







HODGDON Spherical Rifle Powders

Hodgdon spherical powders are great all-round propellants for a variety of rifles. You'll not only



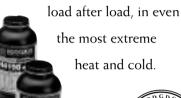
you'll also appreciate the consistent charge weights that Hodgdon spherical powders give you.





Our exclusive line of extruded rifle powders — Hodgdon Extreme[™] — was developed to give

shooters consistent performance,





HODGDON New for 2000







Long Shot



Pvrodex[®] Ammo Pack



HODGDON Smokeless Probellants Type Powder Container Size Titewad Shotshell 1407 4lb 8lb Shotshell/Pistol Clavs 1407 4lb 8lb Shotshell International 14oz 4lb 8lb Pistol 1lb 4lb 8lb Titegroup HP-38 1lb 4lb 8lb Pistol Shotgun/Pistol 1lb 4lb 8lb Universal 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 Rifle H4198 1lb 5lb 8lb H322 Rifle 1lb 5lb 8lb Rifle H335 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

Rifle

Rifle

1lb 5lb 8lb

1lb 8lb

H870

H50BMG

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



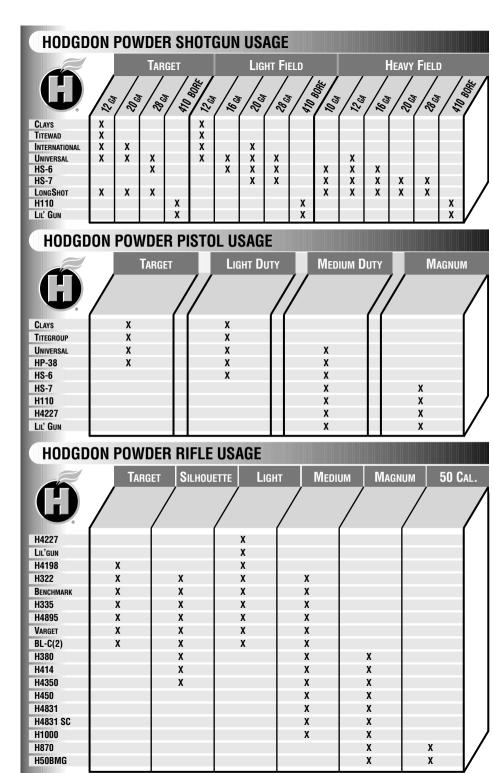
Our mission is to provide quality propellants, other products, and services to sportsmen, governing units, and other businesses in a manner which enhances the quality of life for our stockholders, employees, customers, associates, and suppliers. In doing so, we will deal with integrity and honesty, reflecting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

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January 2000

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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 11/8 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.

TITEGROUPTM 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.

HP38TM 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.

<u>UNIVERSAL</u>TM_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. 11/4 oz. As with all the "CLAYS" series powders, clean burning and uniformity are part of its attributes.

HS-6TM_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.

LONGSHOTTM 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.

► <u>H4227</u> 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.

H110TM 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^M 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

▶ <u>H4198</u> 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.

► <u>H322[™]</u> 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.

SMOKELESS RIFLE POWDERS continued

EXTREME POWDERS

▶ **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!

► <u>H4895</u>TM 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.

► <u>VARGET™</u> 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.

▶ <u>H4350</u> 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!

► <u>H4831</u> 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.

► <u>H4831SC™</u> 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.

► <u>H1000™</u> 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.

H870TM 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.

► <u>H50BMC</u> 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!



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.
- 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.

 $10\mathchar`-3.3$ 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.
- Quantities exceeding 800 lb (363 kg), but not exceeding 5,000 lb (2268 kg), may be C) 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.
 - 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.

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.



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.

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

H4831SC has the same ballistic performance as H4831.

NEVER Exceed the Loads Listed in This Publication



be followed just as they are print- ser they are followed, the better	D A T A C - Compressed Powder Charge PR - Primer BBL - Barrel COL - Cartridge Overall Length
ING	REF - Reformed
he components shown. If the omponents or gets new lot in the starting loads and work ting load is not shown, start load and then approach maxi- n of pressure (difficult extrac- primers, and unusual recoil), more than 3%.	B U L E T 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
B R A N D S BAR Barnes Berger BER - Berger BLX - Bull-X FA - Freedom Arms HDY - Hornady NOS - Nosler REM - Remington SIE - Sierra SFT - Swift SPR - Speer WIN - Winchester	GC- Gas CheckGDHP- Gold Dot Hollow PointGDSP- Gold Dot Soft PointGS- Grand SlamHB- Hollow BaseHC- Hollow CavityHP- Hollow PointHPBT- Hollow Point Boat TailHSP- Hollow Soft PointJFP- Jacketed Flat PointJHC- Jacketed Hollow CavityJHP- Jacketed Hollow CavityJRN- Jacketed Round Nose
P R I M E R S LR - Large Rifle LRM - Large Rifle Magnum SR - Small Rifle SRM - Small Rifle Magnum	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-Lokt" " 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

X Bullet XFB - X Flat Base XBT - X Boat Tail XBTC - X Boat Tail Coated

Success

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

				01/2
BULL	et powdi	ER GR	VEL	CUP
17 RF	MINGTON		CV6E	REMINGTON
BBL: 2				NGTON 7 1/2
25 GR.	HDY HP			COL: 2.150"
	H414	27.0	3989	48,300 CUP
	H380 VARGET	26.0 24.5	3950 4123	46,100 CUP 50,800 CUP
	BL-C(2)	24.0	4051	49.000 CUP
	H335	21.0	3963	51,300 CUP
	H4895	23.0	4033	48,500 CUP
	BENCHMARK	23.3	4038	50,600 CUP
	H322	21.8	3921	49,700 CUP
	RNET			WINCHESTER
BBL: 2			PR: WIN	CHESTER SR
35 GR.	HDY V-MAX H4198	11.5 C	2420	COL: 1.725"
	H4196 H4227	11.5 C 11.6 C	2420 2896	26,300 CUP 42,500 CUP
	H110	12.3	3060	41,400 CUP
	LIL'GUN	13.0	2842	24,000 CUP
45 GR.	HDY SP			COL: 1.750"
	H4198	11.5 C	2400	32,000 CUP
	H4227	9.8	2484	42,000 CUP
	H110	10.4	2574	43,000 CUP
	LIL'GUN	13.0	2787	31,600 CUP
222 R BBL: 24	EMINGTON			WINCHESTER Chester Sr
	SIE SP			COL: 2.125"
ie am	H335	25.0	3371	44,600 CUP
	H4895	24.0 C	3133	34,200 CUP
	BENCHMARK	25.0	3303	40,700 CUP
	H322 H4198	23.0 21.4	3313 3480	44,000 CUP 45,700 CUP
	H4227	15.0	3040	45,100 CUP
50 CP	HDY SP		0010	COL: 2.130"
JU UN.	VARGET	25.0 C	3114	40,600 CUP
	BL-C(2)	25.0	3000	38,600 CUP
	H335	23.6	3120	45,700 CUP
	H4895	23.8 C	3022	36,500 CUP
	BENCHMARK H322	24.0 22.2	3168 3079	45,800 CUP 43,200 CUP
	H4198	22.2	3160	43,200 CUP 44,200 CUP
	H4227	13.8	2668	44,000 CUP
222 D	EMINGTON		CACE-	WINCHESTER
BBL: 2				CHESTER SR
40 GR.	NOS BT	00.00	0074	COL: 2.280"
	VARGET	28.0 C	3674	47,200 CUP
	BL-C(2) H335	28.5 28.0	3612 3572	45,400 CUP 44.600 CUP
	H4895	20.0 27.5 C	3573	44,500 CUP
	BENCHMARK	27.3	3666	51,000 CUP
	H322	25.5	3574	48,000 CUP
	H4198	22.5	3601	49,600 CUP
50 GR.	SPR SP			COL: 2.210"
	VARGET	27.5 C	3383	44,800 CUP

BULLET	POWDE	R	GR	VEL	_ CUP	
BI -	-C(2)	28.0		3428	47,100 CUP	
H3	()	26.0		3393	51,700 CUP	
	895	27.5	С	3468	51,300 CUP	
	NCHMARK	26.5	0	3396	50,400 CUP	
H3		24.0		3301	49,300 CUP	
	198	21.5		3223	45,900 CUP	
55 GR. SPI	R SP	• • •			COL: 2.200"	
	RGET	27.5	С	3384	49,700 CUP	
BL-	-C(2)	27.5		3313	48,500 CUP	
H33	35	25.3		3203	49,300 CUP	
H48	895	26.0		3315	49,000 CUP	
BEI	NCHMARK	25.6		3264	50,000 CUP	
H3:		23.0		3106	48,900 CUP	
H4	198	21.0		3150	47,600 CUP	
22 PPC				CAS	E: SAKO (REF)	
BBL: 24"			F		INGTON 7 1/2	
50 GR. SPI	R SP				COL: 2.065"	
	RGET	29.5		3408	48,200 CUP	
	-C(2)	30.5		3316	47,000 CUP	
H3		28.0		3418	50,000 CUP	
	895	28.0		3347	46,500 CUP	
	NCHMARK	29.0		3430	49,600 CUP	
H3:		26.0		3385	48,000 CUP	
53 GR. HD		00 E		0000	COL: 2.065"	
	RGET	28.5 30.5		3363 3288	48,900 CUP 48,000 CUP	
H3	-C(2) 35	27.5		3344	49,000 CUP	
	895	28.0		3321	49,000 CUP	
	NCHMARK	28.5		3368	49,400 CUP	
H3		26.0		3333	48,500 CUP	
22 00 0	EMINGTO	1		E. DEM		
BBL: 24"		JIN			INGTON (REF) IINGTON 7 1/2	
50 GR. SPI	R SP				COL: 1.945"	
	RGET	33.5		3624	44,600 CUP	
BL-	-C(2)	35.5		3649	49,000 CUP	
H3:		32.0		3628	48,800 CUP	
	895	32.0		3606	48,000 CUP	
	NCHMARK	31.5		3618	49,700 CUP	
H3:		30.5		3637	50,000 CUP	
53 GR. HD		00.0		0000	COL: 2.065"	
	RGET	33.0		3638	51,100 CUP	
BL- H3:	-C(2) 35	35.0 31.5		3592 3587	48,800 CUP 49,200 CUP	
	30 895	31.5		3566	49,200 CUP 49.000 CUP	
	NCHMARK	30.5		3523	49,000 CUP 49,200 CUP	
H3		30.0		3544	48,400 CUP	
					,	
22-250 K BBL: 24"	EMINGIC	JN			WINCHESTER	
40 GR. NO	S BT		~		COL: 2.350"	
H4		41.0		3933	47,100 CUP	
H3		41.0		3855	39,200 CUP	
	RGET	39.5		4135	51,100 CUP	
	895 NCHMARK	37.0		4060 4114	48,700 CUP 50.100 CUP	
BEI		36.5		4114	50,100 COP	

RIFLE DATA

CUP

BULLET POW	DER G	R VEL	. CUP	BULLET	POW
50 GR. SIE SP			COL: 2.350"	75 GR. SP	R HP
H4350	42.0	3579	48,900 CUP		RGET
H414	40.0	3765	48,600 CUP	BL	-C(2)
H380	41.0	3742	45,300 CUP	H3	
VARGET	37.5	3834	50,400 CUP	H4	895
BL-C(2)	34.5	3740	48,400 CUP		NCHMA
H335	34.5	3753	48,700 CUP	H3	
H4895	36.5	3827	50,200 CUP		198
BENCHMAF		3903	51,400 CUP		100
H322	32.0	3628	50,300 CUP	6мм BR	REMIN
		0020	,	BBL: 24"	
55 GR. SPR SP	39.0	3490	COL: 2.350"	70 GR. NO	SRT
H4350			47,800 CUP		RGET
H414	39.0	3582	46,700 CUP		-C(2)
H380	41.0	3713	50,700 CUP	H3	• •
VARGET	36.5	3664	50,400 CUP		895
BL-C(2)	34.0	3606	49,600 CUP		NCHMA
H335	33.0	3589	51,100 CUP	H3	
H4895	35.5	3670	49,300 CUP		
BENCHMAF		3674	50,200 CUP	80 GR. SP	
H322	30.0	3480	49,800 CUP		RGET
220 CIMIET		0405	WINGUESTER		-C(2)
220 SWIFT			WINCHESTER	H3	
BBL: 26"		PR: WI	NCHESTER LR		895
40 GR. SIE HP			COL: 2.680"		NCHMAR
H414	46.0	4213	51,600 CUP	H3	22
H380	44.0	4124	50,000 CUP	040 14/14	ОПЕОТ
VARGET	40.5	4113	49,800 CUP	243 WIN	00291
H335	40.0	4158	53,100 CUP	BBL: 24"	
H4895	40.0	4126	52,000 CUP	70 GR. SP	
50 GR. HDY SP			COL: 2.680"	H4	
H414	44.0	3826	49,600 CUP	H3	
H380	43.5	3947	53,800 CUP		RGET
VARGET	36.0	3770	50,200 CUP		-C(2)
BL-C(2)	38.0	3888	51,000 CUP		895
H335	38.0	3860	52,000 CUP	BE	NCHMA
H4895	38.0	3840	51,200 CUP	80 GR. SIE	BTSP
55 GR. HDY SP			COL: 2.680"	H4	14
H4831	46.0	3616	46,600 CUP	H3	
H4350	42.0	3619	50,800 CUP		RGET
H414	44.0	3833	53,700 CUP		-C(2)
H380	42.5	3839	53,300 CUP		895
VARGET	42.5 36.0	3645	51,900 CUP		
	36.0	3682	49,900 CUP	100 GR. SI	PR BISP 000
BL-C(2) H335	36.0	3696	49,900 CUP 50,400 CUP		831
			,		
H4895	37.0	3698	52,000 CUP		350
6мм РРС		CASE	SAKO (REF)	H4	
BBL: 24"			INGTON 7 1/2	H3	
					RGET
70 GR. NOS BT	20.0	2024	COL: 2.100"	H4	895
VARGET	29.0	3034	48,000 CUP	6мм REN	INGTO
BL-C(2)	31.0	3012	47,500 CUP	BBL: 24"	maru
H335	27.5	3033	48,500 CUP		• • • •
H4895	28.0	3034	46,500 CUP	70 GR. SIE	
BENCHMAF		3149	50,500 CUP		350
H322	26.5	3068	50,000 CUP	H4	
H4198	22.0	2839	50,400 CUP	H3	80

VEL

GR

BULLET

POWDER

BULLET POWDER GR VEL CUP COL: 2.115" 28.0 2906 47,000 CUP 30.5 2974 47,800 CUP 27.0 2990 49.000 CUP 27.5 2981 48,500 CUP ARK 28.5 3037 50.100 CUP 26.0 2974 49,500 CUP 21.0 2780 49,000 CUP IGTON CASE: REMINGTON PR: REMINGTON 7 1/2 COL: 2.100" 49,400 CUP 34.0 3342 35.0 3289 48,000 CUP 31.0 3287 47,000 CUP 31.0 3188 47,000 CUP ARK 31.6 3227 49.000 CUP 30.0 3200 47,000 CUP COL: 2.115" 32.5 3159 50,700 CUP 33.0 3089 47,500 CUP 30.0 3090 48,000 CUP 30.0 3100 47,000 CUP ARK 30.5 3048 49,400 CUP 28.0 3005 47,000 CUP TER CASE: WINCHESTER PR: WINCHESTER LR COL: 2.625" 46.0 3568 49,800 CUP 46.0 3567 48,900 CUP 40.5 3574 50,100 CUP 39.0 3384 50,400 CUP 39.5 3477 49,200 CUP ARK 39.3 3491 50,300 CUP COL: 2.635" 50,100 CUP 45.0 3404 41.2 3223 50,300 CUP 38.5 3355 50,300 CUP 38.5 3242 50.600 CUP 38.0 3307 50.100 CUP P COL: 2.650" 47.0 C 49,800 CUP 3000 42.0 2924 50,100 CUP 40.0 2973 51,000 CUP 40.0 2963 50,600 CUP 36.0 2770 50,100 CUP 33.7 2838 50,400 CUP 33.0 2818 50,100 CUP ON CASE: WINCHESTER PR: REMINGTON 9 1/2 COL: 2.810" 3638 50.5 49.500 CUP 48.5 3636 50,100 CUP 46.5 3533 50,000 CUP

NEVER Exceed the Loads Listed in This Publication

BULLET	POWDE	R G	R VEL	CUP	BULLET	POWDEF	R GR	VEL	CUP
	RGET	42.0	3550	50,000 CUP	H48		37.0	3208	
H48		42.0 40.7	3588	49,500 CUP	H32		32.0	3044	
		40.7	3575	49,700 CUP	100 GR. NO		10.0	0000	COL: 2.500"
80 GR. SPF H48	R SP	51.0	3358	COL: 2.775" 49,400 CUP	H48 H43		12.0 10.0	2890 2881	
H43		47.0	3337	48.700 CUP	H41		10.0 10.0	3102	
H4		46.5	3381	49,300 CUP	H38		38.0	2998	
H38		44.0	3247	49,500 CUP			34.0	2900	
VAF	RGET	41.0	3379	50,600 CUP	H33	5ິ 3	34.0	2921	
H48	895	39.5	3307	49,400 CUP	H48		35.0	2988	
100 GR. SP	PR BT			COL: 2.775"	H32	2 2	29.0	2709	
H10		50.0	3080	50,200 CUP	257 ROB	BTS		CASE	REMINGTON
H48		46.0 42.5	3042 2999	50,700 CUP 50.100 CUP	BBL: 26"		1		NGTON 9 1/2
H43 H41		42.5	2999	50,100 CUP 50.800 CUP	75 GR. HDY	'HP			COL: 2.795"
	RGET	36.0	2933	50,000 CUP	H48		53.0	3307	37,500 CUP
H48		35.0	2889	49,400 CUP	H43	50 5	50.0	3422	44,000 CUP
				,	H41		52.0	3555	45,300 CUP
	NCHESTE	R		REMINGTON	H38		18.0	3563	45,600 CUP
BBL: 24"			PR: WIN	CHESTER SR			11.0	3453	43,700 CUP
60 GR. HD)		45.0.0	1000	COL: 1.600"	BL- H33		16.0 16.0	3531 3548	46,700 CUP 45.000 CUP
H32		15.0 C	1900	25,700 CUP	H48		10.0 14.0	3561	45,000 CUP 47,300 CUP
H4 ⁻		14.2 C	2101	25,800 CUP			11.7	3434	45,000 CUP
H42 H11		10.2 9.3	1962 1931	26,700 CUP 26,600 CUP	90 GR. SIE			0-10-1	COL: 2.775"
HS-		9.3 7.0	1724	20,000 CUP 27,100 CUP	90 GR. SIE H48		52.0	3236	39,500 CUP
		-		27,100 001	H43		16.0	3040	43,700 CUP
	NCHESTE	R		WINCHESTER	H41		50.0	3368	44,400 CUP
BBL: 20"			PR: WIN	CHESTER LR	H38	0 4	17.0	3364	45,400 CUP
60 GR. HD				COL: 2.305"			10.0	3269	44,900 CUP
	·C(2)	30.0	2786			- ()	13.5	3231	45,000 CUP
H33		30.0	2792		H33	-	13.0	3300	44,400 CUP
H48 H41		30.0 24.0	2729 2717		H48		12.0	3372	47,600 CUP
		24.0	2/11	001.0 000	100 GR. SP H48		19.0	3010	COL: 2.770" 44,100 CUP
117 GR. HE BI -	C(2)	27.0	2188	COL: 2.600"	H43		15.0 15.0	2970	45,400 CUP
H33		27.0	2199		H41		15.0	3098	44.500 CUP
H48		27.0	2207		H38		14.0	3108	46,600 CUP
H41	198	20.0	2014		VAF	IGET 3	38.0	2981	44,900 CUP
250 2000			0405	DEMINIOTON		-(-) -	39.0	2958	45,400 CUP
250-3000 BBL: 26"	J SAVAUE			REMINGTON	H33		39.0	3042	47,800 CUP
75 GR. SIE	•••••• НD	• • •		COL: 2.450"	H48	90 3	38.0	2990	46,100 CUP
H43		42.0	3222	JUL. 2.400	25-06 RE	MINGTON			REMINGTON
H4 ⁻		44.0	3460		BBL: 24"				NGTON 9 1/2
H38	80	42.0	3393		90 GR. SIE				COL: 3.100"
	-C(2)	38.0	3299		H1C		52.0 C	3330	47,500 CUP
H33		37.0	3258		H48		58.0	3481	50,400 CUP
H48		38.0	3380 3194		H43 H41		53.0	3370	50,700 CUP
H32 H41		34.0 30.0	3194 3169				51.0 15.0	3315 3312	50,200 CUP 50,400 CUP
		30.0	0109	001.0 450"	H48		i5.0 14.0	3257	50,400 CUP 51,000 CUP
87 GR. SPF H43		41.0	3063	COL: 2.450"	100 GR. NO			0201	COL: 3.200"
H4		42.0	3297		100 GR. NU H10		59.7 C	3212	50,700 CUP
H38		41.0	3210		H48		54.3	3172	51,400 CUP
	·C(2)	36.0	3114		H43	50 5	50.0	3155	51,500 CUP
H33	35	35.0	3075		H41	4 4	17.0	3059	50,700 CUP

RIFLE DATA

BULLET	POWDER	GR VI	EL CUP	BULLET P
VARG	GET 44.0	3125	51,400 CUF	120 GR. NOS B
H489	5 43.0	3072	51,000 CUF	H4831
120 GR. SFT	SP		COL: 3.150	" H4350
H100			50,600 CUF	
H483			- ,	
H435 VARG			50,900 CUF 51,900 CUF	
H489			51,900 CUF	
			01,700 001	140 GR. SPR SI H1000
257 WEATI BBL: 26"	HERBY MAG		SE: WEATHERBY R: Federal 21	r H4831
100 GR. NOS		• •	COL: 3.185	H4350
H870		3463	53,000 CUF	
H100	0 71.0	3351	46,900 CUF	VARGET
H483			52,300 CUF	H4895
H435		3319	51,200 CUF	
120 GR. SPR	SP	00.40	COL: 3.170	
H870			53,200 CUF	
H100 H483			50,800 CUF 51,500 CUF	
			,	H4831
260 REMIN	IGION		SE: REMINGTON	-
BBL: 24"		PR: RE	MINGTON 9 1/2	110.00
95 GR. HDY H435		3284	COL: 2.780 58,100 PSI	
H414			58,600 PSI	120 GR. SPR S
H380			59,500 PSI	H4831
VARG			58,500 PSI	H4350
BL-C			58,300 PSI	H414
H335			58,000 PSI	H380
H489	5 40.8 HMARK 43.5		58,500 PSI 59,600 PSI	H4895
		0091	,	140 GR. NOS PA H4831
120 GR. SPR H100		C 2810	COL: 2.780 49,300 PSI	
H483			59,200 PSI	H414
H435			58,200 PSI	H380
H414			58,624 PSI	H4895
H380			58,100 PSI	264 WINCHE
VARG			58,300 PSI	BBL: 26"
BL-C H335			58,900 PSI 58,600 PSI	120 GR. SPR S
H489			58,900 PSI	H1000
	HMARK 40.0		59,500 CUF	
140 GR. NOS	PART	•	COL: 2.780	H4350
H100		2730		140 GR. NOS P
H483			59,000 PSI	H870 H1000
H435			58,800 PSI	H4831
H414 H380			58,800 PSI 58,900 PSI	H4350
VARG			58,900 PSI 59,400 PSI	
BL-C			59,000 PSI	
H489	< <i>i</i>		58,400 PSI	BBL: 24"
6 5 Y 55mm	SWEDISH			= 130 GR. HDY S H1000
0.0 A 001010			E: WINCHESTER	
BBL: 24"			/INCHESTER LF	

JLLET	POWDE	R GR	VEL	CUP
O GR. NO	S BT	• • •		COL: 3.000"
H48		49.5 C	2802	45,900 CUP
H43	50	46.0	2792	45,800 CUP
H414	4	44.5	2783	46,000 CUP
H380		44.3	2784	46,000 CUP
VAR		39.0	2812	45,300 CUP
H489	95	37.8	2715	46,000 CUP
O GR. SPF	R SP			COL: 3.030"
H10		51.5 C	2651	46,000 CUP
H483	31	47.0	2586	45,700 CUP
H43		44.0	2617	45,700 CUP
H414		41.5	2565	45,600 CUP
H38(40.5	2520	45,100 CUP
VAR		36.0	2528	46,000 CUP
H489	95	35.8	2493	45,700 CUP
	MINGTO		шм	
		N MAG		REMINGTON
L: 26"		PR		TON 9 1/2 M
O GR. HD	Y SP			COL: 2.940"
H483	31	60.0	3416	48,100 CUP
H43		55.0	3327	51,700 CUP
H414		56.0	3466	52,600 CUP
H380		54.0	3459	52,800 CUP
H489	95	50.0	3475	52,200 CUP
O GR. SPF	R SP			COL: 2.790"
H48	31	59.0	3286	51,000 CUP
H43	50	52.0	3080	51,200 CUP
H414	4	51.0	3099	51,700 CUP
H380	0	49.0	3059	50,900 CUP
H489	95	46.0	3081	50,900 CUP
O GR. NO	S PART			COL: 2.790"
H483		54.0	2943	51,400 CUP
H43		49.0	2780	51,200 CUP
H414		46.0	2743	51,100 CUP
H380		44.0	2666	51,200 CUP
H489	95	42.0	2752	49,200 CUP
4 WINC	HESTER	MAGNU	M CASE V	WINCHESTER
L: 26"				CHESTER LR
O GR. SPF	R SP			COL: 3.300"
H10	00	72.0	3185	49,000 CUP
H483	31	65.0	3369	52,100 CUP
H43	50	57.0	3190	52,900 CUP
O GR. NO	S PART			COL: 3.260"
H870)	73.0	3163	54,200 CUP
H10		68.0	3019	51,500 CUP
H483	31	61.0	3065	52,000 CUP
H43	50	53.0	2965	53,400 CUP
	HESTER		CASE-1	VINCHESTED
U WING L: 24"	ILOIEN			WINCHESTER Chester Lr
	••••	• • •		
0 Gr. Hd H10	1 31' 10	64.0 C	3025	COL: 3.280" 48,100 CUP
H48		60.0 C	3025	51,000 CUP
1140		54 2	2019	51,000 CUP

54.3

3012 50,500 CUP

NEVER Exceed the Loads Listed in This Publication

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BULLET

POWDER

VEL

GR

BULLET	POWDER	GR VE	L CUP	BULLET	POWDE	R GR	VEL	CUP
H41-			50,800 CUP		RGET	45.0	3117	49,900 CUP
H38			51,000 CUP		-C(2)	46.5	3109	50,100 CUP
VAR			49,600 CUP	H3	35 895	42.0 43.7	2984 3085	49,400 CUP 49,700 CUP
H48		0 2922	51,000 CUP		NCHMARK	41.3	2968	49,700 CUP 49,000 CUP
140 GR. SFI H10	F SP 00 63.	0 C 2979	COL: 3.280" 50,800 CUP			• • •	2300	,
H48			50,800 CUP 50,100 CUP	140 GR. SF	- 1 SP 350	48.0 C	2868	COL: 2.750" 49.800 CUP
H43			50.400 CUP	H4		46.0	2791	49,500 CUP
H41			49,800 CUP	H3		45.7	2775	49,400 CUP
VAR			50,500 CUP		RGET	42.2	2819	49,800 CUP
H48	95 42.	6 2768	50,600 CUP	BL·	-C(2)	42.5	2796	49,700 CUP
150 GR. HD	Y SP	•	COL: 3.285"	H3		37.5	2647	49,800 CUP
H10		0 C 2831	51,000 CUP		895	40.5	2769	49,700 CUP
H48			51,200 CUP	BEI	NCHMARK	38.3	2688	49,300 CUP
H43			51,000 CUP	150 GR. SI				COL: 2.800"
H41	4 48.	0 2706	51,200 CUP		350	48.5 C	2823	50,300 CUP
270 WFAT	HERBY MA		E: WEATHERBY	H4 H3		46.5 45.5	2776 2748	50,000 CUP 49,900 CUP
BBL: 26"			PR: CCI 250		80 RGET	45.5 41.3	2746	49,900 CUP 50,000 CUP
130 GR. SPI		•	COL: 3.250"		-C(2)	41.5	2699	49,600 CUP
H87		0 3214	GOL. 3.230	H3		37.5	2605	49,900 CUP
H10		0 3259			895	40.5	2723	50,000 CUP
H48	31 70.	0 3205			NCHMARK	38.5	2667	50,200 CUP
H43	50 66.	0 3262		7 V F7				
150 GR. NO	S PART		COL: 3.250"	/ X 5/MN BBL: 24"	I MAUSER	i		WINCHESTER Chester Lr
H87							FR. WIN	
H10				120 GR. NO	US BI 831	52.5 C	2777	COL: 3.000" 40.800 CUP
H48					350	51.0 C	2945	45,800 CUP
H43	50 63.	0 2986		H4		51.0	2938	45,600 CUP
7-30 WAT	ERS	C	ASE: FEDERAL	H3	80	47.5	2860	46,000 CUP
BBL: 24"		PR	: FEDERAL 210	VA	RGET	44.0	2979	46,000 CUP
120 GR. NO	S FP		COL: 2.500"		895	42.0	2859	45,400 CUP
H48				BEI	NCHMARK	41.5	2863	46,000 CUP
H43				140 GR. N				COL: 3.000"
H41-					831	49.5 C	2719	46,000 CUP
H38					350	46.5	2682	46,000 CUP
BL-C H33				H4 H3		47.0 44.0	2715 2614	46,000 CUP 46,000 CUP
H48					RGET	37.7	2516	46,000 CUP
H32					895	37.5	2530	45,800 CUP
139 GR. HD			COL: 2.252"		NCHMARK	38.0	2571	45,700 CUP
ная ан. пр Н48		0 2384	UUL. 2.202	168 GR. SI		• • •		COL: 3.000"
H43					000	52.0 C	2485	46,000 CUP
H41-	4 38.	0 2442		H4	831	46.0	2393	43,900 CUP
H38					350	42.5	2378	44,100 CUP
BL-C				H4		42.5	2378	45,000 CUP
H33				H3		39.5	2272	44,500 CUP
H48					RGET	37.5	2404	45,500 CUP
H32	2 29.	0 2342			895 NCHMARK	34.5 36.0	2211 2336	42,600 CUP 46,000 CUP
7MM-08 R	EMINGTON		E: REMINGTON Wington 9 1/2	280 REM		30.0		REMINGTON
120 GR. NO	S RT	•	COL: 2.800"	BBL: 24"		I		NGTON 9 1/2
H43		0 C 3039	44,600 CUP	120 GR. B/	AR XFB	• • •		COL: 3.200"
H41	4 49.	0 3023	47,600 CUP		831	62.0 C	3112	48,600 CUP
H38	0 48.	0 2977	43,400 CUP	H4	350	56.0	3114	48,400 CUP

RIFLE DATA

CUP

H414	54.5	3085	48,100 CUP	
H380	51.0	2952	48,700 CUP	175
VARGET	47.2	3032	47,600 CUP	
BL-C(2)	46.5	2908	48,000 CUP	
H4895	47.0	3020	48,300 CUP	
140 GR. NOS PART			COL: 3.230"	_
H4831	58.5	2927	48,500 CUP	
H4350	53.5	2918	48,500 CUP	BBL
H414	51.0	2867	47,900 CUP	140
VARGET H4895	45.5 45.2	2838 2830	48,100 CUP 48,400 CUP	
	4J.2	2030	,	
160 GR. SFT SP H1000	61.0 C	2714	COL: 3.240" 47,500 CUP	160
H4831	55.0	2660	49,500 CUP	100
H4350	49.5	2610	48,900 CUP	
H414	47.5	2558	49,700 CUP	
VARGET	42.5	2555	49,300 CUP	175
H4895	41.5	2535	49,500 CUP	175
284 WINCHESTE	R	CASE	WINCHESTER	
3BL: 22"			NCHESTER LR	
I20 GR. SPR SP			COL: 2.800"	
H4831	59.0	3036		7мм
H4350	56.0	3090		
H380	51.0	3023		BBL
BL-C(2)	48.0	2934		145
H335	47.0	2922		
H4895	47.0	3104		• •
40 GR. SIE SP H4831	58.0	2954	COL: 2.800"	160
H4851 H4350	56.0 54.0	2954		
H380	48.0	2856		
H335	46.0	2869		
H4895	45.0	2847		
162 GR. HDY BTSP			COL: 2.905"	175
H870	63.0	2560	002.2.300	
H4831	57.0	2803		
H4350	52.0	2754		
H414	50.0	2794		
H380	46.0	2675		20.4
BL-C(2)	46.5	2754	47,000 CUP	30 (BBL:
H335	44.0	2686		
H4895	42.0	2641		85 G
7мм REMINGTON	MAGNU			
BBL: 24"		PR: WI	NCHESTER LR	100
140 GR. NOS PART	70.0	0000	COL: 3.250"	
H1000	70.0	3036	50,600 CUP	110
H4831	64.0	2950	50,200 CUP	
H4350 H414	59.0 60.2	2927 2967	50,000 CUP 49,300 CUP	
	00.2	2907	,	
162 GR. HDY SPBT H870	80.0	2883	COL: 3.290" 43,300 CUP	30-
H1000	70.0	2003	49,600 CUP	BBL
			10,000,001	
	64.0	2871	49,800 CUP	150
H4831 H4350	64.0 58.0	2871 2799	49,800 CUP 49,400 CUP	150

BULLET	POWDE	R GR	R VEL	CUP
175 GR. NO H87		77.0	2782	COL: 3.290" 46,300 CUP
H10		64.5	2692	50,400 CUP
H48		58.0	2660	50,200 CUP
H43	50	54.0	2617	51,400 CUP
7мм WEA BBL: 24"	THERBY	MAGNU		REMINGTON Deral 215 M
140 GR. SF			0070	COL: 3.250"
H10 H48		79.0 C 74.0	3273 3258	49,900 CUP 54,000 CUP
H43		68.5	3248	54,000 CUP
160 GR. BA	R XFB	• • •		COL: 3.250"
H10		75.0 C	2994	50,800 CUP
H48 H43		70.0 65.0	2971 2950	53,900 CUP 53,900 CUP
175 GR. HD		03.0	2330	COL: 3.350"
H87		80.0	2843	44,300 CUP
H10		74.7 C	3022	54,000 CUP
H48 H43		67.5 63.7	2895 2899	53,400 CUP
-				53,600 CUP
7мм SHO	DTING TI	MES W		R Se: Federal
BBL: 24"				EDERAL 215
145 GR. SP		• • •		COL: 3.565"
H10		77.0	3120	52,100 CUP
H48		72.0	3063	52,300 CUP
160 GR. SF H50	i SP BMG	90.0 C	2970	COL: 3.565" 46,600 CUP
H50		86.0 C	2877	45,700 CUP
H87		90.0	3097	46,100 CUP
H10 H48		80.7 74.0	3084 3037	51,500 CUP 52.300 CUP
175 GR. NO		14.0	0007	COL: 3.585"
	BMG	89.0 C	2973	52,300 CUP
H50		85.0 C	2921	51,600 CUP
H87 H10		89.0 74.0	3059 2944	51,800 CUP 51,900 CUP
		74.0	2344	51,500 001
30 CARBI BBL: 20"	NE		CASE:	WINCHESTER PR: CCI 400
85 GR. SIE I H42	RN	15 5 0	2181	COL: 1.625"
H11		15.5 C 17.5	2458	30,700 CUP 34,800 CUP
100 GR. SP			2100	COL: 1.625"
	GUN	15.0	2132	28,300 CUP
110 GR. HD				COL: 1.680"
H42 H11		14.5 C 15.0	2003 2106	38,800 CUP 36,500 CUP
	GUN	15.0	2064	29,800 CUP
30-30 WII		R		WINCHESTER
BBL: 24"			PR: WIN	CHESTER LR
150 GR. SIE Var	GET	34.5	2349	COL: 2.550" 36,200 CUP

NEVER Exceed the Loads Listed in This Publication

BULLET	POWD	ER	GR	VEL	CUP	BULLE	ET P	OWDE	R GF	R VEL	CUP
BL-0	C(2)	37.0		2358	33,900 CUP	100.00			• • •		001 - 0 700
H33		33.0		2308	36,200 CUP		. HDY R H4831	N	47.0	2289	COL: 2.730"
H48	95	34.0		2390	36,700 CUP		H4350		47.0	2416	
	CHMARK	29.0		2183	37,200 CUP		H414		46.0	2470	
H41	98	24.0		2110	36,800 CUP		H380		45.0	2440	
170 GR. SIE	FP		,		COL: 2.550"		BL-C(2))	43.0	2474	
VAR	GET	33.0		2168	36,500 CUP		H335		40.0	2417	
BL-0	C(2)	36.0		2227	34,700 CUP		H4895		39.0	2373	
H33		30.5		2086	36,300 CUP	200 14		отг р		0105	
H48		30.5		2138	35,200 CUP	308 W BBL: 24	INCHE	31ER			WINCHESTER
	CHMARK	27.0		2001	36,100 CUP					rn. ru	
H41	98	22.5		1918	32,600 CUP		. NOS B Varge		47.0 C	2937	COL: 2.800" 50,300 CUP
30-40 KR/	٩G			CASE	WINCHESTER		BL-C(2)		47.00	2839	50,000 CUP
BBL: 24"				UNUL.	PR: CCI 200		H335		44.0	2787	51,200 CUP
150 GR. NO	C DADT	• • •			COL: 3.090"		H4895		45.5	2870	51,000 CUP
H48		49.0		2306	GOL. 3.090		BENCH	MARK	43.0	2752	49,000 CUP
H43		49.0		2388			H322		40.0	2702	50,500 CUP
H41		47.0		2531			. SIE HF			LIUL	,
H38		44.0		2489		100 GR	VARGE		46.0 C	2731	COL: 2.800" 50,600 CUP
BL-0		37.0		2491			BL-C(2)		47.0	2754	50,200 CUP
H33		37.0		2508			H335	,	42.0	2631	49,300 CUP
H48		42.0		2575			H4895		43.5	2703	49,500 CUP
H32		40.0		2518			BENCH	MARK	42.0	2630	49,300 CUP
H41	98	32.0		2366		175 CD	. SIE HF				COL: 2.800"
180 GR. SP	92 20 S				COL: 3.090"		H414	ы	49.0	2629	50,100 CUP
H43		46.0		2110	001.0.030		VARGE	г	45.0 C	2690	48,600 CUP
H41		43.0		2276			BL-C(2)		46.0	2706	50,300 CUP
H38	0	40.0		2182			H335		41.3	2592	50,100 CUP
BL-0	C(2)	33.0		2006			H4895		42.7	2647	49,000 CUP
H33	5	34.0		2049			BENCH	MARK	41.5	2590	50,800 CUP
H48		38.0		2265		20.00				0105	
H32	2	37.0		2250		30-06 BBL: 24	! "				WINCHESTER ICHESTER LR
300 SAVA	GE				REMINGTON		. NOS B	T	• • •		COL: 3.250"
BBL: 22"			P	R: REM	NGTON 9 1/2		H4350		62.0 C	3068	48,400 CUP
150 GR. NO	S PART				COL: 2.520"		H414		60.0	2992	48,600 CUP
BL-(39.0		2574			H380	-	59.0	3005	45,900 CUP
H33		39.0		2545			VARGE		51.0	2975	50,100 CUP
H48	95	40.0		2408			BL-C(2))	54.0	2962	48,600 CUP
180 GR. HD					COL: 2.600"		H335 H4895		51.5 51.0	2982 2976	49,200 CUP
BL-0		35.0		2069				MADIZ		2976	48,500 CUP
H33		35.0		2074			BENCH		49.5	2944	49,300 CUP
H48	95	37.0		2130			. SIE SP	BT	50.0	0000	COL: 3.300"
307 WING	HEGTE	2		CASE	WINCHESTER		H4350 H414		59.0 56.5	2938 2877	49,400 CUP 49,700 CUP
BBL: 20"			1		CHESTER LR		H380		56.5	2892	49,700 CUP
	••••						VARGE	г	50.5	2873	49,700 CUP
150 GR. HD H48		49.0		2349	COL: 2.520"		BL-C(2)		51.0	2805	49,800 CUP
H43		48.0		2453			H335		47.0	2749	49,300 CUP
H43		40.0		2455			H4895		47.5	2782	49,000 CUP
H38		48.0		2543			BENCH	MARK	47.7	2795	49,300 CUP
BL-0		46.0		2593			. SIE SP		• • •		COL: 3.300"
H33		44.0		2590		100 06	. 315 35 H4831	וט	60.0	2710	44,300 CUP
H48		42.0		2604			H4350		57.5	2798	49,300 CUP
H32		41.0		2513			H414		55.5	2743	48,700 CUP
				-					-	-	,

RIFLE DATA

CUP

BOLLET TOMD		VLL	001
H380	53.0	2682	48,700 CUP
VARGET	47.0	2668	50,000 CUP
BL-C(2)	48.5	2634	48,100 CUP
H335	46.0	2621	49,200 CUP
H4895	46.0	2638	48,800 CUP
BENCHMARK	46.0	2660	49,000 CUP
O H & H MAGN			,
L: 24"			VINCHESTER Chester Lr
0 GR. HDY SP			COL: 3.560"
H4831	78.0	3313	
H4350	71.0	3202	
H414	65.0	3247	
5 GR. NOS PART			COL: 3.560"
H4831	77.0	3099	
H4350	69.0	3164	
H414	63.0	3046	
0 GR. SIE HPBT			COL: 3.655"
H870	83.0	2779	
H4831	72.0	2932	
H4350	66.0	2909	
H414	56.0	2649	
0 WINCHESTER	R MAGNU		WINCHESTER Ichester Lr
0 GR. SIE SP			COL: 3.340"
H1000	85.0 C	3255	52,200 CUP
H4831	78.0	3207	52,700 CUP
H4350	72.0	3205	52,500 CUP
H414	68.0	3145	52,500 CUP
H380	65.0	3031	52,200 CUP
VARGET	60.0	3108	51,400 CUP
H4895	61.0	3124	52,500 CUP
D GR. SPR MT-SP			COL: 3.285"
H870	89.0 C	2901	43,300 CUP
H1000	81.0 C	3042	52,900 CUP
H4831	73.0 C	2966	53,200 CUP
H4350	67.0	2918	53,100 CUP
H414	62.0	2845	52,300 CUP
) GR. NOS PART			COL: 3.340"
H870	85.0 C	2676	38,900 CUP
H1000	79.0 C	2883	52,800 CUP
H4831	72.0 C	2825	53,100 CUP
H4350	66.0	2753	51,700 CUP
0 WEATHERBY	MAGNUN	CASE:	REMINGTON
BL: 24"			DERAL 215 M
O GR. BAR XBT			COL: 3.560"
H1000	88.0 C	3264	53,500 CUP
H4831	79.0	3168	53,500 CUP
H4350	72.5	3156	53,800 CUP
H414	69.0	3099	53,800 CUP
H380	67.0	3009	54,000 CUP
VARGET	63.0	3142	54,300 CUP
H4895	62.3	3098	53,400 CUP

BULLET

POWDER

GR

VEL

	r.			
BULLET	POWDER	GR	VEL	CUP
180 GR. WI	N FS			COL: 3.560"
H10	00 8	3.0 C	3111	54,600 CUP
H48	31 7	9.0	3013	54,600 CUP
H43	50 7	2.0	2974	54,600 CUP
200 GR. SF	T	••		COL: 3.510"
H10		5.0 C	2963	53,400 CUP
H48	31 7	7.5	2869	52,900 CUP
H43	50 7	1.0	2866	54,300 CUP
200 DEM		••	0105	BENNINGTON
300 REIVI. BBL: 24"	ULTRA M			REMINGTON Ston 9 1/2m
150 GR. SIE	SPRT	••		COL: 3.530"
H10	00 10	2.0	3457	62,900 PSI
H48		4.0	3408	62,900 PSI
180 GR. SP		••		COL: 3.530"
		8.0 C	3159	62,100 PSI
H87		6.0 6.0	3206	58.200 PSI
H10		6.0	3218	62,800 PSI
H48		9.0	3167	62,500 PSI
200 GR. BA			0101	COL: 3.530"
		8.0 C	2910	63,100 PSI
H87		4.0	3028	61,300 PSI
H10		3.0	2850	62,800 PSI
			2000	02,000101
30-378 W BBL: 26"	EATHERBY			WEATHERBY ERAL 215 M
		••		
180 GR. SP		0.0 C	3229	COL: 3.600" 47,100 CUP
H87		8.0	3333	46,700 CUP
H10	• · ·	1.0	3412	54,300 CUP
H48		0.0	3301	54,500 CUP
				COL: 3.645"
200 GR. BA	IBMG 11	7.0 C	3227	54,800 CUP
H50		2.0 C	3124	52,700 CUP
H87		6.0	3206	52.000 CUP
220 GR. NO			0200	- ,
		8.5 C	3145	COL: 3.600" 53,700 CUP
H50		4.0 C	3071	51,900 CUP
H87		6.0	3180	53,500 CUP
H10	• · · ·	4.0	3084	53,700 CUP
7 60 V 20		NNI NI		,
7.02 X 39 BBL: 24"	MM RUSSI	AN	C/	SE: MIDWAY PR: CCI 200
125 GR. SP	R SP	••		COL: 2.150"
	C(2) 3	1.5	2349	38,800 CUP
H33		1.5	2408	40,900 CUP
H48	95 2	9.0	2249	33,600 CUP
H32	2 2	9.0	2323	35,400 CUP
H41	98 2	6.5	2378	40,400 CUP
150 GR. HD	Y SP	••		COL: 2.220"
	C(2) 2	9.5	2090	40,400 CUP
H33	5 2	9.0	2132	42,500 CUP
H48	95 2	8.0	2154	39,300 CUP
H32		8.5	2192	40,400 CUP
L/1	00 0	15	0100	20 000 0110

NEVER Exceed the Loads Listed in This Publication

H4198

24.5

2122

39,800 CUP

BULLET	POWDER	GR	VEL	CUP	BULLET
303 BRITI	SH		CASE	: REMINGTON	Н
BBL: 24"			PR: I	FEDERAL 210	B
150 GR. HD				COL: 3.035"	Ĥ
H483			2295		Н
H43			2501		Н
H414			2482		0 DF
H380 H335			2443 2729		8мм RE BBL: 24"
H489			2479		
		•	2475	001 0 075	180 GR. I
180 GR. SIE H483		، ۱	2238	COL: 3.075"	H
H43			2333		Н
H414			2304		
H380	0 42.0)	2276		220 GR. I H
H335	5 41.0) :	2323		Н
H489	95 40.0) :	2295		
	IESTER SPE				338-06
JZ WINDI			CASE: \	WINCHESTER	BBL: 24"
BBL: 20"				PR: CCI 200	200 GR. I
170 GR. SPF				COL: 2.560"	H
BL-C			1964		
H33			1960		250 GR. 3 H
H489 H419			1941 2168		Н
	98 27.0	, ,	2100		Н
32-40 WIN BBL: 24"	ICHESTER	Р		WINCHESTER Ington 2 1/2	338 WI
196 GR. HO	••••••	•		COL: 2.555"	000 111
H422) .	1367	18,000 CUP	BBL: 24"
H110			1376	19,200 CUP	185 GR.
LIL'(GUN 9.3	3	1237	19,600 CUP	Н
202 GR. PO	PE	•		COL: 2.555"	H
H422	27 14.0		1376	15,900 CUP	H
H110			1386	17,900 CUP	H
LIL'(GUN 9.5	5	1264	20,100 CUP	V. H
204 GR. MIL		_	1007	COL: 2.555"	
H422 H110			1367 1369	16,300 CUP	210 GR. I H
LIL'(1309	17,900 CUP 20,100 CUP	H
		,	1010	20,100 001	H
8 X 57mm	MAUSER			REMINGTON	Н
BBL: 24"		• •	K: KEIVII	NGTON 9 1/2	V
150 GR. SIE H483		, ,	2452	COL: 3.050"	H
H40			2452 2552		250 GR. I
H414			2773		Н
H380			2778		H
BL-C			2553		Н
H33	()		2744		
H489			2747		340 WE
H322			2726		CASE: W
H419	98 41.0) :	2848		BBL: 26"
170 GR. SPF	R SP	-		COL: 2.890"	200 GR. 3
H483			2418		Н
H43	50 54.0	נ נ	2507		Н

ILLET	POWDER	GR	VEL	CUP
H41-	4 53	8.0	2586	
H38			2509	
BL-C			2421	
H33 H48			2470 2501	
H32			2555	
м REMI L: 24"	INGTON M			REMINGTON Ton 9 1/2 M
GR. BAI	R XFB	••		COL: 3.600"
H87	0 91		2939	
H48 H43			3024 3007	
GR. HD		•••		COL: 3.600"
H87	0 90		2856	002.0.000
H48	31 78	8.0	2871	
8-06 L: 24"		CASI	E: REMIN	GTON (REF) PR: CCI 200
GR. BA		· •	0710	COL: 3.340"
H43 H41			2710 2802	
) GR. SIE		••		COL: 3.340"
H48	31 61		2408	002.0.010
H43			2569	
H41		-	2583	
8 WINC	HESTER M	AGNUN		VINCHESTER
L: 24"		PF		ESTER LRM
5 GR. BAI			0000	COL: 3.280"
H48 H43			2969 2971	52,600 CUP 51,600 CUP
H41			2946	52,000 CUP
H38			2943	52,700 CUP
VAR H48			2841 2886	52,400 CUP 52,000 CUP
) GR. NO		•••	2000	COL: 3.280"
H48	31 75	i.5 C	2888	52,300 CUP
H43			2855	51,800 CUP
H41 H38			2848 2797	51,800 CUP 53,000 CUP
VAR			2784	52,500 CUP
H48		0.0	2788	53,000 CUP
		0.0	ეცეე	COL: 3.340"
H10 H48			2622 2655	46,500 CUP 52,300 CUP
H43	50 67	'.5	2657	51,900 CUP
H41	4 65	i.0	2622	52,900 CUP
0 WEAT	THERBY M	AGNUI	M	
L: 26"		••	PR: F	EDERAL 215
GR. SPI	R SP		0040	COL: 3.560"
H48 H43			3040 2994	
1140			2004	

RIFLE DATA

BULLET	POWDER	GR VE	L CUP	BULLET	POW
250 GR. Sie H87 H48	SPBT 0 92.0		COL: 3.560"	250 GR. HI	198 DY RN -C(2)
H43	50 76.	0 2724		H3	
357 MAGI BBL: 18.5"	NUM (RIFLE) CASE PR: WIN	E: WINCHESTER Chester SPM	35 WHEL	.EN
HP-: Tite	27 16. 0 16. 6 9. VERSAL 6. 38 6. GROUP 6.	7 1757 5 1427 3 1147 9 1214	COL: 1.580" 42,600 CUP 40,700 CUP 41,900 CUP 39,300 CUP 40,000 CUP 41,900 CUP	BL- H3: H4:	80 RGET -C(2) 35 895
180 GR. NO H42 H11	27 13.		COL: 1.575" 40,900 CUP 39,100 CUP	H3: 250 GR. HI H3	DY SP
35 REMIN BBL: 24"	GTON		E: REMINGTON WINGTON 9 1/2	BL-	RGET -C(2)
180 GR. SP VAR BL-(H33 H48 BEN H32 H41	GET 40.3 C(2) 43.1 5 37.3 95 39.1 CHMARK 35.3 2 35.1	D 2147 5 2111 0 2232 5 2034 0 2104	COL: 2.470" 32,500 CUP 32,300 CUP 33,600 CUP 33,100 CUP 32,300 CUP 33,100 CUP 33,000 CUP	H3: H4i H3: 38-55 WI BBL: 24" 255 GR. B / H3:	895 22 INCHES
200 GR. HD VAR BL-0 H33 H48	GET 39.5 C(2) 41.5 5 37.0	5 2011 0 2048	COL: 2.510 " 33,300 CUP 31,700 CUP 33,200 CUP 32,300 CUP	H4 375 WIN BBL: 24" 220 GR. HI	
	CHMARK 35. 2 33.	5 1984 8 1987	32,600 CUP 32,600 CUP 33,100 CUP 31,700 CUP	H3	22 198
356 WIN(BBL: 20"		PR: W	: WINCHESTER Inchester Lr	BBL: 24" 235 GR. SF	PR SP
200 GR. SIE BL-(H33 H48 H32 H41 250 GR. HD BL-(H33	C(2) 50. 5 49. 95 46. 2 44. 98 40. Y RN C(2) 48.	2243 2269 2338 2340 2383 2383	COL: 2.550" COL: 2.775"	H4 H33 VAI BL- H33 H44 270 GR. W H43	14 80 RGET -C(2) 35 895 IN FS 350
H48 H32 H41 358 WIN	95 43. 2 41. 98 37.	0 2128 0 2106 0 2133	WINCHESTER	H4	80 RGET 895
BBL: 26"			INCHESTER LR		350
220 GR. SPI BL-0 H33	C(2) 48.		COL: 2.565"		14 RGET 895

GR CUP /DER VEL 41.0 2502 . . COL: 2.775" 48.0 2374 46.0 2299 39.0 2312 CASE: REMINGTON PR: REMINGTON 9 1/2 COL: 3.050" 61.0 2602 45,000 CUP 57.0 2653 42,300 CUP 63.0 2807 49,000 CUP 55.0 2684 50.000 CUP 57.0 2689 49,000 CUP 56.0 2691 48,500 CUP . . COL: 3.220" 59.0 2416 44,500 CUP 55.0 2486 49,900 CUP 59.0 2503 48,900 CUP 52.0 2404 50.000 CUP 53.0 2455 50,000 CUP 52.0 2398 48,500 CUP STER CASE: WINCHESTER PR: CCI 200 COL: 2.620" 33.0 1830 28,200 CUP 28.0 1788 26,700 CUP ΈR CASE: WINCHESTER **PR: WINCHESTER LR** COL: 2.500" 38.5 C 2236 48,900 CUP 34.0 2233 49.300 CUP NUM CASE: WINCHESTER PR: FEDERAL 215 M COL: 3.600" 2749 42,600 CUP 83.0 81.0 2835 46.800 CUP 70.0 2819 51,200 CUP 85.0 2964 47.100 CUP 74.0 2853 50,000 CUP 74.0 2895 50,400 CUP • • . . . COL: 3.600" 83.0 C 2694 46,800 CUP 78.0 2576 45,500 CUP 78.0 2632 46,600 CUP 67.0 2620 51.600 CUP 68.0 2624 50,500 CUP COL: 3.600" 81.5 C 2645 49,500 CUP 78.0 2548 46.800 CUP 62.0 2454 49,300 CUP H4895 65.0 2505 50,400 CUP

NEVER Exceed the Loads Listed in This Publication

DINIET	POWD	ED	CD	VEL	CUP
BULLET	POWD	ER	GR	VEL	CUP
378 WEAT	HERBY	MAG	NUM	CASE	: WEATHERBY
BBL: 26"				PR:	FEDERAL 215
270 GR. HD H48		115.0		3102	COL: 3.645"
H43		105.0		3091	
300 GR. NO	S PART				COL: 3.680"
H87		120.0		2620	
H48 H43		112.0 100.0		2926 2940	
416 REMI	NCTON		ши	CASE	
410 REIVII BBL: 24"	NUTON	MAU		REMIN	: REMINGTON Gton 9 1/2 M
350 GR. SP					COL: 3.590"
VAR BL-0		82.0 87.0		2622 2580	52,400 CUP 44,700 CUP
H33		82.0		2572	50,900 CUP
H48		80.0		2601	52,200 CUP
400 GR. HD	Y JRN		-		COL: 3.560"
H43		88.0		2395	46,400 CUP
H38 VAR	-	84.0 77.0		2367 2407	48,500 CUP 53.000 CUP
BL-0		83.0		2407	50.500 CUP
H48		76.0		2391	53,300 CUP
44-40 WII	NCHEST	ER		CASE:	WINCHESTER
BBL: 20"			ļ	PR: WIN	ICHESTER LP
200 GR. LE/		7 0		1000	COL: 1.600"
HP-	VERSAL	7.3 6.5		1069 1020	11,100 PSI 12,400 PSI
	GROUP	6.2		1117	12,900 PSI
CLA	YS	5.0		924	11,700 PSI
44 MAGN	UM (RIF	LE)	_		WINCHESTER
BBL: 20"				R: REM	INGTON 2 1/2
240 GR. NO H42	S JHP 27	24.0		1778	COL: 1.600" 36,100 CUP
H11		24.0		1817	36,200 CUP
270 GR. SP		• • • •			COL: 1.600"
H42		22.5		1638	37,400 CUP
H110	J	21.5		1637	37,700 CUP
300 GR. HD	Y ХТР				COL: 1.600"
H42	27	20.0		1452	38,600 CUP
H110	00	19.0		1473	38,800 CUP
444 MARI BBL: 24"	_IN		P		: REMINGTON Ington 9 1/2
240 GR. SIE	JHP		,	0000	COL: 2.535"
H33 H48		56.0 53.0		2222 2069	38,900 CUP 33,100 CUP
	95 CHMARK	53.0 55.0		2069 2234	40,600 CUP
H32		52.0		2185	35,900 CUP
H41		49.2		2499	42,100 CUP
265 GR. HD			,		COL: 2.550"
H33		56.0		2187	39,700 CUP
H48	90	53.0	U	2080	34,800 CUP

BULLI	ET POWD	ER GR	VEL	CUP
	BENCHMARK	53.0 C	2139	40,700 CUP
	H322	52.0 C	2164	38,300 CUP
	H4198	47.0	2273	41,100 CUP
300 GR	SFT HP	50.0.0	1014	COL: 2.620"
	VARGET H335	50.0 C 52.0	1914 2023	35,700 CUP 42,300 CUP
	H4895	50.0 C	1931	35,600 CUP
	BENCHMARK	48.5	1993	41,900 CUP
	H322	48.0	2038	42,600 CUP
	H4198	42.5	2082	42,500 CUP
45-70	GOVERNME	ENT (TRA		RIFLE) WINCHESTER
BBL: 24	4"		UNUL.	PR: CCI 200
300 GR	. SIE HP			COL: 2.525"
	VARGET H335	63.0 C	2020	23,800 CUP
	H4895	63.5 62.0 C	2143 1974	27,400 CUP 21,000 CUP
	BENCHMARK	63.5 C	2113	27,400 CUP
	H322	60.0	2142	28,000 CUP
	H4198	55.0	2221	27,600 CUP
405 GR	A. CAST LFP VARGET	50.0	1718	COL: 2.540" 20.900 CUP
	H4895	48.0	1645	18,900 CUP
	BENCHMARK	50.0	1695	22,600 CUP
	H4198	31.0	1459	17,100 CUP
458 W BBL: 24	/INCHESTER 4"		M case:	WINCHESTER PR: CCI 250
350 GR	. SPR SP	• • • •		COL: 3.105"
	H4895	80.0 C	2496	38,700 CUP
	BENCHMARK H322	79.0 C 80.0 C	2468 2589	42,400 CUP 49,400 CUP
	H4198	72.0	2548	51,600 CUP
400 GR	. SFT SP			COL: 3.220"
	VARGET	77.0 C	2310	38,800 CUP
	H4895 BENCHMARK	77.0 C 78.0 C	2349 2343	42,500 CUP 46.600 CUP
	H322	76.0 C	2343	40,000 CUP 51,100 CUP
	H4198	67.0	2323	51,000 CUP
500 GR	. HDY JRN			COL: 3.310"
	VARGET	74.0 C	2152	48,100 CUP
	H335 H4895	75.5 74.0 C	2163 2161	50,300 CUP 50,300 CUP
	BENCHMARK	73.0 C	2123	50,300 CUP
	H322	69.5 C	2109	52,000 CUP
	H4198	58.5	1987	51,100 CUP
460 W	/EATHERBY	MAGNUI		WEATHERBY
	L BAR XFB		rn. I	COL: 3.710"
-100 UN	H4831	127.0	2565	JUL. J./ 10
	H4350	118.0	2610	
	H414	117.0	2640	
	H380	110.0	2593	

RIFLE DATA

VEL

2469

2508 2530

2483

2478

3029

2800

2725

BULLET POWDER GR

500 GR. HDY JRN

H4831 H4350

H414

H380

H4895

655 GR. ADI FMJ H50BMG

800 GR. BAR SOLID H50BMG

750 GR. HDY A-MAX H50BMG 233.0

BBL: 45"

. . . .

126.0

115.0

116.0

108.0

105.0

.

248.0

. . . .

225.0

....

50 BROWNING MACHINE GUN

	-	T.			
CUP	BULLET	POWDER	GR	VEL	CUP
COL: 3.710"					
CASE: FNB PR: CCI 35					
COL: 5.450"					
COL: 5.450"					
COL: 5.450"					

NEVER Exceed the Loads Listed in This Publication

H4895

107.0

2589

23



54 Caliber and 44 Caliber pistol.

HODGDON Muzzleloading Propellants

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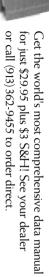


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