



# RELOADER'S GUIDE



OVER  
125 YEARS  
OF EXPERIENCE

## 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 HAND LOADING" 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 or 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!**

**M**illions 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.
- If ever you are unsure of your load data, or if you detect any signs of high pressure while using load data from this Guide, stop loading or testing at once. Contact our technical service personnel at 800-276-9337 before proceeding.
- 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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# **A 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.

### **A 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 22 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
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	Handgun Loads
Power Pistol®	High performance pistol loads such as the 9mm, .40 S&W, and 10mm	Moderate pressure pistol cartridges like the .38 Special, .380 Auto, and .45 ACP
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
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
Reloder® 7	Light Rifle Loads	Silhouette Loads
Reloder® 10X	Light Varmint/Light Bullet Loads	Bench rest calibers; Light Bullet 308
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
Reloder® 25	Large Magnum Rifle Loads	Maximum hunting loads

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

## 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		
Blue Dot	X		X	
Reloder Series	X		X	
Steel	X	X		
Promo, Clay Dot				X

All 22 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 any of the 22 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 that is shown, 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.**

(continued)

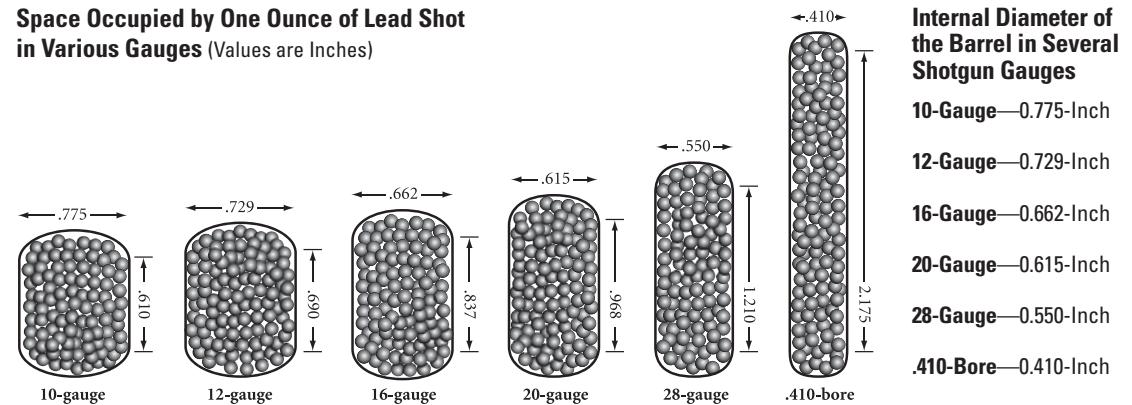
## Reference Tables (continued)

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	No. 8	No. 9
1/2	45	67	85	112	175	205	242
3/4	67	101	127	168	262	308	363
7/8	79	118	149	197	306	359	425
1	90	135	170	225	350	410	485
1 1/8	101	152	191	253	393	461	545
1 1/4	112	169	213	281	437	513	605
1 3/8	124	186	234	309	481	564	665
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%      Modified Choke—55%      True Cylinder—40%  
Improved Modified Choke—65 to 70%      Improved Cylinder—50%

## 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 Hi Power Plastic same as Duck and Pheasant, Field, Game, and Dove and Squirrel or 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 and **is not a reloading recommendation** or a result of Alliant's testing.

**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
Red Dot	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
Amer-Select	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
Green Dot	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
Blue Dot	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
Unique	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
Herco	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
2400	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 (Units shown in grains)**

Grains	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Red Dot			384	393	405	423	438	453	468	480	489	498	510	519				
Amer-Select							417	423	432	447	456	468	477	483				
Green Dot							363	378	390	405	420	435	447	456	468	480	492	
Unique								342	354	369	381	393	405	414	423	435	444	
Herco									357	369	381	393	405	414	426	438	450	
Blue Dot												366	372	381	390	396	408	
2400													414	423	435	441		
	256	266	—	291	300	312	324	330	339									

**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
Red Dot																	
Amer-Select																	
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
2400																	

**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	19.0
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	20.2
	12.3	13.2	15.2	16.1	16.8	17.6	18.3	19.0	21.3	21.3	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
Bullseye	8.6	9.1	9.6	10.1	10.6	11.2	11.7	12.3	12.9	13.5	14.1	14.8	15.4	16.1	16.8	17.5	18.2	18.9	19.6	20.4	21.2	21.9	22.8	
Red Dot	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	17.8	
e3	6.6	7	7.2	7.5	8	8.3	8.9	9.2	9.9	10.5	11	11.7	12.3	12.8	13.4	13.8	14.2	14.8	15.3	15.9	16.4	16.9	17.4	
Amer-Select	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	17.7	18.3	19	
Green Dot	6.7	7.2	7.6	8	8.4	8.9	9.3	9.8	10.3	10.8	11.3	11.8	12.4	12.9	13.5	14	14.6	15.2	15.8	16.4	17	17.7	18.3	
20/28										11.3	11.9	12.5	13	13.8	14.5	15.1	15.7	16.3	17	17.8				
Unique	7.5	7.9	8.4	8.9	9.4	9.9	10.4	10.9	11.4	12	12.6	13.1	13.7	14.5	15.1	15.8	16.4	17.1	17.7	18.4	19.1	19.8	20.5	
Herco	7.9	8.3	8.8	9.3	9.8	10.4	10.9	11.4	12	12.6	1													

# 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)	(grs)	
Rem (yellow base wad)	Precision Reloading TUPRW105	Fed 209A	1 1/4	1590	9800	50	1/2 U
Rem (yellow base wad)	Ballistics Products #3221000	Fed 209A	1 5/8	1310	10100	37	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	3/8 U
Rem Plastic SP	Rel Spec "SAM 1 10 ga 3 1/2"	Fed 209A	1 3/8	1555	10300	48	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	1/4 U
Rem Plastic SP	Rel Spec "SAM 1 10 ga 3 1/2"	Fed 209A	1 1/2	1470	10100	45	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	1/8 U
STEEL® POWDER FOR RELOADING STEEL SHOT ONLY 12-GAUGE, 2 3/4 INCH SHELLS							
Fed Gold Medal	Rel Spec "SAM 1 12 ga 2 3/4"	Fed 209A	7/8	1700	7800	42	1/8 U
Fed Gold Medal	Ballistic Products #3221275	Fed 209A	7/8	1765	9000	45	none
Fed Gold Medal	Ballistic Products #3221275	Fed 209A	1	1480	9500	33	1/8 U
Fed Gold Medal	Precision Reloading TUPRW12	Fed 209A	1	1500	8000	37	1/8 U
Fed Gold Medal	Rel Spec "SAM 1 12 ga 2 3/4"	Fed 209A	1	1520	9200	36	none
Fed Gold Medal	Rel Spec "SAM 1 12 ga 2 3/4"	Fed 209A	1 1/8	1380	9000	32	none
Fed Gold Medal	Precision Reloading TUPRW12	Fed 209A	1 1/8	1425	9600	32	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
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	1/4 U

## Non-Toxic Shotshell Reloading Data continued

STEEL® POWDER FOR RELOADING STEEL SHOT ONLY 12-GAUGE, 3 INCH SHELLS							
Shell Type	Wad	Primer	Shot	Velocity	Pressure	Powder	Spacers
			(oz)	(fps)	(psi)	(grs)	
Fed 0.090 Intergral BW	Ballistic Products #3221230	Fed 209A	1	1690	10500	45	3/8 U
Fed 0.090 Intergral BW	Reloading Specialties 12 ga 3"	Fed 209A	1	1720	8900	47	3/8 U
Fed 0.090 Intergral BW	Ballistic Products #3221230	Fed 209A	1 1/8	1510	10400	37	1/4 U
Fed 0.090 Intergral BW	Precision Reloading TUPRW123	Fed 209A	1 1/8	1515	10900	38	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	1/8 U
Fed 0.090 Intergral BW	Ballistic Products #3221230	Fed 209A	1 1/4	1370	10500	33	1/8 U
Fed 0.090 Intergral BW	Reloading Specialties 12 ga 3"	Fed 209A	1 1/4	1435	10800	37	1/8 U
Fed Hi-Power 7/16 BW	Ballistic Products #3221230	Fed 209A	1	1665	8900	45	1/4 U
Fed Hi-Power 7/16 BW	Reloading Specialties 12 ga 3"	Fed 209A	1	1700	8200	48	1/4 U
Fed Hi-Power 7/16 BW	Ballistic Products #3221230	Fed 209A	1 1/8	1550	10600	39.5	1/4 U
Fed Hi-Power 7/16 BW	Reloading Specialties 12 ga 3"	Fed 209A	1 1/8	1560	10500	40.5	1/8 U
Fed Hi-Power 7/16 BW	Ballistic Products #3221230	Fed 209A	1 1/4	1390	10900	33	1/4 U
Fed Hi-Power 7/16 BW	Reloading Specialties 12 ga 3"	Fed 209A	1 1/4	1430	10500	36	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	1/4 U
Rem Nitro Steel	Reloading Specialties 12 ga 3"	Fed 209A	1 1/8	1479	10600	33	1/4 U
Rem Nitro Steel	Precision Reloading TUPRW123	Fed 209A	1 1/4	1392	10700	32	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)	(grs)	
Fed Intergral BW	Reloading Specialties "Sam 1"	Fed 209A	1 1/4	1510	10400	45	3/8 U
Fed Intergral BW	Ballistic Products mm 12312	Fed 209A	1 1/4	1560	10900	45	1/8 U
Fed Intergral BW	Precision Reloading TUPRW1235	Fed 209A	1 1/4	1565	10700	45	1/2 U
Fed Intergral BW	Precision Reloading TUPRW1235	Fed 209A	1 3/8	1470	12500	40	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	3/8 U
Fed Intergral BW	Ballistic Products mm 12312	Fed 209A	1 1/2	1385	12800	37	1/4 U
Fed Intergral BW	Reloading Specialties "Sam 1"	Fed 209A	1 1/2	1390	13300	39	1/4 U
Rem Plastic SP	Reloading Specialties "Sam 1"	Fed 209A	1 1/4	1595	13100	45	3/8 U
Rem Plastic SP	Ballistic Products mm 12312	Fed 209A	1 1/4	1615	13300	45	3/8 U
Rem Plastic SP	Reloading Specialties "Sam 1"	Fed 209A	1 3/8	1430	12800	37	1/4 U
Rem Plastic SP	Ballistic Products mm 12312	Fed 209A	1 1/2	1305	13000	33	1/4 U
Rem Plastic SP	Reloading Specialties "Sam 1"	Fed 209A	1 1/2	1330	13000	35	1/4 U

Non-Toxic Shotshell Reloading Data continued

STEEL® 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)	(grs)	
Fed 7/16 Paper BW	Rem RP 12	Fed 209A	1 1/8	1300	9500	27	1/8 0
Rem Premier STS	Rem RP 12	Fed 209A	1 1/8	1292	10400	26	1/8 0
Rem Premier STS	Claybuster 1138 12	Fed 209A	1 1/4	1421	10100	39.5	None
STEEL® 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	1/8 0
Fed 0.090 Intergral BW	Fed 12S4	Fed 209A	1 1/2	1310	10100	38	None
Fed 0.090 Intergral BW	Rem RP 12	Fed 209A	1 1/2	1359	10800	40	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	1/8 0
Rem SPELV Yellow BW	Rem RP 12	Fed 209A	1 3/8	1473	10700	44	1/8 0
Rem SPELV Yellow BW	Rem SP 12	Fed 209A	1 3/8	1564	10700	50	None
Rem SPELV Yellow BW	Rem RP 12	Fed 209A	1 1/2	1441	10700	45	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	3/8 U
Fed 0.090 Intergral BW	Prec Rel TUPR23 (Orange)	Fed 209A	1 1/2	1294	10900	34	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	1/4 U
Rem SPELV Yellow BW	Prec Rel TUPR23 (Orange)	Fed 209A	1 1/4	1462	10300	40	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	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)			(grs)	(psi)	(grs)	(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

24 Gram International Target Load Data continued

12 Gauge, 2 3/4 inch Fiocchi Plastic							
Shot Weight	Velocity	Wad	Primer	Red Dot®	American Select®		
(gram)	(fps)			(grs)	(psi)	(grs)	(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
24	1345	WAA12L (Gray)	Win 209	20.0	10200	20.5	9700
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)			(grs)	(psi)	(grs)	(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

**28 Gram International Target Load Data continued**

12 Gauge, 2 3/4 inch Winchester Plastic							
Shot Weight	Velocity	Wad	Primer	Red Dot®	Green Dot®		
(gram)	(fps)			(grs)	(psi)	(grs)	(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 Fed. Plastic with Paper Base Wad							
Shot	Powder	Primer	Wad	Spacers	Charge Weight (grains) / Velocity (fps) & Pressure (psi)		
(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	1265	8800
1 5/8	Herco®	CCI 209M	Rem SP 10	(4) 0.135	36	1285	10300
1 5/8	Blue Dot®	CCI 209M	Rem SP 10	(4) 0.135	45	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	1210	9400
2 1/4	Blue Dot®	CCI 209M	Rem SP 10	(1) 0.135	42	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	1265	8800
1 1/4	Unique®	CCI 209M	Rem SP 10	(6) 0.135	31	1265	7500
1 1/4	Unique®	Win 209	Rem SP 10	(6) 0.135	31	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	1285	8500
1 7/8	Blue Dot®	CCI 209M	Rem SP 10	(3) 0.135	44	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	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	1165	10500

**10 Gauge, 3 1/2 inch Win Polyformed with Plastic Base Wad**

1 1/4	Green Dot®	CCI 209M	Rem SP 10	(5) 0.135	28	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

continued

**10 Gauge Reloading Data continued**

10 Gauge, 3 1/2 inch Win Polyformed with Plastic Base Wad continued							
Shot	Powder	Primer	Wad	Spacers	Charge Weight (grains) / Velocity (fps) & Pressure (psi)		
(oz)					(grains)	(fps)	(psi)
1 5/8	Blue Dot®	Win 209	Rem SP 10	(3) 0.135	45	1285	8800
1 7/8	Blue Dot®	CCI 209M	Rem SP 10	(2) 0.135	45	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	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	1165	10500

**12 GAUGE RELOADING DATA**

12 Gauge, 2 3/4 inch Cheddite Plastic							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(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	American 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	American Select®	Cheddite	12S3 & DRF3	19.0 grs 7600 psi	20.5 grs 8800 psi		
1 1/8	American 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 PLASIC SHELLS (STS, NITRO 27, PREMIER RXP AND GUN CLUB)**

12 Gauge 7/8 and 1 Ounce Target Loads							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(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 & DR XXL (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& DR XXL(Pink)		16.0 grs 7265 psi	17.0 grs 7655 psi	18.0 grs 8525 psi
7/8	e3®	Rem 209P	CB-4100-12B		16.2 grs 6195 psi	17.2 grs 7045 psi	18.2 grs 7580 psi

continued

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

12 Gauge 7/8 and 1 Ounce Target Loads continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1150 fps	1200 fps	1250 fps	1310 fps	
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	American Select®	Rem 209P	CB-4100-12B		18.9 grs 5200 psi	19.6 grs 5900 psi	20.5 grs 6700 psi	
7/8	American Select®	Rem 209P	TGT 12 & DRRT12				20.5 grs 7000 psi	
7/8	American Select®	Rem 209P	WAA12L & DR XXL(Pink)		18.0 grs 5800 psi	19.0 grs 6800 psi	20.0 grs 7200 psi	
7/8	American Select®	Rem 209P	WAA12SL & DRXL-1 & Jammer XL-1				20.5 grs 7900 psi	
7/8	American 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 & DR XXL(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 & DR XXL (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	19.0 grs 10040 psi	
1	e3®	Rem 209P	TGT 12 & DRRT12	16.0 grs 7970 psi	16.9 grs 8550 psi	18.0 grs 9710 psi	19.0 grs 10850 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	19.7 grs 9400 psi	
1	Red Dot®	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	Red Dot®	Rem 209P	WAA12L & DR XXL (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	
1	Red Dot®	Rem 209P	Green Duster		17.5 grs 10000 psi	18.5 grs 10900 psi		

continued

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

12 Gauge 7/8 and 1 Ounce Target Loads continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1150 fps	1200 fps	1250 fps	1310 fps	
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	American 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	American Select®	Rem 209P	WAA12L & DR XXL(Pink)		17.0 grs 7500 psi			
1	American Select®	Rem 209P	CB 1100-12			19.5 grs 7500 psi	20.5 grs 8000 psi	22.5 grs 8500 psi
1	American Select®	Rem 209P	Green Duster			19.0 grs 7700 psi	20.0 grs 8400 psi	
1	American Select®	Rem 209P	WAA12SL & DRXL-1 & Jammer XL-1			19.0 grs 7600 psi	20.5 grs 8700 psi	21.5 grs 9200 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 & DR XXL(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	22.5 grs 8900 psi
1	Green Dot®	Rem 209P	WAA12SL & DRXL-1 & Jammer XL-1			19.5 grs 8600 psi	21.5 grs 8900 psi	22.5 grs 9000 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 & DR XXL(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	20.5 grs 10400 psi
1	Promo®	Rem 209P	Purple PC			18.5 grs 8300 psi	19.5 grs 8900 psi	20.5 grs 9100 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 2 3/4 inch Remington Plastic Shells (STS, Nitro 27, Premier RXP and Gun Club) continued

12 Gauge 1 1/8 Ounce Target Loads								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(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	CB3118 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	WAA 12 & 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 2 3/4 inch Remington Plastic Shells (STS, Nitro 27, Premier RXP and Gun Club) continued

12 Gauge 1 1/8 Ounce Target Loads continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(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	WAA 12 & DRA12 & DRXL 1 1/8			17.5 grs 10500 psi		
1 1/8	Green Dot®	Rem 209P	CB3118 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 8500 psi	19.0 grs 7300 psi	21.0 grs 8800 psi	21.5 grs 10700 psi	
1 1/8	Green Dot®	Rem 209P	RXP 12	18.0 grs 8700 psi	19.0 grs 7700 psi	20.5 grs 8700 psi		
1 1/8	Green Dot®	Rem 209P	WAA 12 & DRA12 & DRXL 1 1/8	18.0 grs 8500 psi	19.0 grs 6700 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	WAA 12 & 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	CB3118 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	WAA 12 & 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 2 3/4 inch Remington Plastic Shells (STS, Nitro 27, Premier RXP and Gun Club) continued**

12 Gauge 1 1/8 Ounce Target Loads continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(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	WAA 12 & 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	WAA 12 & DRA12 & DRXL 1 1/8		17.5 grs 10500 psi			
1 1/8	American Select®	Rem 209P	CB3118 12	17.5 grs 6900 psi	19.0 grs 8400 psi	20.0 grs 9500 psi	21.5 grs 10600 psi	
1 1/8	American Select®	Rem 209P	Blue Duster	17.0 grs 8000 psi	18.0 grs 8900 psi	20.0 grs 10200 psi		
1 1/8	American Select®	Rem 209P	Red PC	17.5 grs 7000 psi	19.0 grs 8200 psi	20.5 grs 9700 psi		
1 1/8	American 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	American 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	American Select®	Rem 209P	WAA 12 & DRA12 & DRXL 1 1/8	17.0 grs 8100 psi	18.0 grs 9000 psi	19.2 grs 11000 psi		
1 1/8	American Select®	Rem 209P	WT-12	17.0 grs 7300 psi	18.5 grs 8900 psi	20.0 grs 10600 psi		
1 1/8	American Select®	Rem 209P	Windjammer	18.0 grs 6900 psi	19.0 grs 7900 psi	20.5 grs 9100 psi		
1 1/8	American Select®	Win 209	Figure 8 & DRRF8		18.5 grs 9000 psi	20.0 grs 10200 psi		
1 1/8	American Select®	Fed 209A	Figure 8 & DRRF8		18.5 grs 9200 psi	20.0 grs 10700 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	23.5 grs 9900 psi	
1 1/8	Unique®	CCI 209M	Red PC			22.5 grs 8700 psi	24.0 grs 9400 psi	

continued

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

12 Gauge 1 1/8 Ounce Target Loads continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1090 fps	1145 fps	1200 fps	1250 fps	
1 1/8	Unique®	CCI 209M	RXP 12					22.5 grs 9500 psi
1 1/8	Unique®	CCI 209M	WAA 12 & DRA12 & DRXL 1 1/8					24.0 grs 10400 psi
1 1/8	Unique®	CCI 209M	Windjammer					22.0 grs 9300 psi
1 1/8	Unique®	Fed 209A	Figure 8 & DRRF8					25.0 grs 9300 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	CB3118 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	WAA 12 & 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	WAA 12 & 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, 1 3/8 & 1 1/2 Ounce Loads								
1 1/4	Unique	CCI 209M	SP 12					
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

continued

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

12 Gauge 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1090 fps	1145 fps	1200 fps	1250 fps	
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
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

**12 GAUGE 2 3/4 INCH WINCHESTER AA PLASTIC SHELLS**

**12 Gauge 7/8 and 1 Ounce Target Loads**

12 Gauge 7/8 and 1 Ounce Target Loads								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(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 & DR XXL(Pink)		16.0 grs 7425 psi	17.0 grs 8210 psi	18.0 grs 8385 psi	
7/8	Red Dot®	Win 209	CB4100-12		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 & DR XXL(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	American Select®	Win 209	CB 4100-12B		18.5 grs 5600 psi	19.5 grs 6100 psi	20.5 grs 6900 psi	
7/8	American Select®	Win 209	WAA12L & DR XXL (Pink)		17.6 grs 6200 psi	18.5 grs 7200 psi	19.5 grs 8000 psi	
7/8	American Select®	Win 209	CB 1100 12				21.0 grs 7200 psi	
7/8	American Select®	Win 209	Purple PC				20.5 grs 7200 psi	
7/8	American Select®	Win 209	TGT 12 & DRRT12				20.5 grs 7600 psi	
7/8	American Select®	Win 209	WAA12SL&DRXL-1 & Jammer XL-1				20.5 grs 8400 psi	
7/8	Promo®	Win 209	CB4100-12		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 & DR XXL(Pink)		16.5 grs 7900 psi	17.5 grs 8600 psi	18.5 grs 9300 psi	

continued

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

12 Gauge 7/8 and 1 Ounce Target Loads continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(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
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 & DR XXL(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 & DR XXL (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 & DR XXL(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	WAA 12 & DRA12 & DRXL 1 1/8					18.5 grs 10400 psi
1	Red Dot®	Win 209	WAA 12 & DRA12 & DRXL 1 1/8					19.0 grs 10500 psi
1	American 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	American Select®	Win 209	Green Duster			19.0 grs 8100 psi	20.0 grs 8900 psi	21.5 grs 9700 psi
1	American Select®	Win 209	TGT 12 & DRRT12			19.0 grs 8000 psi	20.0 grs 9100 psi	21.0 grs 9500 psi
1	American Select®	Win 209	WT 12-Orange			19.0 grs 8400 psi		

continued

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

<b>12 Gauge 7/8 and 1 Ounce Target Loads</b> continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1145 fps	1200 fps	1250 fps	1300 fps	
1	American Select®	Win 209	WAA12L & DR XXL (Pink)	18.0 grs 6700 psi				
1	American Select®	Win 209	WAA12SL & DRXL-1 & Jammer XL-2	17.5 grs 7600 psi	19.0 grs 8200 psi	20.0 grs 9500 psi	21.5 grs 10300 psi	
1	Green Dot®	CCI 209M	WAA 12 & 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	WAA 12 & DRA12 & DRXL 1 1/8				20.0 grs 8700 psi	
1	Green Dot®	Win 209	WAA12L & DR XXL (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	
<b>12 Gauge 1 1/8 Ounce Loads</b>								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(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	WAA 12 & DRA12 & DRXL 1 1/8		17.3 grs 8740 psi			
1 1/8	Clay Dot™	Rem 209P	WAA 12 & 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	WAA 12 & 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	WAA 12 & 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	WAA 12 & DRA12 & DRXL 1 1/8	16.0 grs 8900 psi	17.0 grs 10200 psi	18.0 grs 10500 psi		

continued

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

<b>12 Gauge 1 1/8 Ounce Loads</b> continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1090 fps	1145 fps	1200 fps	1250 fps	
1 1/8	Red Dot®	Rem 209P	WAA 12 & DRA12 & DRXL 1 1/8	17.0 grs 8100 psi	17.5 grs 8700 psi	19.0 grs 9500 psi		
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 9000 psi	17.0 grs 8400 psi	18.5 grs 9800 psi		
1 1/8	Red Dot®	Win 209	WAA 12 & 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	WAA 12 & 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	American Select®	Fed 209A	WAA 12 & DRA12 & DRXL 1 1/8	17.0 grs 8700 psi	18.5 grs 9800 psi	19.5 grs 10800 psi		
1 1/8	American Select®	Rem 209P	WAA 12 & DRA12 & DRXL 1 1/8	17.0 grs 8000 psi	19.0 grs 8700 psi	21.0 grs 9600 psi		
1 1/8	American Select®	Rem 209P	Figure 8 & DRRF8					22.5 grs 9400 psi
1 1/8	American Select®	Win 209	CB 1100 12	17.0 grs 7600 psi				
1 1/8	American Select®	Win 209	CB 3118 12		18.5 grs 9000 psi	19.5 grs 10200 psi	20.5 grs 10700 psi	
1 1/8	American Select®	Win 209	Blue Duster	17.0 grs 8300 psi	18.0 grs 9000 psi	19.5 grs 10000 psi		
1 1/8	American 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	American Select®	Win 209	Figure 8 & DRRF8	17.5 grs 8100 psi	19.0 grs 9400 psi	20.0 grs 9800 psi		
1 1/8	American 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	

continued

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

12 Gauge 1 1/8 Ounce Loads continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1090 fps	1145 fps	1200 fps	1250 fps	
1 1/8	American Select®	Win 209	WAA 12 & DRA12 & DRXL 1 1/8	17.0 grs 9000 psi	18.0 grs 9400 psi	19.5 grs 10300 psi		
1 1/8	American Select®	Win 209	WAA12SL & DRXL-1 & Jammer XL-1	16.8 grs 8400 psi				
1 1/8	American Select®	Win 209	WT 12 Orange		18.5 grs 9600 psi	19.5 grs 10700 psi		
1 1/8	American Select®	Win 209	Windjammer		18.5 grs 8100 psi	20.5 grs 9200 psi		
1 1/8	Promo®	CCI 209M	WAA 12 & 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	WAA 12 & 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	WAA 12 & 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	WAA 12 & 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	WAA 12 & 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	

continued

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

12 Gauge 1 1/8 Ounce Loads continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1090 fps	1145 fps	1200 fps	1250 fps	
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	
1 1/8	Green Dot®	Win 209	WAA 12 & 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	WAA 12 & 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	WAA 12 & 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	WAA 12 & 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	WAA 12 & DRA12 & DRXL 1 1/8			20.0 grs 9800 psi		
1 1/8	Unique®	CCI 209M	WAA 12 & DRA12 & DRXL 1 1/8			21.5 grs 10300 psi		
1 1/8	Unique®	FIO 616	WAA 12 & DRA12 & DRXL 1 1/8			21.5 grs 9100 psi		
1 1/8	Unique®	Rem 209P	WAA 12 & 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	WAA 12 & DRA12 & DRXL 1 1/8			21.0 grs 9100 psi	23.5 grs 9400 psi	
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	

continued

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

<b>12 Gauge 1 1/8 Ounce Loads continued</b>							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(oz)	1090 fps 1145 fps 1200 fps 1250 fps						
1 1/8	Herco®	Win 209	WAA 12 & DRA12 & DRXL 1 1/8				25.0 grs 9500 psi
1 1/8	Herco®	Win 209	WT 12 Orange				23.5 grs 9400 psi
<b>12 Gauge 1 1/4, 1 3/8 &amp; 1 1/2 Ounce Loads</b>							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
				1150 fps	1200 fps	1225 fps	1250 fps
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	
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 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			
<b>12 GAUGE 2 3/4 INCH FEDERAL GOLD MEDAL PLASTIC TARGET SHELLS</b>							
<b>12 Gauge 7/8 and 1 Ounce Target Loads</b>							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(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	CB 1100 12				
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	

continued

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

<b>12 Gauge 7/8 and 1 Ounce Target Loads continued</b>							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(oz)	1200 fps 1250 fps 1290 fps						
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	WAA 12L (Gray)				
7/8	Red Dot®	Fed 209A	12SO & DRXXL Orange		19.0 grs 7900 psi	19.5 grs 8400 psi	
7/8	American Select®	Fed 209A	CB 1100 12			21.5 grs 6900 psi	
7/8	American Select®	Fed 209A	12SO & DRXXL Orange			21.0 grs 7300 psi	
7/8	American Select®	Fed 209A	Purple PC			21.5 grs 6900 psi	
7/8	American 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			

continued

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

<b>12 Gauge 7/8 and 1 Ounce Target Loads</b> continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1200 fps	1250 fps	1290 fps		
1	American Select®	Fed 209A	CB 6100-12	19.0 grs 5910 psi	20.5 grs 6790 psi	21.5 grs 7290 psi		
1	American 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				
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	American Select®	Fed 209A	CB 1100-12	20.0 grs 7300 psi	21.0 grs 7600 psi	21.5 grs 8000 psi		
1	American Select®	Fed 209A	12SO & DRXXL Orange	19.5 grs 7100 psi	21.0 grs 7700 psi	22.0 grs 8500 psi		
1	American Select®	Fed 209A	TGT 12 & DRRT12	19.5 grs 7500 psi	20.5 grs 8100 psi	21.5 grs 8800 psi		
1	American 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 2 3/4 inch Federal Gold Medal Plastic Target Shells continued**

<b>12 Gauge 1 1/8, 1 3/8, 1 1/4 &amp; 1 1/2 Ounce Loads</b>								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
				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		
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	WAA 12 & 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	American Select®	Fed 209A	CB 6118-12	18.5 grs 5330 psi	20.0 grs 6110 psi	20.5 grs 7640 psi		
1 1/8	American Select®	Fed 209A	CB3118 12	17.5 grs 7100 psi	19.0 grs 8200 psi	20.5 grs 9600 psi	22.0 grs 10600 psi	
1 1/8	American 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	American 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	American Select®	Fed 209A	Figure 8 & DRRF8	17.5 grs 8000 psi	19.0 grs 9000 psi	20.0 grs 10300 psi		
1 1/8	American Select®	Fed 209A	WAA 12 & DRA12 & DRXL1 1/8	17.5 grs 7400 psi	19.0 grs 9600 psi	20.5 grs 9400 psi		
1 1/8	American Select®	Fed 209A	WT 12 (Orange)	18.0 grs 7700 psi	19.0 grs 9300 psi	20.5 grs 10400 psi		
1 1/8	American Select®	Fed 209A	Windjammer			19.0 grs 8700 psi	20.5 grs 9800 psi	21.5 grs 10700 psi
1 1/8	American Select®	Rem 209P	12S3 & DRF3			19.5 grs 7800 psi	21.5 grs 9000 psi	
1 1/8	American 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	

continued

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

<b>12 Gauge 1 1/8, 1 3/8, 1 1/4 &amp; 1 1/2 Ounce Loads continued</b>							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
				1090 fps	1145 fps	1200 fps	1250 fps
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	WAA 12 & 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			
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	WAA 12 & 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	WAA 12 & 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

continued

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

<b>12 Gauge 1 1/8, 1 3/8, 1 1/4 &amp; 1 1/2 Ounce Loads continued</b>							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
				1090 fps	1145 fps	1200 fps	1250 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	WAA 12 & DRA12 & DRXL 1 1/8				26.0 grs 8300 psi
1 1/8	Herco®	Fed 209A	Windjammer				26.0 grs 7400 psi
<b>12 Gauge 1 1/4, 1 3/8 &amp; 1 1/2 Ounce Loads</b>							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
				1150 fps	1200 fps	1225 fps	1250 fps
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	WAA 12F114				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	WAA 12F114				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	
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 PAPER TARGET SHELLS							
12 Gauge 7/8 and 1 Ounce Target Loads							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(oz)				1200 fps		1250 fps	
7/8	Red Dot®	Fed 209A	CB0178	17.5 grs	6028 psi	18.5 grs	6570 psi
7/8	Clay Dot™	Fed 209A	12SO & DRXXL Orange	17.5 grs	6400 psi	18.5 grs	6900 psi
7/8	e3®	Fed 209A	CB 4100 12B	16.5 grs	6280 psi	17.5 grs	7075 psi
7/8	e3®	Fed 209A	WAA12SL & DRXL-1 & Jammer XL-1	16.5 grs	6960 psi	17.5 grs	7345 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
1	e3®	Fed 209A	12SO & DRXXL Orange	17.5 grs	8535 psi	18.5 grs	10065 psi
1	e3®	Fed 209A	CB 6100 12	17.0 grs	7520 psi	18.0 grs	7960 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
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	American Select®	Fed 209A	CB 6100 12	19.5 grs	6510 psi	21.0 grs	7290 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
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	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(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
1 1/8	e3®	Fed 209A	CB 4118	17.0 grs	9385 psi	18.5 grs	9860 psi

continued

#### 12 Gauge 2 3/4 inch Federal Paper Target Shells continued

12 Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(oz)				1145 fps	1200 fps	1235 fps	1250 fps
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	WAA 12 & DRA12 & DRXL 1 1/8	17.0 grs	9815 psi	18.0 grs	10780 psi
1 1/8	e3®	Fed 209A	CB 6118 12	17.0 grs	8500 psi	18.0 grs	9200 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
1 1/8	Red Dot®	Fed 209A	Red PC	18.0 grs	8300 psi	19.0 grs	10300 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
1 1/8	Red Dot®	Fed 209A	WAA 12 & 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
1 1/8	Green Dot®	Fed 209A	12S3 & DRF3	18.5 grs	7400 psi	21.0 grs	7800 psi
1 1/8	Green Dot®	Fed 209A	Versalite	19.5 grs	6900 psi	21.0 grs	8300 psi
1 1/8	Green Dot®	Fed 209A	Red PC	20.0 grs	7600 psi	21.0 grs	8800 psi
1 1/8	Green Dot®	Fed 209A	Rem R12L	19.0 grs	8000 psi	20.0 grs	8600 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	WAA 12 & DRA12 & DRXL 1 1/8	18.5 grs	8000 psi	19.5 grs	9000 psi
1 1/8	Green Dot®	Fed 209A	Windjammer	20.5 grs	6600 psi	22.0 grs	7700 psi
1 1/8	Green Dot®	Fed 209A	CB 6118 12	20.0 grs	7380 psi	21.0 grs	7810 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
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
1 1/8	Promo®	Fed 209A	WAA 12 & 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
1 1/8	American Select®	Fed 209A	12S3 & DRF3	19.0 grs	8200 psi	20.5 grs	10400 psi
1 1/8	American Select®	Fed 209A	Versalite	19.0 grs	7900 psi	20.0 grs	10100 psi
1 1/8	American Select®	Fed 209A	Figure 8 & DRRF8	19.0 grs	7600 psi	20.0 grs	9800 psi

continued

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

12 Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(oz)				1145 fps	1200 fps	1235 fps	1250 fps
1 1/8	American Select®	Fed 209A	WAA 12 & DRA12 & DRXL 1 1/8	19.0 grs 8400 psi	20.5 grs 10400 psi		
1 1/8	American Select®	Fed 209A	WT 12 (Orange)	19.0 grs 8100 psi	20.5 grs 10200 psi		
1 1/8	American Select®	Fed 209A	Windjammer	19.5 grs 7100 psi	20.0 grs 9100 psi		
1 1/8	American Select®	Rem 209P	12S3 & DRF3	19.0 grs 8500 psi	21.0 grs 9700 psi		
1 1/8	American Select®	Win 209	12S3 & DRF3	19.0 grs 8900 psi	20.5 grs 9700 psi		
1 1/8	American 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	WAA 12 & 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	WAA 12 & DRA12 & DRXL 1 1/8		21.0 grs 10500 psi		
1 1/4	Green Dot®	Fed 209A	WAA 12F114		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	WAA 12 & DRA12 & DRXL 1 1/8		22.0 grs 10000 psi		
1 1/4	Unique®	Fed 209A	WAA 12F114		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 1/4	Blue Dot®	Win 209	12S4		24.5 grs 10600 psi		
1 3/8	Blue Dot®	CCI 209M	SP 12		34.5 grs 9500 psi		

continued

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

12 Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(oz)				1145 fps	1200 fps	1235 fps	1250 fps
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		
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	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(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			

continued

**12 Gauge 2 3/4 inch Fiocchi Plastic Target Shells continued**

12 Gauge 7/8 and 1 Ounce Target Loads continued							
Shot	Powder	Primer	Wad	Charge Weight(grains) / Velocity(fps) & Pressure(psi)			
(oz)				1200 fps	1250 fps	1300 fps	
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	Charge Weight(grains) / Velocity(fps) & Pressure(psi)			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	American 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	American 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	12S3 & DRF3	16.0 grs 8400 psi	18.0 grs 9200 psi	19.0 grs 9700 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	12S3 & DRF3	16.0 grs 8400 psi	18.0 grs 9200 psi	19.0 grs 9700 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	WAA 12 & 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	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	WAA 12 & 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	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	WAA 12 & 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	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

continued

**12 Gauge 2 3/4 inch Fiocchi Plastic Target Shells continued**

12 Gauge 1 1/8, 1 1/4, 1 3/8 & 1 1/2 Ounce Loads continued							
Shot	Powder	Primer	Wad	Charge Weight(grains) / Velocity(fps) & Pressure(psi)			
(oz)				1090 fps	1145 fps	1200 fps	1250 fps
1 1/8	Unique®	Fio 616	WAA 12 & 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	WAA 12 & DRA12 & DRXL 1 1/8				26.0 grs 7900 psi
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	WAA 12F114				23.0 grs 10000 psi
1 1/4	Unique®	Fio 616	12S4				25.0 grs 8800 psi
1 1/4	Unique®	Win 209	WAA 12F114				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 HEAVY LOADS							
12 Gauge 2 3/4 inch Remington Plastic Shells (STS, Nitro 27, Premier RXP and Gun Club)							
Shot	Powder	Primer	Wad	Charge Weight(grains) / Velocity(fps) & Pressure(psi)			
(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	WAA 12 & 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	WAA 12 & DRA12 & DRXL 1 1/8		27.0 grs 8800 psi		

continued

**12 Gauge 2 3/4 inch 1 1/8, 1 1/4 and 1 3/8 Heavy Loads continued**

12 Gauge 2 3/4 inch Remington Plastic Shells (STS, Nitro 27, Premier RXP and Gun Club) continued							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(oz)				1275 fps	1310 fps	1330 fps	1375 fps
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	WAA 12F114	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		
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**

12 Gauge 2 3/4 inch Federal Gold Medal Plastic Target Shells							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(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	WAA 12 (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	WAA 12 (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		

continued

**12 Gauge 2 3/4 inch 1 1/8, 1 1/4 and 1 3/8 Heavy Loads continued**

12 Gauge 2 3/4 inch Federal Gold Medal Plastic Target Shells continued							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(oz)				1275 fps	1310 fps	1350 fps	1440 fps
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 Paper Target Shells**

12 Gauge 2 3/4 inch Federal Paper Target Shells							
Shot	Powder	Primer	Wad	Charge Weight (grains)/ Velocity (fps) & Pressure (psi)			
(oz)				1310 fps	1330 fps	1400 fps	1450 fps
1 1/8	Herco®	Fed 209A	WAA 12F114			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	WAA 12F114		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**

12 Gauge 2 3/4 inch Winchester AA Plastic Shells							
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)			
(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	WAA 12 & DRA12 & DRXL 1 1/8	25.5 grs 9700 psi			
1 1/8	Unique®	Rem 209P	WAA 12 & 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	WAA 12 & DRA12 & DRXL 1 1/8	25.5 grs 10000 psi			
1 1/8	Herco®	Rem 209P	WAA 12 & 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			

continued

**12 Gauge 2 3/4 inch 1 1/8, 1 1/4 and 1 3/8 Heavy Loads continued**

12 Gauge 2 3/4 inch Winchester AA Plastic Shells continued						
Shot	Powder	Primer	Wad	Charge Weight(grains) / Velocity (fps) & Pressure (psi)		
(oz)				1300 fps	1350 fps	1375 fps
1 1/8	Herco®	Win 209	WAA 12 & DRA12 & DRXL 1 1/8	26.5 grs 9300 psi		
1 1/4	Herco®	Rem 209P	WAA 12F114	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	
1 1/4	Blue Dot®	Win 209	WAA 12R		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	WAA 12 & 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	WAA 12 & 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	WAA 12F114	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	WAA 12F114	30.0 grs 9200 psi		
1 1/4	Herco®	Win 209	WAA 12F114	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	WAA 12F114	39.5 grs 7500 psi		
1 1/4	Blue Dot®	Win 209	WAA 12F114	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 Hi Power Plasic Shells with Rolled Paper Base Wad						
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)		
(oz)				1155 fps	1245 fps	1300 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	WAA 12(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	WAA 12(White)			38.0 grs 8800 psi
1 3/8	Blue Dot®	Fed 209A	12S4			
1 3/8	Blue Dot®	Fed 209A	SP 12			
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	WAA 12(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 Plasic 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	WAA 12(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	WAA 12(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 High Power Plastic with 7/16 Fiber Base Wad						
Shot	Powder	Primer	Wad	Charge Weight(grains)/ Velocity (fps) & Pressure (psi)		
(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 Shotshell Load Data continued**

12 Gauge 3 inch Fiocchi Plastic Shells							
Shot	Powder	Primer	Wad	Charge Weight(grains) / Velocity (fps) & Pressure (psi)			
(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	WAA 12(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	
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	WAA 12 (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	WAA 12 (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	Charge Weight (grains) / Velocity (fps) & Pressure (psi)		
(oz)				1150 fps	1200 fps	1220 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	WAA 12 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	WAA 12 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
2	Blue Dot®	CCI 209M	WAA 12 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	WAA 12F114	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	WAA 12 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	WAA 12 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	WAA 12 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	WAA 12 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	

continued

**12 Gauge 3 1/2 inch Shotshell Load Data continued**

12 Gauge 3 1/2 inch Winchester Plastic Shells continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1150 fps	1200 fps	1220 fps	1255 fps	
1 7/8	Blue Dot®	Win 209	WAA 12 SL		38.5 grs 10000 psi			
1 7/8	Blue Dot®	CCI 209M	WAA 12 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	WAA 12 SL			40.0 grs 10800 psi		
2	Blue Dot®	CCI 209M	WAA 12 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	WAA 12 SL		40.0 grs 11200 psi			
2 1/4	Blue Dot®	Win 209	SP 12	37.0 grs 11200 psi				

**16 GAUGE 2 3/4 INCH SHOTSHELL LOAD DATA**

16 Gauge 2 3/4 inch Federal Plastic Hi Power Shells with Paper Base Wad								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(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 Plasic Shells (STS)								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1155 fps	1200 fps	1250 fps	1290 fps	
3/4	American Select®	Rem 209P	RXP 20		13.5 gr 10,320 psi	14.0 grs 11,330 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	CB1078-20		14.0 grs. 9810 psi	15.0 grs 10510 psi		
7/8	20/28™	Rem 209P	Windjammer		15.5 grs 9150 psi	16.5 grs 10510 psi		

continued

**20 Gauge Shotshell Load Data continued**

20 Gauge 2 3/4 inch Remington Plasic Shells (STS) continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1155 fps	1200 fps	1250 fps	1290 fps	
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	CB1078-20			15.5 grs 10060 psi	16.5 grs 10720 psi	
7/8	20/28™	Rem 209P	Versalite			15.5 grs 9580 psi	16.5 grs 10860 psi	
7/8	20/28™	Win 209	CB1078-20			15.5 grs 10010 psi		
7/8	20/28™	Win 209	Windjammer			15.5 grs 9150 psi		
7/8	20/28™	Win 209	WAA 20			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	CB1078-20			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	WAA 20				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	CB1078-20			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	WAA 20				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	

continued

**20 Gauge Shotshell Load Data continued**

20 Gauge 2 3/4 inch Remington Plastic Shells (STS) continued								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1155 fps	1200 fps	1250 fps	1290 fps	
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			
20 Gauge 2 3/4 inch Winchester AA Plastic Shells								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(oz)				1155 fps	1200 fps	1250 fps	1290 fps	
3/4	American Select®	Win 209	WAA 20		13.5 grs 10510 psi	14.5 grs 11800 psi		
3/4	American Select®	Win 209	CB1078-20		14.0 grs 10540 psi	14.5 grs 11800 psi		
3/4	Green Dot®	Win 209	WAA 20		14.5 grs 9940 psi	15.0 grs 10650 psi		
3/4	Green Dot®	Win 209	CB1078-20		14.0 grs 9930 psi	15.0 grs 10860 psi		
3/4	Unique®	Win 209	CB1078-20			17.0 grs 9980 psi		
7/8	20/28™	Win 209	WAA 20		15.5 grs 8880 psi	16.5 grs 9740 psi		
7/8	20/28™	Win 209	CB1078-20		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	CB1078-20		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	WAA 20		15.5 grs 9890 psi			
7/8	Unique®	Win 209	WAA 20	15.0 grs 10200 psi				
7/8	Unique®	Win 209	CB1078-20	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	WAA 20F1	15.0 grs 11000 psi	15.5 grs 11200 psi			
7/8	Herco®	Win 209	CB1078-20	16.0 grs 10500 psi	16.5 grs 11000 psi			
7/8	Herco®	Win 209	WAA 20F1	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 11620psi			
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	WAA 20F1			23.0 grs 11500 psi		

**20 Gauge Shotshell Load Data continued**

20 Gauge 2 3/4 inch Federal Plastic Target Shells								
Shot	Powder	Primer	Wad	Charge Weight (grains) / Velocity (fps) & Pressure (psi)				
(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	WAA 20			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	WAA 20			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	WAA 20			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	

**28 GAUGE SHOTSHELL LOAD DATA**

28 Gauge 2 3/4 inch Remington Plastic Shells (STS, Premier)								
Shot (oz)	Powder	Primer	Wad	Charge Weight(grains)/Velocity (fps) & Pressure (psi)				
				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	Green Dot®	Rem 209P	PT-28	12.0 grs 10500 psi				
3/4	Green Dot®	Rem 209P	WAA 28	12.0 grs 10300 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 Shotshell Load Data continued**

<b>28 Gauge 2 3/4 inch Winchester AA Plastic Shells</b>						
Shot (oz)	Powder	Primer	Wad	Charge Weight(grains)/ Velocity (fps) & Pressure (psi)		
				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	Green Dot®	Win 209	CB-1034-28	12.5 grs 11900 psi		
3/4	Herco®	Win 209	Win AA -HS	14.0 grs 10900 psi		

<b>28 Gauge 2 3/4 inch Federal Plastic Target Shells</b>						
Shot (oz)	Powder	Primer	Wad	Charge Weight(grains)/ Velocity (fps) & Pressure (psi)		
				1200 fps	1250 fps	1290 fps
3/4	20/28™	Fed 209A	28S1	12.5 grs 11420 psi		
3/4	20/28™	Fed 209A	PT-28	13.0 grs 11300 psi		
3/4	20/28™	Fed 209A	Duster 2834	12.6 grs 10460 psi	13.5 grs 11910 psi	
3/4	20/28™	Fed 209A	CB 5034-HS	13.0 grs 10560 psi	13.5 grs 12080 psi	

**410 BORE SHOTSHELL LOAD DATA**

<b>410 Bore 2 1/2 inch Remington Plastic Shells (STS, Premier)</b>						
Shot (oz)	Powder	Primer	Wad	Charge Weight(grains)/ Velocity (fps) & Pressure (psi)		
				1200 fps	1230 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	CB1050-41	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		

<b>410 Bore 2 1/2 inch Winchester AA (HS) Plastic Shells (HS)</b>						
Shot (oz)	Powder	Primer	Wad	Charge Weight(grains)/ Velocity (fps) & Pressure (psi)		
				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	CB1050-41	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	410™	Win 209	Fed 410 SC	11.0 grs 11600 psi		
1/2	2400®	Win 209	WAA41	13.0 grs 11700 psi		

<b>410 Bore 2 1/2 inch Federal Plastic Target Shells</b>						
Shot (oz)	Powder	Primer	Wad	Charge Weight(grains)/ Velocity (fps) & Pressure (psi)		
				1200 fps	1230 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	CB1050-41	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	

**410 Bore Shotshell Load Data continued**

<b>410 Bore 2 1/2 inch Federal Plastic Target Shells</b> continued						
Shot (oz)	Powder	Primer	Wad	Charge Weight(grains)/ Velocity (fps) & Pressure (psi)		
				1200 fps	1230 fps	
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	

**CLEAN BREAKS START HERE**



When the goal is to bust that little orange clay into smithereens, trust Alliant Powder to uphold their end of the bargain. Engineered to give optimum performance on targets, Alliant Powder puts 125 years of experience into every propellant they make. From the #1 premium clay target powder (Red Dot®), the most versatile (Unique®) and the most consistent in temperature/humidity extremes (e3®) to low felt recoil (Green Dot®), ultra clean (American Select®) and a brand new powder for sub-gauge shooters (20/28®), Alliant Powder manufactures a broad range of propellants that increase your success at the line, on the bench and in the field.

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# CENTERFIRE METALLIC LOADS

COWBOY ACTION HANDGUN LOAD DATA						
32 S&W Long						
Cartridge/Bullet	Powder	Primer	Case	OAL	Max Wgt	Velocity
					grains	fps
90 gr RCBS mould # 82303	Bullseye	CCI 500	Remington	1.190"	2.3	794
90 gr RCBS mould # 82303	Red Dot	CCI 500	Remington	1.190"	2.3	769
98 gr RCBS mould # 82061	Bullseye	CCI 500	Remington	1.280"	2.3	770
98 gr RCBS mould # 82061	Unique	CCI 500	Remington	1.280"	2.8	769
98 gr RCBS mould # 82061	2400	CCI 500	Remington	1.280"	5.6	801
32-20 Win						
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	Remington	1.450"	4.8	1024
125 gr Oregon Trails lead	Am Select	Rem 1 1/2	Remington	1.450"	4.7	989
125 gr Meister RNFP	Red Dot	Rem 1 1/2	Remington	1.450"	4.6	1025
125 gr Meister RNFP	Unique	Rem 1 1/2	Remington	1.450"	6	1075
140 gr Hornady FP lead	Bullseye	Rem 1 1/2	Remington	1.450"	4.5	945
140 gr Hornady FP lead	Red Dot	Rem 1 1/2	Remington	1.450"	4.5	960
140 gr Hornady FP lead	Am Select	Rem 1 1/2	Remington	1.450"	4.5	988
140 gr Hornady FP lead	Unique	Rem 1 1/2	Remington	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 Mag						
125 gr Oregon Trails lead	Am Select	Fed 100	Remington	1.580"	3.9	856
140 gr Hornady FP lead	Am Select	Fed 100	Remington	1.540"	3.6	825
140 gr Hornady FP lead	Unique	Fed 100	Remington	1.540"	4	820
158 gr RN lead	Am Select	Fed 100	Remington	1.585"	4	840
158 gr RN lead	Unique	Fed 100	Remington	1.585"	4.5	859
38-40 Win						
180 gr RCBS mould # 82306	Bullseye	CCI 300	Winchester	1.575"	5.3	810
180 gr RCBS mould # 82306	Red Dot	CCI 300	Winchester	1.575"	5.2	817
180 gr RCBS mould # 82306	Am Select	CCI 300	Winchester	1.575"	5.2	788
180 gr RCBS mould # 82306	Unique	CCI 300	Winchester	1.575"	7.4	846

continued

## Cowboy Action Handgun Load Data continued

44 Russian						
Cartridge/Bullet	Powder	Primer	Case	OAL	Max Wgt	Velocity
				grains	fps	
200 gr RCBS mould # 82307	Bullseye	CCI 300	Starline	1.245"	4	826
200 gr RCBS mould # 82307	Red Dot	CCI 300	Starline	1.245"	3.8	796
200 gr RCBS mould # 82307	Am 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	Remington	1.435"	6.4	1032
200 gr RCBS mould # 82307	Red Dot	CCI 300	Remington	1.435"	6	999
200 gr RCBS mould # 82307	Am Select	CCI 300	Remington	1.435"	5.8	933
200 gr RCBS mould # 82307	Unique	CCI 300	Remington	1.435"	8.7	1143
44-40 Win						
200 gr RCBS mould # 82307	Bullseye	CCI 300	Remington	1.580"	6.1	885
200 gr RCBS mould # 82307	Red Dot	CCI 300	Remington	1.580"	5.9	866
200 gr RCBS mould # 82307	Am Select	CCI 300	Remington	1.580"	6	856
200 gr RCBS mould # 82307	Unique	CCI 300	Remington	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	Am 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	Winchester	1.585"	6	815
230 gr RCBS mould # 82308	Am Select	CCI 300	Winchester	1.585"	6	782
230 gr RCBS mould # 82308	Unique	CCI 300	Winchester	1.585"	8.5	850
PISTOL/REVOLVER LOAD DATA						
221 Fireball						
Cartridge/Bullet	Powder	Primer	Case	OAL	Max Chg	Velocity
				grains	fps	
45 gr Speer	2400	CCI 400	Remington	1.830"	15	2762
45 gr Speer	RL 7	CCI 400	Remington	1.830"	18.3	2775
50 gr Speer TNT	2400	CCI 400	Remington	1.830"	14.5	2693
50 gr Speer TNT	RL 7	CCI 400	Remington	1.830"	17.9	2638
52 gr Speer HP	2400	CCI 400	Remington	1.830"	14.3	2607
52 gr Speer HP	RL 7	CCI 400	Remington	1.830"	17.7	2606
25 Auto						
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

Pistol/Revolver Load Data continued

32 Auto						
Cartridge/Bullet	Powder	Primer	Case	OAL	Max chg	Velocity
				grains	fps	
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/.920"	Bullseye	CCI 500	Remington	.924	1.8	777
32 H&R Magnum						
85 gr Speer JHP	Bullseye	CCI 500	Federal	1.340"	3.9	1162
85 gr Speer JHP	Unique	CCI 500	Federal	1.340"	4.7	1240
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
98 gr HBWC	Bullseye	CCI 500	Federal	1.075	2.3	810
380 Auto						
90 gr Speer GDHP	Bullseye	CCI 500	Winchester	.970"	3.4	981
90 gr Speer GDHP	Unique	CCI 500	Winchester	.970"	4.6C	1034
90 gr Speer GDHP	Power Pistol	CCI 500	Winchester	.970"	4.8C	1020
9mm Luger						
115 gr Speer GDHP	Bullseye	CCI 500	Speer	1.125"	4.7	1144
115 gr Speer GDHP	Am. 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	Am. Select	CCI 500	Speer	1.120"	5	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	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	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
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

C = Compressed Charge

Pistol/Revolver Load Data continued

38 Super Auto +P						
Cartridge/Bullet	Powder	Primer	Case	OAL	Max Chg	Velocity
				grains	fps	
115 gr Speer GDHP	Herco	CCI 500	Winchester	1.260"	7.8C	1276
115 gr Speer GDHP	Blue Dot	CCI 500	Winchester	1.260"	10.0C	1362
124 gr Speer GDHP	Bullseye	CCI 500	Winchester	1.260"	5.2	1158
124 gr Speer GDHP	Unique	CCI 500	Winchester	1.260"	6.2	1208
124 gr Speer GDHP	Herco	CCI 500	Winchester	1.260"	7.3	1272
124 gr Speer GDHP	Blue Dot	CCI 500	Winchester	1.260"	9.2	1312
38 Special						
148 gr Speer HBWC	Bullseye	CCI 500	Speer	Flush	3.1	799
148 gr Speer HBWC	Red Dot	CCI 500	Speer	Flush	3	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
110 gr Speer GDHP	Bullseye	CCI 500	Speer	1.455"	4.6	990
110 gr Speer GDHP	Am 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	Am 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
38 Special +P						
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	1037
110 gr Speer GDHP	Bullseye	CCI 500	Speer	1.445"	5.2	1098
110 gr Speer GDHP	Am 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	Am Select	CCI 500	Speer	1.440"	4.7	931
125 gr Speer GDHP	Unique	CCI 500	Speer	1.440"	6	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 JHP-SWC	Unique	CCI 500	Speer	1.370"	5.1	957

continued

C = Compressed Charge

**Pistol/Revolver Load Data continued**

Cartridge/Bullet	Powder	Primer	Case	OAL	Max Chg	Velocity
				grains	fps	
146 gr JHP-SWC	Power Pistol	CCI 500	Speer	1.370"	5.5	935
146 gr JHP-SWC	Blue Dot	CCI 500	Speer	1.370"	7.1	1000
146 gr JHP-SWC	2400	CCI 500	Speer	1.370"	9	952
<b>357 Magnum</b>						
158 gr Speer LSWC	Bullseye	CCI 500	Speer	1.570"	4.8	939
158 gr Speer LSWC	Unique	CCI 500	Speer	1.570"	6	1034
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	1680
110 gr Speer UCHP	2400	CCI 500	Speer	1.575"	19.5	1670
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	1377
140 gr Speer UCHP	Unique	CCI 500	Speer	1.560"	8	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 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
170 fr Speer GDSP	Blue Dot	CCI 500	Speer	1.590"	9.4	1002
170 fr 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	1023
155 gr Speer GDHP	Am Select	CCI 500	Speer	1.120"	5.6	1001
155 gr Speer GDHP	Unique	CCI 500	Speer	1.120"	8	1207
155 gr Speer GDHP	Power Pistol	CCI 500	Speer	1.120"	9	1213
155 gr Speer GDHP	Blue Dot	CCI 500	Speer	1.120"	11	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

**Pistol/Revolver Load Data continued**

40 S&W continued						
Cartridge/Bullet	Powder	Primer	Case	OAL	Max Chg	Velocity
				grains	fps	
180 gr Speer GDHP	Bullseye	CCI 500	Speer	1.120"	5.5	929
180 gr Speer GDHP	Am 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	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	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	1138
180 gr Speer GDHP	Blue Dot	CCI 300	Hornady	1.250"	11	1295
180 gr Speer GDHP	2400	CCI 300	Hornady	1.250"	12.8	1214
<b>41 Rem Magnum</b>						
200 gr Speer JHP-SWC	Unique	CCI 300	Winchester	1.590"	9	1181
200 gr Speer JHP-SWC	2400	CCI 300	Winchester	1.590"	16.8	1311
210 gr Speer GDHP	Unique	CCI 300	Winchester	1.575"	9.7	1123
210 gr Speer GDHP	2400	CCI 300	Winchester	1.575"	19	1223
<b>44 S&amp;W Special</b>						
225 gr cast SWC GC	Bullseye	CCI 300	Remington	1.500"	5.5	903
225 gr cast SWC GC	Unique	CCI 300	Remington	1.500"	7.8	1043
225 gr cast SWC GC	Power Pistol	CCI 300	Remington	1.500"	7.7	952
240 gr Speer LSWC	Bullseye	CCI 300	Remington	1.475"	5.2	793
240 gr Speer LSWC	Unique	CCI 300	Remington	1.475"	6.3	820
250 gr cast (Keith)	Bullseye	CCI 300	Remington	1.580"	5.3	835
250 gr cast (Keith)	Unique	CCI 300	Remington	1.580"	6.9	921
250 gr cast (Keith)	Power Pistol	CCI 300	Remington	1.580"	8	954
250 gr cast (Keith)	2400	CCI 300	Remington	1.580"	13	965
200 gr Speer GSHP	Bullseye	CCI 300	Remington	1.490"	5.9	884
200 gr Speer GSHP	Red Dot	CCI 300	Remington	1.490"	5.9	868
200 gr Speer GSHP	Am Select	CCI 300	Remington	1.490"	5.7	821
200 gr Speer GSHP	Unique	CCI 300	Remington	1.490"	7.8	855
200 gr Speer GSHP	Power Pistol	CCI 300	Remington	1.490"	8.6	976
240 gr Speer JHP	Unique	CCI 300	Remington	1.465"	7.6	836

Pistol/Revolver Load Data continued

44 S&W Special continued						
Cartridge/Bullet	Powder	Primer	Case	OAL	Max Chg	Velocity
				grains	fps	
240 gr Speer JHP	Power Pistol	CCI 300	Remington	1.465"	7.6	819
240 gr Speer JHP	Blue Dot	CCI 300	Remington	1.465"	10.2	871
44 Rem Magnum						
225 gr cast SWC GC	Unique	CCI 300	Speer	1.635"	11	1259
225 gr cast SWC GC	2400	CCI 300	Speer	1.635"	21	1482
240 gr cast LSWC	Bullseye	CCI 300	Speer	1.605"	6	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	901
240 gr cast LSWC	Unique	CCI 300	Speer	1.605"	7	899
250 gr cast (Keith)	Unique	CCI 300	Speer	1.710"	11	1211
250 gr cast (Keith)	2400	CCI 300	Speer	1.710"	20	1390
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	1495
200 gr Speer Mag JHP	2400	CCI 300	Speer	1.590"	24	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
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	1434
270 gr Speer GDHP	2400	CCI 300	Speer	1.585"	17.5	1182
300 G Speer UCSP	2400	CCI 300	Speer	1.665"	19	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
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
45 Auto						
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
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

continued

Pistol/Revolver Load Data continued

45 Auto continued						
Cartridge/Bullet	Powder	Primer	Case	OAL	Max Chg	Velocity
				grains	fps	
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
185 gr Speer GDHP	Bullseye	CCI 300	Speer	1.200"	6.4	986
185 gr Speer GDHP	Am 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 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 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						
200 gr Speer LSWC	Bullseye	CCI 300	Winchester	1.515"	7.5	988
200 gr Speer LSWC	Red Dot	CCI 300	Winchester	1.515"	7.3	1001
200 gr Speer LSWC	Green Dot	CCI 300	Winchester	1.515"	8.3	980
200 gr Speer LSWC	Unique	CCI 300	Winchester	1.515"	9.5	1061
200 gr Speer LSWC	Herco	CCI 300	Winchester	1.515"	9.5	1021
250 gr Speer LSWC	Bullseye	CCI 300	Winchester	1.600"	7	879
250 gr Speer LSWC	Unique	CCI 300	Winchester	1.600"	9.5	941
250 gr Speer LSWC	Blue Dot	CCI 300	Winchester	1.600"	12.9	1028
250 gr Speer LSWC	2400	CCI 300	Winchester	1.600"	15.4	972
200 gr Speer GDHP	Bullseye	CCI 300	Winchester	1.555"	7.9	994
200 gr Speer GDHP	Red Dot	CCI 300	Winchester	1.555"	7.6	981
200 gr Speer GDHP	Green Dot	CCI 300	Winchester	1.555"	8.8	991
200 gr Speer GDHP	Unique	CCI 300	Winchester	1.555"	9.8	1048
200 gr Speer GDHP	Power Pistol	CCI 300	Winchester	1.555"	9.2	885
200 gr Speer GDHP	Herco	CCI 300	Winchester	1.555"	10	1032
230 gr Speer GDHP	Bullseye	CCI 300	Winchester	1.600"	7.1	890
230 gr Speer GDHP	Unique	CCI 300	Winchester	1.600"	9	932
230 gr Speer GDHP	Power Pistol	CCI 300	Winchester	1.600"	9.5	878
230 gr Speer GDHP	Herco	CCI 300	Winchester	1.600"	9.4	918
230 gr Speer GDHP	Blue Dot	CCI 300	Winchester	1.600"	13	1036
250 gr Speer GDHP	Unique	CCI 300	Winchester	1.600"	7.8	840
250 gr Speer GDHP	Power Pistol	CCI 300	Winchester	1.600"	8.8	845

continued

**Pistol/Revolver Load Data continued**

45 Colt continued						
Cartridge/Bullet	Powder	Primer	Case	OAL	Max Chg	Velocity
				grains	fps	
250 gr Speer GDHP	2400	CCI 300	Winchester	1.600"	15	826
260 gr Speer JHP	Bullseye	CCI 300	Winchester	1.590"	7.1	841
260 gr Speer JHP	Power Pistol	CCI 300	Winchester	1.590"	8.4	852
260 gr Speer JHP	Blue Dot	CCI 300	Winchester	1.590"	13	941
454 Casull						
270 gr hard cast SWC	Unique	CCI 400	Starline	1.750"	11	1155
270 gr hard cast SWC	Power Pistol	CCI 400	Starline	1.750"	11	1114
250 gr Speer GDHP	2400	CCI 400	Starline	1.670"	26	1531
300 gr Speer UCSP	2400	CCI 400	Winchester	1.760"	24	1325
300 gr Speer GDHP	2400	CCI 400	Winchester	1.750"	27	1479
460 S&W Mag						
250 gr Speer GDHP	Power Pistol	Fed 210	Hornady	2.090"	21	1514
250 gr Speer GDHP	2400	Fed 210	Hornady	2.090"	31	1553
300 gr Speer UCSP	Power Pistol	Fed 210	Hornady	2.170"	20	1359
300 gr Speer UCSP	2400	Fed 210	Hornady	2.170"	30	1551
300 gr Speer GDHP	Power Pistol	Fed 210	Hornady	2.150"	24	1525
300 gr Speer GDHP	2400	Fed 210	Hornady	2.150"	36	1782
480 Ruger						
275 gr Speer GDHP	Unique	CCI 300	Hornady	1.640"	16	1400
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	1560
325 gr Speer GDSP	Unique	CCI 300	Hornady	1.650"	13	1178
325 gr Speer GDSP	2400	CCI 300	Hornady	1.650"	25	1435
400 gr Speer GDSP	2400	CCI 300	Hornady	1.650"	18	1081
500 S&W Mag						
350 gr Speer UCSP	Power Pistol	Fed 215	Starline	2.250"	27	1564
350 gr Speer UCSP	2400	Fed 215	Starline	2.250"	42	1642
CENTERFIRE RIFLE LOAD DATA						
.17 Remington						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				Grains	fps	
Horn. 55 gr HP	Reloder® 15	Rem 7 1/2	Remington	2.14	22.8	3915
.218 Bee						
Speer 45 gr FNSP	2400®	CCI 400	Winchester	1.655	8.3	2151

**Centerfire Rifle Load Data continued**

.221 Fireball						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				Grains	fps	
Speer 40 gr SP	2400®	Rem 7 1/2	Remington	1.8	15.5	2700
Sierra 50 gr Spitzer	2400®	Rem 7 1/2	Remington	1.8	13.8	2410
Sierra 60 gr Spitzer	2400®	Rem 7 1/2	Remington	1.825	13.3	2200
Sierra 60 gr Spitzer	Reloder® 7	Rem 7 1/2	Remington	1.825	18.1	2250
.22 Hornet						
Speer 33 gr TNT HP	2400®	CCI 500	Winchester	1.68	11.5C	2985
Speer 40 gr SP	2400®	CCI 500	Winchester	1.723	9.1	2557
Speer 40 gr SP	Reloder® 7	CCI 500	Winchester	1.723	11	2265
Speer 45 gr SP	2400®	CCI 500	Winchester	1.723	9	2506
Speer 45 gr SP	Reloder® 7	CCI 500	Winchester	1.723	10.6	2170
.222 Remington						
Speer 40 gr SP	Reloder® 7	CCI 400	Remington	2.04	22	3617
Speer 40 gr SP	Reloder® 10X	CCI 400	Remington	2.04	23	3346
Speer 45 gr SP	Reloder® 7	CCI 400	Remington	2.13	21.5	3424
Speer 45 gr SP	Reloder® 10X	CCI 400	Remington	2.13	22	3163
Nosler 50 gr BT	Reloder® 10X	Rem 6 1/2	Remington	2.11	21	3023
Speer 52 gr HP	Reloder® 7	CCI 400	Remington	2.11	20	3115
Speer 55 gr SP	Reloder® 7	CCI 400	Remington	2.13	20	3045
.223 Remington						
Speer 40 gr SP	Reloder® 7	CCI 400	IMI	2.06	20.5	3011
Speer 40 gr SP	Reloder® 10X	CCI 400	IMI	2.06	24.5	3481
Speer 45 gr SP	Reloder® 7	CCI 400	IMI	2.155	20	3059
Speer 45 gr SP	Reloder® 10X	CCI 400	IMI	2.155	24	3292
Nosler 50 gr BT	Reloder® 10X	WSR	Winchester	2.2	24.2	3389
Nosler 50 gr BT	Reloder® 15	WSR	Winchester	2.2	28	3356
Speer 52 gr HP	Reloder® 7	CCI 400	IMI	2.2	20.5	2931
Speer 52 gr HP	Reloder® 10X	CCI 400	IMI	2.2	22.5	3179
Speer 55 gr SP	Reloder® 10X	CCI 400	IMI	2.175	23	3159
Speer 62 gr FMJ	Reloder® 15	CCI 400	IMI	2.255	25.0C	2832
Sierra 69 gr HPBT	Reloder® 15	Fed 205M	Winchester	2.26	25.5	2956
Sierra 77 gr HPBT	Reloder® 15	Fed 205M	Winchester	2.26	24.1	2783
22-250 Remington						
Speer 40 gr SP	Reloder® 10X	CCI 200	Remington	2.235	35.5	4164
Speer 40 gr SP	Reloder® 15	CCI 200	Remington	2.235	40	4027
Speer 45 gr SP	Reloder® 10X	CCI 200	Remington	2.235	34.5	3974
Speer 45 gr SP	Reloder® 15	CCI 200	Remington	2.235	39	3897
Hornady 50 gr V Max	Reloder® 15	Win LRP	Remington	2.35	38.1	3916

continued

C = Compressed Charge

Centerfire Rifle Load Data continued

22-250 Remington continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				Grains	fps	
Speer 52 gr HP	Reloder® 10X	CCI 200	Remington	2.35	33	3744
Speer 52 gr HP	Reloder® 15	CCI 200	Remington	2.35	37.5	3662
Hornady 55 gr V Max	Reloder® 15	Win LRP	Remington	2.35	37.5	3775
Hornady 55 gr V Max	Reloder® 19	Win LRP	Remington	2.35	43	3540
Speer 55 gr TBBC SP	Reloder® 15	CCI 200	Remington	2.235	37	3621
Speer 70 gr SP	Reloder® 7	CCI 200	Remington	2.33	25	2753
220 Swift						
Speer 40 gr SP	Reloder® 15	CCI 200	Winchester	2.625	41	3996
Speer 40 gr SP	Reloder® 19	CCI 200	Winchester	2.625	46.0C	3746
Speer 45 gr SP	Reloder® 15	CCI 200	Winchester	2.65	41.5	4010
Speer 45 gr SP	Reloder® 19	CCI 200	Winchester	2.65	46.0C	3732
Speer 52 gr HP	Reloder® 15	CCI 200	Winchester	2.68	39.5	3742
Speer 52 gr HP	Reloder® 19	CCI 200	Winchester	2.68	46.0C	3645
Speer 55 gr SP	Reloder® 15	CCI 200	Winchester	2.65	39	3656
Speer 55 gr SP	Reloder® 19	CCI 200	Winchester	2.65	46.0C	3710
Speer 70 gr SP	Reloder® 15	CCI 200	Winchester	2.57	36	3231
Speer 70 gr SP	Reloder® 19	CCI 200	Winchester	2.57	42.0C	3219
.223 WSM						
Speer 50 gr SP	Reloder® 10X	Fed 210	Winchester	2.1	38.5	3929
Speer 50 gr SP	Reloder® 15	Fed 210	Winchester	2.1	44.5	4036
Speer 55 gr SP	Reloder® 15	Fed 210	Winchester	2.21	42.5	3867
Speer 55 gr SP	Reloder® 19	Fed 210	Winchester	2.21	49.5C	3746
Speer 70 gr SP	Reloder® 19	Fed 210	Winchester	2.08	45.5	3478
Speer 70 gr SP	Reloder® 22	Fed 210	Winchester	2.08	47.5	3523
6 mm PPC						
Speer 75 gr HP	Reloder® 7	CCI BR4	Sako	2.115	25	3011
Speer 80 gr SP	Reloder® 7	CCI BR4	Sako	2.115	24.5	2897
Speer 85 gr BTSP	Reloder® 7	CCI BR4	Sako	2.115	24	2863
243 Winchester						
Speer 70 gr HP	Reloder® 10X	Fed 210	Winchester	2.625	36.5	3421
Speer 70 gr HP	Reloder® 15	Fed 210	Winchester	2.625	43.5	3506
Speer 75 gr HP	Reloder® 10X	Fed 210	Winchester	2.59	36	3240
Speer 75 gr HP	Reloder® 15	Fed 210	Winchester	2.59	43	3400
Speer 80 gr SP	Reloder® 10X	Fed 210	Winchester	2.615	35	3162
Speer 80 gr SP	Reloder® 15	Fed 210	Winchester	2.615	41.5	3310
Speer 80 gr SP	Reloder® 19	Fed 210	Winchester	2.615	48.0C	3182
Speer 85 gr BTSP	Reloder® 10X	Fed 210	Winchester	2.625	35	3122

C = Compressed Charge

continued

Centerfire Rifle Load Data continued

243 Winchester continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				Grains	fps	
Speer 85 gr BTSP	Reloder® 15	Fed 210	Winchester	2.625	41	3218
Speer 85 gr BTSP	Reloder® 19	Fed 210	Winchester	2.625	48.0C	3182
Speer 90 gr SP	Reloder® 15	Fed 210	Winchester	2.625	38	3020
Speer 90 gr SP	Reloder® 19	Fed 210	Winchester	2.625	47.0C	3079
Speer 90 gr SP	Reloder® 22	Fed 210	Winchester	2.625	48.0C	3063
Speer 100 gr BTSP	Reloder® 15	Fed 210	Winchester	2.625	34	2691
Speer 100 gr BTSP	Reloder® 19	Fed 210	Winchester	2.625	43.5	2903
Speer 100 gr BTSP	Reloder® 22	Fed 210	Winchester	2.625	45.5	2966
6 mm Remington						
Speer 70 gr HP	Reloder® 19	CCI 200	Remington	2.775	53.0C	3507
Speer 70 gr HP	Reloder® 22	CCI 200	Remington	2.775	54.0C	3497
Speer 75 gr HP	Reloder® 19	CCI 200	Remington	2.775	52.0C	3440
Speer 75 gr HP	Reloder® 22	CCI 200	Remington	2.775	53.0C	3474
Speer 80 gr SP	Reloder® 19	CCI 200	Remington	2.75	51.0C	3368
Speer 80 gr SP	Reloder® 22	CCI 200	Remington	2.75	53.0C	3344
Speer 85 gr BTSP	Reloder® 19	CCI 200	Remington	2.775	50.5C	3269
Speer 85 gr BTSP	Reloder® 22	CCI 200	Remington	2.775	52.0C	3285
Speer 90 gr SP	Reloder® 19	CCI 200	Remington	2.775	47	3063
Speer 90 gr SP	Reloder® 22	CCI 200	Remington	2.775	51.0C	3258
Speer 100 gr BTSP	Reloder® 19	CCI 200	Remington	2.78	45	2835
Speer 100 gr BTSP	Reloder® 22	CCI 200	Remington	2.78	47	2971
243 WSM						
Speer 70 gr HP	Reloder® 15	Fed 210	Winchester	2.25	41	3478
Speer 70 gr HP	Reloder® 19	Fed 210	Winchester	2.25	49.5C	3464
Speer 75 gr HP	Reloder® 15	Fed 210	Winchester	2.165	41	3478
Speer 75 gr HP	Reloder® 19	Fed 210	Winchester	2.165	49.5C	3464
Speer 80 gr SP	Reloder® 15	Fed 210	Winchester	2.255	40.5	3386
Speer 80 gr SP	Reloder® 19	Fed 210	Winchester	2.255	48.5C	3432
Speer 85 gr BTSP	Reloder® 15	Fed 210	Winchester	2.255	39	3260
Speer 85 gr BTSP	Reloder® 19	Fed 210	Winchester	2.255	47.0C	3272
Speer 90 gr SP	Reloder® 19	Fed 210	Winchester	2.36	45	3218
Speer 90 gr SP	Reloder® 22	Fed 210	Winchester	2.36	46.5	3250
Speer 100 gr BTSP	Reloder® 19	Fed 210	Winchester	2.36	40.5	2915
Speer 100 gr BTSP	Reloder® 22	Fed 210	Winchester	2.36	43.5	3004
257 Roberts						
Sierra 75 gr HP	Reloder® 15	Win LRP	Winchester	2.775	41.8	3340
Speer 87 gr Spitzer	Reloder® 15	Win LRP	Winchester	2.775	41	3185

continued

C = Compressed Charge

Centerfire Rifle Load Data continued

257 Roberts continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 100 gr Spitzer	Reloder® 19	Win LRP	Winchester	2.775	44.7	2930
Sierra 120 gr BTHP	Reloder® 22	Win LRP	Winchester	2.775	44	2785
25-06 Remington						
Speer 87 gr SP	Reloder® 15	CCI 200	Remington	3.115	47	3268
Speer 87 gr SP	Reloder® 19	CCI 200	Remington	3.115	60.0C	3452
Speer 100 gr SP	Reloder® 19	CCI 200	Remington	3.095	57	3226
Speer 100 gr SP	Reloder® 22	CCI 200	Remington	3.095	58	3248
Speer 100 gr SP	Reloder® 25	CCI 200	Remington	3.095	60.0C	3224
Speer 115 gr SP	Reloder® 22	CCI 200	Remington	3.2	52	3054
Speer 115 gr SP	Reloder® 25	CCI 200	Remington	3.2	56	3155
Sierra 120 gr BTSP	Reloder® 22	CCI 200	Remington	3.2	52	2931
Sierra 120 gr BTSP	Reloder® 25	CCI 200	Remington	3.2	58.0C	3071
25 WSM						
Speer 87 gr SP	Reloder® 10X	CCI 200	Winchester	2.27	39	3313
Speer 87 gr SP	Reloder® 15	CCI 200	Winchester	2.27	45.5	3428
Speer 87 gr SP	Reloder® 19	CCI 200	Winchester	2.27	52.0C	3333
Speer 100 gr SP	Reloder® 10X	CCI 200	Winchester	2.27	35	2984
Speer 100 gr SP	Reloder® 15	CCI 200	Winchester	2.27	41.5	3110
Speer 100 gr SP	Reloder® 19	CCI 200	Winchester	2.27	49.5C	3180
Sierra 120 gr BTSP	Reloder® 10X	CCI 200	Winchester	2.27	31.5	2607
Sierra 120 gr BTSP	Reloder® 15	CCI 200	Winchester	2.27	38	2792
Sierra 120 gr BTSP	Reloder® 19	CCI 200	Winchester	2.27	46.0C	2914
257 Weatherby Magnum						
Speer 87 gr SP	Reloder® 19	CCI 250	Federal	3.15	68	3637
Speer 87 gr SP	Reloder® 22	CCI 250	Federal	3.15	71	3661
Speer 87 gr SP	Reloder® 25	CCI 250	Federal	3.15	73.0C	3670
Speer 100 gr SP	Reloder® 19	CCI 250	Federal	3.15	65	3405
Speer 100 gr SP	Reloder® 22	CCI 250	Federal	3.15	68	3450
Speer 100 gr SP	Reloder® 25	CCI 250	Federal	3.15	73	3545
Sierra 120 gr BTSP	Reloder® 22	CCI 250	Federal	3.17	63	3120
Sierra 120 gr BTSP	Reloder® 25	CCI 250	Federal	3.17	67	3236
6.5 X 55 Swedish Mauser (military)						
Speer 120 gr SP	Reloder® 19	CCI 200	Remington	3	41	2655
Speer 120 gr SP	Reloder® 22	CCI 200	Remington	3	42	2670
6.5 X 55 Swedish Mauser (commercial action)						
Speer 120 gr SP	Reloder® 19	CCI 200	Remington	3	46	2820

C = Compressed Charge

Centerfire Rifle Load Data continued

6.5 X 55 Swedish Mauser (commercial action) continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 120 gr SP	Reloder® 22	CCI 200	Remington	3	46	2830
Speer 140 gr SP	Reloder® 19	CCI 200	Remington	3	45	2616
Speer 140 gr SP	Reloder® 22	CCI 200	Remington	3	45	2655
260 Remington						
Speer 90 gr HP	Reloder® 15	CCI 200	Remington	2.65	45.5	3311
Speer 90 gr HP	Reloder® 19	CCI 200	Remington	2.65	50.0C	2985
Speer 120 gr SP	Reloder® 15	CCI 200	Remington	2.72	39	2819
Speer 120 gr SP	Reloder® 19	CCI 200	Remington	2.72	48.0C	2950
Speer 140 gr SP	Reloder® 19	CCI 200	Remington	2.745	45.5C	2731
Speer 140 gr SP	Reloder® 22	CCI 200	Remington	2.745	46.0C	2701
6.8 mm Remington SPC						
Speer 90 gr HP	Reloder® 7	CCI 200	Remington	2.25	27.5	2983
Speer 90 gr HP	Reloder® 10X	CCI 200	Remington	2.25	29.5	2991
Speer 100 gr HP	Reloder® 7	CCI 200	Remington	2.25	26	2715
Speer 100 gr HP	Reloder® 10X	CCI 200	Remington	2.25	28.5C	2791
Speer 130 gr SP	Reloder® 10X	CCI 200	Remington	2.25	25.5C	2431
270 Winchester						
Speer 90 gr HP	Reloder® 15	CCI 200	Winchester	3.17	55	3511
Speer 90 gr HP	Reloder® 19	CCI 200	Winchester	3.17	64.0C	3341
Speer 100 gr HP	Reloder® 19	CCI 200	Winchester	3.1	62.0C	3220
Speer 130 gr SP	Reloder® 15	CCI 200	Winchester	3.24	45	2742
Speer 130 gr SP	Reloder® 19	CCI 200	Winchester	3.24	57	2904
Speer 130 gr SP	Reloder® 22	CCI 200	Winchester	3.24	58	2947
Speer 140 gr SP	Reloder® 19	CCI 200	Winchester	3.26	56	2923
Speer 140 gr SP	Reloder® 22	CCI 200	Winchester	3.26	56.5	2949
Speer 150 gr SP	Reloder® 19	CCI 200	Winchester	3.27	53	2745
Speer 150 gr SP	Reloder® 22	CCI 200	Winchester	3.27	54	2769
270 WSM						
Speer 100 gr HP	Reloder® 15	CCI 200	Winchester	2.73	62	3564
Speer 130 gr SP	Reloder® 19	CCI 200	Winchester	2.7	66	3088
Speer 130 gr SP	Reloder® 22	CCI 200	Winchester	2.7	66	3228
Speer 140 gr SP	Reloder® 19	CCI 200	Winchester	2.71	64	3088
Speer 140 gr SP	Reloder® 22	CCI 200	Winchester	2.71	65	3122
Speer 140 gr SP	Reloder® 25	CCI 200	Winchester	2.71	69	3179
Speer 150 gr SP	Reloder® 19	CCI 200	Winchester	2.67	60	2990
Speer 150 gr SP	Reloder® 22	CCI 200	Winchester	2.67	61	3009
Speer 150 gr SP	Reloder® 25	CCI 200	Winchester	2.67	64	3058

C = Compressed Charge

continued

Centerfire Rifle Load Data continued

270 Weatherby Magnum						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 100 gr HP	Reloder® 19	Fed 215	Federal	3.25	73	3570
Speer 100 gr HP	Reloder® 22	Fed 215	Federal	3.25	76.0C	3627
Speer 100 gr HP	Reloder® 25	Fed 215	Federal	3.25	77.0C	3478
Speer 130 gr SP	Reloder® 19	Fed 215	Federal	3.25	65	3176
Speer 130 gr SP	Reloder® 22	Fed 215	Federal	3.25	68	3214
Speer 130 gr SP	Reloder® 25	Fed 215	Federal	3.25	72	3267
Speer 150 gr SP	Reloder® 19	Fed 215	Federal	3.25	60	2903
Speer 150 gr SP	Reloder® 22	Fed 215	Federal	3.25	63	2942
Speer 150 gr SP	Reloder® 25	Fed 215	Federal	3.25	66	2966
264 Winchester Magnum						
Speer 120 gr SP	Reloder® 19	CCI 250	Winchester	3.3	59	3118
Speer 120 gr SP	Reloder® 22	CCI 250	Winchester	3.3	58	3140
Speer 120 gr SP	Reloder® 25	CCI 250	Winchester	3.3	63	3219
Speer 140 gr SP	Reloder® 19	CCI 250	Winchester	3.32	52	2822
Speer 140 gr SP	Reloder® 22	CCI 250	Winchester	3.32	53	2857
Speer 140 gr SP	Reloder® 25	CCI 250	Winchester	3.32	60	3005
7-30 Waters						
Speer 110 gr HP	Reloder® 15	CCI 200	Federal	2.55	37	2757
Speer 115 gr HP	Reloder® 15	CCI 200	Federal	2.55	35	2480
Speer 130 gr SP	Reloder® 15	CCI 200	Federal	2.55	35.5	2609
Speer 145 gr SP	Reloder® 15	CCI 200	Federal	2.55	35	2480
284 Winchester						
Speer 110 gr HP	Reloder® 15	CCI 200	Winchester	2.78	57	3384
Speer 110 gr HP	Reloder® 19	CCI 200	Winchester	2.78	62.0C	3159
7 MM Mauser						
Speer 110 gr HP	Reloder® 15	CCI 200	Remington	2.985	48	3093
Speer 115 gr HP	Reloder® 15	CCI 200	Remington	2.89	47	3024
Speer 115 gr HP	Reloder® 19	CCI 200	Remington	2.89	54.0C	2879
Speer 130 gr SP	Reloder® 15	CCI 200	Remington	2.8	45	2913
Speer 130 gr SP	Reloder® 19	CCI 200	Remington	2.8	52.0C	2855
Speer 130 gr SP	Reloder® 22	CCI 200	Remington	2.8	53.0C	2860
Speer 140 gr SP	Reloder® 19	CCI 200	Remington	2.8	49.0C	2653
Speer 145 gr SP	Reloder® 15	CCI 200	Remington	2.8	42	2598
Speer 145 gr SP	Reloder® 19	CCI 200	Remington	2.8	52.0C	2795
Speer 145 gr SP	Reloder® 22	CCI 200	Remington	2.8	51.0C	2684
Speer 160 gr SP	Reloder® 19	CCI 200	Remington	3	49.0C	2570
Speer 160 gr SP	Reloder® 22	CCI 200	Remington	3	49.0C	2514

C = Compressed Charge

Centerfire Rifle Load Data continued

7 MM Mauser continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 175 gr SP	Reloder® 15	CCI 200	Remington	3	38	2282
Speer 175 gr SP	Reloder® 19	CCI 200	Remington	3.015	48.0C	2503
Speer 175 gr SP	Reloder® 22	CCI 200	Remington	3.015	51.0C	2596
7 mm-08 Remington						
Speer 110 gr HP	Reloder® 15	CCI 200	Remington	2.76	48	3238
Speer 115 gr HP	Reloder® 15	CCI 200	Remington	2.655	46	3106
Speer 130 gr SP	Reloder® 15	CCI 200	Remington	2.73	42	2786
Speer 145 gr SP	Reloder® 15	CCI 200	Remington	2.73	41	2705
Speer 145 gr SP	Reloder® 19	CCI 200	Remington	2.73	51.0C	2933
Speer 160 gr SP	Reloder® 15	CCI 200	Remington	2.8	38	2506
Speer 160 gr SP	Reloder® 19	CCI 200	Remington	2.8	47.0C	2710
Speer 175 gr SP	Reloder® 15	CCI 200	Remington	2.745	36	2312
Speer 175 gr SP	Reloder® 19	CCI 200	Remington	2.745	47.0C	2628
280 Remington						
Speer 110 gr HP	Reloder® 19	CCI 200	Remington	3.2	63.0C	3286
Speer 130 gr SP	Reloder® 15	CCI 200	Remington	3.205	47	2967
Speer 130 gr SP	Reloder® 19	CCI 200	Remington	3.205	59	3134
Speer 140 gr SP	Reloder® 19	CCI 200	Remington	3.2	59.0C	2962
Speer 145 gr SP	Reloder® 19	CCI 200	Remington	3.18	57	2973
Speer 145 gr SP	Reloder® 22	CCI 200	Remington	3.18	58.0C	2880
Speer 160 gr SP	Reloder® 19	CCI 200	Remington	3.2	55	2813
Speer 160 gr SP	Reloder® 22	CCI 200	Remington	3.2	56	2807
Speer 175 gr SP	Reloder® 19	CCI 200	Remington	3.33	52	2597
Speer 175 gr SP	Reloder® 22	CCI 200	Remington	3.33	53	2616
7 mm Winchester Short Magnum						
Speer 110 gr HP	Reloder® 15	CCI 200	Winchester	2.8	59	3312
Speer 110 gr HP	Reloder® 19	CCI 200	Winchester	2.8	72	3392
Speer 130 gr SP	Reloder® 19	CCI 200	Winchester	2.775	67	3230
Speer 130 gr SP	Reloder® 22	CCI 200	Winchester	2.775	68	3228
Speer 140 gr SP	Reloder® 19	CCI 200	Winchester	2.8	68	3134
Speer 140 gr SP	Reloder® 22	CCI 200	Winchester	2.8	68	3132
Speer 145 gr SP	Reloder® 19	CCI 200	Winchester	2.78	65	3063
Speer 145 gr SP	Reloder® 22	CCI 200	Winchester	2.78	66	3079
Speer 160 gr SP	Reloder® 19	CCI 200	Winchester	2.82	63	2956
Speer 160 gr SP	Reloder® 22	CCI 200	Winchester	2.82	63	2936
Speer 160 gr SP	Reloder® 25	CCI 200	Winchester	2.82	70	3090

continued

C = Compressed Charge

Centerfire Rifle Load Data continued

7 mm Remington Magnum						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 110 gr HP	Reloder® 15	CCI 250	Remington	3.2	58	3256
Speer 110 gr HP	Reloder® 19	CCI 250	Remington	3.2	74.0C	3489
Speer 110 gr HP	Reloder® 22	CCI 250	Remington	3.2	75.0C	3503
Speer 130 gr SP	Reloder® 15	CCI 250	Remington	3.285	55	3049
Speer 130 gr SP	Reloder® 19	CCI 250	Remington	3.285	69	3270
Speer 130 gr SP	Reloder® 22	CCI 250	Remington	3.285	70	3314
Speer 140 gr SP	Reloder® 19	CCI 250	Remington	3.28	67	3095
Speer 140 gr SP	Reloder® 22	CCI 250	Remington	3.28	66	3074
Speer 140 gr SP	Reloder® 25	CCI 250	Remington	3.28	71.5	3173
Speer 145 gr SP	Reloder® 19	CCI 250	Remington	3.28	67	3153
Speer 145 gr SP	Reloder® 22	CCI 250	Remington	3.28	68	3136
Speer 160 gr SP	Reloder® 19	CCI 250	Remington	3.28	64	2941
Speer 160 gr SP	Reloder® 22	CCI 250	Remington	3.28	65	2976
Speer 160 gr SP	Reloder® 25	CCI 250	Remington	3.28	70	3012
Speer 175 gr SP	Reloder® 19	CCI 250	Remington	3.26	62	2812
Speer 175 gr SP	Reloder® 22	CCI 250	Remington	3.26	61	2830
Speer 175 gr SP	Reloder® 25	CCI 250	Remington	3.26	67	2888
7 mm Remington Ultra Magnum						
Speer 145 gr SP	Reloder® 19	Fed 215	Remington	3.6	85	3200
Speer 145 gr SP	Reloder® 22	Fed 215	Remington	3.6	88	3250
Speer 145 gr SP	Reloder® 25	Fed 215	Remington	3.6	92	3251
Speer 160 gr SP	Reloder® 19	Fed 215	Remington	3.6	85	3132
Speer 160 gr SP	Reloder® 22	Fed 215	Remington	3.6	87	3177
Speer 160 gr SP	Reloder® 25	Fed 215	Remington	3.6	91	3174
Speer 175 gr SP	Reloder® 22	Fed 215	Remington	3.57	85	2974
Speer 175 gr SP	Reloder® 25	Fed 215	Remington	3.57	90	3059
7 mm Remington Short Action Ultra Magnum						
Speer 110 gr HP	Reloder® 15	CCI 200	Remington	2.68	59	3387
Speer 110 gr HP	Reloder® 19	CCI 200	Remington	2.68	70.0C	3419
Speer 130 gr SP	Reloder® 15	CCI 200	Remington	2.785	52	3085
Speer 130 gr SP	Reloder® 19	CCI 200	Remington	2.785	65	3229
Speer 130 gr SP	Reloder® 22	CCI 200	Remington	2.785	65	3214
Speer 140 gr SP	Reloder® 19	CCI 200	Remington	2.84	63	3094
Speer 140 gr SP	Reloder® 22	CCI 200	Remington	2.84	64	3117
Speer 145 gr SP	Reloder® 19	CCI 200	Remington	2.785	62	3040
Speer 145 gr SP	Reloder® 22	CCI 200	Remington	2.785	63	3061
Speer 160 gr SP	Reloder® 19	CCI 200	Remington	2.8	60	2913

C = Compressed Charge

continued

Centerfire Rifle Load Data continued

7mm Remington Short Action Ultra Magnum continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 160 gr SP	Reloder® 22	CCI 200	Remington	2.8	61	2930
Speer 160 gr SP	Reloder® 25	CCI 200	Remington	2.8	66.0C	3024
7 mm Weatherby Magnum						
Speer 110 gr HP	Reloder® 15	Fed 215	Federal	3.26	63	3405
Speer 110 gr HP	Reloder® 19	Fed 215	Federal	3.26	74	3485
Speer 110 gr HP	Reloder® 22	Fed 215	Federal	3.26	76	3507
Speer 130 gr SP	Reloder® 15	Fed 215	Federal	3.33	60	3185
Speer 130 gr SP	Reloder® 19	Fed 215	Federal	3.33	72	3317
Speer 130 gr SP	Reloder® 22	Fed 215	Federal	3.33	74	3345
Speer 145 gr SP	Reloder® 15	Fed 215	Federal	3.35	56	2940
Speer 145 gr SP	Reloder® 19	Fed 215	Federal	3.35	69	3133
Speer 145 gr SP	Reloder® 22	Fed 215	Federal	3.35	71	3177
Speer 160 gr SP	Reloder® 19	Fed 215	Federal	3.35	68.5	3035
Speer 160 gr SP	Reloder® 22	Fed 215	Federal	3.35	70	3065
Speer 160 gr SP	Reloder® 25	Fed 215	Federal	3.35	75.0C	3132
Speer 175 gr SP	Reloder® 19	Fed 215	Federal	3.25	67	2885
Speer 175 gr SP	Reloder® 22	Fed 215	Federal	3.25	69	2904
Speer 175 gr SP	Reloder® 25	Fed 215	Federal	3.25	74.0C	2982
7 mm Shooting Times Westerner						
Speer 145 gr SP	Reloder® 22	CCI 250	Remington	3.6	77	3273
Speer 160 gr SP	Reloder® 22	CCI 250	Remington	3.6	73	3074
Speer 160 gr SP	Reloder® 25	CCI 250	Remington	3.6	75	3076
Speer 175 gr SP	Reloder® 22	CCI 250	Remington	3.6	70	2879
Speer 175 gr SP	Reloder® 25	CCI 250	Remington	3.6	74	2947
30-30 Winchester						
Speer 100 gr RNSP	Reloder® 7	CCI 200	Winchester	2.345	35	2792
Speer 110 gr HP	Reloder® 7	CCI 200	Winchester	2.415	34	2708
Speer 130 gr FNSP	Reloder® 7	CCI 200	Winchester	2.55	31	2393
Speer 130 gr FNSP	Reloder® 10X	CCI 200	Winchester	2.55	30.5	2273
Speer 130 gr FNSP	Reloder® 15	CCI 200	Winchester	2.55	36.0C	2259
Speer 150 gr FNSP	Reloder® 7	CCI 200	Winchester	2.55	29	2188
Speer 150 gr FNSP	Reloder® 10X	CCI 200	Winchester	2.55	28	2117
Speer 150 gr FNSP	Reloder® 15	CCI 200	Winchester	2.55	34.0C	2170
Speer 170 gr FNSP	Reloder® 10X	CCI 200	Winchester	2.55	26.5	1972
300 Savage						
Speer 100 gr RNSP	Reloder® 7	CCI 200	Federal	2.475	40	3061
Speer 110 gr SP	Reloder® 7	CCI 200	Federal	2.475	38	2811

continued

C = Compressed Charge

Centerfire Rifle Load Data continued

300 Savage continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 165 gr SP	Reloder® 15	CCI 200	Federal	2.55	44.0C	2614
Speer 180 gr SP	Reloder® 15	CCI 200	Federal	2.55	43.0C	2469
Speer 200 gr SP	Reloder® 15	CCI 200	Federal	2.55	42.0C	2379
308 Winchester						
Speer 100 gr RNSP	Reloder® 7	CCI 200	IMI	2.36	41	3003
Speer 110 gr HP	Reloder® 15	CCI 200	IMI	2.55	51.0C	3144
Speer 125 gr HP	Reloder® 10X	CCI 200	IMI	2.615	42	3073
Speer 125 gr HP	Reloder® 15	CCI 200	IMI	2.615	50.0C	3062
Speer 150 gr SP	Reloder® 10X	CCI 200	IMI	2.7	39.5	2755
Speer 150 gr SP	Reloder® 15	CCI 200	IMI	2.7	49.0C	2919
Speer 165 gr SP	Reloder® 10X	CCI 200	IMI	2.8	38	2596
Speer 165 gr SP	Reloder® 15	CCI 200	IMI	2.8	47.0C	2812
Speer 168 gr BTHP	Reloder® 15	CCI 200	IMI	2.8	45	2710
Speer 180 gr SP	Reloder® 15	CCI 200	IMI	2.8	45.0C	2613
Speer 200 gr SP	Reloder® 15	CCI 200	IMI	2.8	42	2416
30-06 Springfield						
Speer 100 gr RNSP	Reloder® 7	CCI 200	Winchester	2.935	47	3188
Speer 110 gr SP	Reloder® 15	CCI 200	Winchester	3	60.0C	3307
Speer 150 gr SP	Reloder® 15	CCI 200	Winchester	3.25	52	2728
Speer 150 gr SP	Reloder® 19	CCI 200	Winchester	3.25	62.0C	2722
Speer 165 gr SP	Reloder® 19	CCI 200	Winchester	3.25	59.0C	2614
Speer 165 gr SP	Reloder® 22	CCI 200	Winchester	3.25	62.0C	2725
Speer 168 gr BTHP	Reloder® 19	CCI 200	Winchester	3.295	61.0C	2697
Speer 180 gr SP	Reloder® 19	CCI 200	Winchester	3.16	59.0C	2640
Speer 180 gr SP	Reloder® 22	CCI 200	Winchester	3.16	62.0C	2721
Speer 200 gr SP	Reloder® 15	CCI 200	Winchester	3.295	47	2371
Speer 200 gr SP	Reloder® 19	CCI 200	Winchester	3.295	55	2335
Speer 200 gr SP	Reloder® 22	CCI 200	Winchester	3.295	58.0C	2499
Speer 200 gr SP	Reloder® 25	CCI 200	Winchester	3.295	60.0C	2481
300 Remington Short Action Ultra Magnum						
Speer 110 gr SP	Reloder® 15	CCI 200	Remington	2.656	65	3575
Speer 130 gr HP	Reloder® 15	CCI 200	Remington	2.625	62	3350
Speer 150 gr SP	Reloder® 19	CCI 200	Remington	2.8	71.0C	3150
Speer 165 gr SP	Reloder® 19	CCI 200	Remington	2.8	69.0C	2999
Speer 165 gr SP	Reloder® 22	CCI 200	Remington	2.8	70.0C	3006
Speer 180 gr SP	Reloder® 19	CCI 200	Remington	2.8	67.0C	2896
Speer 180 gr SP	Reloder® 22	CCI 200	Remington	2.8	67.0C	2896

Centerfire Rifle Load Data continued

300 Winchester Magnum						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 100 gr RNSP	Reloder® 15	CCI 250	Winchester	2.96	72	3604
Speer 110 gr SP	Reloder® 15	CCI 250	Winchester	3.215	71	3542
Speer 110 gr SP	Reloder® 19	CCI 250	Winchester	3.215	84	3574
Speer 130 gr HP	Reloder® 15	CCI 250	Winchester	3.26	67	3243
Speer 150 gr SP	Reloder® 15	CCI 250	Winchester	3.33	64	3058
Speer 150 gr SP	Reloder® 19	CCI 250	Winchester	3.33	78.0C	3301
Speer 150 gr SP	Reloder® 22	CCI 250	Winchester	3.33	80.0C	3227
Speer 165 gr SP	Reloder® 15	CCI 250	Winchester	3.34	60	2809
Speer 165 gr SP	Reloder® 19	CCI 250	Winchester	3.34	75	2997
Speer 165 gr SP	Reloder® 22	CCI 250	Winchester	3.34	77	3103
Speer 168 gr BTHP	Reloder® 15	CCI 250	Winchester	3.34	63	2911
Speer 168 gr BTHP	Reloder® 19	CCI 250	Winchester	3.34	71	3138
Speer 168 gr BTHP	Reloder® 22	CCI 250	Winchester	3.34	79.0C	3190
Speer 180 gr SP	Reloder® 19	CCI 250	Winchester	3.34	76	3059
Speer 180 gr SP	Reloder® 22	CCI 250	Winchester	3.34	77.0C	3055
Speer 180 gr SP	Reloder® 25	CCI 250	Winchester	3.34	79.5C	3050
Speer 200 gr SP	Reloder® 19	CCI 250	Winchester	3.34	71	2761
Speer 200 gr SP	Reloder® 22	CCI 250	Winchester	3.34	73.0C	2852
Speer 200 gr SP	Reloder® 25	CCI 250	Winchester	3.34	75.0C	2857
300 Winchester Short Magnum						
Speer 110 gr SP	Reloder® 15	CCI 200	Winchester	2.75	69	3692
Speer 130 gr HP	Reloder® 15	CCI 200	Winchester	2.8	67	3459
Speer 150 gr SP	Reloder® 19	CCI 200	Winchester	2.81	73.5	3244
Speer 165 gr SP	Reloder® 19	CCI 200	Winchester	2.81	73.0C	3135
Speer 165 gr SP	Reloder® 22	CCI 200	Winchester	2.81	73.0C	3126
Speer 180 gr SP	Reloder® 19	CCI 200	Winchester	2.78	68.5C	2978
Speer 180 gr SP	Reloder® 22	CCI 200	Winchester	2.78	68.5C	2958
300 H & H Magnum						
Speer 110 gr SP	Reloder® 19	CCI 250	Winchester	3.43	79	3538
Speer 130 gr HP	Reloder® 19	CCI 250	Winchester	3.44	75	3300
Speer 150 gr SP	Reloder® 19	CCI 250	Winchester	3.5	72	3223
Speer 165 gr SP	Reloder® 19	CCI 250	Winchester	3.5	67	3048
Speer 180 gr SP	Reloder® 22	CCI 250	Winchester	3.5	70	2996
Speer 200 gr SP	Reloder® 22	CCI 250	Winchester	3.5	65	2774
300 Weatherby Magnum						
Speer 110 gr SP	Reloder® 19	CCI 250	Remington	3.335	90.0C	3722
Speer 130 gr HP	Reloder® 19	CCI 250	Remington	3.53	86	3486

Centerfire Rifle Load Data continued

300 Weatherby Magnum continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 150 gr SP	Reloder® 19	CCI 250	Remington	3.56	83	3282
Speer 150 gr SP	Reloder® 22	CCI 250	Remington	3.56	86	3363
Speer 165 gr SP	Reloder® 19	CCI 250	Remington	3.56	80	3155
Speer 165 gr SP	Reloder® 22	CCI 250	Remington	3.56	83	3170
Speer 165 gr SP	Reloder® 25	CCI 250	Remington	3.56	89.0C	3258
Speer 180 gr SP	Reloder® 19	CCI 250	Remington	3.56	78	2990
Speer 180 gr SP	Reloder® 22	CCI 250	Remington	3.56	82	3077
Speer 180 gr SP	Reloder® 25	CCI 250	Remington	3.56	87	3109
Speer 200 gr SP	Reloder® 19	CCI 250	Remington	3.56	77	2878
Speer 200 gr SP	Reloder® 22	CCI 250	Remington	3.56	78.5	2881
Speer 200 gr SP	Reloder® 25	CCI 250	Remington	3.56	85.0C	3022
300 Remington Ultra Magnum						
Speer 150 gr SP	Reloder® 19	Fed 215	Federal	3.495	94	3401
Speer 150 gr SP	Reloder® 22	Fed 215	Federal	3.495	97	3437
Speer 165 gr SP	Reloder® 19	Fed 215	Federal	3.6	91	3263
Speer 165 gr SP	Reloder® 22	Fed 215	Federal	3.6	93	3268
Speer 165 gr SP	Reloder® 25	Fed 215	Federal	3.6	97	3279
Speer 180 gr SP	Reloder® 22	Fed 215	Federal	3.6	90	3118
Speer 180 gr SP	Reloder® 25	Fed 215	Federal	3.6	94	3146
Speer 200 gr SP	Reloder® 22	Fed 215	Federal	3.6	86	2936
Speer 200 gr SP	Reloder® 25	Fed 215	Federal	3.6	88	2942
30-378 Weatherby						
Speer 150 gr SP	Reloder® 19	CCI 250	Weatherby	3.6	105	3404
Speer 165 gr SP	Reloder® 19	CCI 250	Weatherby	3.6	103	3285
32-30 Winchester (Strong Action)						
Speer 100 gr HP	Reloder® 7	CCI 400	Winchester	1.56	16	1634
7.62 X 39 mm						
Speer 123 gr SP	Reloder® 7	CCI 200	IMI	2.15	27	2429
303 British						
Speer 123 gr SP	Reloder® 10X	Fed 210	Federal	2.91	42.5	2964
Speer 123 gr SP	Reloder® 15	Fed 210	Federal	2.91	48.0C	2897
Speer 150 gr SP	Reloder® 10X	Fed 210	Federal	3.04	37.5	2606
Speer 150 gr SP	Reloder® 15	Fed 210	Federal	3.04	45	2746
Speer 180 gr RNSP	Reloder® 10X	Fed 210	Federal	3.075	34.5	2324
Speer 180 gr RNSP	Reloder® 15	Fed 210	Federal	3.075	42	2479

C = Compressed Charge

Centerfire Rifle Load Data continued

8mm Mauser						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
					Grains	fps
Speer 150 gr SP	Reloder® 15	CCI 200	Remington	2.89	51	2726
Speer 170 gr SP	Reloder® 15	CCI 200	Remington	2.89	49	2632
Speer 200 gr SP	Reloder® 15	CCI 200	Remington	2.89	44	2267
338 Federal						
Speer 200 gr SP	Reloder® 7	Fed 210	Federal	2.82	36.5	2403
Speer 200 gr SP	Reloder® 10X	Fed 210	Federal	2.82	38.5	2444
Speer 200 gr SP	Reloder® 15	Fed 210	Federal	2.82	46.0C	2598
Speer 225 gr BTSP	Reloder® 7	Fed 210	Federal	2.82	35	2256
Speer 225 gr BTSP	Reloder® 10X	Fed 210	Federal	2.82	37	2299
Speer 225 gr BTSP	Reloder® 15	Fed 210	Federal	2.82	44.0C	2440
338 Winchester Short Magnum						
Speer 150 gr SP	Reloder® 15	Fed 210	Winchester	2.85	65	3245
Speer 170 gr SP	Reloder® 15	Fed 210	Winchester	2.79	62	3038
Speer 170 gr SP	Reloder® 19	Fed 210	Winchester	2.79	74.0C	3064
Speer 200 gr SP	Reloder® 15	Fed 210	Winchester	2.84	57	2742
Speer 200 gr SP	Reloder® 19	Fed 210	Winchester	2.84	69	2837
338 Winchester Magnum						
Speer 200 gr SP	Reloder® 19	CCI 250	Winchester	3.3	76.0C	2806
Speer 225 gr SP	Reloder® 19	CCI 250	Winchester	3.3	78.0C	2944
Speer 250 gr SP	Reloder® 19	CCI 250	Winchester	3.3	72.0C	2664
Speer 250 gr SP	Reloder® 22	CCI 250	Winchester	3.3	73.0C	2653
338 Remington Ultra Magnum						
Speer 200 gr SP	Reloder® 19	Fed 215	Federal	3.5	95	3216
Speer 200 gr SP	Reloder® 22	Fed 215	Federal	3.5	98	3255
Speer 200 gr SP	Reloder® 25	Fed 215	Federal	3.5	101.0C	3193
Speer 225 gr SP	Reloder® 19	Fed 215	Federal	3.55	91	3028
Speer 225 gr SP	Reloder® 22	Fed 215	Federal	3.55	93	3029
Speer 250 gr SP	Reloder® 19	Fed 215	Federal	3.55	87	2849
Speer 250 gr SP	Reloder® 22	Fed 215	Federal	3.55	91	2895
Speer 250 gr SP	Reloder® 25	Fed 215	Federal	3.55	95	2915
340 Weatherby Magnum						
Speer 200 gr SP	Reloder® 15	Fed 215	Federal	3.56	73	2973
Speer 200 gr SP	Reloder® 19	Fed 215	Federal	3.56	87.0C	3032
Speer 225 gr SP	Reloder® 15	Fed 215	Federal	3.61	70	2799
Speer 225 gr SP	Reloder® 19	Fed 215	Federal	3.61	85.0C	2924
Speer 225 gr SP	Reloder® 22	Fed 215	Federal	3.61	87.0C	2901

C = Compressed Charge

Centerfire Rifle Load Data continued

340 Weatherby Magnum continued						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				Grains	fps	
Speer 250 gr SP	Reloder® 19	Fed 215	Federal	3.61	83	2788
Speer 250 gr SP	Reloder® 22	Fed 215	Federal	3.61	85	2781
35 Remington						
Speer 158 gr UCHP	Reloder® 7	CCI 200	Winchester	2.22	37	2357
Speer 180 gr FNSP	Reloder® 7	CCI 200	Winchester	2.47	30	1653
Speer 220 gr FNSP	Reloder® 7	CCI 200	Winchester	2.47	24.5	1936
35 Whelan						
Speer 158 gr UCHP	Reloder® 7	CCI 200	Remington	2.8	42	2193
Speer 180 gr FNSP	Reloder® 15	CCI 200	Remington	3.03	60.0C	2678
Speer 220 gr FNSP	Reloder® 15	CCI 200	Remington	3.23	60.0C	2599
Speer 225 gr TBBC SP	Reloder® 10X	CCI 200	Remington	3.27	51	2603
Speer 225 gr TBBC SP	Reloder® 15	CCI 200	Remington	3.27	57.0C	2593
Speer 250 gr SP	Reloder® 15	CCI 200	Remington	3.34	54	2284
350 Remington Magnum						
Speer 158 gr UCHP	Reloder® 7	CCI 200	Remington	2.47	55	2901
Speer 180 gr FNSP	Reloder® 7	CCI 200	Remington	2.8	51	2574
Speer 220 gr FNSP	Reloder® 7	CCI 200	Remington	2.74	49.5	2426
375 H & H Magnum						
Speer 235 gr SP	Reloder® 15	CCI 250	Winchester	3.6	78	2920
Speer 250 gr TBBC SP	Reloder® 15	CCI 250	Winchester	3.58	76	2847
Speer 270 gr BTSP	Reloder® 15	CCI 250	Winchester	3.6	71	2675
Speer 270 gr BTSP	Reloder® 19	CCI 250	Winchester	3.6	83.0C	2589
Speer 285 gr SP	Reloder® 15	CCI 250	Winchester	3.56	69	2533
Speer 285 gr SP	Reloder® 19	CCI 250	Winchester	3.56	80.0C	2456
Speer 300 gr TBBC SP	Reloder® 15	CCI 250	Winchester	3.6	70	2485
378 Weatherby Magnum						
Speer 250 gr TBBC SP	Reloder® 19	CCI 250	Weatherby	3.645	117	3227
Speer 250 gr TBBC SP	Reloder® 22	CCI 250	Weatherby	3.645	119	3223
Speer 285 gr SP	Reloder® 19	CCI 250	Weatherby	3.635	111	2967
Speer 285 gr SP	Reloder® 22	CCI 250	Weatherby	3.635	112	2971
Speer 285 gr SP	Reloder® 25	CCI 250	Weatherby	3.635	117.0C	2974
Speer 300 gr TBBC SP	Reloder® 19	CCI 250	Weatherby	3.64	109	2829
Speer 300 gr TBBC SP	Reloder® 22	CCI 250	Weatherby	3.64	110	2827
Speer 300 gr TBBC SP	Reloder® 25	CCI 250	Weatherby	3.64	116.0C	2907

C = Compressed Charge

Centerfire Rifle Load Data continued

416 Remington Magnum						
Caliber & Bullet	Powder	Primer	Case	Min OAL	Chg Wgt	Velocity
				Grains	fps	
Speer 350 gr SP	Reloder® 15	CCI 250	Remington	3.58	85	2629
Speer 400 gr TBBC SP	Reloder® 15	CCI 250	Remington	3.55	79.0C	2380
416 Rigby						
Speer 350 gr SP	Reloder® 19	CCI 250	Federal	3.36	105	2560
Speer 400 gr TBBC SP	Reloder® 19	CCI 250	Federal	3.6	103	2365
Speer 400 gr TBBC SP	Reloder® 22	CCI 250	Federal	3.6	101.0C	2311
444 Marlin						
Speer 240 gr JHP	Reloder® 7	CCI 200	Remington	2.53	50	2354
Speer 240 gr JHP	Reloder® 10X	CCI 200	Remington	2.53	53	2348
Speer 270 gr SP	Reloder® 7	CCI 200	Remington	2.53	47	2216
Speer 270 gr SP	Reloder® 10X	CCI 200	Remington	2.53	50	2212
45/70 Government (Trap Door Actions)						
Speer 300 gr FNHP	Reloder® 7	CCI 200	Winchester	2.53	42	1775
Speer 300 gr FNHP	Reloder® 10X	CCI 200	Winchester	2.53	44	1679
Speer 350 gr SP	Reloder® 7	CCI 200	Winchester	2.715	35	1458
Speer 350 gr SP	Reloder® 10X	CCI 200	Winchester	2.715	36	1481
Speer 400 gr FNSP	Reloder® 10X	CCI 200	Winchester	2.54	39	1464
45/70 Government (Lever Actions)						
Speer 300 gr FNHP	Reloder® 7	CCI 200	Winchester	2.53	47	2001
Speer 300 gr FNHP	Reloder® 10X	CCI 200	Winchester	2.53	52	1964
Speer 400 gr FNSP	Reloder® 10X	CCI 200	Winchester	2.54	44	1641
450 Marlin						
Speer 300 gr FNHP	Reloder® 7	CCI 200	Hornady	2.525	56.0C	2392
Speer 400 gr FNSP	Reloder® 7	CCI 200	Hornady	2.525	47	1963
458 Lott						
Speer 350 gr SP	Reloder® 7	Fed 215	Hornady	3.4	81	2699
Speer 350 gr SP	Reloder® 10X	Fed 215	Hornady	3.4	84.0C	2712
Speer 500 gr TBBC SP	Reloder® 10X	Fed 215	Hornady	3.6	67	2097
Speer 500 gr TBBC SP	Reloder® 15	Fed 215	Hornady	3.6	80.0C	2227
458 Winchester Magnum						
Speer 350 gr SP	Reloder® 7	CCI 250	Winchester	3.105	73.0C	2335
Speer 400 gr FNSP	Reloder® 7	CCI 250	Winchester	3.125	74	2316
Speer 500 gr TBBC SP	Reloder® 7	CCI 250	Winchester	3.3	62	1998
Speer 500 gr TBBC SP	Reloder® 10X	CCI 250	Winchester	3.3	65.0C	2039

C = Compressed Charge



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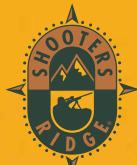
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