



Technical Newsletter From Your Ballistic Technicians

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Expander Ball

by Paul Box

Anybody that has reloaded for a period of time has probably run across some of the problems associated with an expander ball. Some of the headaches that can be traced back to the expander ball are excessive case stretch, uneven case necks due to one side of the case neck being thicker than the other resulting in more drag on that side causing necks to be .002 or .003 thousandths of an inch higher on one side than the other, and the case shoulder being pulled back up slightly when a rough expander ball is being pulled back thru the neck.

The easiest cure for this is to take the entire decapping rod assembly out of the sizing die and chuck it up in an electric

drill. Next, take some 150 grit sand paper and polish it for a few minutes. Follow this up with few minutes of polishing with 220 grit paper and finish with 00 steel wool. This leaves a glass-like finish on the expander ball that will glide thru case necks without the ill effects as before. Recently I ran a test with 250 Savage Ackley brass-- some with even case necks and some with necks that were .003" higher on one side than the other. Even though the group still measured .750" there were two distinct groups, the uneven necks going into a bug hole in the 5 o'clock position and the even necks producing another bug hole at 11 o'clock. Yes you can do a lot with an expander ball.

Koenig's Pet Loads

Doug Koenig has been one of the most successful handgun shooters in the United States. He has won the Bianchi Cup 4 times, The Masters 8 times, Steel Challenge twice, 4 Sportsman Team Challenges, European Bianchi Cup, World Action Pistol Championship, World IPSC match, and top finishes in many other matches. We have been getting several calls from shooters wondering what guns and loads Doug used. I gave Doug a call in Texas as he was practicing for the 2000 Sportsman Team Challenge with another great shooter, David Tubb.

Here are some of the guns and loads he uses.

Bianchi Cup - 38 Super in a 6" Springfield or Colt Single Stack (1911) with 4.7 grains of Winchester Super Lite and a Sierra 115 grain JHP #8110 bullet and Starline cases. Velocity is about 1120 fps.

Steel Challenge - Same as Bianchi Cup, only a 5" barrel and a velocity of 1040 fps.

The Masters - Same as Bianchi Cup only 5.7 grains of Winchester Super Lite for a velocity of 1220 fps. For the long range gun in the Masters, he uses an XP100 in 6.5 BR and a Sierra 120 gr. HPBT MatchKing #1725 with 27.5 grains of AA2015.

IPSC - Caspian in a 9mm Super Comp Starline case with 6.8 grains of Viht. N340 powder and a Sierra 125 grain JHP #8125 or 7.5 grains of Viht. N340 and the #8110 115 grain JHP Sierra bullet.

Doug uses moly-coated bullets, which lowers pressures, so if you try to duplicate his loads, reduce your loads slightly and work back up. Also, Super Lite has been discontinued, so unless you have a good supply of it, you may not want to get too attached to it.

2000 Sportsman's Team Challenge

The Sierra/Starline team of Doug Koenig, David Tubb, and Michael Plaxco captured the Sportsman's Team Challenge during the last week of September in San Antonio, Texas. This marks the fourth time in the last five years that the Sierra/Starline team have captured this prestigious event. Team Dillon was second and Team Clean-Bore was third.

Camp Perry Winners!

Congratulations to all who participated in the 2000 NRA National HiPower Rifle and Pistol Championships at Camp Perry. Below is a partial listing of Trophy/Match winners who were shooting Sierra Bullets.

National NRA Match Rifle Championship	Carl Bernosky
NRA National High Power Rifle Championship	Carl Bernosky
Presidents Rifle Match	Col. Eddie Newman
Wimbledon Cup Match	Michelle Gallagher
Canadian Cup Match	Michelle Gallagher
Tompkins Trophy Match	Michelle Gallagher
Leech Cup Match	Michelle Gallagher
Palma Individual Trophy Match	Nancy Tompkins-Gallagher
Porter Trophy Match	LCDR Wesley M Shumaker, USN
Herb "Doc" Aitken Memorial Trophy Match	Robert A. Gustin
Edward D. Andrus Memorial Trophy Match	Raymond Gross
National Trophy Individual Rifle Match	Grant Singley
Coast Guard Trophy Match	Carl Bernosky
Nevada Trophy Match	Carl Bernosky
Clarke Trophy Match	Carl Bernosky
Members Trophy Match	Doug Morrison
Vandenberg Cup Match	Baird Copenhaver
Crescent Cup Match	James Fox
Erdman Trophy Match	James Fox
Navy Cup Match	Vincent Greiner
The Roumanian Trophy Team	Arizona Purple, Middle Tompkins, Capt.
Herrick Trophy Team Match	Arizona Purple, Middle Tompkins, Capt.
Rumbold Trophy Team Match	Illinois State Rifle Assn Gold
RNDC Trophy Team Match	Lonestar #1, David Tubb, Capt.
Whistler Boy High Power Trophy	Utah R&P Assoc. Silver, Steven Powell, Capt.

Changes in our Ballistic Hot-Line Service

Beginning last July, we installed a new software program for our Ballistic Customer Service. In addition to being able to provide information to you in a more efficient manner, we will gain the ability to send your quarterly X-Ring Ballistic Newsletter by e-mail. This will allow you to receive your newsletter much quicker, and will save Sierra postage and printing cost. If you have an e-mail address, please call us at 800-223-8799 or e-mail sierra@sierrabullets.com. Also, we have added voice mail and call routing to our 800 service. This has eliminated time spent on hold for a Ballistic Technician and allows you to dial directly to your technician and leave a message if he is handling another call.



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The Tough Sierra's

by Dave Brown

Within their caliber and for their weight our toughest varmint and hunting rifle bullets are hollow points. By "toughest" we mean that Sierra hollow point GameKing rifle bullets expand less and penetrate more than their lead and plastic tip counterparts, the Spitzers. That is the opposite of pistol bullets. It is also the opposite of what everyone except those who use them would think of our hollow point GameKing rifle bullets. Still, it is true of each Sierra hollow point from the little .224 40 grain HP through the 165 grain 30 caliber HPBT. While our flat base hollow points are tough varmint bullets that can put down coyotes, our hollow point boat tails (except for the 55 gr. .224 bullet) are excellent medium and big game bullets capable of antelope, deer, black bear, moose, and elk. These hollow points were designed with hard cores and heavy jackets to not only eliminate tip deformation, but also to withstand the higher impact velocities often incurred at the closer ranges. As with books, bullets cannot be judged from its title or a look at the outside. The next time you are in the market

for a bullet that will penetrate better than a similar weight Spitzer or plastic tip look for a Sierra hollow point hunting bullet. Their accuracy is often only second to our MatchKing target bullets, the world's standard. As always, we welcome your comments and questions concerning the specific use of our bullets. We never tire of your stories and photos. Often we feel like we were there with you. In a way we were.



Max Reppel and his guide William Snelling with Max' .280 Ackley. Both men achieved VHA 1000 yard club this summer. Max uses Sierra's 168 gr. HPBT MatchKing @2850 fps.

New for 2001 - #2650 .338 Caliber, 250 grain HPBT MatchKing

You talk, we listen!! You said you needed a lighter, high ballistic coefficient .338 Caliber bullet that has greater compatibility with today's' reloading components. You said you needed a bullet that would give higher muzzle and down range velocities, great wind bucking abilities with extreme accuracy potential necessary for the next step in long range target competition. You said you needed one that will give high velocities and reasonable pressures using today's' reloading components.

We listened, and Sierra has designed a long-range match bullet with an 11-caliber secant ogive with a minimum meplat diameter. This new Hollow Point Boat Tail MatchKing has a 9° boattail angle with a .500" bearing surface length. We combined this optimum bullet shape with a jacket and core design that has the tightest quality control specifications in the industry. The result is a streamlined 250 grain match bullet capable of being driven 3000 fps and faster from standard twist barrels with the same world-class accuracy as Sierra's 300 grain .338 caliber bullet. If you shoot the .338, this is your bullet for long-range competition whether it is a .338 Win Mag, a .338 Lapua Mag, or any of the other larger .338's. If you're not winning, chances are you're not shooting Sierra. This new bullet is available in boxes of 50 bullets (#2650) and 500 bullets (#2650C) and will be introduced in January 2001.

	Diameter (INCHES)	Weight (GRAINS)	Sectional Density	Ballistic Coefficients
.338 dia. 250 gr. HPBT MatchKing	.338	250	.313	.587 @ 2150 fps and above .606 between 2150 and 1700 fps .576 between 1700 and 1400 fps .484 @1400 fps and below