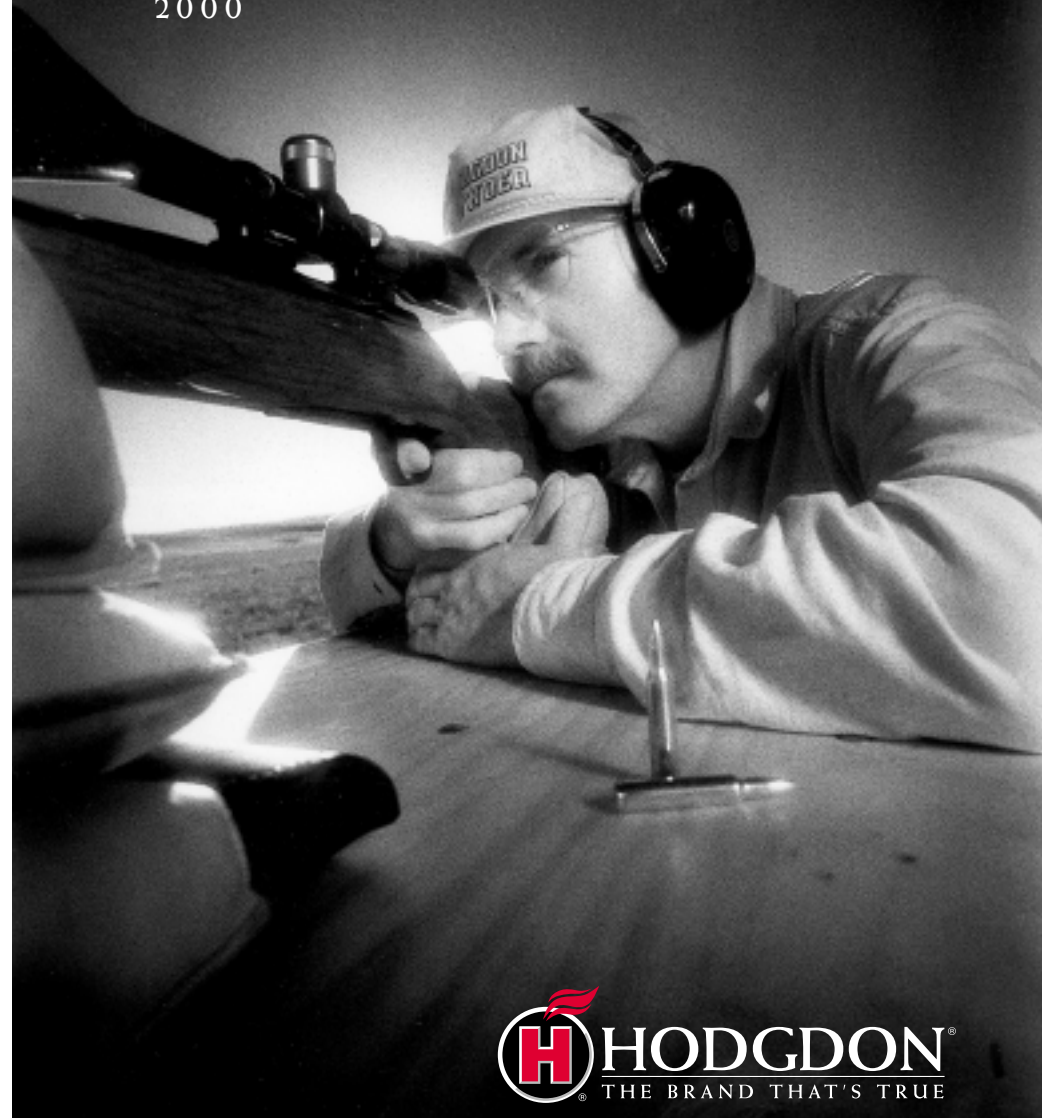


BASIC  
RELOADERS  
MANUAL  
2000



 **HODGDON**<sup>®</sup>  
THE BRAND THAT'S TRUE



## HODGDON *Shotgun/Pistol Powders*

Hodgdon shotgun and pistol powders give shooters uncompromising quality, consistent velocities and clean-burning performance. From 22s to 44 Magnums, 410 to 10 gauge, there's a powder to meet any need.



## HODGDON *Spherical Rifle Powders*

Hodgdon spherical powders are great all-round propellants for a variety of rifles. You'll not only enjoy consistently high performance, you'll also appreciate the consistent charge weights that Hodgdon spherical powders give you.



## HODGDON *Extreme™ Rifle Powders*

Our exclusive line of extruded rifle powders — Hodgdon Extreme™ — was developed to give shooters consistent performance, load after load, in even the most extreme heat and cold.



## HODGDON *New for 2000*



Benchmark



Long Shot



Pyrodex®  
Ammo Pack

# HODGDON

## Smokeless Propellants

| Powder        | Type             | Container Size |
|---------------|------------------|----------------|
| Titewad       | Shotshell        | 14oz 4lb 8lb   |
| Clays         | Shotshell/Pistol | 14oz 4lb 8lb   |
| International | Shotshell        | 14oz 4lb 8lb   |
| Titegroup     | Pistol           | 1lb 4lb 8lb    |
| HP-38         | Pistol           | 1lb 4lb 8lb    |
| Universal     | Shotgun/Pistol   | 1lb 4lb 8lb    |
| HS-6          | Shotgun/Pistol   | 1lb 5lb 8lb    |
| HS-7          | Shotgun/Pistol   | 1lb 5lb 8lb    |
| H110          | Shotgun/Pistol   | 1lb 5lb 8lb    |
| Lil' Gun      | Shotgun/Pistol   | 1lb 4lb 8lb    |
| H4227         | Pistol/Rifle     | 1lb 5lb 8lb    |
| H4198         | Rifle            | 1lb 5lb 8lb    |
| H322          | Rifle            | 1lb 5lb 8lb    |
| H335          | Rifle            | 1lb 5lb 8lb    |
| H4895         | Rifle            | 1lb 5lb 8lb    |
| Varget        | Rifle            | 1lb 5lb 8lb    |
| BL-C(2)       | Rifle            | 1lb 5lb 8lb    |
| H380          | Rifle            | 1lb 5lb 8lb    |
| H414          | Rifle            | 1lb 5lb 8lb    |
| H4350         | Rifle            | 1lb 5lb 8lb    |
| H4831         | Rifle            | 1lb 5lb 8lb    |
| H4831SC       | Rifle            | 1lb 5lb 8lb    |
| H1000         | Rifle            | 1lb 5lb 8lb    |
| H870          | Rifle            | 1lb 5lb 8lb    |
| H50BMG        | Rifle            | 1lb 8lb        |



## WARNING

Ballistic data shown in this manual was obtained in Hodgdon's laboratory under strictly controlled conditions. Your reloads must contain the exact combinations listed in this manual. **NEVER EXCEED** charge recommendations in this manual.

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

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

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

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

### USE THIS DATA WITH HODGDON BRAND POWDERS ONLY

Reduce data 10% to start and work up.

**DO NOT EXCEED THE LOADS SHOWN IN THIS GUIDE**

Charter Member

Charter Member



## MISSION STATEMENT

Our mission is to provide quality propellants, other products, and services to sportsmen, governing units, and other businesses in a manner which enhances the quality of life for our stockholders, employees, customers, associates, and suppliers. In doing so, we will deal with integrity and honesty, reflecting that people are more important than dollars and that our purpose is to bring credit to our Lord Jesus Christ.

## CONTENTS

|  | PAGE        |
|--|-------------|
| New Products .....   | 1- 2, 75-76 |
| Introduction .....   | 3           |
| Hodgdon Usage Chart .....  | 4           |
| Powder Descriptions .....  | 5-6         |
| Properties and Storage of Powder .....   | 7-10        |
| Rifle Data .....   | 11          |
| Pistol Data .....  | 24          |
| Shotshell .....  | 30          |
| Shotshell Chilled Shot Table, Reference Powder Table and Shot Diameter Chart ..... | 31          |
| Shotshell Bushing Charts .....   | 32-33       |
| Shotshell Wad Chart .....  | 34          |
| Shotshell Data .....   | 35-72       |
| Notes .....  | 73-74       |

## HODGDON POWDER SHOTGUN USAGE

|               | TARGET |       |       |          | LIGHT FIELD |       |       |       | HEAVY FIELD |       |       |       |       |       |          |
|---------------|--------|-------|-------|----------|-------------|-------|-------|-------|-------------|-------|-------|-------|-------|-------|----------|
|               | 12 GA  | 20 GA | 28 GA | 410 BORE | 12 GA       | 16 GA | 20 GA | 28 GA | 410 BORE    | 10 GA | 12 GA | 16 GA | 20 GA | 28 GA | 410 BORE |
| CLAYS         | X      |       |       |          | X           |       |       |       |             |       |       |       |       |       |          |
| TITEWAD       | X      |       |       |          | X           |       |       |       |             |       |       |       |       |       |          |
| INTERNATIONAL | X      | X     |       |          | X           |       | X     |       |             |       |       |       |       |       |          |
| UNIVERSAL     | X      | X     | X     |          | X           | X     | X     |       |             | X     | X     | X     |       |       |          |
| HS-6          |        |       | X     |          |             | X     | X     | X     |             | X     | X     | X     |       |       |          |
| HS-7          |        |       |       |          |             |       | X     | X     |             | X     | X     | X     | X     | X     |          |
| LONGSHOT      | X      | X     | X     |          |             |       |       |       | X           | X     | X     | X     | X     | X     |          |
| H110          |        |       |       | X        |             |       |       |       |             |       |       |       |       |       | X        |
| LIL' GUN      |        |       |       | X        |             |       |       | X     |             |       |       |       |       |       | X        |

## HODGDON POWDER PISTOL USAGE

|           | TARGET | LIGHT DUTY | MEDIUM DUTY | MAGNUM |
|-----------|--------|------------|-------------|--------|
|           | CLAYS  | X          | X           |        |
| TITEGROUP | X      | X          |             |        |
| UNIVERSAL | X      | X          | X           |        |
| HP-38     | X      | X          | X           |        |
| HS-6      |        | X          | X           |        |
| HS-7      |        |            | X           | X      |
| H110      |        |            | X           | X      |
| H4227     |        |            | X           | X      |
| LIL' GUN  |        |            | X           | X      |

## HODGDON POWDER RIFLE USAGE

|           | TARGET | SILHOUETTE | LIGHT | MEDIUM | MAGNUM | 50 CAL. |
|-----------|--------|------------|-------|--------|--------|---------|
|           | H4227  |            |       | X      |        |         |
| LIL' GUN  |        |            | X     |        |        |         |
| H4198     | X      |            | X     |        |        |         |
| H322      | X      | X          | X     | X      |        |         |
| BENCHMARK | X      | X          | X     | X      |        |         |
| H335      | X      | X          | X     | X      |        |         |
| H4895     | X      | X          | X     | X      |        |         |
| VARGET    | X      | X          | X     | X      |        |         |
| BL-C(2)   | X      | X          | X     | X      |        |         |
| H380      |        | X          |       | X      | X      |         |
| H414      |        | X          |       | X      | X      |         |
| H4350     |        | X          |       | X      | X      |         |
| H450      |        |            |       | X      | X      |         |
| H4831     |        |            |       | X      | X      |         |
| H4831 SC  |        |            |       | X      | X      |         |
| H1000     |        |            |       | X      | X      |         |
| H870      |        |            |       |        | X      | X       |
| H50BMG    |        |            |       |        | X      | X       |

## SMOKELESS PISTOL & SHOTGUN POWDERS

### ▶ EXTREME POWDERS

#### In Order of Approximate Burning Rate

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

**CLAYS™** Introduced in January, 1992, CLAYS has "taken the clay target world by storm". It is the most clean burning, consistent 12 ga. 7/8 oz., 1 oz. and 1 1/8 oz. powder available today. The superb burning characteristics of this powder produce soft, smooth recoil, ultra clean burning, mild muzzle report, and excellent patterns. These features transfer directly to handgun applications where target shooting is the main goal. 45 ACP, 38 Special and 9mm are only a few of the cartridges where CLAYS provides "tack driving" target accuracy with flawless functioning.

**INTERNATIONAL™** INTERNATIONAL is the second in the "CLAYS" series of powders. It is positioned in burning speed to accommodate 12 ga., 2 3/4" light, medium and heavy 1 1/8 oz. loads, with some very nice 1oz. listings. Also, it works splendidly in 20 ga., 7/8 oz. target and light field loads. As with CLAYS, clean burning and flawless functioning is the rule.

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

**HP38™** HP38 is a spherical pistol powder that is great for low velocity and mid-range target loads in 38 Special, 44 Special and 45 ACP. This high energy powder provides economy in loading.

**UNIVERSAL™** UNIVERSAL handles the broadest spectrum of cartridges for both pistol and shotgun. From the 25 ACP to the 44 Magnum, UNIVERSAL provides outstanding performance. In shotgun, it produces excellent loads in 28 ga. 3/4 oz., 20 ga. 7/8 oz., 16 ga. 1 oz., and even 12 ga. 1 1/4 oz. As with all the "CLAYS" series powders, clean burning and uniformity are part of its attributes.

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

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

▶ **H4227** H4227 is the fastest of our Extreme Extruded rifle propellants. Because of its' burning speed, it doubles as a magnum pistol powder. Top applications are the 22 Hornet, 357 Maximum, 357 Magnum, 44 Magnum and the mighty 454 Casull. For stability under extreme conditions, H4227 is the top choice.

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

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

## SMOKELESS RIFLE POWDERS

### ▶ EXTREME POWDERS

#### In Order of Approximate Burning Rate

▶ **H4198** This Extreme Extruded propellant has gone through some changes since its inception, all the time maintaining the same important burning speed of the past. The kernels were shortened for improved metering and necessary elements were added to make it extremely insensitive to hot/cold temperatures. H4198 is outstanding in cartridges like the 222 Remington, 444 Marlin and the 7.62 x 39.

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

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

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

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

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

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

**H380™** H380 was an unnamed spherical rifle propellant when the late Bruce Hodgdon first used it. When a 38.0 grain charge behind a 52 grain bullet gave one hole groups from his 22 caliber wildcat (now called the 22-250), he appropriately named the powder H380. H380 is also a superb performer in the 220 Swift, 243, 257 Roberts and other fine varmint cartridges.

**H414™** This spherical powder has an extremely wide range of use. From the 22-250 Remington to the 375 H&H, it will give excellent results. It is simply ideal in the 30-06. As with all of our spherical powders, it delivers incredibly consistent charge weights through nearly any type of powder measure. H414 yields similar results to H4350 in most cartridges, although charge weights will vary.

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

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

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

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

**H870™** This spherical powder is great for heavy bullets in big, overbore magnum loads. H870 is also used in the 50 caliber BMG and is the only surplus powder left in the canister line. Because it is inexpensive, it is frequently used in large capacity cases where economy is a major consideration.

▶ **H50BMG** As the name implies, this new generation Extreme Extruded rifle propellant is a clean burning powder designed expressly for the 50 caliber BMG cartridge. Because it shares the same technology as VARGET, H50BMG displays a high degree of thermal stability in temperature extremes.

Tests have conclusively proven that H50BMG yields very low extreme spreads in velocity and pressure. All this translates into small groups at extended ranges!

# HODGDON

THE FAVORITE OF HANDLOADERS Since 1946

## 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
3. Small 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.

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

1. A flame such as a match or 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 some of these products.

High explosives such as dynamite are made to detonate, that is, to change from solid state to gaseous state with evolution of intense heat at such a rapid rate that shock waves are propagated through any medium in contact with them. Such shock waves exert pressure on anything they contact, and, as a matter of practical consideration, it is almost impossible to satisfactorily vent away the effects of a detonation involving any appreciable quantity of dynamite.

Smokeless powder differs considerably in its burning characteristics from common "black powder."

Black powder burns essentially at 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 produces 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.

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

## PROPERTIES OF SMOKELESS POWDER continued

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 Department of Transportation (formerly Interstate Commerce Commission) sets specifications for shipping containers for propellants and requires tests of loaded containers – under actual fire conditions – before approving them for use.

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

## HOW TO CHECK SMOKELESS POWDER FOR DETERIORATION

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

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

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. Don't accumulate old powder stocks.

The best way to dispose of deteriorated smokeless powder is to burn it out in the open at an isolated location in small shallow piles (not over 1" deep). The quantity burned in any one pile should never exceed one pound. Use an ignition train of slow burning combustible material so that the person may retreat to a safe distance before powder is ignited. For more instructions call Hodgdon Powder.

## CONSIDERATIONS FOR STORAGE OF SMOKELESS POWDER

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, it is desirable that storage enclosures be made of insulating materials to protect the powder from external heat sources.

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

D.O.T. 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 satisfactorily vent the gaseous products of combustion 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 walls of 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.

## CONSIDERATIONS FOR STORAGE OF SMOKELESS POWDER

Hence only the smallest practical quantities of smokeless powder should be kept in storage, and then 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 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 powders in one place. If you can, maintain separate storage locations. Many small containers are safer than one or more large containers.

**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.

## 10-3 SMOKELESS PROPELLANTS

**10-3.1** Quantities of smokeless propellants not exceeding 25 lb (11.3 kg), in shipping containers approved by the U.S. Department of Transportation, may be transported in a private vehicle.

**10-3.2** Quantities of smokeless propellants exceeding 25 lb (11.3 kg) 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 in. (25.4 mm) nominal thickness.

**10-3.3** Transportation of more than 50 lb (22.7 kg) of smokeless propellants in a private vehicle is prohibited.

**10-3.4** Commercial shipments of smokeless propellants in quantities not exceeding 100 lb (45.4 kg) are classified for transportation purposes as flammable solids when packaged according to U.S. Department of Transportation Hazardous Materials Regulations (Title 49, Code of Federal Regulations, Part 173.197a), and shall be transported accordingly.

**10-3.5** Commercial shipments of smokeless propellants exceeding 100 lb (45.4 kg) or not packaged in accordance with the regulations cited in 10-3.4 shall be transported according to U.S. Department of Transportation regulations for Class B propellant explosives.

## 10-3 SMOKELESS PROPELLANTS continued

**10-3.6** Smokeless propellants shall be stored in shipping containers specified by U.S. Department of Transportation Hazardous Materials Regulations.

**10-3.7** Smokeless propellants intended for personal use in quantities not exceeding 20 lb (9.1 kg) may be stored in original containers in residences. Quantities exceeding 20 lb (9.1 kg), but not exceeding 50 lb (22.7 kg), may be stored in residences if kept in a wooden box or cabinet having walls of at least 1 in. (25.4 mm) nominal thickness.

**10-3.8** 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.

**10-3.9** Commercial stocks of smokeless propellants shall 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 nonportable storage cabinets having walls of at least 1 in (25.4 mm) thickness. Not more than 400 lb (181 kg) may 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), may be stored in a building if 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 nonportable storage cabinets having wood walls at least 1 in. (25.4 mm) thick and having shelves with no more than 3 ft. (0.92 m) separation between shelves.
  3. No more than 400 lb. (181 kg) shall be stored in any one cabinet..
  4. Cabinets shall be located against walls of the storage room or warehouse with at least 40 ft (12.2 m) between cabinets.
  5. Separation between cabinets may be reduced to 20 ft (6.1 m) if barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades shall extend at least 10 ft. (3 m) outward, shall be firmly attached to the wall, and shall be constructed of 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 U.S. Department of Transportation as flammable liquids, flammable solids, and oxidizing materials by a distance of 25 ft. (7.63 m) 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 according to NFPA 13, Standard for the Installation of Sprinkler Systems.
- d) Smokeless propellants not stored according to (a), (b) and (c) above shall be stored in a Type 4 magazine constructed and located according to Chapter 6.

Reprinted from NFPA495-85, Standard for the Manufacture, Transportation, Storage and Use of Explosive Materials, © 1985, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the NFPA on the referenced subject, which is represented by the Standard in its entirety.

**NEVER Exceed the Loads  
Listed in This Publication**



Success...  
Bob Hodgdon and his son Chris Hodgdon with their guide Mark Strickland in Alvin, Texas, using Hodgdon Varget Powder.

The loads shown in this section should be followed just as they are printed. These loads are like recipes. The closer they are followed, the better the resultant load.

## WARNING

For all brands of powders use only the components shown. If the reloader makes any changes in components or gets new lot numbers, he should begin again with the starting loads and work up to maximum cautiously.

The loads shown here are at maximum. Reduce them by 10% and work up to the load that works best for you. **NEVER EXCEED THE LISTED LOADS.**

**H110 Loads should not be reduced more than 3%.** Reduce H110 Loads 3% and work up from there. H110 if reduced too much will cause inconsistent ignition. In some cases it will lodge a bullet in the barrel, causing a hazardous situation (Barrel Obstruction). This may cause severe personal injury or death to users or bystanders.

**DO NOT REDUCE H110 LOADS BY MORE THAN 3%.**

**NEVER Exceed the Loads Listed in This Publication**

### 40 S&W WARNING:

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

### BRANDS

BAR - Barnes  
BER - Berger  
BLX - Bull-X  
FA - Freedom Arms  
HDY - Hornady  
NOS - Nosler  
REM - Remington  
SIE - Sierra  
SFT - Swift  
SPR - Speer  
WIN - Winchester

### PRIMERS

LP - Large Pistol  
LPM - Large Pistol Magnum  
SP - Small Pistol  
SPM - Small Pistol Magnum  
CHED - Cheddite

**D A T A**  
C - Compressed Powder Charge  
PR - Primer  
BBL - Barrel  
COL - Cartridge Overall Length  
REF - Reformed

### BULLET S

A-Max - Hornady Match  
BR - Bench Rest  
BT - Ballistic Tip  
FMC - Full Metal Case  
FMJ - Full Metal Jacket  
FMJBT - Full Metal Jacket Boat Tail  
FN - Flat Nose  
FP - Flat Point  
FPJ - Full Plated Jacket  
FS - Fail Safe  
GC - Gas Check  
GDHP - Gold Dot Hollow Point  
GDSP - Gold Dot Soft Point  
GS - Grand Slam  
HB - Hollow Base  
HC - Hollow Cavity  
HP - Hollow Point  
HPBT - Hollow Point Boat Tail  
HSP - Hollow Soft Point  
JFP - Jacketed Flat Point  
JHC - Jacketed Hollow Cavity  
JHP - Jacketed Hollow Point  
JRN - Jacketed Round Nose  
JSP - Jacketed Soft Point  
JSWC - Jacketed

Semi-Wadcutter  
LBBWC - Lead Bevel Base  
Wadcutter

LFP - Lead Flat Point  
LHBWC - Lead Hollow Base  
Wadcutter

LRN - Lead Round Nose  
LSWC - Lead Semi-Wadcutter  
MK - Match King  
MT-SP - Mag Tip Soft Point  
PSPCL - Pointed Soft Point

"Core-Lok"  
RN - Round Nose  
SB - Solid Base  
SJ - Short Jacket  
SP - Soft Point, Spitzer,  
Spire Point

SPBT - Soft Point Boat Tail  
ST - Silvertip  
TMJ - Totally Metal Jacket  
UCHP - Uni-cor Hollow Point  
WC - Wadcutter  
X - X Bullet  
XFB - X Flat Base  
XBT - X Boat Tail  
XBTC - X Boat Tail Coated

Success...  
Jim Bib in Priest River, Idaho  
using Hodgdon H110 Powder.

# PISTOL DATA

| BULLET                   | POWDER | GR   | VEL        | CUP | BULLET                     | POWDER | GR | VEL | CUP |
|--------------------------|--------|------|------------|-----|----------------------------|--------|----|-----|-----|
| <b>223 REMINGTON</b>     |        |      |            |     | <b>CASE: WINCHESTER</b>    |        |    |     |     |
| <b>BBL: 15"</b>          |        |      |            |     | <b>PR: WINCHESTER SR</b>   |        |    |     |     |
| <b>40 GR. NOS BT</b>     |        |      |            |     | <b>COL: 2.280"</b>         |        |    |     |     |
| VARGET                   | 28.0 C | 3069 | 47,200 CUP |     |                            |        |    |     |     |
| BL-C(2)                  | 28.5   | 2910 | 45,400 CUP |     |                            |        |    |     |     |
| H335                     | 28.0   | 3231 | 44,600 CUP |     |                            |        |    |     |     |
| H4895                    | 27.5 C | 3060 | 44,500 CUP |     |                            |        |    |     |     |
| BENCHMARK                | 27.3   | 3174 | 51,000 CUP |     |                            |        |    |     |     |
| H322                     | 25.5   | 3087 | 48,000 CUP |     |                            |        |    |     |     |
| H4198                    | 22.5   | 3014 | 49,600 CUP |     |                            |        |    |     |     |
| <b>50 GR. SPR SP</b>     |        |      |            |     | <b>COL: 2.210"</b>         |        |    |     |     |
| VARGET                   | 27.5 C | 2959 | 44,800 CUP |     |                            |        |    |     |     |
| BL-C(2)                  | 28.0   | 2851 | 47,100 CUP |     |                            |        |    |     |     |
| H335                     | 26.0   | 2834 | 51,700 CUP |     |                            |        |    |     |     |
| H4895                    | 27.5 C | 3024 | 51,300 CUP |     |                            |        |    |     |     |
| BENCHMARK                | 26.5   | 2953 | 50,400 CUP |     |                            |        |    |     |     |
| H322                     | 24.0   | 2740 | 49,300 CUP |     |                            |        |    |     |     |
| H4198                    | 21.5   | 2824 | 45,900 CUP |     |                            |        |    |     |     |
| <b>55 GR. SPR SP</b>     |        |      |            |     | <b>COL: 2.200"</b>         |        |    |     |     |
| VARGET                   | 27.5 C | 2972 | 49,700 CUP |     |                            |        |    |     |     |
| BL-C(2)                  | 27.5   | 2816 | 48,500 CUP |     |                            |        |    |     |     |
| H335                     | 25.3   | 2799 | 49,300 CUP |     |                            |        |    |     |     |
| H4895                    | 26.0   | 2880 | 49,000 CUP |     |                            |        |    |     |     |
| BENCHMARK                | 25.6   | 2840 | 50,000 CUP |     |                            |        |    |     |     |
| H322                     | 23.0   | 2638 | 48,900 CUP |     |                            |        |    |     |     |
| H4198                    | 21.0   | 2719 | 47,600 CUP |     |                            |        |    |     |     |
| <b>25 ACP</b>            |        |      |            |     | <b>CASE: WINCHESTER</b>    |        |    |     |     |
| <b>BBL: 2"</b>           |        |      |            |     | <b>PR: FEDERAL 100M</b>    |        |    |     |     |
| <b>50 GR. SIE FMJ</b>    |        |      |            |     | <b>COL: .900"</b>          |        |    |     |     |
| UNIVERSAL                | 1.4    | 751  | 16,600 CUP |     |                            |        |    |     |     |
| HP-38                    | 1.5    | 788  | 17,900 CUP |     |                            |        |    |     |     |
| TITEGROUP                | 1.3    | 752  | 17,200 CUP |     |                            |        |    |     |     |
| <b>7mm TCU</b>           |        |      |            |     | <b>CASE: FEDERAL (REF)</b> |        |    |     |     |
| <b>BBL: 14"</b>          |        |      |            |     | <b>PR: FEDERAL 210</b>     |        |    |     |     |
| <b>120 GR. SPR SP</b>    |        |      |            |     | <b>COL: 2.410"</b>         |        |    |     |     |
| BL-C(2)                  | 28.0   | 2047 |            |     |                            |        |    |     |     |
| H335                     | 27.0   | 2035 |            |     |                            |        |    |     |     |
| H4895                    | 26.0   | 2020 |            |     |                            |        |    |     |     |
| H322                     | 26.0   | 2117 |            |     |                            |        |    |     |     |
| H4198                    | 23.0   | 2075 |            |     |                            |        |    |     |     |
| H4227                    | 18.0   | 1914 |            |     |                            |        |    |     |     |
| <b>139 GR. HDY SP</b>    |        |      |            |     | <b>COL: 2.625"</b>         |        |    |     |     |
| BL-C(2)                  | 27.0   | 1979 |            |     |                            |        |    |     |     |
| H335                     | 26.0   | 1946 |            |     |                            |        |    |     |     |
| H4895                    | 25.0   | 2001 |            |     |                            |        |    |     |     |
| H322                     | 24.0   | 1938 |            |     |                            |        |    |     |     |
| H4198                    | 21.0   | 1904 |            |     |                            |        |    |     |     |
| H4227                    | 16.5   | 1635 |            |     |                            |        |    |     |     |
| <b>7mm BR REMINGTON</b>  |        |      |            |     | <b>CASE: REMINGTON</b>     |        |    |     |     |
| <b>BBL: 14"</b>          |        |      |            |     | <b>PR: WINCHESTER SR</b>   |        |    |     |     |
| <b>120 GR. SIE SP</b>    |        |      |            |     | <b>COL: 2.284"</b>         |        |    |     |     |
| BL-C(2)                  | 32.0   | 2342 |            |     |                            |        |    |     |     |
| H335                     | 31.0   | 2376 |            |     |                            |        |    |     |     |
| H4895                    | 31.0   | 2363 |            |     |                            |        |    |     |     |
| H322                     | 29.0   | 2323 |            |     |                            |        |    |     |     |
| H4198                    | 24.5   | 2250 |            |     |                            |        |    |     |     |
| <b>139 GR. HDY SP</b>    |        |      |            |     | <b>COL: 2.330"</b>         |        |    |     |     |
| BL-C(2)                  | 30.5   | 2142 |            |     |                            |        |    |     |     |
| H335                     | 29.0   | 2103 |            |     |                            |        |    |     |     |
| H4895                    | 28.5   | 2115 |            |     |                            |        |    |     |     |
| H322                     | 26.5   | 2092 |            |     |                            |        |    |     |     |
| H4198                    | 23.0   | 1977 |            |     |                            |        |    |     |     |
| <b>7mm-08 REMINGTON</b>  |        |      |            |     | <b>CASE: REMINGTON</b>     |        |    |     |     |
| <b>BBL: 15"</b>          |        |      |            |     | <b>PR: REMINGTON 9 1/2</b> |        |    |     |     |
| <b>100 GR. BAR XFB</b>   |        |      |            |     | <b>COL: 2.650"</b>         |        |    |     |     |
| H380                     | 49.0   | 2786 | 46,300 CUP |     |                            |        |    |     |     |
| VARGET                   | 45.7   | 2931 | 49,600 CUP |     |                            |        |    |     |     |
| BL-C(2)                  | 46.5   | 2873 | 50,000 CUP |     |                            |        |    |     |     |
| H335                     | 41.2   | 2752 | 49,700 CUP |     |                            |        |    |     |     |
| H4895                    | 45.0   | 2942 | 49,900 CUP |     |                            |        |    |     |     |
| BENCHMARK                | 42.5   | 2827 | 49,600 CUP |     |                            |        |    |     |     |
| <b>139 GR. HDY SP</b>    |        |      |            |     | <b>COL: 2.800"</b>         |        |    |     |     |
| H4350                    | 50.0 C | 2581 | 47,500 CUP |     |                            |        |    |     |     |
| H414                     | 47.0   | 2451 | 44,100 CUP |     |                            |        |    |     |     |
| H380                     | 47.0   | 2528 | 46,800 CUP |     |                            |        |    |     |     |
| VARGET                   | 43.5   | 2612 | 50,000 CUP |     |                            |        |    |     |     |
| BL-C(2)                  | 44.7   | 2572 | 49,900 CUP |     |                            |        |    |     |     |
| H335                     | 40.0   | 2425 | 49,400 CUP |     |                            |        |    |     |     |
| H4895                    | 42.5   | 2575 | 50,200 CUP |     |                            |        |    |     |     |
| BENCHMARK                | 40.5   | 2520 | 49,600 CUP |     |                            |        |    |     |     |
| <b>162 GR. HDY A-MAX</b> |        |      |            |     | <b>COL: 2.875"</b>         |        |    |     |     |
| H4350                    | 48.0 C | 2472 | 49,800 CUP |     |                            |        |    |     |     |
| H414                     | 45.0   | 2388 | 44,500 CUP |     |                            |        |    |     |     |
| H380                     | 44.0   | 2369 | 45,800 CUP |     |                            |        |    |     |     |
| VARGET                   | 41.0   | 2468 | 49,800 CUP |     |                            |        |    |     |     |
| H335                     | 38.2   | 2338 | 50,100 CUP |     |                            |        |    |     |     |
| H4895                    | 39.5   | 2429 | 49,800 CUP |     |                            |        |    |     |     |
| BENCHMARK                | 38.0   | 2394 | 49,200 CUP |     |                            |        |    |     |     |
| <b>30-30 WINCHESTER</b>  |        |      |            |     | <b>CASE: WINCHESTER</b>    |        |    |     |     |
| <b>BBL: 14"</b>          |        |      |            |     | <b>PR: WINCHESTER LR</b>   |        |    |     |     |
| <b>130 GR. SPR FP</b>    |        |      |            |     | <b>COL: 2.540"</b>         |        |    |     |     |
| VARGET                   | 36.0 C | 2238 | 35,700 CUP |     |                            |        |    |     |     |
| BL-C(2)                  | 37.5   | 2101 | 32,800 CUP |     |                            |        |    |     |     |
| H4895                    | 35.0   | 2194 | 35,300 CUP |     |                            |        |    |     |     |
| BENCHMARK                | 29.7   | 2020 | 37,100 CUP |     |                            |        |    |     |     |
| <b>150 GR. SIE FN</b>    |        |      |            |     | <b>COL: 2.550"</b>         |        |    |     |     |
| VARGET                   | 34.5   | 2119 | 36,200 CUP |     |                            |        |    |     |     |
| BL-C(2)                  | 37.0   | 2060 | 33,900 CUP |     |                            |        |    |     |     |
| H4895                    | 34.0   | 2116 | 36,700 CUP |     |                            |        |    |     |     |
| BENCHMARK                | 29.0   | 1944 | 37,200 CUP |     |                            |        |    |     |     |
| <b>308 WINCHESTER</b>    |        |      |            |     | <b>CASE: WINCHESTER</b>    |        |    |     |     |
| <b>BBL: 15"</b>          |        |      |            |     | <b>PR: FEDERAL 210M</b>    |        |    |     |     |
| <b>130 GR. SPR HP</b>    |        |      |            |     | <b>COL: 2.615"</b>         |        |    |     |     |
| VARGET                   | 50.0 C | 2847 | 50,400 CUP |     |                            |        |    |     |     |
| BL-C(2)                  | 51.5   | 2820 | 49,700 CUP |     |                            |        |    |     |     |
| H335                     | 46.0   | 2755 | 49,700 CUP |     |                            |        |    |     |     |
| H4895                    | 49.0 C | 2831 | 50,100 CUP |     |                            |        |    |     |     |
| BENCHMARK                | 46.0   | 2767 | 50,100 CUP |     |                            |        |    |     |     |
| H322                     | 43.0   | 2664 | 49,800 CUP |     |                            |        |    |     |     |
| H4198                    | 37.0   | 2590 | 49,700 CUP |     |                            |        |    |     |     |
| <b>150 GR. NOS BT</b>    |        |      |            |     | <b>COL: 2.800"</b>         |        |    |     |     |
| VARGET                   | 47.0 C | 2675 | 50,300 CUP |     |                            |        |    |     |     |
| BL-C(2)                  | 48.0   | 2614 | 50,000 CUP |     |                            |        |    |     |     |

NEVER Exceed the Loads Listed in This Publication





# PISTOL DATA

| BULLET                   | POWDER | GR                       | VEL  | CUP        |
|--------------------------|--------|--------------------------|------|------------|
| H335                     |        | 44.0                     | 2541 | 51,200 CUP |
| H4895                    |        | 45.5                     | 2649 | 51,000 CUP |
| BENCHMARK                |        | 43.0                     | 2596 | 49,000 CUP |
| H322                     |        | 40.0                     | 2471 | 50,500 CUP |
| <b>168 GR. SIE HPBT</b>  |        |                          |      |            |
| VARGET                   |        | 46.0                     | 2580 | 50,600 CUP |
| BL-C(2)                  |        | 47.0                     | 2531 | 50,200 CUP |
| H335                     |        | 42.0                     | 2406 | 49,300 CUP |
| H4895                    |        | 43.5                     | 2484 | 49,500 CUP |
| BENCHMARK                |        | 42.0                     | 2463 | 49,300 CUP |
| <b>32 ACP</b>            |        |                          |      |            |
|                          |        | <b>CASE: WINCHESTER</b>  |      |            |
| <b>BBL: 4"</b>           |        | <b>PR: FEDERAL 100</b>   |      |            |
| <b>71 GR. SIE FMJ</b>    |        |                          |      |            |
| <b>COL: .978"</b>        |        |                          |      |            |
| UNIVERSAL                |        | 2.4                      | 881  | 14,900 CUP |
| HP-38                    |        | 2.3                      | 871  | 14,400 CUP |
| TITEGROUP                |        | 2.2                      | 910  | 14,800 CUP |
| CLAYS                    |        | 1.7                      | 830  | 15,000 CUP |
| <b>32 S&amp;W LONG</b>   |        |                          |      |            |
|                          |        | <b>CASE: REMINGTON</b>   |      |            |
| <b>BBL: 5.32"</b>        |        | <b>PR: CCI 500</b>       |      |            |
| <b>85 GR. HDY JHP</b>    |        |                          |      |            |
| <b>COL: 1.160"</b>       |        |                          |      |            |
| UNIVERSAL                |        | 3.0                      | 865  | 12,000 CUP |
| HP-38                    |        | 2.7                      | 810  | 11,500 CUP |
| TITEGROUP                |        | 2.4                      | 819  | 11,300 CUP |
| <b>90 GR. HDY LSWC</b>   |        |                          |      |            |
| <b>COL: 1.850"</b>       |        |                          |      |            |
| UNIVERSAL                |        | 2.7                      | 844  | 10,200 CUP |
| HP-38                    |        | 2.4                      | 831  | 11,300 CUP |
| TITEGROUP                |        | 2.1                      | 818  | 11,900 CUP |
| <b>32 H&amp;R MAGNUM</b> |        |                          |      |            |
|                          |        | <b>CASE: FEDERAL</b>     |      |            |
| <b>BBL: 5"</b>           |        | <b>PR: FEDERAL 100</b>   |      |            |
| <b>85 GR. HDY HP</b>     |        |                          |      |            |
| <b>COL: 1.290"</b>       |        |                          |      |            |
| H4227                    |        | 9.5                      | 1151 | 21,000 CUP |
| LIL'GUN                  |        | 12.0                     | 1263 | 16,800 CUP |
| HS-6                     |        | 5.6                      | 1146 | 20,200 CUP |
| UNIVERSAL                |        | 4.3                      | 1123 | 19,000 CUP |
| HP-38                    |        | 3.8                      | 1003 | 20,700 CUP |
| TITEGROUP                |        | 3.7                      | 1110 | 20,900 CUP |
| <b>90 GR. SIE JHP</b>    |        |                          |      |            |
| <b>COL: 1.340"</b>       |        |                          |      |            |
| H4227                    |        | 10.0                     | 1079 | 17,000 CUP |
| LIL'GUN                  |        | 11.5                     | 1227 | 18,000 CUP |
| HS-6                     |        | 6.0                      | 1140 | 20,200 CUP |
| UNIVERSAL                |        | 4.0                      | 1072 | 20,000 CUP |
| HP-38                    |        | 4.0                      | 1033 | 20,300 CUP |
| TITEGROUP                |        | 3.6                      | 1060 | 20,600 CUP |
| <b>32-20 WINCHESTER</b>  |        |                          |      |            |
|                          |        | <b>CASE: REMINGTON</b>   |      |            |
| <b>BBL: 5.5"</b>         |        | <b>PR: WINCHESTER SP</b> |      |            |
| <b>85 GR. HDY JHP</b>    |        |                          |      |            |
| <b>COL: 1.550"</b>       |        |                          |      |            |
| LIL'GUN                  |        | 8.0                      | 1102 | 15,700 CUP |
| TITEGROUP                |        | 3.5                      | 961  | 15,900 CUP |
| <b>100 GR. REM JFP</b>   |        |                          |      |            |
| <b>COL: 1.580"</b>       |        |                          |      |            |
| LIL'GUN                  |        | 7.5                      | 1018 | 15,700 CUP |
| TITEGROUP                |        | 3.5                      | 908  | 16,000 CUP |

| BULLET                  | POWDER | GR                         | VEL  | CUP        |
|-------------------------|--------|----------------------------|------|------------|
| <b>380 AUTO</b>         |        |                            |      |            |
| <b>BBL: 3.75"</b>       |        | <b>CASE: REMINGTON</b>     |      |            |
|                         |        | <b>PR: CCI 500</b>         |      |            |
| <b>90 GR. HDY JHP</b>   |        |                            |      |            |
| <b>COL: .955"</b>       |        |                            |      |            |
| UNIVERSAL               |        | 3.6                        | 955  | 15,700 CUP |
| HP-38                   |        | 3.5                        | 957  | 15,400 CUP |
| TITEGROUP               |        | 3.2                        | 970  | 15,600 CUP |
| <b>100 GR. HDY FMJ</b>  |        |                            |      |            |
| <b>COL: .980"</b>       |        |                            |      |            |
| UNIVERSAL               |        | 3.4                        | 889  | 16,100 CUP |
| HP-38                   |        | 3.1                        | 843  | 15,400 CUP |
| TITEGROUP               |        | 3.0                        | 912  | 14,700 CUP |
| <b>9MM LUGER</b>        |        |                            |      |            |
| <b>BBL: 4"</b>          |        | <b>CASE: WINCHESTER</b>    |      |            |
|                         |        | <b>PR: CCI 500</b>         |      |            |
| <b>115 GR. SPR GDHP</b> |        |                            |      |            |
| <b>COL: 1.125"</b>      |        |                            |      |            |
| HS-6                    |        | 7.0                        | 1234 | 29,400 CUP |
| UNIVERSAL               |        | 5.0                        | 1149 | 31,200 CUP |
| HP-38                   |        | 5.1                        | 1167 | 28,100 CUP |
| TITEGROUP               |        | 4.8                        | 1158 | 30,500 CUP |
| <b>125 GR. SIE FMJ</b>  |        |                            |      |            |
| <b>COL: 1.090"</b>      |        |                            |      |            |
| HS-6                    |        | 6.8                        | 1169 | 27,100 CUP |
| UNIVERSAL               |        | 4.9                        | 1118 | 30,600 CUP |
| HP-38                   |        | 4.8                        | 1088 | 28,800 CUP |
| TITEGROUP               |        | 4.4                        | 1136 | 30,600 CUP |
| <b>147 GR. HDY XTP</b>  |        |                            |      |            |
| <b>COL: 1.100"</b>      |        |                            |      |            |
| HS-6                    |        | 5.0                        | 885  | 27,900 CUP |
| UNIVERSAL               |        | 3.3                        | 869  | 31,000 CUP |
| TITEGROUP               |        | 3.6                        | 929  | 27,500 CUP |
| <b>38 SUPER AUTO</b>    |        |                            |      |            |
| <b>BBL: 5"</b>          |        | <b>CASE: REMINGTON</b>     |      |            |
|                         |        | <b>PR: REMINGTON 1 1/2</b> |      |            |
| <b>115 GR. HDY XTP</b>  |        |                            |      |            |
| <b>COL: 1.245"</b>      |        |                            |      |            |
| HS-6                    |        | 8.5                        | 1314 | 31,500 CUP |
| UNIVERSAL               |        | 5.5                        | 1225 | 32,300 CUP |
| HP-38                   |        | 6.1                        | 1261 | 32,700 CUP |
| TITEGROUP               |        | 5.3                        | 1208 | 31,800 CUP |
| <b>125 GR. SIE FMJ</b>  |        |                            |      |            |
| <b>COL: 1.275"</b>      |        |                            |      |            |
| HS-6                    |        | 8.3                        | 1271 | 32,100 CUP |
| UNIVERSAL               |        | 5.5                        | 1179 | 32,300 CUP |
| HP-38                   |        | 5.7                        | 1159 | 31,200 CUP |
| TITEGROUP               |        | 5.0                        | 1124 | 31,800 CUP |
| <b>130 GR. SIE FMJ</b>  |        |                            |      |            |
| <b>COL: 1.275"</b>      |        |                            |      |            |
| HS-6                    |        | 8.2                        | 1231 | 32,500 CUP |
| UNIVERSAL               |        | 5.3                        | 1124 | 32,200 CUP |
| HP-38                   |        | 5.5                        | 1134 | 31,200 CUP |
| TITEGROUP               |        | 4.9                        | 1116 | 31,000 CUP |
| <b>135 GR. NOS IPSC</b> |        |                            |      |            |
| <b>COL: 1.265"</b>      |        |                            |      |            |
| LIL'GUN                 |        | 12.8                       | 1357 | 32,400 CUP |
| <b>38 SPECIAL</b>       |        |                            |      |            |
| <b>BBL: 7.7"</b>        |        | <b>CASE: WINCHESTER</b>    |      |            |
|                         |        | <b>PR: WINCHESTER SP</b>   |      |            |
| <b>125 GR. HDY XTP</b>  |        |                            |      |            |
| <b>COL: 1.455"</b>      |        |                            |      |            |
| HS-6                    |        | 7.2                        | 1048 | 16,600 CUP |
| UNIVERSAL               |        | 5.2                        | 1019 | 17,000 CUP |
| HP-38                   |        | 4.9                        | 934  | 16,300 CUP |
| TITEGROUP               |        | 4.6                        | 1010 | 15,600 CUP |
| CLAYS                   |        | 3.9                        | 937  | 16,100 CUP |
| <b>140 GR. HDY XTP</b>  |        |                            |      |            |
| <b>COL: 1.455"</b>      |        |                            |      |            |
| HS-6                    |        | 6.5                        | 933  | 16,000 CUP |

# PISTOL DATA

| BULLET   | POWDER | GR                        | VEL  | CUP        |
|--|--------|---------------------------|------|------------|
| UNIVERSAL  |        | 4.8                       | 939  | 15,400 CUP |
| HP-38  |        | 4.6                       | 861  | 15,800 CUP |
| TITEGROUP  |        | 4.2                       | 919  | 15,800 CUP |
| CLAYS  |        | 3.7                       | 869  | 16,700 CUP |
| <b>148 GR. HDY LHBWC</b>   |        |                           |      |            |
| <b>COL: 1.160"</b>   |        |                           |      |            |
| HS-6   |        | 5.2                       | 943  | 14,300 CUP |
| HP-38  |        | 4.0                       | 956  | 15,900 CUP |
| UNIVERSAL  |        | 3.8                       | 940  | 15,600 CUP |
| TITEGROUP  |        | 3.3                       | 908  | 11,800 CUP |
| CLAYS  |        | 2.5                       | 836  | 13,200 CUP |
| <b>158 GR. HDY XTP</b>   |        |                           |      |            |
| <b>COL: 1.455"</b>   |        |                           |      |            |
| H4227  |        | 10.0                      | 864  | 15,500 CUP |
| HS-6   |        | 6.2                       | 862  | 16,300 CUP |
| UNIVERSAL  |        | 4.4                       | 778  | 16,200 CUP |
| HP-38  |        | 4.3                       | 779  | 15,900 CUP |
| TITEGROUP  |        | 3.9                       | 798  | 15,900 CUP |
| CLAYS  |        | 3.1                       | 721  | 16,600 CUP |
| <b>38 SPECIAL +P</b>   |        |                           |      |            |
| <b>BBL: 7.7"</b>   |        | <b>CASE: WINCHESTER</b>   |      |            |
|  |        | <b>PR: WINCHESTER SP</b>  |      |            |
| <b>NOTE: Loads are for use in modern arms in good condition. These loads should not be used in small frame, or aluminum frame revolvers, nor are they intended for auto pistols.</b> |        |                           |      |            |
| <b>125 GR. HDY XTP</b>   |        |                           |      |            |
| <b>COL: 1.455"</b>   |        |                           |      |            |
| HS-6   |        | 7.8                       | 1138 | 19,500 CUP |
| UNIVERSAL  |        | 5.4                       | 1072 | 18,900 CUP |
| HP-38  |        | 5.3                       | 1018 | 19,800 CUP |
| TITEGROUP  |        | 5.0                       | 1069 | 18,700 CUP |
| <b>140 GR. HDY XTP</b>   |        |                           |      |            |
| <b>COL: 1.455"</b>   |        |                           |      |            |
| H4227  |        | 12.4                      | 1121 | 19,400 CUP |
| HS-6   |        | 7.0                       | 992  | 18,300 CUP |
| UNIVERSAL  |        | 5.1                       | 1022 | 19,100 CUP |
| HP-38  |        | 4.9                       | 892  | 18,600 CUP |
| TITEGROUP  |        | 4.6                       | 984  | 19,300 CUP |
| <b>158 GR. HDY XTP</b>   |        |                           |      |            |
| <b>COL: 1.455"</b>   |        |                           |      |            |
| H4227  |        | 11.0                      | 964  | 17,600 CUP |
| HS-6   |        | 6.6                       | 926  | 18,700 CUP |
| UNIVERSAL  |        | 4.7                       | 837  | 19,200 CUP |
| HP-38  |        | 4.6                       | 807  | 18,100 CUP |
| TITEGROUP  |        | 4.3                       | 905  | 19,300 CUP |
| <b>357 SIG</b>   |        |                           |      |            |
| <b>BBL: 4"</b>   |        | <b>CASE: FEDERAL</b>      |      |            |
|  |        | <b>PR: WINCHESTER SP</b>  |      |            |
| <b>124 GR. HDY XTP</b>   |        |                           |      |            |
| <b>COL: 1.135"</b>   |        |                           |      |            |
| HS-6   |        | 9.0                       | 1339 | 38,700 PSI |
| UNIVERSAL  |        | 5.8                       | 1235 | 38,500 PSI |
| <b>147 GR. HDY XTP</b>   |        |                           |      |            |
| <b>COL: 1.140"</b>   |        |                           |      |            |
| HS-6   |        | 7.6                       | 1173 | 36,600 PSI |
| UNIVERSAL  |        | 4.9                       | 1062 | 36,300 PSI |
| <b>357 MAGNUM</b>  |        |                           |      |            |
| <b>BBL: 10"</b>  |        | <b>CASE: WINCHESTER</b>   |      |            |
|  |        | <b>PR: WINCHESTER SPM</b> |      |            |
| <b>125 GR. HDY XTP</b>   |        |                           |      |            |
| <b>COL: 1.590"</b>   |        |                           |      |            |
| H4227  |        | 20.0                      | 1839 | 42,000 CUP |
| H110   |        | 22.0                      | 1966 | 41,400 CUP |
| HS-6   |        | 10.9                      | 1629 | 42,100 CUP |
| UNIVERSAL  |        | 7.6                       | 1453 | 39,600 CUP |
| HP-38  |        | 8.5                       | 1514 | 42,700 CUP |
| TITEGROUP  |        | 7.5                       | 1497 | 41,200 CUP |

| BULLET                       | POWDER | GR                         | VEL  | CUP        |
|------------------------------|--------|----------------------------|------|------------|
| <b>146 GR. SPR JHP</b>       |        |                            |      |            |
| <b>COL: 1.535"</b>           |        |                            |      |            |
| H4227                        |        | 16.0                       | 1566 | 42,700 CUP |
| H110                         |        | 17.2                       | 1691 | 42,600 CUP |
| HS-6                         |        | 9.5                        | 1461 | 41,800 CUP |
| UNIVERSAL                    |        | 6.5                        | 1261 | 39,900 CUP |
| HP-38                        |        | 7.1                        | 1330 | 42,200 CUP |
| TITEGROUP                    |        | 6.6                        | 1317 | 42,900 CUP |
| <b>158 GR. HDY XTP</b>       |        |                            |      |            |
| <b>COL: 1.580"</b>           |        |                            |      |            |
| H4227                        |        | 16.0                       | 1520 | 42,600 CUP |
| H110                         |        | 16.7                       | 1591 | 40,700 CUP |
| LIL'GUN                      |        | 18.0                       | 1577 | 25,800 CUP |
| HS-6                         |        | 9.5                        | 1375 | 41,900 CUP |
| UNIVERSAL                    |        | 6.3                        | 1133 | 39,300 CUP |
| HP-38                        |        | 6.9                        | 1220 | 40,000 CUP |
| TITEGROUP                    |        | 6.1                        | 1229 | 41,900 CUP |
| <b>180 GR. NOS PART</b>      |        |                            |      |            |
| <b>COL: 1.575"</b>           |        |                            |      |            |
| H4227                        |        | 13.7                       | 1308 | 40,900 CUP |
| H110                         |        | 13.5                       | 1396 | 39,100 CUP |
| LIL'GUN                      |        | 15.0                       | 1422 | 34,500 CUP |
| TITEGROUP                    |        | 5.5                        | 1020 | 40,300 CUP |
| <b>357 REMINGTON MAXIMUM</b> |        |                            |      |            |
| <b>REMINGTON</b>             |        | <b>PR: REMINGTON 7 1/2</b> |      |            |
| <b>BBL: 10"</b>              |        |                            |      |            |
| <b>160 GR. HDY JTC SIL</b>   |        |                            |      |            |
| <b>COL: 1.890"</b>           |        |                            |      |            |
| H4227                        |        | 22.5                       | 1814 |            |
| H110                         |        | 24.0                       | 1886 |            |
| <b>180 GR. SPR TMJ SIL</b>   |        |                            |      |            |
| <b>COL: 1.990"</b>           |        |                            |      |            |
| H4227                        |        | 20.0                       | 1645 |            |
| H110                         |        | 21.0                       | 1694 |            |
| <b>35 REMINGTON</b>          |        |                            |      |            |
| <b>BBL: 14"</b>              |        | <b>CASE: REMINGTON</b>     |      |            |
|                              |        | <b>PR: REMINGTON 9 1/2</b> |      |            |
| <b>180 GR. SPR FN</b>        |        |                            |      |            |
| <b>COL: 2.470"</b>           |        |                            |      |            |
| VARGET                       |        | 40.5                       | 1998 | 32,500 CUP |
| BL-C(2)                      |        | 43.0                       | 1954 | 32,300 CUP |
| H335                         |        | 37.5                       | 1921 | 33,600 CUP |
| H4895                        |        | 39.0                       | 2031 | 33,100 CUP |
| BENCHMARK                    |        | 35.5                       | 1932 | 32,300 CUP |
| H322                         |        | 35.0                       | 1915 | 33,100 CUP |
| H4198                        |        | 32.0                       | 1977 | 33,000 CUP |
| <b>200 GR. HDY RN</b>        |        |                            |      |            |
| <b>COL: 2.510"</b>           |        |                            |      |            |
| VARGET                       |        | 39.5                       | 1797 | 33,300 CUP |
| BL-C(2)                      |        | 41.5                       | 1689 | 31,700 CUP |
| H335                         |        | 37.0                       | 1720 | 33,200 CUP |
| H4895                        |        | 38.5                       | 1772 | 32,300 CUP |
| BENCHMARK                    |        | 35.5                       | 1766 | 32,600 CUP |
| H322                         |        | 33.8                       | 1670 | 33,100 CUP |
| H4198                        |        | 30.5                       | 1680 | 31,700 CUP |
| <b>9 X 18MM MAKAROV</b>      |        |                            |      |            |
| <b>BBL: 4"</b>               |        | <b>CASE: WINCHESTER</b>    |      |            |
|                              |        | <b>PR: WINCHESTER SP</b>   |      |            |
| <b>90 GR. SPR FP</b>         |        |                            |      |            |
| <b>COL: .970"</b>            |        |                            |      |            |
| UNIVERSAL                    |        | 3.9                        | 1022 | 23,000 PSI |
| HP-38                        |        | 4.0                        | 1031 | 24,000 PSI |
| TITEGROUP                    |        | 3.7                        | 1053 | 22,900 PSI |
| <b>95 GR. HDY XTP</b>        |        |                            |      |            |
| <b>COL: .965"</b>            |        |                            |      |            |
| UNIVERSAL                    |        | 4.0                        | 1030 | 23,800 PSI |
| HP-38                        |        | 3.8                        | 990  | 24,000 PSI |

NEVER Exceed the Loads Listed in This Publication

NEVER Exceed the Loads Listed in This Publication

# PISTOL DATA

| BULLET                 | POWDER | GR   | VEL  | CUP               |
|------------------------|--------|------|------|-------------------|
| TITEGROUP              |        | 3.6  | 1022 | 22,500 PSI        |
| <b>100 GR. SIE JFP</b> |        |      |      | <b>COL: .970"</b> |
| UNIVERSAL              | 4.0    | 996  |      | 23,600 PSI        |
| HP-38                  | 3.8    | 969  |      | 23,500 PSI        |
| TITEGROUP              | 3.7    | 1011 |      | 23,500 PSI        |

**375 JDJ** CASE: REMINGTON (REF)  
BBL: 14" PR: FEDERAL 210M

|                       |      |  |      |                    |
|-----------------------|------|--|------|--------------------|
| <b>200 GR. SIE FP</b> |      |  |      | <b>COL: 2.750"</b> |
| H4895                 | 52.0 |  | 2147 |                    |
| H322                  | 50.0 |  | 2077 |                    |

|                       |      |  |      |                    |
|-----------------------|------|--|------|--------------------|
| <b>300 GR. HDY RN</b> |      |  |      | <b>COL: 2.970"</b> |
| H4895                 | 46.0 |  | 1951 |                    |
| H322                  | 42.0 |  | 1773 |                    |

**38-40 WINCHESTER** CASE: WINCHESTER  
BBL: 5.5" PR: WINCHESTER LP

|                           |     |     |  |                    |
|---------------------------|-----|-----|--|--------------------|
| <b>180 GR. CAST LRNFP</b> |     |     |  | <b>COL: 1.600"</b> |
| UNIVERSAL                 | 7.5 | 955 |  | 11,900 PSI         |
| HP-38                     | 6.8 | 934 |  | 13,500 PSI         |
| TITEGROUP                 | 6.4 | 990 |  | 13,300 PSI         |
| CLAYS                     | 5.5 | 889 |  | 13,500 PSI         |

**40 S&W** CASE: HORNADY  
BBL: 4" PR: WINCHESTER SP

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

|                        |      |      |  |                    |
|------------------------|------|------|--|--------------------|
| <b>135 GR. NOS JHP</b> |      |      |  | <b>COL: 1.125"</b> |
| HS-6                   | 10.2 | 1321 |  | 33,600 PSI         |
| UNIVERSAL              | 7.5  | 1324 |  | 32,500 PSI         |
| HP-38                  | 7.0  | 1244 |  | 33,100 PSI         |
| TITEGROUP              | 6.4  | 1251 |  | 33,200 PSI         |
| CLAYS                  | 4.5  | 1071 |  | 32,900 PSI         |

|                        |     |      |  |                    |
|------------------------|-----|------|--|--------------------|
| <b>180 GR. HDY XTP</b> |     |      |  | <b>COL: 1.125"</b> |
| HS-6                   | 6.9 | 976  |  | 32,500 PSI         |
| UNIVERSAL              | 5.8 | 1046 |  | 33,400 PSI         |
| HP-38                  | 5.0 | 947  |  | 32,900 PSI         |
| TITEGROUP              | 4.7 | 978  |  | 33,300 PSI         |
| CLAYS                  | 3.5 | 847  |  | 34,300 PSI         |

|                        |     |     |  |                    |
|------------------------|-----|-----|--|--------------------|
| <b>200 GR. HDY XTP</b> |     |     |  | <b>COL: 1.125"</b> |
| HS-6                   | 6.3 | 900 |  | 32,800 PSI         |
| UNIVERSAL              | 4.7 | 903 |  | 33,600 PSI         |
| HP-38                  | 4.7 | 857 |  | 33,400 PSI         |
| TITEGROUP              | 3.8 | 822 |  | 31,700 PSI         |

**10MM AUTO** CASE: WINCHESTER  
BBL: 5" PR: WINCHESTER LP

|                        |     |      |  |                    |
|------------------------|-----|------|--|--------------------|
| <b>180 GR. SIE JHC</b> |     |      |  | <b>COL: 1.260"</b> |
| HS-6                   | 9.4 | 1127 |  | 35,800 PSI         |
| UNIVERSAL              | 6.4 | 1122 |  | 32,200 PSI         |
| HP-38                  | 5.8 | 1061 |  | 34,900 PSI         |
| TITEGROUP              | 6.0 | 1141 |  | 34,300 PSI         |

| BULLET                 | POWDER | GR   | VEL | CUP                |
|------------------------|--------|------|-----|--------------------|
| <b>200 GR. HDY FMJ</b> |        |      |     | <b>COL: 1.260"</b> |
| HS-6                   | 8.6    | 1089 |     | 35,900 PSI         |
| UNIVERSAL              | 5.9    | 1015 |     | 36,900 PSI         |
| HP-38                  | 5.6    | 1011 |     | 35,700 PSI         |
| TITEGROUP              | 5.3    | 1024 |     | 36,100 PSI         |

**41 REMINGTON MAGNUM** CASE: REMINGTON  
BBL: 10.125" PR: WINCHESTER LP

|                        |      |      |  |                    |
|------------------------|------|------|--|--------------------|
| <b>170 GR. SIE JHC</b> |      |      |  | <b>COL: 1.575"</b> |
| H4227                  | 24.9 | 1745 |  | 35,600 CUP         |
| H110                   | 26.5 | 1887 |  | 37,400 CUP         |
| HS-6                   | 13.7 | 1597 |  | 37,200 CUP         |
| UNIVERSAL              | 10.3 | 1488 |  | 38,700 CUP         |
| HP-38                  | 9.8  | 1440 |  | 38,300 CUP         |
| TITEGROUP              | 9.2  | 1470 |  | 37,700 CUP         |

|                        |      |      |  |                    |
|------------------------|------|------|--|--------------------|
| <b>220 GR. SPR JSP</b> |      |      |  | <b>COL: 1.580"</b> |
| H4227                  | 20.0 | 1433 |  | 37,500 CUP         |
| H110                   | 20.0 | 1563 |  | 31,200 CUP         |
| LIL'GUN                | 20.5 | 1626 |  | 29,900 CUP         |
| HS-6                   | 11.3 | 1271 |  | 36,700 CUP         |
| UNIVERSAL              | 8.5  | 1178 |  | 38,600 CUP         |
| HP-38                  | 8.0  | 1125 |  | 36,700 CUP         |
| TITEGROUP              | 7.3  | 1127 |  | 33,700 CUP         |

**44 S&W SPECIAL** CASE: STARLINE  
BBL: 8" PR: WINCHESTER LP

|                           |     |      |  |                    |
|---------------------------|-----|------|--|--------------------|
| <b>185 GR. CAST LRNFP</b> |     |      |  | <b>COL: 1.400"</b> |
| UNIVERSAL                 | 6.4 | 1031 |  | 13,900 CUP         |
| HP-38                     | 5.6 | 953  |  | 12,500 CUP         |
| TITEGROUP                 | 5.5 | 1025 |  | 11,600 CUP         |
| CLAYS                     | 4.2 | 930  |  | 13,200 CUP         |

|                          |      |     |  |                    |
|--------------------------|------|-----|--|--------------------|
| <b>240 GR. CAST LSWC</b> |      |     |  | <b>COL: 1.450"</b> |
| H4227                    | 13.2 | 947 |  | 12,600 CUP         |
| HS-6                     | 8.0  | 917 |  | 13,000 CUP         |
| UNIVERSAL                | 5.6  | 873 |  | 13,300 CUP         |
| HP-38                    | 5.2  | 858 |  | 13,200 CUP         |
| TITEGROUP                | 4.8  | 862 |  | 13,100 CUP         |
| CLAYS                    | 4.0  | 771 |  | 13,500 CUP         |

**44-40 WINCHESTER** CASE: WINCHESTER  
BBL: 6" PR: WINCHESTER LP

|                           |     |     |  |                    |
|---------------------------|-----|-----|--|--------------------|
| <b>200 GR. CAST LRNFP</b> |     |     |  | <b>COL: 1.600"</b> |
| UNIVERSAL                 | 7.3 | 777 |  | 11,100 PSI         |
| HP-38                     | 6.5 | 820 |  | 12,400 PSI         |
| TITEGROUP                 | 6.2 | 901 |  | 12,900 PSI         |
| CLAYS                     | 5.0 | 765 |  | 11,700 PSI         |

**44 REMINGTON MAGNUM** CASE: WINCHESTER  
BBL: 8.275" PR: REMINGTON 2 1/2

|                        |      |      |  |                    |
|------------------------|------|------|--|--------------------|
| <b>200 GR. NOS JHP</b> |      |      |  | <b>COL: 1.600"</b> |
| H4227                  | 27.0 | 1686 |  | 37,800 CUP         |
| H110                   | 28.5 | 1806 |  | 37,800 CUP         |
| LIL'GUN                | 29.5 | 1794 |  | 36,200 CUP         |
| HS-6                   | 16.7 | 1569 |  | 37,700 CUP         |
| UNIVERSAL              | 11.1 | 1398 |  | 38,300 CUP         |
| HP-38                  | 11.9 | 1444 |  | 37,400 CUP         |
| TITEGROUP              | 10.8 | 1433 |  | 38,400 CUP         |

|                        |      |      |  |                    |
|------------------------|------|------|--|--------------------|
| <b>240 GR. NOS JHP</b> |      |      |  | <b>COL: 1.600"</b> |
| H4227                  | 24.0 | 1458 |  | 36,100 CUP         |

# PISTOL DATA

| BULLET    | POWDER | GR   | VEL | CUP        |
|-----------|--------|------|-----|------------|
| H110      | 24.0   | 1522 |     | 36,200 CUP |
| LIL'GUN   | 24.5   | 1582 |     | 38,100 CUP |
| HS-7      | 16.5   | 1394 |     | 38,200 CUP |
| HS-6      | 15.1   | 1417 |     | 38,200 CUP |
| UNIVERSAL | 10.2   | 1246 |     | 38,200 CUP |
| HP-38     | 11.0   | 1272 |     | 37,800 CUP |
| TITEGROUP | 10.0   | 1292 |     | 37,700 CUP |

|                        |      |      |  |                    |
|------------------------|------|------|--|--------------------|
| <b>300 GR. HDY XTP</b> |      |      |  | <b>COL: 1.600"</b> |
| H4227                  | 20.0 | 1312 |  | 38,600 CUP         |
| H110                   | 19.0 | 1325 |  | 38,800 CUP         |
| LIL'GUN                | 17.7 | 1280 |  | 37,600 CUP         |
| HS-7                   | 14.0 | 1214 |  | 37,300 CUP         |
| HS-6                   | 13.0 | 1214 |  | 37,900 CUP         |
| UNIVERSAL              | 9.6  | 1113 |  | 38,200 CUP         |
| HP-38                  | 10.0 | 1149 |  | 38,100 CUP         |
| TITEGROUP              | 9.6  | 1186 |  | 38,400 CUP         |

**44 AUTO MAG** CASE: FEDERAL (REF)  
BBL: 6" PR: CCI 350

|                        |      |      |  |                    |
|------------------------|------|------|--|--------------------|
| <b>200 GR. HDY XTP</b> |      |      |  | <b>COL: 1.610"</b> |
| H4227                  | 26.0 | 1427 |  |                    |
| H110                   | 25.0 | 1485 |  |                    |
| HS-7                   | 17.0 | 1302 |  |                    |

|                       |      |      |  |                    |
|-----------------------|------|------|--|--------------------|
| <b>240 GR. NOS HP</b> |      |      |  | <b>COL: 1.600"</b> |
| H4227                 | 21.0 | 1183 |  |                    |
| H110                  | 21.0 | 1241 |  |                    |

**45 ACP** CASE: WINCHESTER  
BBL: 5" PR: FEDERAL 150

|                         |     |     |  |                    |
|-------------------------|-----|-----|--|--------------------|
| <b>185 GR. HDY JSWC</b> |     |     |  | <b>COL: 1.195"</b> |
| HS-6                    | 9.5 | 996 |  | 16,800 CUP         |
| UNIVERSAL               | 7.2 | 993 |  | 17,000 CUP         |
| HP-38                   | 5.9 | 906 |  | 15,800 CUP         |
| TITEGROUP               | 5.5 | 956 |  | 17,000 CUP         |
| CLAYS                   | 4.9 | 981 |  | 17,400 CUP         |

|                        |     |     |  |                    |
|------------------------|-----|-----|--|--------------------|
| <b>200 GR. SPR JHP</b> |     |     |  | <b>COL: 1.155"</b> |
| HS-6                   | 9.0 | 948 |  | 16,400 CUP         |
| UNIVERSAL              | 6.7 | 930 |  | 17,200 CUP         |
| HP-38                  | 5.9 | 906 |  | 16,700 CUP         |
| TITEGROUP              | 5.2 | 884 |  | 16,900 CUP         |
| CLAYS                  | 4.3 | 785 |  | 17,700 CUP         |

|                           |     |     |  |                    |
|---------------------------|-----|-----|--|--------------------|
| <b>230 GR. HDY FMJ FP</b> |     |     |  | <b>COL: 1.200"</b> |
| HS-6                      | 8.2 | 825 |  | 15,400 CUP         |
| UNIVERSAL                 | 6.0 | 853 |  | 16,900 CUP         |
| HP-38                     | 5.3 | 832 |  | 16,800 CUP         |
| TITEGROUP                 | 4.8 | 818 |  | 16,700 CUP         |
| CLAYS                     | 4.0 | 732 |  | 17,000 CUP         |

**45 COLT** CASE: WINCHESTER  
BBL: 7.25" PR: WINCHESTER LP

|                           |     |      |  |                    |
|---------------------------|-----|------|--|--------------------|
| <b>200 GR. CAST LRNFP</b> |     |      |  | <b>COL: 1.600"</b> |
| UNIVERSAL                 | 8.8 | 1067 |  | 13,600 CUP         |
| HP-38                     | 8.0 | 1002 |  | 13,800 CUP         |
| TITEGROUP                 | 7.7 | 1050 |  | 12,700 CUP         |
| CLAYS                     | 5.9 | 931  |  | 13,100 CUP         |

|                         |      |     |  |                    |
|-------------------------|------|-----|--|--------------------|
| <b>260 GR. SPR GDHP</b> |      |     |  | <b>COL: 1.595"</b> |
| HS-6                    | 10.7 | 865 |  | 14,000 CUP         |
| UNIVERSAL               | 8.0  | 813 |  | 14,000 CUP         |
| HP-38                   | 7.1  | 787 |  | 14,000 CUP         |
| TITEGROUP               | 6.3  | 797 |  | 12,500 CUP         |

| BULLET                 | POWDER | GR  | VEL | CUP                |
|------------------------|--------|-----|-----|--------------------|
| <b>300 GR. SIE JFP</b> |        |     |     | <b>COL: 1.670"</b> |
| HS-6                   | 10.0   | 730 |     | 13,700 CUP         |
| UNIVERSAL              | 7.3    | 700 |     | 13,700 CUP         |
| TITEGROUP              | 5.8    | 682 |     | 12,900 CUP         |

**45 WINCHESTER MAGNUM** CASE: WINCHESTER  
BBL: 5" PR: CCI 350

|                           |      |      |  |                    |
|---------------------------|------|------|--|--------------------|
| <b>230 GR. HDY FMJ FP</b> |      |      |  | <b>COL: 1.555"</b> |
| H4227                     | 25.0 | 1259 |  | 29,400 CUP         |
| H110                      | 28.0 | 1410 |  | 29,000 CUP         |
| HS-6                      | 17.0 | 1296 |  | 36,600 CUP         |
| HP-38                     | 10.8 | 1191 |  | 37,100 CUP         |

|                        |      |      |  |                    |
|------------------------|------|------|--|--------------------|
| <b>250 GR. NOS JHP</b> |      |      |  | <b>COL: 1.500"</b> |
| H4227                  | 24.0 | 1239 |  | 37,100 CUP         |
| H110                   | 26.0 | 1380 |  | 37,400 CUP         |
| HS-6                   | 15.4 | 1220 |  | 37,700 CUP         |
| HP-38                  | 9.8  | 1100 |  | 38,400 CUP         |

**454 CASULL** CASE: FREEDOM ARMS  
BBL: 9.375" PR: WINCHESTER SR

|                       |        |      |  |                    |
|-----------------------|--------|------|--|--------------------|
| <b>260 GR. FA JFP</b> |        |      |  | <b>COL: 1.765"</b> |
| H4227                 | 33.0 C | 1762 |  | 42,100 CUP         |
| H110                  | 36.0   | 1954 |  | 51,600 CUP         |
| LIL'GUN               | 35.5   | 1895 |  | 37,900 CUP         |

|                        |      |      |  |                    |
|------------------------|------|------|--|--------------------|
| <b>260 GR. SPR JHP</b> |      |      |  | <b>COL: 1.675"</b> |
| HS-6                   | 16.8 | 1420 |  | 36,400 CUP         |
| UNIVERSAL              | 11.5 | 1245 |  | 34,900 CUP         |
| TITEGROUP              | 11.0 | 1270 |  | 35,900 CUP         |

|                       |        |      |  |                    |
|-----------------------|--------|------|--|--------------------|
| <b>300 GR. FA JFP</b> |        |      |  | <b>COL: 1.775"</b> |
| H4227                 | 31.0 C | 1702 |  | 52,400 CUP         |
| H110                  | 30.0   | 1716 |  | 53,700 CUP         |
| LIL'GUN               | 31.0   | 1746 |  | 45,900 CUP         |

**475 LINEBAUGH** CASE: STARLINE  
BBL: 8" PR: WINCHESTER LP

|                           |      |      |  |                    |
|---------------------------|------|------|--|--------------------|
| <b>385 GR. CAST LRNFP</b> |      |      |  | <b>COL: 1.810"</b> |
| H4227                     | 28.0 | 1456 |  | 51,100 PSI         |
| H110                      | 30.0 | 1566 |  | 55,000 PSI         |
| LIL'GUN                   | 29.0 | 1523 |  | 47,900 PSI         |
| TITEGROUP                 | 11.0 | 1130 |  | 51,700 PSI         |

**50 ACTION EXPRESS** CASE: SPEER  
BBL: 6" PR: CCI 350

|                            |      |      |  |                    |
|----------------------------|------|------|--|--------------------|
| <b>325 GR. SPR AE UCHP</b> |      |      |  | <b>COL: 1.575"</b> |
| H4227                      | 30.8 | 1294 |  |                    |

# NOTES



## HODGDON

### *Cowboy Action Data Manual - 3rd Edition*

---

Hodgdon's complimentary Cowboy Action Data Manual is the only manual available that was prepared for the sole purpose of Cowboy Action Shooting. The data includes the following:

- Smokeless pistol, carbine, long-range rifle and shotgun data.
- Pyrodex® pistol, rifle and shotgun loads.
- Cap and ball revolver data.
- Now new data with Pyrodex® pistol pellets.

Included with the data are special tips, techniques and loads to make your Cowboy Action Shooting safer and more enjoyable.

For a complimentary copy of this data manual, contact Hodgdon Powder Company at P.O. Box 2932, Shawnee Mission, KS 66201, 913-362-9455 or [www.hodgdon.com](http://www.hodgdon.com).



## HODGDON

### *Muzzleloading Propellants*

---

The 21st century muzzleloading propellant is here! The revolutionary Pyrodex Pellets are preformed charges that offer quick and safe no-spill loading, instant ignition and faster second shots. Now available in 50 Caliber, 54 Caliber and 44 Caliber pistol.

Pyrodex EZ-Clean is an all natural, environmentally safe muzzleloading cleaner that removes fouling and dissolves the residue produced when common blackpowder or Pyrodex is fired. Pyrodex EZ-Clean is great smelling and will not harm wood or metal surfaces.

Spit Ball is a non-fouling lube primarily for pistol shooters. Helps prevent chain firing, dissolves fouling, makes cleaning simple, resists corrosion and will not dry out or separate.

Funnel/Pouring Cap fits all Hodgdon 11lb cans, doubles as a funnel. Eliminates the mess and danger from spilled powder. Use for transferring powder from can to measure or other containers.



## HODGDON

### *No. 27 Data Manual*

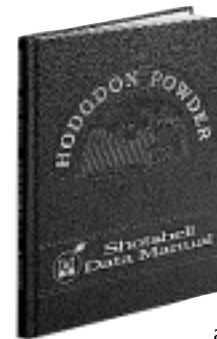
---

The world's most comprehensive data manual is newly updated with more than 750 pages of cartridge, propellant, ballistics and trajectory information necessary for the complete reloader. Now in its 27th edition, the Hodgdon Data Manual features easy-to-read, 5 1/2" x 8 1/2" pages in a unique gold-embossed, European-styled ring binder. This elegant, special-edition volume is designed to remain open on the pages you select.

The 27th edition offers everything from historical information to detailed "how to" descriptions of cartridge assembly. Also new to the Hodgdon Manual is a set of short and long range ballistic tables that applies to any brand or style of bullet.

Included with each set of data is a new three dimensional cartridge case drawing and a complete listing of all components used in the development of the data for that specific cartridge.

Why settle for less? See your dealer or call (913) 362-9455 to order direct.



## HODGDON

### *Shotshell Manual*

---

This elegant 8 1/2" x 11" gold embossed, color illustrated hardbound book is dedicated solely to the shotgunner...a Hodgdon first. Included are hundreds of loads for lead shot, buckshot, slugs, bismuth shot and even steel shot target data. All gauges are covered, including data for the 2" and 2 1/2"- 12 gauge. Hodgdon's exclusive format makes finding that special load quick and easy.

See your dealer or order from Hodgdon, \$19.95 plus \$3 S&H.



**HODGDON**<sup>®</sup>  
THE BRAND THAT'S TRUE

P.O. BOX 2932 • SHAWNEE MISSION, KANSAS 66201  
PRODUCT QUESTIONS AND AVAILABILITY  
913-362-9455 • [www.hodgdon.com](http://www.hodgdon.com)

BULK RATE  
U.S. POSTAGE  
PAID  
SHAWNEE MISSION, KS  
PERMIT NO. 724



**HODGDON POWDER  
NO. 27 DATA MANUAL**

Get the world's most comprehensive data manual  
for just \$29.95 plus \$3 S&H! See your dealer  
or call (913) 362-9455 to order direct.