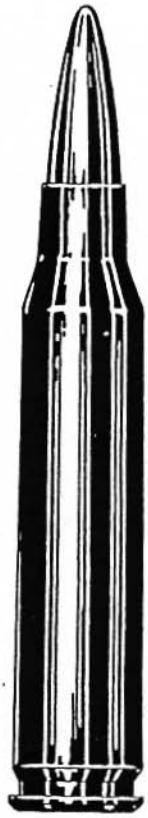
*One Book / One Caliber*

# *The Complete Reloading Manual for the .223 Remington*



**Containing Unabridged Information from U.S. Bullet and Powder Makers**

*Accurate * Hercules * Hodgdon * Hornady*
*IMR * Lyman * Nosler * RCBS * Scot*
*Sierra * Speer * Winchester*

**2,437 Proven & Tested Loads**
**78 Various Bullet Designs**
**47 Different Powders**

# RELOADING SAFETY RULES

Reloading is an enjoyable and rewarding hobby that is easily conducted with safety. But, like many other human endeavors, carelessness or negligence can make reloading hazardous.

The essence of reloading safety is proper handling and storage of primers and powder. By observing the following rules, the chance of hazardous occurrence becomes extremely remote.

Store powder and primers beyond the reach of children and away from heat and open flames. Do not smoke when reloading.

Keep no more powder that needed in an open container. Immediately return unused powder to its original factory container.

Don't use any powder unless its identity is positively known. Scrap all mixed powders and those of uncertain or unknown identity.

Do not store primers in bulk. To do so is to create a bomb! Bulk primers will mass detonate. Do not use primers when their identity is lost. Safely dispose of unknown types of primers.

*Courtesy of Speer Reloading Manual No. 11*

All loading data contained in this book is the result of testing by the various bullet and powder manufacturers. Under carefully controlled conditions and with the components and test equipment specified, this data proved safe in their tests. Since none of the companies, nor the publisher, listed herein has control over the components and equipment which may be used with this published information, no responsibility is implied or assumed for results obtained through its use.

*Courtesy of Hornady Manufacturing Company, Inc.*

Sierra Bullets cannot and does not accept any liability, either expressed or implied, for results of damage or injury arising from or alleged to have arisen from the use of the data in this manual.

*Courtesy of Sierra Bullets*

Follow loading recommendations exactly. Don't substitute components for those listed. Start loading with the minimum powder charges. Understand what you are doing and why it must be done in a specific way. Stay alert when reloading. Don't reload when distracted, disturbed or tired.

*Courtesy of Nosler Bullets, Inc.*

# The Complete Reloading Manual for the .223 Remington

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# .223 REMINGTON

## DISCLAIMER

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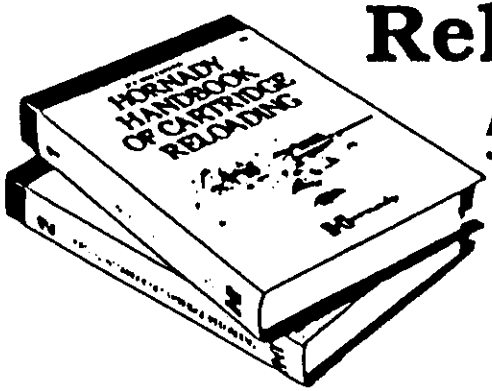
## DISCLAIMER

## SHOOTER'S LOG

# SHOOTER'S LOG

# The Hornady Handbook of Cartridge Reloading 5th Ed.




This new two-volume set contains the most up-to-date reloading information available. Volume I contains the loading formulas for all Hornady rifle and pistol bullets. Volume II contains the ballistic tables and charts you need to fine tune your loads.

This two-volume format enables you to have both the loading formulas and ballistics tables open to the same caliber without having to thumb back and forth.

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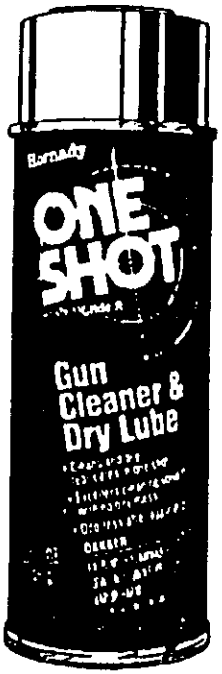
# *Save time on your next shot!*





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In the field or on the loading bench
Fast drying, non-oily
Cleans and lubes bullets, presses and guns

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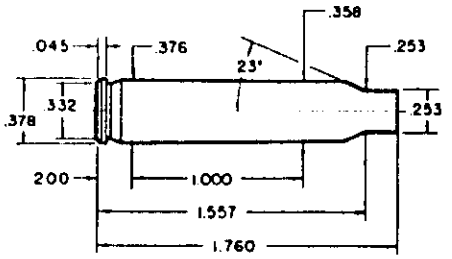
# .223 REMINGTON - HORNADY BULLETS




**RIFLE:** ..... Remington 700
**BARREL:** .... 26", 1 in 12" Twist
**CASE:** ..... Winchester
**PRIMER:** ..... Winchester WSR

**BULLET DIAMETER:** .... 0.224"
**MAXIMUM C.O.L.:** ..... 2.260"
**MAX. CASE LENGTH:** ... 1.760"
**CASE TRIM LENGTH:** ... 1.750"

The 223 Remington began as a military cartridge in 1957 and was later introduced by Remington as a commercial round. The cartridge is now chambered by numerous manufacturers in a wide variety of firearms. Ready availability of inexpensive military surplus brass contributed greatly to the 223's popularity. It easily surpassed the 222 Magnum's following, and its acceptance is still growing.

When comparing the 222 Magnum and the 223, the case size appears to be nearly identical. However, the 222 Magnum is about one tenth of an inch longer and holds ½ to 1 grain more powder. 223 cartridges should not be fired in a 222 Magnum as the case dimensions are different and the cases are likely to rupture, possibly causing injury.

The 223 is an excellent choice for varmint hunters. At the time of this writing, the types of commercial actions chambered for the 223 Remington range from the Ruger Mini-14 semi-automatic to the Remington 40 XB. Couple this wide assortment of firearms with Hornady's superb selection of 22 caliber bullets and the 223 is adequate for any 22 caliber use. Varminters are encouraged to try the new 22 caliber Hornady V-MAX bullets. These polymer-tipped bullets have been designed not only for their explosive performance on impact, they are very efficient ballistically and highly accurate.

# .223 REMINGTON - HORNADY BULLETS

## 40 GRAIN BULLETS

SECTIONAL DENSITY: 0.114
DIAMETER: 0.224"

### #22241 V-MAX

B.C.: 0.200 C.O.L.: 2.200"

| | VELOCITY (FPS–feet per second) | | | | | |
|---|---|---|---|---|---|---|
| POWDER | 3300 | 3400 | 3500 | 3600 | 3700 | 3800 |
| IMR 4198 | 19.3 gr. | 20.0 gr. | 20.7 gr. | 21.5 gr. | **22.2 gr.** | |
| VIHT N-120 | 19.5 gr. | 20.3 gr. | **21.0 gr.** | | | |
| VIHT N-130 | 21.6 gr. | 22.3 gr. | 23.0 gr. | 23.8 gr. | **24.5 gr.** | |
| AA 2460 | 24.1 gr. | 24.9 gr. | 25.6 gr. | 26.4 gr. | 27.1 gr. | **27.8 gr.** |
| H 335 | 24.3 gr. | 25.1 gr. | 25.9 gr. | 26.6 gr. | **27.4 gr.** | |

## 45 GRAIN BULLETS

SECTIONAL DENSITY: 0.128
DIAMETER: 0.224"

### #2230 HORNET

B.C.: 0.202 C.O.L.: 2.200"

| | VELOCITY (FPS–feet per second) | | | | |
|---|---|---|---|---|---|
| POWDER | 3100 | 3200 | 3300 | 3400 | 3500 |
| VIHT N-130 | 20.0 gr. | 20.8 gr. | 21.6 gr. | 22.5 gr. | **23.3 gr.** |
| IMR 4198 | 20.6 gr. | 21.3 gr. | 22.0 gr. | **22.7 gr.** | |
| VIHT N-133 | 21.1 gr. | 21.9 gr. | 22.8 gr. | 23.7 gr. | **24.6 gr.** |
| H 322 | 23.3 gr. | 23.9 gr. | 24.5 gr. | **25.1 gr.** | |
| VIHT N-135 | 22.8 gr. | 23.6 gr. | 24.5 gr. | **25.3 gr.** | |
| IMR 3031 | | 23.8 gr. | 24.6 gr. | **25.5 gr.** | |
| H 335 | 23.0 gr. | 24.0 gr. | 25.0 gr. | 26.1 gr. | **27.1 gr.** |
| AA 2460 | 23.9 gr. | 24.6 gr. | 25.4 gr. | 26.1 gr. | **26.9 gr.** |
| BL-C2 | 24.9 gr. | 25.6 gr. | 26.3 gr. | 27.0 gr. | **27.7 gr.** |
| Win 748 | 25.5 gr. | 26.5 gr. | 27.5 gr. | **28.6 gr.** | |

■ *indicates maximum load • use with caution*

# .223 REMINGTON - HORNADY BULLETS

## 50 GRAIN BULLETS

SECTIONAL DENSITY: 0.142
DIAMETER: 0.224"

**#2240 SPSX**
B.C.: 0.214 C.O.L.: 2.200"

**#22261 V-MAX**
B.C.: 0.242 C.O.L.: 2.200"

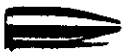
**#2245 SP**
B.C.: 0.214 C.O.L.: 2.200"

| | VELOCITY (FPS–feet per second) | | | | | |
|---|---|---|---|---|---|---|
| POWDER | 2900 | 3000 | 3100 | 3200 | 3300 | 3400 |
| VIHT N-130 | 19.6 gr. | 20.4 gr. | 21.2 gr. | 22.1 gr. | **22.9 gr.** | |
| VIHT N-133 | 19.8 gr. | 20.6 gr. | 21.4 gr. | 22.1 gr. | 22.9 gr. | **23.7 gr.** |
| IMR 4198 | 19.5 gr. | 20.2 gr. | 20.9 gr. | 21.6 gr. | **22.2 gr.** | |
| H 322 | 21.9 gr. | 22.6 gr. | 23.2 gr. | 23.9 gr. | 24.5 gr. | **25.2 gr.** |
| IMR 3031 | 22.5 gr. | 23.2 gr. | 23.8 gr. | 24.4 gr. | 25.1 gr. | **25.7 gr.** |
| H 335 | 21.8 gr. | 22.7 gr. | 23.7 gr. | 24.7 gr. | **25.7 gr.** | |
| AA 2460 | 22.4 gr. | 23.3 gr. | 24.3 gr. | 25.2 gr. | 26.2 gr. | **27.1 gr.** |
| BL-C2 | 22.9 gr. | 23.9 gr. | 24.8 gr. | 25.8 gr. | **26.7 gr.** | |
| IMR 4895 | 24.3 gr. | 25.0 gr. | 25.7 gr. | 26.3 gr. | **27.0 gr.** | |
| WIN 748 | 24.5 gr. | 25.1 gr. | 25.9 gr. | 26.7 gr. | 27.5 gr. | **28.3 gr.** |
| IMR 4320 | 25.0 gr. | 25.7 gr. | 26.5 gr. | 27.2 gr. | **27.9 gr.** | |
| H 380 | 25.3 gr. | 26.2 gr. | 27.2 gr. | 28.1 gr. | **29.0 gr.** | |

**■** *indicates maximum load • use with caution*

## 52-53 GRAIN BULLETS

SECTIONAL DENSITY: 0.148-0.151
DIAMETER: 0.224"



**#2249 BTHP**
B.C.: 0.229 C.O.L.: 2.230"

**#22492 A-MAX**
B.C.: 0.247 C.O.L.: 2.230"

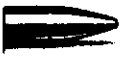
**#2250 HP**
B.C.: 0.218 C.O.L.: 2.230"

| | VELOCITY (FPS–feet per second) | | | | | |
|---|---|---|---|---|---|---|
| POWDER | 2900 | 3000 | 3100 | 3200 | 3300 | 3400 |
| IMR 4198 | 19.2 gr. | 20.1 gr. | 21.0 gr. | **21.9 gr** | | |
| VIHT N-130 | 19.3 gr. | 20.3 gr. | 21.3 gr. | **22.2 gr.** | | |
| VIHT N-133 | 20.6 gr. | 21.4 gr. | 22.2 gr. | **23.0 gr.** | | |
| IMR 3031 | 22.2 gr. | 22.9 gr. | 23.5 gr. | 24.2 gr. | 24.8 gr. | **25.5 gr** |
| H 322 | 22.2 gr. | 22.9 gr. | 23.6 gr. | 24.3 gr. | **25.0 gr** | |
| VIHT N-135 | 22.0 gr. | 22.9 gr. | 23.7 gr. | **24.5 gr.** | | |
| H 335 | 22.3 gr. | 23.3 gr. | 24.3 gr. | **25.4 gr.** | | |
| AA 2460 | 22.6 gr. | 23.5 gr. | 24.5 gr. | 25.4 gr. | 26.3 gr. | **27.3 gr.** |
| BL-C2 | 22.5 gr. | 23.5 gr. | 24.5 gr. | 25.5 gr. | 26.5 gr. | **27.4 gr.** |
| VARGET | 23.3 gr. | 24.2 gr. | 25.1 gr. | **26.0 gr.** | | |
| IMR 4895 | 24.1 gr. | 24.9 gr. | 25.6 gr. | 26.4 gr. | **27.1 gr.** | |
| WIN 748 | 23.8 gr. | 24.8 gr. | 25.8 gr. | 26.9 gr. | 27.9 gr. | **28.9 gr.** |
| IMR 4320 | 24.8 gr. | 25.6 gr. | 26.4 gr. | 27.2 gr. | **27.9 gr.** | |

■ *indicates maximum load • use with caution*

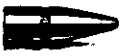
## 55 GRAIN BULLETS

SECTIONAL DENSITY: 0.157
DIAMETER: 0.224"



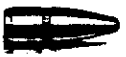
**#2265 SP**
B.C.: 0.235 C.O.L.: 2.200"

**#22271 V-MAX**
B.C.: 0.255 C.O.L.: 2.250"



**#2266 SP w/c**
B.C.: 0.235 C.O.L.: 2.200"

**#2260 SPSX**
B.C.: 0.235 C.O.L.: 2.200"



**#2267 BT-FMJ w/c**
B.C.: 0.243 C.O.L.: 2.200"

| | VELOCITY (FPS–feet per second) | | | | | |
|---|---|---|---|---|---|---|
| POWDER | 2800 | 2900 | 3000 | 3100 | 3200 | 3300 |
| IMR 4198 | 17.4 gr. | 18.2 gr. | 19.1 gr. | 20.0 gr. | | |
| VIHT N-133 | 19.8 gr. | 20.8 gr. | 21.8 gr. | 22.7 gr. | | |
| IMR 3031 | 20.5 gr. | 21.2 gr. | 22.0 gr. | 22.8 gr. | | |
| H 322 | 19.5 gr. | 20.7 gr. | 21.9 gr. | 23.1 gr. | | |
| H 335 | 20.8 gr. | 21.6 gr. | 22.4 gr. | 23.2 gr. | | |
| VIHT N-135 | 20.5 gr. | 21.5 gr. | 22.4 gr. | 23.4 gr. | | |
| AA 2460 | 21.2 gr. | 22.2 gr. | 23.2 gr. | 24.2 gr. | | |
| IMR 4895 | 22.7 gr. | 23.5 gr. | 24.3 gr. | 25.1 gr. | | |
| WIN 748 | 22.7 gr. | 23.7 gr. | 24.6 gr. | 25.5 gr. | 26.4 gr. | |
| VARGET | 22.8 gr. | 23.7 gr. | 24.6 gr. | 25.5 gr. | 26.4 gr. | |
| VIHT N-140 | 22.8 gr. | 23.8 gr. | 24.7 gr. | 25.7 gr. | | |
| BL-C2 | 24.4 gr. | 25.1 gr. | 25.9 gr. | 26.6 gr. | 27.4 gr. | 28.1 gr. |

*indicates maximum load • use with caution*

# .223 Remington - Hornady Bullets

## 60 GRAIN BULLETS

SECTIONAL DENSITY: 0.171
DIAMETER: 0.224"

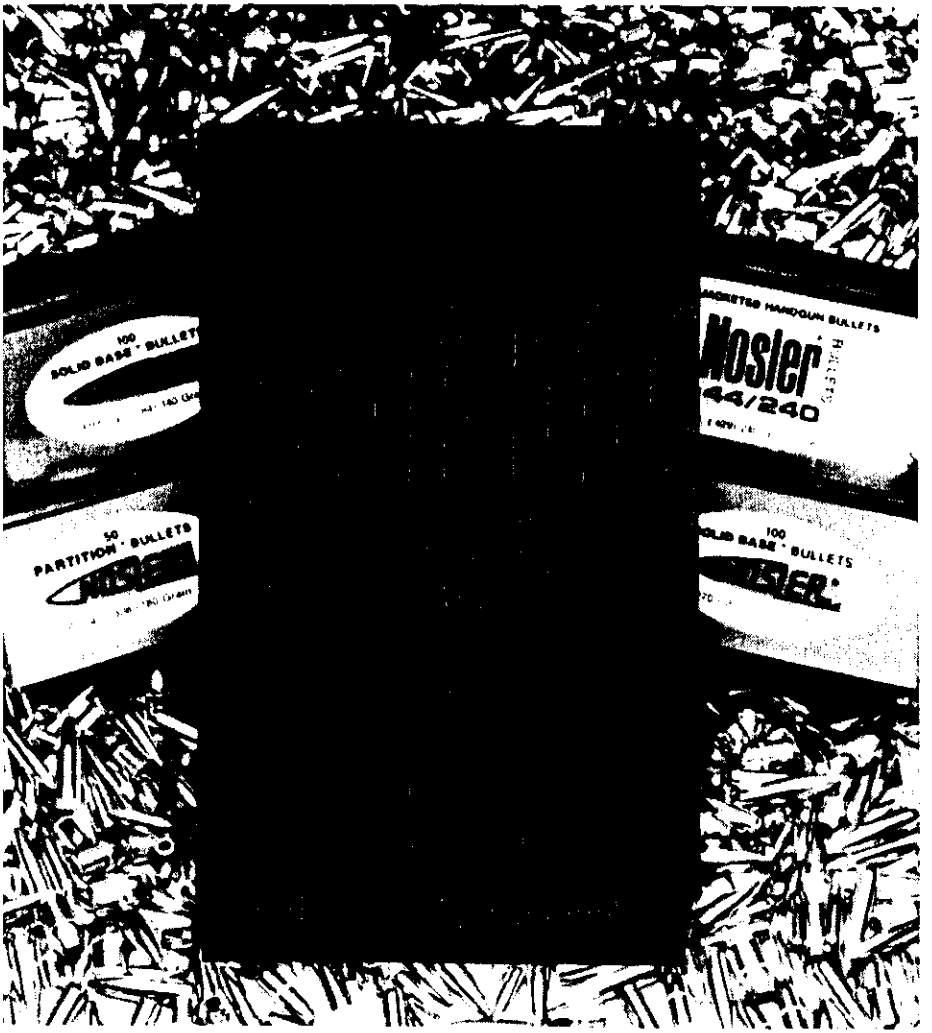
**#2270 SP**
B.C.: 0.264 C.O.L.: 2.200"

**#22281 V-MAX**
B.C.: 0.265 C.O.L.: 2.250"

**#2275 HP**
B.C.: 0.271 C.O.L.: 2.200"

| | VELOCITY (FPS–feet per second) | | | | | |
|---|---|---|---|---|---|---|
| POWDER | 2700 | 2800 | 2900 | 3000 | 3100 | 3200 |
| IMR 4198 | 17.2 gr. | 18.1 gr. | 19.1 gr. | | | |
| VIHT N-133 | 19.5 gr. | 20.4 gr. | 21.3 gr. | 22.2 gr. | | |
| VIHT N-135 | 19.6 gr. | 20.6 gr. | 21.7 gr. | 22.7 gr. | | |
| H 335 | 20.1 gr. | 21.0 gr. | 22.0 gr. | 22.9 gr. | | |
| IMR 3031 | 20.3 gr. | 21.2 gr. | 22.0 gr. | 22.8 gr. | | |
| AA 2460 | 20.2 gr. | 21.2 gr. | 22.1 gr. | 23.0 gr. | | |
| H 322 | 20.7 gr. | 21.5 gr. | 22.3 gr. | 23.1 gr. | | |
| VIHT N-140 | 21.5 gr. | 22.6 gr. | 23.7 gr. | 24.8 gr. | | |
| VARGET | 21.7 gr. | 22.7 gr. | 23.8 gr. | 24.9 gr. | | |
| WIN 748 | 22.1 gr. | 23.0 gr. | 23.8 gr. | 24.7 gr. | 25.5 gr. | |
| BL-C2 | 23.1 gr. | 24.0 gr. | 24.9 gr. | 25.9 gr. | 26.8 gr. | 27.7 gr. |

■ *indicates maximum load • use with caution*

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Nosler's *Reloading Manual Number Four* is the most complete volume on reloading ever. A full 722 pages with never-before-published data on Nosler Ballistic Tip and Handgun bullets, and new data on Solid Base® and Partition® bullets.

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**Handgun**

# .223 REMINGTON - NOSLER BULLETS

Hot summer afternoon, accurate varmint rifle, a bucket full of ammo, short prairie grass pocked with dirt mounds as far as the eye can see, with just enough wind to keep you cool and make the shooting a challenge. Every prairie dog shooter's dream.

*Load and shoot, load and shoot in a continuous rhythm that lasted long enough to turn that bucket full of ammo into a scattered pile of empty brass.*

As I stopped to refill the bucket, and the adrenaline subsided, I could smell charred wood and made the mistake of touching the barrel with my trigger finger. Another "cooked" barrel.

After rebarreling my trusty 22-250 twice, it was designated as a rock chuck rifle where the shooting was not so fast and furious. This created a hole in my varmint rifle arsenal that definitely needed to be filled.

The 22-250 and the "Swift" are great varmint cartridges but are not conducive to long barrel life when subjected to the volume of ammunition pumped down range in a "hot" prairie dog town. It is not unusual to expend five or six hundred rounds of ammo in a day's time.

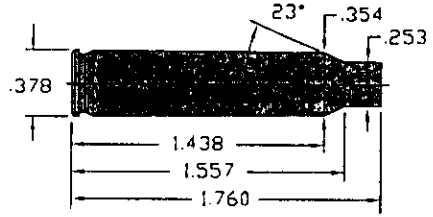
It didn't take much research to realize that in 1964, Uncle Sam and Robert Hutton of Guns & Ammo, had developed a cartridge (5.56mm) for the military that was the perfect prairie dog medicine. The .223 Rem. fit all the criteria: availability of inexpensive brass, easy to load, accurate, enough velocity to create "red mist" out to 400 yards, low recoil so you don't develop an afternoon flinch, and more rounds per pound than the 22-250 (43 vs. 29) when you have to fill your pockets and walk over the next hill.

Those who have experienced the "fever" brought on by a steady rest in the middle of an active prairie dog town, can understand the need for the perfect combination. The .223 Rem. with a 40-grain Ballistic Tip® at 3,700 fps in a medium weight 24-inch barrel doesn't miss the perfect combination by much.

Chuck Eastman

*Chuck is Sales Vice President of Nosler®, Inc.*

# .223 REMINGTON - NOSLER BULLETS




| | | |
|---|---|---|
| **RIFLE:** | Barrel: | Lilja |
| | Length: | 24" |
| | Twist: | 1-12" |
| **CASE:** | | Winchester |
| **PRIMER:** | | Rem. 7½ |

## Comments from the lab

The loads listed here were developed using standard commercial brass. Military brass has less case capacity because of its heavier construction, which often yields higher pressures. We recommend caution when using military brass, and suggest starting at or below the minimum loads listed.

If you will be loading for a semi-auto and find that crimping is necessary, then we recommend using a taper-crimp since there is no crimping groove on any of our .22 caliber products. Crimping with a standard seating die (roll crimping) can adversely affect accuracy.

For serious varmint work, nothing can rival the Ballistic Tip's ability to be fired at any reasonable velocity! Under strict laboratory conditions, we have tested our .22 caliber Ballistic Tips at over 4900 FPS—**without sacrificing integrity, or accuracy!**

The industry maximum overall cartridge length (O.A.L.) was established to assure proper feeding in modern sporting firearms. For the .223 Remington, this overall length has been established at 2.260". Optimum accuracy is usually achieved with a slightly longer cartridge

# .223 REMINGTON - NOSLER BULLETS

**Nosler**

**40 Grain**

40 gr. Solid Base*
Ballistic Tip* (orange)

| | |
|---|---|
| Ballistic Coefficient | .221 |
| Sectional Density | .114 |

*Most Accurate Load Tested
**Compressed Load

| Powder | Charge Weight in Grains | Muzzle Velocity (fps) | Load Density |
|---|---|---|---|
| | Max. 23.5 | 3810 fps | 83% |
| N 120 | 22.5 | 3677 fps | 80% |
| | 21.5* | 3543 fps | 76% |
| | Max. 23.0 | 3682 fps | 82% |
| IMR 4198 | 22.0 | 3492 fps | 78% |
| | 21.0* | 3302 fps | 75% |
| | Max. 23.5* | 3614 fps | 83% |
| RL 7 | 22.5 | 3492 fps | 80% |
| | 21.5 | 3370 fps | 76% |
| | Max. 25.5 | 3796 fps | 91% |
| AA 2015BR | 24.5 | 3627 fps | 87% |
| | 23.5* | 3458 fps | 83% |
| | Max. 25.0 | 3567 fps | 89% |
| H 322 | 24.0 | 3442 fps | 85% |
| | 23.0* | 3302 fps | 82% |
| | Max. 27.0 | 3812 fps | 96% |
| N 133 | 26.0 | 3704 fps | 92% |
| | 25.0* | 3596 fps | 89% |
| | Max. 28.0 | 3742 fps | 99% |
| RL 12 | 27.0 | 3617 fps | 96% |
| | 26.0* | 3493 fps | 92% |
| | Max. 27.5* | 3681 fps | 98% |
| H 335 | 26.5 | 3544 fps | 94% |
| | 25.5 | 3406 fps | 91% |
| | Max. 26.5 | 3515 fps | 94% |
| IMR 4895 | 25.5 | 3343 fps | 91% |
| | 24.5* | 3171 fps | 87% |
| W 748 | Max. 28.0* | 3547 fps | 99% |
| *(Most Accurate Powder Tested)* | 27.0 | 3426 fps | 96% |
| | 26.0 | 3304 fps | 92% |
| | Max. 27.0 | 3383 fps | 96% |
| VARGET | 26.0 | 3247 fps | 92% |
| | 25.0* | 3111 fps | 89% |

*Use Maximum Loads with Caution*

# .223 REMINGTON - NOSLER BULLETS

**Nosler**

## 50 Grain

50 gr. Solid Base*
Ballistic Tip® (orange)

| | |
|---|---|
| Ballistic Coefficient | .238 |
| Sectional Density | .142 |

**Most Accurate Load Tested*
***Compressed Load*

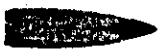
| Powder | Charge Weight in Grains | Muzzle Velocity (fps) | Load Density |
|---|---|---|---|
| N 120 | *Max.* 23.0 | 3323 fps | 81% |
| | 22.0 | 3187 fps | 78% |
| | 21.0* | 3051 fps | 74% |
| IMR 4198 | *Max.* 22.0* | 3230 fps | 78% |
| | 21.0 | 3110 fps | 74% |
| | 20.0 | 2990 fps | 71% |
| N 133 | *Max.* 25.0 | 3412 fps | 88% |
| | 24.0 | 3301 fps | 85% |
| | 23.0* | 3190 fps | 81% |
| AA 2460 | *Max.* 28.0 | 3497 fps | 99% |
| | 27.0 | 3391 fps | 95% |
| | 26.0* | 3285 fps | 92% |
| BL-C(2) | *Max.* 25.5* | 3298 fps | 90% |
| | 24.5 | 3183 fps | 87% |
| | 23.5 | 3068 fps | 83% |
| H 335 | *Max.* 26.0 | 3260 fps | 92% |
| | 25.0 | 3170 fps | 88% |
| | 24.0* | 3080 fps | 85% |
| RL 12 | *Max.* 26.0* | 3298 fps | 92% |
| | 25.0 | 3163 fps | 88% |
| | 24.0 | 3028 fps | 85% |
| IMR 4895 | *Max.* 26.0 | 3260 fps | 92% |
| | 25.0 | 3150 fps | 88% |
| | 24.0* | 3040 fps | 85% |
| VARGET | *Max.* 26.0* | 3220 fps | 92% |
| | 25.0 | 3092 fps | 88% |
| | 24.0 | 2963 fps | 85% |
| W 748 *(Most Accurate Powder Tested)* | *Max.* 26.5* | 3260 fps | 94% |
| | 25.5 | 3150 fps | 90% |
| | 24.5 | 3040 fps | 87% |
| IMR 4064 | *Max.* 27.0* | 3240 fps | 95% |
| | 26.0 | 3130 fps | 92% |
| | 25.0 | 3020 fps | 88% |

*Use Maximum Loads with Caution*

# .223 REMINGTON - NOSLER BULLETS

**Nosler**

## 55 Grain



55 gr. Solid Base*
Ballistic Tip® (orange)

*Most Accurate Load Tested
**Compressed Load

Ballistic Coefficient .267
Sectional Density .157

| Powder | Charge Weight in Grains | Muzzle Velocity (fps) | Load Density |
|---|---|---|---|
| N 120 | Max. 21.0* | 3149 fps | 74% |
| | 20.0 | 3020 fps | 71% |
| | 19.0 | 2892 fps | 67% |
| IMR 4198 | Max. 21.5* | 3170 fps | 76% |
| | 20.5 | 3050 fps | 73% |
| | 19.5 | 2930 fps | 69% |
| IMR 3031 | Max. 24.5 | 3170 fps | 87% |
| | 23.5 | 3040 fps | 83% |
| | 22.5* | 2910 fps | 80% |
| N 135 | Max. 25.0 | 3195 fps | 89% |
| | 24.0 | 3091 fps | 85% |
| | 23.0* | 2987 fps | 82% |
| BL-C(2) | Max. 25.0* | 3142 fps | 89% |
| | 24.0 | 3037 fps | 85% |
| | 23.0 | 2932 fps | 82% |
| H 335 (Most Accurate Powder Tested) | Max. 25.0* | 3140 fps | 89% |
| | 24.0 | 3030 fps | 85% |
| | 23.0 | 2920 fps | 82% |
| IMR 4895 | Max. 25.5* | 3178 fps | 90% |
| | 24.5 | 3083 fps | 87% |
| | 23.5 | 2988 fps | 83% |
| W 748 | Max. 26.0 | 3140 fps | 92% |
| | 25.0 | 3060 fps | 89% |
| | 24.0* | 2980 fps | 85% |
| IMR 4064 | Max. 26.5* | 3180 fps | 94% |
| | 25.5 | 3110 fps | 90% |
| | 24.5 | 3040 fps | 87% |
| VARGET | Max. 25.0 | 3037 fps | 89% |
| | 24.0 | 2921 fps | 85% |
| | 23.0* | 2805 fps | 82% |
| RL 15 | Max. 26.5 | 3190 fps | 93% |
| | 25.5 | 3080 fps | 89% |
| | 24.5* | 2970 fps | 86% |

*Use Maximum Loads with Caution*

# SHOOTER'S LOG


# *When You Need ALL the Facts...*

The Sierra **4th Edition** Reloading Manuals have the information you need. Rifle and Handgun reloading information are in two separate volumes, and each one covers its subject thoroughly. No matter what brand of bullet, powder, or primer you like to use, the Sierra manuals give you the full story.

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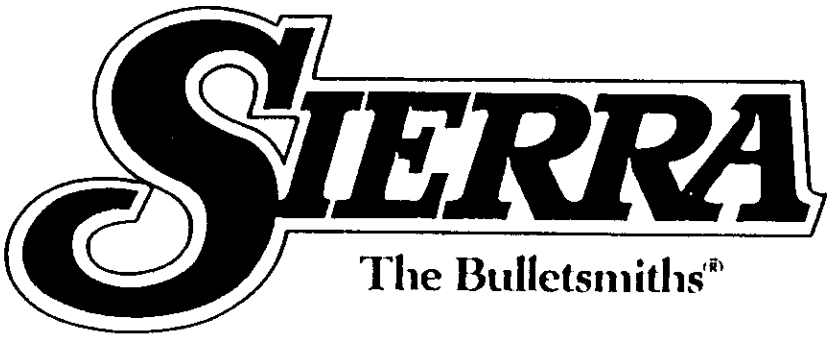
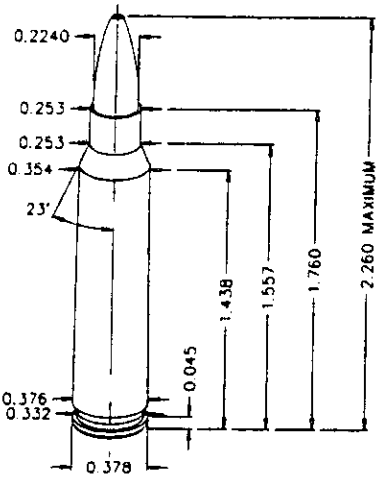
# 1-800-223-8799

That's the Sierra Bullets TOLL-FREE Tech Line. Our Bulletsmiths® are on hand from 7 am to 4 pm Central Time, Monday through Friday, ready to answer your reloading questions. No matter what brand of powder or bullet, no matter the caliber or conditions, the Bulletsmiths® can help you develop the load to suit your need.

So don't be bashful, go ahead and give us a call.



# 223 Remington (AR-15)




**Test Specifications/ Components**

**Firearm Used:** Colt AR-15A2 HBAR
**Barrel Length:** 20"
**Twist:** 1 x 7"
**Case:** Federal
**Trim-to Length:** 1.750"
**Primer:** Rem 7 1/2

**Remarks:**

Inadequate for military purposes, not as accurate as the 222 Remington, and less powerful than the 222 Magnum. These were just some of the greetings given to Remington's 223, when it was unveiled as the 5.56mm in the AR-15/M16 rifle. In spite of its early critics, the 223 Remington has become one of the most popular sporting cartridges, and has proven itself in several military conflicts worldwide. Perhaps its greatest compliment as a service round came when the former Soviet Union replaced its 7.62x39mm cartridge with a 22 caliber service round that closely duplicated the 223's performance.

While adoption by the military virtually assures a cartridge's popularity, the 223 is perfectly capable of standing on its own merits. It is an outstanding varmint cartridge out to 250-275 yards, especially when loaded with 50 or 55 grain Blitz bullets. Despite critics' comments, any difference in either accuracy, effective range, or power compared to the 222 Remington or 222 Remington Magnum is insignificant. In fact, Sierra now uses the 223 for accuracy testing in several of our 22 caliber MatchKings. It is an extremely easy cartridge to load for, responding well to a wide variety of components. Hodgdon's H335, Winchester 748 and Reloader 7 are all top choices, generally giving good velocity and excellent accuracy. Surplus military cases add to the popularity of any cartridge, and the 223 has been no exception. If military cases are used, the primer pocket will need to be swaged or reamed to remove the crimp and allow seating of a new primer. Dillon Reloading has a swaging tool specifically for this chore, and it is by far the most satisfactory unit we have used.

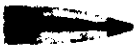
In recent years, the 223 Remington has gained acceptance as a target round, being used mostly in the "service rifle" category of the National Match Course. In 1992, Sierra announced an 80 grain MatchKing specifically for the 600-yard stage of this type of competition. As this is a slow-fire stage, the 80 grain HPBT should be seated to approximately 2.550" OAL, and must be single-loaded. This bullet requires the use of a 1x7" or 1x8" twist for proper stability.

# 223 Remington (AR-15) continued

**#1200 .224" 40 gr. Hornet**
C.O.A.L. 2.125"

**#1385 .224" 40 gr. HP**
C.O.A.L. 2.175"

**#1440 .224" 40 gr. BlitzKing**
C.O.A.L. 2.250"



| Powder↓/Velocity→ | 3100 | 3200 | 3300 | 3400 | 3500 | 3600 |
|---|---|---|---|---|---|---|
| Viht N130 | | 23.2 | 23.7 | 24.2 | 24.7 | 25.2 |
| Viht N133 | 24.6 | 25.2 | 25.8 | 26.4 | | |
| IMR-4198 | | 22.0 | 22.6 | 23.2 | | |
| XMR-2015 | 24.5 | 25.2 | 25.9 | 26.6 | | |
| Benchmark | 24.9 | 25.6 | 26.3 | 27.0 | | |
| H322 | 24.4 | 25.3 | | | | |
| X-Terminator | | 25.0 | 25.7 | 26.4 | 27.1 | |
| AA-2230 | | 25.5 | 26.5 | 27.5 | | |
| 748 | 27.4 | 28.0 | | | | |
| H335 | 26.0 | 26.6 | 27.2 | 27.8 | 28.4 | |
| TAC | | 25.9 | 26.9 | 27.9 | | |
| **Energy/ft.lbs.** | **853** | **909** | **967** | **1027** | **1088** | **1151** |

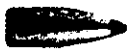
| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | H322 | 25.3 | 3200 | 909 |
| Hunting Load | IMR-4198 | 23.2 | 3400 | 1027 |

INDICATES MAXIMUM LOAD – **USE CAUTION**
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (AR-15) continued

**#1210 .224" 45 gr. Hornet**
C.O.A.L. 2.125"

**#1310 .224" 45 gr. SPT**
C.O.A.L. 2.240"



| Powder/Velocity – | 3000 | 3100 | 3200 | 3300 | 3400 | 3450 |
|---|---|---|---|---|---|---|
| Viht N130 | | 22.8 | 23.4 | 24.0 | 24.6 | 24.9 |
| Viht N133 | 23.9 | 24.5 | 25.1 | 25.7 | | |
| IMR-4198 | 20.7 | 21.4 | 22.1 | 22.8 | | |
| XMR-2015 | 24.2 | 24.8 | 25.4 | | | |
| RE-7 | 21.6 | 22.2 | 22.8 | | | |
| IMR-3031 | 24.7 | 25.2 | | | | |
| Benchmark | 24.7 | 25.3 | 25.9 | 26.5 | | |
| H322 | 24.5 | 25.1 | 25.7 | | | |
| X-Terminator | 24.0 | 24.7 | 25.4 | 26.1 | | |
| AA-2230 | 25.2 | 25.9 | 26.6 | 27.3 | | |
| 748 | 27.2 | 27.9 | | | | |
| BL-C(2) | 28.1 | 28.8 | 29.5 | | | |
| H335 | 25.6 | 26.3 | 27.0 | 27.7 | | |
| TAC | 25.5 | 26.2 | 26.9 | 27.6 | 28.3 | |
| Viht N135 | 24.5 | 25.3 | 26.1 | 26.9 | | |
| Energy/ft.lbs. | 899 | 960 | 1023 | 1088 | 1155 | 1189 |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | X-Terminator | 26.1 | 3300 | 1088 |
| Hunting Load | Viht N130 | 24.6 | 3400 | 1155 |

INDICATES MAXIMUM LOAD – USE CAUTION
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (AR-15) continued

**#1320 .224" 50 gr. SMP**
C.O.A.L. 2.230"

**#1330 .224" 50 gr. SPT**
C.O.A.L. 2.250"

**#1340 .224" 50 gr. Blitz**
C.O.A.L. 2.250"

**#1450 .224" 50 gr. BlitzKing**
C.O.A.L. 2.250"

| Powder↓/Velocity→ | 2800 | 2900 | 3000 | 3100 | 3200 | 3250 | 3300 |
|---|---|---|---|---|---|---|---|
| Viht N130 | 22.1 | 22.6 | 23.1 | 23.6 | 24.1 | 24.3 | 24.6 |
| Viht N133 | | 23.5 | 24.2 | 24.9 | 25.6 | 25.9 | |
| IMR-4198 | 20.1 | 20.7 | 21.3 | 21.9 | 22.5 | | |
| XMR-2015 | 23.3 | 23.9 | 24.5 | 25.1 | 25.7 | | |
| RE-7 | 20.2 | 20.9 | 21.6 | 22.3 | 23.0 | | |
| IMR-3031 | 23.7 | 24.2 | 24.7 | 25.2 | | | |
| Benchmark | 23.3 | 24.1 | 24.9 | 25.7 | 26.5 | | |
| H322 | 23.1 | 23.8 | 24.5 | 25.2 | | | |
| X-Terminator | | 23.5 | 24.3 | 25.1 | 25.9 | | |
| AA-2230 | | 24.9 | 25.6 | 26.3 | 27.0 | | |
| 748 | | 26.6 | 27.2 | 27.8 | | | |
| BL-C(2) | 26.5 | 27.2 | | | | | |
| H335 | 24.3 | 25.0 | 25.7 | 26.4 | | | |
| TAC | | 24.3 | 25.1 | 25.9 | 26.7 | 27.1 | 27.5 |
| IMR-4895 | 24.8 | 25.6 | 26.4 | | | | |
| Viht N135 | 23.9 | 24.5 | 25.1 | 25.7 | | | |
| IMR-4320 | 26.1 | 26.9 | | | | | |
| Energy/ft.lbs. | 870 | 933 | 999 | 1067 | 1137 | 1172 | 1209 |

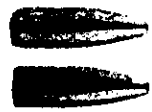
| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | Viht N135 | 25.7 | 3100 | 1067 |
| Hunting Load | X-Terminator | 25.9 | 3200 | 1137 |

INDICATES MAXIMUM LOAD – USE CAUTION
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (AR-15) continued

**#1410 .224" 52 gr. HPBT MatchKing**
C.O.A.L. 2.250"

**#1400 .224" 53 gr. HP MatchKing**
C.O.A.L. 2.250"



| Powder / Velocity → | 2700 | 2800 | 2900 | 3000 | 3050 | 3100 | 3150 | 3200 |
|---|---|---|---|---|---|---|---|---|
| Viht N130 | | 21.1 | 21.9 | 22.7 | | | | |
| Viht N133 | 22.3 | 22.9 | 23.5 | 24.1 | | | | |
| IMR-4198 | 19.6 | 20.3 | 21.0 | | | | | |
| XMR-2015 | 22.4 | 23.1 | 23.8 | 24.5 | 24.9 | 25.2 | | |
| RE-7 | 19.6 | 20.4 | 21.2 | 22.0 | 22.4 | | | |
| IMR-3031 | 22.7 | 23.5 | 24.3 | 25.1 | | | | |
| Benchmark | | 23.6 | 24.3 | 25.0 | 25.4 | 25.7 | | |
| H322 | | 23.1 | 23.8 | 24.5 | 24.9 | 25.2 | | |
| X-Terminator | | 22.7 | 23.5 | 24.3 | 24.7 | 25.1 | | |
| AA-2230 | | 23.6 | 24.4 | 25.2 | 25.6 | 26.0 | | |
| 748 | | 24.8 | 25.7 | 26.6 | 27.1 | 27.5 | | |
| BL-C(2) | 25.8 | 26.5 | | | | | | |
| H335 | | 24.3 | 25.0 | 25.7 | 26.1 | 26.4 | 26.7 | |
| TAC | | 23.5 | 24.3 | 25.1 | 25.5 | 25.9 | 26.3 | 26.7 |
| IMR-4895 | 24.4 | 25.1 | 25.8 | 26.5 | | | | |
| Viht N135 | 23.6 | 24.1 | 24.6 | 25.1 | 25.4 | 25.6 | | |
| Varget | 25.1 | 25.9 | 26.7 | 27.5 | | | | |
| IMR-4064 | 24.6 | 25.2 | 25.8 | | | | | |
| IMR-4320 | 25.4 | 26.2 | 27.0 | | | | | |
| **Energy/ft.lbs.** | **858** | **922** | **989** | **1059** | **1095** | **1131** | **1168** | **1205** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | Viht N133 | 23.5 | 2900 | 989 |

*Sierra does not recommend MatchKing bullets for hunting applications.*

INDICATES MAXIMUM LOAD – **USE CAUTION**
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (AR-15) continued

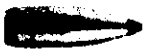
**#1345 .224" 55 gr. Blitz**
C.O.A.L. 2.250"

**#1350 .224" 55 gr. SMP**
C.O.A.L. 2.230"

**#1355 .224" 55 gr. FMJBT**
C.O.A.L. 2.250"

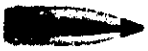
**#1360 .224" 55 gr. SPT**
C.O.A.L. 2.250"

**#1365 .224" 55 gr. SBT**
C.O.A.L. 2.250"



**#1390 .224" 55 gr. HPBT**
C.O.A.L. 2.240"

**#1455 .224" 55 gr. BlitzKing**
C.O.A.L. 2.250"



| Powder I/Velocity → | 2700 | 2800 | 2900 | 3000 | 3050 | 3100 |
|---|---|---|---|---|---|---|
| Viht N130 | | 21.4 | 22.0 | 22.6 | 22.9 | |
| Viht N133 | 22.6 | 23.1 | 23.6 | 24.1 | | |
| IMR-4198 | 19.7 | 20.3 | 20.9 | 21.5 | 21.8 | |
| XMR-2015 | 22.4 | 23.1 | 23.8 | 24.5 | 24.9 | 25.2 |
| RE-7 | 20.1 | 20.8 | 21.5 | | | |
| IMR-3031 | 23.1 | 23.6 | 24.1 | 24.6 | | |
| Benchmark | | 23.6 | 24.4 | 25.2 | | |
| H322 | 22.5 | 23.1 | 23.7 | 24.3 | | |
| X-Terminator | | 22.7 | 23.5 | 24.3 | 24.7 | 25.1 |
| AA-2230 | 23.3 | 24.0 | 24.7 | 25.4 | 25.8 | 26.1 |
| 748 | 25.1 | 25.8 | 26.5 | | | |
| H335 | 23.6 | 24.3 | 25.0 | 25.7 | | |
| TAC | | | 24.7 | 25.5 | 25.9 | 26.3 |
| IMR-4895 | 24.2 | 24.9 | 25.6 | | | |
| Viht N135 | 23.2 | 23.8 | 24.4 | 25.0 | 25.3 | 25.6 |
| Varget | 25.1 | 25.8 | 26.5 | 27.2 | | |
| IMR-4064 | 24.8 | 25.3 | 25.8 | | | |
| IMR-4320 | 25.5 | 26.1 | 26.7 | | | |
| **Energy/ft.lbs.** | **890** | **957** | **1027** | **1099** | **1136** | **1173** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | RE-7 | 21.5 | 2900 | 1027 |
| Hunting Load | H335 | 25.7 | 3000 | 1099 |

INDICATES MAXIMUM LOAD – **USE CAUTION**

***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (AR-15) continued

#1375 .224" 60 gr. HP
C.O.A.L. 2.250"

| Powder / Velocity → | 2600 | 2700 | 2800 | 2900 | 2950 | 3000 |
|---|---|---|---|---|---|---|
| Viht N130 | | 20.6 | 21.3 | 22.0 | 22.3 | |
| Viht N133 | | 22.2 | 23.0 | | | |
| IMR-4198 | | 19.4 | 20.1 | 20.8 | 21.1 | |
| XMR-2015 | 22.0 | 22.7 | 23.4 | 24.1 | 24.5 | 24.8 |
| RE-7 | 19.3 | 20.0 | 20.7 | 21.4 | | |
| IMR-3031 | 22.5 | 23.1 | | | | |
| Benchmark | | | 23.4 | 24.2 | 24.6 | 25.0 |
| H322 | 21.7 | 22.4 | 23.1 | 23.8 | | |
| X-Terminator | 22.2 | 22.8 | 23.4 | 24.0 | 24.3 | 24.6 |
| AA-2230 | | 22.9 | 23.8 | 24.7 | 25.1 | |
| 748 | 24.3 | 25.0 | 25.7 | 26.4 | | |
| H335 | 23.5 | 24.1 | 24.7 | 25.3 | 25.6 | |
| TAC | | 23.4 | 24.2 | 25.0 | 25.4 | 25.8 |
| IMR-4895 | 23.7 | 24.4 | 25.1 | | | |
| Viht N135 | | 23.1 | 23.9 | 24.7 | | |
| Varget | 24.3 | 25.0 | 25.7 | 26.4 | 26.7 | 27.1 |
| IMR-4064 | 23.9 | 24.6 | | | | |
| IMR-4320 | 24.8 | 25.5 | 26.2 | | | |
| Energy/ft.lbs. | 900 | 971 | 1044 | 1120 | 1159 | 1199 |

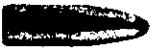
| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | Viht N135 | 24.7 | 2900 | 1120 |
| Hunting Load | Viht N130 | 22.3 | 2950 | 1159 |

INDICATES MAXIMUM LOAD – **USE CAUTION**

***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (AR-15) continued

**#1370 .224" 63 gr. SMP**
C.O.A.L. 2.250"



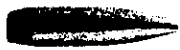
| Powder/Velocity→ | 2600 | 2700 | 2800 | 2850 | 2900 | 2950 |
|---|---|---|---|---|---|---|
| Viht N130 | 19.3 | 20.4 | 21.5 | 22.0 | | |
| Viht N133 | 21.4 | 22.2 | 23.0 | | | |
| XMR-2015 | 22.0 | 22.8 | 23.6 | 24.0 | 24.4 | |
| RE-7 | 19.3 | 20.2 | 21.1 | 21.5 | | |
| Benchmark | 22.8 | 23.4 | 24.0 | 24.3 | 24.6 | |
| H322 | 21.9 | 22.6 | 23.3 | | | |
| X-Terminator | 21.3 | 22.3 | 23.3 | 23.8 | 24.3 | |
| AA-2230 | | 23.5 | 24.2 | 24.5 | 24.9 | |
| 748 | 24.3 | 25.1 | 25.9 | | | |
| H335 | 22.8 | 23.6 | 24.4 | 24.8 | 25.2 | 25.6 |
| TAC | | 23.0 | 24.0 | 24.5 | 25.0 | 25.5 |
| IMR-4895 | 23.5 | 24.3 | | | | |
| Viht N135 | 22.1 | 23.0 | 23.9 | 24.3 | | |
| IMR-4064 | 23.9 | 24.7 | | | | |
| IMR-4320 | 24.9 | 25.7 | | | | |
| **Energy/ft.lbs.** | **945** | **1020** | **1097** | **1136** | **1176** | **1217** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | H335 | 25.2 | 2900 | 1176 |
| Hunting Load | TAC | 25.5 | 2950 | 1217 |

INDICATES MAXIMUM LOAD – USE CAUTION
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (AR-15) continued

**#1380 .224" 69 gr. HPBT MatchKing**
C.O.A.L. 2.260"



| Powder↓/Velocity→ | 2500 | 2600 | 2700 | 2750 | 2800 | 2850 | 2900 |
|---|---|---|---|---|---|---|---|
| Viht N133 | 21.1 | 21.8 | 22.5 | | | | |
| IMR-4198 | 18.8 | 19.4 | 20.0 | 20.3 | | | |
| X-Terminator | | 21.9 | 22.6 | 22.9 | 23.3 | | |
| AA-2230 | 21.9 | 22.7 | 23.5 | | | | |
| 748 | 23.7 | 24.4 | 25.1 | 25.5 | 25.8 | | |
| AA-2460 | | 22.9 | 23.7 | 24.1 | 24.5 | | |
| H335 | 21.2 | 22.5 | 23.8 | | | | |
| TAC | 22.1 | 22.8 | 23.5 | 23.8 | 24.2 | | |
| IMR-4895 | 22.9 | 23.7 | 24.5 | | | | |
| Viht N135 | 21.7 | 22.5 | | | | | |
| Varget | 23.3 | 24.1 | 24.9 | 25.3 | 25.7 | 26.1 | |
| IMR-4064 | 23.3 | 24.1 | | | | | |
| AA-2520 | | 23.1 | 23.8 | 24.3 | 24.7 | 25.1 | 25.5 |
| IMR-4320 | 24.0 | 24.7 | 25.4 | | | | |
| Viht N140 | 23.1 | 23.9 | 24.7 | 25.1 | | | |
| RE-15 | 23.3 | 24.1 | 24.9 | 25.3 | 25.7 | | |
| **Energy/ft.lbs.** | **957** | **1035** | **1117** | **1158** | **1201** | **1244** | **1288** |

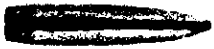
| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | Varget | 25.3 | 2750 | 1158 |

*Sierra does not recommend MatchKing bullets for hunting applications.*

INDICATES MAXIMUM LOAD – USE CAUTION
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (AR-15) continued

**#9377 .224" 77 gr. HPBT MatchKing**
C.O.A.L. 2.260"

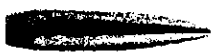


| Powder↓/Velocity→ | 2400 | 2500 | 2550 | 2600 | 2650 | 2700 | 2750 |
|---|---|---|---|---|---|---|---|
| H322 | 20.6 | 21.4 | 21.8 | | | | |
| AA-2230 | 20.9 | 21.9 | 22.4 | 22.9 | 23.4 | | |
| 748 | 22.7 | 23.4 | | | | | |
| H335 | 21.6 | 22.3 | 22.6 | | | | |
| TAC | | 21.8 | 22.2 | 22.7 | 23.1 | 23.6 | 24.0 |
| H4895 | 22.2 | 22.9 | 23.2 | 23.6 | | | |
| XMR-2495 | 22.1 | 23.1 | 23.6 | 24.1 | | | |
| Varget | 22.6 | 23.5 | 23.9 | | | | |
| AA-2520 | 21.5 | 22.4 | 22.8 | 23.3 | 23.8 | 24.2 | |
| Viht N140 | 22.3 | 23.2 | 23.6 | 24.1 | 24.5 | | |
| Viht N540 | 22.9 | 23.7 | 24.1 | 24.5 | 24.9 | | |
| RE-15 | 22.3 | 23.2 | 23.6 | 24.1 | | | |
| **Energy/ft.lbs.** | **985** | **1068** | **1112** | **1156** | **1200** | **1246** | **1293** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | Viht N140 | 24.1 | 2600 | 1156 |

*Sierra does not recommend MatchKing bullets for hunting applications.*

**#9390 .224" 80 gr. HPBT MatchKing**
C.O.A.L. 2.550"



| Powder↓/Velocity→ | 2300 | 2400 | 2500 | 2550 | 2600 | 2650 | 2700 |
|---|---|---|---|---|---|---|---|
| XMR-2015 | 19.6 | 20.7 | | | | | |
| 748 | 21.3 | 22.4 | 23.5 | | | | |
| AA-2460 | 20.0 | 21.1 | 22.2 | 22.7 | | | |
| H335 | 20.5 | 21.5 | 22.5 | | | | |
| TAC | | 21.4 | 22.2 | 22.6 | 23.0 | | |
| H4985 | 20.7 | 21.6 | 22.5 | 22.9 | | | |
| XMR-2495 | 20.8 | 21.8 | 22.8 | | | | |
| Varget | 21.3 | 22.2 | 23.1 | 23.6 | 24.0 | | |
| IMR-4064 | 21.4 | 22.2 | 23.0 | 23.4 | 23.8 | | |
| AA-2520 | 21.2 | 21.9 | 22.6 | 22.9 | 23.3 | 23.6 | 24.0 |
| Viht N140 | 21.0 | 22.0 | 23.0 | 23.5 | | | |
| Viht N540 | 21.8 | 22.6 | 23.4 | 23.8 | 24.2 | | |
| RE-15 | 20.8 | 21.8 | 22.8 | 23.3 | 23.8 | | |
| **Energy/ft.lbs.** | **939** | **1023** | **1110** | **1155** | **1201** | **1247** | **1295** |

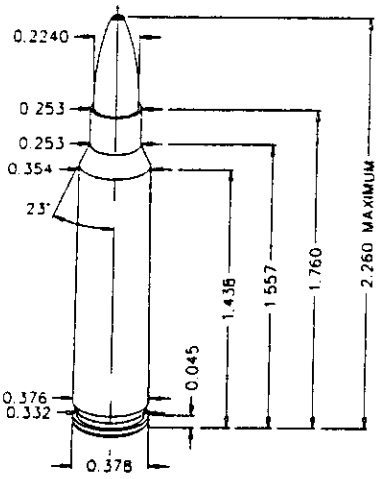
| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | Viht N140 | 23.5 | 2550 | 1155 |

*Sierra does not recommend MatchKing bullets for hunting applications.*

INDICATES MAXIMUM LOAD – **USE CAUTION**

***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (Bolt Action)




**Test Specifications/ Components**

**Firearm Used:** Remington 600
**Barrel Length:** 24"
**Twist:** 1 x 14"
**Case:** Federal
**Trim-to Length:** 1.750"
**Primer:** Rem 7 1/2

**Remarks:**

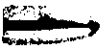
Originally designed for use in the military's AR-15/M16 Service Rifle, the 223 Remington has become one of our most popular civilian cartridges. And for good reason. It is accurate, flat-shooting and has a dizzying array of suitable bullets available for the cartridge's every task. Brass is readily available at bargain prices—always a strong incentive for the handloader. All things considered, it makes an outstanding varmint round. With all this going for it, it comes as no surprise that virtually all major manufacturers offer their respective bolt-action designs in the 223 Remington.

The bolt-action design affords the handloader a bit more latitude in powder selection than a gas-operated system. Despite this, most of the powders used in the semi-autos are also some of the best choices for use in a bolt rifle. Hodgdon's H322, H335 and Varget are all excellent choices, as are Winchester's 748 and Alliant's Reloder 7 and 15. Since they generally use barrels that are somewhat longer than those commonly found on semi-autos, the bolt-actions tend to offer improved velocities. This effectively increases the useful range of the cartridge without resorting to higher pressures. In the varmint fields, a 250-300 yard shot is not unusual for the 223, and we've had reports of hits at twice that range. Freed of the constraints imposed by port pressure limitations, reduced loads for plinking and short-range practice are entirely viable. With some of the heavier bullets, such as the Sierra 63 grain Semi-Point, the cartridge has proven effective on small deer. In short, it is a tremendously versatile cartridge

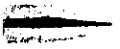
Unlike most of the currently available semi-autos, factory bolt-actions generally come equipped with 1x12" twist barrels. As such, they can handle Sierra's line of bullets from 40 to 60 or 63 grains, but not the heavier MatchKing designs. This isn't a problem in custom-built rifles, if the shooter chooses a twist rate appropriate for the bullets used. With this cartridge, we recommend a 1x10" as minimum for the 69 grain MatchKing, and a 1x8" for 77 or 80 grain MatchKings.

# 223 Remington (Bolt Action) continued

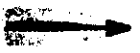
**#1200 .224" 40 gr. Hornet**
C.O.A.L. 2.125"



**#1385 .224" 40 gr. HP**
C.O.A.L. 2.175"



**#1440 .224" 40 gr. BlitzKing**
C.O.A.L. 2.175"



| Powder↓/Velocity→ | 3200 | 3300 | 3400 | 3500 | 3600 | 3700 |
|---|---|---|---|---|---|---|
| Viht N130 | | | 23.0 | 23.7 | 24.4 | 25.1 |
| Viht N133 | | | 24.5 | 25.1 | 25.7 | 26.3 |
| IMR-4198 | 21.5 | 22.0 | 22.5 | 23.0 | 23.5 | |
| AA-2015 | 23.0 | 23.6 | 24.2 | 24.8 | 25.4 | |
| RE-7 | 21.2 | 21.8 | 22.4 | 23.0 | 23.6 | 24.2 |
| H322 | 24.1 | 24.8 | 25.5 | | | |
| AA-2230 | | 24.8 | 25.6 | 26.4 | 27.2 | |
| 748 | 26.5 | 27.0 | 27.5 | | | |
| BLC-(2) | 28.2 | 28.8 | 29.4 | | | |
| H335 | 25.6 | 26.3 | 27.0 | 27.7 | 28.4 | 29.1 |
| Viht N135 | 24.4 | 25.0 | 25.6 | 26.2 | 26.8 | |
| Varget | 26.2 | 26.7 | 27.2 | | | |
| **Energy/ft.lbs.** | **910** | **968** | **1027** | **1088** | **1151** | **1216** |

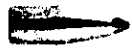
| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | IMR-4198 | 23.0 | 3500 | 1088 |
| Hunting Load | H335 | 29.1 | 3700 | 1216 |

INDICATES MAXIMUM LOAD – **USE CAUTION**
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

## 223 Remington (Bolt Action) continued

**#1210 .224" 45 gr. Hornet**
C.O.A.L. 2.125"

**#1310 .224" 45 gr. SPT**
C.O.A.L. 2.240"



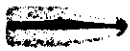
| Powder↓/Velocity→ | 3100 | 3200 | 3300 | 3400 | 3500 | 3600 |
|---|---|---|---|---|---|---|
| Viht N130 | | 22.2 | 22.9 | 23.6 | 24.3 | 25.0 |
| Viht N133 | | 23.7 | 24.3 | 24.9 | 25.5 | 26.1 |
| IMR-4198 | | 21.2 | 21.7 | 22.2 | 22.7 | 23.2 |
| AA-2015 | 22.6 | 23.3 | 24.0 | 24.7 | 25.4 | |
| RE-7 | | 21.4 | 22.1 | 22.8 | 23.5 | 24.2 |
| H322 | 22.6 | 23.5 | 24.4 | 25.3 | | |
| AA-2230 | | | 25.1 | 25.9 | 26.7 | |
| 748 | 25.6 | 26.2 | 26.8 | 27.4 | | |
| BLC-(2) | 27.4 | 28.2 | 29.0 | | | |
| H335 | 24.8 | 25.5 | 26.2 | 26.9 | 27.6 | 28.3 |
| H4895 | 24.8 | 25.4 | 26.0 | 26.6 | 27.2 | |
| Viht N135 | 23.6 | 24.3 | 25.0 | 25.7 | 26.4 | 27.1 |
| Varget | 25.7 | 26.3 | 26.9 | | | |
| **Energy/ft.lbs.** | **961** | **1024** | **1088** | **1155** | **1224** | **1295** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | H335 | 27.6 | 3500 | 1224 |
| Hunting Load | Viht N135 | 27.1 | 3600 | 1295 |

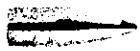
INDICATES MAXIMUM LOAD – **USE CAUTION**
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (Bolt Action) continued

**#1320 .224" 50 gr. SMP**
C.O.A.L. 2.230"

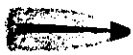


**#1330 .224" 50 gr. SPT**
C.O.A.L. 2.250"



**#1340 .224" 50 gr. Blitz**
C.O.A.L. 2.250"

**#1450 .224" 50 gr. BlitzKing**
C.O.A.L. 2.250"



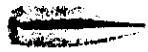
| Powder↓/Velocity→ | 3000 | 3100 | 3200 | 3300 | 3400 | 3500 |
|---|---|---|---|---|---|---|
| Viht N130 | | 21.9 | 22.6 | 23.3 | 24.0 | 24.7 |
| Viht N133 | | 23.0 | 23.7 | 24.4 | 25.1 | 25.8 |
| IMR-4198 | 20.1 | 20.8 | 21.5 | 22.2 | 22.9 | |
| AA-2015 | 21.8 | 22.6 | 23.4 | 24.2 | 25.0 | |
| RE-7 | | 21.0 | 22.0 | 23.0 | 24.0 | |
| H322 | 22.8 | 23.5 | 24.2 | 24.9 | | |
| AA-2230 | | 24.5 | 25.2 | 25.9 | 26.6 | |
| 748 | 25.1 | 25.8 | 26.5 | 27.2 | | |
| BLC-(2) | 27.1 | 27.8 | 28.5 | | | |
| H335 | 24.5 | 25.2 | 25.9 | 26.6 | 27.3 | 28.0 |
| H4895 | 24.4 | 25.0 | 25.6 | 26.2 | 26.8 | |
| Viht N135 | 23.3 | 24.0 | 24.7 | 25.4 | 26.1 | 26.8 |
| Varget | 25.2 | 26.0 | 26.8 | | | |
| **Energy/ft.lbs.** | **1000** | **1067** | **1137** | **1209** | **1284** | **1360** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | H335 | 27.3 | 3400 | 1284 |
| Hunting Load | H335 | 28.0 | 3500 | 1360 |

INDICATES MAXIMUM LOAD – **USE CAUTION**
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

## 223 Remington (Bolt Action) continued

**#1410 .224" 52 gr. HPBT MatchKing**
C.O.A.L. 2.250"



**#1400 .224" 53 gr. HP MatchKing**
C.O.A.L. 2.250"

| Powder↓/Velocity→ | 2900 | 3000 | 3100 | 3200 | 3300 | 3400 |
|---|---|---|---|---|---|---|
| Viht N130 | | 20.9 | 21.8 | 22.7 | 23.6 | 24.5 |
| Viht N133 | 21.9 | 22.6 | 23.3 | 24.0 | 24.7 | 25.4 |
| IMR-4198 | 19.6 | 20.3 | 21.0 | 21.7 | 22.4 | |
| AA-2015 | 21.8 | 22.5 | 23.2 | 23.9 | 24.6 | |
| RE-7 | | 20.6 | 21.6 | 22.6 | 23.6 | |
| H322 | | 22.5 | 23.4 | 24.3 | | |
| AA-2230 | | 23.7 | 24.4 | 25.1 | 25.8 | |
| 748 | 25.0 | 25.5 | 26.0 | 26.5 | | |
| BLC-(2) | 26.6 | 27.3 | 28.0 | 28.7 | | |
| H335 | 24.1 | 24.8 | 25.5 | 26.2 | 26.9 | 27.6 |
| H4895 | 23.8 | 24.4 | 25.0 | 25.6 | 26.2 | 26.8 |
| Varget | 24.3 | 25.1 | 25.9 | 26.7 | | |
| IMR-4064 | 24.2 | 24.8 | 25.4 | 26.0 | | |
| **Energy/ft.lbs.** | **990** | **1059** | **1131** | **1205** | **1282** | **1361** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | H335 | 26.9 | 3300 | 1282 |

*Sierra does not recommend MatchKing bullets for hunting applications.*

INDICATES MAXIMUM LOAD – **USE CAUTION**
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (Bolt Action) continued

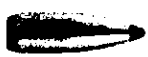
**#1345 .224" 55 gr. Blitz**
C.O.A.L. 2.250"

**#1350 .224" 55 gr. SMP**
C.O.A.L. 2.230"

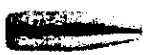
**#1355 .224" 55 gr. FMJBT**
C.O.A.L. 2.250"

**#1360 .224" 55 gr. SPT**
C.O.A.L. 2.250"

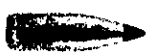
**#1365 .224" 55 gr. SBT**
C.O.A.L. 2.250"



**#1390 .224" 55 gr. HPBT**
C.O.A.L. 2.240"



**#1455 .224" 55 gr. BlitzKing**
C.O.A.L. 2.250"



| Powder↓/Velocity→ | 2800 | 2900 | 3000 | 3100 | 3200 | 3300 |
|---|---|---|---|---|---|---|
| Viht N130 | 20.5 | 21.2 | 21.9 | 22.6 | 23.3 | 24.0 |
| Viht N133 | 21.4 | 22.1 | 22.8 | 23.5 | 24.2 | 24.9 |
| IMR-4198 | 19.2 | 19.9 | 20.6 | 21.3 | 22.0 | |
| AA-2015 | 21.3 | 22.0 | 22.7 | 23.4 | 24.1 | |
| RE-7 | | 20.1 | 20.9 | 21.7 | 22.5 | |
| H322 | 22.1 | 22.7 | 23.3 | 23.9 | | |
| AA-2230 | | 23.5 | 24.2 | 24.9 | 25.6 | |
| 748 | 23.9 | 24.6 | 25.3 | 26.0 | | |
| BLC-(2) | 26.0 | 26.7 | 27.4 | 28.1 | | |
| H335 | 23.0 | 23.9 | 24.8 | 25.7 | 26.6 | 27.5 |
| H4895 | 23.1 | 23.7 | 24.3 | 24.9 | 25.5 | 26.1 |
| Varget | 23.7 | 24.5 | 25.3 | 26.1 | 26.9 | |
| IMR-4064 | 23.6 | 24.2 | 24.8 | 25.4 | 26.0 | |
| **Energy/ft.lbs.** | **958** | **1027** | **1099** | **1174** | **1251** | **1330** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | Viht N133 | 24.2 | 3200* | 1251 |
| Hunting Load | H4895 | 26.1 | 3300 | 1330 |

* INDICATES MAXIMUM LOAD – **USE CAUTION**
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (Bolt Action) continued

**#1375 .224" 60 gr. HP**
C.O.A.L. 2.250"

| Powder↓/Velocity→ | 2700 | 2800 | 2900 | 3000 | 3100 | 3200 |
|---|---|---|---|---|---|---|
| Viht N130 | 19.2 | 20.1 | 21.0 | 21.9 | 22.8 | |
| Viht N133 | 20.8 | 21.6 | 22.4 | 23.2 | 24.0 | |
| IMR-4198 | 19.0 | 19.7 | 20.4 | 21.1 | | |
| AA-2015 | 20.8 | 21.6 | 22.4 | 23.2 | | |
| RE-7 | 18.8 | 19.7 | 20.6 | 21.5 | | |
| H322 | 21.0 | 21.8 | 22.6 | 23.4 | | |
| AA-2230 | 22.1 | 22.8 | 23.5 | 24.2 | 24.9 | |
| 748 | 24.2 | 24.7 | 25.2 | 25.7 | | |
| BLC-(2) | 25.5 | 26.3 | 27.1 | 27.9 | | |
| H335 | 23.1 | 23.9 | 24.7 | 25.5 | 26.3 | 27.1 |
| H4895 | 23.0 | 23.6 | 24.2 | 24.8 | 25.4 | 26.0 |
| Varget | 23.5 | 24.3 | 25.1 | 25.9 | 26.7 | |
| IMR-4064 | 23.6 | 24.2 | 24.8 | 25.4 | 26.0 | |
| **Energy/ft.lbs.** | **972** | **1045** | **1121** | **1199** | **1281** | **1365** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | AA-2015 | 23.2 | 3000 | 1199 |
| Hunting Load | Varget | 26.7 | 3100 | 1281 |

INDICATES MAXIMUM LOAD – **USE CAUTION**
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (Bolt Action) continued

**#1370 .224" 63 gr. SMP**
C.O.A.L. 2.250"

| Powder↓/Velocity→ | 2600 | 2700 | 2800 | 2900 | 3000 | 3100 |
|---|---|---|---|---|---|---|
| Viht N130 | 18.6 | 19.5 | 20.4 | 21.3 | 22.2 | |
| Viht N133 | 19.8 | 20.5 | 21.2 | 21.9 | 22.6 | 23.3 |
| IMR-4198 | 18.5 | 19.0 | 19.5 | 20.0 | 20.5 | |
| AA-2015 | 19.7 | 20.6 | 21.5 | 22.4 | 23.3 | |
| RE-7 | | 18.5 | 19.5 | 20.5 | 21.5 | |
| H322 | 20.3 | 21.1 | 21.9 | 22.7 | 23.5 | |
| AA-2230 | | 22.0 | 22.9 | 23.8 | 24.7 | |
| 748 | | 24.1 | 24.8 | 25.5 | | |
| BLC-(2) | | 25.2 | 26.0 | 26.8 | 27.6 | |
| H335 | | 23.2 | 24.0 | 24.8 | 25.6 | 26.4 |
| H4895 | 21.8 | 22.5 | 23.2 | 23.9 | 24.6 | 25.3 |
| Varget | 22.8 | 23.5 | 24.2 | 24.9 | 25.6 | 26.3 |
| IMR-4064 | 22.6 | 23.3 | 24.0 | 24.7 | 25.4 | 26.1 |
| **Energy/ft.lbs.** | **946** | **1020** | **1097** | **1177** | **1259** | **1345** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | RE-7 | 20.5 | 2900 | 1177 |
| Hunting Load | Viht N133 | 23.3 | 3100 | 1345 |

INDICATES MAXIMUM LOAD – USE CAUTION
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***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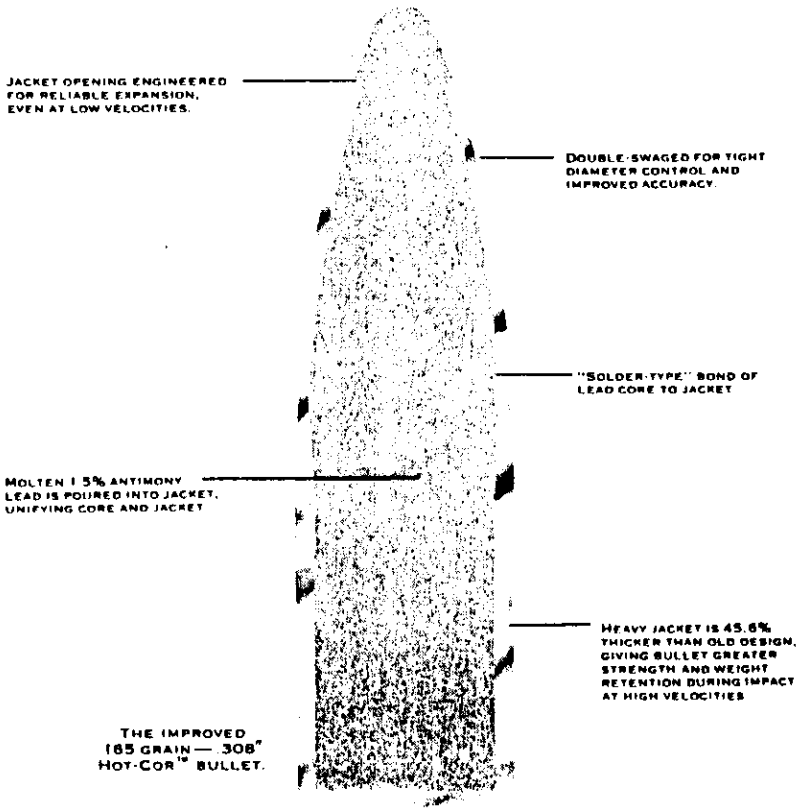


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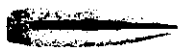
# 223 Remington (Bolt Action) continued

**#1380 .224" 69 gr. HPBT MatchKing**
C.O.A.L. 2.260"
1 x 8" Twist Remington 600 - 24" barrel



| Powder↓/Velocity→ | 2600 | 2700 | 2800 | 2900 | 3000 | 3100 |
|---|---|---|---|---|---|---|
| Viht N130 | 18.7 | 19.6 | 20.5 | | | |
| Viht N133 | 19.8 | 20.8 | 21.8 | 22.8 | | |
| IMR-4198 | 18.2 | 19.1 | 20.0 | | | |
| AA-2015 | 20.0 | 20.8 | 21.6 | 22.4 | 23.2 | |
| RE-7 | | 19.0 | 20.1 | 21.2 | | |
| H322 | 20.0 | 20.9 | 21.8 | 22.7 | 23.6 | |
| AA-2230 | | 22.2 | 23.0 | 23.8 | 24.6 | |
| 748 | | 24.0 | 24.7 | 25.4 | 26.1 | |
| BLC-(2) | | 25.0 | 25.8 | 26.6 | 27.4 | |
| H335 | | 23.0 | 23.9 | 24.8 | 25.7 | |
| H4895 | 21.5 | 22.3 | 23.1 | 23.9 | 24.7 | 25.5 |
| Varget | 19.9 | 21.2 | 22.5 | 23.8 | 25.1 | 26.4 |
| IMR-4064 | 21.9 | 22.7 | 23.5 | 24.3 | 25.1 | 25.9 |
| AA-2520 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 | |
| Viht N140 | 21.4 | 22.4 | 23.4 | 24.4 | 25.4 | 26.4 |
| Viht N540 | 22.5 | 23.3 | 24.1 | 24.9 | 25.7 | 26.5 |
| **Energy/ft.lbs.** | **1036** | **1117** | **1202** | **1289** | **1379** | **1473** |

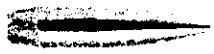
| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | Viht N540 | 26.5 | 3100 | 1473 |

*Sierra does not recommend MatchKing bullets for hunting applications.*

INDICATES MAXIMUM LOAD – USE CAUTION
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# 223 Remington (Bolt Action) continued

**#9390 .224" 80 gr. HPBT MatchKing**
C.O.A.L. 2.550"
1 x 8" Twist Remington 600 - 24" barrel



| Powder↓/Velocity→ | 2400 | 2500 | 2600 | 2700 | 2800 | 2900 |
|---|---|---|---|---|---|---|
| AA-2015 | 18.8 | 19.8 | 20.8 | 21.8 | | |
| H322 | 18.6 | 19.6 | 20.6 | 21.6 | 22.6 | 23.6 |
| AA-2230 | | | | 22.7 | 23.6 | 24.5 |
| 748 | | | 22.8 | 23.8 | 24.8 | 25.8 |
| BLC-(2) | | | 23.4 | 24.7 | 26.0 | 27.3 |
| AA-2460 | | | 22.0 | 23.0 | 24.0 | 25.0 |
| H335 | | | | 23.4 | 24.6 | 25.8 |
| H4895 | | | 21.8 | 22.7 | 23.6 | 24.5 |
| AA-2495 | | | 21.3 | 22.5 | 23.7 | 24.9 |
| Varget | | 21.7 | 22.6 | 23.5 | 24.4 | 25.3 |
| IMR-4064 | | 21.6 | 22.4 | 23.2 | 24.0 | 24.8 |
| AA-2520 | | | 22.8 | 23.7 | 24.6 | 25.5 |
| Viht N540 | | 22.3 | 23.1 | 23.9 | 24.7 | 25.5 |
| **Energy/ft.lbs.** | **1024** | **1111** | **1201** | **1295** | **1393** | **1494** |

| | Powder | Grains | Velocity | Ft. lbs. |
|---|---|---|---|---|
| Accuracy Load | Varget | 24.4 | 2800 | 1393 |

*Sierra does not recommend MatchKing bullets for hunting applications.*

INDICATES MAXIMUM LOAD – **USE CAUTION**
***LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.***

# .223 REMINGTON - SPEER BULLETS

The 223 Remington resulted from military development of a new service rifle cartridge. Adopted in February, 1964 as the 5.56mm Ball Cartridge M193, it was introduced as a commercial cartridge by Remington one month earlier.

Based on the 222 Remington case head dimensions, the 223 case is only .060" longer than its parent. However, it has greater powder capacity because the case body was lengthened and the neck shortened. With equivalent bullet weights, the 223 enjoys a 100 to 300 feet/sec velocity advantage. This advantage is due to a combination of the larger case and higher operating pressures.

Almost any military cartridge, once commercialized, is destined to become an immediate success and the 223 was no exception. The ready supply of cases and an excellent selection of 22 caliber bullets has made the 223 one of our most popular cartridges. It has also found wide acceptance as a police cartridge.

Original military and commercial rifles had a 1-in-14 inch rifling twist, later changed to 1-in-12 inches for better long-range stability with the 55 grain service bullet. However, when the military adopted a heavier, 62 grain service round, military rifles were fitted with 1-in-7 inch twist barrels to handle the new bullet. Several commercial makers of semi-automatic rifles followed suit and changed to the faster twist.

Although the fast twist works well with military ammo, handloaders ran into a problem. Most 22 caliber centerfire rifle bullets are of light construction for varmint hunting. When fired at 3200 feet/sec in a 1-in-7 twist rifle, the bullet is rotating at over 300,000 rpm when it leaves the muzzle. This rotation is more than most varmint bullets can withstand so they are literally ripped apart as they leave the barrel.

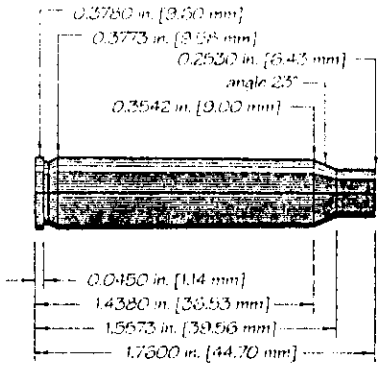
If you have a rifle with the faster 1-in-7 twist, you should limit the muzzle velocity of sporting-type bullets to around 2800 feet/sec. Speer sells a 62 grain FMJ-BT bullet which is a duplicate of the bullet in the new M855 service cartridge. The Speer 70 grain semi-spitzer is also a good bullet in the fast-twist rifles; however, be sure to watch overall length, as the long bullet can stick in the throat if seated too long. Some rifle makers recommend that bullets be crimped if used in their semi-automatic rifles. Three Speer 22 caliber bullets feature a cannelure for easy crimping. The 62 grain FMJ-BT will give mediocre accuracy in 1-in-12 inch barrels, and should be restricted to rifles with 10 inch or faster rifling twists.

The commercial IMI cases used for our tests are built to the same specification as military cases, so load reduction is not required when using surplus military brass with these loads. Remember that military cases have crimped primers. The crimp MUST be removed before repriming.

We have added reduced loads for bullets through 55 grains using Accurate Arms' XMP-5744. This propellant gave exceptionally consistent results at the modest pressures that these loads generate. With the 40 grain bullet, 11 grains of this powder nearly duplicated 22 RF Magnum performance.

The commercial 223 pressure limit is 52,000 cup. These loads do not exceed that limit.

# .223 REMINGTON - SPEER BULLETS




**Max. Case Length:** 1.760"
**Trim-to Length:** 1.750"
**Max. Cart. Length:** 2.260"
**RCBS Shellholder:** #10
**Barrel Length:** 22"
**Twist:** 1-12"

**Test Firearm:** Ruger 77 Mk II
**Case:** IMI
**Primers:** CCI 400, 450*

| .224" Dia. 40 Grain Sect. Density .114 | 22 Spire-SP | | | | | |
|---|---|---|---|---|---|---|
| Ballistic Coefficient | 0.144 | | | | | |
| C.O.L. Tested At | 2.060" | | | | | |
| Speer Part No. | 1017 | | | | | |

| Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs | Mzl.Vel. |
|---|---|---|---|---|---|---|---|---|
| | **30.0C** | **3557** | | **27.0C** | **3410** | | **28.0C** | **3315** |
| **748*** | 28.0 | 3339 | **IMR 3031** | 25.0 | 3032 | **BL-C(2)*** | 26.0 | 3064 |
| **Viht. N133** | **25.0C** | **3486** | | **26.0** | **3388** | | **25.5C** | **3297** |
| | 23.0 | 3139 | **H322** | 24.0 | 3027 | **H4895** | 23.5 | 2954 |
| **AA 2015BR** | **25.5** | **3461** | **AA 2230** | **26.0** | **3361** | | **28.5C** | **3133** |
| | 23.5 | 3068 | | 24.0 | 3062 | **H335*** | 26.5 | 2903 |
| | **28.0C** | **3461** | | **27.0C** | **3342** | | **20.5** | **3011** |
| **Varget** | 26.0 | 3148 | **Re12** | 25.0 | 3030 | **Re7** | 18.5 | 2694 |
| **AA 2460*** | **26.5** | **3445** | | **22.5** | **3342** | Reduced Load **XMP 5744** | **12.0** | **2134** |
| | 24.5 | 3086 | **H4198** | 20.5 | 2981 | | 11.0 | 1990 |

Notes: Bold print denotes maximum loads. They should be used with caution. C = Compressed Load
* CCI Magnum Primer used with this powder.

# .223 REMINGTON - SPEER BULLETS

| .224" Dia. 45 Grain Sect. Density .128 | 22 Spitz-SP | | | | | |
|---|---|---|---|---|---|---|
| Ballistic Coefficient | 0.167 | | | | | |
| C.O.L. Tested At | 2.155" | | | | | |
| Speer Part No. | 1023 | | | | | |

| Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. |
|---|---|---|---|---|---|---|---|---|
| IMR 4895 | **27.0C** | **3404** | IMR 3031 | **27.0C** | **3337** | AA 2230 | **25.5** | **3156** |
| | 25.0 | 3098 | | 25.0 | 3070 | | 23.5 | 2777 |
| 748* | **29.0C** | **3396** | AA 2460* | **26.0** | **3275** | Re12 | **26.5** | **3062** |
| | 27.0 | 2988 | | 24.0 | 2948 | | 24.5 | 2817 |
| Varget | **28.0C** | **3387** | Viht. N133 | **24.5C** | **3263** | Re7 | **20.0** | **3059** |
| | 26.0 | 3109 | | 22.5 | 2969 | | 18.0 | 2814 |
| IMR 4198 | **23.0** | **3377** | AA 2015BR | **25.0** | **3260** | H335* | **27.0C** | **3020** |
| | 21.0 | 3006 | | 23.0 | 2901 | | 25.0 | 2688 |
| H322 | **26.0** | **3362** | BL-C(2)* | **28.0C** | **3219** | Reduced Load XMP 5744 | **12.0** | **2091** |
| | 24.0 | 2959 | | 26.0 | 2897 | | 11.0 | 1949 |

| .224" Dia. 50 Grain Sect. Density .142 | 22 Spitz-SP | 22 TNT-HP | | | | |
|---|---|---|---|---|---|---|
| Ballistic Coefficient | 0.231 | 0.223 | | | | |
| C.O.L. Tested At | 2.185" | 2.235" | | | | |
| Speer Part No. | 1029 | 1030 | | | | |

| Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. |
|---|---|---|---|---|---|---|---|---|
| 748* | **28.5C** | **3398** | IMR 3031 | **26.0C** | **3284** | BL-C(2)* | **27.5** | **3200** |
| | 26.5 | 3083 | | 24.0 | 2969 | | 25.5 | 2961 |
| AA 2520* | **28.0C** | **3328** | AA 2015BR | **24.5** | **3266** | H4198 | **22.0** | **3178** |
| | 26.0 | 3178 | | 22.5 | 2951 | | 20.0 | 2850 |
| Varget | **27.5C** | **3316** | H335* | **27.0** | **3262** | AA 2230 | **25.0** | **3138** |
| | 25.5 | 3034 | | 25.0 | 2975 | | 23.0 | 2847 |
| IMR 4895 | **27.0C** | **3313** | Viht. N133 | **24.0** | **3237** | IMR 4320 | **27.0C** | **3067** |
| | 25.0 | 3028 | | 22.0 | 2899 | | 25.0 | 2796 |
| H322 | **26.0** | **3300** | H4895 | **25.5C** | **3203** | Reduced Load XMP 5744 | **12.0** | **2047** |
| | 24.0 | 3001 | | 23.5 | 2871 | | 11.0 | 1905 |

Notes: Bold print denotes maximum loads. They should be used with caution. C = Compressed Load
* CCI Magnum Primer used with this powder.

# .223 REMINGTON - SPEER BULLETS

| .224" Dia. 52 Grain Sect. Density .147 | 22 HP | 22 Match BT-HP | | | | |
|---|---|---|---|---|---|---|
| Ballistic Coefficient | 0.225 | 0.253 | | | | |
| C.O.L. Tested At | 2.200" | 2.200" | | | | |
| Speer Part No. | 1035 | 1036 | | | | |

| Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. |
|---|---|---|---|---|---|---|---|---|
| | **28.0C** | **3448** | | **27.0C** | **3170** | | **27.0** | **3062** |
| 748* | 26.0 | 3138 | Re15 | 25.0 | 2790 | BL-C(2)* | 25.0 | 2695 |
| | **27.0** | **3276** | | **25.5C** | **3146** | AA | **25.0** | **3056** |
| Varget | 25.0 | 2995 | H4895 | 23.5 | 2863 | 2460* | 23.0 | 2750 |
| IMR | **26.5C** | **3202** | | **26.5** | **3129** | | **20.5** | **2931** |
| 4895 | 24.5 | 2850 | H335* | 24.5 | 2879 | Re7 | 18.5 | 2609 |
| IMR | **26.0C** | **3195** | | **24.5** | **3101** | IMR | **26.0C** | **2893** |
| 3031 | 24.0 | 2876 | H322 | 22.5 | 2822 | 4320 | 24.0 | 2546 |
| Viht. | **24.0** | **3175** | IMR | **26.0C** | **3087** | Reduced Load XMP | **12.0** | **2036** |
| N133 | 22.0 | 2826 | 4064 | 24.0 | 2840 | 5744 | 11.0 | 1899 |

Notes: **Bold print denotes maximum loads. They should be used with caution.** **C = Compressed Load**
* CCI Magnum Primer used with this powder.

# .223 REMINGTON - SPEER BULLETS

| .224" Dia. 55 Grain Sect. Density .157 | 22 FMJ-BT | 22 Spitz-SP | 22 SP/Cann | | | |
|---|---|---|---|---|---|---|
| Ballistic Coefficient | 0..269 | 0.255 | 0.241 | | | |
| C.O.L. Tested At | 2.215" | 2.175" | 2.215" | | | |
| Speer Part No. | 1044 | 1047 | 1049 | | | |

| Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. |
|---|---|---|---|---|---|---|---|---|
| | **28.0C** | **3313** | **AA** | **27.0C** | **3187** | **Viht.** | **23.5** | **3091** |
| **748*** | 26.0 | 2965 | **2520*** | 25.0 | 3021 | **N133** | 21.5 | 2775 |
| **AA** | **26.0** | **3233** | | **24.5** | **3158** | **AA** | **23.5** | **3026** |
| **2230** | 24.0 | 3017 | **H322** | 22.5 | 2823 | **2015BR** | 21.5 | 2753 |
| **IMR** | **26.0C** | **3223** | **IMR** | **26.5** | **3143** | | **21.0** | **2978** |
| **3031** | 24.0 | 2976 | **4064** | 24.5 | 2843 | **H4198** | 19.0 | 2693 |
| | **27.0** | **3216** | | **27.0** | **3138** | | **25.0** | **2960** |
| **Varget** | 25.0 | 2969 | **BL-C(2)*** | 25.0 | 2868 | **Re12** | 23.0 | 2711 |
| | **25.5C** | **3194** | | **26.0** | **3092** | Reduced Load **XMP** | **12.0** | **2022** |
| **H4895** | 23.5 | 2908 | **H335*** | 24.0 | 2805 | **5744** | 11.0 | 1885 |

Notes: Bold print denotes maximum loads. They should be used with caution. C = Compressed Load
* CCI Magnum Primer used with this powder.

NOTE: Recommended only for rifles with 1-in-10 inch or faster twist rates.

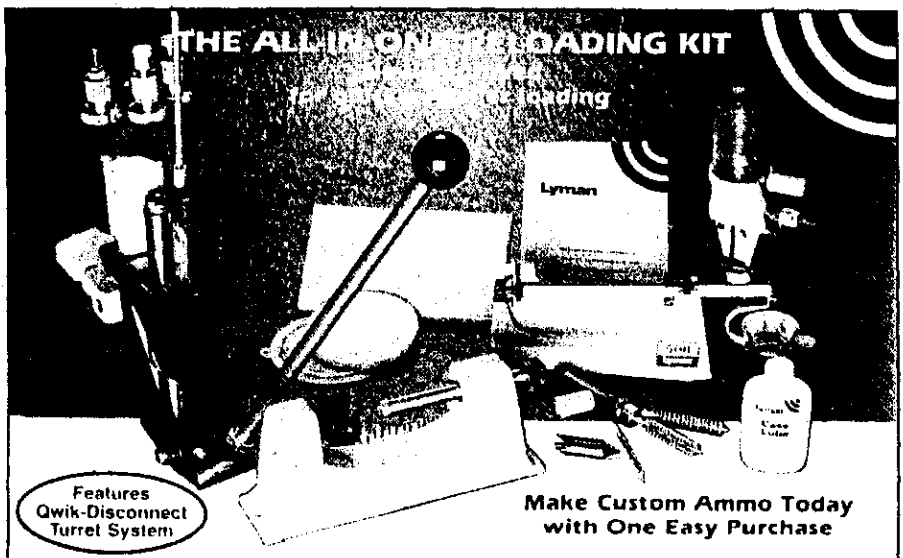
| .224" Dia. 62 Grain Sect. Density .177 | 22 FMJ-BT | | | | | |
|---|---|---|---|---|---|---|
| Ballistic Coefficient | 0.307 | | | | | |
| C.O.L. Tested At | 2.255" | | | | | |
| Speer Part No. | 1050 | | | | | |

| Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. |
|---|---|---|---|---|---|---|---|---|
| AA 2520* | **26.5C** | **3025** | IMR 4064 | **25.5C** | **2942** | AA 2015BR | **22.5** | **2973** |
| | 24.5 | 2875 | | 23.5 | 2661 | | 20.5 | 2509 |
| AA 2460* | **24.5** | **2966** | 748* | **25.5** | **2945** | Re15 | **25.0C** | **2955** |
| | 22.5 | 2636 | | 23.5 | 2556 | | 23.0 | 2549 |
| Vlht. N133 | **23.0** | **2948** | H335* | **25.0** | **2946** | IMR 4320 | **25.5C** | **2867** |
| | 21.0 | 2646 | | 23.0 | 2625 | | 23.5 | 2568 |
| AA 2230 | **24.0** | **2975** | H4895 | **24.0** | **2873** | BL-C(2)* | **25.0** | **2907** |
| | 22.0 | 2642 | | 22.0 | 2539 | | 23.0 | 2476 |
| IMR 4895 | **24.5C** | **2940** | Vlht. N135 | **24.0** | **2889** | IMR 3031 | **23.5C** | **2913** |
| | 22.5 | 2548 | | 22.0 | 2590 | | 21.5 | 2466 |

| .224" Dia. 70 Grain Sect. Density .199 | 22 Semi Spitz-SP | | | | | |
|---|---|---|---|---|---|---|
| Ballistic Coefficient | 0.214 | | | | | |
| C.O.L. Tested At | 2.140" | | | | | |
| Speer Part No. | 1053 | | | | | |

| Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. | Powder | Wt. Grs. | Mzl.Vel. |
|---|---|---|---|---|---|---|---|---|
| 748* | **27.0** | **3068** | AA 2460* | **23.5** | **2778** | IMR 4320 | **24.5** | **2644** |
| | 25.0 | 2824 | | 21.5 | 2500 | | 22.5 | 2450 |
| H414* | **28.0** | **2883** | AA 2230 | **23.0** | **2715** | Re12 | **22.0** | **2635** |
| | 26.0 | 2658 | | 21.0 | 2464 | | 20.0 | 2476 |
| IMR 4895 | **24.5C** | **2826** | H380* | **28.0** | **2700** | BL-C(2)* | **23.5** | **2618** |
| | 22.5 | 2628 | | 26.0 | 2533 | | 21.5 | 2450 |
| H335* | **24.5** | **2812** | Vlht. N135 | **22.5** | **2661** | AA 2015BR | **20.0** | **2555** |
| | 22.5 | 2592 | | 20.5 | 2425 | | 18.0 | 2328 |

Notes: Bold print denotes maximum loads. They should be used with caution. C = Compressed Load
* CCI Magnum Primer used with this powder.

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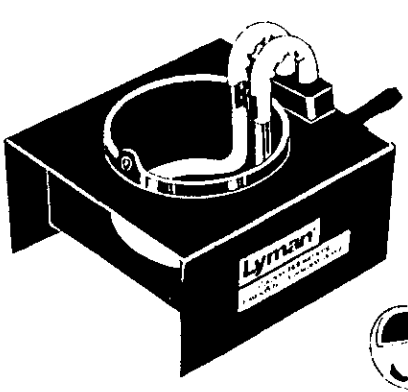
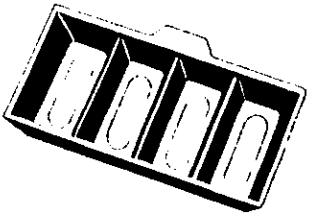
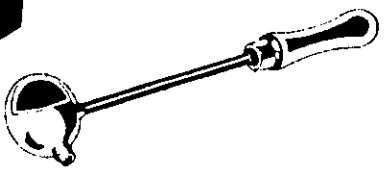
## NEW PRODUCTS REPORT

# CAST YOUR OWN

## And cast high cost to the wind





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The **Mini-Mag Furnace** is designed for use with a ladle and has an operating capacity of 8 lbs. It reaches a temperature of over 700° in about 20 minutes and the stable metal base can be used as a pre-heater for mould blocks. The furnace comes with a 3 prong safety cord.

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**Questions? Call toll free 1-800-22-LYMAN**

**Lyman** Dept 000, Route 147 Middlefield, CT 06455

***Reloading Data Introduction:***

The data listed in this section have been tested by our technicians and found to be safe when loaded with our test components and fired (under our laboratory controlled conditions) in our testing equipment. Since Lyman Products Corporation has no control over the manufacture of the various components listed, the actual loading, choice or condition of the firearms and components used, no responsibility for use of this data is implied or assumed.

***Components:***

The reader should bear in mind that the components listed are not of Lyman manufacture. Therefore, it is impossible that production changes affecting ballistic performance can occur at any time without our knowledge. If there is ever a question as to the correctness of the component specified, write to its manufacturer.

***Starting Load:***

It is essential that the reader begin with the suggested weight of powder listed in this bracket and work up slowly (following load development precautions) to his best performing load. The novice should use only the "starting load" for a period of time until he builds confidence and experience. Never decrease this charge as an increase in pressure could be encountered.

***Maximum Load:***

All loads which are listed as maximum were tested and classified as maximum by our technicians in accordance with our laboratory standards. **Under no circumstances should these loads be exceeded**, nor should they be quickly accepted by the reader as a safe working maximum for his particular rifle or pistol.

Many reloaders misinterpret the meaning of the "maximum load." They wrongly assume that if a high pressure load proved safe in a test laboratory then it is equally safe under any and all conditions. This is not true. The reader must start with the "starting load" and work up his load carefully. Working with his particular firearm and component combination, he may encounter signs of excess pressure before he reaches the maximum charge listed.

The technician classifies a load as maximum after carefully considering many aspects of its ballistic performance. **The maximum average pressure of the load is not the only criteria.** Often a load having an acceptable maximum average pressure will be rejected (or reduced) due to its erratic performance. Accuracy must also be considered, particularly when dealing with cast lead alloy bullets. In all instances, the maximum listing represents what our technicians consider to be the maximum working combination for the bullet, powder and caliber listed. These loads do not exceed SAAMI standards.

***Accuracy Loads:***

When a load is noted as such in the data tables proper, it means that the given combination of components produced the most uniform internal ballistics of any load tested utilizing that particular bullet design.

Unless noted in "Comments," the accuracy load was not fired at targets. The load, however, does have a high potential–assuming all external factors are optimun–for producing outstanding accuracy since uniform internal ballistics are critical to accuracy on target. You cannot have one without the other.

***Test Parameters:***

Velocities shown were taken at fifteen feet and not corrected to the muzzle.

Each test string began with a clean dry barrel and consisted of ten shots.

Loads exhibiting erratic internal ballistics were not persued.

We had no problem with leading in any of our testing.

***Bullets:***

Bullet numbers are listed in the introductory specifications for each cartridge and in the headline above the appropriate data block–along with an illustration of that particular bullet.

Please note these bullets are artists' rendering. Comparing your bullet against the drawing could reveal minor differences. Furthermore, minor changes are sometimes made to bullets. These drawings, which appear throughout the data sections, are for general reference only and are not intended to be a precise representation.

Bullet alloy is noted as is the exact weight of each tested bullet.

Not all cast bullets within a given caliber are intended to perform equally. We have used them in the most appropriate chamberings.

***Powders:***

We have limited our testing to those powders which are manufactured in the United States and which are readily available to the consumer. The following brands are listed: Dupont (now IMR), Winchester, Hercules, Alcan, Hodgdon and Gearhart-Owen.

***Compressed Loads:***

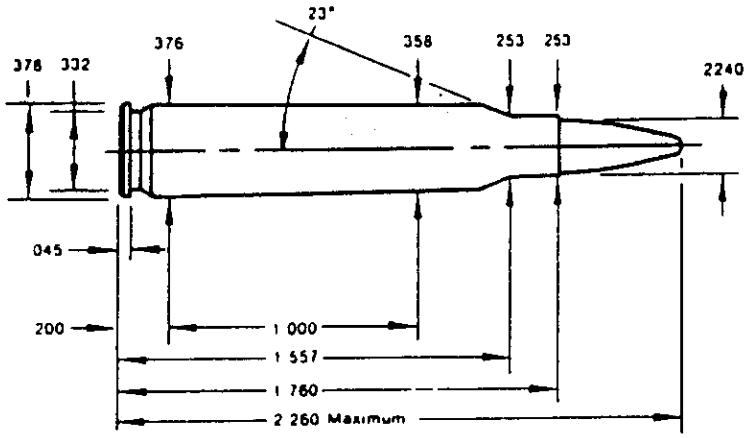
All compressed loads are indicated with a +. Depending upon the volume of the specific cartridge case used by the reader, he may, or may not, have difficulty starting bullets in such loads. If the bullet will not start, reduce the load sufficiently so that 1/10" of space remains in the case neck. Start the bullet into the case and use whatever additional pressure is required to fully seat the bullet. Failure to comply could result in a bulged case.

***Filler Wads:***

Dacron filler wads in the form of 1/4-inch thick batting were used in conjunction with cast bullet loads, where indicated. This material can be purchased in most yard-goods stores. It should be cut into squares, which seal the case.

When developing a load, if a wad is desired, its should be used from the beginning as the charge weight is increased. It should never be added as an afterthought, once a maximum load has been established, since its presence could result in a pressure increase of 2,000 CUP or more.

# .223 REMINGTON - LYMAN BULLETS




## COMMENTS:

This is the current official cartridge of our armed forces. It is extremely accurate when fired in a suitable rifle and has a good range capability for varmint hunting.

Propellant choice can include numerous types which all deliver balanced accuracy and velocity. However if forced to suggest the most likely candidate we would pick Hodgdon's H335 with jacketed bullets. Match bullets will be needed to get the very best results.

Always use bullets with a cannelure and crimp the cases to them when assembling ammo to be used in a semi-automatic rifle.

Our favorite load for this cartridge is a 52 grain Sierra boat tail hollow point with 27.0 grains of H335.

Cast bullet accuracy is often best at velocities of 2,000 fps to 2,300 fps. Best of all was bullet #225646 at about 2,100 fps.

Rifles with fast twist rates (1-8") will do best with bullets of 60 grains and heavier while rifles with the standard twist (1-14") will do best with bullets of 60 grains or less.

## TEST COMPONENTS:

Cases ..... Remington
Trim-to Length ..... 1.750"
Primers ..... Remington 7½ and CCI 450
Primer Size ..... Small Rifle, Magnum
Lyman Shell Holder ..... No. 26
Jacketed Bullets Used ..... Speer Spire Pt., 40 gr.
Sierra Spitzer, 45 gr.
Sierra SP Blitz #1340, 50 gr.
Sierra HPBT #1410, 52 gr.
Sierra Spire Pt. #1360, 55 gr.
Sierra SMP #1370, 63 gr.
Cast Bullets Used ..... (Sized to .224" dia.)
*Gas Check Bullets *#225107, 37 gr. *#225415, 45 gr.
*#225438, 41 gr. *#225462, 54 gr.
*#225646, 55 gr.

## TEST SPECIFICATIONS: (Velocity & Pressure)

Firearm Used ..... Colt AR15; Universal Receiver
Barrel Length ..... Colt 20"; Universal Receiver 24"
Twist ..... 1-12"
Groove Dia. ..... .224"

**Note:** Loads shown in shaded panels are maximum.
+ Designates a compressed powder charge.

# .223 REMINGTON - LYMAN BULLETS

**#225107**
37 gr., (#2 Alloy) 1.992" OAL

| POWDER | Sugg. Starting Grains | Velocity fps | Pressure C.U.P. | Max. Load Grains | Velocity fps | Pressure C.U.P. |
|---|---|---|---|---|---|---|
| Red Dot | 6.0 | 2060 | 23,400 | 9.5 | 2590 | 40,700 |
| 700X | 6.0 | 2065 | 24,600 | 8.5 | 2460 | 39,900 |
| Green Dot | 6.5 | 2075 | 22,200 | 9.5 | 2560 | 36,000 |
| PB | 6.5 | 2005 | 21,600 | 9.0 | 2400 | 36,400 |
| Unique | 7.0 | 2070 | 19,200 | 10.0 | 2690 | 33,500 |
| SR-7625 | 7.0 | 2060 | 22,200 | 9.5 | 2460 | 37,700 |
| 630 | 10.0 | 2195 | 19,200 | 12.5 | 2530 | 24,600 |

**#225438**
41 gr., (#2 Alloy) 2.034" OAL

| POWDER | Sugg. Starting Grains | Velocity fps | Pressure C.U.P. | Max. Load Grains | Velocity fps | Pressure C.U.P. |
|---|---|---|---|---|---|---|
| Red Dot | 5.7 | 1870 | 22,800 | 9.2 | 2370 | 40,700 |
| 700X | 5.8 | 1875 | 24,000 | 8.2 | 2245 | 41,100 |
| Green Dot | 6.3 | 1905 | 22,800 | 9.3 | 2335 | 37,700 |
| PB | 6.5 | 1860 | 23,400 | 9.2 | 2250 | 40,300 |
| Unique | 7.0 | 1945 | 21,000 | 10.0 | 2530 | 36,400 |
| SR-7625 | 6.8 | 1895 | 24,600 | 9.3 | 2260 | 40,300 |
| 630 | 10.0 | 2120 | 20,400 | 12.5 | 2430 | 27,000 |
| **SR-4759 | 12.0 | 1878 | 18,100 | 15.0 | 2612 | 31,400 |
| **748 | 22.0 | 2578 | 24,300 | 26.2 | 2809 | 28,400 |
| **IMR-4895 | 21.0 | 2337 | 24,800 | 23.5 | 2675 | 28,200 |

Note: Loads shown in shaded panels are maximum.
** Signifies Remington cases and CCI 450 primers used.

# .223 REMINGTON - LYMAN BULLETS

**#225415**
45 gr., (#2 Alloy) 2.060" OAL

| POWDER | Sugg. Starting Grains | Velocity fps | Pressure C.U.P. | Max. Load Grains | Velocity fps | Pressure C.U.P. |
|---|---|---|---|---|---|---|
| Red Dot | 5.6 | 1795 | 23,400 | 9.0 | 2280 | 40,700 |
| 700X | 5.6 | 1790 | 23,400 | 7.7 | 2080 | 39,400 |
| Green Dot | 6.2 | 1855 | 23,400 | 9.2 | 2270 | 39,000 |
| PB | 6.3 | 1775 | 24,000 | 8.7 | 2120 | 39,400 |
| Unique | 6.8 | 1900 | 20,400 | 9.5 | 2300 | 35,000 |
| SR-7625 | 6.6 | 1820 | 24,000 | 8.8 | 2120 | 39,900 |
| **SR-4759 | 12.0 | 1853 | 18,200 | 16.0 | 2640 | 35,900 |

**#225462**
54 gr., (#2 Alloy) 2.090" OAL

| POWDER | Sugg. Starting Grains | Velocity fps | Pressure C.U.P. | Max. Load Grains | Velocity fps | Pressure C.U.P. |
|---|---|---|---|---|---|---|
| Red Dot | 5.4 | 1675 | 22,800 | 8.6 | 2100 | 40,700 |
| 700X | 5.4 | 1680 | 25,200 | 7.5 | 1970 | 39,000 |
| Green Dot | 6.0 | 1735 | 23,400 | 8.8 | 2110 | 38,100 |
| PB | 6.1 | 1675 | 24,000 | 8.5 | 1980 | 40,300 |
| Unique | 6.7 | 1805 | 22,000 | 9.0 | 2110 | 30,000 |
| SR-7625 | 6.4 | 1715 | 25,800 | 8.3 | 1950 | 39,400 |
| **H110 | 13.7 | 2120 | 23,700 | 18.0 | 2699 | 41,600 |
| **SR-4759 | 11.3 | 1762 | 20,700 | 17.7 | 2611 | 43,600 |
| **748 | 19.8 | 1902 | 21,600 | 26.0 | 2697 | 32,000 |

Note: Loads shown in shaded panels are maximum.
** Signifies CCI 450 primers used.

# .223 REMINGTON - LYMAN BULLETS

**#225646**
55 gr., (#2 Alloy) 2.260" OAL

| POWDER | Sugg. Starting Grains | Velocity fps | Pressure C.U.P. | Max. Load Grains | Velocity fps | Pressure C.U.P. |
|---|---|---|---|---|---|---|
| **Red Dot | 6.6 | 1682 | 21,800 | 8.5 | 2022 | 38,300 |
| **700X | 6.4 | 1742 | 22,400 | 8.0 | 1995 | 36,600 |
| **Green Dot | 7.0 | 1752 | 21,500 | 8.8 | 2061 | 34,900 |
| **PB | 7.0 | 1719 | 25,600 | 8.3 | 1959 | 38,700 |
| **Unique | 7.6 | 1853 | 21,500 | 9.0 | 2081 | 33,500 |
| **SR-7625 | 6.8 | 1640 | 23,300 | 8.6 | 1906 | 33,700 |
| **SR-4759 | 13.0 | 2224 | 22,000 | 16.5 | 2657 | 44,100 |
| **748 | 25.0 | 2563 | 22,400 | 29.4+ | 3037 | 38,000 |

Note: Loads shown in shaded panels are maximum.
+ Designates a compressed powder charge.
** Signifies CCI 450 primers used.

## SHOOTER'S LOG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# THE RCBS® LIFETIME GUARANTEE.

# .223 REMINGTON - RCBS BULLETS

**Gun: Colt Coltsman**
**Barrel: 24"**
**Twist: 1-12**
**Cases: W-W**
**Primers: CCI 400, *450**

22-055-FN 

**Wt. 57 GR.**
**Dia. .224"**
Lube: Rifle

| POWDER | WT. IN GRAINS | MUZ VEL | POWDER | WT. IN GRAINS | MUZ VEL |
|---|---|---|---|---|---|
| **748** | *19.0 | 2136 | SR **4759** | 12.0 | 2052 |
| | *17.0 | 1927 | | 10.0 | 1741 |
| **BLC2** | *15.0 | 2085 | **Green Dot** | 8.6 | 2090 |
| | *13.0 | 1797 | | 7.2 | 1837 |
| IMR **4198** | 14.0 | 2132 | **Unique** | 8.5 | 2158 |
| | 12.0 | 1831 | | 7.5 | 1911 |
| **Red Dot** | 8.6 | 2089 | SR **7625** | 8.3 | 1932 |
| | 6.6 | 1847 | | 6.3 | 1682 |
| **PB** | 8.5 | 1977 | **700X** | 7.5 | 1992 |
| | 6.5 | 1641 | | 5.5 | 1711 |

*DENOTES USE OF CCI #450 MAGNUM PRIMER

# Praise The Load


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Superior accuracy can be achieved through reloading with reliable, consistently performing powder. To achieve this level of consistency, the experts at Hodgdon's select only the finest raw materials and give special attention to blending. Rigorous testing of ***each*** batch of powder further attests to Hodgdon's committment to quality.

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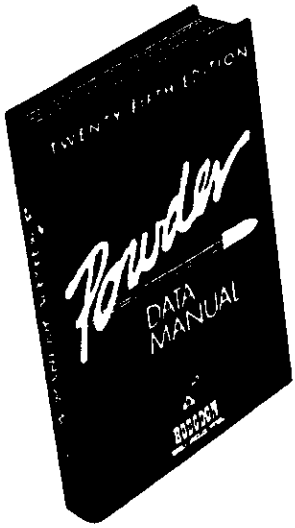


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The Hodgdon Data Manual is the most extensive reloading manual produced by a powder company. ***Over 500 pages*** of rifle, pistol and shotgun data and includes articles by many well known writers.

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**HODGDON POWDER CO.**

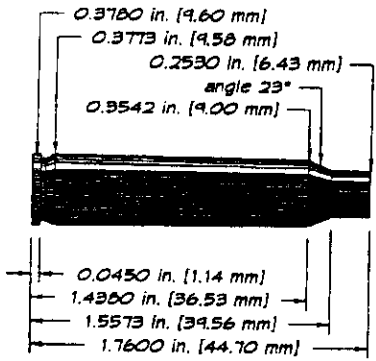
# 223 REMINGTON

Also known as the 5.56mm NATO, the 223 Remington was also known in various stages of development as the 222 Special, beating out the 224 Winchester and 224 Springfield to become the standard U.S. military cartridge of record.

With all the time and money spent in the development stages, the 223 Remington is one of the few government boondoggles that actually turned out fairly well. In short, the 223 Remington shoots well with just about any reasonable powder charge and bullet the handloader cares to stuff in the case. More recently, with a quicker rifling twist to stabilize heavier (longer) .224 inch bullets, the 223 Remington has made a name for itself at 600 yard competition in Australia and North America, much to the chagrin of a few high-power shooters who thought the 308 Winchester couldn't be beat at its own game.

Because of the variations in case capacity from one brand of brass to the next, it is good practice to choose one brand and stick with it in developing loads. Military brass has a crimped primer, and the primer pocket requires swaging or trimming prior to reloading. As a rule, domestic brass from Remington, Winchester, Speer or Federal is the best choice.

• • •




| | |
|---|---|
| WINCHESTER | 1:12" |
| 24" | 1.750" |

WINCHESTER SR

| Powder | Starting Loads Grs. | Vel. | Pressure | Maximum Loads Grs. | Vel. | Pressure |
|---|---|---|---|---|---|---|

## 223 REMINGTON

Case: WINCHESTER Twist: 1:12"
Barrel: 24" Trim: 1.750" Primer: WINCHESTER SR

| Bullet: 40 GR. NOS BT | | | Dia.: .224" COL: 2.280" | | | |
|---|---|---|---|---|---|---|
| VARGET | 25.0 | 3310 | 34,400 CUP | 28.0 C | 3674 | 47,200 CUP |
| BL-C(2) | 26.5 | 3368 | 35,400 CUP | 28.5 | 3612 | 45,400 CUP |
| H335 | 26.0 | 3299 | 34,400 CUP | 28.0 | 3572 | 44,600 CUP |
| H4895 | 25.0 | 3204 | 32,100 CUP | 27.5 C | 3573 | 44,500 CUP |
| BENCHMARK | 25.3 | 3404 | 39,600 CUP | 27.3 | 3666 | 51,000 CUP |
| H322 | 23.5 | 3376 | 34,600 CUP | 25.5 | 3574 | 48,000 CUP |
| H4198 | 20.5 | 3147 | 29,400 CUP | 22.5 | 3601 | 49,600 CUP |

| Bullet: 45 GR. SIE SP | | | Dia.: .224" COL: 2.240" | | | |
|---|---|---|---|---|---|---|
| VARGET | 25.0 | 3071 | 30,200 CUP | 28.0 C | 3477 | 43,700 CUP |
| BL-C(2) | 26.5 | 3266 | 36,000 CUP | 28.5 | 3559 | 48,000 CUP |
| H335 | 24.0 | 3280 | 41,500 CUP | 26.2 | 3456 | 51,000 CUP |
| H4895 | 25.0 | 3211 | 33,800 CUP | 27.5 C | 3454 | 43,400 CUP |
| BENCHMARK | 25.3 | 3327 | 41,100 CUP | 27.3 | 3554 | 51,100 CUP |
| H322 | 23.0 | 3164 | 36,000 CUP | 25.0 | 3424 | 47,400 CUP |
| H4198 | 20.0 | 3009 | 28,800 CUP | 22.0 | 3472 | 49,100 CUP |

| Bullet: 50 GR. SPR SP | | | Dia.: .224" COL: 2.210" | | | |
|---|---|---|---|---|---|---|
| VARGET | 26.5 | 3242 | 40,800 CUP | 27.5 C | 3383 | 44,800 CUP |
| BL-C(2) | 26.0 | 3187 | 34,200 CUP | 28.0 | 3428 | 47,100 CUP |
| H335 | 24.0 | 3166 | 43,000 CUP | 26.0 | 3393 | 51,700 CUP |
| H4895 | 25.0 | 3200 | 38,300 CUP | 27.5 C | 3468 | 51,300 CUP |
| BENCHMARK | 24.0 | 3139 | 38,600 CUP | 26.5 | 3396 | 50,400 CUP |
| H322 | 22.0 | 3018 | 36,500 CUP | 24.0 | 3301 | 49,300 CUP |
| H4198 | 19.5 | 3023 | 32,400 CUP | 21.5 | 3223 | 45,900 CUP |

| Bullet: 53 GR. SIE HP | | | Dia.: .224" COL: 2.200" | | | |
|---|---|---|---|---|---|---|
| VARGET | 24.0 | 3026 | 38,400 CUP | 27.0 C | 3389 | 47,900 CUP |
| BL-C(2) | 26.0 | 3090 | 36,600 CUP | 28.0 | 3328 | 47,600 CUP |
| H335 | 24.0 | 3060 | 44,100 CUP | 26.0 | 3300 | 52,000 CUP |
| H4895 | 25.0 | 3166 | 37,400 CUP | 27.0 C | 3383 | 48,600 CUP |
| BENCHMARK | 24.0 | 3102 | 39,900 CUP | 26.0 | 3308 | 49,800 CUP |
| H322 | 21.5 | 2912 | 39,200 CUP | 23.5 | 3183 | 48,900 CUP |
| H4198 | 19.5 | 2986 | 34,200 CUP | 21.5 | 3188 | 46,700 CUP |

# .223 REMINGTON - HODGDON POWDERS

| Powder | Starting Loads Grs. | Vel. | Pressure | Maximum Loads Grs. | Vel. | Pressure |
|---|---|---|---|---|---|---|
| **Bullet: 55 GR. SPR SP** | | | **Dia.: .224" COL: 2.200"** | | | |
| VARGET | 25.5 | 3174 | 41,300 CUP | 27.5 C | 3384 | 49,700 CUP |
| BL-C(2) | 25.5 | 3069 | 37,200 CUP | 27.5 | 3313 | 48,500 CUP |
| H335 | 23.0 | 3018 | 40,800 CUP | 25.3 | 3203 | 49,300 CUP |
| H4895 | 25.0 | 3176 | 39,700 CUP | 26.0 | 3315 | 49,000 CUP |
| BENCHMARK | 24.0 | 3113 | 42,600 CUP | 25.6 | 3264 | 50,000 CUP |
| H322 | 21.0 | 2841 | 38,600 CUP | 23.0 | 3106 | 48,900 CUP |
| H4198 | 19.0 | 2841 | 34,800 CUP | 21.0 | 3150 | 47,600 CUP |
| **Bullet: 63 GR. SIE SP** | | | **Dia.: .224" COL: 2.200"** | | | |
| VARGET | 24.5 | 3000 | 42,400 CUP | 26.4 | 3199 | 50,700 CUP |
| BL-C(2) | 24.0 | 2847 | 36,600 CUP | 26.0 | 3054 | 46,300 CUP |
| H335 | 22.5 | 2820 | 41,000 CUP | 25.0 | 3051 | 50,000 CUP |
| H4895 | 23.5 | 2831 | 43,300 CUP | 25.5 | 3078 | 50,000 CUP |
| BENCHMARK | 22.0 | 2845 | 41,800 CUP | 24.2 | 3066 | 50,500 CUP |
| H322 | 20.0 | 2672 | 38,100 CUP | 22.0 | 2862 | 48,400 CUP |
| H4198 | 18.0 | 2680 | 33,600 CUP | 20.0 | 2846 | 44,600 CUP |
| **Bullet: 70 GR. SPR SP** | | | **Dia.: .224" COL: 2.200"** | | | |
| VARGET | 23.5 | 2827 | 41,000 CUP | 26.0 | 3024 | 48,400 CUP |
| BL-C(2) | 24.5 | 2774 | 41,700 CUP | 26.5 | 2954 | 50,800 CUP |
| H335 | 21.0 | 2520 | 34,500 CUP | 23.5 | 2867 | 47,900 CUP |
| H4895 | 23.0 | 2782 | 40,400 CUP | 25.0 | 2997 | 50,500 CUP |
| BENCHMARK | 20.5 | 2665 | 45,200 CUP | 22.8 | 2869 | 51,000 CUP |
| H322 | 19.0 | 2515 | 37,500 CUP | 23.0 | 2962 | 51,200 CUP |
| **Bullet: 75 GR. JLK VLD** | | | **Dia.: .224" COL: 2.250"** | | | |
| VARGET | 22.5 | 2693 | 40,600 CUP | 25.0 | 2907 | 48,400 CUP |
| BL-C(2) | 23.0 | 2646 | 39,800 CUP | 26.0 | 2858 | 49,500 CUP |
| H335 | 21.0 | 2624 | 41,300 CUP | 23.0 | 2814 | 50,000 CUP |
| H4895 | 22.5 | 2696 | 39,900 CUP | 24.5 | 2905 | 50,000 CUP |
| BENCHMARK | 21.5 | 2610 | 41,900 CUP | 23.5 | 2829 | 49,400 CUP |
| H322 | 20.0 | 2594 | 40,700 CUP | 22.0 | 2785 | 48,100 CUP |

***NEVER*** **EXCEED MAXIMUM LOADS.**

# .223 Remington - Hodgdon Powders

| Powder | Starting Loads Grs. | Vel. | Pressure | Maximum Loads Grs. | Vel. | Pressure |
|---|---|---|---|---|---|---|
| **Bullet: 77 GR. SIE HPBT** | | | | **Dia.: .224" COL: 2.260"** | | |
| VARGET | 21.0 | 2528 | 42,700 CUP | 23.7 C | 2737 | 50,700 CUP |
| BL-C(2) | 23.0 | 2640 | 42,500 CUP | 24.9 | 2804 | 50,700 CUP |
| H335 | 21.0 | 2582 | 44,400 CUP | 22.6 | 2738 | 51,700 CUP |
| H4895 | 20.0 | 2474 | 40,300 CUP | 22.6 C | 2727 | 50,200 CUP |
| BENCHMARK | 20.5 | 2523 | 27,400 CUP | 22.8 | 2763 | 50,000 CUP |
| H322 | 20.0 | 2578 | 44,900 CUP | 21.8 | 2721 | 50,900 CUP |
| **Bullet: 80 GR. SIE MK** | | | | **Dia.: .224" COL: 2.550"** | | |
| VARGET | 22.0 | 2547 | 40,300 CUP | 25.0 | 2869 | 51,500 CUP |
| BL-C(2) | 23.0 | 2576 | 39,700 CUP | 25.5 | 2768 | 49,400 CUP |
| H335 | 20.0 | 2453 | 39,700 CUP | 22.5 | 2744 | 50,000 CUP |
| H4895 | 21.5 | 2578 | 40,100 CUP | 24.0 | 2825 | 50,000 CUP |
| BENCHMARK | 20.5 | 2525 | 43,900 CUP | 22.5 | 2700 | 49,600 CUP |
| H322 | 20.0 | 2546 | 40,700 CUP | 22.0 | 2744 | 49,000 CUP |

***NEVER*** **EXCEED MAXIMUM LOADS.**

# .223 REMINGTON

**Bullet Diameter: .224**
**Barrel: Sako 23"**

| HODGDON POWDER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STARTING LOADS | | | | | MAXIMUM LOADS | | | |
| BULLET | POWDER | GRS. | VEL. | CUP | POWDER | GRS. | VEL. | CUP |
| 45 GR. (GAS CHECK) | | | | | H4895 | 17.0 | 2115 | |
| | | | | | H4198 | 13.0 | 2141 | |
| | | | | | H4227 | 9.0 | 1789 | |
| 50 GR. (GAS CHECK) | | | | | H4198 | 13.0 | 2106 | |

***NEVER*** **EXCEED MAXIMUM LOADS.**

## Introduction

There has been a re-evaluation of the criteria for selecting data for inclusion. This means there will be some disagreement with previous data. The data in this guide takes precedence over all prior publications. ***Previous editions of this loading guide should be discarded.***

For instance, we left out load combinations that were 'position sensitive'. This is what occurs when the load density is low. Velocity with the powder at the bullet is different from the velocity with the powder at the primer. More of these were noted with the ball propellants than with the extruded propellants.

In light of the growth of IPSC shooting, 38 Super Auto loads that make the 'major' classification (bullet weight x velocity = 175,000) are identified. While we have tested many combinations of components in 9mm Luger to attempt to meet 'major' requirements, we have not been able to find a load that makes the power floor for 'major' without exceeding SAAMI pressure recommendations. And while we were able to find loads for 38 Super Auto, they were not with lighter bullets. Turn to the data section for specific details.

In the charge tables, the 'START' charge listed for each load is our suggested beginning point with the components listed. There is the possibility that changing the named components could cause the maximum charge to be excessive, thus a reduction of the charge would be necessary. Some batches of military brass may require reducing the maximum charge by 8-12% to keep chamber pressure in line.

**If you find signs of excessive pressure while using loads in this loading guide, STOP TESTING and verify all data and loading procedures. If they seem to be in order, check with our lab facility before proceeding.**

Charge weights were obtained using industry standard pressure barrels. When time permitted, off-the-shelf weapons were used to obtain velocity figures. The guns used are noted.

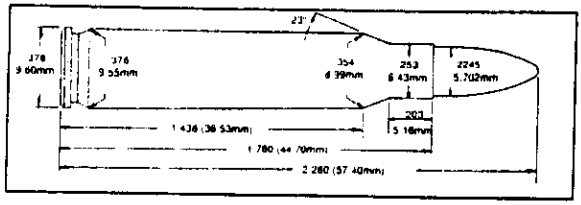
In reloading, the prime concern should always be SAFETY. **Always** wear eye protection when reloading, even when working with the 'non-volatile' components. **Always** keep the reloading area clean. **Never** have more than one propellant within easy reach at any given time. Avoid having similar looking bullets of different weights on the bench at the same time. Read the safety notes before loading.

We have not found magnum primers to offer any particular advantage with our handgun powders. But, there are some rifle cartridges where they were used.

Handgun loads using the slower powders (No.7, No.9, and 1680) require heavy crimp and high bullet pull to insure consistency - particularly with cast bullet loads or in extremely cold weather. Be sure your dies are capable of this, otherwise the consistency of the load will be affected.

In the text, bullet weights for cast bullets - identified by (L) are actual weights, not the nominal weights.

# .223 REMINGTON




In 1964 the .223 Remington was adopted as the 5.56mm Ball Cartridge M193, the new U.S. Military rifle cartridge. The .223 Remington is the commercial version of the 5.56mm. Several variations in chamber dimensions, principally in the chamber throat, have occurred since the 5.56 cartridge was adopted, the latest version to accommodate the heavier SS109 projectile.

The data presented here was developed in a barrel chambered to commercial .223 Remington specifications and this data may be used in firearms with military specification chambers. SAAMI has cautioned that some 5.56 ammo will produce excessive pressures when fired in rifles chambered for the .223 Remington cartridge.

Adoption as a U.S. military cartridge virtually guarantees commercial acceptance due to the availability of surplus components. However, the .223 Remington is an excellent varmint cartridge on its own merits. The military cases may be substantially heavier than the commercial products, and loads using military brass should be reduced at least 10%.

In the arena of NRA High Power Rifle competition, and particularly in the Service Rifle category, more and more AR-15 rifles are being used. We have included data for the 69 and 80 grain bullets for those shooters.

The .223 Remington was derived from the .222 Remington Magnum and will chamber in firearms of that caliber. The danger of cartridge case rupture due to excessive head space is real, and owners of firearms chambered for both these cartridges are advised to exercise extreme caution.

**The SAAMI Maximum Average Pressure for the .223 Remington is 52,000 C.U.P. or 55,000 PSI.**

## .223 REMINGTON

| | | | |
|---|---|---|---|
| Gun | WILSON | Max Length | 1.760" |
| Barrel Length | 24" | Trim Length | 1.740" |
| Primer | REM 7½ | OAL Max | 2.260" |
| Case | REM | OAL Min | 2.160" |

| Bullet | START LOADS Powder | Grains | Vel | MAXIMUM LOADS Powder | Grains | Vel | C.U.P. | Length | Cartridge Comment |
|---|---|---|---|---|---|---|---|---|---|
| 44 (L) RNGC | 5744 | -- | -- | 5744 | 11.0 | 1978 | 14,800** | 2.040" | LY 224438 |
| 52 (L) RNGC | 5744 | -- | -- | 5744 | 12.0 | 2078 | 19,500** | 2.045" | Lyman |

## .223 REMINGTON (continued)

| Bullet | START LOADS Powder | Grains | Vel. | MAXIMUM LOADS Powder | Grains | Vel | C.U.P. | Length | Cartridge Comment |
|---|---|---|---|---|---|---|---|---|---|
| HDY 35 VMAX | 1680 | 19.3 | 3235 | 1680 | 21.5 | 3677 | 51,100** | 2.130" | |
| | 5744 | 20.0 | 3234 | 5744 | 22.0 | 3675 | 52,900** | | |
| | 2015 | 23.4 | 3356 | 2015 | 26.0 | 3814 | 52,400** | | |
| | 2230 | 26.5 | 3471 | 2230 | 29.5 | 3945 | 47,300** | | |
| NOS 40 BT | 5744 | 19.3 | 3087 | 5744 | 21.5 | 3509 | 54,000** | 2.260" | |
| | 1680 | 20.2 | 3199 | 1680 | 22.5 | 3636 | 49,000 | | |
| | 2015 | 23.8 | 3296 | 2015 | 26.5 | 3746 | 51,900 | | |
| | 2230 | 24.7 | 3202 | 2230 | 27.5 | 3639 | 50,800 | | |
| | 2460 | 25.2 | 3234 | 2460 | 28.0 | 3675 | 51,000 | | |
| | 2495 | 23.8 | 3089 | 2495 | 26.5 | 3511 | 44,400 | | Compressed |
| | 2520 | 25.6 | 3106 | 2520 | 28.5 | 3530 | 41,900 | | Compressed |
| NOS 45 SP | 1680 | 18.5 | 2906 | 1680 | 20.5 | 3302 | 48,200 | 2.115" | |
| | 2015 | 23.4 | 3120 | 2015 | 26.0 | 3546 | 49,100 | | |
| | 2230 | 24.3 | 3041 | 2230 | 27.0 | 3456 | 50,500 | | |
| | 2460 | 24.8 | 3059 | 2460 | 27.5 | 3476 | 49,300 | | |
| | 2495 | 23.9 | 3023 | 2495 | 26.5 | 3435 | 47,000 | | Compressed |
| | 2520 | 25.7 | 3013 | 2520 | 28.5 | 3424 | 42,000 | | Compressed |
| SPR 50 HP 'TNT' | 5744 | 18.5 | 2799 | 5744 | 20.5 | 3181 | 52,200** | 2.235" | |
| | 1680 | 18.5 | 2768 | 1680 | 20.5 | 3146 | 47,900 | | |
| | 2015 | 23.0 | 2981 | 2015 | 25.5 | 3387 | 46,400 | | |
| | 2230 | 23.4 | 2941 | 2230 | 26.0 | 3342 | 49,800 | | |
| | 2460 | 23.4 | 2930 | 2460 | 26.0 | 3329 | 47,100 | | |
| | 2495 | 23.9 | 2888 | 2495 | 26.5 | 3282 | 44,400 | | Compressed |
| | 2520 | 25.7 | 2944 | 2520 | 28.5 | 3346 | 42,200 | | Compressed |
| BRG 52 HP | 2015 | 21.2 | 2913 | 2015 | 23.6 | 3311 | 54,500** | 2.250" | |
| | 2230 | 22.0 | 2951 | 2230 | 24.5 | 3354 | 55,000** | | |
| | 2460 | 22.8 | 2933 | 2460 | 25.3 | 3334 | 55,000** | | |
| | 2520 | 25.2 | 2960 | 2520 | 28.0 | 3364 | 50,000** | | Compressed |
| HDY 53 HP 'Match' | 5744 | 17.5 | 2680 | 5744 | 19.5 | 3046 | 53,100** | 2.225" | |
| | 1680 | 18.0 | 2681 | 1680 | 20.0 | 3047 | 49,600 | | |
| | 2015 | 22.1 | 2876 | 2015 | 24.5 | 3268 | 47,800 | | |
| | 2230 | 23.4 | 2862 | 2230 | 26.0 | 3252 | 49,900 | | |
| | 2460 | 23.0 | 2846 | 2460 | 25.5 | 3234 | 47,300 | | |
| | 2495 | 23.4 | 2874 | 2495 | 26.0 | 3266 | 48,800 | | Compressed |
| | 2520 | 24.8 | 2847 | 2520 | 27.5 | 3235 | 43,200 | | Compressed |
| NOS 55 SPBT | 5744 | 17.5 | 2665 | 5744 | 19.5 | 3029 | 54,300** | 2.230" | |
| | 1680 | 18.5 | 2691 | 1680 | 20.5 | 3058 | 50,000 | | |
| | 2015 | 22.5 | 2887 | 2015 | 25.0 | 3281 | 49,800 | | |
| | 2230 | 23.4 | 2830 | 2230 | 26.0 | 3216 | 50,300 | | |
| | 2460 | 23.9 | 2843 | 2460 | 26.5 | 3231 | 49,200 | | |
| | 2495 | 23.6 | 2878 | 2495 | 26.2 | 3271 | 51,100 | | Compressed |
| | 2520 | 24.8 | 2837 | 2520 | 27.5 | 3224 | 43,300 | | Compressed |
| HDY 60 SP | 2015 | 21.6 | 2752 | 2015 | 24.0 | 3127 | 49,100 | 2.235" | |
| | 2230 | 22.1 | 2717 | 2230 | 24.5 | 3087 | 49,200 | | |
| | 2460 | 22.7 | 2706 | 2460 | 25.2 | 3075 | 49,400 | | |
| | 2495 | 22.2 | 2680 | 2495 | 24.7 | 3046 | 46,300 | | 100% Density |
| | 2520 | 24.8 | 2776 | 2520 | 27.5 | 3154 | 45,600 | | Compressed |

# .223 REMINGTON - ACCURATE POWDERS

| Bullet | START LOADS Powder | Grains | Vel | MAXIMUM LOADS Powder | Grains | Vel | C U P | Length | Cartridge Comment |
|---|---|---|---|---|---|---|---|---|---|
| BRG 62 HP | 2015 | 20.2 | 2668 | 2015 | 22.5 | 3032 | 55,000** | 2.250" | |
| | 2230 | 21.3 | 2677 | 2230 | 23.7 | 3043 | 54,600** | | |
| | 2460 | 21.9 | 2691 | 2460 | 24.3 | 3058 | 55,000** | | |
| | 2520 | 23.4 | 2728 | 2520 | 26.0 | 3101 | 55,000** | | Full Case |
| BRG 64 HP | 2015 | 19.8 | 2616 | 2015 | 22.0 | 2973 | 55,000** | 2.250" | |
| | 2230 | 21.1 | 2618 | 2230 | 23.4 | 2976 | 54,300** | | |
| | 2460 | 21.6 | 2624 | 2460 | 24.0 | 2982 | 53,100** | | |
| | 2520 | 23.4 | 2709 | 2520 | 26.0 | 3079 | 55,000** | | Full Case |
| SRA 69 HPBT | 2015 | 20.7 | 2567 | 2015 | 23.0 | 2917 | 48,400 | 2.250" | |
| | 2230 | 22.1 | 2578 | 2230 | 24.5 | 2929 | 51,300 | | |
| | 2460 | 22.2 | 2632 | 2460 | 24.7 | 2991 | 51,800 | | |
| | 2495 | 22.5 | 2608 | 2495 | 25.0 | 2964 | 49,800 | | |
| | 2520 | 24.3 | 2679 | 2520 | 27.0 | 3044 | 48,200 | | |
| BRG 70 VLD | 2015 | 18.9 | 2522 | 2015 | 21.0 | 2867 | 54,200** | 2.250" | |
| | 2230 | 20.9 | 2539 | 2230 | 23.2 | 2886 | 54,700** | | |
| | 2460 | 22.0 | 2578 | 2460 | 24.5 | 2930 | 54,900** | | |
| | 2520 | 23.4 | 2596 | 2520 | 26.0 | 2951 | 53,200** | | Full Case |
| HDY 75 HPBT | 2015 | 19.3 | 2438 | 2015 | 21.5 | 2771 | 51,800 | 2.255" | |
| | 2230 | 21.6 | 2503 | 2230 | 24.0 | 2845 | 50,800 | | |
| | 2460 | 22.0 | 2507 | 2460 | 24.5 | 2849 | 49,700 | | |
| | 2520 | 22.9 | 2573 | 2520 | 25.5 | 2924 | 51,800 | | |
| SRA 80 HPBT | 2015 | 19.8 | 2382 | 2015 | 22.0 | 2707 | 49,000 | 2.450" | * |
| | 2230 | 21.2 | 2424 | 2230 | 23.5 | 2754 | 49,100 | | |
| | 2460 | 21.6 | 2453 | 2460 | 24.0 | 2788 | 49,500 | | |
| | 2495 | 21.2 | 2453 | 2495 | 23.5 | 2788 | 51,600 | | |
| | 2520 | 22.5 | 2460 | 2520 | 25.0 | 2796 | 49,700 | | |
| BRG 80 VLD | 2015 | 18.7 | 2317 | 2015 | 20.8 | 2633 | 54,400** | 2.340" | |
| | 2230 | 20.2 | 2342 | 2230 | 22.5 | 2662 | 54,600** | | |
| | 2460 | 20.7 | 2336 | 2460 | 23.0 | 2655 | 53,600** | | |
| | 2520 | 22.3 | 2412 | 2520 | 24.8 | 2741 | 55,000** | | |
| Subsonic Loads*** | | | | | | | | | |
| IMI 55 FMJ | S1250 | -- | -- | S1250 | 3.5 | 1139 | 13,500** | 2.230" | |
| HDY 60 SP | S1250 | -- | -- | S1250 | 4.2 | 1111 | 19,100** | 2.235" | |
| HDY 75 HPBT | S1250 | -- | -- | S1250 | 4.5 | 1052 | 22,100** | 2.255" | |

* Over SAAMI Maximum OAL
** Data in P.S.I.
*** Subsonic loads will not operate M-16 or AR-15 rifles.

# .223 REMINGTON - ALLIANT POWDERS

## ALLIANT

| CASE: FEDERAL | BARREL: 24" | | PRIMER: FEDERAL 205M |
|---|---|---|---|
| **BULLET: 45 GR. SPR SP** | **DIA. .224"** | | **C.O.L. 2.210"** |
| RELODER 15 | 28.5 | 3635 | 53,500 PSI |
| RELODER 12 | 28.0 | 3470 | 52,800 PSI |
| RELODER 7 | 21.8 | 3375 | 53,200 PSI |
| **BULLET: 50 GR. HDY SP** | **DIA. .224"** | | **C.O.L. 2.250"** |
| RELODER 12 | 27.0 | 3335 | 52,300 PSI |
| RELODER 7 | 21.5 | 3195 | 53,000 PSI |

## ALLIANT CONTINUED

| | STARTING LOADS | | | MAXIMUM LOADS | | |
|---|---|---|---|---|---|---|
| **POWDER** | **GRS.** | **VEL.** | **PRESSURE** | **GRS.** | **VEL.** | **PRESSURE** |
| **BULLET: 52 GR. SIE HPBT** | | | **DIA. .224"** | | | **C.O.L. 2.250"** |
| RELODER 15 | | | | 28.3 | 3440 | 53,100 PSI |
| RELODER 12 | | | | 27.5 | 3310 | 52,700 PSI |
| RELODER 7 | | | | 20.9 | 3165 | 53,300 PSI |
| **BULLET: 55 GR. HDY MJBT** | | | **DIA. .224"** | | | **C.O.L. 2.215"** |
| RELODER 15 | | | | 28.0 | 3390 | 53,600 PSI |
| RELODER 12 | | | | 27.5 | 3255 | 52,200 PSI |
| RELODER 7 | | | | 20.5 | 3080 | 52,400 PSI |
| **BULLET: 60 GR. HDY SP** | | | **DIA. .224"** | | | **C.O.L. 2.250"** |
| RELODER 15 | | | | 26.5 | 3240 | 53,000 PSI |
| RELODER 12 | | | | 25.5 | 3070 | 53,300 PSI |
| **BULLET: 68 GR. HDY BTHP** | | | **DIA. .224"** | | | **C.O.L. 2.260"** |
| RELODER 15 | | | | 25.6 | 3030 | 52,800 PSI |
| RELODER 12 | | | | 24.0 | 2935 | 56,600 PSI |
| **BULLET: 75 GR. HDY BTHP** | | | **DIA. .224"** | | | **C.O.L. 2.260"** |
| RELODER 15 | | | | 24.9 | 2895 | 53,400 PSI |
| **BULLET: 80 GR. SIE HPBT** | | | **DIA. .224"** | | | **C.O.L. 2.260"** |
| RELODER 15 | | | | 24.0 | 2800 | 53,000 PSI |

***NEVER*** **EXCEED MAXIMUM LOADS.**

# .223 REMINGTON - IMR POWDERS

## IMR

| CASE: REMINGTON | BARREL: 24" | | PRIMER: REMINGTON 7 1/2 |
|---|---|---|---|
| **BULLET: 45 GR. SIE SP** | **DIA. .224"** | | **C.O.L. 2.190"** |
| IMR 4320 | 27.5 C | 3200 | 45,100 CUP |
| IMR 4895 | 26.5 C | 3280 | 45,900 CUP |
| IMR 3031 | 25.5 C | 3300 | 42,200 CUP |
| IMR 4198 | 22.0 | 3360 | 50,300 CUP |
| **BULLET: 50 GR. SIE SP** | **DIA. .224"** | | **C.O.L. 2.260"** |
| IMR 4320 | 27.5 C | 3200 | 48,300 CUP |
| IMR 4064 | 25.5 C | 3150 | 44,200 CUP |
| IMR 4895 | 25.5 C | 3270 | 48,800 CUP |
| IMR 3031 | 25.5 C | 3225 | 45,300 CUP |
| IMR 4198 | 22.0 | 3270 | 51,900 CUP |

## IMR CONTINUED

| | STARTING LOADS | | | MAXIMUM LOADS | | |
|---|---|---|---|---|---|---|
| POWDER | GRS. | VEL. | PRESSURE | GRS. | VEL. | PRESSURE |
| **BULLET: 55 GR. HDY SP** | | | **DIA. .224"** | | | **C.O.L. 2.260"** |
| IMR 4320 | | | | 27.0 C | 3075 | 50,300 CUP |
| IMR 4064 | | | | 25.5 C | 3090 | 49,200 CUP |
| IMR 4895 | | | | 26.0 | 3120 | 51,100 CUP |
| IMR 3031 | | | | 25.0 C | 3165 | 50,900 CUP |
| IMR 4198 | | | | 21.5 | 3100 | 52,000 CUP |

***NEVER*** **EXCEED MAXIMUM LOADS.**

# .223 REMINGTON - SCOT POWDERS

## 3032

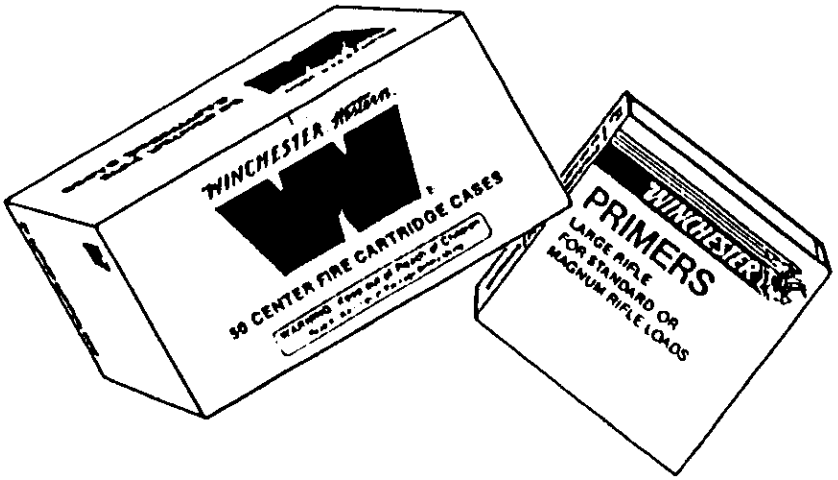
| Powder Charge | Bullet Weight & Type | Muzzle Velocity |
|---|---|---|
| 25.0 grains | 45 grain FMJ | 3,120 fps |
| 27.0 grains | 45 grain FMJ | 3,330 fps |
| 24.0 grains | 50 grain FMJ | 2,853 fps |
| 26.0 grains | 50 grain FMJ | 3,253 fps |
| 23.5 grains | 55 grain FMJ | 2,760 fps |
| 25.5 grains | 55 grain FMJ | 3,140 fps |
| 22.5 grains | 63 grain FMJ | 2,520 fps |
| 24.5 grains | 63 grain FMJ | 2,929 fps |

## 4197

| Powder Charge | Bullet Weight & Type | Muzzle Velocity |
|---|---|---|
| 22.5 grains | 45 grain FMJ | 2,880 fps |
| 24.5 grains | 45 grain FMJ | 3,290 fps |
| 21.5 grains | 50 grain FMJ | 2,780 fps |
| 23.5 grains | 50 grain FMJ | 3,178 fps |
| 21.0 grains | 55 grain FMJ | 2,680 fps |
| 23.0 grains | 55 grain FMJ | 3,050 fps |
| 20.5 grains | 63 grain FMJ | 2,480 fps |
| 22.5 grains | 63 grain FMJ | 2,886 fps |

= WARNING =

*The Scot Powder Company makes no warranties or guarantees with respect to the safety or suitability of these products or the reloading information contained on these pages, either express or implied. Buyer and user assume any and all risk, responsibility and liability for any and all injury (including death), loss or damage arising from usage!*




*Get Superior Control With Winchester*


Reloaders make strenuous demands on their components, and that's the reason why, year after year, more reloaders depend on Winchester.

Winchester is the only ammunition company that makes all of its own components, from raw materials through final product, for the control reloaders demand. Winchester primers are tested for consistent and dependable ignition in extreme temperatures. They are non-corrosive and non-mercuric, and they're carefully controlled for weight and height.

Winchester's patented smokeless, clean-burning BALL POWDER propellants are free-flowing for precise metering and chemically stable for consistent muzzle velocity, and reduced flash and barrel erosion.

Winchester metallic components offer the consistent performance found in factory loads.

WINCHESTER

## **WINCHESTER** Centerfire Rifle Components

When selecting reloading supplies, be sure to look for the following finest quality **Winchester** components.

Primers

WLR, #8-1/2 - 120, Large Rifle
WLRM, #8-1/2M - 120, Large Rifle Magnum
WSR, #6-1/2 - 116, Small Rifle

BALL POWDER Propellants

680 Powder, 1 Lb. Container
748 Powder, 1 and 8 Lb. Containers
760 Powder, 1 and 8 Lb. Containers

Unprimed Rifle

| | | | |
|---|---|---|---|
| U218 | 218 Bee | U300H | 300 H&H Mag. |
| U22H | 22 Hornet | U300 | 300 Savage |
| U22250 | 22-250 Rem. | U307 | 307 Win. |
| U220S | 220 Swift | U308 | 308 Win. |
| U223R | 223 Rem. | U3220 | 32-20 Win. |
| U225 | 225 Win. | U338 | 338 Win.Mag. |
| U243 | 243 Win. | U348 | 348 Win |
| U6MMR | 6mm Rem. | U356 | 356 Win. |
| U2520 | 25-20 Win. | U358 | 358 Win. |
| U2506 | 25-06 Rem. | U375H | 375 H&H Mag. |
| U257P | 257 Roberts +P | U375W | 375 Win. |
| U264 | 264 Win. Mag. | U4440 | 44-40 Win. |
| U270 | 270 Win. | U44M | 44 Rem. Mag. |
| U284 | 284 Win. | U4570 | 45-70 Govt. |
| U7MM | 7mm Mauser | U458 | 458 Win. Mag. |
| U3006 | 30-06 Springfield | | |
| U3040 | 30-40 Krag | | |
| U300WM | 300 Win. Mag. | | |

# .223 REMINGTON - WINCHESTER POWDERS

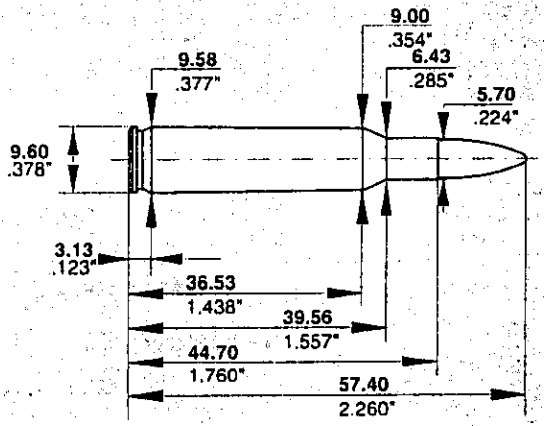
## WINCHESTER

| CASE: WINCHESTER | BARREL: 24" | | PRIMER: WINCHESTER SR |
|---|---|---|---|
| **BULLET: 50 GR. WIN PSP** | **DIA. .224"** | | **C.O.L. 2.260" MAX** |
| 748 | 26.0 | 3200 | 40,000 CUP |
| **BULLET: 53 GR. WIN HP** | **DIA. .224"** | | **C.O.L. 2.260" MAX** |
| 748 | 26.0 | 3200 | 43,500 CUP |
| **BULLET: 55 GR. WIN PSP** | **DIA. .224"** | | **C.O.L. 2.260" MAX** |
| 748 | 26.3 | 3150 | 39,000 CUP |
| **BULLET: 62 GR. WIN FMJ** | **DIA. .224"** | | **C.O.L. 2.260" MAX** |
| 748 | 25.5 | 2985 | 49,200 CUP |
| **BULLET: 69 GR. HPBT** | **DIA. .224"** | | **C.O.L. 2.260" MAX** |
| 748 | 24.5 | 2870 | 51,500 PSI |

***NEVER*** **EXCEED MAXIMUM LOADS.**

# .223 Remington

CIP max. dimensions in millimetres, SAAMI in inches




| | |
|---|---|
| **Country of origin:** | **USA** |
| **Year of introduction:** | **1964** |
| **Max. bullet diameter:** | **5.70 mm (.224")** |
| **Max. cartridge length:** | **57.40 mm (2.260")** |
| **Max. case length:** | **44.70 mm (1.760"), trim to 44,50 mm (1.752")** |
| **Max. CIP piezo pressure:** | **430 MPa (62350 psi)** |

This is a military cartridge from the U.S. which replaced the 7.62 NATO (.308 Win.). It was originally known as M193 and designed to work with the Armalite experimental rifle which later came to be known as the world famous M16. Its military adoption took place in 1964, but Remington beat the Armed Forces by introducing its civilian counterpart just a few months in advance. Remington saw potential in the round for varmint and general farm/ranch use.

The .223 Remington is nearly identical with the .222 Remington Magnum, the only difference is a bit shorter case of the .223. These two are not intercangeable altough the .223 will chamber in a .222 Remington Magnum rifle. The result, though, is to create a gross headspace problem, due to which the .223 case will rupture, if fired in the .222 Remington Magnum chamber.

As a sporting cartridge .223 Remington is at its best as a varminter and its accuracy capabilites yeld up to competitive bench rest shooting. There is an excellent assortment of .22 caliber bullets on the market for the handloader. The assortment of factory chambered the .223 Remington rifles is wide, too. if a light bullet is used, the wind drift can remarkably affect on the accuracy. Therefore the maximum game shooting distance should not exceed 200 meters.

.223 Remington is a flexible cartridge for the handloader. The recommended Vihtavuori powders range from N130 to N540.

# .223 Remington

**TEST COMPONENTS:**

**Test barrel:** 620 mm (25"), 1 in 12" twist, manufactured to meet CIP minimum dimensions.

**Primers:** Small Rifle

**Cases:** LAPUA, trim-to length 44.50 mm (1.752")

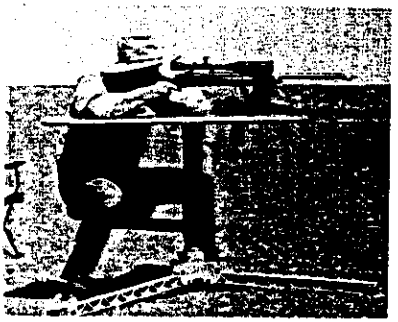
**Reloading Data, English Units:**

| Bullet | | | | Powder | Starting Load | | Maximum Load | | |
|---|---|---|---|---|---|---|---|---|---|
| Weight [grs] | Type | Mfg. | C.O.L. [in.] | Type | Weight [grs] | Velocity [fps] | Weight [grs] | Velocity [fps] | Pressure [psi] |
| 40 | Spire Point | Speer | 2.075 | N120 | 22.4 | 3373 | 24.0 | 3640 | max. |
| | | | | N130 | 24.4 | 3399 | 26.3 | 3685 | max. |
| | | | | N133 | 25.0 | 3347 | 26.8 | 3615 | 55100 |
| 45 | Spitzer | Speer | 2.126 | N120 | 21.7 | 3187 | 23.5 | 3463 | max. |
| | | | | N130 | 23.5 | 3235 | 25.6 | 3511 | max. |
| | | | | N133 | 24.9 | 3245 | 27.0 | 3565 | max. |
| | | | | N135 | 25.5 | 3185 | 26.9 | 3396 | 52900 |
| 50 | "TNT"-HP | Speer | 2.244 | N120 | 21.2 | 3048 | 23.2 | 3314 | max. |
| | | | | N130 | 23.0 | 3097 | 24.9 | 3368 | max. |
| | | | | N133 | 24.6 | 3113 | 26.2 | 3398 | max. |
| | | | | N135 | 25.0 | 3077 | 26.5 | 3333 | max. |
| 52 | HPBT | Sierra | 2.244 | N130 | 21.5 | 2959 | 24.0 | 3274 | max. |
| | | | | N133 | 23.5 | 3003 | 25.8 | 3315 | max. |
| | | | | N135 | 24.3 | 3014 | 27.0 | 3333 | max. |
| 55 | FMJBT | Hornady | 2.244 | N120 | 19.6 | 2820 | 22.5 | 3134 | max. |
| | | | | N130 | 22.1 | 2931 | 24.1 | 3217 | max. |
| | | | | N133 | 22.9 | 2927 | 25.3 | 3231 | max. |
| | | | | N135 | 24.3 | 2983 | 26.8 | 3267 | max. |
| | | | | N140 | 25.3 | 2881 | 26.9 | 3081 | 50000 |
| 60 | HP | Hornady | 2.244 | N130 | 21.4 | 2796 | 23.7 | 3063 | max. |
| | | | | N133 | 22.4 | 2772 | 25.0 | 3076 | max. |
| | | | | N135 | 23.9 | 2860 | 25.9 | 3075 | max. |
| | | | | N140 | 24.8 | 2758 | 26.5 | 2954 | 50000 |
| 69 | HPBT* | Sierra | 2.244 | N133 | 20.5 | 2565 | 23.0 | 2828 | max. |
| | | | | N135 | 22.3 | 2595 | 24.7 | 2890 | max. |
| | | | | N140 | 23.6 | 2633 | 26.4 | 2922 | max. |
| | | | | N540 | 24.9 | 2679 | 27.3 | 2984 | max. |
| 75 | BTHP | Hornady* | 2.260 | N135 | 20.9 | 2465 | 23.5 | 2728 | max. |
| | | | | N140 | 22.7 | 2475 | 25.3 | 2774 | max. |
| *) Test barrel twist 1 in 7". | | | | N540 | 23.5 | 2515 | 25.9 | 2807 | max. |

**INDICATES MAXIMUM LOAD - USE WITH CAUTION!**

LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED

# .223 Remington

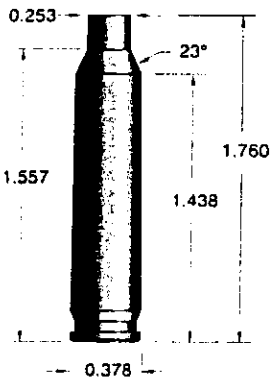


My first experience with this excellent round came during my exposure to it in Southeast Asia in 1966. With my first look, it appeared to be more suited for ground squirrels and rockchucks than for a military cartridge. I had immediate plans to take a closer look upon my return to "The World."

After years of high-volume sniping of distant targets with a .22-250 Remington, it became clear that for a varminter who did not want to rebarrel his pet varmint rifle every other year or so, I must rethink the caliber of choice. Thinking the .222 Remington was not really enough power for what I needed, and that the .22-250 was a trifle much for my needs, the .223 seemed perfect, so I purchased a used Sako L-461 Vixen .223 Remington.

During a recent outing to South Dakota on a prairie dog quest, I had the fortunate pleasure of being offered the new Barnes VLC bullet in both 40- and 50-grain weights loaded in Norma brass by Black Hills and chambered in my favorite varmint caliber, the .223 Remington.

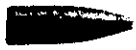
The Barnes VLC bullets grouped at exactly the same point of impact as my own handloads. The accuracy of the Barnes/Black Hills loads was almost identical to my own handloads! I also noted less fouling as a result of the Barnes coating, which enabled more shooting between cleanings — a big factor when the dogs are up, the sun is shining, and you have plenty of ammunition on the bench.




— Rick Vecqueray
Varmint Masters Shooting Benches

| Case: | Parent Case: |
|---|---|
| Winchester | .222 Remington |
| Primer: | Trim To: |
| Win Small Rifle | 1.750" |
| Barrel: | |
| 24" | |

# .223 REMINGTON - BARNES BULLETS



40-grain VLC

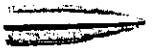
S.D. .114 B.C. .175

Suggested Bullet Use

| Powder | Charge Weight (grains) | Velocity (fps) | Maximum Load | Velocity (fps) |
|---|---|---|---|---|
| XMR 2015 | 24.0 | 3320 | 26.0 | 3873 |
| RL 7 | 21.0 | 3242 | 25.0 | 3860 |
| Benchmark | 26.0 | 3342 | 30.0 | 3856 |
| H335* | 27.0 | 3425 | 31.0 | 3932 |
| IMR 4198 | 21.0 | 3295 | 25.0 | 3923 |
| X-Term* | 26.0 | 3322 | 30.0 | 3833 |
| VIT N120 | 20.0 | 3168 | 24.0 | 3802 |

XLC Coated X-Bullet data cannot be used with other bullets, including non-coated X-Bullets.
Maximum loads should be used with caution - Always Start With Minimum Loads.
* *Recommended powder*

# .223 Remington



45-grain Solid
S.D. .128 B.C. .212
Suggested Bullet Use

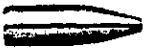
| Powder | Charge Weight (grains) | Velocity (fps) | Maximum Load | Velocity (fps) |
|---|---|---|---|---|
| XMR 2015* | 21.5 | 3007 | 23.5 | 3566 |
| RL 7 | 19.5 | 2919 | 23.5 | 3518 |
| RL 12 | 24.0 | 3102 | 28.0 | 3619 |
| H322 | 21.0 | 3000 | 25.0 | 3572 |
| H335* | 22.0 | 3059 | 26.0 | 3615 |
| Varget | 22.5 | 3019 | 26.5 | 3556 |
| IMR 4198 | 18.5 | 2929 | 22.5 | 3562 |
| IMR 3031 | 21.5 | 2994 | 25.5 | 3551 |
| IMR 4895 | 23.0 | 3004 | 27.0 | 3527 |
| Win 748 | 24.0 | 3017 | 28.0 | 3520 |

45-grain XLC BT
S.D. .128 B.C. .203
Suggested Bullet Use

| Powder | Charge Weight (grains) | Velocity (fps) | Maximum Load | Velocity (fps) |
|---|---|---|---|---|
| XMR 2015* | 21.5 | 3054 | 25.5 | 3622 |
| RL 12 | 24.5 | 3088 | 28.5 | 3592 |
| H322 | 22.0 | 3037 | 26.0 | 3589 |
| Benchmark | 23.0 | 2982 | 27.0 | 3501 |
| H335 | 23.0 | 3033 | 27.0 | 3560 |
| Varget | 24.5 | 3059 | 28.5 | 3558 |
| IMR 3031 | 22.5 | 3001 | 26.5 | 3535 |
| IMR 4895 | 24.0 | 2997 | 28.0 | 3497 |
| X-Term | 23.0 | 2995 | 27.0 | 3516 |
| Win 748* | 25.0 | 3015 | 29.0 | 3497 |

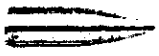
XLC Coated X-Bullet data cannot be used with other bullets, including non-coated X-Bullets.
Maximum loads should be used with caution - Always Start With Minimum Loads.
** Recommended powder*

# .223 Remington



50-grain XFB
S.D. .142 B.C. .220

Suggested Bullet Use



50-grain Solid
S.D. .142 B.C. .235

Suggested Bullet Use

| Powder | Charge Weight (grains) | Velocity (fps) | Maximum Load | Velocity (fps) |
|---|---|---|---|---|
| XMR 2015* | 20.5 | 2844 | 24.5 | 3399 |
| RL 7 | 19.0 | 2829 | 23.0 | 3424 |
| RL 12 | 23.0 | 2904 | 27.0 | 3409 |
| H322* | 20.5 | 2850 | 24.5 | 3406 |
| H335 | 22.0 | 2918 | 26.0 | 3448 |
| Varget | 22.0 | 2895 | 26.0 | 3421 |
| IMR 4198 | 18.0 | 2788 | 22.0 | 3407 |
| IMR 3031 | 21.0 | 2854 | 25.0 | 3398 |
| IMR 4895 | 21.5 | 2849 | 25.5 | 3379 |
| Win 748 | 24.0 | 2934 | 28.0 | 3423 |

50-grain XLC FB
S.D. .142 B.C. .220

Suggested Bullet Use

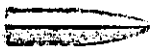
| Powder | Charge Weight (grains) | Velocity (fps) | Maximum Load | Velocity (fps) |
|---|---|---|---|---|
| Benchmark | 22.0 | 2811 | 26.0 | 3322 |
| H322* | 21.5 | 2834 | 25.5 | 3361 |
| H335 | 22.5 | 2860 | 26.5 | 3368 |
| Varget | 24.0 | 2862 | 28.0 | 3339 |
| IMR 3031 | 22.0 | 2830 | 26.0 | 3344 |
| IMR 4895 | 23.0 | 2795 | 27.0 | 3281 |
| Win 748 | 24.5 | 2939 | 28.5 | 3419 |
| XMR 2015 | 20.5 | 2784 | 24.5 | 3327 |
| RL 12 | 23.0 | 2874 | 27.0 | 3374 |
| X-Term* | 21.5 | 2780 | 25.5 | 3297 |

XLC Coated X-Bullet data cannot be used with other bullets, including non-coated X-Bullets.
Maximum loads should be used with caution - Always Start With Minimum Loads.
** Recommended powder*

# .223 Remington

50-grain VLC
S.D. .142 B.C. .217
Suggested Bullet Use

| Powder | Charge Weight (grains) | Velocity (fps) | Maximum Load | Velocity |
|---|---|---|---|---|
| XMR 2015 | 21.0 | 2806 | 25.0 | 3340 |
| RL 12 | 23.0 | 2889 | 27.0 | 3391 |
| H322 | 22.0 | 2860 | 26.0 | 3380 |
| Benchmark* | 22.5 | 2837 | 26.5 | 3341 |
| H335* | 23.0 | 2871 | 27.0 | 3370 |
| Varget | 24.5 | 2895 | 28.5 | 3368 |
| IMR 3031 | 22.5 | 2856 | 26.5 | 3364 |
| IMR 4895 | 23.5 | 2854 | 27.5 | 3340 |
| X-Term* | 22.0 | 2820 | 26.0 | 3333 |
| Win 748 | 25.0 | 2948 | 29.0 | 3420 |



53-grain XFB
S.D. .151 B.C. .231
Suggested Bullet Use

| Powder | Charge Weight (grains) | Velocity (fps) | Maximum Load | Velocity |
|---|---|---|---|---|
| XMR 2015 | 20.0 | 2736 | 24.0 | 3283 |
| RL 12 | 23.0 | 2855 | 27.0 | 3351 |
| H322 | 20.0 | 2720 | 24.0 | 3264 |
| H335* | 21.0 | 2794 | 25.0 | 3328 |
| Varget | 21.5 | 2785 | 25.5 | 3303 |
| IMR 4198 | 17.5 | 2681 | 21.5 | 3294 |
| IMR 3031 | 20.5 | 2772 | 24.5 | 3313 |
| IMR 4895 | 21.0 | 2761 | 25.0 | 3287 |
| Win 748* | 23.5 | 2820 | 27.5 | 3300 |

53-grain XLC FB
S.D. .151 B.C. .231
Suggested Bullet Use

| Powder | Charge Weight (grains) | Velocity (fps) | Maximum Load | Velocity |
|---|---|---|---|---|
| XMR 2015 | 20.0 | 2723 | 24.0 | 3268 |
| RL 12 | 22.5 | 2819 | 26.5 | 3320 |
| H322* | 21.0 | 2771 | 25.0 | 3299 |
| Benchmark | 21.5 | 2743 | 25.5 | 3253 |
| H335* | 22.0 | 2793 | 26.0 | 3301 |
| Varget | 23.5 | 2811 | 27.5 | 3289 |
| IMR 3031 | 21.0 | 2784 | 25.0 | 3314 |
| IMR 4895 | 22.5 | 2738 | 26.5 | 3225 |
| X-Term | 21.0 | 2706 | 25.0 | 3222 |
| Win 748 | 24.0 | 2911 | 28.0 | 3396 |

XLC Coated X-Bullet data cannot be used with other bullets, including non-coated X-Bullets.
Maximum loads should be used with caution - Always Start With Minimum Loads.
* *Recommended powder*

# SHOOTER'S LOG

# POWDER BURNING RATE CHART

*Current Canister Grade Powders in order of approximate burning rate.*
*(R1 being the fastest, 748 the slowest)*
*This list is approximate only and not to be used for developing loads.*

1. R-1, Norma
2. N31, Vihtavuori
3. TITEWAD, Accurate Arms
4. RED DOT, Alliant
5. CLAYS, Hodgdon
6. "HI-SKOR" 700-X, IMR Co.
7. BULLSEYE, Alliant
8. TITEGROUP, Hodgdon
9. American Select, Alliant
10. SOLO 1000, Accurate Arms
11. GREEN DOT, Alliant
12. INTERNATIONAL, Hodgdon
13. PB, IMR Co.
14. N320, Vihtavuori
15. WST, Winchester
16. No.2, Accurate Arms
17. SR 7625, IMR Co.
18. HP-38, Hodgdon
19. 231, Winchester
20. UNIQUE, Alliant
21. UNIVERSAL, Hodgdon
22. Power Pistol, Alliant
23. N330, Vihtavuori
24. HERCO, Alliant
25. WSF, Winchester
26. N340, Vihtavuori
27. "HI-SKOR" 800-X, IMR Co.
28. SR4756, IMR Co.
29. NO. 5, Accurate Arms,
30. HS-6, Hodgdon
31. 3N37, Vihtavuori,
32. N350, Vihtavuori
33. BLUE DOT, Alliant
34. No. 7, Accurate Arms
35. 2400, Alliant
36. No. 9, Accurate Arms
37. R123, Norma
38. N110, Vihtavuori
39. H110, Hodgdon
40. 296, Winchester
41. IMR4227, IMR Co.
42. H4227, Hodgdon
43. SR4759, IMR Co.
44. 1680, Accurate Arms
45. 200, Norma
46. Reloader 7, Alliant
47. IMR4198, IMR Co.
48. H4198, Hodgdon
49. N120, Vihtavuori
50. H322, Hodgdon
51. 2015 BR, Accurate Arms
52. N130, Vihtavuori
53. IMR3031, IMR Co.
54. N133, Vihtavuori
55. H335, Hodgdon
56. N135, Vihtavuori
57. 2230, Accurate Arms
58. 2460, Accurate Arms
59. H4895, Hodgdon
60. IMR4895, IMR Co.
61. RELODER-12, Alliant
62. IMR-4320, IMR Co.
63. 3100, Accurate Arms
64. IMR 4064, IMR Co.
65. 202, Norma
66. 2520, Accurate Arms
67. RELODER-15, Alliant
68. N140, Vihtavuori
69. VARGET, Hodgdon
70. 748, Winchester

This is a unique reloading/information manual. It contains currently available data regarding loading information for this individual cartridge. This data is compiled from the leading U.S. Bullet and gunpowder manufacturers.

This manual is not intended to replace the many comprehensive, in-depth reloading manuals available from a host of publishers, but instead provide you with a quick and easy-to-use reference source which will enable you to compare loads, types of powders, bullets and shot charges for components you may have on hand.

Loadbooks USA, Inc., also offers the following cartridges in this series of unique One Book/One Caliber reloading manuals: .22 Hornet, .220 Swift, .222 Remington, .223 Remington, .22-250 Remington, .225 Winchester, .243 Winchester, .244/6mm Remington, 6.5x55 Swedish, .25-06 Remington, .250-3000 Savage, .270 Winchester, 7x57 Mauser, 7mm-08 Remington, .280 Remington, .284 Winchester, 7mm Remington Magnum, 7.62x39mm, 7.62x54mm Russian, .30-30 Winchester, .303 British, .308 Winchester, .30-06 Springfield, .300 Winchester Magnum, .300 Weatherby Magnum, .300 Savage, 30/40 Krag, .300 & .375 H & H Magnum, .338 Winchester Magnum, 8mm Remington Magnum, 8mm/06 & .338/06, 8mm Mauser, .356 & .358 Winchester, .35 Whelen, .35 Remington & .350 Remington Magnum, .375 & .458 Winchester, .444 Marlin, .45-70 Government, .25 & .32 A.C.P., .32 H&R Magnum, .380 ACP, 9mm Luger, .38 Super, .38 Special, .357 Magnum, 10mm/.41 Auto, .41 Magnum, .44 Magnum, .44 Special, .45 ACP, .45 Colt, .454 Casull, and The Weatherby Magnums covering 10 different Weatherby calibers.

There's also two shotshell books for the 12 Gauge, and the 20/28 Gauge and .410 bore. Plus there's a large reloading manual covering 30 calibers for the Thompson/Center Contender single-shot pistol and the Remington XP-100 pistol.

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