



Technical Newsletter From
Your Ballistic Technicians

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How Accurately Will My Firearm Shoot?

by Robert Treece

Customers call every day, asking this question - even with our competitor's bullets. Some even get upset when we refuse to jump off of that high cliff. Folks, we don't have a crystal ball and surely you aren't that gullible. There are so many variables involved with interior ballistics that it can boggle the mind of even those who work in this field, let alone the lay person who is hoping to get a

respectable shooter. The criteria or perception of accuracy is as varied as the number of shooters.

Nobody can predict what a firearm is capable of before shots are fired, nobody. Not a barrel maker, the factory, or custom gunsmith until it's actually fired.

Get out there and do some shootin', then you will know.

Sierra Bullets Trophy Match

Sierra Bullets is proud to be sponsoring the Sierra Bullets Trophy Match at the National High Power Rifle Championships at Camp Perry, Ohio. The new trophy match will be awarded to the aggregate winner of the Edward D. Andrus Memorial Trophy Match and the Herb "Doc" Aiken Memorial Trophy Match. These matches are fired at 1000 Yards with a Palma Rifle. Good Luck to all competitors!!



.223 Loading Data for Sierra's 77 grain HPBT MatchKing

Test Specifications

Firearms used: Colt AR-15A2 HBAR
BBL Length/Twist: 20"/1x7"

Test Components

Cases: Remington
Trim-to Length: 1.750"
Primers: Remington 7 1/2

.224" 77 GR. MatchKing HPBT
Cartridge OAL: 2.260"

| Powder/Velocity | 2300 | 2400 | 2500 | 2600 | 2650 | 2700 | 2750 |
|-----------------|------|------|------|------|------|------|------|
| H322 | | 19.0 | 20.0 | 21.0 | 21.5 | 22.0 | |
| AA-2230 | 19.9 | 20.8 | 21.7 | 22.6 | 23.1 | 23.5 | |
| 748 | 21.4 | 21.9 | 22.4 | 22.8 | 23.1 | 23.3 | 23.6 |
| H335 | | 20.2 | 21.0 | 21.9 | 22.3 | 22.7 | |
| AA-2495 BR | | 20.3 | 21.4 | 22.5 | 23.0 | 23.5 | 24.1 |
| RE-12 | 19.5 | 20.7 | 21.9 | 23.1 | 23.7 | 24.3 | |
| H4895 | 21.4 | 21.9 | 22.4 | 22.9 | 23.2 | 23.5 | 23.8 |
| AA-4064 | 19.7 | 21.2 | 22.8 | 24.3 | 24.8 | | |
| VARGET | 19.5 | 20.5 | 21.5 | 22.5 | 23.0 | 23.5 | 24.0 |
| AA-2520 | 20.4 | 21.3 | 22.1 | 23.0 | 23.4 | 23.8 | 24.2 |
| RE-15 | 20.7 | 21.5 | 22.2 | 23.0 | 23.4 | 23.7 | 24.1 |
| Viht N140 | 19.6 | 21.1 | 22.5 | 24.0 | 24.7 | | |
| Viht N540 | 20.3 | 21.5 | 22.7 | 23.8 | 24.4 | 25.0 | |
| Energy/ft.lbs | 905 | 985 | 1069 | 1156 | 1201 | 1247 | 1293 |

Accuracy Load: RE-15/24.1 grs.; 2750 fps/1293 ft.lbs.

Sierra does not recommend MatchKing bullets for hunting applications

INFINITY Update at www.sierrabullets.com

Sierra's INFINITY Exterior Ballistic Computer Software program has been enhanced with new bullet information from the bullet companies and ammunition manufacturers. You may download the new bullet information from the Sierra Bullets web site begin-

ning August 1, 1999. Please follow the downloading directions carefully to ensure proper application. Owner's of INFINITY v. 1.0 and INFINITY Suite v. 1.2.1 will have all the new bullets added this year.

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Max Load: When and Where

by Rich Machholz

We get asked countless times for load data and we do every thing we possibly can to accommodate the caller. But when the conversation begins with "give me your max load for. . ." we have to pause. The best advice I can give is never, never start loading with a max load. The key to that statement is "start". A load labeled max isn't a load that will reduce your rifle to a pile of recyclable material. It is a load that registered maximum allowable pressures with that particular combination of components in that test rifle. Using a max load is allowable and even desirable sometimes. If the proper steps are taken when working up a load to a near max or maximum load level, no unusual dangers should be encountered. But skip a step and look out! Here is a recommended procedure. Pick your powder, case, primer and bullet combination with a compatible overall cartridge length. Check your favorite manual or consult several. Pick a load level no higher than mid-range for that powder bullet combination. Increase your charges incrementally no more than 1% of the total case capacity of your cartridge for that powder and fire at least

three cartridges for each charge level. Examine each series very carefully watching for excessive pressure symptoms such as a combination of cratered primers, flat primers or even a slight hitch in the bolt lift. There can be a bright spot on the base of the case indicating brass flow. Any of these by themselves may not be indicative of extreme pressures but all of them combined will surely tell the experienced reloader that he has gone beyond the maximum charge level for this combination of components in that rifle. The prudent reloader will reduce this load to a level that eliminates the brass extrusion. Although this is a max level load it only rates a yellow caution when repeated because it was carefully worked up and established in this rifle even though it may or may not be above the maximum loads shown in various manuals. It was proven safe in this rifle with these components at that temperature. But to start at a maximum charge level established even after careful research from several different and reputable manuals then averaging for a maximum start level would be foolish and possibly very dangerous and definitely rates a red stop light. DONT DO IT!!



Marge Constantino of LaPorte, Colorado shot this nice buck with Sierra's .270 caliber, 90 grain Hollow Point with 50.0 grains of IMR 4064. Another of Marge's one shot kills!!

The Time Is Now

by Paul Box

Usually I like to bring you a tip on how to get better accuracy, but in this issue I've got something more important to talk to you about. It's the 2nd Amendment. Never before has it been under attack like today. Our Constitution has been the very foundation for this country. In a word, it is freedom. The price for freedom is blood. Countless Americans have given their lives to uphold the Constitution. Many of you might say "but what can I do, I'm only one person?". Maybe you've let your NRA membership expire and haven't gotten around to renewing it. The time is now. Maybe your shooting buddy has never joined. Get him signed up. NRA memberships make great birthday or Christmas gifts for anyone. Even the landowner who lets you deer hunt each year. NRA memberships are a great way of saying "thanks for letting me hunt". Future battles for the Constitution will be fought on home soil. Freedom is up to us. The time is now.