carefully and comply with the precautions listed. If you have questions, please call or write to us at the address on the back cover.

## Important Safety and Health Precautions

**⚠ DANGER! SMOKELESS GUNPOWDER - EXTREMELY FLAMMABLE KEEP AWAY FROM SPARKS OR HEAT SOURCE FAILURE TO FOLLOW THESE WARNINGS COULD RESULT IN INJURY OR DEATH.**

1. **DO NOT** smoke when reloading.
2. **DO NOT** use spark-producing tools.
3. **DO NOT** mix powders of different kinds.
4. **DO NOT** leave powder where children can get it.
5. **DO NOT** try to load when distracted.
6. **AVOID AN OPEN FIRE OR WORKING NEAR SPARK-PRODUCING MACHINERY OR ANY HEAT SOURCE.**
7. Pour out only the amount of powder needed for immediate work.
8. Check the powder measure each time it is used. Make sure the settings have not been accidentally changed. Check-weigh “thrown charges” frequently.
9. Clean up any spilled powders. Use a brush and dustpan; do not use a vacuum cleaner. Dispose of spilled powder as described in the SAAMI pages of this Guide.
10. Store powder only in its original container, which was carefully designed for this usage. **DO NOT REPACKAGE.** Do not purchase or accept any Alliant powder not in its original, FACTORY-SEALED container.
11. Be sure the powder container is completely empty before discarding. Do not use the container to store other powders or materials, or for any other purpose.
12. Always keep in mind that **SMOKELESS POWDER IS AN EXPLOSIVE MATERIAL AND HIGHLY FLAMMABLE.** It should always be stored and handled in such a way as to avoid impact, friction, heat, sparks, or flame.
13. Wear safety glasses when reloading.
14. **⚠ DANGER! THIS MATERIAL CONTAINS NITROGLYCERIN.** Inhalation, skin contact, or ingestion may cause severe headache, nausea, and lowering of blood pressure. **THEREFORE, THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN HANDLING POWDERS:**
  - A. Do not take internally. In case of ingestion, cause vomiting. Call a physician.
  - B. Avoid contamination of food, beverages, or smoking materials.
  - C. Avoid breathing dust. Ensure adequate ventilation during handling.
  - D. Wash thoroughly after handling and before eating, drinking, or smoking.
  - E. Do not carry powder in clothing.

You must also always remember:

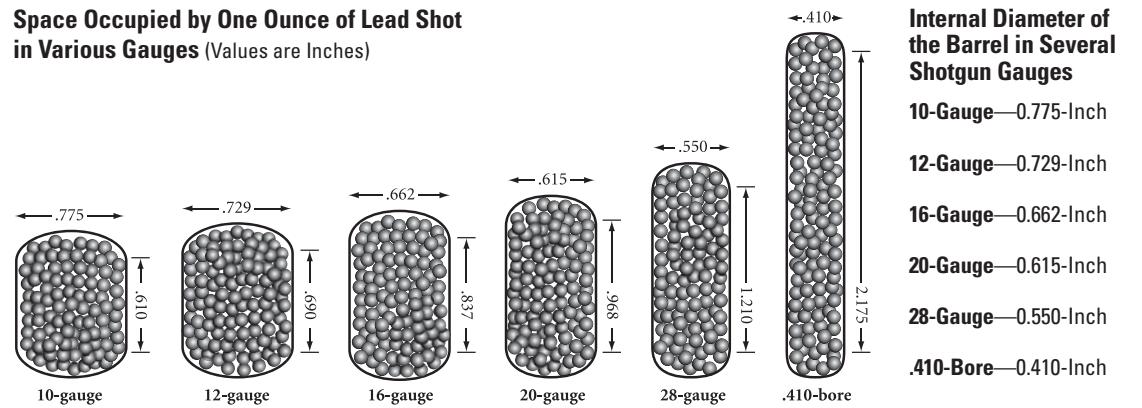
1. Establish a routine for reloading. It will result in more uniform loads and less chance of error.
2. Some primers are more powerful than others (they produce more gas at a higher temperature). **Use only the primers specified herein.**
3. Shotshell wads differ in their sealing ability. **Use only the load combinations specified herein.**
4. If you use cast bullets, their diameter, hardness, lubrication, and crimp will affect the ballistics.
5. **The shotshell loads in this booklet are for use with LEAD SHOT ONLY! For steel shot see special steel section, pages 18-20.**
6. **Use only the brands of powder and components shown in our tables. Do not substitute other types.**
7. Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead, a substance known to cause birth defects, reproductive harm, and other serious physical injury. **Have adequate ventilation at all times. Wash hands and face thoroughly after handling and before coming in contact with food, chewing materials, and smoking material.**

## Reference Tables

Approximate Number of Pellets in Specific Weights of Lead Shot (Sizes 2 Through 9)

Weight, oz	No. 2	No. 4	No. 5	No. 6	No. 7 1/2	No. 8	No. 8 1/2	No. 9
1/2	45	67	85	112	175	205	242	292
3/4	67	101	127	168	262	308	363	439
7/8	79	118	149	197	306	359	425	512
1	90	135	170	225	350	410	485	585
1 1/8	101	152	191	253	393	461	545	658
1 1/4	112	169	213	281	437	513	605	731
1 3/8	124	186	234	309	481	564	665	804
1 1/2	135	202	255	337	525	615	730	877

Space Occupied by One Ounce of Lead Shot in Various Gauges (Values are Inches)



Number of Shells That Can Be Loaded with One Pound of Powder at Various Grains Per Load

(The term grain is a measure of weight: 7,000 grains equal one pound)

Grains/Load	Loads/Pound										
12	583	23	304	34	205	45	156	56	125	67	104
13	538	24	291	35	200	46	152	57	123	68	103
14	500	25	280	36	194	47	149	58	121	69	101
15	466	26	269	37	189	48	146	59	119	70	100
16	437	27	259	38	184	49	143	60	117	71	99
17	411	28	250	39	179	50	140	61	115	72	97
18	388	29	241	40	175	51	137	62	113	73	96
19	368	30	233	41	170	52	135	63	111	74	95
20	350	31	225	42	166	53	132	64	109	75	93
21	333	32	218	43	162	54	130	65	108	76	92
22	318	33	212	44	159	55	127	66	106	77	91

Typical Percentage of Pellets in a 30-Inch Circle at 40 Yards (Pattern) for Various Choke Sizes

(Choke is a Constriction at the Muzzle of a Shotgun Barrel)

Full Choke—70%

Improved Modified Choke—65 to 70%

Modified Choke—55%

Improved Cylinder—50%

True Cylinder—40%

## Ballistic Data

The velocity and pressure obtained with the specific combinations of shell, wad, primer, bullet or shot weight, powder, and powder weight provided in this booklet were obtained in a laboratory, where considerable effort is made to control the load and test conditions. Velocity was measured with a chronograph (electric stopwatch). Pressure was measured either by compressing copper cylinders (C.U.P.), or electronically, by use of a piezoelectric transducer (P.S.I.).

**Guns are designed to take a considerable amount of internal pressure, but if this is exceeded, they burst violently. Be alert to signs of excess pressure, such as heavy recoil, flattened primers, or blown primers. Don't make changes in the suggested loads.**

Tone variations (shaded areas) used in the reloading tables are for ease of reading and do not represent preferred loads.

**The quantity of powder to use is listed in grains, which are a measure of weight, under each powder column.**

Every reloader needs a good-quality scale for weighing each powder charge, or for checking the weight of powder thrown by volumetric loaders.

### Special Notes Regarding Components Other Than Powder

**A. Shotgun Shells.** Manufacturers may sell ammunition under different brand names that are identical for reloading purposes. Following are popular variations. When in doubt, consult the ammunition producer.

- **Federal Game Load Plastic** same as **Duck, Pheasant, Field, Dove and Top Gun®**.
- **Federal Premium (Integral Base Wad)**
- **Remington-Peters**. Same as Mohawk brand shells.
- **Remington-STS Type**. Same as Premier, Nitro 27, GunClub, and Game Loads
- **Winchester AA-Type**. Old and new style hulls are interchangeable.
- **Winchester Polyformed Type (Reifenhauser Tube)** same as **Duck and Pheasant, Dove and Squirrel**.

### B. Primers

- **CCI 109** and **CCI 209** are ballistically identical and can be interchanged.
- **CCI 209M (Magnum)** is "hotter" and cannot be substituted for CCI 109 or 209. Use 209M only as listed.
- **Rem. 209** is "hotter" and cannot be substituted for Rem. 97 or Rem. 209P primer.
- **Rem. 209P** is interchangeable with Rem. 97 primer.
- **Federal 209A** is "hotter" and cannot be substituted for Federal 209.

**C. Wads.** Card wads and fiber wads are used for certain slug and buckshot loads and a few light shotshell loads. Do not interchange wads.

**D. Shot. Use only clean lead shot. DO NOT USE STEEL SHOT IN SHOTSHELL LOADS EXCEPT AS LISTED IN STEEL™ SECTION.**

**E. Shot Buffers.** Do not add any buffers or fillers of any kind to shotshell loads listed in this Guide.

**F. Cards and Fillers.** For revolver, pistol, and rifle cartridge reloading, do not add any cards, kapok, or fillers of any kind to loads listed in this Guide.

### ⚠ WARNING! BLACK POWDER

BLACK POWDER IS ENTIRELY DIFFERENT FROM SMOKELESS POWDER. NEVER SUBSTITUTE ONE FOR THE OTHER. SMOKELESS POWDERS HAVE MUCH MORE ENERGY THAN BLACK POWDER. NEVER ATTEMPT TO USE SMOKELESS POWDER IN BLACK POWDER GUNS OR SALUTING CANNON; THEY MAY BLOW UP AND CAUSE SERIOUS PERSONAL INJURY (INCLUDING DEATH).

# **POWDER BUSHING CHARTS**

A reloading scale is **required** to check the nominal weight of a powder charge.

Powder bushings can vary in the charge weight they drop and could vary as much as several grains under certain conditions.

Powder density, moisture content, and loading technique can cause a variation from the bushing weights listed on the charts. Also, the loading machine vibration affects charge weights. A complete loading cycle should be completed to assure an average powder charge weight.

The information in these tables has been supplied by the reloading machine manufacturers or Alliant Powder and ***is not a reloading recommendation.***

Lee Load-All Capacity Bushing Chart (Units shown in grains)																
Bushing #	.095	.100	.105	.110	.116	.122	.128	.134	.141	.148	.155	.163	.171	.180	.189	.198
<b>Red Dot</b>	11.0	11.6	12.2	12.8	13.5	14.2	14.8	15.5	16.4	17.2	18.0	18.9	19.8	20.9	21.9	23.0
<b>Amer. Select</b>	11.6	12.2	12.8	13.4	14.2	14.9	15.6	16.4	17.2	18.1	18.9	19.9	20.9	22.0	23.1	24.2
<b>Green Dot</b>	12.3	13.0	13.6	14.3	15.1	15.8	16.6	17.4	18.3	19.2	20.1	21.2	22.2	23.4	24.5	25.7
<b>Blue Dot</b>	18.0	19.0	19.9	20.8	22.0	23.1	24.3	25.4	26.7	28.0	29.4	30.9	32.4	34.1	35.8	37.5
<b>Unique</b>	14.3	15.0	15.8	16.5	17.4	18.3	19.2	20.1	21.2	22.2	23.3	24.5	25.7	27.0	28.4	29.7
<b>Herco</b>	13.9	14.6	15.3	16.1	16.9	17.8	18.7	19.6	20.6	21.6	22.6	23.8	25.0	26.3	27.6	28.9
<b>2400</b>	21.0	22.1	23.2	24.3	25.6	27.0	28.3	29.6	31.2	32.7	34.3	36.0	37.8	39.8	41.8	43.8

Note: Only available with Lee Load-Fast.

Hornady Powder Bushing Chart for 366 Auto and Apex 91 continued (Units shown in grains)																	
Grains	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Green Dot	549	558															
Unique	501	—	510														
Herco	513	552	531	—	549	558	564	573	—	588	594						
Blue Dot	447	459	468	474	483	489	495	501	510	516	522	531	534	543	549	555	561

Ponsness/Warren Powder Bushing Chart (Units shown in grains)																	
Bushing #	1A	2A	3A	A	B	C	C1	D	D1	E	E1	E2	F	F1	F2	G	G1
Bullseye										16.2	16.8	17.7	18.7	19.4			
Red Dot											11.6	12.2	12.9	13.4	13.7	14.5	14.7
Amer. Select																	16.4
Green Dot											11.7	12.3	13.1	13.6	13.8	14.7	14.9
Unique										12.6	14.2	14.8	15.6	16.5	17.2	17.5	18.7
Herco										12.3	13.8	14.4	15.1	16.0	16.6	16.9	18.0
Blue Dot										16.4	18.4	19.2	20.1	21.3	22.2	22.6	23.9
2400	12.3	13.2	15.2	16.1	16.8	17.6	18.3	19.0	21.3	22.2	23.3	24.7	25.7	26.1	27.7	28.2	

Ponsness/Warren Powder Bushing Chart continued (Units shown in grains)																					
Bushing #	H	I	J	J1	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
Red Dot	15.7	16.5	16.8	17.3	17.6	18.5	19.4	20.7	20.9	21.3	21.9	22.9									
Amer. Select	17.5	18.2	18.8	19.4	19.9	20.6	22.0														
Green Dot	15.9	16.7	17.0	17.5	17.9	18.8	19.6	21.1	21.3	21.8	22.3	23.2	23.6	25.3	26.5						
Unique	20.2	21.2	21.7	22.3	22.7	24.0	25.0	26.8	27.1	27.6											
Herco	19.5	20.5	20.9	21.5	21.9	23.0	24.0	25.7	26.0	26.5	27.1	28.1	28.8	30.7	32.1	33.1	34.9	35.4	37.2		
Blue Dot	25.9	27.2	27.7	28.5	29.1	30.6	31.9	34.2	34.5	35.2	36.0	37.5	38.1	40.7	42.5	43.8	46.5	47.2	49.5	55.7	
2400	30.0	31.5	32.2	33.1	33.7	35.5	37.1	39.8	40.2	41.1	42.0	43.8	44.5	47.5	49.8						

MEC Powder Bushing Chart (Units Shown In Grains)																								
Bushing #	9	10	11	12	12a	13	13a	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>Clay Dot</b>																						15.4	16.0	16.
<b>Red Dot</b>	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.2	9.6	10.1	10.6	11.1	11.6	12.1	12.6	13.1	13.7	14.2	14.9	15.7	16.4	17.1	17.	
<b>e3</b>	6.6	7.0	7.2	7.5	8.0	8.3	8.9	9.2	9.9	10.5	11.0	11.7	12.3	12.8	13.4	13.8	14.2	14.8	15.3	15.9	16.4	16.9	17.	
<b>Amer. Select</b>	6.9	7.3	7.7	8.2	8.6	9.1	9.6	10.1	10.6	11.1	11.7	12.2	12.8	13.3	13.9	14.5	15.1	15.7	16.4	17.0	17.7	18.3	19.	
<b>Green Dot</b>	6.7	7.2	7.6	8.0	8.4	8.9	9.3	9.8	10.3	10.8	11.3	11.8	12.4	12.9	13.5	14.0	14.6	15.2	15.8	16.4	17.0	17.7	18.	
<b>20/28</b>						11.3	11.9	12.5	13.0	13.8	14.5	15.1	15.7	16.3	17.1	18.0	18.8							
<b>Unique</b>	7.5	7.9	8.4	8.9	9.4	9.9	10.4	10.9	11.4	12.0	12.6	13.1	13.7	14.5	15.1	15.8	16.4	17.1	17.7	18.4	19.1	19.8	20.	
<b>Herco</b>	7.9	8.3	8.8	9.3	9.8	10.4	10.9	11.4	12.0	12.6	13.2	13.8	14.4	15.0	15.7	16.3	17.0	17.7	18.4	19.1	19.8	20.6	21.	
<b>Blue Dot</b>	10.8	11.3	11.9	12.5	13.1	13.7	14.4	15.0	15.7	16.3	17.0	17.7	18.4	19.2	20.1	21.0	21.9	22.8	23.7	24.6	25.5	26.4	27.	
<b>2400</b>	11.8	12.5	13.3	14.0	14.8	15.6	16.4	17.2	18.1	18.9	19.8	20.7	21.7	22.6	23.6	24.6	25.6	26.6	27.7	28.8	29.9	31	32.	
<b>410</b>	11.1	11.7	12.1	13.0	13.6	14.5	15.1	15.7	16.6	17.4	18.4	19.2	20.2	21.1	22.1	23.1	24.4	25.6	26.1	26.9	28.0	29.5	30.3	

# SHOTSHELL RELOADING DATA

## NON-TOXIC SHOTSHELL RELOADING

**WARNING!** Reloading steel shotshells requires strict adherence to Alliant published reloading specifications. The reloading specifications provided in this publication were derived through the use of controlled laboratory conditions. While reloading steel shotshells, the reloader must adhere precisely to all the components without exception, set forth in the load data and specifications. Alliant recommends that both powder charge and shot charge be individually weighed to insure compliance to load data. Steel shotshells should only be used in well maintained firearms that are designed to shoot steel shot loads. Alliant recommends that the commercially available shotshell sealant be applied to both the primer and crimp areas to prevent moisture penetration.

### REGARDING THE USE OF FILLERS/SPACERS:

Spacer or filler wads serve the purpose of raising the shot column to a level that will allow for the forming of a good crimp. If a filler is required for a particular load, the thickness and location of that filler will be indicated in the "spacer" column. As an example, it might be described in the following manner: 1/8 U, 1/8 O, which means that the two 1/8 inch thick spacers are required; one should be placed in the bottom of the wad cup directly under the shot, and a second one over the shot. Spacers can be stacked if necessary, and the number needed may vary depending on the size of the shot being used. If your crimp dishes in a bit, or bulges, you can add or reduce the number of spacers to improve the crimp. Only slight adjustments, if any, will be necessary for this reason. We do not recommend the use of shot buffer in any of our loads.

NON-TOXIC SHOTSHELL RELOADING DATA							
STEEL POWDER FOR RELOADING STEEL SHOT ONLY 10-GAUGE 3 1/2 INCH SHELLS							
Shell Type	Wad	Primer	Shot	Velocity	Pressure	Powder	Spacers
			(oz)	(fps)	(psi)	(grains)	
Rem. (yellow base wad)	Precision Reloading TUPRW105	Fed. 209A	1 1/4	1590	9800	50.0	1/2 U
Rem. (yellow base wad)	Ballistics Products #3221000	Fed. 209A	1 5/8	1310	10100	37.0	none
Rem. Plastic SP	Precision Reloading TUPRW105	Fed. 209A	1 3/8	1475	10000	43.5	3/8 U
Rem. Plastic SP	Ballistics Products #3221000	Fed. 209A	1 3/8	1535	10100	46.0	3/8 U
Rem. Plastic SP	Rel Spec "SAM 1 10-ga 3 1/2"	Fed. 209A	1 3/8	1555	10300	48.0	1/4 U
Rem. Plastic SP	Precision Reloading TUPRW105	Fed. 209A	1 1/2	1345	10300	37.5	1/4 U
Rem. Plastic SP	Ballistics Products #3221000	Fed. 209A	1 1/2	1385	10100	39.0	1/4 U
Rem. Plastic SP	Rel Spec "SAM 1 10-ga 3 1/2"	Fed. 209A	1 1/2	1470	10100	45.0	1/8 U
Win. Polyformed	Rel Spec "SAM 1 10-ga 3 1/2"	Fed. 209A	1 3/8	1538	10200	45.5	1/4 U
Win. Polyformed	Rel Spec "SAM 1 10-ga 3 1/2"	Fed. 209A	1 1/2	1415	9900	41.0	1/8 U
STEEL POWDER FOR RELOADING STEEL SHOT ONLY 12-GAUGE 2 3/4 INCH SHELLS							
Shell Type	Wad	Primer	Shot	Velocity	Pressure	Powder	Spacers
			(oz)	(fps)	(psi)	(grains)	
Fed. Gold Medal	Rel Spec "SAM 1 12-ga 2 3/4"	Fed. 209A	7/8	1700	7800	42.0	1/8 U
Fed. Gold Medal	Ballistic Products #3221275	Fed. 209A	7/8	1765	9000	45.0	none
Fed. Gold Medal	Ballistic Products #3221275	Fed. 209A	1	1480	9500	33.0	1/8 U
Fed. Gold Medal	Precision Reloading TUPRW12	Fed. 209A	1	1500	8000	37.0	1/8 U
Fed. Gold Medal	Rel Spec "SAM 1 12-ga 2 3/4"	Fed. 209A	1	1520	9200	36.0	none
Fed. Gold Medal	Rel Spec "SAM 1 12-ga 2 3/4"	Fed. 209A	1 1/8	1380	9000	32.0	none
Fed. Gold Medal	Precision Reloading TUPRW12	Fed. 209A	1 1/8	1425	9600	32.0	none
Rem. Nitro Mag	Precision Reloading TUPRW12	Fed. 209A	1	1520	10800	35.5	none
Rem. Nitro Mag	Rel Spec "SAM 1 12-ga 2 3/4"	Fed. 209A	1	1546	10300	35.5	none
Rem. Nitro Mag	Precision Reloading TUPRW12	Fed. 209A	1 1/8	1361	10400	29.5	none

STEEL POWDER FOR RELOADING STEEL SHOT ONLY 12-GAUGE 3 INCH SHELLS							
Shell Type	Wad	Primer	Shot	Velocity	Pressure	Powder	Spacers
			(oz)	(fps)	(psi)	(grains)	
Rem. Nitro Mag	Rel Spec "SAM 1 12-ga 2 3/4"	Fed. 209A	1 1/8	1428	10400	32.5	none
Fed. 0.090 Intergral BW	Precision Reloading TUPRW123	Fed. 209A	1	1660	9400	44.0	1/4 U
Fed. 0.090 Intergral BW	Ballistic Products #3221230	Fed. 209A	1	1690	10500	45.0	3/8 U
Fed. 0.090 Intergral BW	Reloading Specialties 12-ga 3"	Fed. 209A	1	1720	8900	47.0	3/8 U
Fed. 0.090 Intergral BW	Ballistic Products #3221230	Fed. 209A	1 1/8	1510	10400	37.0	1/4 U
Fed. 0.090 Intergral BW	Precision Reloading TUPRW123	Fed. 209A	1 1/8	1515	10900	38.0	1/4 U
Fed. 0.090 Intergral BW	Reloading Specialties 12-ga 3"	Fed. 209A	1 1/8	1580	10700	40.5	1/8 U
Fed. 0.090 Intergral BW	Precision Reloading TUPRW123	Fed. 209A	1 1/4	1355	10500	33.0	1/8 U
Fed. 0.090 Intergral BW	Ballistic Products #3221230	Fed. 209A	1 1/4	1370	10500	33.0	1/8 U
Fed. 0.090 Intergral BW	Reloading Specialties 12-ga 3"	Fed. 209A	1 1/4	1435	10800	37.0	1/8 U
Fed. Game Load 7/16 BW	Ballistic Products #3221230	Fed. 209A	1	1665	8900	45.0	1/4 U
Fed. Game Load 7/16 BW	Reloading Specialties 12-ga 3"	Fed. 209A	1	1700	8200	48.0	1/4 U
Fed. Game Load 7/16 BW	Ballistic Products #3221230	Fed. 209A	1 1/8	1550	10600	39.5	1/4 U
Fed. Game Load 7/16 BW	Reloading Specialties 12-ga 3"	Fed. 209A	1 1/8	1560	10500	40.5	1/8 U
Fed. Game Load 7/16 BW	Ballistic Products #3221230	Fed. 209A	1 1/4	1390	10900	33.0	1/4 U
Fed. Game Load 7/16 BW	Reloading Specialties 12-ga 3"	Fed. 209A	1 1/4	1430	10500	36.0	none
Rem. Nitro Steel	Ballistic Products #3221230	Fed. 209A	1 1/8	1440	10800	33.5	1/4 U
Rem. Nitro Steel	Precision Reloading TUPRW123	Fed. 209A	1 1/8	1457	10700	35.0	1/4 U
Rem. Nitro Steel	Reloading Specialties 12-ga 3"	Fed. 209A	1 1/8	1479	10600	33.0	1/4 U
Rem. Nitro Steel	Precision Reloading TUPRW123	Fed. 209A	1 1/4	1392	10700	32.0	1/8 U
STEEL POWDER FOR RELOADING STEEL SHOT ONLY 12-GAUGE 3 1/2 INCH SHELLS							
Shell Type	Wad	Primer	Shot	Velocity	Pressure	Powder	Spacers
			(oz)	(fps)	(psi)	(grains)	
Fed. Intergral BW	Reloading Specialties "Sam 1"	Fed. 209A	1 1/4	1510	10400	45.0	3/8 U
Fed. Intergral BW	Ballistic Products mm 12312	Fed. 209A	1 1/4	1560	10900	45.0	1/8 U
Fed. Intergral BW	Precision Reloading TUPRW1235	Fed. 209A	1 1/4	1565	10700	45.0	1/2 U
Fed. Intergral BW	Precision Reloading TUPRW1235	Fed. 209A	1 3/8	1470	12500	40.0	3/8 U
Fed. Intergral BW	Ballistic Products mm 12312	Fed. 209A	1 3/8	1485	12600	41.5	3/8 U
Fed. Intergral BW	Precision Reloading TUPRW1235	Fed. 209A	1 1/2	1360	12600	36.0	3/8 U
Fed. Intergral BW	Ballistic Products mm 12312	Fed. 209A	1 1/2	1385	12800	37.0	1/4 U
Fed. Intergral BW	Reloading Specialties "Sam 1"	Fed. 209A	1 1/2	1390	13300	39.0	1/4 U
Rem. Plastic SP	Reloading Specialties "Sam 1"	Fed. 209A	1 1/4	1595	13100	45.0	3/8 U
Rem. Plastic SP	Ballistic Products mm 12312	Fed. 209A	1 1/4	1615	13300	45.0	3/8 U
Rem. Plastic SP	Ballistic Products mm 12312	Fed. 209A	1 3/8	1430	12800	37.0	1/4 U
Rem. Plastic SP	Reloading Specialties "Sam 1"	Fed. 209A	1 3/8	1430	12800	38.5	3/8 U
Rem. Plastic SP	Ballistic Products mm 12312	Fed. 209A	1 1/2	1305	13000	33.0	1/4 U
Rem. Plastic SP	Reloading Specialties "Sam 1"	Fed. 209A	1 1/2	1330	13000	35.0	1/4 U

BLUE DOT POWDER FOR RELOADING BISMUTH SHOT ONLY 12-GAUGE 2 3/4 INCH SHELLS							
Shell Type	Wad	Primer	Shot	Velocity	Pressure	Powder	Spacers
			(oz)	(fps)	(psi)	(grains)	
Rem. Premier STS	CB 1138-12	Fed. 209A	1 1/4	1421	10100	39.5	none
BLUE DOT POWDER FOR RELOADING BISMUTH SHOT ONLY 12-GAUGE 3 INCH SHELLS							
Fed. 0.090 Intergral BW	Rem. SP 12	Fed. 209A	1 3/8	1507	10700	46.0	1/8 0
Fed. 0.090 Intergral BW	Fed. 12S4	Fed. 209A	1 1/2	1310	10100	38.0	none
Fed. 0.090 Intergral BW	Rem. RP 12	Fed. 209A	1 1/2	1359	10800	40.0	1/4 0
Fed. 7/16 Paper BW	Rem. SP 12	Fed. 209A	1 3/8	1464	10700	43.5	1/4 0
Fed. 7/16 Paper BW	Rem. RP 12	Fed. 209A	1 1/2	1347	10400	39.0	1/8 0
Rem. SPELV Yellow BW	Rem. RP 12	Fed. 209A	1 3/8	1473	10700	44.0	1/8 0
Rem. SPELV Yellow BW	Rem. SP 12	Fed. 209A	1 3/8	1564	10700	50.0	none
Rem. SPELV Yellow BW	Rem. RP 12	Fed. 209A	1 1/2	1441	10700	45.0	none
STEEL POWDER FOR RELOADING HEVI SHOT SHOT ONLY 12-GAUGE 2 3/4 INCH SHELLS							
Fed. 7/16 Paper BW	Prec Rel TUPRWIZ (white)	Fed. 209A	1 3/8	1320	10600	33.5	1/8 0, 1/4 U
Rem. SPELV Yellow BW	Prec Rel TUPRWIZ (white)	Fed. 209A	1 1/4	1367	10900	32.2	1/4 0, 1/4 U
Rem. SPELV Yellow BW	Prec Rel TUPRWIZ (white)	Fed. 209A	1 3/8	1291	10400	31.3	1/8 0, 1/4 U
STEEL POWDER FOR RELOADING HEVI SHOT SHOT ONLY 12-GAUGE 3 INCH SHELLS							
Fed. 0.090 Intergral BW	Prec Rel TUPR23 (Orange)	Fed. 209A	1 3/8	1372	10300	40.0	3/8 U
Fed. 0.090 Intergral BW	Prec Rel TUPR23 (Orange)	Fed. 209A	1 1/2	1294	10900	34.0	3/8 U
Fed. 7/16 Paper BW	Prec Rel TUPR23 (Orange)	Fed. 209A	1 3/8	1371	10600	36.5	3/8 U
Fed. 7/16 Paper BW	Prec Rel TUPR23 (Orange)	Fed. 209A	1 1/2	1274	10500	33.0	1/4 U
Rem. SPELV Yellow BW	Prec Rel TUPR23 (Orange)	Fed. 209A	1 1/4	1462	10300	40.0	3/8 U
Rem. SPELV Yellow BW	Prec Rel TUPR23 (Orange)	Fed. 209A	1 3/8	1385	10900	37.5	3/8 U
Rem. SPELV Yellow BW	Prec Rel TUPR23 (Orange)	Fed. 209A	1 1/2	1259	10900	33.0	1/4 U

INTERNATIONAL LOADS							
24-GRAM INTERNATIONAL TARGET LOADS							
12-Gauge 2 3/4 inch Federal Gold Medal Plastic							
Shot Weight	Velocity	Wad	Primer	Red Dot	American Select		
(gram)	(fps)			(grains)	(psi)	(grains)	(psi)
24	1345	CB 1100-12	Fed. 209A	20.0	8700	21.0	8000
24	1345	Fed. 12SO	Fed. 209A	20.0	8900	20.5	7900
24	1345	Purple PC	Fed. 209A	19.5	8700		
24	1345	Rem. TGT 12 & DRRT12	Fed. 209A	20.5	8900	21.0	8100
24	1345	WAA12L (Gray)	Fed. 209A	20.0	9000	21.5	8100

12-Gauge 2 3/4 inch Fiocchi Plastic							
Shot Weight	Velocity	Wad	Primer	Red Dot	American Select		
(gram)	(fps)			(grains)	(psi)	(grains)	(psi)
24	1345	Fed. 12SO	Fio. 616	20.5	8700	22.0	7800
24	1345	Purple PC	Fio. 616			22.5	6900
24	1345	Rem. TGT 12 & DRRT12	Fio. 616	20.5	8200	22.0	7600
24	1345	WAA12L (Gray)	Fio. 616	21.0	8500	22.0	7500
12-Gauge 2 3/4 inch Remington Premier, STS Plastic							
24	1345	CB 1100-12	Rem. 209P	20.5	8800	20.5	8700
24	1345	Fed. 12SO	Rem. 209P	20.0	9800	20.5	9600
24	1345	Purple PC	Rem. 209P	20.5	8300	21.0	8100
24	1345	Rem. TGT 12 & DRRT12	Rem. 209P	20.5	9200	20.5	8500
24	1345	WAA12L (Gray)	Rem. 209P	20.5	9800	20.5	8700
12-Gauge 2 3/4 inch Winchester Plastic							
24	1345	CB 1100-12	Win. 209	20.0	9600	20.5	8700
24	1345	Fed. 12SO	Win. 209	20.0	10100	20.5	9100
24	1345	Purple PC	Win. 209	20.0	9000	21.0	8100
24	1345	Rem. TGT 12 & DRRT12	Win. 209	20.0	9600	20.5	8600
28-GRAM INTERNATIONAL TARGET LOADS							
12-Gauge 2 3/4 inch Federal Gold Medal Plastic							
Shot Weight	Velocity	Wad	Primer	Red Dot	Green Dot		
(gram)	(fps)			(grains)	(psi)	(grains)	(psi)
28	1345	Fed. 12SO	Fed. 209A	23.0	9900	24.5	9100
28	1345	Purple PC	Fed. 209A	23.0	8800	25.0	8200
28	1345	Rem. Figure 8 & DRRF8	Fed. 209A	22.5	9500	25.0	8400
28	1345	WAA12SL	Fed. 209A	22.5	9600	24.5	8400
12-Gauge 2 3/4 inch Fiocchi Plastic							
28	1345	Fed. 12S3 & DRF3	Fio. 616	22.0	9600	24.0	8800
28	1345	Purple PC	Fio. 616	22.5	9500	24.0	8800
28	1345	Rem. Figure 8 & DRRF8	Fio. 616	21.5	9700	24.0	8800
28	1345	WAA12SL	Fio. 616	21.5	10400	24.0	8800
12-Gauge 2 3/4 inch Remington Premier, STS							
28	1345	Fed. 12S3 & DRF3	Rem. 209P			23.0	10300
28	1345	Purple PC	Rem. 209P	21.5	10600	24.0	9900
28	1345	Rem. Figure 8 & DRRF8	Rem. 209P	21.5	10600	23.0	9700
28	1345	WAA12SL	Rem. 209P			23.0	10100

12-Gauge 2 3/4 inch Winchester Plastic							
Shot Weight	Velocity	Wad	Primer	Red Dot	Green Dot		
(gram)	(fps)			(grains)	(psi)	(grains)	(psi)
28	1345	Purple PC	Win. 209		23.0	9500	
28	1345	Rem. Figure 8 & DRRF8	Win. 209		22.5	10600	

## 10-GAUGE RELOADING DATA

10-Gauge 3 1/2 inch Federal Plastic with Paper Base Wad							
Shot	Powder	Primer	Wad	Spacers	Charge Weight	Velocity	Pressure
(oz)					(grains)	(fps)	(psi)
1 1/4	Green Dot	CCI 209M	Rem. SP 10	(6) 0.135	29.5	1265	8300
1 1/4	Green Dot	Win. 209	Rem. SP 10	(6) 0.135	29.0	1265	8800
1 5/8	Herco	CCI 209M	Rem. SP 10	(4) 0.135	36.0	1285	10300
1 5/8	Blue Dot	CCI 209M	Rem. SP 10	(4) 0.135	45.0	1285	8000
1 5/8	Blue Dot	Win. 209	Rem. SP 10	(4) 0.135	45.5	1285	8300
1 7/8	Blue Dot	CCI 209M	Rem. SP 10	(3) 0.135	45.5	1270	9900
1 7/8	Blue Dot	Win. 209	Rem. SP 10	(3) 0.135	45.5	1270	10200
2	Blue Dot	CCI 209M	Rem. SP 10	(2) 0.135	43.5	1210	9200
2	Blue Dot	Win. 209	Rem. SP 10	(2) 0.135	44.0	1210	9400
2 1/4	Blue Dot	CCI 209M	Rem. SP 10	(1) 0.135	42.0	1165	9800
2 1/4	Blue Dot	Win. 209	Rem. SP 10	(1) 0.135	42.5	1165	10200

### 10-Gauge 3 1/2 inch Remington SP

1 1/4	Green Dot	CCI 209M	Rem. SP 10	(6) 0.135	28.5	1265	8800
1 1/4	Green Dot	Win. 209	Rem. SP 10	(6) 0.135	29.0	1265	8800
1 1/4	Unique	CCI 209M	Rem. SP 10	(6) 0.135	31.0	1265	7500
1 1/4	Unique	Win. 209	Rem. SP 10	(6) 0.135	31.0	1265	7600
1 5/8	Blue Dot	CCI 209M	Rem. SP 10	(4) 0.135	43.5	1285	8500
1 5/8	Blue Dot	Win. 209	Rem. SP 10	(4) 0.135	44.0	1285	8500
1 7/8	Blue Dot	CCI 209M	Rem. SP 10	(3) 0.135	44.0	1270	9800
1 7/8	Blue Dot	Win. 209	Rem. SP 10	(3) 0.135	44.5	1270	9100
2	Blue Dot	CCI 209M	Rem. SP 10	(2) 0.135	42.0	1210	10400
2	Blue Dot	Win. 209	Rem. SP 10	(2) 0.135	42.5	1210	10100
2 1/4	Blue Dot	CCI 209M	Rem. SP 10	none	40.5	1165	10400
2 1/4	Blue Dot	Win. 209	Rem. SP 10	none	41.0	1165	10500

### 10-Gauge 3 1/2 inch Winchester Polyformed with Plastic Base Wad

1 1/4	Green Dot	CCI 209M	Rem. SP 10	(5) 0.135	28.0	1265	8500
1 1/4	Green Dot	Win. 209	Rem. SP 10	(5) 0.135	28.5	1265	8600
1 5/8	Herco	CCI 209M	Rem. SP 10	(3) 0.135	35.5	1285	10400
1 5/8	Blue Dot	CCI 209M	Rem. SP 10	(3) 0.135	44.5	1285	8700

10-Gauge 3 1/2 inch Winchester Polyformed with Plastic Base Wad continued							
Shot	Powder	Primer	Wad	Spacers	Charge Weight	Velocity	Pressure
(oz)					(grains)	(fps)	(psi)
1 5/8	Blue Dot	Win. 209	Rem. SP 10	(3) 0.135	45.0	1285	8800
1 7/8	Blue Dot	CCI 209M	Rem. SP 10	(2) 0.135	45.0	1270	9800
1 7/8	Blue Dot	Win. 209	Rem. SP 10	(2) 0.135	45.5	1270	10200
2	Blue Dot	CCI 209M	Rem. SP 10	(1) 0.135	43.0	1210	9400
2	Blue Dot	Win. 209	Rem. SP 10	(1) 0.135	43.5	1210	9500
2 1/4	Blue Dot	CCI 209M	Rem. SP 10	none	41.5	1165	10500
2 1/4	Blue Dot	Win. 209	Rem. SP 10	none	42.0	1165	10500

## 12-GAUGE RELOADING DATA

12-Gauge 2 3/4 inch Cheddite Plastic							
12-Gauge 1 and 1 1/8 Ounce Target Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1145 fps	1200 fps	1255 fps	1300 fps
1	Red Dot	Cheddite	12SO		19.0 grs 7800 psi	20.0 grs 8700 psi	21.0 grs 9300 psi
1	Amer. Select	Cheddite	12SO		20.0 grs 6200 psi	21.5 grs 7000 psi	22.5 grs 7600 psi
1	Green Dot	Cheddite	12SO		21.5 grs 6900 psi	23.0 grs 7800 psi	24.0 grs 8300 psi
1 1/8	Red Dot	Cheddite	12S3 & DRF3	18.0 grs 9000 psi	19.5 grs 9600 psi		
1 1/8	Red Dot	Cheddite	RXP 12	18.0 grs 8500 psi	19.5 grs 8800 psi		
1 1/8	Amer. Select	Cheddite	12S3 & DRF3	19.0 grs 7600 psi	20.5 grs 8800 psi		
1 1/8	Amer. Select	Cheddite	RXP 12	19.5 grs 7200 psi	20.5 grs 7600 psi		
1 1/8	Green Dot	Cheddite	12S3 & DRF3	20.0 grs 7500 psi	21.5 grs 8300 psi		
1 1/8	Green Dot	Cheddite	RXP 12	20.5 grs 7100 psi	22.0 grs 7800 psi		

### 12-Gauge 2 3/4 inch Remington Plastic Shells (STS, Nitro 27, Premier RXP and Gun Club)

12-Gauge 7/8 and 1 Ounce Target Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1150 fps	1200 fps	1250 fps	1310 fps
7/8	Red Dot	Rem. 209P	CB 4100-12B		17.5 grs 7100 psi	18.0 grs 7400 psi	19.0 grs 8100 psi
7/8	Red Dot	Rem. 209P	Purple PC		17.5 grs 6800 psi	18.5 grs 6900 psi	20.0 grs 7500 psi
7/8	Red Dot	Rem. 209P	TGT 12 & DRRT12		17.0 grs 6800 psi	18.5 grs 7100 psi	20.5 grs 8200 psi
7/8	Red Dot	Rem. 209P	WAA12L & DRXXL (Pink)		16.5 grs 8000 psi	17.5 grs 8700 psi	18.5 grs 9100 psi
7/8	Red Dot	Rem. 209P	WAA12SL & DRXL-1 & Jammer XL-1		17.0 grs 7000 psi	18.5 grs 7800 psi	20.5 grs 8000 psi
7/8	e3	Rem. 209P	WAA12L & DRXXL (Pink)		16.0 grs 7265 psi	17.0 grs 7655 psi	18.0 grs 8525 psi

12-Gauge 7/8 and 1 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1150 fps	1200 fps	1250 fps	1310 fps
7/8	e3	Rem. 209P	CB 4100-12B		16.2 grs 6195 psi	17.2 grs 7045 psi	18.2 grs 7580 psi
7/8	e3	Rem. 209P	TGT 12 & DRRT12			17.0 grs 7820 psi	17.8 grs 8585 psi
7/8	Clay Dot	Rem. 209P	CB 4100-12B		17.5 grs 5400 psi	18.5 grs 5760 psi	19.0 grs 7020 psi
7/8	Clay Dot	Rem. 209P	TGT 12 & DRRT12		17.0 grs 6490 psi	17.5 grs 6910 psi	18.5 grs 7770 psi
7/8	Clay Dot	Rem. 209P	CB 0178		17.5 grs 5916 psi	18.0 grs 6060 psi	18.5 grs 6544 psi
7/8	Amer. Select	Rem. 209P	CB 4100-12B		18.9 grs 5200 psi	19.6 grs 5900 psi	20.5 grs 6700 psi
7/8	Amer. Select	Rem. 209P	TGT 12 & DRRT12				20.5 grs 7000 psi
7/8	Amer. Select	Rem. 209P	WAA12L & DRXXL (Pink)		18.0 grs 5.800 psi	19.0 grs 6800 psi	20.0 grs 7200 psi
7/8	Amer. Select	Rem. 209P	WAA12SL & DRXL-1 & Jammer XL-1				20.5 grs 7900 psi
7/8	Amer. Select	Rem. 209P	CB 1100-12				20.5 grs 6900 psi
7/8	Green Dot	Rem. 209P	TGT 12 & DRRT12				22.0 grs 7100 psi
7/8	Promo	Rem. 209P	CB 4100-12B		17.5 grs 7100 psi	18.0 grs 7400 psi	19.0 grs 8100 psi
7/8	Promo	Rem. 209P	Purple PC		17.5 grs 6800 psi	18.5 grs 6900 psi	20.0 grs 7500 psi
7/8	Promo	Rem. 209P	TGT 12 & DRRT12		17.0 grs 6800 psi	18.5 grs 7100 psi	20.5 grs 8200 psi
7/8	Promo	Rem. 209P	WAA12L & DRXXL (Pink)		16.5 grs 8000 psi	17.5 grs 8700 psi	18.5 grs 9100 psi
7/8	Promo	Rem. 209P	WAA12SL & DRXL-1 & Jammer XL-1		17.0 grs 7000 psi	18.5 grs 7800 psi	20.5 grs 8000 psi
1	Clay Dot	Rem. 209P	CB 4100-12B		17.5 grs 6800 psi	18.5 grs 7940 psi	19.5 grs 9050 psi
1	Clay Dot	Rem. 209P	TGT 12 & DRRT12		17.5 grs 7930 psi	18.5 grs 9080 psi	19.5 grs 10070 psi
1	Clay Dot	Fed. 209A	WAA12SL		16.5 grs 8240 psi	17.7 grs 8800 psi	
1	Clay Dot	Win. 209	WAA12SL		17.0 grs 7860 psi	18.4 grs 8980 psi	
1	Clay Dot	Win. 209	TGT 12 & DRRT12		17.6 grs 7590 psi	18.8 grs 8890 psi	
1	e3	Rem. 209P	WAA12L & DRXXL (Pink)		15.5 grs 8950 psi	16.5 grs 10015 psi	17.5 grs 10530 psi
1	e3	Rem. 209P	CB 1100-12		16.0 grs 7730 psi	17.0 grs 8730 psi	18.0 grs 9540 psi
1	e3	Rem. 209P	TGT 12 & DRRT12		16.0 grs 7970 psi	16.9 grs 8550 psi	18.0 grs 9710 psi
1	e3	Rem. 209P	Green Duster			17.0 grs 9455 psi	17.5 grs 10970 psi
1	Red Dot	Rem. 209P	CB 1100-12		16.5 grs 7400 psi	17.8 grs 8000 psi	18.7 grs 8800 psi
1	Red Dot	Rem. 209P	TGT 12 & DRRT12		17.0 grs 8300 psi	18.0 grs 8700 psi	19.0 grs 9500 psi
1	Red Dot	Rem. 209P	WAA12L & DRXXL (Pink)		16.5 grs 8100 psi	18.0 grs 9600 psi	
1	Red Dot	Rem. 209P	WAA12SL & DRXL-1 & Jammer XL-1			19.5 grs 10100 psi	20.5 grs 10400 psi
1	Red Dot	Rem. 209P	Purple PC		18.5 grs 8300 psi	19.5 grs 8900 psi	20.5 grs 9100 psi

continued

12-Gauge 7/8 and 1 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1150 fps	1200 fps	1250 fps	1310 fps
1	Red Dot	Rem. 209P	Green Duster			17.5 grs 10000 psi	18.5 grs 10900 psi
1	Red Dot	Rem. 209P	Rem. R12L				20.5 grs 9900 psi
1	Red Dot	Rem. 209P	Figure 8 & DRRF8				21.5 grs 9100 psi
1	Red Dot	CCI 209M	Rem. R12L				20.0 grs 10300 psi
1	Red Dot	Win. 209	Rem. R12L				20.0 grs 10100 psi
1	Amer. Select	Rem. 209P	TGT 12 & DRRT12	17.0 grs 6900 psi	19.0 grs 7000 psi	20.5 grs 8000 psi	22.5 grs 8700 psi
1	Amer. Select	Rem. 209P	WAA12L & DRXXL (Pink)	17.0 grs 7500 psi			
1	Amer. Select	Rem. 209P	CB 1100-12			19.5 grs 7500 psi	20.5 grs 8000 psi
1	Amer. Select	Rem. 209P	Green Duster			19.0 grs 7700 psi	20.0 grs 8400 psi
1	Amer. Select	Rem. 209P	WAA12SL & DRXL-1 & Jammer XL-1			19.0 grs 7600 psi	20.5 grs 8700 psi
1	Green Dot	Rem. 209P	CB 1100-12	18.5 grs 7000 psi	19.2 grs 7500 psi	21.0 grs 8300 psi	22.0 grs 8500 psi
1	Green Dot	Rem. 209P	TGT 12 & DRRT12	18.0 grs 6600 psi	20.0 grs 8200 psi	21.0 grs 8500 psi	22.5 grs 8900 psi
1	Green Dot	Rem. 209P	WAA12L & DRXXL (Pink)	18.0 grs 6300 psi			
1	Green Dot	Rem. 209P	Green Duster			19.5 grs 7500 psi	22.0 grs 8800 psi
1	Green Dot	Rem. 209P	Purple PC			20.5 grs 7000 psi	21.5 grs 8500 psi
1	Green Dot	Rem. 209P	WAA12SL & DRXL-1 & Jammer XL-1			19.5 grs 8600 psi	21.5 grs 8900 psi
1	Green Dot	CCI 209M	Rem. R12L				22.0 grs 9100 psi
1	Green Dot	Win. 209	Rem. R12L				22.0 grs 8700 psi
1	Promo	Rem. 209P	CB 1100-12	16.5 grs 7400 psi	17.8 grs 8000 psi	18.7 grs 8800 psi	19.7 grs 9400 psi
1	Promo	Rem. 209P	TGT 12 & DRRT12	17.0 grs 8300 psi	18.0 grs 8700 psi	19.0 grs 9500 psi	21.0 grs 10700 psi
1	Promo	Rem. 209P	WAA12L & DRXXL (Pink)	16.5 grs 8100 psi	18.0 grs 9600 psi		
1	Promo	Rem. 209P	WAA12SL & DRXL-1 & Jammer XL-1				19.5 grs 10100 psi
1	Promo	Rem. 209P	Purple PC			18.5 grs 8300 psi	19.5 grs 8900 psi
1	Promo	Rem. 209P	Green Duster			17.5 grs 10000 psi	18.5 grs 10900 psi
1	Promo	Rem. 209P	Rem. R12L				20.5 grs 9900 psi
1	Promo	Rem. 209P	Figure 8 & DRRF8				21.5 grs 9100 psi
1	Promo	CCI 209M	Rem. R12L				20.0 grs 10300 psi
1	Promo	Win. 209	Rem. R12L				20.0 grs 10100 psi

12-Gauge 1 1/8 Ounce Target Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Clay Dot	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8		17.7 grs 10230 psi	18.8 grs 10870 psi	
1 1/8	Clay Dot	Rem. 209P	Figure 8 & DRRF8		17.5 grs 10270 psi		
1 1/8	Clay Dot	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8		16.6 grs 9770 psi		
1 1/8	Clay Dot	Fed. 209A	Figure 8 & DRRF8		16.9 grs 9570 psi		
1 1/8	Clay Dot	Win. 209	WAA12 & DRA12 & DRXL 1 1/8		17.3 grs 9520 psi		
1 1/8	Clay Dot	Win. 209	Figure 8 & DRRF8		17.5 grs 9260 psi		
1 1/8	Clay Dot	CCI 209M	Figure 8 & DRRF8		17.5 grs 10850 psi		
1 1/8	Clay Dot	CCI 209	Figure 8 & DRRF8		17.5 grs 9020 psi		
1 1/8	e3	Rem. 209P	RXP 12	15.0 grs 8655 psi	16.3 grs 9465 psi	17.9 grs 10660 psi	
1 1/8	e3	Rem. 209P	Figure 8 & DRRF8	15.0 grs 8760 psi	16.5 grs 9930 psi	17.5 grs 10775 psi	
1 1/8	e3	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	15.0 grs 9175 psi	16.0 grs 10170 psi	17.2 grs 10960 psi	
1 1/8	e3	Rem. 209P	CB 0118	15.4 grs 8075 psi	16.2 grs 8640 psi	17.7 grs 10575 psi	
1 1/8	e3	Rem. 209P	CB 4118	15.5 grs 7950 psi	16.5 grs 9390 psi	18.0 grs 10710 psi	
1 1/8	Red Dot	Rem. 209P	Versalite		17.5 grs 9000 psi		
1 1/8	Red Dot	Rem. 209P	CB 3118-12	16.2 grs 8600 psi	17.0 grs 8800 psi	18.5 grs 9800 psi	
1 1/8	Red Dot	Rem. 209P	Blue Duster	16.0 grs 9700 psi	17.0 grs 9800 psi	18.5 grs 10300 psi	
1 1/8	Red Dot	Rem. 209P	Red PC	16.5 grs 8700 psi	17.5 grs 9000 psi	19.5 grs 10100 psi	
1 1/8	Red Dot	Rem. 209P	Figure 8 & DRRF8	16.5 grs 8300 psi	18.0 grs 9200 psi	19.0 grs 10100 psi	
1 1/8	Red Dot	Rem. 209P	RXP 12	16.0 grs 8700 psi	17.5 grs 8900 psi	19.0 grs 10000 psi	
1 1/8	Red Dot	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	16.0 grs 9400 psi	17.0 grs 10100 psi	18.3 grs 10300 psi	
1 1/8	Red Dot	Rem. 209P	WT-12	15.5 grs 9000 psi	18.5 grs 8800 psi	19.5 grs 10700 psi	
1 1/8	Red Dot	Rem. 209P	Windjammer	16.5 grs 7900 psi	17.5 grs 8900 psi	18.5 grs 9400 psi	
1 1/8	Red Dot	CCI 209M	Versalite		17.0 grs 9100 psi	19.0 grs 10400 psi	
1 1/8	Red Dot	CCI 209M	Red PC	16.5 grs 9200 psi	17.5 grs 9400 psi	19.0 grs 10400 psi	
1 1/8	Red Dot	CCI 209M	Figure 8 & DRRF8	16.5 grs 9100 psi	17.5 grs 9300 psi	18.5 grs 10400 psi	
1 1/8	Red Dot	CCI 209M	RXP 12	16.0 grs 9300 psi	17.0 grs 9600 psi	18.5 grs 10500 psi	
1 1/8	Red Dot	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8	16.0 grs 9800 psi	16.5 grs 10200 psi		
1 1/8	Red Dot	CCI 209M	Windjammer	16.5 grs 8300 psi	17.0 grs 9000 psi	18.5 grs 9700 psi	
1 1/8	Red Dot	Fio. 616	Figure 8 & DRRF8	16.5 grs 9000 psi	17.5 grs 8900 psi	19.5 grs 10600 psi	
1 1/8	Red Dot	Win. 209	Figure 8 & DRRF8	16.5 grs 8900 psi	18.0 grs 9500 psi	19.0 grs 10400 psi	
1 1/8	Red Dot	CCI 209	Figure 8 & DRRF8		17.5 grs 8600 psi	19.5 grs 9900 psi	
1 1/8	Red Dot	Fed. 209A	Red PC		17.0 grs 10700 psi		
1 1/8	Red Dot	Fed. 209A	Figure 8 & DRRF8		16.5 grs 10300 psi	17.0 grs 10400 psi	

continued

12-Gauge 1 1/8 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Red Dot	Fed. 209A	RXP 12		16.0 grs 10600 psi	17.0 grs 10100 psi	
1 1/8	Red Dot	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8		17.5 grs 10500 psi		
1 1/8	Green Dot	Rem. 209P	CB 3118-12	17.5 grs 7800 psi	19.0 grs 8700 psi	20.3 grs 9700 psi	21.0 grs 9800 psi
1 1/8	Green Dot	Rem. 209P	Blue Duster	17.5 grs 8200 psi	18.5 grs 9000 psi	20.0 grs 9800 psi	21.5 grs 10300 psi
1 1/8	Green Dot	Rem. 209P	Versalite		19.0 grs 8000 psi	20.0 grs 8700 psi	
1 1/8	Green Dot	Rem. 209P	Red PC		19.0 grs 7600 psi	21.0 grs 8500 psi	
1 1/8	Green Dot	Rem. 209P	Figure 8 & DRRF8	18.5 grs 7300 psi	19.0 grs 8500 psi	21.0 grs 8800 psi	21.5 grs 10700 psi
1 1/8	Green Dot	Rem. 209P	RXP 12	18.0 grs 7700 psi	19.0 grs 8700 psi	20.5 grs 8700 psi	
1 1/8	Green Dot	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	18.0 grs 6700 psi	19.0 grs 8500 psi	21.0 grs 8900 psi	21.1 grs 10000 psi
1 1/8	Green Dot	Rem. 209P	WT-12	18.0 grs 8100 psi	19.5 grs 8300 psi	21.5 grs 8700 psi	22.0 grs 10600 psi
1 1/8	Green Dot	Rem. 209P	Windjammer	18.0 grs 7300 psi	19.5 grs 7800 psi	20.5 grs 8200 psi	
1 1/8	Green Dot	Win. 209	Figure 8 & DRRF8		19.0 grs 8100 psi	20.0 grs 8600 psi	
1 1/8	Green Dot	Win. 209	RXP 12				22.0 grs 9400 psi
1 1/8	Green Dot	CCI 209M	Versalite		19.0 grs 8000 psi	20.0 grs 9200 psi	21.5 grs 10200 psi
1 1/8	Green Dot	CCI 209M	Red PC	18.0 grs 7400 psi	19.0 grs 7700 psi	20.5 grs 9000 psi	22.0 grs 9600 psi
1 1/8	Green Dot	CCI 209M	Figure 8 & DRRF8	18.0 grs 8400 psi	19.0 grs 8800 psi	20.0 grs 9300 psi	
1 1/8	Green Dot	CCI 209M	RXP 12	17.5 grs 8600 psi	19.0 grs 9100 psi	20.5 grs 9200 psi	22.0 grs 9600 psi
1 1/8	Green Dot	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 8700 psi	19.0 grs 9400 psi	21.0 grs 9600 psi	22.5 grs 10700 psi
1 1/8	Green Dot	CCI 209M	Windjammer	18.0 grs 7600 psi	19.5 grs 7900 psi	20.5 grs 8700 psi	22.0 grs 9400 psi
1 1/8	Green Dot	CCI 209	Figure 8 & DRRF8		19.5 grs 7100 psi	21.0 grs 9700 psi	
1 1/8	Green Dot	Fed. 209A	Red PC		19.5 grs 10000 psi		
1 1/8	Green Dot	Fed. 209A	Figure 8 & DRRF8		19.5 grs 10100 psi	20.5 grs 10300 psi	
1 1/8	Green Dot	Fed. 209A	RXP 12		19.5 grs 10500 psi	21.0 grs 10400 psi	
1 1/8	Green Dot	Fed. 209A	Windjammer		20.0 grs 9600 psi		
1 1/8	Green Dot	Fio. 616	Figure 8 & DRRF8		19.0 grs 7800 psi	20.0 grs 8700 psi	
1 1/8	Green Dot	Fio. 616	RXP 12				22.0 grs 9100 psi
1 1/8	Promo	Rem. 209P	Versalite		17.5 grs 9000 psi		
1 1/8	Promo	Rem. 209P	CB 3118-12	16.2 grs 8600 psi	17.0 grs 8800 psi	18.5 grs 9800 psi	
1 1/8	Promo	Rem. 209P	Blue Duster	16.0 grs 9700 psi	17.0 grs 9800 psi	18.5 grs 10300 psi	
1 1/8	Promo	Rem. 209P	Red PC	16.5 grs 8700 psi	17.5 grs 9000 psi	19.5 grs 10100 psi	
1 1/8	Promo	Rem. 209P	Figure 8 & DRRF8	16.5 grs 8300 psi	18.0 grs 9200 psi	19.0 grs 10100 psi	
1 1/8	Promo	Rem. 209P	RXP 12	16.0 grs 8700 psi	17.5 grs 8900 psi	19.0 grs 10000 psi	
1 1/8	Promo	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	16.0 grs 9400 psi	17.0 grs 10100 psi	18.3 grs 10300 psi	
1 1/8	Promo	Rem. 209P	WT-12	15.5 grs 9000 psi	18.5 grs 8800 psi	19.5 grs 10700 psi	

continued

12-Gauge 1 1/8 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Promo	Rem. 209P	Windjammer	16.5 grs 7900 psi	17.5 grs 8900 psi	18.5 grs 9400 psi	
1 1/8	Promo	CCI 209M	Versalite		17.0 grs 9100 psi	19.0 grs 10400 psi	
1 1/8	Promo	CCI 209M	Red PC	16.5 grs 9200 psi	17.5 grs 9400 psi	19.0 grs 10400 psi	
1 1/8	Promo	CCI 209M	Figure 8 & DRRF8	16.5 grs 9100 psi	17.5 grs 9300 psi	18.5 grs 10400 psi	
1 1/8	Promo	CCI 209M	RXP 12	16.0 grs 9300 psi	17.0 grs 9600 psi	18.5 grs 10500 psi	
1 1/8	Promo	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8	16.0 grs 9800 psi	16.5 grs 10200 psi		
1 1/8	Promo	CCI 209M	Windjammer	16.5 grs 8300 psi	17.0 grs 9000 psi	18.5 grs 9700 psi	
1 1/8	Promo	Fio. 616	Figure 8 & DRRF8	16.5 grs 9000 psi	17.5 grs 8900 psi	19.5 grs 10600 psi	
1 1/8	Promo	Win. 209	Figure 8 & DRRF8	16.5 grs 8900 psi	18.0 grs 9500 psi	19.0 grs 10400 psi	
1 1/8	Promo	CCI 209	Figure 8 & DRRF8		17.5 grs 8600 psi	19.5 grs 9900 psi	
1 1/8	Promo	Fed. 209A	Red PC		17.0 grs 10700 psi		
1 1/8	Promo	Fed. 209A	Figure 8 & DRRF8		16.5 grs 10300 psi	17.0 grs 10400 psi	
1 1/8	Promo	Fed. 209A	RXP 12		16.0 grs 10600 psi	17.0 grs 10100 psi	
1 1/8	Promo	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8		17.5 grs 10500 psi		
1 1/8	Amer. Select	Rem. 209P	CB 3118-12	17.5 grs 6900 psi	19.0 grs 8400 psi	20.0 grs 9500 psi	21.5 grs 10600 psi
1 1/8	Amer. Select	Rem. 209P	Blue Duster	17.0 grs 8000 psi	18.0 grs 8900 psi	20.0 grs 10200 psi	
1 1/8	Amer. Select	Rem. 209P	Red PC	17.5 grs 7000 psi	19.0 grs 8200 psi	20.5 grs 9700 psi	
1 1/8	Amer. Select	Rem. 209P	Figure 8 & DRRF8	17.5 grs 7100 psi	19.0 grs 7600 psi	20.5 grs 9100 psi	21.5 grs 9900 psi
1 1/8	Amer. Select	Rem. 209P	RXP 12	17.0 grs 7500 psi	18.5 grs 8300 psi	20.5 grs 10200 psi	21.0 grs 10500 psi
1 1/8	Amer. Select	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 8100 psi	18.0 grs 9000 psi	19.2 grs 11000 psi	
1 1/8	Amer. Select	Rem. 209P	WT-12	17.0 grs 7300 psi	18.5 grs 8900 psi	20.0 grs 10600 psi	
1 1/8	Amer. Select	Rem. 209P	Windjammer	18.0 grs 6900 psi	19.0 grs 7900 psi	20.5 grs 9100 psi	
1 1/8	Amer. Select	Win. 209	Figure 8 & DRRF8		18.5 grs 9000 psi	20.0 grs 10200 psi	
1 1/8	Amer. Select	Fed. 209A	Figure 8 & DRRF8		18.5 grs 9200 psi	20.0 grs 10700 psi	
1 1/8	20/28	CCI 209M	Figure 8			22.0 grs 7010 psi	23.0 grs 7400 psi
1 1/8	20/28	CCI 209M	CB 3118-12			20.5 grs 8260 psi	21.4 grs 8930 psi
1 1/8	20/28	CCI 209M	Win. AA-12			21.3 grs 7730 psi	22.0 grs 7960 psi
1 1/8	20/28	Rem. 209P	CB 3118-12			20.8 grs 7660 psi	21.7 grs 8720 psi

continued

12-Gauge 1 1/8 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	20/28	Rem. 209P	Figure 8				21.7 grs 6410 psi
1 1/8	20/28	Fio. 616	Figure 8				22.1 grs 6380 psi
1 1/8	20/28	Win. 209	Figure 8				22.0 grs 6710 psi
1 1/8	20/28	Win. 209	CB 3118-12				20.6 grs 8050 psi
1 1/8	Unique	CCI 209M	Figure 8 & DRRF8				22.5 grs 9500 psi
1 1/8	Unique	CCI 209	Figure 8 & DRRF8				22.5 grs 8500 psi
1 1/8	Unique	CCI 209M	Versalite				22.0 grs 8800 psi
1 1/8	Unique	CCI 209M	Red PC				22.5 grs 8700 psi
1 1/8	Unique	CCI 209M	RXP 12				22.5 grs 9500 psi
1 1/8	Unique	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8				22.0 grs 9300 psi
1 1/8	Unique	CCI 209M	Windjammer				23.5 grs 8200 psi
1 1/8	Unique	Fed. 209A	Figure 8 & DRRF8				23.0 grs 9200 psi
1 1/8	Unique	Fed. 209A	RXP 12				22.0 grs 9100 psi
1 1/8	Unique	Fio. 616	Figure 8 & DRRF8				23.0 grs 8500 psi
1 1/8	Unique	Rem. 209P	CB 3118-12				22.2 grs 7300 psi
1 1/8	Unique	Rem. 209P	Blue Duster				22.7 grs 7800 psi
1 1/8	Unique	Rem. 209P	Versalite				22.0 grs 7900 psi
1 1/8	Unique	Rem. 209P	Red PC				22.5 grs 7800 psi
1 1/8	Unique	Rem. 209P	Figure 8 & DRRF8				22.5 grs 8200 psi
1 1/8	Unique	Rem. 209P	RXP 12				22.5 grs 8300 psi
1 1/8	Unique	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8				22.0 grs 8900 psi
1 1/8	Unique	Rem. 209P	WT-12				23.5 grs 8300 psi
1 1/8	Unique	Rem. 209P	Windjammer				23.5 grs 7000 psi
1 1/8	Unique	Win. 209	Figure 8 & DRRF8				22.5 grs 8400 psi
1 1/8	Unique	Win. 209	RXP 12				24.5 grs 8800 psi
1 1/8	Herco	CCI 209M	Versalite				24.5 grs 9900 psi
1 1/8	Herco	CCI 209M	Red PC				25.0 grs 9500 psi
1 1/8	Herco	CCI 209M	RXP 12				24.5 grs 9800 psi
1 1/8	Herco	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8				24.5 grs 10400 psi
1 1/8	Herco	CCI 209M	Windjammer				25.0 grs 9400 psi
1 1/8	Herco	Fio. 616	RXP 12				23.0 grs 8500 psi

12-Gauge 1 1/4 Ounce Loads								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1250 fps	1350 fps	1375 fps	1400 fps	
1 1/4	20/28	Rem. 209P	SP 12	23.0 grs 8840 psi				
1 1/4	20/28	Win. 209	SP 12	23.0 grs 8950 psi				
1 1/4	20/28	CCI 209M	SP 12	23.5 grs 9510 psi				
1 1/4	20/28	Rem. 209P	WAA12F114	22.5 grs 10390 psi				
1 1/4	Pro Reach	Win. 209	CB 1138-12				30.0 grs 10710 psi	
1 1/4	Pro Reach	CCI 209M	Rem. 12L			28.7 grs 10820 psi		
1 1/4	Pro Reach	CCI 209M	WAAF 114		27.0 grs 11000 psi			
1 1/4	Pro Reach	Fed. 209A	Rem. 12L			28.1 grs 10860 psi		
1 1/4	Pro Reach	Fed. 209A	WAA12R		27.3 grs 10630 psi			
1 1/4	Pro Reach	Rem. 209P	Fed. 12S4		27.4 grs 11060 psi			
1 1/4	Pro Reach	Rem. 209P	Rem. 12L				29.5 grs 10940 psi	
1 1/4	Pro Reach	Rem. 209P	WAA12R		28.2 grs 10690 psi			
1 1/4	Pro Reach	Cheddite	CB 1138-12		27.6 grs 10230 psi		28.5 grs 10890 psi	
1 1/4	Pro Reach	Rem. 209P	WAA12F114			29.0 grs 10590 psi		
1 1/4	Pro Reach	Rem. 209P	WAA12R			28.2 grs 10500 psi		
1 1/4	Unique	CCI 209M	SP 12	23.5 grs 10300 psi				
1 1/4	Unique	Fio. 616	SP 12	23.0 grs 9600 psi				
1 1/4	Unique	Rem. 209P	Versalite	23.5 grs 9400 psi				
1 1/4	Unique	Rem. 209P	SP 12	23.5 grs 9300 psi				
1 1/4	Unique	Rem. 209P	WAA12F114	24.0 grs 10100 psi				
1 1/4	Unique	Win. 209	SP 12	23.5 grs 10000 psi				
1 1/4	Herco	CCI 209M	SP 12	24.5 grs 10000 psi				
1 1/4	Herco	Fio. 616	SP 12	24.5 grs 9300 psi				
1 1/4	Herco	Rem. 209P	Versalite	25.0 grs 8400 psi				
1 1/4	Herco	Rem. 209P	SP 12	25.0 grs 9600 psi				
1 1/4	Herco	Rem. 209P	WAA12F114	24.5 grs 9300 psi				
1 1/4	Herco	Win. 209	SP 12	24.5 grs 9600 psi				
1 1/4	Blue Dot	Win. 209	SP 12	34.5 grs 9800 psi				

#### 12-Gauge 1 3/8 Ounce Loads

12-Gauge 1 3/8 Ounce Loads								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1090 fps	1145 fps	1200 fps	1250 fps	
1 3/8	Blue Dot	CCI 209M	SP 12				34.0 grs 9400 psi	
1 3/8	Blue Dot	Fio. 616	SP 12				34.0 grs 9100 psi	
1 3/8	Blue Dot	Rem. 209P	CB1138-12				34.0 grs 9900 psi	
1 3/8	Blue Dot	Rem. 209P	SP 12				35.0 grs 9300 psi	
1 3/8	Blue Dot	Win. 209	SP 12				35.0 grs 9100 psi	

continued

12-Gauge 1 3/8 Ounce Loads continued								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1225 fps	1250fps	1275 fps	1300 fps	
1 3/8	Pro Reach	Rem. 209P	CB 3118-12					26.5 grs 10740 psi
1 3/8	Pro Reach	Win. 209	SP-12					26.7 grs 10710 psi
1 3/8	Pro Reach	Fed. 209A	SP-12					25.0 grs 10780 psi
1 3/8	Pro Reach	Rem. 209P	SP-12					26.2 grs 10630 psi
1 3/8	Pro Reach	CCI 209M	SP-12					26.4 grs 10840 psi
1 3/8	Pro Reach	CCI 209M	12S4					23.5 grs 10760 psi
1 3/8	Pro Reach	Fed. 209A	12S4					22.5 grs 10760 psi

#### 12-GAUGE 2 3/4 INCH WINCHESTER AA PLASTIC SHELLS

12-Gauge 7/8 and 1 Ounce Target Loads								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1145 fps	1200 fps	1250 fps	1300 fps	
7/8	e3	Win. 209	TGT 12 & DRRT12			15.7 grs 7380 psi	16.5 grs 8200 psi	18.3 grs 8730 psi
7/8	e3	Win. 209	CB 4100-12B			16.0 grs 6870 psi	17.0 grs 7475 psi	
7/8	e3	Win. 209	WAA12L & DRXXL (Pink)			16.0 grs 7425 psi	17.0 grs 8210 psi	18.0 grs 8385 psi
7/8	Red Dot	Win. 209	CB 4100-12			17.5 grs 6900 psi	18.0 grs 7600 psi	18.5 grs 7900 psi
7/8	Red Dot	Win. 209	Purple PC			17.0 grs 7500 psi	18.0 grs 8400 psi	19.5 grs 9000 psi
7/8	Red Dot	Win. 209	TGT 12 & DRRT12			16.5 grs 7300 psi	18.0 grs 8400 psi	19.0 grs 9300 psi
7/8	Red Dot	Win. 209	WAA12L & DRXXL (Pink)			16.5 grs 7900 psi	17.5 grs 8600 psi	18.5 grs 9300 psi
7/8	Red Dot	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1			16.5 grs 7300 psi	18.0 grs 9300 psi	19.0 grs 10300 psi
7/8	Amer. Select	Win. 209	CB 4100-12B			18.5 grs 5600 psi	19.5 grs 6100 psi	20.5 grs 6900 psi
7/8	Amer. Select	Win. 209	WAA12L & DRXXL (Pink)			17.6 grs 6200 psi	18.5 grs 7200 psi	19.5 grs 8000 psi
7/8	Amer. Select	Win. 209	CB 1100-12					21.0 grs 7200 psi
7/8	Amer. Select	Win. 209	Purple PC					20.5 grs 7200 psi
7/8	Amer. Select	Win. 209	TGT 12 & DRRT12					20.5 grs 7600 psi
7/8	Amer. Select	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1					20.5 grs 8400 psi
7/8	Promo	Win. 209	CB 4100-12			17.5 grs 6900 psi	18.0 grs 7600 psi	18.5 grs 7900 psi
7/8	Promo	Win. 209	Purple PC			17.0 grs 7500 psi	18.0 grs 8400 psi	19.5 grs 9000 psi
7/8	Promo	Win. 209	TGT 12 & DRRT12			16.5 grs 7300 psi	18.0 grs 8400 psi	19.0 grs 9300 psi
7/8	Promo	Win. 209	WAA12L & DRXXL (Pink)			16.5 grs 7900 psi	17.5 grs 8600 psi	18.5 grs 9300 psi

continued

12-Gauge 7/8 and 1 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1145 fps	1200 fps	1250 fps	1300 fps
7/8	Promo	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1		16.5 grs 7300 psi	18.0 grs 9300 psi	19.0 grs 10300 psi
7/8	Green Dot	Win. 209	Purple PC				21.5 grs 7900 psi
7/8	Green Dot	Win. 209	TGT 12 & DRRT12				21.0 grs 8400 psi
7/8	Green Dot	Win. 209	WAA12L & DRXXL (Pink)				20.0 grs 8300 psi
7/8	Green Dot	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1				20.5 grs 8800 psi
1	Clay Dot	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1		17.2 grs 9460 psi	18.5 grs 10960 psi	
1	Clay Dot	Rem. 209P	WAA12SL & DRXL-1 & Jammer XL-2		17.4 grs 9280 psi	18.6 grs 10840 psi	
1	e3	Win. 209	WAA12L & DRXXL (Pink)	15.0 grs 8635 psi	16.5 grs 9410 psi	17.5 grs 9740 psi	18.5 grs 10870 psi
1	e3	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1	15.5 grs 8085 psi	16.5 grs 9240 psi	18.0 grs 10045 psi	18.5 grs 10080 psi
1	e3	Win. 209	TGT 12 & DRRT12	15.5 grs 8530 psi	16.5 grs 9305 psi	17.5 grs 10070 psi	18.5 grs 11015 psi
1	e3	Win. 209	CB 1100-12	16.0 grs 8285 psi	17.0 grs 8805 psi	18.0 grs 9245 psi	19.0 grs 10135 psi
1	e3	Win. 209	Green Duster	16.0 grs 8730 psi	17.0 grs 9525 psi	18.0 grs 10580 psi	
1	Red Dot	Win. 209	CB 1100-12	17.0 grs 7900 psi	18.0 grs 8600 psi	19.0 grs 9300 psi	19.5 grs 8900 psi
1	Red Dot	Win. 209	WAA12L & DRXXL (Pink)	16.5 grs 8000 psi			
1	Red Dot	Win. 209	WAA12SL & DRXL-1 & Jammer XL-2	16.5 grs 7900 psi	18.0 grs 10200 psi	19.0 grs 10500 psi	19.5 grs 11200 psi
1	Red Dot	Win. 209	Purple PC		18.0 grs 8900 psi	19.0 grs 9700 psi	20.0 grs 10400 psi
1	Red Dot	Win. 209	TGT 12 & DRRT12		18.0 grs 9200 psi	19.5 grs 9800 psi	
1	Red Dot	Win. 209	WT 12 (Orange)		17.5 grs 10600 psi		
1	Red Dot	Win. 209	RXP 12				20.0 grs 10100 psi
1	Red Dot	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8				18.5 grs 10400 psi
1	Red Dot	Win. 209	WAA12 & DRA12 & DRXL 1 1/8				19.0 grs 10500 psi
1	Amer. Select	Win. 209	CB 1100-12	18.0 grs 6700 psi	18.5 grs 6900 psi	20.5 grs 8800 psi	21.5 grs 9200 psi
1	Amer. Select	Win. 209	Green Duster		19.0 grs 8100 psi	20.0 grs 8900 psi	21.5 grs 9700 psi
1	Amer. Select	Win. 209	TGT 12 & DRRT12		19.0 grs 8000 psi	20.0 grs 9100 psi	21.0 grs 9500 psi
1	Amer. Select	Win. 209	WT 12 (Orange)		19.0 grs 8400 psi		
1	Amer. Select	Win. 209	WAA12L & DRXXL (Pink)	18.0 grs 6700 psi			

continued

12-Gauge 7/8 and 1 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1145 fps	1200 fps	1250 fps	1300 fps
1	Amer. Select	Win. 209	WAA12SL & DRXL-1 & Jammer XL-2	17.5 grs 7600 psi			
1	Green Dot	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8				21.5 grs 9900 psi
1	Green Dot	Win. 209	CB 1100-12	18.5 grs 7100 psi	19.8 grs 7700 psi	21.0 grs 8200 psi	22.0 grs 9100 psi
1	Green Dot	Win. 209	Green Duster		19.5 grs 8300 psi	20.5 grs 9200 psi	22.0 grs 9500 psi
1	Green Dot	Win. 209	Purple PC		19.5 grs 7000 psi	21.5 grs 8700 psi	22.0 grs 9000 psi
1	Green Dot	Win. 209	TGT 12 & DRRT12		19.5 grs 7900 psi	21.0 grs 8800 psi	22.0 grs 9700 psi
1	Green Dot	Win. 209	RXP 12				21.0 grs 8800 psi
1	Green Dot	Win. 209	WT 12-(Orange)		19.5 grs 8100 psi		
1	Green Dot	Win. 209	WAA12 & DRA12 & DRXL 1 1/8				20.0 grs 8700 psi
1	Green Dot	Win. 209	WAA12L & DRXXL (Pink)	18.5 grs 7600 psi	19.5 grs 8500 psi		
1	Green Dot	Win. 209	WAA12SL & DRXL-1 & Jammer XL-2	18.0 grs 8000 psi		21.0 grs 9200 psi	21.5 grs 9500 psi
12-Gauge 1 1/8 Ounce Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Clay Dot	Win. 209	Figure 8 & DRRF8		17.0 grs 8570 psi		
1 1/8	Clay Dot	Rem. 209P	Figure 8 & DRRF8		17.3 grs 8300 psi		
1 1/8	Clay Dot	Win. 209	WAA12 & DRA12 & DRXL 1 1/8		17.3 grs 8740 psi		
1 1/8	Clay Dot	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8		17.0 grs 8520 psi		
1 1/8	e3	Win. 209	Figure 8 & DRRF8	15.0 grs 8555 psi	16.0 grs 9325 psi	17.5 grs 10920 psi	
1 1/8	e3	Win. 209	CB 4118	15.0 grs 9645 psi	16.5 grs 9835 psi	17.5 grs 10855 psi	
1 1/8	e3	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1	15.0 grs 8645 psi	16.0 grs 9625 psi		
1 1/8	e3	Win. 209	RXP 12	15.0 grs 8700 psi	16.5 grs 9835 psi		
1 1/8	e3	Win. 209	CB 0118	15.0 grs 8905 psi	16.0 grs 9060 psi	17.0 grs 9970 psi	
1 1/8	e3	Win. 209	WAA12 & DRA12 & DRXL 1 1/8	15.0 grs 9090 psi	16.0 grs 9900 psi	17.0 grs 10450 psi	
1 1/8	e3	Win. 209	Blue Duster	15.0 grs 9015 psi	16.0 grs 10265 psi	17.0 grs 10505 psi	
1 1/8	Red Dot	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 9800 psi	17.5 grs 10400 psi	18.5 grs 10500 psi	
1 1/8	Red Dot	Fio. 616	WAA12 & DRA12 & DRXL 1 1/8	16.0 grs 8900 psi	17.0 grs 10200 psi	18.0 grs 10500 psi	
1 1/8	Red Dot	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 8100 psi	17.5 grs 8700 psi	19.0 grs 9500 psi	

continued

12-Gauge 1 1/8 Ounce Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Red Dot	Win. 209	CB 1100-12	16.0 grs 8000 psi			
1 1/8	Red Dot	Win. 209	CB 3118-12		16.8 grs 9100 psi	18.5 grs 10500 psi	
1 1/8	Red Dot	Win. 209	Blue Duster	15.5 grs 10300 psi	16.5 grs 10600 psi	19.0 grs 10800 psi	
1 1/8	Red Dot	Win. 209	Versalite	16.5 grs 9000 psi	18.0 grs 9500 psi	19.0 grs 9700 psi	
1 1/8	Red Dot	Win. 209	Red PC	16.0 grs 9100 psi	17.5 grs 9500 psi	18.5 grs 10300 psi	
1 1/8	Red Dot	Win. 209	Figure 8 & DRRF8	16.0 grs 8300 psi	17.5 grs 9900 psi	18.5 grs 10700 psi	
1 1/8	Red Dot	Win. 209	RXP 12	16.5 grs 8400 psi	17.0 grs 9000 psi	18.5 grs 9800 psi	
1 1/8	Red Dot	Win. 209	WAA12 & DRA12 & DRXL 1 1/8	16.0 grs 9500 psi	17.0 grs 10000 psi	18.0 grs 10400 psi	
1 1/8	Red Dot	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1	16.0 grs 9300 psi			
1 1/8	Red Dot	Win. 209	WT 12 (Orange)		16.5 grs 10700 psi	17.0 grs 10700 psi	
1 1/8	Red Dot	Win. 209	Windjammer		17.5 grs 9300 psi		
1 1/8	Red Dot	Fed. 209A	CB 3118-12		17.0 grs 9600 psi	18.5 grs 10500 psi	
1 1/8	Red Dot	Fed. 209A	Versalite		17.0 grs 10300 psi	18.0 grs 10700 psi	
1 1/8	Red Dot	Fed. 209A	Red PC		17.0 grs 10100 psi	18.0 grs 10000 psi	
1 1/8	Red Dot	Fed. 209A	Figure 8 & DRRF8		17.0 grs 9800 psi	18.5 grs 10200 psi	
1 1/8	Red Dot	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8		17.0 grs 10600 psi		
1 1/8	Red Dot	Fed. 209A	Windjammer		17.0 grs 9000 psi	18.0 grs 10000 psi	
1 1/8	Amer. Select	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 8700 psi	18.5 grs 9800 psi	19.5 grs 10800 psi	
1 1/8	Amer. Select	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 8000 psi	19.0 grs 8700 psi	21.0 grs 9600 psi	
1 1/8	Amer. Select	Rem. 209P	Figure 8 & DRRF8			22.5 grs 9400 psi	
1 1/8	Amer. Select	Win. 209	CB 1100-12	17.0 grs 7600 psi			
1 1/8	Amer. Select	Win. 209	CB 3118-12		18.5 grs 9000 psi	19.5 grs 10200 psi	20.5 grs 10700 psi
1 1/8	Amer. Select	Win. 209	Blue Duster	17.0 grs 8300 psi	18.0 grs 9000 psi	19.5 grs 10000 psi	
1 1/8	Amer. Select	Win. 209	Red PC	17.0 grs 7300 psi	18.5 grs 8600 psi	20.0 grs 10100 psi	21.5 grs 10800 psi
1 1/8	Amer. Select	Win. 209	Figure 8 & DRRF8	17.5 grs 8100 psi	19.0 grs 9400 psi	20.0 grs 9800 psi	
1 1/8	Amer. Select	Win. 209	RXP 12	17.0 grs 9100 psi	19.0 grs 9400 psi	20.5 grs 10700 psi	21.0 grs 10800 psi
1 1/8	Amer. Select	Win. 209	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 9000 psi	18.0 grs 9400 psi	19.5 grs 10300 psi	

continued

12-Gauge 1 1/8 Ounce Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Amer. Select	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1	16.8 grs 8400 psi			
1 1/8	Amer. Select	Win. 209	WT 12 (Orange)			18.5 grs 9600 psi	19.5 grs 10700 psi
1 1/8	Amer. Select	Win. 209	Windjammer			18.5 grs 8100 psi	20.5 grs 9200 psi
1 1/8	Promo	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 9800 psi	17.5 grs 10400 psi	18.5 grs 10500 psi	
1 1/8	Promo	Fio. 616	WAA12 & DRA12 & DRXL 1 1/8	16.0 grs 8900 psi	17.0 grs 10200 psi	18.0 grs 10500 psi	
1 1/8	Promo	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 8100 psi	17.5 grs 8700 psi	19.0 grs 9500 psi	
1 1/8	Promo	Win. 209	CB 1100-12	16.0 grs 8000 psi			
1 1/8	Promo	Win. 209	CB 3118-12			16.8 grs 9100 psi	18.5 grs 10500 psi
1 1/8	Promo	Win. 209	Blue Duster	15.5 grs 10300 psi	16.5 grs 10600 psi	19.0 grs 10800 psi	
1 1/8	Promo	Win. 209	Versalite	16.5 grs 9000 psi	18.0 grs 9500 psi	19.0 grs 9700 psi	
1 1/8	Promo	Win. 209	Red PC	16.0 grs 9100 psi	17.5 grs 9500 psi	18.5 grs 10300 psi	
1 1/8	Promo	Win. 209	Figure 8 & DRRF8	16.0 grs 8300 psi	17.5 grs 9900 psi	18.5 grs 10700 psi	
1 1/8	Promo	Win. 209	RXP 12	16.5 grs 9000 psi	17.0 grs 8400 psi	18.5 grs 9800 psi	
1 1/8	Promo	Win. 209	WAA12 & DRA12 & DRXL 1 1/8	16.0 grs 9500 psi	17.0 grs 10000 psi	18.0 grs 10400 psi	
1 1/8	Promo	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1	16.0 grs 9300 psi			
1 1/8	Promo	Win. 209	WT 12 (Orange)			16.5 grs 10700 psi	17.0 grs 10700 psi
1 1/8	Promo	Win. 209	Windjammer			17.5 grs 9300 psi	
1 1/8	Promo	Fed. 209A	CB 3118-12			17.0 grs 9600 psi	18.5 grs 10500 psi
1 1/8	Promo	Fed. 209A	Versalite			17.0 grs 10300 psi	18.0 grs 10700 psi
1 1/8	Promo	Fed. 209A	Red PC			17.0 grs 10100 psi	18.0 grs 10000 psi
1 1/8	Promo	Fed. 209A	Figure 8 & DRRF8			17.0 grs 9800 psi	18.5 grs 10200 psi
1 1/8	Promo	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8			17.0 grs 10600 psi	
1 1/8	Promo	Fed. 209A	Windjammer			17.0 grs 9000 psi	18.0 grs 10000 psi
1 1/8	Green Dot	Win. 209	CB 1100-12	17.5 grs 7800 psi			
1 1/8	Green Dot	Win. 209	CB 3118-12			19.1 grs 9300 psi	20.0 grs 9800 psi
1 1/8	Green Dot	Win. 209	Blue Duster	17.5 grs 8300 psi	19.0 grs 9300 psi	20.0 grs 9400 psi	
1 1/8	Green Dot	Win. 209	Versalite	17.5 grs 7800 psi	19.5 grs 8000 psi	21.0 grs 9000 psi	22.0 grs 9900 psi
1 1/8	Green Dot	Win. 209	Red PC	18.0 grs 7300 psi	19.0 grs 8300 psi	20.5 grs 9800 psi	22.0 grs 10300 psi
1 1/8	Green Dot	Win. 209	Figure 8 & DRRF8	18.0 grs 7400 psi	19.0 grs 8600 psi	20.5 grs 9500 psi	22.0 grs 10300 psi
1 1/8	Green Dot	Win. 209	RXP 12	17.5 grs 7600 psi	18.0 grs 8100 psi	19.5 grs 8900 psi	21.0 grs 9500 psi

continued

12-Gauge 1 1/8 Ounce Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Green Dot	Win. 209	WAA12 & DRA12 & DRXL 1 1/8	17.5 grs 8100 psi	18.0 grs 8500 psi	19.5 grs 9300 psi	21.5 grs 10500 psi
1 1/8	Green Dot	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1	18.0 grs 8000 psi			
1 1/8	Green Dot	Win. 209	WT 12 (Orange)	16.5 grs 9000 psi	18.0 grs 9400 psi	20.0 grs 9200 psi	21.5 grs 9800 psi
1 1/8	Green Dot	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8		18.5 grs 10100 psi	20.0 grs 10400 psi	
1 1/8	Green Dot	Win. 209	Windjammer		18.0 grs 8400 psi	21.0 grs 9000 psi	
1 1/8	Green Dot	Fed. 209A	CB 3118-12		18.5 grs 8400 psi	19.5 grs 9300 psi	
1 1/8	Green Dot	Fed. 209A	Versalite		18.5 grs 9300 psi	19.5 grs 10400 psi	
1 1/8	Green Dot	Fed. 209A	Red PC		18.5 grs 8700 psi	19.5 grs 10500 psi	
1 1/8	Green Dot	Fed. 209A	Figure 8 & DRRF8		18.5 grs 8600 psi	19.5 grs 9400 psi	
1 1/8	Green Dot	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8		18.0 grs 9300 psi	19.0 grs 10200 psi	
1 1/8	Green Dot	Fed. 209A	Windjammer		18.5 grs 8200 psi	20.0 grs 9200 psi	
1 1/8	Green Dot	Fio. 616	WAA12 & DRA12 & DRXL 1 1/8		18.5 grs 9400 psi	20.0 grs 9500 psi	23.5 grs 10100 psi
1 1/8	Green Dot	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8			20.0 grs 9800 psi	
1 1/8	20/28	Win. 209	Figure 8			21.7 grs 6750 psi	23.0 grs 7550 psi
1 1/8	20/28	CCI 209M	WAA-12			21.0 grs 7360 psi	22.3 grs 7930 psi
1 1/8	20/28	CCI 209M	CB 3118-12			22.3 grs 7340 psi	
1 1/8	20/28	Win. 209	CB 3118-12			22.5 grs 6920 psi	
1 1/8	20/28	Rem. 209P	Figure 8			21.5 grs 6700 psi	23.1 grs 7580 psi
1 1/8	20/28	CCI 209M	Figure 8			22.0 grs 6980 psi	23.1 grs 7500 psi
1 1/8	20/28	Fio. 616	Figure 8				23.1 grs 7100 psi
1 1/8	Unique	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8			21.5 grs 10300 psi	
1 1/8	Unique	Fio. 616	WAA12 & DRA12 & DRXL 1 1/8			21.5 grs 9100 psi	
1 1/8	Unique	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8			23.0 grs 7500 psi	24.0 grs 9300 psi
1 1/8	Unique	Win. 209	CB 3118-12			22.5 grs 8800 psi	
1 1/8	Unique	Win. 209	Blue Duster			22.0 grs 8300 psi	
1 1/8	Unique	Win. 209	Versalite			21.0 grs 8200 psi	24.0 grs 9400 psi
1 1/8	Unique	Win. 209	Red PC			23.5 grs 9500 psi	24.5 grs 10000 psi
1 1/8	Unique	Win. 209	Figure 8 & DRRF8			22.5 grs 8300 psi	24.0 grs 9000 psi
1 1/8	Unique	Win. 209	RXP 12			22.0 grs 8700 psi	23.0 grs 9200 psi
1 1/8	Unique	Win. 209	WAA12 & DRA12 & DRXL 1 1/8			21.0 grs 9100 psi	23.5 grs 9400 psi

12-Gauge 1 1/4 Ounce Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1350 fps	1375 fps	1400 fps	1425 fps
1 1/8	Unique	Win. 209	WT 12 (Orange)			21.5 grs 9000 psi	22.5 grs 9500 psi
1 1/8	Unique	Win. 209	Windjammer			22.5 grs 8200 psi	
1 1/8	Herco	Win. 209	Versalite				24.5 grs 9200 psi
1 1/8	Herco	Win. 209	Red PC				25.0 grs 9100 psi
1 1/8	Herco	Win. 209	Figure 8 & DRRF8				25.0 grs 9100 psi
1 1/8	Herco	Win. 209	RXP 12				25.0 grs 9200 psi
1 1/8	Herco	Win. 209	WAA12 & DRA12 & DRXL 1 1/8				25.0 grs 9500 psi
1 1/8	Herco	Win. 209	WT 12 (Orange)				23.5 grs 9400 psi
1 1/4	Pro Reach	CCI 209M	CB 1138-12				30.0 grs 10800 psi
1 1/4	Pro Reach	Fed. 209A	CB 1138-12		27.5 grs 9650 psi		29.5 grs 11080 psi
1 1/4	Pro Reach	Rem. 209P	CB 1138-12		28.1 grs 9770 psi		30.0 grs 10540 psi
1 1/4	Pro Reach	Win. 209	CB 1138-12		28.3 grs 9640 psi		31.0 grs 10380 psi
1 1/4	Pro Reach	CCI 209M	WAAF114			28.9 grs 10190 psi	
1 1/4	Pro Reach	Win. 209	WAAF114		28.3 grs 9810 psi		
1 1/4	Pro Reach	Cheddite	CB 1138-12		27.6 grs 9820 psi		
1 1/4	Pro Reach	Cheddite	WAAF114		28.0 grs 9490 psi		
1 1/4	Pro Reach	Win. 209	CB 1138-12		28.0 grs 9,950 psi		
1 1/4	Pro Reach	Fed. 209A	CB 1138-12			28.0 grs 10010 psi	
1 1/4	Pro Reach	CCI 209M	CB 1138-12		27.5 grs 10620 psi		
1 1/4	Pro Reach	Fed. 209A	Fed. 12S4		27.0 grs 11150 psi		
1 1/4	Pro Reach	Rem. 209P	CB 1138-12		28.1 grs 9720 psi		29.5 grs 10540 psi
1 1/4	Pro Reach	Win. 209	RP 12		27.7 grs 9780 psi		29.0 grs 10560 psi
1 1/4	Pro Reach	Cheddite	WAAF114		28.1 grs 10180 psi		
1 1/4	Pro Reach	Cheddite	CB 1138-12		27.6 grs 9820 psi		
12-Gauge 1 1/4, 1 3/8 & 1 1/2 Ounce Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1150 fps	1200 fps	1225 fps	1250 fps
1 1/4	20/28	Win. 209	SP 12				23.3 grs 9180 psi
1 1/4	20/28	Rem. 209P	SP 12				23.4 grs 9010 psi
1 1/4	20/28	CCI 209M	SP 12				23.2 grs 9720 psi
1 1/4	Unique	CCI 209M	WAA12F114			23.5 grs 9900 psi	
1 1/4	Unique	Fio. 616	WAA12F114			23.0 grs 10300 psi	
1 1/4	Unique	Rem. 209P	WAA12F114			24.0 grs 10000 psi	
1 1/4	Unique	Win. 209	Versalite			24.0 grs 9800 psi	
1 1/4	Unique	Win. 209	RP 12			22.5 grs 9500 psi	
1 1/4	Unique	Win. 209	WAA12F114			23.5 grs 9900 psi	

continued

12-Gauge 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1150 fps	1200 fps	1225 fps	1250 fps
1 1/4	Herco	CCI 209M	WAA12F114			24.0 grs 9100 psi	
1 1/4	Herco	Fio. 616	WAA12F114			25.0 grs 9800 psi	
1 1/4	Herco	Rem. 209P	WAA12F114			25.5 grs 8300 psi	
1 1/4	Herco	Win. 209	CB 1138-12			25.0 grs 9600 psi	
1 1/4	Herco	Win. 209	Versalite			25.5 grs 8500 psi	
1 1/4	Herco	Win. 209	WAA12F114			25.0 grs 8400 psi	
1 3/8	Blue Dot	Win. 209	RP 12	33.0 grs 10400 psi			
1 3/8	Blue Dot	Win. 209	SP 12			34.5 grs 10300 psi	
1 3/8	Pro Reach	CCI 209M	CB 1138-12			26.2 grs 10910 psi	
1 3/8	Pro Reach	Win. 209	RP 12			25.0 grs 10620 psi	
1 3/8	Pro Reach	Win. 209	CB 1138-12			26.1 grs 10520 psi	
1 3/8	Pro Reach	Fed. 209A	CB 1138-12		24.5 grs 10740 psi		
1 3/8	Pro Reach	Rem. 209P	CB 1138-12			26.0 grs 10460 psi	
1 3/8	Pro Reach	Fed. 209A	RP 12	23.8 grs 10760 psi			
1 3/8	Pro Reach	CCI 209M	CB 1138-12			26.5 grs 10580 psi	
1 1/2	Blue Dot	Win. 209	RP 12	30.5 grs 10800 psi			
1 1/2	Blue Dot	Win. 209	WAA12R	31.0 grs 10400 psi			
1 1/2	Blue Dot	Win. 209	CB 1138-12	33.7 grs 10100 psi			
12-GAUGE 2 3/4 INCH FEDERAL GOLD MEDAL PLASTIC TARGET SHELLS							
12-Gauge 7/8 and 1 Ounce Target Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1250 fps	1290 fps	
7/8	Clay Dot	Fed. 209A	12SO & DRXXL (Orange)	17.5 grs 6042 psi	18.0 grs 6530 psi	19.0 grs 7310 psi	
7/8	Clay Dot	Fed. 209A	CB 0178	18.0 grs 5804 psi	18.5 grs 6040 psi	19.5 grs 9110 psi	
7/8	Clay Dot	Fed. 209A	CB 4100-12	18.0 grs 5744 psi	18.5 grs 6112 psi	19.0 grs 7780 psi	
7/8	e3	Fed. 209A	12SO & DRXXL (Orange)	16.5 grs 6905 psi	17.5 grs 8095 psi	18.5 grs 8855 psi	
7/8	e3	Fed. 209A	TGT 12 & DRRT12		17.0 grs 7095 psi	18.0 grs 7925 psi	
7/8	Red Dot	Fed. 209A	Purple PC	17.0 grs 6400 psi	18.5 grs 7300 psi	19.5 grs 7900 psi	
7/8	Red Dot	Fed. 209A	TGT 12 & DRRT12	17.5 grs 7100 psi	18.5 grs 7800 psi	19.5 grs 8500 psi	
7/8	Red Dot	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	17.0 grs 7300 psi	18.0 grs 8000 psi	19.0 grs 8400 psi	
7/8	Red Dot	Fed. 209A	12SO & DRXXL (Orange)		19.0 grs 7900 psi	19.5 grs 8400 psi	
7/8	Amer. Select	Fed. 209A	CB 1100-12			21.5 grs 6900 psi	
7/8	Amer. Select	Fed. 209A	12SO & DRXXL (Orange)			21.0 grs 7300 psi	

continued

12-Gauge 7/8 and 1 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1250 fps	1290 fps	
7/8	Amer. Select	Fed. 209A	Purple PC				21.5 grs 6900 psi
7/8	Amer. Select	Fed. 209A	TGT 12 & DRRT12				21.0 grs 7400 psi
7/8	Green Dot	Fed. 209A	12SO & DRXXL (Orange)				22.0 grs 7500 psi
7/8	Green Dot	Fed. 209A	Purple PC				22.5 grs 7000 psi
7/8	Green Dot	Fed. 209A	TGT 12 & DRRT12				22.0 grs 7200 psi
7/8	Green Dot	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1				21.5 grs 7600 psi
7/8	Promo	Fed. 209A	Purple PC	17.0 grs 6400 psi	18.5 grs 7300 psi	19.5 grs 7900 psi	
7/8	Promo	Fed. 209A	TGT 12 & DRRT12	17.5 grs 7100 psi	18.5 grs 7800 psi	19.5 grs 8500 psi	
7/8	Promo	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	17.0 grs 7300 psi	18.0 grs 8000 psi	19.0 grs 8400 psi	
7/8	Promo	Fed. 209A	12SO & DRXXL (Orange)			19.0 grs 7900 psi	19.5 grs 8400 psi
1	Clay Dot	Fed. 209A	12SO		17.9 grs 5870 psi	19.2 grs 6600 psi	
1	Clay Dot	Fed. 209A	DRXXL (Orange)		18.0 grs 8820 psi		
1	Clay Dot	CCI 209	DRXXL (Orange)		18.0 grs 6770 psi		
1	Clay Dot	Win. 209	DRXXL (Orange)		18.0 grs 7460 psi		
1	Clay Dot	RIO	DRXXL (Orange)		18.0 grs 6610 psi		
1	Clay Dot	Cheddite	DRXXL (Orange)		18.0 grs 7370 psi		
1	Clay Dot	Fiocchi 616	DRXXL (Orange)		18.0 grs 7490 psi		
1	Clay Dot	Rem. 209P	DRXXL (Orange)		18.0 grs 7930 psi		
1	Clay Dot	CCI 209M	DRXXL (Orange)		18.0 grs 8690 psi		
1	Clay Dot	Rem. 209P	TGT 12 & DRRT12		19.2 grs 6450 psi	20.2 grs 7320 psi	
1	Clay Dot	Win. 209	WAA12SL & DRXL-1 & Jammer XL-1		18.2 grs 5910 psi	19.1 grs 6730 psi	
1	Clay Dot	Fed. 209A	CB 6100-12		18.0 grs 6040 psi	19.0 grs 7170 psi	20.0 grs 7970 psi
1	Clay Dot	CCI 209	CB 6100-12		17.5 grs 5960 psi		
1	Amer. Select	Fed. 209A	CB 6100-12		19.0 grs 5910 psi	20.5 grs 6790 psi	21.5 grs 7290 psi
1	Amer. Select	CCI 209	CB 6100-12		19.5 grs 5790 psi		
1	Green Dot	Fed. 209A	CB 6100-12		19.5 grs 5980 psi	20.5 grs 6860 psi	22.0 grs 7230 psi
1	e3	Fed. 209A	Green Duster		16.5 grs 8310 psi	18.0 grs 9710 psi	18.5 grs 10035 psi
1	e3	Fed. 209A	TGT 12 & DRRT12		17.0 grs 8000 psi	18.0 grs 8840 psi	19.0 grs 9660 psi
1	e3	Fed. 209A	12SO & DRXXL (Orange)		17.5 grs 9040 psi	18.5 grs 9340 psi	19.5 grs 10070 psi
1	e3	Fed. 209A	CB 6100-12		16.5 grs 6780 psi		

continued

12-Gauge 7/8 and 1 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1250 fps	1290 fps	
1	e3	CCI 209	CB 6100-12	16.5 grs 6290 psi	18.0 grs 7270 psi	18.5 grs 7470 psi	
1	Red Dot	Fed. 209A	12SO & DRXXL (Orange)	18.0 grs 8300 psi	19.5 grs 9300 psi	20.5 grs 10300 psi	
1	Red Dot	Fed. 209A	Purple PC	18.0 grs 7400 psi	19.5 grs 8700 psi	20.5 grs 9300 psi	
1	Red Dot	Fed. 209A	TGT 12 & DRRT12	18.0 grs 7900 psi	19.0 grs 8700 psi	20.0 grs 9100 psi	
1	Red Dot	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	18.0 grs 8700 psi	18.5 grs 9100 psi	20.0 grs 10300 psi	
1	Red Dot	CCI 209	CB 6100-12	18.0 grs 6430 psi			
1	Red Dot	Fed. 209A	CB 6100-12	18.0 grs 6550 psi	19.0 grs 6790 psi	20.0 grs 7910 psi	
1	Amer. Select	Fed. 209A	CB 6100-12	20.0 grs 7300 psi	21.0 grs 7600 psi	21.5 grs 8000 psi	
1	Amer. Select	Fed. 209A	12SO & DRXXL (Orange)	19.5 grs 7100 psi	21.0 grs 7700 psi	22.0 grs 8500 psi	
1	Amer. Select	Fed. 209A	TGT 12 & DRRT12	19.5 grs 7500 psi	20.5 grs 8100 psi	21.5 grs 8800 psi	
1	Amer. Select	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	19.5 grs 7200 psi	21.0 grs 8400 psi	21.5 grs 8800 psi	
1	Green Dot	Fed. 209A	12SO & DRXXL (Orange)	20.5 grs 7600 psi	21.5 grs 8600 psi	22.5 grs 8700 psi	
1	Green Dot	Fed. 209A	Purple PC	20.5 grs 7300 psi	21.5 grs 8000 psi	22.5 grs 8300 psi	
1	Green Dot	Fed. 209A	TGT 12 & DRRT12	20.0 grs 7000 psi	21.5 grs 7900 psi	22.5 grs 8500 psi	
1	Green Dot	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	20.0 grs 7800 psi	21.5 grs 8500 psi	22.5 grs 9000 psi	
1	Green Dot	CCI 209	CB 6100-12	19.5 grs 6190 psi			
1	Promo	Fed. 209A	12SO & DRXXL (Orange)	18.0 grs 8300 psi	19.5 grs 9300 psi	20.5 grs 10300 psi	
1	Promo	Fed. 209A	Purple PC	18.0 grs 7400 psi	19.5 grs 8700 psi	20.5 grs 9300 psi	
1	Promo	Fed. 209A	TGT 12 & DRRT12	18.0 grs 7900 psi	19.0 grs 8700 psi	20.0 grs 9100 psi	
1	Promo	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	18.0 grs 8700 psi	18.5 grs 9100 psi	20.0 grs 10300 psi	
12-Gauge 1 1/8 Ounce Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Clay Dot	Fed. 209A	12S3 & DRF3		17.1 grs 7590 psi	19.0 grs 8750 psi	
1 1/8	Clay Dot	Fed. 209A	WAA12		17.0 grs 7680 psi	18.5 grs 8970 psi	
1 1/8	Clay Dot	Rem. 209P	Figure 8 & DRRF8		17.8 grs 6640 psi		18.9 grs 9870 psi
1 1/8	Clay Dot	Fed. 209A	CB 6118-12	16.5 grs 6710 psi	18.0 grs 7870 psi	19.0 grs 9540 psi	
1 1/8	e3	Fed. 209A	CB 6118-12	15.0 grs 7070 psi	16.5 grs 8100 psi	17.5 grs 8940 psi	
1 1/8	e3	Fed. 209A	CB 3118-12AR	15.5 grs 8210 psi	16.5 grs 8960 psi	17.8 grs 9990 psi	
1 1/8	e3	Fed. 209A	CB 4118	15.5 grs 7860 psi	16.5 grs 8365 psi	18.0 grs 9525 psi	

continued

12-Gauge 1 1/8 Ounce Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	e3	Fed. 209A	Figure 8 & DRRF8	15.5 grs 7930 psi	17.0 grs 8875 psi	18.0 grs 9900 psi	
1 1/8	e3	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	15.5 grs 8290 psi	16.5 grs 8980 psi	18.0 grs 10470 psi	
1 1/8	e3	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	15.5 grs 8485 psi	16.5 grs 9215 psi	18.0 grs 10755 psi	
1 1/8	e3	Fed. 209A	12S3 & DRF3 & DRXXL (Orange)	15.5 grs 8580 psi	17.0 grs 9260 psi	18.0 grs 10660 psi	
1 1/8	e3	Fed. 209A	Blue Duster	15.5 grs 8655 psi	16.5 grs 9520 psi	18.0 grs 10550 psi	
1 1/8	Amer. Select	Fed. 209A	CB 6118-12	18.5 grs 5330 psi	20.0 grs 6110 psi	20.5 grs 7640 psi	
1 1/8	Amer. Select	Fed. 209A	CB 3118-12	17.5 grs 7100 psi	19.0 grs 8200 psi	20.5 grs 9600 psi	22.0 grs 10600 psi
1 1/8	Amer. Select	Fed. 209A	12S3 & DRF3	17.5 grs 7100 psi	19.0 grs 7600 psi	20.5 grs 9200 psi	22.0 grs 10100 psi
1 1/8	Amer. Select	Fed. 209A	Versalite	17.0 grs 8100 psi	18.5 grs 9600 psi	20.0 grs 10900 psi	21.0 grs 10900 psi
1 1/8	Amer. Select	Fed. 209A	Figure 8 & DRRF8	17.5 grs 8000 psi	19.0 grs 9000 psi	20.0 grs 10300 psi	
1 1/8	Amer. Select	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	17.5 grs 7400 psi	19.0 grs 9600 psi	20.5 grs 9400 psi	
1 1/8	Amer. Select	Fed. 209A	WT 12 (Orange)	18.0 grs 7700 psi	19.0 grs 9300 psi	20.5 grs 10400 psi	
1 1/8	Amer. Select	Fed. 209A	Windjammer		19.0 grs 8700 psi	20.5 grs 9800 psi	21.5 grs 10700 psi
1 1/8	Amer. Select	Rem. 209P	12S3 & DRF3		19.5 grs 7800 psi	21.5 grs 9000 psi	
1 1/8	Amer. Select	Win. 209	12S3 & DRF3		19.5 grs 8100 psi	20.5 grs 9900 psi	
1 1/8	Red Dot	Fed. 209A	CB 6118-12	16.5 grs 7290 psi	17.5 grs 8140 psi	18.5 grs 8690 psi	
1 1/8	Red Dot	CCI 209	12S3 & DRF3		18.0 grs 8200 psi	20.0 grs 9800 psi	
1 1/8	Red Dot	CCI 209M	12S3 & DRF3	17.0 grs 8300 psi	18.0 grs 8600 psi	19.0 grs 8900 psi	
1 1/8	Red Dot	Fed. 209A	12S3 & DRF3	17.0 grs 8400 psi	18.0 grs 8800 psi	19.5 grs 10000 psi	
1 1/8	Red Dot	Fed. 209A	Versalite	17.0 grs 8600 psi	18.0 grs 9400 psi	19.0 grs 10100 psi	20.0 grs 10700 psi
1 1/8	Red Dot	Fed. 209A	Figure 8 & DRRF8	17.0 grs 7700 psi	18.0 grs 8800 psi	19.0 grs 9500 psi	20.0 grs 9500 psi
1 1/8	Red Dot	Fed. 209A	RXP 12		18.0 grs 9400 psi	19.0 grs 9900 psi	20.0 grs 10100 psi
1 1/8	Red Dot	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	16.5 grs 8500 psi	17.5 grs 9400 psi	19.0 grs 10400 psi	
1 1/8	Red Dot	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	17.0 grs 8100 psi	18.0 grs 9200 psi	19.0 grs 10000 psi	
1 1/8	Red Dot	Fed. 209A	WT 12 (Orange)		18.5 grs 9300 psi	20.0 grs 10400 psi	
1 1/8	Red Dot	Fed. 209A	Windjammer	17.5 grs 7600 psi	18.5 grs 8200 psi	19.5 grs 9600 psi	20.5 grs 9500 psi
1 1/8	Red Dot	Fio. 616	12S3 & DRF3	17.5 grs 8200 psi			

continued

12-Gauge 1 1/8 Ounce Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Red Dot	Win. 209	12S3 & DRF3	17.0 grs 8400 psi	17.5 grs 9600 psi	19.0 grs 10500 psi	
1 1/8	Red Dot	Rem. 209P	12S3 & DRF3		18.5 grs 8200 psi	19.5 grs 9300 psi	
1 1/8	Green Dot	Fed. 209A	CB 6118-12	18.0 grs 6900 psi	19.5 grs 7220 psi	20.5 grs 7800 psi	
1 1/8	Green Dot	Fed. 209A	12S3 & DRF3	18.5 grs 7800 psi	19.5 grs 8100 psi	20.0 grs 9000 psi	21.5 grs 9500 psi
1 1/8	Green Dot	Fed. 209A	Versalite	18.0 grs 7200 psi	19.0 grs 8000 psi	20.5 grs 9400 psi	21.5 grs 9000 psi
1 1/8	Green Dot	Fed. 209A	Figure 8 & DRRF8	18.0 grs 7000 psi	19.0 grs 7700 psi	20.0 grs 8600 psi	22.0 grs 9200 psi
1 1/8	Green Dot	Fed. 209A	RXP 12		19.0 grs 8000 psi	20.0 grs 8800 psi	21.5 grs 9700 psi
1 1/8	Green Dot	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	18.0 grs 7700 psi	19.0 grs 8200 psi	20.0 grs 9200 psi	21.5 grs 9400 psi
1 1/8	Green Dot	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	18.0 grs 7600 psi	19.0 grs 8200 psi	20.0 grs 8800 psi	
1 1/8	Green Dot	Fed. 209A	WT 12 (Orange)		20.0 grs 8400 psi	21.5 grs 8800 psi	
1 1/8	Green Dot	Fed. 209A	Windjammer	18.5 grs 6600 psi	19.5 grs 7700 psi	21.0 grs 8200 psi	22.5 grs 8400 psi
1 1/8	Green Dot	CCI 209	12S3 & DRF3		19.0 grs 7800 psi	22.0 grs 9200 psi	
1 1/8	Green Dot	CCI 209M	12S3 & DRF3		19.5 grs 7500 psi	21.0 grs 8600 psi	22.5 grs 9800 psi
1 1/8	Green Dot	Win. 209	12S3 & DRF3		19.5 grs 8000 psi	20.5 grs 9000 psi	22.5 grs 10500 psi
1 1/8	Green Dot	Rem. 209P	12S3 & DRF3		20.5 grs 6800 psi	21.5 grs 7900 psi	23.0 grs 8800 psi
1 1/8	Unique	CCI 209	12S3 & DRF3			24.0 grs 8300 psi	
1 1/8	Unique	CCI 209M	12S3 & DRF3			23.5 grs 8000 psi	24.0 grs 9100 psi
1 1/8	Unique	Fed. 209A	12S3 & DRF3			22.5 grs 7300 psi	23.5 grs 8100 psi
1 1/8	Unique	Fed. 209A	Versalite			22.0 grs 8000 psi	24.0 grs 8300 psi
1 1/8	Unique	Fed. 209A	Figure 8 & DRRF8			22.5 grs 7300 psi	23.5 grs 7800 psi
1 1/8	Unique	Fed. 209A	RXP 12			22.5 grs 7800 psi	23.5 grs 8400 psi
1 1/8	Unique	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8			22.5 grs 8100 psi	23.0 grs 8400 psi
1 1/8	Unique	Fed. 209A	WT 12 (Orange)			23.5 grs 8300 psi	
1 1/8	Unique	Fed. 209A	Windjammer			22.5 grs 6900 psi	24.0 grs 7700 psi
1 1/8	Unique	Win. 209	12S3 & DRF3			23.0 grs 8600 psi	24.0 grs 9800 psi
1 1/8	Unique	Rem. 209P	12S3 & DRF3			24.0 grs 6900 psi	25.0 grs 7600 psi
1 1/8	Herco	Fed. 209A	12S3 & DRF3				26.0 grs 8000 psi
(oz)				1200 fps	1225 fps	1425 fps	1450 fps
1 1/8	Herco	Fed. 209A	Versalite	26.0 grs 8200 psi			
1 1/8	Herco	Fed. 209A	Figure 8 & DRRF8	26.0 grs 7700 psi			
1 1/8	Herco	Fed. 209A	RXP 12	26.0 grs 8000 psi			
1 1/8	Herco	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	26.0 grs 8300 psi			
1 1/8	Herco	Fed. 209A	Windjammer	26.0 grs 7400 psi			
1 1/8	Pro Reach	CCI 209M	Fed. 12S3				35.2 grs 10330 psi
1 1/8	Pro Reach	Rem. 209P	Fed. 12S3				35.0 grs 10270 psi

continued

12-Gauge 1 1/4 Ounce Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1225 fps	1425 fps	1450 fps
1 1/4	Pro Reach	CCI 209M	12S4				30.5 grs 10860 psi
1 1/4	Pro Reach	CCI 209M	WAA12F114				32.5 grs 11120 psi
1 1/4	Pro Reach	Fed. 209A	WAA12F114				30.5 grs 11190 psi
1 1/4	Pro Reach	Fed. 209A	12S4				30.0 grs 11010 psi
1 1/4	Unique	CCI 209M	12S4			24.5 grs 9500 psi	
1 1/4	Unique	Fed. 209A	12S4			24.0 grs 10500 psi	
1 1/4	Unique	Fed. 209A	SP 12			24.0 grs 10400 psi	
1 1/4	Unique	Fed. 209A	WAA12F114			24.0 grs 10600 psi	
1 1/4	Unique	Win. 209	12S4			24.0 grs 9500 psi	
1 1/4	Unique	Rem. 209P	12S4			25.0 grs 9800 psi	
1 1/4	Herco	CCI 209M	12S4			25.5 grs 8700 psi	
1 1/4	Herco	Fed. 209A	12S4			25.0 grs 10200 psi	
1 1/4	Herco	Fed. 209A	SP 12			26.0 grs 9700 psi	
1 1/4	Herco	Fed. 209A	WAA12F114			25.0 grs 10100 psi	
1 1/4	Herco	Win. 209	12S4			25.5 grs 9400 psi	
1 1/4	Herco	Rem. 209P	12S4			25.5 grs 8100 psi	
1 1/4	Blue Dot	CCI 209M	RP 12		34.0 grs 9400 psi		
1 1/4	Blue Dot	Fed. 209A	RP 12		34.0 grs 9700 psi		
1 1/4	Blue Dot	CCI 209M	RP 12		35.5 grs 8100 psi		
1 1/4	Blue Dot	Fed. 209A	RP 12		34.5 grs 9900 psi		
12-Gauge 1 3/8 & 1 1/2 Ounce Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1150 fps	1200 fps	1225 fps	1250 fps
1 3/8	Blue Dot	CCI 209M	RP 12				35.0 grs 8600 psi
1 3/8	Blue Dot	Fed. 209A	RP 12				34.0 grs 9900 psi
1 3/8	Blue Dot	Rem. 209P	RP 12				36.0 grs 7800 psi
1 3/8	Blue Dot	Win. 209	RP 12				34.5 grs 8600 psi
1 1/2	Herco	Fed. 209A	RP 12		25.5 grs 10100 psi		
1 1/2	Blue Dot	Fed. 209A	RP 12		33.5 grs 8300 psi		
12-GAUGE 2 3/4 INCH FEDERAL GOLD MEDAL PAPER TARGET SHELLS							
12-Gauge 7/8 and 1 Ounce Target Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1250 fps	1300 fps	
7/8	Red Dot	Fed. 209A	CB 0178	17.5 grs 6028 psi	18.5 grs 6570 psi	19.5 grs 7196 psi	
7/8	Clay Dot	Fed. 209A	12SO & DRXXL (Orange)	17.5 grs 6400 psi	18.5 grs 6900 psi	19.5 grs 7390 psi	
7/8	e3	Fed. 209A	CB 4100-12B	16.5 grs 6280 psi	17.5 grs 7075 psi	18.5 grs 7400 psi	

continued

12-Gauge 7/8 and 1 Ounce Target Loads continued								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1200 fps	1250 fps	1300 fps		
7/8	e3	Fed. 209A	WAA12SL & DRXL-1 & Jammer XL-1	16.5 grs 6960 psi	17.5 grs 7345 psi	18.5 grs 8230 psi		
1	Clay Dot	Fed. 209A	12SO & DRXXL (Orange)	18.0 grs 6770 psi	19.5 grs 8580 psi			
1	Clay Dot	Fed. 209A	CB 6100-12	18.5 grs 8610 psi	19.5 grs 8240 psi	20.5 grs 9210 psi		
1	e3	Fed. 209A	12SO & DRXXL (Orange)	17.5 grs 8535 psi	18.5 grs 10065 psi	19.5 grs 10630 psi		
1	e3	Fed. 209A	CB 6100-12	17.0 grs 7520 psi	18.0 grs 7960 psi	19.0 grs 8820 psi		
1	Red Dot	CCI 209M	12S3 & DRF3			21.0 grs 8700 psi		
1	Red Dot	Fed. 209A	12S3 & DRF3			20.5 grs 9000 psi		
1	Red Dot	Fed. 209A	CB 6100-12	18.0 grs 7680 psi	19.0 grs 8410 psi	20.5 grs 8730 psi		
1	Red Dot	Fed. 209A	12SO & DRXXL (Orange)			20.5 grs 10400 psi		
1	Red Dot	Fed. 209A	Rem. R12L			20.0 grs 9300 psi		
1	Amer. Select	Fed. 209A	CB 6100-12	19.5 grs 6510 psi	21.0 grs 7290 psi	21.5 grs 7930 psi		
1	Promo	CCI 209M	12S3 & DRF3			21.0 grs 8700 psi		
1	Promo	Fed. 209A	12S3 & DRF3			20.5 grs 9000 psi		
1	Promo	Fed. 209A	CB 6100-12	18.0 grs 7680 psi	19.0 grs 8410 psi	20.5 grs 8730 psi		
1	Promo	Fed. 209A	12SO & DRXXL (Orange)			20.5 grs 10400 psi		
1	Promo	Fed. 209A	Rem. R12L			20.0 grs 9300 psi		
1	Green Dot	CCI 209M	12S3 & DRF3			23.0 grs 7800 psi		
1	Green Dot	Fed. 209A	12S3 & DRF3			23.5 grs 9400 psi		
1	Green Dot	Fed. 209A	12SO & DRXXL (Orange)			22.5 grs 9200 psi		
1	Green Dot	Fed. 209A	Rem. R12L			21.5 grs 8800 psi		
1	Green Dot	Fed. 209A	CB 6100-12	20.5 grs 6850 psi	22.0 grs 7240 psi			
12-Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1145 fps	1200 fps	1235 fps	1250 fps	
1 1/8	Clay Dot	Fed. 209A	12S3 & DRF3	18.0 grs 9160 psi	19.5 grs 9750 psi			
1 1/8	Clay Dot	Fed. 209A	CB 6118-12	18.0 grs 7390 psi	19.0 grs 8690 psi		20.5 grs 10390 psi	
1 1/8	e3	Fed. 209A	CB 4118-12B	17.0 grs 9385 psi	18.5 grs 9860 psi			
1 1/8	e3	Fed. 209A	CB 3118-12AR	16.5 grs 9375 psi	18.0 grs 10430 psi			
1 1/8	e3	Fed. 209A	Figure 8 & DRRF8	17.0 grs 8765 psi	18.0 grs 9640 psi			
1 1/8	e3	Fed. 209A	RXP 12	17.0 grs 9280 psi	18.0 grs 10320 psi			
1 1/8	e3	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 9815 psi	18.0 grs 10780 psi			

continued

12-Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1145 fps	1200 fps	1235 fps	1250 fps	
1 1/8	e3	Fed. 209A	CB 6118-12	17.0 grs 8500 psi	18.0 grs 9200 psi			19.0 grs 10410 psi
1 1/8	e3	Fed. 209A	12S3 & DRF3	17.0 grs 9640 psi	18.5 grs 10955 psi			
1 1/8	Red Dot	Fed. 209A	12S3 & DRF3	18.0 grs 8800 psi	19.0 grs 8900 psi			20.5 grs 9900 psi
1 1/8	Red Dot	Fed. 209A	Red PC	18.0 grs 8300 psi	19.0 grs 10300 psi			20.5 grs 10700 psi
1 1/8	Red Dot	Fed. 209A	Rem. R12L	18.5 grs 9300 psi	19.5 grs 9500 psi			
1 1/8	Red Dot	Fed. 209A	RXP 12	18.0 grs 8900 psi	19.0 grs 9900 psi			21.0 grs 10000 psi
1 1/8	Red Dot	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	18.0 grs 8600 psi	19.0 grs 10500 psi			
1 1/8	Red Dot	Fed. 209A	Windjammer	18.5 grs 8200 psi	19.0 grs 8700 psi			
1 1/8	Red Dot	Fed. 209A	CB 6118-12	18.0 grs 8550 psi	19.0 grs 9160 psi			20.0 grs 9910 psi
1 1/8	Green Dot	Fed. 209A	12S3 & DRF3	18.5 grs 7400 psi	21.0 grs 7800 psi			23.0 grs 9100 psi
1 1/8	Green Dot	Fed. 209A	Versalite	19.5 grs 6900 psi	21.0 grs 8300 psi			22.5 grs 8500 psi
1 1/8	Green Dot	Fed. 209A	Red PC	20.0 grs 7600 psi	21.0 grs 8800 psi			22.5 grs 9600 psi
1 1/8	Green Dot	Fed. 209A	Rem. R12L	19.0 grs 8000 psi	20.0 grs 8600 psi			21.5 grs 9300 psi
1 1/8	Green Dot	Fed. 209A	RXP 12	18.5 grs 8100 psi	20.0 grs 8600 psi			
1 1/8	Green Dot	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	18.5 grs 8000 psi	19.5 grs 9000 psi			21.5 grs 10500 psi
1 1/8	Green Dot	Fed. 209A	Windjammer	20.5 grs 6600 psi	22.0 grs 7700 psi			22.5 grs 8840 psi
1 1/8	Green Dot	Fed. 209A	CB 6118-12	20.0 grs 7380 psi	21.0 grs 7810 psi			20.5 grs 9900 psi
1 1/8	Promo	Fed. 209A	12S3 & DRF3	18.0 grs 8800 psi	19.0 grs 8900 psi			
1 1/8	Promo	Fed. 209A	Red PC	18.0 grs 8300 psi	19.0 grs 10300 psi			20.5 grs 10700 psi
1 1/8	Promo	Fed. 209A	Rem. R12L	18.5 grs 9300 psi	19.5 grs 9500 psi			
1 1/8	Promo	Fed. 209A	RXP 12	18.0 grs 8900 psi	19.0 grs 9900 psi			21.0 grs 10000 psi
1 1/8	Promo	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	18.0 grs 8600 psi	19.0 grs 10500 psi			
1 1/8	Promo	Fed. 209A	Windjammer	18.5 grs 8200 psi	19.0 grs 8700 psi			
1 1/8	Promo	Fed. 209A	CB 6118-12	18.0 grs 8550 psi	19.0 grs 9160 psi			20.0 grs 9910 psi
1 1/8	Amer. Select	Fed. 209A	12S3 & DRF3	19.0 grs 8200 psi	20.5 grs 10400 psi			
1 1/8	Amer. Select	Fed. 209A	Versalite	19.0 grs 7900 psi	20.0 grs 10100 psi			
1 1/8	Amer. Select	Fed. 209A	Figure 8 & DRRF8	19.0 grs 7600 psi	20.0 grs 9800 psi			
1 1/8	Amer. Select	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8	19.0 grs 8400 psi	20.5 grs 10400 psi			
1 1/8	Amer. Select	Fed. 209A	WT 12 (Orange)	19.0 grs 8100 psi	20.5 grs 10200 psi			
1 1/8	Amer. Select	Fed. 209A	Windjammer	19.5 grs 7100 psi	20.0 grs 9100 psi			

continued

12-Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1145 fps	1200 fps	1235 fps	1250 fps
1 1/8	Amer. Select	Rem. 209P	12S3 & DRF3	19.0 grs 8500 psi	21.0 grs 9700 psi		
1 1/8	Amer. Select	Win. 209	12S3 & DRF3	19.0 grs 8900 psi	20.5 grs 9700 psi		
1 1/8	Amer. Select	Fed. 209A	CB 6118-12	19.5 grs 7290 psi	20.5 grs 8130 psi		22.0 grs 9440 psi
1 1/8	Unique	Fed. 209A	12S3 & DRF3		22.0 grs 7200 psi		23.0 grs 8300 psi
1 1/8	Unique	Fed. 209A	Versalite		22.0 grs 7900 psi		23.0 grs 8700 psi
1 1/8	Unique	Fed. 209A	Red PC		22.5 grs 8400 psi		24.5 grs 8500 psi
1 1/8	Unique	Fed. 209A	Rem. R12L		22.0 grs 7800 psi		
1 1/8	Unique	Fed. 209A	RXP 12		21.0 grs 8000 psi		22.0 grs 9500 psi
1 1/8	Unique	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8		21.0 grs 8600 psi		
1 1/8	Unique	Fed. 209A	Windjammer		23.5 grs 7600 psi		
1 1/4	Green Dot	CCI 209M	12S4		23.0 grs 10500 psi		
1 1/4	Green Dot	Fed. 209A	12S4		23.0 grs 10500 psi		
1 1/4	Green Dot	Fed. 209A	Versalite		23.0 grs 9600 psi		
1 1/4	Green Dot	Fed. 209A	SP 12		21.0 grs 9600 psi		
1 1/4	Green Dot	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8		21.0 grs 10500 psi		
1 1/4	Green Dot	Fed. 209A	WAA12F114		23.0 grs 9900 psi		
1 1/4	Green Dot	Rem. 209P	12S4		23.0 grs 9900 psi		
1 1/4	Unique	CCI 209M	12S4		25.5 grs 9700 psi		
1 1/4	Unique	Fed. 209A	12S4		24.0 grs 9800 psi		
1 1/4	Unique	Fed. 209A	Versalite		23.0 grs 8800 psi		
1 1/4	Unique	Fed. 209A	SP 12		22.0 grs 9600 psi		
1 1/4	Unique	Fed. 209A	WAA12 & DRA12 & DRXL 1 1/8		22.0 grs 10000 psi		
1 1/4	Unique	Fed. 209A	WAA12F114		23.5 grs 9500 psi		
1 1/4	Unique	Rem. 209P	12S4		25.5 grs 9100 psi		
1 1/4	Unique	Win. 209	12S4		24.5 grs 10600 psi		
1 3/8	Blue Dot	CCI 209M	SP 12			34.5 grs 9500 psi	
1 3/8	Blue Dot	Fed. 209A	SP 12			34.0 grs 9900 psi	
1 3/8	Blue Dot	Rem. 209P	SP 12			36.0 grs 8300 psi	
1 3/8	Blue Dot	Win. 209	SP 12			34.5 grs 9500 psi	
1 1/2	Herco	Fed. 209A	SP 12	25.0 grs 10200 psi			
1 1/2	Blue Dot	Fed. 209A	RP 12	32.5 grs 8800 psi			
1 1/2	Blue Dot	CCI 209M	RP 12		35.0 grs 9400 psi		

continued

12-Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1145 fps	1200 fps	1235 fps	1250 fps
1 1/2	Blue Dot	Fed. 209A	RP 12			34.0 grs 9300 psi	
1 1/2	Blue Dot	Rem. 209P	RP 12			34.5 grs 10300 psi	
1 1/2	Blue Dot	Win. 209	RP 12			35.0 grs 9600 psi	
12-GAUGE 2 3/4 INCH FIOCCHI PLASTIC TARGET SHELLS							
12-Gauge 7/8 and 1 Ounce Target Loads							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1250 fps	1300 fps	
7/8	Red Dot	Fio. 616	12SO	17.5 grs 6700 psi	19.0 grs 6900 psi	19.5 grs 8800 psi	
7/8	Red Dot	Fio. 616	Purple PC	17.5 grs 6400 psi	19.0 grs 6700 psi	20.0 grs 8600 psi	
7/8	Red Dot	Fio. 616	TGT 12 & DRRT12	17.0 grs 6900 psi	18.5 grs 7000 psi	20.0 grs 7900 psi	
7/8	Red Dot	Fio. 616	WAA12SL & DRXL-1 & Jammer XL-1	17.0 grs 6700 psi	18.5 grs 6800 psi	20.0 grs 8100 psi	
7/8	Green Dot	Fio. 616	Purple PC			22.5 grs 7700 psi	
7/8	Green Dot	Fio. 616	TGT 12 & DRRT12			22.0 grs 7600 psi	
7/8	Green Dot	Fio. 616	WAA12SL & DRXL-1 & Jammer XL-1			22.0 grs 7900 psi	
7/8	Promo	Fio. 616	12SO	17.5 grs 6700 psi	19.0 grs 6900 psi	19.5 grs 8800 psi	
7/8	Promo	Fio. 616	Purple PC	17.5 grs 6400 psi	19.0 grs 6700 psi	20.0 grs 8600 psi	
7/8	Promo	Fio. 616	TGT 12 & DRRT12	17.0 grs 6900 psi	18.5 grs 7000 psi	20.0 grs 7900 psi	
7/8	Promo	Fio. 616	WAA12SL & DRXL-1 & Jammer XL-1	17.0 grs 6700 psi	18.5 grs 6800 psi	20.0 grs 8100 psi	
1	Red Dot	Fio. 616	12SO	18.0 grs 9100 psi			
1	Red Dot	Fio. 616	Purple PC	18.0 grs 8100 psi	19.0 grs 9500 psi	21.0 grs 9800 psi	
1	Red Dot	Fio. 616	TGT 12 & DRRT12	18.0 grs 8500 psi	19.0 grs 9300 psi	20.5 grs 10100 psi	
1	Red Dot	Fio. 616	WAA12SL & DRXL-1 & Jammer XL-1	18.0 grs 8500 psi	19.0 grs 9500 psi	20.5 grs 10300 psi	
1	Green Dot	Fio. 616	12SO	20.0 grs 8100 psi			
1	Green Dot	Fio. 616	Purple PC	20.0 grs 7200 psi	21.0 grs 8200 psi	23.0 grs 8400 psi	
1	Green Dot	Fio. 616	TGT 12 & DRRT12	20.0 grs 7400 psi	21.0 grs 8400 psi	22.5 grs 8600 psi	
1	Green Dot	Fio. 616	WAA12SL & DRXL-1 & Jammer XL-1	20.0 grs 7900 psi	21.0 grs 8100 psi	22.5 grs 9400 psi	
1	Promo	Fio. 616	12SO	18.0 grs 9100 psi			
1	Promo	Fio. 616	Purple PC	18.0 grs 8100 psi	19.0 grs 9500 psi	21.0 grs 9800 psi	
1	Promo	Fio. 616	TGT 12 & DRRT12	18.0 grs 8500 psi	19.0 grs 9300 psi	20.5 grs 10100 psi	
1	Promo	Fio. 616	WAA12SL & DRXL-1 & Jammer XL-1	18.0 grs 8500 psi	19.0 grs 9500 psi	20.5 grs 10300 psi	

12-Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1090 fps	1145 fps	1200 fps	1250 fps	
1 1/8	Amer. Select	Fio. 616	CB 3118-12AR	18.0 grs 7100 psi	19.5 grs 8000 psi	21.0 grs 9000 psi	22.5 grs 10700 psi	
1 1/8	Amer. Select	Fio. 616	12S3 & DRF3	17.5 grs 7400 psi	19.0 grs 8700 psi	20.5 grs 9400 psi	22.0 grs 10300 psi	
1 1/8	Red Dot	Fio. 616	Versalite	16.5 grs 8100 psi	17.5 grs 9000 psi	18.5 grs 9500 psi		
1 1/8	Red Dot	Fio. 616	Figure 8 & DRRF8	16.0 grs 8000 psi	18.0 grs 8400 psi	19.5 grs 9600 psi	20.5 grs 10200 psi	
1 1/8	Red Dot	Fio. 616	RXP 12	16.5 grs 8700 psi	18.0 grs 8700 psi	19.5 grs 9700 psi		
1 1/8	Red Dot	Fio. 616	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 7600 psi	18.0 grs 9000 psi	19.5 grs 9400 psi		
1 1/8	Red Dot	Fio. 616	WAA12SL & DRXL-1 & Jammer XL-1	17.0 grs 7300 psi	18.0 grs 8300 psi			
1 1/8	Red Dot	Fio. 616	Windjammer		18.5 grs 7400 psi	20.0 grs 8600 psi	21.0 grs 9400 psi	
1 1/8	Red Dot	Fio. 616	12S3 & DRF3	16.0 grs 8400 psi	18.0 grs 9200 psi	19.0 grs 9700 psi		
1 1/8	Green Dot	Fio. 616	Versalite	18.5 grs 7100 psi	19.5 grs 7500 psi	21.0 grs 8200 psi	22.5 grs 9300 psi	
1 1/8	Green Dot	Fio. 616	Figure 8 & DRRF8	18.5 grs 6500 psi	20.0 grs 7100 psi	21.5 grs 8500 psi	23.0 grs 8800 psi	
1 1/8	Green Dot	Fio. 616	RXP 12	18.5 grs 6700 psi	20.0 grs 7200 psi	21.5 grs 7900 psi	23.0 grs 9200 psi	
1 1/8	Green Dot	Fio. 616	WAA12 & DRA12 & DRXL 1 1/8	18.5 grs 7000 psi	20.0 grs 7600 psi	21.5 grs 8100 psi	23.0 grs 8900 psi	
1 1/8	Green Dot	Fio. 616	Windjammer		19.5 grs 7200 psi	21.0 grs 7700 psi	22.5 grs 9000 psi	
1 1/8	Green Dot	Fio. 616	12S3 & DRF3	18.5 grs 7200 psi	20.0 grs 7500 psi			
1 1/8	Promo	Fio. 616	Versalite	16.5 grs 8100 psi	17.5 grs 9000 psi	18.5 grs 9500 psi		
1 1/8	Promo	Fio. 616	Figure 8 & DRRF8	16.0 grs 8000 psi	18.0 grs 8400 psi	19.5 grs 9600 psi	20.5 grs 10200 psi	
1 1/8	Promo	Fio. 616	RXP 12	16.5 grs 8700 psi	18.0 grs 8700 psi	19.5 grs 9700 psi		
1 1/8	Promo	Fio. 616	WAA12 & DRA12 & DRXL 1 1/8	17.0 grs 7600 psi	18.0 grs 9000 psi	19.5 grs 9400 psi		
1 1/8	Promo	Fio. 616	WAA12SL & DRXL-1 & Jammer XL-1	17.0 grs 7300 psi	18.0 grs 8300 psi			
1 1/8	Promo	Fio. 616	Windjammer		18.5 grs 7400 psi	20.0 grs 8600 psi	21.0 grs 9400 psi	
1 1/8	Promo	Fio. 616	12S3 & DRF3	16.0 grs 8400 psi	18.0 grs 9200 psi	19.0 grs 9700 psi		
1 1/8	Unique	Fio. 616	Versalite			24.0 grs 7100 psi	25.0 grs 7800 psi	
1 1/8	Unique	Fio. 616	Figure 8 & DRRF8			23.5 grs 7000 psi	24.5 grs 7600 psi	
1 1/8	Unique	Fio. 616	RXP 12			22.5 grs 7200 psi	23.5 grs 8200 psi	
1 1/8	Unique	Fio. 616	WAA12 & DRA12 & DRXL 1 1/8			23.5 grs 6800 psi	25.0 grs 7800 psi	
1 1/8	Unique	Fio. 616	Windjammer			24.0 grs 6400 psi	25.5 grs 6900 psi	
1 1/8	Herco	Fio. 616	Versalite				25.5 grs 7700 psi	
1 1/8	Herco	Fio. 616	Figure 8 & DRRF8				26.0 grs 7300 psi	
1 1/8	Herco	Fio. 616	RXP 12				26.0 grs 7500 psi	
1 1/8	Herco	Fio. 616	WAA12 & DRA12 & DRXL 1 1/8				26.0 grs 7900 psi	

continued

12-Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1090 fps	1145 fps	1200 fps	1250 fps	
1 1/8	Herco	Fio. 616	Windjammer					26.5 grs 7700 psi
1 1/4	Green Dot	CCI 209M	Rem. R12H					24.5 grs 8000 psi
1 1/4	Green Dot	Fio. 616	12S4					23.0 grs 9700 psi
1 1/4	Green Dot	Win. 209	WAA12F114					23.0 grs 10000 psi
1 1/4	Unique	Fio. 616	12S4					25.0 grs 8800 psi
1 1/4	Unique	Win. 209	WAA12F114					25.0 grs 8700 psi
1 1/2	Blue Dot	Fio. 616	RP 12				32.5 grs 8700 psi	
1 1/2	Blue Dot	CCI 209M	RP 12				33.0 grs 9500 psi	36.5 grs 10600 psi
1 1/2	Blue Dot	Fio. 616	RP 12				36.5 grs 9000 psi	37.5 grs 9600 psi
1 1/2	Blue Dot	Win. 209	RP 12				35.5 grs 8600 psi	36.5 grs 10300 psi
12-GAUGE 2 3/4 INCH 1 1/8, 1 1/4 AND 1 3/8 OUNCE HEAVY LOADS								
12-Gauge 2 3/4 inch Remington Plastic Shells (STS, Nitro 27, Premier RXP and Gun Club)								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1275 fps	1310 fps	1330 fps	1375 fps	
1 1/8	Unique	CCI 209M	RXP 12			25.0 grs 10000 psi		
1 1/8	Unique	Fio. 616	RXP 12			26.0 grs 9900 psi		
1 1/8	Unique	Rem. 209P	Versalite			25.5 grs 9900 psi		
1 1/8	Unique	Rem. 209P	RXP 12			24.5 grs 9700 psi		
1 1/8	Unique	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8			25.0 grs 10500 psi		
1 1/8	Unique	Rem. 209P	Windjammer			26.5 grs 8600 psi		
1 1/8	Unique	Win. 209	RXP 12			26.0 grs 9800 psi		
1 1/8	Herco	CCI 209M	RXP 12			26.5 grs 9700 psi		
1 1/8	Herco	Win. 209	RXP 12			27.0 grs 9300 psi		
1 1/8	Herco	Fio. 616	RXP 12			27.5 grs 9300 psi		
1 1/8	Herco	Rem. 209P	Versalite			27.0 grs 8800 psi		
1 1/8	Herco	Rem. 209P	RXP 12			27.5 grs 8400 psi		
1 1/8	Herco	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8			27.0 grs 8800 psi		
1 1/8	Herco	Rem. 209P	Windjammer			28.5 grs 8600 psi		
1 1/4	Herco	Rem. 209P	SP 12		27.0 grs 10700 psi			
1 1/4	Herco	Rem. 209P	WAA12F114		26.5 grs 10500 psi			
1 1/4	Herco	Win. 209	SP 12		26.0 grs 10600 psi			
1 1/4	Blue Dot	Win. 209	SP 12		35.5 grs 9100 psi			36.5 grs 9900 psi
1 1/4	Blue Dot	CCI 209M	SP 12		34.5 grs 9800 psi			35.5 grs 10300 psi
1 1/4	Blue Dot	Fio. 616	SP 12		35.5 grs 9300 psi			35.5 grs 9900 psi
1 1/4	Blue Dot	Rem. 209P	CB 1138-12				37.5 grs 10200 psi	
1 1/4	Blue Dot	Rem. 209P	SP 12				37.5 grs 9700 psi	

continued

**12-Gauge 2 3/4 inch Remington Plastic Shells (STS, Nitro 27, Premier RXP and Gun Club) continued**

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1275 fps	1310 fps	1330 fps	1375 fps
1 3/8	Blue Dot	CCI 209M	RP 12		35.5 grs 10400 psi		
1 3/8	Blue Dot	Fio. 616	RP 12		35.5 grs 10000 psi		
1 3/8	Blue Dot	Rem. 209P	SP 12		37.5 grs 10300 psi		
1 3/8	Blue Dot	Win. 209	RP 12		35.5 grs 10500 psi		
1 3/8	Blue Dot	Rem. 209P	RP 12		36.5 grs 9900 psi		

**12-Gauge 2 3/4 inch Federal Gold Medal Plastic Target Shells**

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1275 fps	1310 fps	1350 fps	1440 fps
1 1/8	Herco	Fed. 209A	WAA12F114				30.0 grs 10500 psi
1 1/8	Herco	Fed. 209A	Red PC				32.0 grs 10500 psi
1 1/8	Green Dot	Fed. 209A	RXP 12		24.0 grs 10400 psi		
1 1/8	Green Dot	Fed. 209A	WAA12 (White)		23.0 grs 10400 psi		
1 1/8	Green Dot	Fed. 209A	Windjammer		24.0 grs 8800 psi		
1 1/8	Unique	Fed. 209A	Versalite		25.0 grs 10000 psi		
1 1/8	Unique	Fed. 209A	RXP 12		26.0 grs 10300 psi		
1 1/8	Unique	Fed. 209A	WAA12 (White)		25.0 grs 9200 psi		
1 1/8	Unique	Fed. 209A	Windjammer		25.0 grs 9700 psi		
1 1/4	Herco	Fed. 209A	SP 12	27.0 grs 10100 psi			
1 1/4	Herco	Fed. 209A	WAA12F114	27.0 grs 10500 psi	28.0 grs 10800 psi		
1 1/4	Herco	Rem. 209P	12S4	27.5 grs 9200 psi			
1 1/4	Herco	Fed. 209A	Red PC		29.0 grs 10000 psi		
1 1/4	Blue Dot	CCI 209M	12S4	35.0 grs 9100 psi			
1 1/4	Blue Dot	Fed. 209A	12S4	34.0 grs 8900 psi			
1 1/4	Blue Dot	Win. 209	12S4	35.0 grs 8700 psi			
1 1/4	Blue Dot	Fed. 209A	RP 12			40.5 grs 10700 psi	
1 1/4	Blue Dot	CCI 209M	SP 12		37.5 grs 8300 psi		
1 1/4	Blue Dot	Fed. 209A	SP 12		35.0 grs 10500 psi		
1 1/4	Blue Dot	Win. 209	SP 12		37.0 grs 9000 psi		
1 3/8	Blue Dot	CCI 209M	RP 12	33.0 grs 9600 psi	36.5 grs 9000 psi		
1 3/8	Blue Dot	Fed. 209A	RP 12	34.0 grs 9900 psi	35.5 grs 10700 psi		
1 3/8	Blue Dot	Rem. 209P	RP 12	36.0 grs 7800 psi	39.0 grs 8600 psi		
1 3/8	Blue Dot	Win. 209	RP 12	34.5 grs 8600 psi	36.0 grs 9200 psi		

**12-Gauge 2 3/4 inch Federal Gold Medal Paper Target Shells**

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1145 fps	1200 fps	1250 fps	1310 fps
1 1/8	20/28	Fed. 209A	12S3		21.7 grs 7000 psi	23.0 grs 7800 psi	
1 1/8	20/28	Fed. 209A	CB-1034-20		21.2 grs 7000 psi	22.5 grs 8100 psi	

**12-Gauge 2 3/4 inch Federal Gold Medal Paper Target Shells continued**

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1145 fps	1200 fps	1250 fps	1310 fps
1 1/8	20/28	Fed. 209A	12S3			22.2 grs 7000 psi	23.2 grs 7400 psi
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1310 fps	1330 fps	1400 fps	1450 fps
1 1/8	Herco	Fed. 209A	WAA12F114				30.0 grs 10700 psi
1 1/4	Herco	CCI 209M	12S4			29.5 grs 9900 psi	
1 1/4	Herco	Fed. 209A	RP 12			29.0 grs 9400 psi	
1 1/4	Herco	Fed. 209A	SP 12			29.5 grs 9300 psi	
1 1/4	Herco	Fed. 209A	WAA12F114			29.5 grs 9200 psi	
1 1/4	Blue Dot	CCI 209M	12S4			37.0 grs 9000 psi	
1 1/4	Blue Dot	Fed. 209A	12S4			37.0 grs 10300 psi	
1 3/8	Blue Dot	CCI 209M	SP 12		37.0 grs 10600 psi		
1 3/8	Blue Dot	Fed. 209A	SP 12		35.5 grs 10300 psi		
1 3/8	Blue Dot	Rem. 209P	SP 12		38.0 grs 8600 psi		
1 3/8	Blue Dot	Win. 209	SP 12		36.5 grs 10200 psi		
1 3/8	Blue Dot	Fed. 209A	RP 12			37.5 grs 10700 psi	

**12-Gauge 2 3/4 inch Winchester AA Plastic Shells**

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1300 fps	1350 fps	1375 fps	1425 fps
1 1/8	Green Dot	Win. 209	Red PC	23.0 grs 10200 psi			
1 1/8	Unique	CCI 209M	WAA12 & DRA12 & DRXL 1 1/8	25.5 grs 9700 psi			
1 1/8	Unique	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	26.0 grs 9700 psi			
1 1/8	Unique	Win. 209	Versalite	25.0 grs 10300 psi			
1 1/8	Unique	Win. 209	Red PC	25.0 grs 9100 psi			
1 1/8	Unique	Win. 209	RXP 12	24.0 grs 9800 psi			
1 1/8	Unique	Win. 209	WAA12 & DRA12 & DRXL 1 1/8	25.5 grs 10000 psi			
1 1/8	Herco	Rem. 209P	WAA12 & DRA12 & DRXL 1 1/8	27.0 grs 8100 psi			
1 1/8	Herco	Win. 209	Versalite	26.5 grs 9900 psi			
1 1/8	Herco	Win. 209	RXP 12	26.5 grs 9100 psi			
1 1/8	Herco	Win. 209	WAA12 & DRA12 & DRXL 1 1/8	26.5 grs 9300 psi			
1 1/4	Herco	Rem. 209P	WAA12F114	27.0 grs 9400 psi			
1 1/4	Blue Dot	Win. 209	SP 12	35.0 grs 8200 psi			
1 1/4	Blue Dot	Win. 209	RP 12			38.0 grs 10200 psi	
1 1/4	Blue Dot	Win. 209	SP 12			37.0 grs 10300 psi	

continued

continued

12-Gauge 2 3/4 inch Winchester AA Plastic Shells continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1300 fps	1350 fps	1375 fps	1425 fps
1 1/4	Blue Dot	Win. 209	WAA12R			37.5 grs 10200 psi	
1 1/4	Blue Dot	Win. 209	CB 1138-12			37.5 grs 10600 psi	
12-Gauge 2 3/4 inch Fiocchi Plastic Shells							
1 1/8	Green Dot	CCI 209M	RXP 12	24.0 grs 10000 psi			
1 1/8	Green Dot	Fio. 616	12S3 & DRF3	25.0 grs 9600 psi			
1 1/8	Green Dot	Win. 209	WAA12 & DRA12 & DRXL 1 1/8	25.0 grs 8700 psi			
1 1/8	Unique	CCI 209M	RXP 12	26.5 grs 8400 psi			
1 1/8	Unique	Fio. 616	12S3 & DRF3	27.0 grs 8600 psi			
1 1/8	Unique	Win. 209	WAA12 & DRA12 & DRXL 1 1/8	26.5 grs 8300 psi			
1 1/4	Unique	CCI 209M	12S4	27.0 grs 10300 psi			
1 1/4	Unique	Fio. 616	WAA12F114	27.0 grs 10000 psi			
1 1/4	Herco	CCI 209M	SP 12	30.0 grs 9200 psi			
1 1/4	Herco	Fio. 616	12S4	30.0 grs 9500 psi			
1 1/4	Herco	Fio. 616	SP 12	30.5 grs 8600 psi			
1 1/4	Herco	Fio. 616	WAA12F114	30.0 grs 9200 psi			
1 1/4	Herco	Win. 209	WAA12F114	30.0 grs 10100 psi			
1 1/4	Blue Dot	CCI 209M	SP 12	41.0 grs 7600 psi			
1 1/4	Blue Dot	Fio. 616	12S4	40.0 grs 8300 psi			
1 1/4	Blue Dot	Fio. 616	SP 12	41.0 grs 7700 psi			
1 1/4	Blue Dot	Fio. 616	WAA12F114	39.5 grs 7500 psi			
1 1/4	Blue Dot	Win. 209	WAA12F114	38.5 grs 8300 psi			
1 3/8	Blue Dot	CCI 209M	RP 12	37.0 grs 9600 psi	40.0 grs 10100 psi		
1 3/8	Blue Dot	Fio. 616	RP 12	38.0 grs 9100 psi			
1 3/8	Blue Dot	Win. 209	RP 12	38.0 grs 9500 psi	40.0 grs 9900 psi		

#### 12-GAUGE 3 INCH SHOTSHELL LOAD DATA

12-Gauge 3 inch Federal Game Load Plastic Shells with Rolled Paper Base Wad							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1155 fps	1245 fps	1300 fps	1350 fps
1 3/8	Herco	Fed. 209A	12S3 & DRF3			30.5 grs 10000 psi	
1 3/8	Herco	Fed. 209A	RXP 12			30.5 grs 9300 psi	
1 3/8	Herco	Fed. 209A	WAA12 (White)			30.5 grs 9700 psi	
1 3/8	Blue Dot	Fed. 209A	RXP 12			38.0 grs 9000 psi	
1 3/8	Blue Dot	Fed. 209A	WAA12 (White)			38.0 grs 8800 psi	
1 3/8	Blue Dot	Fed. 209A	12S4			40.0 grs 9400 psi	
1 3/8	Blue Dot	Fed. 209A	SP 12			40.0 grs 8900 psi	

continued

12-Gauge 3 inch Federal Game Load Plastic Shells with Rolled Paper Base Wad							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1155 fps	1245 fps	1300 fps	1350 fps
1 1/2	Blue Dot	Fed. 209A	12S3 & DRF3			38.0 grs 9700 psi	
1 1/2	Blue Dot	Fed. 209A	RXP 12			38.5 grs 9600 psi	
1 1/2	Blue Dot	Fed. 209A	WAA12 (White)			37.5 grs 9800 psi	
1 5/8	Blue Dot	Fed. 209A	SP 12			38.0 grs 10400 psi	
1 3/4	Blue Dot	Fed. 209A	RP 12			39.0 grs 10500 psi	
1 7/8	Blue Dot	Fed. 209A	RP 12		34.0 grs 10500 psi		
1 7/8	Blue Dot	Fed. 209A	SP 12		36.0 grs 10300 psi		
12-Gauge 3 inch Federal One-Piece Plastic Shells							
1 3/8	Herco	Fed. 209A	12S3 & DRF3			31.0 grs 10500 psi	
1 3/8	Blue Dot	Fed. 209A	12S3 & DRF3			40.5 grs 7900 psi	
1 3/8	Herco	Fed. 209A	RXP 12			32.0 grs 10100 psi	
1 3/8	Blue Dot	Fed. 209A	WAA12 (White)			38.0 grs 9800 psi	
1 3/8	Blue Dot	Fed. 209A	RXP 12				42.0 grs 8000 psi
1 3/8	Blue Dot	Fed. 209A	WAA12 (White)				44.0 grs 9900 psi
1 1/2	Blue Dot	Fed. 209A	12S4			40.0 grs 9700 psi	
1 1/2	Blue Dot	Fed. 209A	SP 12			40.0 grs 9000 psi	
1 5/8	Blue Dot	Fed. 209A	12S4			40.0 grs 10100 psi	
1 5/8	Blue Dot	Fed. 209A	SP 12			40.0 grs 9400 psi	
1 3/4	Blue Dot	Fed. 209A	RP 12			39.0 grs 10500 psi	
1 7/8	Blue Dot	Fed. 209A	SP 12		36.5 grs 9900 psi		
12-Gauge 3 inch Federal Game Load Plastic with 7/16 Fiber Base Wad							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1150 fps	1175 fps		
1 7/8	Blue Dot	Fed. 209A	WAA12R			32.5 grs 11200 psi	
2	Blue Dot	Fed. 209A	SP 12		33.0 grs 11400 psi		
12-Gauge 3 inch Fiocchi Plastic Shells							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1155 fps	1245 fps	1300 fps	1350 fps
1 3/8	Herco	CCI 209M	12S3 & DRF3			30.0 grs 10000 psi	
1 3/8	Blue Dot	CCI 209M	12S3 & DRF3			37.0 grs 9000 psi	
1 3/8	Herco	Fio. 616	12S3 & DRF3			31.5 grs 9100 psi	
1 3/8	Herco	Fio. 616	RXP 12			32.5 grs 8600 psi	
1 3/8	Herco	Fio. 616	WAA12 (White)			31.5 grs 8900 psi	
1 3/8	Herco	Win. 209	12S3 & DRF3			29.5 grs 10600 psi	
1 3/8	Blue Dot	Win. 209	12S3 & DRF3			37.5 grs 8800 psi	
1 3/8	Blue Dot	CCI 209M	12S4				38.0 grs 10400 psi
1 3/8	Herco	Fio. 616	12S4				32.0 grs 10700 psi

continued

12-Gauge 3 inch Fiocchi Plastic Shells continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1155 fps	1245 fps	1300 fps	1350 fps
1 3/8	Herco	Fio. 616	SP 12				32.5 grs 10100 psi
1 3/8	Blue Dot	Win. 209	12S4				38.5 grs 10100 psi
1 1/2	Blue Dot	CCI 209M	12S4			38.0 grs 10400 psi	
1 1/2	Blue Dot	Fio. 616	12S4			39.0 grs 10300 psi	
1 1/2	Blue Dot	Fio. 616	SP 12			39.0 grs 9700 psi	
1 1/2	Blue Dot	Win. 209	12S4			39.0 grs 10600 psi	
1 5/8	Blue Dot	Fio. 616	12S4			39.0 grs 10700 psi	
1 5/8	Blue Dot	Fio. 616	SP 12			39.5 grs 9700 psi	
1 7/8	Blue Dot	Fio. 616	RP 12	34.5 grs 10700 psi			
12-Gauge 3 inch Rem. - Peters SP Plastic Shells with Separate Base Wad							
1 3/8	Herco	CCI 209M	12S3 & DRF3			29.5 grs 10000 psi	
1 3/8	Herco	CCI 209M	RXP 12			30.0 grs 9200 psi	
1 3/8	Herco	CCI 209M	WAA12 (White)			30.0 grs 10000 psi	
1 3/8	Blue Dot	CCI 209M	12S3 & DRF3			42.0 grs 8400 psi	
1 3/8	Blue Dot	CCI 209M	RXP 12			42.5 grs 8000 psi	
1 3/8	Blue Dot	CCI 209M	WAA12 (White)			42.0 grs 8500 psi	
1 1/2	Blue Dot	CCI 209M	12S4			39.5 grs 9800 psi	
1 1/2	Blue Dot	CCI 209M	SP 12			40.0 grs 9400 psi	
1 5/8	Blue Dot	CCI 209M	12S4			38.5 grs 10200 psi	
1 5/8	Blue Dot	CCI 209M	SP 12			39.0 grs 9800 psi	
1 5/8	Blue Dot	CCI 209M	WAA12F114			38.5 grs 10500 psi	
1 3/4	Blue Dot	CCI 209M	RP 12			38.5 grs 10700 psi	
1 7/8	Blue Dot	CCI 209M	RP 12			34.0 grs 10300 psi	
12-GAUGE 3 1/2 INCH SHOTSHELL LOAD DATA							
12-Gauge 3 1/2 inch Federal Plastic Shells							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1150 fps	1200 fps	1220 fps	1255 fps
1 7/8	Blue Dot	CCI 209M	12SO		41.0 grs 9100 psi		
1 7/8	Blue Dot	CCI 209M	R 12L		40.5 grs 9600 psi		
1 7/8	Blue Dot	CCI 209M	WAA12 SL		41.0 grs 8900 psi		
1 7/8	Blue Dot	Win. 209	12SO		40.0 grs 9000 psi		
1 7/8	Blue Dot	CCI 209M	12SO			43.0 grs 9800 psi	
1 7/8	Blue Dot	CCI 209M	R 12L			42.5 grs 10100 psi	
1 7/8	Blue Dot	CCI 209M	WAA12 SL			43.0 grs 9500 psi	
1 7/8	Blue Dot	Win. 209	12SO			42.5 grs 10100 psi	
2	Blue Dot	CCI 209M	12SO		42.5 grs 10000 psi		
2	Blue Dot	CCI 209M	R 12L		42.0 grs 10000 psi		

12-Gauge 3 1/2 inch Federal Plastic Shells continued							
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1150 fps	1200 fps	1220 fps	1255 fps
2	Blue Dot	CCI 209M	WAA12 SL				42.5 grs 9800 psi
2	Blue Dot	Win. 209	12SO				41.0 grs 9900 psi
2 1/4	Blue Dot	CCI 209M	12S4		38.5 grs 11100 psi		
2 1/4	Blue Dot	CCI 209M	SP 12		38.5 grs 11200 psi		
2 1/4	Blue Dot	CCI 209M	WAA12F114		38.5 grs 11100 psi		
2 1/4	Blue Dot	Win. 209	12S4		38.0 grs 10900 psi		
12-Gauge 3 1/2 inch Remington Plastic SP							
1 7/8	Blue Dot	CCI 209M	12SO			38.0 grs 10100 psi	
1 7/8	Blue Dot	CCI 209M	R 12L			38.0 grs 10300 psi	
1 7/8	Blue Dot	CCI 209M	WAA12 SL			38.0 grs 10000 psi	
1 7/8	Blue Dot	Win. 209	R 12L			37.5 grs 10500 psi	
1 7/8	Blue Dot	CCI 209M	12SO				39.0 grs 10600 psi
1 7/8	Blue Dot	CCI 209M	R 12L				39.0 grs 10900 psi
1 7/8	Blue Dot	CCI 209M	WAA12 SL				39.0 grs 10400 psi
1 7/8	Blue Dot	Win. 209	R 12L				38.5 grs 11000 psi
2	Blue Dot	CCI 209M	12SO				39.5 grs 10800 psi
2	Blue Dot	CCI 209M	R 12L				39.5 grs 11100 psi
2	Blue Dot	CCI 209M	WAA12 SL				39.0 grs 10700 psi
2	Blue Dot	Win. 209	R 12L				39.0 grs 11200 psi
2 1/4	Blue Dot	CCI 209M	12S4		37.0 grs 11100 psi		
2 1/4	Blue Dot	CCI 209M	SP 12		38.0 grs 11100 psi		
2 1/4	Blue Dot	Win. 209	SP 12		38.0 grs 11500 psi		
12-Gauge 3 1/2 inch Winchester Plastic Shells							
1 7/8	Blue Dot	CCI 209M	WAA12 SL			38.0 grs 10100 psi	
1 7/8	Blue Dot	Win. 209	12SO			38.5 grs 10600 psi	
1 7/8	Blue Dot	Win. 209	R 12L			38.5 grs 10300 psi	
1 7/8	Blue Dot	Win. 209	WAA12 SL			38.5 grs 10000 psi	
1 7/8	Blue Dot	CCI 209M	WAA12 SL				39.5 grs 10500 psi
1 7/8	Blue Dot	Win. 209	12SO				40.5 grs 10700 psi
1 7/8	Blue Dot	Win. 209	R 12L				40.0 grs 10700 psi
1 7/8	Blue Dot	Win. 209	WAA12 SL				40.0 grs 10800 psi
2	Blue Dot	CCI 209M	WAA12 SL				39.0 grs 11200 psi
2	Blue Dot	Win. 209	12SO				40.5 grs 11000 psi
2	Blue Dot	Win. 209	R 12L				39.0 grs 10600 psi
2	Blue Dot	Win. 209	WAA12 SL				40.0 grs 11200 psi
2 1/4	Blue Dot	Win. 209	SP 12		37.0 grs 11200 psi		

## 16-GAUGE SHOTSHELL LOAD DATA

### 16-Gauge 2 3/4 inch Federal Game Load Plastic Shells with Paper Base Wad

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1185 fps	1240 fps	1260 fps	1295 fps
1 1/8	Green Dot	Fed. 209A	SP 16	19.0 grs 10600 psi			
1 1/8	Unique	Fed. 209A	SP 16	21.5 grs 8900 psi	22.5 grs 9600 psi		
1 1/8	Herco	Fed. 209A	SP 16	22.0 grs 9100 psi	23.5 grs 10100 psi	24.5 grs 10300 psi	
1 1/8	Blue Dot	Fed. 209A	SP 16			32.0 grs 8600 psi	
1 1/4	Blue Dot	Fed. 209A	SP 16			30.5 grs 10200 psi	
16-Gauge 2 3/4 inch Fiocchi Plastic Shells							
1 1/8	Unique	Fio. 616	SP 16	20.5 grs 9900 psi			
1 1/8	Herco	Fio. 616	SP 16	21.0 grs 10200 psi	23.5 grs 10700 psi		
1 1/8	Blue Dot	Fio. 616	SP 16		31.0 grs 8900 psi	32.5 grs 9200 psi	
16-Gauge 2 3/4 inch Remington SP Plastic Shells with Plastic Base Wad							
1 1/8	Blue Dot	Rem. 209P	SP 16		27.0 grs 9900 psi		

## 20-GAUGE SHOTSHELL LOAD DATA

### 20-Gauge 2 3/4 inch Remington Plastic Shells (STS)

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1155 fps	1200 fps	1250 fps	1290 fps
3/4	Amer. Select	Rem. 209P	RXP 20		13.5 grs 10320 psi	14.0 grs 11330 psi	
3/4	Amer. Select	Rem. 209P	CB-1034-20		13.5 grs 11100 psi		
3/4	Green Dot	Rem. 209P	RXP 20		14.0 grs 9960 psi	16.0 grs 11300 psi	
3/4	Green Dot	Rem. 209P	CB 1078-20		14.0 grs 9810 psi	15.0 grs 10510 psi	
3/4	Green Dot	Rem. 209P	CB-1034-20	12.4 grs 9100 psi	13.2 grs 9500 psi	14.2 grs 11100 psi	
3/4	Green Dot	Cheddite	CB-1034-20	12.4 grs 8600 psi	13.3 grs 9600 psi	14.2 grs 11200 psi	
3/4	Unique	Rem. 209P	CB-1034-20	14.5 grs 7500 psi	15.4 grs 8200 psi	16.5 grs 9100 psi	
3/4	20/28	Rem. 209P	CB-1034-20	13.8 grs 6400 psi	14.4 grs 7200 psi	15.4 grs 8200 psi	
7/8	20/28	Rem. 209P	Windjammer		15.5 grs 9150 psi	16.5 grs 10510 psi	
7/8	20/28	Rem. 209P	Orange Duster		15.5 grs 10110 psi	16.5 grs 10950 psi	
7/8	20/28	Rem. 209P	WAA 20		15.5 grs 9690 psi	16.5 grs 10970 psi	
7/8	20/28	Rem. 209P	RXP 20		15.5 grs 9310 psi	16.5 grs 10180 psi	
7/8	20/28	Rem. 209P	CB 1078-20		15.5 grs 10060 psi	16.5 grs 10720 psi	

## 20-Gauge 2 3/4 inch Remington Plastic Shells (STS) continued

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1155 fps	1200 fps	1250 fps	1290 fps
7/8	20/28	Rem. 209P	Versalite			15.5 grs 9580 psi	16.5 grs 10860 psi
7/8	20/28	Win. 209	CB 1078-20			15.5 grs 10010 psi	
7/8	20/28	Win. 209	Windjammer			15.5 grs 9150 psi	
7/8	20/28	Win. 209	WAA20			15.5 grs 10620 psi	
7/8	20/28	Win. 209	RXP 20			15.5 grs 10110 psi	
7/8	20/28	Win. 209	Orange Duster			15.5 grs 10550 psi	
7/8	Unique	Rem. 209P	RXP 20	15.5 grs 10000 psi	16.5 grs 10700 psi		
7/8	Unique	Rem. 209P	CB 1078-20	15.5 grs 9500 psi	16.5 grs 10600 psi		
7/8	Unique	Rem. 209P	Orange Duster	16.5 grs 7700 psi	17.5 grs 8100 psi		
7/8	Unique	Rem. 209P	20S1		15.5 grs 10000 psi	16.5 grs 10800 psi	
7/8	Unique	Rem. 209P	Versalite			16.5 grs 10200 psi	
7/8	Unique	Rem. 209P	WAA20			16.5 grs 10900 psi	
7/8	Unique	Rem. 209P	Windjammer			16.0 grs 10400 psi	
7/8	Unique	CCI 209	RXP 20			16.5 grs 9900 psi	
7/8	Unique	CCI 209M	RXP 20	15.5 grs 11000 psi	16.0 grs 11300 psi		
7/8	Unique	Fio. 616	RXP 20	16.0 grs 10700 psi	16.5 grs 11200 psi		
7/8	Unique	Win. 209	RXP 20			16.5 grs 11300 psi	
7/8	Herco	Rem. 209P	RXP 20			17.0 grs 10600 psi	
7/8	Herco	Rem. 209P	CB 1078-20	16.0 grs 9800 psi	17.5 grs 9800 psi		
7/8	Herco	Rem. 209P	20S1	16.0 grs 10000 psi	17.0 grs 10500 psi		
7/8	Herco	Rem. 209P	Versalite			17.5 grs 10400 psi	
7/8	Herco	Rem. 209P	WAA20			17.0 grs 10700 psi	
7/8	Herco	Rem. 209P	Windjammer			17.0 grs 10100 psi	
7/8	Herco	CCI 209	RXP 20			17.5 grs 9400 psi	
7/8	Herco	CCI 209M	RXP 20	16.5 grs 10500 psi	17.0 grs 10800 psi		
7/8	Herco	Fio. 616	RXP 20	16.5 grs 10100 psi	17.0 grs 10700 psi		
7/8	Herco	Win. 209	RXP 20			17.0 grs 10600 psi	
1	Herco	Rem. 209P	WAA20F1	17.5 grs 11500 psi			
1	Blue Dot	CCI 209	SP 20	22.0 grs 9500 psi	23.0 grs 10300 psi		
1	Blue Dot	CCI 209M	SP 20	21.5 grs 10500 psi	22.5 grs 10900 psi		
1	Blue Dot	Fio. 616	SP 20	22.5 grs 9800 psi	23.5 grs 11000 psi		
1	Blue Dot	Rem. 209P	SP 20	21.5 grs 9000 psi	24.0 grs 11100 psi		
1	Blue Dot	Rem. 209P	WAA20F1	21.5 grs 9000 psi	23.5 grs 10900 psi		
1	Blue Dot	Win. 209	SP 20	21.5 grs 10600 psi	22.0 grs 11100 psi		

continued

20-Gauge 2 3/4 inch Winchester AA Plastic Shells								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1155 fps	1200 fps	1250 fps	1290 fps	
3/4	Amer. Select	Win. 209	WAA20		13.5 grs 10510 psi	14.5 grs 11800 psi		
3/4	Amer. Select	Win. 209	CB 1078-20		14.0 grs 10540 psi	14.5 grs 11800 psi		
3/4	Amer. Select	Win. 209	CB-1034-20		13.7 grs 11000 psi			
3/4	Green Dot	Win. 209	WAA20		14.5 grs 9940 psi	15.0 grs 10650 psi		
3/4	Green Dot	Win. 209	CB 1078-20		14.0 grs 9930 psi	15.0 grs 10860 psi		
3/4	Green Dot	Win. 209	CB-1034-20		14.0 grs 10300 psi	14.8 grs 11100 psi		
3/4	Unique	Win. 209	CB 1078-20			17.0 grs 9980 psi		
3/4	Unique	Win. 209	CB-1034-20		15.4 grs 8200 psi	16.4 grs 9200 psi		
3/4	20/28	Win. 209	CB-1034-20		14.5 grs 7200 psi	15.5 grs 7900 psi		
7/8	20/28	Win. 209	WAA20		15.5 grs 8880 psi	16.5 grs 9740 psi		
7/8	20/28	Win. 209	CB 1078-20		15.7 grs 9370 psi	16.7 grs 10490 psi		
7/8	20/28	Win. 209	Windjammer		15.7 grs 9470 psi	16.7 grs 10690 psi		
7/8	20/28	Win. 209	Versalite		16.0 grs 9430 psi	17.0 grs 10420 psi		
7/8	20/28	Win. 209	Orange Duster		15.7 grs 9750 psi	16.7 grs 10630 psi		
7/8	20/28	Rem. 209P	CB 1078-20		15.5 grs 9980 psi			
7/8	20/28	Rem. 209P	Windjammer		15.5 grs 9580 psi			
7/8	20/28	Rem. 209P	Versalite		15.5 grs 9400 psi			
7/8	20/28	Rem. 209P	Orange Duster		15.5 grs 9990 psi			
7/8	20/28	Rem. 209P	WAA20		15.5 grs 9890 psi			
7/8	Unique	Win. 209	WAA20	15.0 grs 10200 psi				
7/8	Unique	Win. 209	CB 1078-20	15.0 grs 10200 psi	16.0 grs 11200 psi			
7/8	Unique	Win. 209	RXP 20	15.0 grs 8700 psi	16.0 grs 9000 psi			
7/8	Unique	Win. 209	WAA20F1	15.0 grs 11000 psi	15.5 grs 11200 psi			
7/8	Herco	Win. 209	CB 1078-20	16.0 grs 10500 psi	16.5 grs 11000 psi			
7/8	Herco	Win. 209	WAA20F1	16.0 grs 11000 psi				
1	Herco	Win. 209	RXP 20	16.5 grs 9600 psi				
1	Herco	Win. 209	SP 20	16.5 grs 10000 psi				
1	20/28	Win. 209	RXP 20		16.5 grs 11620 psi			
1	Blue Dot	Win. 209	RXP 20			23.0 grs 11300 psi		
1	Blue Dot	Win. 209	SP 20			23.5 grs 11400 psi		
1	Blue Dot	Win. 209	WAA20F1			23.0 grs 11500 psi		

20-Gauge 2 3/4 inch Federal Plastic Target Shells								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1155 fps	1200 fps	1250 fps	1290 fps	
7/8	20/28	Fed. 209A	20S1		16.5 grs 8370 psi	17.2 grs 8970 psi		
7/8	20/28	Fed. 209A	Windjammer		16.5 grs 8210 psi	17.5 grs 8690 psi		
7/8	20/28	CCI 209	20S1		16.0 grs 8350 psi			
7/8	20/28	CCI 209	RXP 20			17.5 grs 10210 psi		
7/8	20/28	CCI 209	Windjammer		17.0 grs 8060 psi	18.0 grs 8480 psi		
7/8	Green Dot	Fed. 209A	Versalite		15.5 grs 11470 psi			
7/8	Green Dot	Fed. 209A	Windjammer		15.5 grs 11350 psi			
7/8	Green Dot	Fed. 209A	WAA20		15.0 grs 10960 psi			
7/8	Green Dot	CCI 209M	20S1	14.5 grs 9100 psi	16.5 grs 9300 psi			
7/8	Unique	Fed. 209A	RXP 20			16.5 grs 9170 psi		
7/8	Unique	Fed. 209A	Windjammer		17.0 grs 9880 psi			
7/8	Unique	Fed. 209A	WAA20		16.5 grs 9450 psi			
7/8	Unique	Fed. 209A	Versalite		17.0 grs 9990 psi			
7/8	Unique	CCI 209M	20S1	16.0 grs 8700 psi	17.0 grs 9100 psi			
7/8	Herco	Fed. 209A	WAA20		17.5 grs 10070 psi			
7/8	Herco	Fed. 209A	RXP 20		17.5 grs 9420 psi			
7/8	Herco	Fed. 209A	Windjammer		18.0 grs 9880 psi			
7/8	Herco	CCI 209M	20S1	17.5 grs 7600 psi	18.5 grs 9800 psi			
20-Gauge 2 3/4 inch Remington Plastic Shells (STS)								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1300 fps	1350 fps	1400 fps	1425 fps	
7/8	Pro Reach	Rem. 209A	Orange Duster	20.2 grs 8380 psi	20.9 grs 8760 psi			22.4 grs 11220 psi
20-Gauge 2 3/4 inch Winchester AA-HS Plastic Shells								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1300 fps	1350 fps	1400 fps	1425 fps	
7/8	Pro Reach	Win. 209	20S1		19.2 grs 11180 psi			
7/8	Pro Reach	Win. 209	RXP 20			21.0 grs 10990 psi		
7/8	Pro Reach	Win. 209	Orange Duster	18.9 grs 10720 psi	19.5 grs 10960 psi			
7/8	Pro Reach	Cheddite	Orange Duster	18.8 grs 10420 psi	19.3 grs 11320 psi			
20-Gauge 2 3/4 inch Federal Plastic Target Shells								
Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)				1300 fps	1350 fps	1400 fps	1425 fps	
7/8	Pro Reach	Fed. 209A	RXP 20					22.8 grs 11090 psi
7/8	Pro Reach	Fed. 209A	Win. AA20	20.1 grs 7970 psi	21.4 grs 9270 psi	21.9 grs 10830 psi		
7/8	Pro Reach	Fed. 209A	20S1	20.1 grs 8490 psi	20.9 grs 9280 psi	22.0 grs 11140 psi		

## 28-GAUGE SHOTSHELL LOAD DATA

### 28-Gauge 2 3/4 inch Remington Plastic Shells (STS, Premier)

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure		
(oz)				1200 fps	1250 fps	1290 fps
3/4	20/28	Rem. 209P	PT-28	12.8 grs 11830 psi		
3/4	20/28	Rem. 209P	Duster 2834	12.8 grs 11200 psi	13.1 grs 12360 psi	
3/4	20/28	Rem. 209P	CB 5034-HS	12.4 grs 11620 psi		
3/4	Unique	Rem. 209P	PT-28	13.3 grs 11260 psi		
3/4	Unique	Rem. 209P	28S1	13.2 grs 11520 psi		
3/4	Unique	Rem. 209P	Duster 2834	14.0 grs 9600 psi		
3/4	Unique	Rem. 209P	PC	14.0 grs 11200 psi		
3/4	Herco	Win. 209	PT-28	13.9 grs 11700 psi		
3/4	Herco	Rem. 209P	PT-28	14.5 grs 11360 psi		
3/4	Herco	Rem. 209P	28S1	14.0 grs 11030 psi		
3/4	Herco	Rem. 209P	Duster 2834	14.8 grs 9600 psi		
3/4	Herco	Rem. 209P	PC	14.5 grs 10800 psi		

### 28-Gauge 2 3/4 inch Winchester AA (HS) Plastic Shells

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure		
(oz)				1200 fps	1250 fps	1290 fps
3/4	20/28	Win. 209	Duster 2834	13.0 grs 9880 psi	14.0 grs 11110 psi	
3/4	20/28	Win. 209	CB 5034-HS	13.0 grs 10580 psi	13.5 grs 11690 psi	
3/4	20/28	Win. 209	PT-28	13.2 grs 10550 psi	14.1 grs 12160 psi	
3/4	20/28	Win. 209	Win. AA -HS	13.0 grs 11670 psi		
3/4	Unique	Win. 209	Win. AA -HS	13.1 grs 11300 psi		
3/4	Herco	Win. 209	Win. AA -HS	14.0 grs 10900 psi		

### 28-Gauge 2 3/4 inch Remington Plastic Shells (STS)

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure		
(oz)				1300 fps	1350 fps	1400fps
3/4	Pro Reach	Rem. 209P	Duster 2834	15.8 grs 10110 psi	16.8 grs 11370 psi	
3/4	Pro Reach	Rem. 209P	PT 28	15.7 grs 11540 psi		
3/4	Pro Reach	Cheddite	Duster 2834	15.9 grs 10420 psi	16.6 grs 11580 psi	
3/4	Pro Reach	Cheddite	PT 28	15.7 grs 10860 psi	16.1 grs 11750 psi	

### 28-Gauge 2 3/4 inch Winchester AA (HS) Plastic Shells

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure		
(oz)				1300 fps	1350 fps	1400 fps
3/4	Pro Reach	Cheddite	Duster 2834	16.4 grs 8540 psi	17.2 grs 9980 psi	
3/4	Pro Reach	Cheddite	CB 1034	17.0 grs 8640 psi		
3/4	Pro Reach	Win. 209	Duster 2834		17.5 grs 9790 psi	18.0 grs 11560 psi
3/4	Pro Reach	Win. 209	CB 1034	17.0 grs 9030 psi	17.5 grs 10550 psi	

## 28-Gauge 2 3/4 inch Federal Plastic Target Shells

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure		
(oz)				1300 fps	1350 fps	1400 fps
3/4	Pro Reach	Cheddite	Duster 2834	16.4 grs 8230 psi	17.1 grs 10090 psi	
3/4	Pro Reach	Cheddite	28S1	16.0 grs 11080 psi	16.5 grs 11770 psi	
3/4	Pro Reach	Fed. 209A	Duster 2834	16.2 grs 9370 psi	16.8 grs 10670 psi	
3/4	Pro Reach	Fed. 209A	28S1	15.9 grs 11780 psi	16.1 grs 12040 psi	

## 410 BORE SHOTSHELL LOAD DATA

### 410 Bore 2 1/2 inch Remington Plastic Shells (STS, Premier)

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure		
(oz)				1200 fps	1230 fps	1250 fps
1/2	410	Rem. 209 STS	SP410	12.0 grs 9500 psi	12.7 grs 9700 psi	
1/2	410	Rem. 209 STS	Fed. 410 SC	12.2 grs 10700 psi		
1/2	410	Rem. 209 STS	WAA41	12.3 grs 8800 psi		
1/2	410	Rem. 209 STS	CB 1050-41	12.3 grs 8700 psi		
1/2	410	Rem. 209 STS	Duster 4150		12.8 grs 9900 psi	
1/2	410	CCI 209M	SP410	12.2 grs 9800 psi		
1/2	2400	CCI 209M	SP410	13.5 grs 11000 psi		
1/2	Power Pro 300-MP	Rem. 209P	Rem. SP410			17.4 grs 7500 psi
						18.0 grs 7700 psi

### 410 Bore 2 1/2 inch Winchester AA Plastic Shells

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure		
(oz)				1200 fps	1230 fps	
1/2	410	CCI 209M	WAA41	11.5 grs 11100 psi	11.9 grs 11800 psi	
1/2	410	Win. 209	CB 1050-41	11.5 grs 10100 psi	11.9 grs 10900 psi	
1/2	410	Win. 209	Duster 4150	11.4 grs 11100 psi		
1/2	410	Win. 209	SP410	11.5 grs 10800 psi		
1/2	2400	Win. 209	WAA41	13.0 grs 11700 psi		

### 410 Bore 2 1/2 inch Winchester AA (HS) Plastic Shells

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure		
(oz)				1200 fps	1230 fps	
1/2	410	Win. 209	Fed. 209 SC	12.5 grs 10415 psi		
1/2	410	Win. 209	Win. AA41HS	12.0 grs 10570 psi		
1/2	410	Win. 209	Duster 4150	12.0 grs 10740 psi		

continued

#### 410 Bore 2 1/2 inch Winchester AA (HS) Plastic Shells continued

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1230 fps	1250 fps	1300 fps
1/2	Power Pro 300-MP	Win. 209	Win. 41HS	14.9 grs 8600 psi		15.6 grs 9400 psi	16.4 grs 10700 psi

#### 410 Bore 2 1/2 inch Federal Plastic Target Shells

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1230 fps	1250 fps	1300 fps
1/2	410	CCI 209M	Fed. 410 SC	11.5 grs 10600 psi			
1/2	410	Fed. 209A	WAA41	11.5 grs 10500 psi	11.8 grs 11500 psi	1/16" spacer required	
1/2	410	Fed. 209A	CB 1050-41	11.5 grs 10500 psi	11.8 grs 11400 psi	1/16" spacer required	
1/2	410	Fed. 209A	Duster 4150	11.5 grs 10000 psi	11.9 grs 11800 psi		
1/2	410	Fed. 209A	SP410	11.5 grs 10700 psi	11.8 grs 11800 psi	1/16" spacer required	
1/2	410	Fed. 209A	Fed. 410 SC	11.5 grs 10500 psi	11.9 grs 12000 psi		
1/2	Power Pro 300-MP	Fed. 209A	CB 5050-410HS	16.0 grs 8000 psi		16.5 grs 8300 psi	17.5 grs 8800 psi

#### 410 Bore 3 inch Remington Plastic Shells (STS, Premier)

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1230 fps	1250 fps	1300 fps
11/16	410	Rem. 209P	Rem. SP410	13.5 grs 12600 psi			
11/16	Power Pro 300-MP	Rem. 209P	Rem. SP410	17.8 grs 9000 psi			

#### 410 Bore 3 inch Federal Plastic Target Shells

Shot	Powder	Primer	Wad	Velocity / Charge Weight / Pressure			
(oz)				1200 fps	1230 fps	1250 fps	1300 fps
11/16	Power Pro 300-MP	Fed. 209A	Rem. SP410	17.0 grs 10600 psi			

The advertisement features the Alliant Powder logo at the top left, followed by the slogan "Technically Superior by Design". In the center, the words "BRING THE HEAT" are written in large, bold, white letters against a dark background. Below the slogan, five bottles of Alliant Powder's Power Pro series are displayed in a row. From left to right, the bottles are labeled: "POWER PRO 300-MP SMOKELESS SPHERICAL MAGNUM PISTOL POWDER", "POWER PRO VARMINT SMOKELESS SPHERICAL LIGHT RIFLE POWDER", "POWER PRO 1000 SMOKELESS DOUBLE BASE SPHERICAL POWDER", "POWER PRO 2000-MR SMOKELESS SPHERICAL MEDIUM RIFLE POWDER", and "POWER PRO 4000-MR SMOKELESS SPHERICAL MAGNUM RIFLE POWDER". Each bottle has a black cap and a label with detailed product information.

**ENJOY INCREASED** speed and performance with the new Power Pro® series from Alliant Powder. Designed for specific cartridges and applications, these five new spherical powders boost velocities for pistol, light varmint and light/medium/magnum rifles while their improved densities permit more efficient metering and loading. The Power Pro series also enables reloaders to duplicate certain factory loaded ammunition for the ultimate in round-to-round consistency. Available in 1 lb. bottles and 8 lb. canisters. Made in the U.S.A.

Discover the power of Power Pro® at [www.alliantpowder.com](http://www.alliantpowder.com).

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## CENTERFIRE METALLIC LOADS

### COWBOY ACTION HANDGUN LOAD DATA

32 S&W Long						
Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Wgt	Velocity
				inches	grains	fps
90-gr RCBS mould # 82303	Bullseye	CCI 500	Rem.	1.190	2.3	794
90-gr RCBS mould # 82303	Red Dot	CCI 500	Rem.	1.190	2.3	769
98-gr RCBS mould # 82061	Bullseye	CCI 500	Rem.	1.280	2.3	770
98-gr RCBS mould # 82061	Unique	CCI 500	Rem.	1.280	2.8	769
98-gr RCBS mould # 82061	2400	CCI 500	Rem.	1.280	5.6	801
32-20 Winchester						
98-gr RCBS mould # 82061	Bullseye	CCI 500	Starline	1.530	2.9	937
98-gr RCBS mould # 82061	Unique	CCI 500	Starline	1.530	3.5	969
98-gr RCBS mould # 82061	Power Pistol	CCI 500	Starline	1.530	4.4	1033
38 Special						
125-gr Oregon Trails lead	Bullseye	Rem. 1 1/2	Rem.	1.450	4.8	1024
125-gr Oregon Trails lead	Amer. Select	Rem. 1 1/2	Rem.	1.450	4.7	989
125-gr Meister RNFP	Red Dot	Rem. 1 1/2	Rem.	1.450	4.6	1025
125-gr Meister RNFP	Unique	Rem. 1 1/2	Rem.	1.450	6.0	1075
140-gr Hornady FP lead	Bullseye	Rem. 1 1/2	Rem.	1.450	4.5	945
140-gr Hornady FP lead	Red Dot	Rem. 1 1/2	Rem.	1.450	4.5	960
140-gr Hornady FP lead	Amer. Select	Rem. 1 1/2	Rem.	1.450	4.5	988
140-gr Hornady FP lead	Unique	Rem. 1 1/2	Rem.	1.450	5.5	985
147-gr RCBS mould # 82077	Bullseye	CCI 500	Speer	1.530	3.5	838
147-gr RCBS mould # 82077	Red Dot	CCI 500	Speer	1.530	3.4	794
147-gr RCBS mould # 82077	Unique	CCI 500	Speer	1.530	4.6	820
357 Magnum						
125-gr Oregon Trails lead	Amer. Select	Fed. 100	Rem.	1.580	3.9	856
140-gr Hornady FP lead	Amer. Select	Fed. 100	Rem.	1.540	3.6	825
140-gr Hornady FP lead	Unique	Fed. 100	Rem.	1.540	4.0	820
158-gr RN lead	Amer. Select	Fed. 100	Rem.	1.585	4.0	840
158-gr RN lead	Unique	Fed. 100	Rem.	1.585	4.5	859
38-40 Winchester						
180-gr RCBS mould # 82306	Bullseye	CCI 300	Win.	1.575	5.3	810
180-gr RCBS mould # 82306	Red Dot	CCI 300	Win.	1.575	5.2	817
180-gr RCBS mould # 82306	Amer. Select	CCI 300	Win.	1.575	5.2	788
180-gr RCBS mould # 82306	Unique	CCI 300	Win.	1.575	7.4	846

44 Russian						
Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Wgt	Velocity
				inches	grains	fps
200-gr RCBS mould # 82307	Bullseye	CCI 300	Starline	1.245	4.0	826
200-gr RCBS mould # 82307	Red Dot	CCI 300	Starline	1.245	3.8	796
200-gr RCBS mould # 82307	Amer. Select	CCI 300	Starline	1.245	3.7	763
200-gr RCBS mould # 82307	Unique	CCI 300	Starline	1.245	5.4	887
44 S&W Special						
200-gr RCBS mould # 82307	Bullseye	CCI 300	Rem.	1.435	6.4	1032
200-gr RCBS mould # 82307	Red Dot	CCI 300	Rem.	1.435	6.0	999
200-gr RCBS mould # 82307	Amer. Select	CCI 300	Rem.	1.435	5.8	933
200-gr RCBS mould # 82307	Unique	CCI 300	Rem.	1.435	8.7	1143
44-40 Winchester						
200-gr RCBS mould # 82307	Bullseye	CCI 300	Rem.	1.580	6.1	885
200-gr RCBS mould # 82307	Red Dot	CCI 300	Rem.	1.580	5.9	866
200-gr RCBS mould # 82307	Amer. Select	CCI 300	Rem.	1.580	6.0	856
200-gr RCBS mould # 82307	Unique	CCI 300	Rem.	1.580	8.6	951
45 S&W Schofield						
230-gr RCBS mould # 82308	Bullseye	CCI 300	Starline	1.410	4.3	697
230-gr RCBS mould # 82308	Amer. Select	CCI 300	Starline	1.410	4.3	707
230-gr RCBS mould # 82308	Unique	CCI 300	Starline	1.410	6.1	728
45 Colt						
230-gr RCBS mould # 82308	Bullseye	CCI 300	Win.	1.585	6.0	815
230-gr RCBS mould # 82308	Amer. Select	CCI 300	Win.	1.585	6.0	782
230-gr RCBS mould # 82308	Unique	CCI 300	Win.	1.585	8.5	850

PISTOL/REVOLVER LOAD DATA						
221 Fireball						
Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
45-gr Speer SP	2400	CCI 400	Rem.	1.830	15.0	2762
45-gr Speer SP	Reloder 7	CCI 400	Rem.	1.830	18.3	2775
50-gr Speer TNT	2400	CCI 400	Rem.	1.830	14.5	2693
50-gr Speer TNT	Reloder 7	CCI 400	Rem.	1.830	17.9	2638
52-gr Speer HP	2400	CCI 400	Rem.	1.830	14.3	2607
52-gr Speer HP	Reloder 7	CCI 400	Rem.	1.830	17.7	2606

25 Auto						
Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
35-gr Speer HP	Bullseye	CCI 500	Speer	.870	1.7	1040
50-gr Speer TMJ RN	Bullseye	CCI 500	Speer	.870	1.3	812
32 Auto						
60-gr Speer GDHP	Bullseye	CCI 500	Speer	.940	2.6	1030
60-gr Speer GDHP	Unique	CCI 500	Speer	.940	3.2	971
60-gr Speer GDHP	Power Pistol	CCI 500	Speer	.940	3.6	1030
32 S&W Long						
98-gr HBWC	Bullseye	CCI 500	Rem.	.920	1.8	777
32 H&R Magnum						
85-gr Speer JHP	Unique	CCI 500	Federal	1.340	4.7	1240
98-gr HBWC	Bullseye	CCI 500	Federal	.940	3.9	1162
98-gr HBWC	Bullseye	CCI 500	Federal	1.075	2.3	810
100-gr Speer JHP	Bullseye	CCI 500	Federal	1.345	3.6	1000
100-gr Speer JHP	Unique	CCI 500	Federal	1.345	4.4	1074
100-gr Speer JHP	2400	CCI 500	Federal	1.345	7.7	1091
380 Auto						
90-gr Speer GDHP	Bullseye	CCI 500	Win.	.970	3.4	981
90-gr Speer GDHP	Unique	CCI 500	Win.	.970	4.6C	1034
90-gr Speer GDHP	Power Pistol	CCI 500	Win.	.970	4.8C	1020
9mm Luger						
115-gr Speer GDHP	Bullseye	CCI 500	Speer	1.125	4.7	1144
115-gr Speer GDHP	Amer. Select	CCI 500	Speer	1.125	5.4	1102
115-gr Speer GDHP	Unique	CCI 500	Speer	1.125	6.3	1244
115-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.125	6.7	1212
115-gr Speer GDHP	Blue Dot	CCI 500	Speer	1.125	8.5	1258
124-gr Speer GDHP	Bullseye	CCI 500	Speer	1.120	4.4	1059
124-gr Speer GDHP	Amer. Select	CCI 500	Speer	1.120	5.0	1053
124-gr Speer GDHP	Unique	CCI 500	Speer	1.120	5.8	1180
124-gr Speer GDHP	Blue Dot	CCI 500	Speer	1.120	7.9	1238
147-gr Speer GDHP	Unique	CCI 500	Speer	1.130	4.3	954
147-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.130	5.0	975
147-gr Speer GDHP	Blue Dot	CCI 500	Speer	1.130	5.8	1001
357 SIG						
125-gr Speer GDHP	Unique	CCI 500	Speer	1.135	8.0	1344
125-gr Speer GDHP	Herco	CCI 500	Speer	1.135	8.1	1277
125-gr Speer GDHP	Blue Dot	CCI 500	Speer	1.135	11.0C	1416

357 SIG continued						
Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
147-gr Speer GDHP	Unique	CCI 500	Speer	1.135	6.6	1101
147-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.135	7.5	1152
147-gr Speer GDHP	Blue Dot	CCI 500	Speer	1.135	8.8	1218
38 Super Auto +P						
115-gr Speer GDHP	Herco	CCI 500	Win.	1.260	7.8C	1276
115-gr Speer GDHP	Blue Dot	CCI 500	Win.	1.260	10.0C	1362
124-gr Speer GDHP	Bullseye	CCI 500	Win.	1.260	5.2	1158
124-gr Speer GDHP	Unique	CCI 500	Win.	1.260	6.2	1208
124-gr Speer GDHP	Herco	CCI 500	Win.	1.260	7.3	1272
124-gr Speer GDHP	Blue Dot	CCI 500	Win.	1.260	9.2	1312
38 Special						
110-gr Speer GDHP	Bullseye	CCI 500	Speer	1.455	4.6	990
110-gr Speer GDHP	Amer. Select	CCI 500	Speer	1.455	4.3	887
110-gr Speer GDHP	Unique	CCI 500	Speer	1.455	5.8	1065
110-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.455	6.6	1074
125-gr Speer GDHP	Bullseye	CCI 500	Speer	1.440	4.5	914
125-gr Speer GDHP	Amer. Select	CCI 500	Speer	1.440	4.1	839
125-gr Speer GDHP	Unique	CCI 500	Speer	1.440	5.7	980
125-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.440	6.1	986
148-gr Speer HBWC	Bullseye	CCI 500	Speer	Flush	3.1	799
148-gr Speer HBWC	Red Dot	CCI 500	Speer	Flush	3.0	806
158-gr Speer LSWC	Bullseye	CCI 500	Speer	1.440	3.5	814
158-gr Speer LSWC	Red Dot	CCI 500	Speer	1.440	3.4	793
158-gr Speer LSWC	Unique	CCI 500	Speer	1.440	4.7	815
158-gr Speer LSWC	Power Pistol	CCI 500	Speer	1.440	5.4	948
38 Special +P						
110-gr Speer GDHP	Bullseye	CCI 500	Speer	1.445	5.2	1098
110-gr Speer GDHP	Amer. Select	CCI 500	Speer	1.445	4.8	967
110-gr Speer GDHP	Unique	CCI 500	Speer	1.445	6.3	1117
110-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.445	7.4	1192
125-gr Speer GDHP	Bullseye	CCI 500	Speer	1.440	4.8	1021
125-gr Speer GDHP	Amer. Select	CCI 500	Speer	1.440	4.7	931
125-gr Speer GDHP	Unique	CCI 500	Speer	1.440	6.0	1082
125-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.440	6.8	1082
135-gr Speer GDHP	Unique	CCI 500	Speer	1.450	5.2	988
135-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.450	6.4	1065
146-gr Speer JHP-SWC	Unique	CCI 500	Speer	1.370	5.1	957

**38 Special +P continued**

Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
146-gr Speer JHP-SWC	Power Pistol	CCI 500	Speer	1.370	5.5	935
146-gr Speer JHP-SWC	Blue Dot	CCI 500	Speer	1.370	7.1	1000
146-gr Speer JHP-SWC	2400	CCI 500	Speer	1.370	9.0	952
158-gr Speer LSWC	Bullseye	CCI 500	Speer	1.440	3.9	874
158-gr Speer LSWC	Red Dot	CCI 500	Speer	1.440	3.8	846
158-gr Speer LSWC	Unique	CCI 500	Speer	1.440	5.2	919
158-gr Speer LSWC	Power Pistol	CCI 500	Speer	1.440	6.0	1037
<b>357 Magnum</b>						
110-gr Speer UCHP	Bullseye	CCI 500	Speer	1.575	8.7	1403
110-gr Speer UCHP	Unique	CCI 500	Speer	1.575	9.7	1447
110-gr Speer UCHP	Power Pistol	CCI 500	Speer	1.575	10.5	1451
110-gr Speer UCHP	Blue Dot	CCI 500	Speer	1.575	16.0	1680
110-gr Speer UCHP	2400	CCI 500	Speer	1.575	19.5	1670
125-gr Speer GDHP	Power Pro 300-MP	Fed. 100	Federal	1.580	22.3C	2000
125-gr Speer GDHP	Unique	CCI 500	Speer	1.580	9.6	1343
125-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.580	10.5	1345
125-gr Speer GDHP	2400	CCI 500	Speer	1.580	17.5	1409
135-gr Speer GDHP	Unique	CCI 500	Speer	1.590	7.8	1185
135-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.590	9.6	1291
135-gr Speer GDHP	2400	CCI 500	Speer	1.590	16.0	1377
140-gr Speer UCHP	Unique	CCI 500	Speer	1.560	8.0	1185
140-gr Speer UCHP	Power Pistol	CCI 500	Speer	1.560	9.5	1288
140-gr Speer UCHP	Blue Dot	CCI 500	Speer	1.560	11.5	1324
140-gr Speer UCHP	2400	CCI 500	Speer	1.560	15.1	1298
158-gr Speer UCSP	Power Pro 300-MP	Fed. 100	Federal	1.570	18.6	1690
158-gr Speer GDHP	Unique	CCI 500	Speer	1.575	7.7	1040
158-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.575	8.5	1078
158-gr Speer GDHP	Blue Dot	CCI 500	Speer	1.575	10.2	1188
158-gr Speer GDHP	2400	CCI 500	Speer	1.575	14.8	1265
158-gr Speer LSWC	Bullseye	CCI 500	Speer	1.570	4.8	939
158-gr Speer LSWC	Unique	CCI 500	Speer	1.570	6.0	1034
170-gr Speer GDSP	Power Pro 300-MP	Fed. 100	Federal	1.590	17.5	1620
170-gr Speer GDSP	Blue Dot	CCI 500	Speer	1.590	9.4	1002
170-gr Speer GDSP	2400	CCI 500	Speer	1.590	14.5	1166
<b>40 S&amp;W</b>						
155-gr Speer GDHP	Bullseye	CCI 500	Speer	1.120	6.0	1023
155-gr Speer GDHP	Amer. Select	CCI 500	Speer	1.120	5.6	1001

**40 S&W continued**

Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
155-gr Speer GDHP	Unique	CCI 500	Speer	1.120	8.0	1207
155-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.120	9.0	1213
155-gr Speer GDHP	Blue Dot	CCI 500	Speer	1.120	11.0	1221
165-gr Speer GDHP	Bullseye	CCI 500	Speer	1.120	5.8	1022
165-gr Speer GDHP	Unique	CCI 500	Speer	1.120	7.2	1064
165-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.120	7.8	1081
180-gr Speer GDHP	Bullseye	CCI 500	Speer	1.120	5.5	929
180-gr Speer GDHP	Amer. Select	CCI 500	Speer	1.120	5.1	865
180-gr Speer GDHP	Unique	CCI 500	Speer	1.120	6.7	1000
180-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.120	7.2	1013
180-gr Speer GDHP	Blue Dot	CCI 500	Speer	1.120	8.9	1018
<b>10mm Auto</b>						
155-gr Speer GDHP	Unique	CCI 300	Hornady	1.250	8.5	1246
155-gr Speer GDHP	Blue Dot	CCI 300	Hornady	1.250	12.0	1291
165-gr Speer GDHP	Unique	CCI 300	Hornady	1.255	8.3	1194
165-gr Speer GDHP	Power Pistol	CCI 300	Hornady	1.255	10.0	1314
165-gr Speer GDHP	Blue Dot	CCI 300	Hornady	1.255	11.5	1273
180-gr Speer GDHP	Unique	CCI 300	Hornady	1.250	8.0	1138
180-gr Speer GDHP	Blue Dot	CCI 300	Hornady	1.250	11.0	1295
180-gr Speer GDHP	2400	CCI 300	Hornady	1.250	12.8	1214
<b>41 Remington Magnum</b>						
200-gr Speer JHP-SWC	Unique	CCI 300	Win.	1.590	9.0	1181
200-gr Speer JHP-SWC	2400	CCI 300	Win.	1.590	16.8	1311
210-gr Speer GDHP	Unique	CCI 300	Win.	1.575	9.7	1123
210-gr Speer GDHP	2400	CCI 300	Win.	1.575	19.0	1223
<b>44 S&amp;W Special</b>						
200-gr Speer GSHP	Power Pistol	CCI 300	Rem.	1.490	8.6	976
200-gr Speer GSHP	Bullseye	CCI 300	Rem.	1.490	5.9	884
200-gr Speer GSHP	Red Dot	CCI 300	Rem.	1.490	5.9	868
200-gr Speer GSHP	Amer. Select	CCI 300	Rem.	1.490	5.7	821
200-gr Speer GSHP	Unique	CCI 300	Rem.	1.490	7.8	855
225-gr cast SWC GC	Bullseye	CCI 300	Rem.	1.500	5.5	903
225-gr cast SWC GC	Unique	CCI 300	Rem.	1.500	7.8	1043
225-gr cast SWC GC	Power Pistol	CCI 300	Rem.	1.500	7.7	952
240-gr Speer LSWC	Bullseye	CCI 300	Rem.	1.475	5.2	793
240-gr Speer LSWC	Unique	CCI 300	Rem.	1.475	6.3	820

**44 S&W Special continued**

Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
240-gr Speer JHP	Unique	CCI 300	Rem.	1.465	7.6	836
240-gr Speer JHP	Power Pistol	CCI 300	Rem.	1.465	7.6	819
240-gr Speer JHP	Blue Dot	CCI 300	Rem.	1.465	10.2	871
250-gr cast (Keith)	Bullseye	CCI 300	Rem.	1.580	5.3	835
250-gr cast (Keith)	Unique	CCI 300	Rem.	1.580	6.9	921
250-gr cast (Keith)	Power Pistol	CCI 300	Rem.	1.580	8.0	954
250-gr cast (Keith)	2400	CCI 300	Rem.	1.580	13.0	965

**44 Remington Magnum**

200-gr Speer Mag HP	Power Pro 300-MP	Fed. 150	Federal	1.590	29.0	1760
200-gr Speer Mag JHP	Unique	CCI 300	Speer	1.590	12.4	1399
200-gr Speer Mag JHP	Power Pistol	CCI 300	Speer	1.590	15.5	1573
200-gr Speer Mag JHP	Blue Dot	CCI 300	Speer	1.590	16.0	1495
200-gr Speer Mag JHP	2400	CCI 300	Speer	1.590	24.0	1589
210-gr Speer GDHP	Unique	CCI 300	Speer	1.600	12.5	1392
210-gr Speer GDHP	Power Pistol	CCI 300	Speer	1.600	14.5	1504
210-gr Speer GDHP	2400	CCI 300	Speer	1.600	23.5	1566
225-gr Speer JHP-SWC	2400	CCI 300	Speer	1.575	21.4	1526
225-gr cast SWC GC	Unique	CCI 300	Speer	1.635	11.0	1259
225-gr cast SWC GC	2400	CCI 300	Speer	1.635	21.0	1482
240-gr cast LSWC	Bullseye	CCI 300	Speer	1.605	6.0	894
240-gr cast LSWC	Red Dot	CCI 300	Speer	1.605	6.5	905
240-gr cast LSWC	Green Dot	CCI 300	Speer	1.605	7.0	901
240-gr cast LSWC	Unique	CCI 300	Speer	1.605	7.0	899
240-gr Speer GDSP	Power Pro 300-MP	Fed. 150	Federal	1.575	25.0	1570
240-gr Speer GDHP	Unique	CCI 300	Speer	1.575	10.3	1175
240-gr Speer GDHP	Blue Dot	CCI 300	Speer	1.575	13.7	1285
240-gr Speer GDHP	2400	CCI 300	Speer	1.575	21.0	1434
250-gr cast (Keith)	Unique	CCI 300	Speer	1.710	11.0	1211
250-gr cast (Keith)	2400	CCI 300	Speer	1.710	20.0	1390
270-gr Speer GDSP	Power Pro 300-MP	Fed. 150	Federal	1.585	22.0	1400
270-gr Speer GDHP	2400	CCI 300	Speer	1.585	17.5	1182
300-gr Speer UCSP	Power Pro 300-MP	Fed. 150	Federal	10665	22.0	1350
300-gr Speer UCSP	2400	CCI 300	Speer	1.665	19.0	1088

**45 G.A.P.**

185-gr Speer GDHP	Bullseye	CCI 500	Speer	1.070	6.1	1037
185-gr Speer GDHP	Unique	CCI 500	Speer	1.070	7.7	1009
185-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.070	7.8	993

**45 G.A.P. continued**

Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
200-gr Speer GDHP	Bullseye	CCI 500	Speer	1.070	5.4	943
200-gr Speer GDHP	Unique	CCI 500	Speer	1.070	6.8	988
200-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.070	7.6	977
200-gr Speer GDHP	Unique	CCI 500	Speer	1.070	6.8	988
200-gr Speer GDHP	Power Pistol	CCI 500	Speer	1.070	7.6	977

**45 Auto**

Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
185-gr Speer GDHP	Bullseye	CCI 300	Speer	1.200	6.4	986
185-gr Speer GDHP	Amer. Select	CCI 300	Speer	1.200	6.2	941
185-gr Speer GDHP	Unique	CCI 300	Speer	1.200	8.2	1015
185-gr Speer GDHP	Power Pistol	CCI 300	Speer	1.200	9.5	1047
200-gr Speer LSWC	Bullseye	CCI 300	Speer	1.190	4.6	807
200-gr Speer LSWC	Red Dot	CCI 300	Speer	1.190	4.5	831
200-gr Speer LSWC	Unique	CCI 300	Speer	1.190	5.4	790
200-gr Speer GDHP	Bullseye	CCI 300	Speer	1.200	5.8	934
200-gr Speer GDHP	Unique	CCI 300	Speer	1.200	7.3	984
200-gr Speer GDHP	Power Pistol	CCI 300	Speer	1.200	8.3	952
200-gr Speer GDHP	Blue Dot	CCI 300	Speer	1.200	10.5	1010
230-gr Speer LRN	Red Dot	CCI 300	Speer	1.270	5.1	841
230-gr Speer LRN	Green Dot	CCI 300	Speer	1.270	5.3	842
230-gr Speer LRN	Unique	CCI 300	Speer	1.270	5.8	849
230-gr Speer LRN	Herco	CCI 300	Speer	1.270	6.4	845
230-gr Speer TMJ RN	Bullseye	CCI 300	Speer	1.260	5.7	840
230-gr Speer TMJ RN	Red Dot	CCI 300	Speer	1.260	5.3	839
230-gr Speer TMJ RN	Unique	CCI 300	Speer	1.260	6.5	832
230-gr Speer TMJ RN	Power Pistol	CCI 300	Speer	1.260	8.1	916

**45 Colt**

Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
200-gr Speer LSWC	Bullseye	CCI 300	Win.	1.515	7.5	988
200-gr Speer LSWC	Red Dot	CCI 300	Win.	1.515	7.3	1001
200-gr Speer LSWC	Green Dot	CCI 300	Win.	1.515	8.3	980
200-gr Speer LSWC	Unique	CCI 300	Win.	1.515	9.5	1061
200-gr Speer LSWC	Herco	CCI 300	Win.	1.515	9.5	1021
200-gr Speer GDHP	Bullseye	CCI 300	Win.	1.555	7.9	994
200-gr Speer GDHP	Red Dot	CCI 300	Win.	1.555	7.6	981
200-gr Speer GDHP	Green Dot	CCI 300	Win.	1.555	8.8	991
200-gr Speer GDHP	Unique	CCI 300	Win.	1.555	9.8	1048
200-gr Speer GDHP	Power Pistol	CCI 300	Win.	1.555	9.2	885
200-gr Speer GDHP	Herco	CCI 300	Win.	1.555	10.0	1032

45 Colt continued						
Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
230-gr Speer GDHP	Bullseye	CCI 300	Win.	1.600	7.1	890
230-gr Speer GDHP	Unique	CCI 300	Win.	1.600	9.0	932
230-gr Speer GDHP	Power Pistol	CCI 300	Win.	1.600	9.5	878
230-gr Speer GDHP	Herco	CCI 300	Win.	1.600	9.4	918
230-gr Speer GDHP	Blue Dot	CCI 300	Win.	1.600	13.0	1036
250-gr Speer GDHP	Unique	CCI 300	Win.	1.600	7.8	840
250-gr Speer GDHP	Power Pistol	CCI 300	Win.	1.600	8.8	845
250-gr Speer GDHP	2400	CCI 300	Win.	1.600	15.0	826
250-gr Speer LSWC	Bullseye	CCI 300	Win.	1.600	7.0	879
250-gr Speer LSWC	Unique	CCI 300	Win.	1.600	9.5	941
250-gr Speer LSWC	Blue Dot	CCI 300	Win.	1.600	12.9	1028
250-gr Speer LSWC	2400	CCI 300	Win.	1.600	15.4	972
260-gr Speer JHP	Bullseye	CCI 300	Win.	1.590	7.1	841
260-gr Speer JHP	Power Pistol	CCI 300	Win.	1.590	8.4	852
260-gr Speer JHP	Blue Dot	CCI 300	Win.	1.590	13.0	941
454 Casull						
250-gr Speer GDHP	2400	CCI 400	Starline	1.670	26.0	1531
260-gr Speer HP	Power Pro 300-MP	Fed. 205	Federal	1.670	31.0	1665
270-gr hard cast SWC	Unique	CCI 400	Starline	1.750	11.0	1155
270-gr hard cast SWC	Power Pistol	CCI 400	Starline	1.750	11.0	1114
300-gr Speer UCSP	Power Pro 300-MP	Fed. 205	Federal	1.760	29.5	1535
300-gr Speer UCSP	2400	CCI 400	Win.	1.760	24.0	1325
300-gr Speer GDHP	Power Pro 300-MP	Fed. 205	Federal	1.740	31.0C	1740
300-gr Speer GDHP	2400	CCI 400	Win.	1.750	27.0	1479
460 S&W Magnum						
250-gr Speer GDHP	Power Pistol	Fed. 210	Hornady	2.090	21.0	1514
250-gr Speer GDHP	2400	Fed. 210	Hornady	2.090	31.0	1553
260-gr Speer HP	Power Pro 300-MP	Fed. 210	Federal	2.090	36.0	1835
300-gr Speer UCSP	Power Pro 300-MP	Fed. 210	Federal	2.170	28.0	1610
300-gr Speer UCSP	Power Pistol	Fed. 210	Hornady	2.170	20.0	1359
300-gr Speer UCSP	2400	Fed. 210	Hornady	2.170	30.0	1551
300-gr Speer GDHP	Power Pro 300-MP	Fed. 210	Federal	2.150	38.0	1930
300-gr Speer GDHP	Power Pistol	Fed. 210	Hornady	2.150	24.0	1525
300-gr Speer GDHP	2400	Fed. 210	Hornady	2.150	36.0	1782
480 Ruger						
275-gr Speer GDHP	Power Pro 300-MP	Fed. 150	Ruger	1.640	38.0C	1910
275-gr Speer GDHP	Unique	CCI 300	Hornady	1.640	16.0	1400

480 Ruger continued						
Cartridge/Bullet	Powder	Primer	Case	Min OAL	Max Chg	Velocity
				inches	grains	fps
275-gr Speer GDHP	Power Pistol	CCI 300	Hornady	1.640	17.5	1465
275-gr Speer GDHP	2400	CCI 300	Hornady	1.640	29.0	1560
325-gr Speer GDSP	Power Pro 300-MP	Fed. 150	Ruger	1.650	29.5C	1620
325-gr Speer GDSP	Unique	CCI 300	Hornady	1.650	13.0	1178
325-gr Speer GDSP	2400	CCI 300	Hornady	1.650	25.0	1435
400-gr Speer GDSP	Power Pro 300-MP	Fed. 150	Ruger	1.650	24.2C	1370
400-gr Speer GDSP	2400	CCI 300	Hornady	1.650	18.0	1081
500 S&W Magnum						
350-gr Speer UCSP	Power Pro 300-MP	Fed. 215	Starline	2.250	49.0	2000
350-gr Speer UCSP	Power Pistol	Fed. 215	Starline	2.250	27.0	1564
350-gr Speer UCSP	2400	Fed. 215	Starline	2.250	42.0	1642

CENTERFIRE RIFLE LOAD DATA						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
25-gr Hornady HP	Reloder 15	Rem. 7 1/2	Rem.	2.140	22.8	3915
218 Bee						
45-gr Speer FNSP	2400	CCI 400	Win.	1.655	8.3	2151
221 Fireball						
40-gr Speer SP	2400	Rem. 7 1/2	Rem.	1.800	15.5	2700
50-gr Sierra Spitzer	2400	Rem. 7 1/2	Rem.	1.800	13.8	2410
60-gr Sierra Spitzer	2400	Rem. 7 1/2	Rem.	1.825	13.3	2200
60-gr Sierra Spitzer	Reloder 7	Rem. 7 1/2	Rem.	1.825	18.1	2250
22 Hornet						
33-gr Speer TNT HP	2400	CCI 500	Win.	1.680	11.5C	2985
40-gr Hornady V Max	Power Pro 300-MP	Fed. 205	Win.	1.810	11.7C	2950
40-gr Hornady V Max	Power Pro 300-MP	Fed. 205	Federal	1.810	11.7C	2944
40-gr Speer SP	2400	CCI 500	Win.	1.723	9.1	2557
40-gr Speer SP	Reloder 7	CCI 500	Win.	1.723	11.0	2265
45-gr Speer SP	Power Pro 300-MP	Fed. 205	Win.	1.723	11.5	2770
45-gr Speer SP	Power Pro 300-MP	Fed. 205	Federal	1.723	11.5	2763
45-gr Speer SP	2400	CCI 500	Win.	1.723	9.0	2506
45-gr Speer SP	Reloder 7	CCI 500	Win.	1.723	10.6	2170

.222 Remington						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
40-gr Speer SP	Reloder 7	CCI 400	Rem.	2.040	22.0	3617
40-gr Speer SP	Reloder 10X	CCI 400	Rem.	2.040	23.0	3346
45-gr Speer SP	Reloder 7	CCI 400	Rem.	2.130	21.5	3424
45-gr Speer SP	Reloder 10X	CCI 400	Rem.	2.130	22.0	3163
50-gr Nosler BT	Reloder 10X	Rem. 6 1/2	Rem.	2.110	21.0	3023
52-gr Speer HP	Reloder 7	CCI 400	Rem.	2.110	20.0	3115
55-gr Speer SP	Reloder 7	CCI 400	Rem.	2.130	20.0	3045
.223 Remington						
40-gr Speer SP	Reloder 7	CCI 400	IMI	2.060	20.5	3011
40-gr Speer SP	Reloder 10X	CCI 400	IMI	2.060	24.5	3481
45-gr Speer SP	Reloder 7	CCI 400	IMI	2.155	20.0	3059
45-gr Speer SP	Reloder 10X	CCI 400	IMI	2.155	24.0	3292
50-gr Nosler BT	Reloder 10X	WSR	Win.	2.200	24.2	3389
50-gr Nosler BT	Reloder 15	WSR	Win.	2.200	28.0	3356
52-gr Speer HP	Reloder 7	CCI 400	IMI	2.200	20.5	2931
52-gr Speer HP	Reloder 10X	CCI 400	IMI	2.200	22.5	3179
52-gr Hornady A-Max	AR-Comp	Fed. 205	Federal	2.230	25.3	3417
52-gr Sierra BTHP	AR-Comp	Fed. 205	Federal	2.250	25.2	3414
55-gr Sierra BTHP	AR-Comp	Fed. 205	Federal	2.240	25.6	3359
55-gr Speer SP	Reloder 10X	CCI 400	IMI	2.175	23.0	3159
62-gr Speer FMJ	Reloder 15	CCI 400	IMI	2.255	25.0C	2832
68-gr Hornady BTHP	AR-Comp	Fed. 205	Federal	2.250	23.4	2969
68-gr Hornady BTHP	Power Pro 2000-MR	Fed. 205	Federal	2.250	28.0C	3109
69-gr Sierra BTHP	Reloder 15	Fed. 205M	Win.	2.260	25.5	2956
69-gr Sierra BTHP	AR-Comp	Fed. 205	Federal	2.260	23.2	2969
69-gr Sierra BTHP	Power Pro 2000-MR	Fed. 205	Federal	2.260	26.6	3070
75-gr Hornady A Max	AR-Comp	Fed. 205	Federal	2.260	22.9	2816
75-gr Hornady A Max	Power Pro 2000-MR	Fed. 205	Federal	2.390	26.4	2953
77-gr Sierra BTHP	AR-Comp	Fed. 205	Federal	2.260	22.1	2757
77-gr Sierra BTHP	Power Pro 2000-MR	Fed. 205	Federal	2.260	25.2	2856
77-gr Sierra HPBT	Reloder 15	Fed. 205M	Win.	2.260	24.1	2783
80-gr Sierra Match King	AR-Comp	Fed. 205	Federal	2.250	22.7	2726
80-gr Sierra Match King	Power Pro 2000-MR	Fed. 205	Federal	2.550	25.1	2815
90-gr Sierra BTHP	AR-Comp	Fed. 205	Federal	2.250	21.6	2530
90-gr Sierra BTHP	Power Pro 2000-MR	Fed. 205	Federal	2.550	23.8	2617

.22-250 Remington						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
40-gr Speer SP	Reloder 10X	CCI 200	Rem.	2.235	35.5	4164
40-gr Speer SP	Reloder 15	CCI 200	Rem.	2.235	40.0	4027
45-gr Speer SP	Reloder 10X	CCI 200	Rem.	2.235	34.5	3974
45-gr Speer SP	Reloder 15	CCI 200	Rem.	2.235	39.0	3897
45-gr Speer SP	AR-Comp	Fed. 210	Federal	2.235	37.6	4117
50-gr Hornady V Max	Reloder 15	Win. LRP	Rem.	2.350	38.1	3916
52-gr Speer HP	Reloder 10X	CCI 200	Rem.	2.350	33.0	3744
52-gr Speer HP	Reloder 15	CCI 200	Rem.	2.350	37.5	3662
52-gr Hornady A-Max	AR-Comp	Fed. 210	Federal	2.350	34.7	3827
52-gr Speer BTHP	AR-Comp	Fed. 210	Federal	2.350	34.8	3847
55-gr Hornady V Max	Power Pro 2000-MR	Fed. 210	Federal	2.350	38.5	3730
55-gr Hornady V Max	Reloder 15	Win. LRP	Rem.	2.350	37.5	3775
55-gr Hornady V Max	Reloder 19	Win. LRP	Rem.	2.350	43.0	3540
55-gr Speer TBBC SP	Reloder 15	CCI 200	Rem.	2.235	37.0	3621
55-gr Sierra Blitz King	AR-Comp	Fed. 210	Federal	2.350	34.6	3746
69-gr Sierra BTHP	AR-Comp	Fed. 210	Federal	2.350	32.1	3320
70-gr Speer Semi-SP	Power Pro 2000-MR	Fed. 210	Federal	2.235	35.3	3290
70-gr Speer SP	Reloder 7	CCI 200	Rem.	2.330	25.0	2753
75-gr Hornady A Max	AR-Comp	Fed. 210	Federal	2.490	31.2	3159
80-gr Speer HPBT	Power Pro 2000-MR	Fed. 210	Federal	2.600	33.7	3070
80-gr Hornady A Max	AR-Comp	Fed. 210	Federal	2.500	30.7	3038
80-gr Sierra Match King	AR-Comp	Fed. 210	Federal	2.600	29.8	3026
.220 Swift						
40-gr Speer SP	Reloder 15	CCI 200	Win.	2.625	41.0	3996
40-gr Speer SP	Reloder 19	CCI 200	Win.	2.625	46.0C	3746
45-gr Speer SP	Reloder 15	CCI 200	Win.	2.650	41.5	4010
45-gr Speer SP	Reloder 19	CCI 200	Win.	2.650	46.0C	3732
52-gr Speer HP	Reloder 15	CCI 200	Win.	2.680	39.5	3742
52-gr Speer HP	Reloder 19	CCI 200	Win.	2.680	46.0C	3645
55-gr Hornady V Max	Power Pro 2000-MR	Fed. 210	Federal	2.680	41.0	3920
55-gr Speer SP	Reloder 15	CCI 200	Win.	2.650	39.0	3656
55-gr Speer SP	Reloder 19	CCI 200	Win.	2.650	46.0C	3710
69-gr Speer HPBT	Power Pro 2000-MR	Fed. 210	Federal	2.680	37.5	3390
70-gr Speer SP	Reloder 15	CCI 200	Win.	2.570	36.0	3231
70-gr Speer SP	Reloder 19	CCI 200	Win.	2.570	42.0C	3219
80-gr Speer HPBT	Power Pro 2000-MR	Fed. 210	Federal	2.875	35.6	3120

223 WSSM						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
50-gr Speer SP	Power Pro 2000-MR	Fed. 215	Win.	2.100	46.3	4040
50-gr Speer SP	Reloder 10X	Fed. 210	Win.	2.100	38.5	3929
50-gr Speer SP	Reloder 15	Fed. 210	Win.	2.100	44.5	4036
52-gr Hornady A-Max	AR-Comp	Fed. 210	Win.	2.222	39.5	3839
55-gr Speer HP-TNT	Power Pro 2000-MR	Fed. 210	Win.	2.210	45.0	3860
55-gr Speer SP	Reloder 15	Fed. 210	Win.	2.210	42.5	3867
55-gr Speer SP	Reloder 17	Fed. 210	Win.	2.210	46.6	3865
55-gr Speer SP	Reloder 19	Fed. 210	Win.	2.210	49.5C	3746
70-gr Speer Semi-SP	Power Pro 2000-MR	Fed. 215	Win.	2.080	41.0	3450
70-gr Speer SP	Reloder 19	Fed. 210	Win.	2.080	45.5	3478
70-gr Speer SP	Reloder 22	Fed. 210	Win.	2.080	47.5	3523
6mm PPC						
75-gr Speer HP	Reloder 7	CCI BR4	Sako	2.115	25.0	3011
80-gr Speer SP	Reloder 7	CCI BR4	Sako	2.115	24.5	2897
85-gr Speer BTSP	Reloder 7	CCI BR4	Sako	2.115	24.0	2863
243 Winchester						
65-gr Hornady V Max	Power Pro 2000-MR	Fed. 210	Federal	2.600	44.5	3710
70-gr Speer HP	Reloder 10X	Fed. 210	Win.	2.625	36.5	3421
70-gr Speer HP	Reloder 15	Fed. 210	Win.	2.625	43.5	3506
70-gr Sierra BTHP	AR-Comp	Fed. 210	Federal	2.625	38.5	3486
70-gr Speer HP	AR-Comp	Fed. 210	Federal	2.625	37.4	3431
75-gr Hornady V Max	Power Pro 2000-MR	Fed. 210	Federal	2.640	41.0	3440
75-gr Hornady V Max	Power Pro 4000-MR	Fed. 210	Federal	2.640	45.3C	3400
75-gr Hornady V Max	AR-Comp	Fed. 210	Federal	2.640	37.4	3379
75-gr Speer HP	Reloder 10X	Fed. 210	Win.	2.590	36.0	3240
75-gr Speer HP	Reloder 15	Fed. 210	Win.	2.590	43.0	3400
80-gr Speer SP	Reloder 10X	Fed. 210	Win.	2.615	35.0	3162
80-gr Speer SP	Reloder 15	Fed. 210	Win.	2.615	41.5	3310
80-gr Speer SP	Reloder 17	Fed. 210	Federal	2.615	44.0	3362
80-gr Speer SP	Reloder 19	Fed. 210	Win.	2.615	48.0C	3206
80-gr Sierra SBT	AR-Comp	Fed. 210	Federal	2.635	36.2	3232
85-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.625	40.0	3240
85-gr Speer BTSP	Power Pro 4000-MR	Fed. 210	Federal	2.625	45.5C	3310
85-gr Speer HP	Reloder 17	Fed. 210	Federal	2.625	43.7	3316
85-gr Speer BTSP	Reloder 10X	Fed. 210	Win.	2.625	35.0	3122
85-gr Speer BTSP	Reloder 15	Fed. 210	Win.	2.625	41.0	3218
85-gr Speer BTSP	Reloder 19	Fed. 210	Win.	2.625	48.0C	3182

243 Winchester continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
85-gr Speer BTSP	AR-Comp	Fed. 210	Federal	2.625	36.4	3170
90-gr Speer SP	Reloder 15	Fed. 210	Win.	2.625	38.0	3020
90-gr Speer SP	Reloder 19	Fed. 210	Win.	2.625	47.0C	3079
90-gr Speer SP	Reloder 22	Fed. 210	Win.	2.625	48.0C	3063
95-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Federal	2.650	35.0	2900
100-gr Speer BTSP	Reloder 15	Fed. 210	Win.	2.625	34.0	2691
100-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.625	40.8	3044
100-gr Speer BTSP	Reloder 19	Fed. 210	Win.	2.625	43.5	2903
100-gr Speer BTSP	Reloder 22	Fed. 210	Win.	2.625	45.5	2966
105-gr Hornady V Max	Power Pro 4000-MR	Fed. 210	Federal	2.630	42.1C	2985
6mm Remington						
65-gr Hornady V Max	Power Pro 2000-MR	Fed. 210	Federal	2.825	44.7	3690
70-gr Speer HP	Reloder 19	CCI 200	Rem.	2.775	53.0C	3507
70-gr Speer HP	Reloder 17	Fed. 210	Federal	2.775	48.5C	3682
70-gr Speer HP	Reloder 22	CCI 200	Rem.	2.775	54.0C	3497
75-gr Hornady V Max	Power Pro 2000-MR	Fed. 210	Federal	2.825	42.7	3480
75-gr Hornady V Max	Power Pro 4000-MR	Fed. 210	Federal	2.825	47.0C	3365
75-gr Speer HP	Reloder 19	CCI 200	Rem.	2.775	52.0C	3440
75-gr Speer HP	Reloder 22	CCI 200	Rem.	2.775	53.0C	3474
80-gr Speer SP	Reloder 17	Fed. 210	Federal	2.775	46.7	3500
80-gr Speer SP	Reloder 19	CCI 200	Rem.	2.750	51.0C	3368
80-gr Speer SP	Reloder 22	CCI 200	Rem.	2.750	53.0C	3344
85-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.775	41.8	3280
85-gr Speer BTSP	Power Pro 4000-MR	Fed. 210	Federal	2.775	47.0C	3300
85-gr Speer HP	Reloder 17	Fed. 210	Federal	2.775	46.0	3441
85-gr Speer BTSP	Reloder 19	CCI 200	Rem.	2.775	50.5C	3269
85-gr Speer BTSP	Reloder 22	CCI 200	Rem.	2.775	52.0C	3285
90-gr Speer SP	Reloder 19	CCI 200	Rem.	2.775	47.0	3063
90-gr Speer SP	Reloder 22	CCI 200	Rem.	2.775	51.0C	3258
95-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Federal	2.840	36.5	2950
100-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.775	40.0	3000
100-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.800	44.0	3163
100-gr Speer BTSP	Reloder 19	CCI 200	Rem.	2.780	45.0	2835
100-gr Speer BTSP	Reloder 22	CCI 200	Rem.	2.780	47.0	2971
105-gr Hornady A Max	Power Pro 4000-MR	Fed. 210	Federal	2.810	44.0C	3025

243 WSSM						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
70-gr Speer HP	Reloder 15	Fed. 210	Win.	2.250	41.0	3478
70-gr Speer HP	Reloder 17	Fed. 210	Win.	2.185	49.0C	3745
70-gr Speer HP	Reloder 19	Fed. 210	Win.	2.250	49.5C	3464
75-gr Speer HP	Reloder 15	Fed. 210	Win.	2.165	41.0	3478
75-gr Speer HP	Reloder 19	Fed. 210	Win.	2.165	49.5C	3464
80-gr Speer SP	Reloder 15	Fed. 210	Win.	2.255	40.5	3386
80-gr Speer SP	Reloder 17	Fed. 210	Win.	2.255	44.5	3512
80-gr Speer SP	Reloder 19	Fed. 210	Win.	2.255	48.5C	3432
85-gr Speer HP	Reloder 17	Fed. 210	Win.	2.255	45.5	3452
85-gr Speer BTSP	Reloder 15	Fed. 210	Win.	2.255	39.0	3260
85-gr Speer BTSP	Reloder 19	Fed. 210	Win.	2.255	47.0C	3272
90-gr Speer SP	Reloder 19	Fed. 210	Win.	2.360	45.0	3218
90-gr Speer SP	Reloder 22	Fed. 210	Win.	2.360	46.5	3250
100-gr Speer BTSP	Reloder 17	Fed. 210	Win.	2.290	41.0	3128
100-gr Speer BTSP	Reloder 19	Fed. 210	Win.	2.360	40.5	2915
100-gr Speer BTSP	Reloder 22	Fed. 210	Win.	2.360	43.5	3004
257 Roberts						
75-gr Hornady V Max	Power Pro 2000-MR	Fed. 210	Federal	2.780	45.5	3550
75-gr Sierra HP	Reloder 15	Win. LRP	Win.	2.775	41.8	3340
87-gr Hornady SP	Power Pro 2000-MR	Fed. 210	Federal	2.780	43.7	3290
87-gr Speer Spitzer	Reloder 15	Win. LRP	Win.	2.775	41.0	3185
100-gr Speer Spitzer	Reloder 19	Win. LRP	Win.	2.775	44.7	2930
100-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.780	41.5	3055
120-gr Sierra BTHP	Reloder 22	Win. LRP	Win.	2.775	44.0	2785
25-06 Remington						
75-gr Hornady V Max	Power Pro 2000-MR	Fed. 210	Federal	3.100	50.5	3630
87-gr Hornady SP	Power Pro 2000-MR	Fed. 210	Federal	3.120	48.5	3400
87-gr Speer SP	Reloder 15	CCI 200	Rem.	3.115	47.0	3268
87-gr Speer SP	Reloder 17	Fed. 210	Federal	3.115	54.5	3547
87-gr Speer SP	Reloder 19	CCI 200	Rem.	3.115	60.0C	3452
100-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	3.095	47.5	3215
100-gr Speer SP	Reloder 19	CCI 200	Rem.	3.095	57.0	3226
100-gr Speer SP	Reloder 22	CCI 200	Rem.	3.095	58.0	3248
100-gr Speer SP	Reloder 25	CCI 200	Rem.	3.095	60.0C	3224
100-gr Speer BTSP	Reloder 17	Fed. 210	Federal	3.095	53.0	3390
115-gr Speer SP	Reloder 22	CCI 200	Rem.	3.200	52.0	3054
115-gr Speer SP	Reloder 25	CCI 200	Rem.	3.200	56.0	3155

25-06 Remington continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
120-gr Speer BTSP	Power Pro 4000-MR	Fed. 210	Federal	3.200	50.4	3020
120-gr Speer BTSP	Reloder 17	Fed. 210	Federal	3.200	48.5	3046
120-gr Sierra BTSP	Reloder 22	CCI 200	Rem.	3.200	52.0	2931
120-gr Sierra BTSP	Reloder 25	CCI 200	Rem.	3.200	58.0C	3071
25 WSSM						
87-gr Hornady SP	Power Pro 2000-MR	Fed. 210	Win.	2.315	46.0	3340
87-gr Speer SP	Reloder 10X	CCI 200	Win.	2.270	39.0	3313
87-gr Speer SP	Reloder 15	CCI 200	Win.	2.270	45.5	3428
87-gr Speer SP	Reloder 17	Fed. 210	Win.	2.270	52.0C	3499
87-gr Speer SP	Reloder 19	CCI 200	Win.	2.270	52.0C	3333
100-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Win.	2.270	44.0	3140
100-gr Speer SP	Reloder 10X	CCI 200	Win.	2.270	35.0	2984
100-gr Speer SP	Reloder 15	CCI 200	Win.	2.270	41.5	3110
100-gr Speer SP	Reloder 19	CCI 200	Win.	2.270	49.5C	3180
100-gr Speer BTSP	Reloder 17	Fed. 210	Win.	2.270	47.5	3311
120-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Win.	2.330	40.0	2800
120-gr Sierra BTSP	Reloder 10X	CCI 200	Win.	2.270	31.5	2607
120-gr Sierra BTSP	Reloder 15	CCI 200	Win.	2.270	38.0	2792
120-gr Sierra BTSP	Reloder 17	Fed. 210	Win.	2.270	45.0	3041
120-gr Sierra BTSP	Reloder 19	CCI 200	Win.	2.270	46.0C	2914
257 Weatherby Magnum						
87-gr Speer SP	Reloder 19	CCI 250	Federal	3.150	68.0	3637
87-gr Speer SP	Reloder 22	CCI 250	Federal	3.150	71.0	3661
87-gr Speer SP	Reloder 25	CCI 250	Federal	3.150	73.0C	3670
100-gr Speer SP	Reloder 19	CCI 250	Federal	3.150	65.0	3405
100-gr Speer SP	Reloder 22	CCI 250	Federal	3.150	68.0	3450
100-gr Speer SP	Reloder 25	CCI 250	Federal	3.150	73.0	3545
120-gr Sierra BTSP	Reloder 22	CCI 250	Federal	3.170	63.0	3120
120-gr Sierra BTSP	Reloder 25	CCI 250	Federal	3.170	67.0	3236
6.5 X 55 Swedish Mauser (military)						
90-gr Speer HP	Reloder 17	Fed. 210	Federal	2.850	48.5	3223
120-gr Speer SP	Reloder 19	CCI 200	Rem.	3.000	41.0	2655
120-gr Speer SP	Reloder 22	CCI 200	Rem.	3.000	42.0	2670

6.5 X 55 Swedish Mauser (commercial action)						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
120-gr Speer SP	Power Pro 2000-MR	Fed. 210	Federal	3.000	36.0	2560
120-gr Speer SP	Reloder 17	Fed. 210	Federal	3.000	41.5	2741
120-gr Speer SP	Reloder 19	CCI 200	Rem.	3.000	46.0	2820
120-gr Speer SP	Reloder 22	CCI 200	Rem.	3.000	46.0	2830
140-gr Speer SP	Power Pro 2000-MR	Fed. 210	Federal	3.000	33.0	2310
140-gr Speer SP	Reloder 17	Fed. 210	Federal	3.000	38.5	2508
140-gr Speer SP	Reloder 19	CCI 200	Rem.	3.000	45.0	2616
140-gr Speer SP	Reloder 22	CCI 200	Rem.	3.000	45.0	2655
260 Remington						
90-gr Speer HP	Power Pro 2000-MR	Fed. 210	Federal	2.650	48.2	3440
90-gr Speer HP	Reloder 15	CCI 200	Rem.	2.650	45.5	3311
90-gr Speer HP	Reloder 19	CCI 200	Rem.	2.650	50.0C	2985
120-gr Speer SP	Power Pro 2000-MR	Fed. 210	Federal	2.720	40.0	2830
120-gr Speer SP	Reloder 15	CCI 200	Rem.	2.720	39.0	2819
120-gr Speer SP	Reloder 17	Fed. 210	Federal	2.720	44.0	2912
120-gr Speer SP	Reloder 19	CCI 200	Rem.	2.720	48.0C	2950
140-gr Speer SP	Reloder 17	Fed. 210	Federal	2.745	41.0	2645
140-gr Speer SP	Reloder 19	CCI 200	Rem.	2.745	45.5C	2731
140-gr Speer SP	Reloder 22	CCI 200	Rem.	2.745	46.0C	2701
264 Winchester Magnum						
120-gr Speer SP	Reloder 19	CCI 250	Win.	3.300	59.0	3118
120-gr Speer SP	Reloder 22	CCI 250	Win.	3.300	58.0	3140
120-gr Speer SP	Reloder 25	CCI 250	Win.	3.300	63.0	3219
140-gr Speer SP	Reloder 19	CCI 250	Win.	3.320	52.0	2822
140-gr Speer SP	Reloder 22	CCI 250	Win.	3.320	53.0	2857
140-gr Speer SP	Reloder 25	CCI 250	Win.	3.320	60.0	3005
6.8mm Remington SPC						
90-gr Speer HP	Reloder 7	CCI 200	Rem.	2.250	27.5	2983
90-gr Speer HP	Reloder 10X	CCI 200	Rem.	2.250	29.5	2991
100-gr Speer HP	Reloder 7	CCI 200	Rem.	2.250	26.0	2715
100-gr Speer HP	Reloder 10X	CCI 200	Rem.	2.250	28.5C	2791
130-gr Speer SP	Reloder 10X	CCI 200	Rem.	2.250	25.5C	2431
270 Winchester						
90-gr Speer HP	Reloder 15	CCI 200	Win.	3.170	55.0	3511
90-gr Speer HP	Reloder 19	CCI 200	Win.	3.170	64.0C	3341
100-gr Speer HP	Power Pro 2000-MR	Fed. 210	Federal	3.100	53.0	3420
100-gr Speer HP	Reloder 17	Fed. 210	Federal	3.100	59.0	3554

270 Winchester continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
100-gr Speer HP	Reloder 19	CCI 200	Win.	3.100	62.0C	3220
130-gr Speer SP	Reloder 15	CCI 200	Win.	3.240	45.0	2742
130-gr Speer SP	Reloder 19	CCI 200	Win.	3.240	57.0	2904
130-gr Speer SP	Reloder 22	CCI 200	Win.	3.240	58.0	2947
130-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	3.240	46.5	2950
130-gr Speer BTSP	Reloder 17	Fed. 210	Federal	3.200	54.0	3136
130-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Federal	3.245	48.5	3020
140-gr Speer SP	Reloder 19	CCI 200	Win.	3.260	56.0	2923
140-gr Speer SP	Reloder 22	CCI 200	Win.	3.260	56.5	2949
150-gr Speer SP	Reloder 19	CCI 200	Win.	3.270	53.0	2745
150-gr Speer SP	Reloder 22	CCI 200	Win.	3.270	54.0	2769
150-gr Speer BTSP	Reloder 17	Fed. 210	Federal	3.200	51.5	2921
270 WSM						
100-gr Speer HP	Reloder 15	CCI 200	Win.	2.730	62.0	3564
100-gr Speer HP	Reloder 17	Fed. 215	Federal	2.730	67.5	3668
130-gr Speer SP	Reloder 19	CCI 200	Win.	2.700	66.0	3088
130-gr Speer SP	Reloder 22	CCI 200	Win.	2.700	66.0	3228
130-gr Speer BTSP	Reloder 17	Fed. 215	Federal	2.700	62.0	3258
140-gr Speer SP	Reloder 19	CCI 200	Win.	2.710	64.0	3088
140-gr Speer SP	Reloder 22	CCI 200	Win.	2.710	65.0	3122
140-gr Speer SP	Reloder 25	CCI 200	Win.	2.710	69.0	3179
150-gr Speer SP	Reloder 19	CCI 200	Win.	2.670	60.0	2990
150-gr Speer SP	Reloder 22	CCI 200	Win.	2.670	61.0	3009
150-gr Speer SP	Reloder 25	CCI 200	Win.	2.670	64.0	3058
150-gr Speer BTSP	Reloder 17	Fed. 215	Federal	2.700	60.0	3041
270 Weatherby Magnum						
100-gr Speer HP	Reloder 19	Fed. 215	Federal	3.250	73.0	3570
100-gr Speer HP	Reloder 22	Fed. 215	Federal	3.250	76.0C	3627
100-gr Speer HP	Reloder 25	Fed. 215	Federal	3.250	77.0C	3478
130-gr Speer SP	Reloder 19	Fed. 215	Federal	3.250	65.0	3176
130-gr Speer SP	Reloder 22	Fed. 215	Federal	3.250	68.0	3214
130-gr Speer SP	Reloder 25	Fed. 215	Federal	3.250	72.0	3267
150-gr Speer SP	Reloder 19	Fed. 215	Federal	3.250	60.0	2903
150-gr Speer SP	Reloder 22	Fed. 215	Federal	3.250	63.0	2942
150-gr Speer SP	Reloder 25	Fed. 215	Federal	3.250	66.0	2966

7-30 Waters						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
110-gr Speer HP	Reloder 15	CCI 200	Federal	2.550	37.0	2757
115-gr Speer HP	Reloder 15	CCI 200	Federal	2.550	35.0	2480
130-gr Speer SP	Reloder 15	CCI 200	Federal	2.550	35.5	2609
145-gr Speer SP	Reloder 15	CCI 200	Federal	2.550	35.0	2480
284 Winchester						
110-gr Speer HP	Reloder 15	CCI 200	Win.	2.780	57.0	3384
110-gr Speer HP	Reloder 19	CCI 200	Win.	2.780	62.0C	3159
7mm Mauser						
110-gr Speer HP	Power Pro 2000-MR	Fed. 210	Federal	2.985	45.5	3010
110-gr Speer HP	Reloder 15	CCI 200	Rem.	2.985	48.0	3093
115-gr Speer HP	Reloder 15	CCI 200	Rem.	2.890	47.0	3024
115-gr Speer HP	Reloder 19	CCI 200	Rem.	2.890	54.0C	2879
130-gr Speer SP	Reloder 15	CCI 200	Rem.	2.800	45.0	2913
130-gr Speer SP	Reloder 19	CCI 200	Rem.	2.800	52.0C	2855
130-gr Speer SP	Reloder 22	CCI 200	Rem.	2.800	53.0C	2860
130-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.800	43.3	2810
140-gr Speer SP	Reloder 19	CCI 200	Rem.	2.800	49.0C	2653
145-gr Speer SP	Reloder 15	CCI 200	Rem.	2.800	42.0	2598
145-gr Speer SP	Reloder 19	CCI 200	Rem.	2.800	52.0C	2795
145-gr Speer SP	Reloder 22	CCI 200	Rem.	2.800	51.0C	2684
145-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.800	41.0	2610
160-gr Speer SP	Reloder 19	CCI 200	Rem.	3.000	49.0C	2570
160-gr Speer SP	Reloder 22	CCI 200	Rem.	3.000	49.0C	2514
175-gr Speer SP	Reloder 15	CCI 200	Rem.	3.000	38.0	2282
175-gr Speer SP	Reloder 19	CCI 200	Rem.	3.015	48.0C	2503
175-gr Speer SP	Reloder 22	CCI 200	Rem.	3.015	51.0C	2596
7mm-08 Remington						
110-gr Speer HP	Power Pro 2000-MR	Fed. 210	Federal	2.760	48.0	3255
110-gr Speer HP	Reloder 15	CCI 200	Rem.	2.760	48.0	3238
110-gr Speer HP	Reloder 17	Fed. 210	Federal	2.760	50.5C	3169
115-gr Speer HP	Reloder 15	CCI 200	Rem.	2.655	46.0	3106
115-gr Speer HP	Reloder 17	Fed. 210	Federal	2.655	49.5C	3107
130-gr Speer SP	Reloder 15	CCI 200	Rem.	2.730	42.0	2786
130-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.730	45.7	3030
130-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.730	48.5C	3007
145-gr Speer SP	Reloder 15	CCI 200	Rem.	2.730	41.0	2705
145-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.730	43.3	2850

7mm-08 Remington continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
145-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.730	46.0	2819
145-gr Speer SP	Reloder 19	CCI 200	Rem.	2.730	51.0C	2933
160-gr Speer SP	Reloder 15	CCI 200	Rem.	2.800	38.0	2506
160-gr Speer SP	Reloder 19	CCI 200	Rem.	2.800	47.0C	2710
160-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.800	44.0	2669
162-gr Hornady A Max	Power Pro 2000-MR	Fed. 210	Federal	2.800	42.0	2710
175-gr Speer SP	Reloder 15	CCI 200	Rem.	2.745	36.0	2312
175-gr Speer GS	Reloder 17	Fed. 210	Federal	2.745	44.0	2574
175-gr Speer SP	Reloder 19	CCI 200	Rem.	2.745	47.0C	2628
280 Remington						
110-gr Speer HP	Reloder 19	CCI 200	Rem.	3.200	63.0C	3286
110-gr Speer HP	Reloder 17	Fed. 210	Federal	3.200	59.5	3397
130-gr Speer SP	Reloder 15	CCI 200	Rem.	3.205	47.0	2967
130-gr Speer SP	Reloder 19	CCI 200	Rem.	3.205	59.0	3134
130-gr Speer BTSP	Reloder 17	Fed. 210	Federal	3.205	56.0	3167
140-gr Speer SP	Reloder 19	CCI 200	Rem.	3.200	59.0C	2962
145-gr Speer SP	Reloder 19	CCI 200	Rem.	3.180	57.0	2973
145-gr Speer SP	Reloder 22	CCI 200	Rem.	3.180	58.0C	2880
145-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Federal	3.180	56.8	2990
145-gr Speer BTSP	Reloder 17	Fed. 210	Federal	3.180	53.0	2968
160-gr Speer SP	Reloder 19	CCI 200	Rem.	3.200	55.0	2813
160-gr Speer SP	Reloder 22	CCI 200	Rem.	3.200	56.0	2807
160-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Federal	3.180	54.5	2830
160-gr Speer BTSP	Reloder 17	Fed. 210	Federal	3.200	51.5	2825
175-gr Speer SP	Power Pro 4000-MR	Fed. 215	Federal	3.250	54.0	2690
175-gr Speer SP	Reloder 19	CCI 200	Rem.	3.330	52.0	2597
175-gr Speer SP	Reloder 22	CCI 200	Rem.	3.330	53.0	2616
175-gr Speer GS	Reloder 17	Fed. 210	Federal	3.265	50.5	2674
7mm Winchester Short Magnum						
110-gr Speer HP	Reloder 15	CCI 200	Win.	2.800	59.0	3312
110-gr Speer HP	Reloder 17	Fed. 215	Win.	2.770	69.5	3588
110-gr Speer HP	Reloder 19	CCI 200	Win.	2.800	72.0	3392
130-gr Speer SP	Reloder 19	CCI 200	Win.	2.775	67.0	3230
130-gr Speer SP	Reloder 22	CCI 200	Win.	2.775	68.0	3228
130-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Win.	2.775	70.0C	3335
130-gr Speer BTSP	Reloder 17	Fed. 215	Win.	2.775	66.5	3356
140-gr Speer TBBC	Power Pro 4000-MR	Fed. 215	Win.	2.800	67.9C	3190

7mm Winchester Short Magnum continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
140-gr Speer SP	Reloder 19	CCI 200	Win.	2.800	68.0	3134
140-gr Speer SP	Reloder 22	CCI 200	Win.	2.800	68.0	3132
145-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Win.	2.780	67.7C	3165
145-gr Speer SP	Reloder 19	CCI 200	Win.	2.780	65.0	3063
145-gr Speer SP	Reloder 22	CCI 200	Win.	2.780	66.0	3079
145-gr Speer BTSP	Reloder 17	Fed. 215	Win.	2.706	63.5	3166
160-gr Speer SP	Reloder 19	CCI 200	Win.	2.820	63.0	2956
160-gr Speer SP	Reloder 22	CCI 200	Win.	2.820	63.0	2936
160-gr Speer SP	Reloder 25	CCI 200	Win.	2.820	70.0	3090
160-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Win.	2.820	66.0	2995
160-gr Speer BTSP	Reloder 17	Fed. 215	Win.	2.820	60.0	2964
7mm Remington Magnum						
110-gr Speer HP	Reloder 15	CCI 250	Rem.	3.200	58.0	3256
110-gr Speer HP	Reloder 17	Fed. 215	Federal	3.200	68.0	3535
110-gr Speer HP	Reloder 19	CCI 250	Rem.	3.200	74.0C	3489
110-gr Speer HP	Reloder 22	CCI 250	Rem.	3.200	75.0C	3503
130-gr Speer SP	Reloder 15	CCI 250	Rem.	3.285	55.0	3049
130-gr Speer SP	Reloder 19	CCI 250	Rem.	3.285	69.0	3270
130-gr Speer SP	Reloder 22	CCI 250	Rem.	3.285	70.0	3314
130-gr Speer BTSP	Reloder 17	Fed. 215	Federal	3.200	63.5	3255
140-gr Speer SP	Reloder 19	CCI 250	Rem.	3.280	67.0	3095
140-gr Speer SP	Reloder 22	CCI 250	Rem.	3.280	66.0	3074
140-gr Speer SP	Reloder 25	CCI 250	Rem.	3.280	71.5	3173
145-gr Speer SP	Reloder 19	CCI 250	Rem.	3.280	67.0	3153
145-gr Speer SP	Reloder 22	CCI 250	Rem.	3.280	68.0	3136
145-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Federal	3.260	63.0	3055
145-gr Speer BTSP	Reloder 17	Fed. 215	Federal	3.210	61.8	3113
160-gr Speer SP	Reloder 19	CCI 250	Rem.	3.280	64.0	2941
160-gr Speer SP	Reloder 22	CCI 250	Rem.	3.280	65.0	2976
160-gr Speer SP	Reloder 25	CCI 250	Rem.	3.280	70.0	3012
160-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Federal	3.260	60.0	2850
160-gr Speer BTSP	Reloder 17	Fed. 215	Federal	3.210	59.0	2931
175-gr Speer SP	Power Pro 4000-MR	Fed. 215	Federal	3.220	61.0	2780
175-gr Speer SP	Reloder 19	CCI 250	Rem.	3.260	62.0	2812
175-gr Speer SP	Reloder 22	CCI 250	Rem.	3.260	61.0	2830
175-gr Speer SP	Reloder 25	CCI 250	Rem.	3.260	67.0	2888
175-gr Speer GS	Reloder 17	Fed. 215	Federal	3.215	57.0	2774

7mm Remington Ultra Magnum						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
145-gr Speer SP	Reloder 19	Fed. 215	Rem.	3.600	85.0	3200
145-gr Speer SP	Reloder 22	Fed. 215	Rem.	3.600	88.0	3250
145-gr Speer SP	Reloder 25	Fed. 215	Rem.	3.600	92.0	3251
160-gr Speer SP	Reloder 19	Fed. 215	Rem.	3.600	85.0	3132
160-gr Speer SP	Reloder 22	Fed. 215	Rem.	3.600	87.0	3177
160-gr Speer SP	Reloder 25	Fed. 215	Rem.	3.600	91.0	3174
175-gr Speer SP	Reloder 22	Fed. 215	Rem.	3.570	85.0	2974
175-gr Speer SP	Reloder 25	Fed. 215	Rem.	3.570	90.0	3059
7mm Remington Short Action Ultra Magnum						
110-gr Speer HP	Reloder 15	CCI 200	Rem.	2.680	59.0	3387
110-gr Speer HP	Reloder 19	CCI 200	Rem.	2.680	70.0C	3419
130-gr Speer SP	Reloder 15	CCI 200	Rem.	2.785	52.0	3085
130-gr Speer SP	Reloder 19	CCI 200	Rem.	2.785	65.0	3229
130-gr Speer SP	Reloder 22	CCI 200	Rem.	2.785	65.0	3214
140-gr Speer SP	Reloder 19	CCI 200	Rem.	2.840	63.0	3094
140-gr Speer SP	Reloder 22	CCI 200	Rem.	2.840	64.0	3117
145-gr Speer SP	Reloder 19	CCI 200	Rem.	2.785	62.0	3040
145-gr Speer SP	Reloder 22	CCI 200	Rem.	2.785	63.0	3061
160-gr Speer SP	Reloder 19	CCI 200	Rem.	2.800	60.0	2913
160-gr Speer SP	Reloder 22	CCI 200	Rem.	2.800	61.0	2930
160-gr Speer SP	Reloder 25	CCI 200	Rem.	2.800	66.0C	3024
7mm Weatherby Magnum						
110-gr Speer HP	Reloder 15	Fed. 215	Federal	3.260	63.0	3405
110-gr Speer HP	Reloder 19	Fed. 215	Federal	3.260	74.0	3485
110-gr Speer HP	Reloder 22	Fed. 215	Federal	3.260	76.0	3507
130-gr Speer SP	Reloder 15	Fed. 215	Federal	3.330	60.0	3185
130-gr Speer SP	Reloder 19	Fed. 215	Federal	3.330	72.0	3317
130-gr Speer SP	Reloder 22	Fed. 215	Federal	3.330	74.0	3345
145-gr Speer SP	Reloder 15	Fed. 215	Federal	3.350	56.0	2940
145-gr Speer SP	Reloder 19	Fed. 215	Federal	3.350	69.0	3133
145-gr Speer SP	Reloder 22	Fed. 215	Federal	3.350	71.0	3177
160-gr Speer SP	Reloder 19	Fed. 215	Federal	3.350	68.5	3035
160-gr Speer SP	Reloder 22	Fed. 215	Federal	3.350	70.0	3065
160-gr Speer SP	Reloder 25	Fed. 215	Federal	3.350	75.0C	3132
175-gr Speer SP	Reloder 19	Fed. 215	Federal	3.250	67.0	2885
175-gr Speer SP	Reloder 22	Fed. 215	Federal	3.250	69.0	2904
175-gr Speer SP	Reloder 25	Fed. 215	Federal	3.250	74.0C	2982

7mm Shooting Times Westerner						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
145-gr Speer SP	Reloder 22	CCI 250	Rem.	3.600	77.0	3273
160-gr Speer SP	Reloder 22	CCI 250	Rem.	3.600	73.0	3074
160-gr Speer SP	Reloder 25	CCI 250	Rem.	3.600	75.0	3076
175-gr Speer SP	Reloder 22	CCI 250	Rem.	3.600	70.0	2879
175-gr Speer SP	Reloder 25	CCI 250	Rem.	3.600	74.0	2947
<b>30-30 Winchester</b>						
100-gr Speer RNSP	Reloder 7	CCI 200	Win.	2.345	35.0	2792
110-gr Speer HP	Reloder 7	CCI 200	Win.	2.415	34.0	2708
130-gr Speer FNSP	Reloder 7	CCI 200	Win.	2.550	31.0	2393
130-gr Speer FNSP	Reloder 10X	CCI 200	Win.	2.550	30.5	2273
130-gr Speer FNSP	Reloder 15	CCI 200	Win.	2.550	36.0C	2259
150-gr Speer FNSP	Reloder 7	CCI 200	Win.	2.550	29.0	2188
150-gr Speer FNSP	Reloder 10X	CCI 200	Win.	2.550	28.0	2117
150-gr Speer FNSP	Reloder 15	CCI 200	Win.	2.550	34.0C	2170
170-gr Speer FNSP	Reloder 10X	CCI 200	Win.	2.550	26.5	1972
<b>300 Savage</b>						
100-gr Speer RNSP	Reloder 7	CCI 200	Federal	2.475	40.0	3061
110-gr Speer SP	Reloder 7	CCI 200	Federal	2.475	38.0	2811
165-gr Speer SP	Reloder 15	CCI 200	Federal	2.550	44.0C	2614
180-gr Speer SP	Reloder 15	CCI 200	Federal	2.550	43.0C	2469
200-gr Speer SP	Reloder 15	CCI 200	Federal	2.550	42.0C	2379
<b>308 Winchester</b>						
100-gr Speer RNSP	Reloder 7	CCI 200	IMI	2.360	41.0	3003
110-gr Speer HP	Reloder 15	CCI 200	IMI	2.550	51.0C	3144
125-gr Speer HP	Reloder 10X	CCI 200	IMI	2.615	42.0	3073
125-gr Speer HP	Reloder 15	CCI 200	IMI	2.615	50.0C	3062
130-gr Speer HP	Power Pro 2000-MR	Fed. 210	Federal	2.800	53.0C	3095
130-gr Speer HP	AR-Comp	Fed. 210	Federal	2.615	47.6	3182
150-gr Speer SP	Reloder 10X	CCI 200	IMI	2.700	39.5	2755
150-gr Speer SP	Reloder 15	CCI 200	IMI	2.700	49.0C	2919
150-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.700	51.5C	2950
150-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.700	50.0C	2763
150-gr Speer TBBC	Power Pro 2000-MR	Fed. 210	Federal	2.800	52.0C	2950
150-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Federal	2.700	53.0C	3060
150-gr Hornady GMX	AR-Comp	Fed. 210	Federal	2.735	44.5	2929
155-gr Hornady A Max	AR-Comp	Fed. 210	Federal	2.800	43.6	2907
155-gr Sierra BTHP (Plama)	AR-Comp	Fed. 210	Federal	2.775	43.2	2920

308 Winchester continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
165-gr Speer SP	Reloder 10X	CCI 200	IMI	2.800	38.0	2596
165-gr Speer SP	Reloder 15	CCI 200	IMI	2.800	47.0C	2812
165-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Federal	2.800	50.0C	2840
165-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.800	50.0C	2739
165-gr Speer TBBC	Power Pro 2000-MR	Fed. 210	Federal	2.800	49.2C	2830
165-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Federal	2.700	51.0C	2910
165-gr Speer BTSP	AR-Comp	Fed. 210	Federal	2.800	42.8	2820
168-gr Speer BTHP	Reloder 15	CCI 200	IMI	2.800	45.0	2710
168-gr Sierra BTHP	Power Pro 2000-MR	Fed. 210	Federal	2.800	48.5C	2775
168-gr Hornady A Max	AR-Comp	Fed. 210	Federal	2.800	41.7	2752
168-gr Sierra BTHP	AR-Comp	Fed. 210	Federal	2.800	42.2	2782
168-gr Speer BTSP	AR-Comp	Fed. 210	Federal	2.800	42.4	2780
175-gr Sierra BTHP	Power Pro 2000-MR	Fed. 210	Federal	2.800	47.7C	2720
175-gr Sierra BTHP	AR-Comp	Fed. 210	Federal	2.800	41.4	2719
178-gr Hornady A Max	AR-Comp	Fed. 210	Federal	2.800	40.7	2664
178-gr Hornady BTHP	AR-Comp	Fed. 210	Federal	2.800	40.6	2670
180-gr Speer SP	Reloder 15	CCI 200	IMI	2.800	45.0C	2613
180-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.800	48.7C	2641
180-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Federal	2.700	48.5C	2760
180-gr Sierra BTHP	AR-Comp	Fed. 210	Federal	2.800	40.5	2657
180-gr Speer BTSP	AR-Comp	Fed. 210	Federal	2.800	41.0	2664
200-gr Speer SP	Reloder 15	CCI 200	IMI	2.800	42.0	2416
<b>30-06 Springfield</b>						
100-gr Speer RNSP	Reloder 7	CCI 200	Win.	2.935	47.0	3188
110-gr Speer SP	Reloder 15	CCI 200	Win.	3.000	60.0C	3307
150-gr Speer SP	Reloder 15	CCI 200	Win.	3.250	52.0	2728
150-gr Speer SP	Reloder 19	CCI 200	Win.	3.250	62.0C	2722
150-gr Speer BTSP	Reloder 17	Fed. 210	Federal	3.250	58.0	3006
165-gr Speer SP	Reloder 19	CCI 200	Win.	3.250	59.0C	2614
165-gr Speer SP	Reloder 22	CCI 200	Win.	3.250	62.0C	2725
165-gr Speer BTSP	Reloder 17	Fed. 210	Federal	3.250	56.5	2874
168-gr Speer BTHP	Reloder 17	Fed. 210	Federal	3.295	56.0	2850
168-gr Speer BTHP	Reloder 19	CCI 200	Win.	3.295	61.0C	2697
180-gr Speer SP	Reloder 19	CCI 200	Win.	3.160	59.0C	2640
180-gr Speer SP	Reloder 22	CCI 200	Win.	3.160	62.0C	2721
180-gr Speer BTHP	Reloder 17	Fed. 210	Federal	3.250	54.5	2762
200-gr Speer SP	Reloder 15	CCI 200	Win.	3.295	47.0	2371

30-06 Springfield continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
200-gr Speer SP	Reloder 17	Fed. 210	Federal	3.250	51.0	2552
200-gr Speer SP	Reloder 19	CCI 200	Win.	3.295	55.0	2335
200-gr Speer SP	Reloder 22	CCI 200	Win.	3.295	58.0C	2499
200-gr Speer SP	Reloder 25	CCI 200	Win.	3.295	60.0C	2481
300 Remington Short Action Ultra Magnum						
110-gr Speer SP	Reloder 15	CCI 200	Rem.	2.656	65.0	3575
130-gr Speer HP	Power Pro 2000-MR	Fed. 210	Rem.	2.620	67.2	3460
130-gr Speer HP	Reloder 15	CCI 200	Rem.	2.625	62.0	3350
130-gr Speer HP	Reloder 17	Fed. 210	Federal	2.625	69.0C	3413
150-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Rem.	2.800	63.5	3230
150-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.800	65.5	3268
150-gr Speer SP	Reloder 19	CCI 200	Rem.	2.800	71.0C	3150
150-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Rem.	2.700	64.0	3230
165-gr Speer BTSP	Power Pro 2000-MR	Fed. 210	Rem.	2.800	61.5	3090
165-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.800	65.0	3152
165-gr Speer SP	Reloder 19	CCI 200	Rem.	2.800	61.5	2999
165-gr Speer SP	Reloder 22	CCI 200	Rem.	2.800	70.0C	3006
165-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Rem.	2.700	61.5	3050
180-gr Speer BTSP	Reloder 17	Fed. 210	Federal	2.800	63.0	3008
180-gr Speer SP	Reloder 19	CCI 200	Rem.	2.800	67.0C	2896
180-gr Speer SP	Reloder 22	CCI 200	Rem.	2.800	67.0C	2896
180-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Rem.	2.700	59.5	2910
300 Winchester Magnum						
100-gr Speer RNSP	Reloder 15	CCI 250	Win.	2.960	72.0	3604
110-gr Speer SP	Reloder 15	CCI 250	Win.	3.215	71.0	3542
110-gr Speer SP	Reloder 19	CCI 250	Win.	3.215	84.0	3574
130-gr Speer HP	Reloder 15	CCI 250	Win.	3.260	67.0	3243
150-gr Speer SP	Reloder 15	CCI 250	Win.	3.330	64.0	3058
150-gr Speer BTSP	Reloder 17	Fed. 215	Federal	3.330	74.0	3333
150-gr Speer SP	Reloder 19	CCI 250	Win.	3.330	78.0C	3301
150-gr Speer SP	Reloder 22	CCI 250	Win.	3.330	80.0C	3227
165-gr Speer SP	Reloder 15	CCI 250	Win.	3.340	60.0	2809
165-gr Speer BTSP	Reloder 17	Fed. 215	Federal	3.340	72.5	3202
165-gr Speer SP	Reloder 19	CCI 250	Win.	3.340	75.0	2997
165-gr Speer SP	Reloder 22	CCI 250	Win.	3.340	77.0	3103
168-gr Speer BTHP	Reloder 15	CCI 250	Win.	3.340	63.0	2911
168-gr Speer BTHP	Reloder 17	Fed. 215	Federal	3.340	72.5	3182

300 Winchester Magnum continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
168-gr Speer BTHP	Reloder 19	CCI 250	Win.	3.340	77.0	3138
168-gr Speer BTHP	Reloder 22	CCI 250	Win.	3.340	79.0C	3190
180-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Federal	3.340	75.0C	3110
180-gr Speer BTSP	Reloder 17	Fed. 215	Federal	3.340	70.5	3074
180-gr Speer SP	Reloder 19	CCI 250	Win.	3.340	76.0	3059
180-gr Speer SP	Reloder 22	CCI 250	Win.	3.340	77.0C	3055
180-gr Speer SP	Reloder 25	CCI 250	Win.	3.340	79.5C	3050
200-gr Speer SP	Power Pro 4000-MR	Fed. 215	Federal	3.340	70.0	2840
200-gr Speer SP	Reloder 19	CCI 250	Win.	3.340	71.0	2761
200-gr Speer SP	Reloder 22	CCI 250	Win.	3.340	73.0C	2852
200-gr Speer SP	Reloder 25	CCI 250	Win.	3.340	75.0C	2857
200-gr Speer TBBC	Power Pro 4000-MR	Fed. 215	Federal	3.330	72.0	2880
300 Winchester Short Magnum						
110-gr Speer SP	Reloder 15	CCI 200	Win.	2.750	69.0	3692
130-gr Speer HP	Power Pro 2000-MR	Fed. 210	Federal	2.800	66.3	3400
130-gr Speer HP	Reloder 15	CCI 200	Win.	2.800	67.0	3459
150-gr Speer SP	Reloder 19	CCI 200	Win.	2.810	73.5	3244
150-gr Speer BTSP	Power Pro 2000-MR	Fed. 211	Federal	2.810	64.0	3210
150-gr Speer BTSP	Reloder 17	Fed. 215	Federal	2.810	69.3	3343
165-gr Speer SP	Reloder 19	CCI 200	Win.	2.810	73.0C	3135
165-gr Speer SP	Reloder 22	CCI 200	Win.	2.810	73.0C	3126
165-gr Speer BTSP	Reloder 17	Fed. 215	Federal	2.810	68.0	3217
180-gr Speer SP	Reloder 19	CCI 200	Win.	2.780	68.5C	2978
180-gr Speer SP	Reloder 22	CCI 200	Win.	2.780	68.5C	2958
180-gr Speer BTSP	Reloder 17	Fed. 215	Federal	2.810	66.0	3082
300 H & H Magnum						
110-gr Speer SP	Reloder 19	CCI 250	Win.	3.430	79.0	3538
130-gr Speer HP	Reloder 19	CCI 250	Win.	3.440	75.0	3300
150-gr Speer SP	Reloder 19	CCI 250	Win.	3.500	72.0	3223
165-gr Speer SP	Reloder 19	CCI 250	Win.	3.500	67.0	3048
180-gr Speer SP	Reloder 22	CCI 250	Win.	3.500	70.0	2996
200-gr Speer SP	Reloder 22	CCI 250	Win.	3.500	65.0	2774
300 Weatherby Magnum						
110-gr Speer SP	Reloder 19	CCI 250	Rem.	3.335	90.0C	3722
130-gr Speer HP	Reloder 19	CCI 250	Rem.	3.530	86.0	3486
150-gr Speer SP	Reloder 19	CCI 250	Rem.	3.560	83.0	3282
150-gr Speer SP	Reloder 22	CCI 250	Rem.	3.560	86.0	3363

300 Weatherby Magnum continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
165-gr Speer SP	Reloder 19	CCI 250	Rem.	3.560	80.0	3155
165-gr Speer SP	Reloder 22	CCI 250	Rem.	3.560	83.0	3170
165-gr Speer SP	Reloder 25	CCI 250	Rem.	3.560	89.0C	3258
180-gr Speer SP	Reloder 19	CCI 250	Rem.	3.560	78.0	2990
180-gr Speer SP	Reloder 22	CCI 250	Rem.	3.560	82.0	3077
180-gr Speer SP	Reloder 25	CCI 250	Rem.	3.560	87.0	3109
200-gr Speer SP	Reloder 19	CCI 250	Rem.	3.560	77.0	2878
200-gr Speer SP	Reloder 22	CCI 250	Rem.	3.560	78.5	2881
200-gr Speer SP	Reloder 25	CCI 250	Rem.	3.560	85.0C	3022
300 Remington Ultra Magnum						
150-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Federal	3.495	90.0	3470
150-gr Speer SP	Reloder 19	Fed. 215	Federal	3.495	94.0	3401
150-gr Speer SP	Reloder 22	Fed. 215	Federal	3.495	97.0	3437
165-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Federal	3.600	89.0	3340
165-gr Speer SP	Reloder 19	Fed. 215	Federal	3.600	91.0	3263
165-gr Speer SP	Reloder 22	Fed. 215	Federal	3.600	93.0	3268
165-gr Speer SP	Reloder 25	Fed. 215	Federal	3.600	97.0	3279
180-gr Speer BTSP	Power Pro 4000-MR	Fed. 215	Federal	3.600	86.8	3180
180-gr Speer SP	Reloder 22	Fed. 215	Federal	3.600	90.0	3118
180-gr Speer SP	Reloder 25	Fed. 215	Federal	3.600	94.0	3146
200-gr Speer SP	Power Pro 4000-MR	Fed. 215	Federal	3.600	81.4	2940
200-gr Speer SP	Reloder 22	Fed. 215	Federal	3.600	86.0	2936
200-gr Speer SP	Reloder 25	Fed. 215	Federal	3.600	88.0	2942
30-378 Weatherby						
150-gr Speer SP	Reloder 19	CCI 250	Weatherby	3.600	105.0	3404
165-gr Speer SP	Reloder 19	CCI 250	Weatherby	3.600	103.0	3285
32-20 Winchester (Strong Action)						
100-gr Speer HP	Reloder 7	CCI 400	Win.	1.560	16.0	1634
7.62 X 39mm						
123-gr Speer SP	Reloder 7	CCI 200	IMI	2.150	27.0	2429
303 British						
123-gr Speer SP	Reloder 10X	Fed. 210	Federal	2.910	42.5	2964
123-gr Speer SP	Reloder 15	Fed. 210	Federal	2.910	48.0C	2897
150-gr Speer SP	Reloder 10X	Fed. 210	Federal	3.040	37.5	2606
150-gr Speer SP	Reloder 15	Fed. 210	Federal	3.040	45.0	2746
180-gr Speer RNSP	Reloder 10X	Fed. 210	Federal	3.075	34.5	2324
180-gr Speer RNSP	Reloder 15	Fed. 210	Federal	3.075	42.0	2479

325 Winchester Short Magnum						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
150-gr Speer SP	Reloder 15	Fed. 210	Win.	2.850	65.0	3245
150-gr Speer S-SP	Reloder 17	Fed. 215	Win.	2.850	71.5	3348
170-gr Speer SP	Reloder 15	Fed. 210	Win.	2.790	62.0	3038
170-gr Speer SP	Reloder 17	Fed. 215	Win.	2.790	65.0	3131
200-gr Speer SP	Reloder 15	Fed. 210	Win.	2.840	57.0	2742
200-gr Speer SP	Reloder 17	Fed. 215	Win.	2.840	65.0	2897
200-gr Speer SP	Reloder 19	Fed. 210	Win.	2.840	69.0	2837
8mm Mauser						
150-gr Speer SP	Reloder 15	CCI 200	Rem.	2.890	51.0	2726
170-gr Speer SP	Reloder 15	CCI 200	Rem.	2.890	49.0	2632
200-gr Speer SP	Reloder 15	CCI 200	Rem.	2.890	44.0	2267
338 Federal						
200-gr Speer SP	Power Pro 2000-MR	Fed. 210	Federal	2.820	52.0	2725
200-gr Speer SP	Reloder 7	Fed. 210	Federal	2.820	36.5	2403
200-gr Speer SP	Reloder 10X	Fed. 210	Federal	2.820	38.5	2444
200-gr Speer SP	Reloder 15	Fed. 210	Federal	2.820	46.0C	2598
200-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Federal	2.840	54.0C	2740
225-gr Speer SP	Power Pro 2000-MR	Fed. 210	Federal	2.820	49.5	2540
225-gr Speer BTSP	Reloder 7	Fed. 210	Federal	2.820	35.0	2256
225-gr Speer BTSP	Reloder 10X	Fed. 210	Federal	2.820	37.0	2299
225-gr Speer BTSP	Reloder 15	Fed. 210	Federal	2.820	44.0C	2440
225-gr Federal Fusion	Power Pro 2000-MR	Fed. 210	Federal	2.840	52.0C	2625
338 Winchester Magnum						
200-gr Speer SP	Power Pro 2000-MR	Fed. 210	Federal	3.300	63.2	2880
200-gr Speer SP	Reloder 19	CCI 250	Win.	3.300	76.0C	2806
200-gr Speer SP	Reloder 17	Fed. 215	Federal	3.300	71.0	3002
225-gr Speer SP	Power Pro 2000-MR	Fed. 210	Federal	3.300	61.0	2715
225-gr Speer SP	Reloder 19	CCI 250	Win.	3.300	78.0C	2944
225-gr Speer BTSP	Reloder 17	Fed. 215	Federal	3.340	67.5	2831
250-gr Speer SP	Reloder 17	Fed. 215	Federal	3.300	66.0	2664
250-gr Speer SP	Reloder 19	CCI 250	Win.	3.300	72.0C	2664
250-gr Speer SP	Reloder 22	CCI 250	Win.	3.300	73.0C	2653
338 Remington Ultra Magnum						
200-gr Speer SP	Reloder 19	Fed. 215	Federal	3.500	95.0	3216
200-gr Speer SP	Reloder 22	Fed. 215	Federal	3.500	98.0	3255
200-gr Speer SP	Reloder 25	Fed. 215	Federal	3.500	101.0C	3193

338 Remington Ultra Magnum continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
225-gr Speer SP	Reloder 19	Fed. 215	Federal	3.550	91.0	3028
225-gr Speer SP	Reloder 22	Fed. 215	Federal	3.550	93.0	3029
250-gr Speer SP	Reloder 19	Fed. 215	Federal	3.550	87.0	2849
250-gr Speer SP	Reloder 22	Fed. 215	Federal	3.550	91.0	2895
250-gr Speer SP	Reloder 25	Fed. 215	Federal	3.550	95.0	2915
340 Weatherby Magnum						
200-gr Speer SP	Reloder 15	Fed. 215	Federal	3.560	73.0	2973
200-gr Speer SP	Reloder 19	Fed. 215	Federal	3.560	87.0C	3032
225-gr Speer SP	Reloder 15	Fed. 215	Federal	3.610	70.0	2799
225-gr Speer SP	Reloder 19	Fed. 215	Federal	3.610	85.0C	2924
225-gr Speer SP	Reloder 22	Fed. 215	Federal	3.610	87.0C	2901
250-gr Speer SP	Reloder 19	Fed. 215	Federal	3.610	83.0	2788
250-gr Speer SP	Reloder 22	Fed. 215	Federal	3.610	85.0	2781
35 Remington						
158-gr Speer UCHP	Reloder 7	CCI 200	Win.	2.220	37.0	2357
180-gr Speer FNSP	Reloder 7	CCI 200	Win.	2.470	30.0	1653
220-gr Speer FNSP	Reloder 7	CCI 200	Win.	2.470	24.5	1936
35 Whelan						
158-gr Speer UCHP	Reloder 7	CCI 200	Rem.	2.800	42.0	2193
180-gr Speer FNSP	Reloder 15	CCI 200	Rem.	3.030	60.0C	2678
220-gr Speer FNSP	Reloder 15	CCI 200	Rem.	3.230	60.0C	2599
225-gr Speer TBBC SP	Reloder 10X	CCI 200	Rem.	3.270	51.0	2603
225-gr Speer TBBC SP	Reloder 15	CCI 200	Rem.	3.270	57.0C	2593
250-gr Speer SP	Reloder 15	CCI 200	Rem.	3.340	54.0	2284
350 Remington Magnum						
158-gr Speer UCHP	Reloder 7	CCI 200	Rem.	2.470	55.0	2901
180-gr Speer FNSP	Reloder 7	CCI 200	Rem.	2.800	51.0	2574
220-gr Speer FNSP	Reloder 7	CCI 200	Rem.	2.740	49.5	2426
375 H & H Magnum						
235-gr Speer SP	Reloder 15	CCI 250	Win.	3.600	78.0	2920
250-gr Speer TBBC SP	Reloder 15	CCI 250	Win.	3.580	76.0	2847
270-gr Speer BTSP	Reloder 15	CCI 250	Win.	3.600	71.0	2675
270-gr Speer BTSP	Reloder 19	CCI 250	Win.	3.600	83.0C	2589
285-gr Speer SP	Reloder 15	CCI 250	Win.	3.560	69.0	2533
285-gr Speer SP	Reloder 19	CCI 250	Win.	3.560	80.0C	2456
300-gr Speer TBBC SP	Reloder 15	CCI 250	Win.	3.600	70.0	2485

378 Weatherby Magnum						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
250-gr Speer TBBC SP	Reloder 19	CCI 250	Weatherby	3.645	117.0	3227
250-gr Speer TBBC SP	Reloder 22	CCI 250	Weatherby	3.645	119.0	3223
285-gr Speer SP	Reloder 19	CCI 250	Weatherby	3.635	111.0	2967
285-gr Speer SP	Reloder 22	CCI 250	Weatherby	3.635	112.0	2971
285-gr Speer SP	Reloder 25	CCI 250	Weatherby	3.635	117.0C	2974
300-gr Speer TBBC SP	Reloder 19	CCI 250	Weatherby	3.640	109.0	2829
300-gr Speer TBBC SP	Reloder 22	CCI 250	Weatherby	3.640	110.0	2827
300-gr Speer TBBC SP	Reloder 25	CCI 250	Weatherby	3.640	116.0C	2907
416 Remington Magnum						
350-gr Speer SP	Reloder 15	CCI 250	Rem.	3.580	85.0	2629
400-gr Speer TBBC SP	Reloder 15	CCI 250	Rem.	3.550	79.0C	2380
416 Rigby						
350-gr Speer SP	Reloder 19	CCI 250	Federal	3.360	105.0	2560
400-gr Speer TBBC SP	Reloder 19	CCI 250	Federal	3.600	103.0	2365
400-gr Speer TBBC SP	Reloder 22	CCI 250	Federal	3.600	101.0C	2311
444 Marlin						
240-gr Speer JHP	Reloder 7	CCI 200	Rem.	2.530	50.0	2354
240-gr Speer JHP	Reloder 10X	CCI 200	Rem.	2.530	53.0	2348
270-gr Speer SP	Reloder 7	CCI 200	Rem.	2.530	47.0	2216
270-gr Speer SP	Reloder 10X	CCI 200	Rem.	2.530	50.0	2212
45-70 Government (Trap Door Actions)						
300-gr Speer FNHP	Reloder 7	CCI 200	Win.	2.530	42.0	1775
300-gr Speer FNHP	Reloder 10X	CCI 200	Win.	2.530	44.0	1679
350-gr Speer SP	Reloder 7	CCI 200	Win.	2.715	35.0	1458
350-gr Speer SP	Reloder 10X	CCI 200	Win.	2.715	36.0	1481
400-gr Speer FNSP	Reloder 10X	CCI 200	Win.	2.540	39.0	1464
45-70 Government (Lever Actions)						
300-gr Speer FNHP	Reloder 7	CCI 200	Win.	2.530	47.0	2001
300-gr Speer FNHP	Reloder 10X	CCI 200	Win.	2.530	52.0	1964
400-gr Speer FNSP	Reloder 10X	CCI 200	Win.	2.540	44.0	1641
450 Marlin						
300-gr Speer FNHP	Reloder 7	CCI 200	Hornady	2.525	56.0C	2392
400-gr Speer FNSP	Reloder 7	CCI 200	Hornady	2.525	47.0	1963

**458 Lott**

Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				inches	grains	fps
350-gr Speer SP	Reloder 7	Fed. 215	Hornady	3.400	81.0	2699
350-gr Speer SP	Reloder 10X	Fed. 215	Hornady	3.400	84.0C	2712
500-gr Speer TBBC SP	Reloder 10X	Fed. 215	Hornady	3.600	67.0	2097
500-gr Speer TBBC SP	Reloder 15	Fed. 215	Hornady	3.600	80.0C	2227

458 Winchester Magnum						
350-gr Speer SP	Reloder 7	CCI 250	Win.	3.105	73.0C	2335
400-gr Speer FNSP	Reloder 7	CCI 250	Win.	3.125	74.0	2316
500-gr Speer TBBC SP	Reloder 7	CCI 250	Win.	3.300	62.0	1998
500-gr Speer TBBC SP	Reloder 10X	CCI 250	Win.	3.300	65.0C	2039

C = Compressed Charge

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## EXTRA-LITE™ RELOADING DATA

12 Gauge 2 3/4 inch Remington STS, Nitro 27, Gun Club and Premier Plastic Shells							
Shot	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)			1100 fps	1150 fps	1200 fps	1250 fps	1300 fps
3/4	Rem. 209P	CB0178			15.0 grs 6740 psi	16.0 grs 7490 psi	
7/8	Rem. 209P	TGT 12		14.5 grs 7210 psi	15.5 grs 8210 psi	16.2 grs 8970 psi	17.2 grs 9970 psi
7/8	Rem. 209P	CB0178		15.0 grs 6580 psi	15.8 grs 7450 psi	16.8 grs 8430 psi	17.6 grs 9330 psi
7/8	Win. 209	TGT 12		14.5 grs 7460 psi	15.5 grs 8700 psi	16.5 grs 9320 psi	17.5 grs 10180 psi
7/8	Fed. 209A	CB0178			15.0 grs 8410 psi	15.9 grs 9540 psi	
7/8	Cheddite	CB0178			15.4 grs 7900 psi	16.3 grs 9010 psi	17.2 grs 10240 psi
7/8	Rem. 209P	CB1100		14.2 grs 6280 psi	15.2 grs 7090 psi	16.2 grs 8390 psi	17.2 grs 10160 psi
7/8	Fio. 616	CB0178			15.5 grs 6700 psi		17.5 grs 9240 psi
7/8	CCI 209	TGT 12			15.2 grs 8600 psi		17.2 grs 10250 psi
7/8	CCI 209M	TGT 12		15.0 grs 8780 psi			17.0 grs 10680 psi
7/8	Nobel Sport	CB0178					17.8 grs 9850 psi
1	Rem. 209P	CB4100	15.0 grs 7440 psi	15.7 grs 8470 psi	16.5 grs 9190 psi		
1	Rem. 209P	TGT 12	14.5 grs 8970 psi	15.5 grs 9600 psi	16.5 grs 10680 psi		
1	Rem. 209P	CB1100	14.5 grs 7460 psi	15.5 grs 8660 psi	16.5 grs 9760 psi		
1	Win. 209	CB4100	14.9 grs 8060 psi	15.5 grs 8810 psi	16.3 grs 9800 psi		
1	Win. 209	TGT 12	14.5 grs 8770 psi	15.5 grs 10060 psi	16.5 grs 10790 psi		
1	Win. 209	CB1100	14.5 grs 8150 psi	15.5 grs 9000 psi	16.7 grs 10350 psi		
1	Cheddite	CB4100	14.5 grs 7676 psi	15.6 grs 8970 psi	16.5 grs 10400 psi		
1	Cheddite	TGT 12	14.5 grs 8930 psi	15.5 grs 10100 psi	16.4 grs 10770 psi		
1	Cheddite	CB1100	14.5 grs 8020 psi	15.5 grs 8700 psi	16.5 grs 9940 psi		
1	Fed. 209A	CB4100	14.0 grs 8590 psi	15.0 grs 9200 psi	16.0 grs 10410 psi		
1	Fed. 209A	TGT 12	14.0 grs 9810 psi				
1	Fed. 209A	CB1100	14.0 grs 9150 psi	15.0 grs 10210 psi			
12 Gauge 2 3/4 inch Winchester AA (HS) Plastic Shells							
3/4	Win. 209	CB0178			15.0 grs 7220 psi	16.0 grs 8240 psi	
7/8	Win. 209	CB0178		14.5 grs 7410 psi	15.5 grs 8300 psi	16.5 grs 9070 psi	17.5 grs 9950 psi
7/8	Win. 209	CB4100		14.8 grs 7330 psi	15.5 grs 7780 psi	16.5 grs 8990 psi	17.2 grs 9920 psi
7/8	Fed. 209A	CB0178			15.0 grs 8420 psi	16.0 grs 9800 psi	16.9 grs 10680 psi
7/8	Cheddite	CB0178		14.4 grs 6970 psi	15.4 grs 7850 psi	16.4 grs 8650 psi	17.4 grs 9440 psi
7/8	Win. 209	CB1100		14.2 grs 7140 psi	15.2 grs 8120 psi	16.3 grs 8430 psi	17.3 grs 9680 psi
7/8	Fio. 616	CB0178			15.5 grs 7950 psi	16.5 grs 8730 psi	17.5 grs 9700 psi
7/8	CCI 209	TGT 12		14.5 grs 7890 psi	15.5 grs 8740 psi	16.5 grs 9840 psi	17.5 grs 10440 psi
7/8	CCI 209M	TGT 12			15.2 grs 9190 psi	16.2 grs 10240 psi	17.2 grs 10820 psi
1	Win. 209	CB4100	14.8 grs 8420 psi	15.8 grs 9440 psi	16.8 grs 10510 psi		
1	Win. 209	TGT 12	14.7 grs 8690 psi	15.7 grs 9940 psi	16.5 grs 10660 psi		

12 Gauge 2 3/4 inch Winchester AA (HS) Plastic Shells continued							
Shot	Primer	Wad	Velocity / Charge Weight / Pressure				
(oz)			1100 fps	1150 fps	1200 fps	1250 fps	1300 fps
1	Win. 209	CB1100	14.8 grs 8550 psi	15.9 grs 9050 psi	16.9 grs 10080 psi		
1	Cheddite	CB4100	14.5 grs 8160 psi	15.5 grs 8910 psi	16.5 grs 10320 psi		
1	Cheddite	TGT 12	14.7 grs 8930 psi	15.7 grs 9880 psi	16.3 grs 10870 psi		
1	Cheddite	CB1100	14.6 grs 8590 psi	15.6 grs 9590 psi	16.6 grs 10380 psi		
1	Fed. 209A	CB4100	14.0 grs 8300 psi	15.0 grs 9480 psi	16.2 grs 10500 psi		
1	Fed. 209A	TGT 12	14.2 grs 9870 psi	15.1 grs 10460 psi			
1	Fed. 209A	CB1100	14.2 grs 9300 psi	15.2 grs 10380 psi	16.0 grs 10740 psi		
1	Rem. 209P	TGT 12	14.5 grs 8810 psi	15.5 grs 9900 psi	16.5 grs 10680 psi		
1	Rem. 209P	CB4100	14.5 grs 7770 psi	15.5 grs 8740 psi	16.5 grs 10060 psi		
12 Gauge 2 3/4 inch Federal Gold Medal Plastic Shells							
3/4	Fed. 209A	CB6100				16.0 grs 6990 psi	
7/8	Fed. 209A	CB6100		15.0 grs 6390 psi	15.8 grs 6650 psi	16.8 grs 7820 psi	17.6 grs 8710 psi
7/8	Fed. 209A	12SO		15.0 grs 6750 psi	16.0 grs 7760 psi	17.0 grs 8910 psi	18.0 grs 10440 psi
7/8	Cheddite	CB6100		15.0 grs 5360 psi	16.0 grs 6180 psi	17.2 grs 7300 psi	18.2 grs 8610 psi
7/8	Fio. 616	CB6100			16.2 grs 6590 psi		18.2 grs 7900 psi
7/8	Win. 209	CB6100			16.2 grs 7630 psi		18.2 grs 9390 psi
7/8	CCI 209M	CB6100			16.3 grs 6820 psi		18.2 grs 8520 psi
1	Fed. 209A	12SO		16.0 grs 8730 psi	17.0 grs 9900 psi		
1	Fed. 209A	CB6100		15.7 grs 8280 psi	16.7 grs 9350 psi	17.7 grs 10470 psi	
1	Cheddite	12SO		16.2 grs 8300 psi	17.1 grs 9360 psi	18.1 grs 10250 psi	
1	Cheddite	CB6100		16.0 grs 7560 psi	17.4 grs 8490 psi	18.5 grs 9990 psi	
1	Win. 209	12SO			17.3 grs 9700 psi	18.3 grs 10500 psi	
12 Gauge 2 3/4 inch Federal Gold Medal Paper Shells							
7/8	Fed. 209A	CB6100			15.4 grs 6640 psi	16.5 grs 7900 psi	17.4 grs 8890 psi
7/8	Fed. 209A	12SO			15.5 grs 7720 psi	16.5 grs 8680 psi	17.9 grs 10210 psi
7/8	Fio. 616	CB6100			16.0 grs 5830 psi	17.0 grs 7040 psi	18.0 grs 7630 psi
7/8	Win. 209	CB6100			16.2 grs 6170 psi	17.3 grs 7310 psi	18.4 grs 8770 psi
7/8	CCI 209	CB6100			16.2 grs 6760 psi		18.2 grs 8070 psi
7/8	CCI 209M	12SO			16.0 grs 7980 psi		18.0 grs 9980 psi
1	Fed. 209A	12SO		16.5 grs 8803 psi	17.5 grs 9860 psi		
1	Fed. 209A	CB6100		16.4 grs 9060 psi	17.4 grs 10270 psi		
1	Cheddite	12SO		16.7 grs 8720 psi	17.7 grs 9540 psi	18.8 grs 10420 psi	
1	Cheddite	CB6100		16.5 grs 7410 psi	17.7 grs 8996 psi	18.8 grs 10040 psi	
1	Win. 209	CB6100		16.8 grs 7130 psi	17.5 grs 7551 psi	19.0 grs 9340 psi	

Insert A

Insert B



Technically Superior by Design

**Black MZ™**

THE MOST RELIABLE MUZZLELOADING PROPELLANT TESTED

Black MZ™ TEST ENDED AT 23 DAYS WITH BLACK MZ STILL FIRING RELIABLY

White Hots® pellets FAILED TO FIRE\* AT 7 DAYS

Triple SeZen® pellets FAILED TO FIRE AT 7 DAYS

Pyrodex® RS FAILED TO FIRE AT 7 DAYS

Triple SeZen® FFG FAILED TO FIRE AT 15 DAYS

BLACK MZ'S UNIQUE FORMULA IS DESIGNED TO RESIST MOISTURE ABSORPTION AND FIRE RELIABLY.

FOUR POPULAR MUZZLELOADING PROPELLANTS AND BLACK MZ WERE TESTED IN HUMID CONDITIONS

(68°F AND 90% RELATIVE HUMIDITY) AND AFTER SEVEN DAYS, THREE OF THE COMPETITORS FAILED

TO FIRE. AT 15 DAYS, THE LAST COMPETITOR FAILED, WHILE BLACK MZ CONTINUED TO FIRE RELIABLY

THROUGH THE

# ALLIANT POWDER – PROVEN POWDERS FOR RELOADERS



## OPTIMUM LOADS

Light and Standard 12-gauge Target	Light and Standard 12-gauge Target	12-gauge Standard & Target	12-gauge Target	Light and Standard 12-gauge Target	Light and Standard 12-gauge Target	20-and 28-gauge Target Loads	.410 Shotshell	Magnum Shotshell: 10- to 28-gauge	Non-Toxic Hunting Shotshell	Heavy Shotshell: 10- to 28-gauge	7/8 oz. 12-gauge Target Loads	Muzzleloader Hunting
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## SECONDARY LOADS

Handgun	None	Handgun	Cowboy Action Handgun	None	None	None	None	Magnum Handgun	None	Heavy Handgun	1 oz. 12-gauge Target Loads	Black Powder Cartridges (Cowboy Action, Re-enactments)
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## REMARKS

The Number 1 premium clay target powder, now 50% cleaner burning	The first of a new generation of high performance powders	Best long range clay target powder creating tight and uniform patterns, now 50% cleaner burning	Premium ultra clean burning target powder, excellent patterns and less felt recoil	Designed to duplicate the performance of Hodgdon® Clays™ at an economical price	Economical target shotshell powder	Designed specifically to be the best powder for 20- and 28-gauge target loads	Cleanest .410 bore powder on the market	Powder of choice for magnum hunting loads	The only powder designed specifically for steel shotshell	Outstanding 12-gauge heavy hunting and target loads	Extremely clean burning and consistent across temperatures	Moisture resistant and virtually non-corrosive. Replicates black powder performance
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## OPTIMUM LOADS

Magnum Handgun	High Performance 9mm, .40 S&W & 10mm	.45 ACP & Other Handgun	Magnum Handgun	Light Rifle	Standard Varmint	Light Varmint	Medium Rifle	AR-style Rifles	Medium Rifle	Medium Rifle Loads	Long Range 12-gauge Clay Target	Standard Rifle	Magnum Rifle Loads	Magnum Rifle	Heavy Magnum Rifle	50-caliber Target	Universal Shotshell 12- to 28-gauge
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## SECONDARY LOADS

410 Bore	Moderate Pistol	.38 Special	.22 Hornet & .218 Bee	.45-70 Govt.	Medium Rifle Light Loads	Bench rest calibers; Light Bullet .308	Heavy .223 Loads	Medium rifle varmint cartridges	Silhouette Rifle	Short Magnum Loads	12-gauge Hunting Loads	Light Magnum Rifle	Medium rifle heavy bullet loads	Heavy Bullet Standard Rifle	Magnum Rifle	None	Handgun
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## REMARKS

Maximum velocity and performance in magnum handguns	Best choice for high performance 9mm, .40 S&W, and 10mm	America's best pistol powder. Unsurpassed for .45 ACP target loads	Legendary for its performance in .44 Magnum and other magnum pistol loads	Great in lightweight .223 Rem. varmint bullets	Excellent performance in the standard varmint cartridges	For light bullet applications in .222 Rem., .22-250 Rem. and .223 Rem.	Excellent performance in heavy .223 Rem. and .308 Win. loads	For fast action, high volume AR and traditional rifle. .223 Rem. and .308 Win. match	Excellent in short action calibers, especially .308 Win.	Similar burn speed to IMR 4350 with added velocity.	Ideal for long range 12-gauge clay target shooting and games like Annie Oakley and Buddy	Superb in .30-06 and .338 Win. Magnum	Superior performance in the 7mm Magnum and .300 Win. Magnum	Outstanding in 7mm Magnum and .300 Win. Magnum applications	Delivers high energy for large calibers such as Weatherby Magnum	Superior velocity, clean burning and a density created specifically for the 50-caliber application	The world's most versatile reloading powder, now 50% cleaner burning
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Look for these other fine products to complement your purchase:



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