

GUNS&AMMO

AR-15

TOP 10 ARs FROM THE MOVIES

PROTECTOR ELITE

◀ WILSON COMBAT
QUALITY JUST GOT
MORE ATTAINABLE



5

BIG REASONS TO RELOAD



MIGHTY ACOG

THE HISTORY OF TRIJICON'S
COMBAT OPTIC

.350

LESSONS FROM A
LEGENDARY FALL



- /// BCM RECCE 11
- /// THERMAL OPTICS 101
- /// 6.5 GRENDEL VERSUS AODDAD
- /// EXPERT TIPS FOR NEW GUN OWNERS

USA/CANADA \$9.99
DISPLAY UNTIL 5/3/21



FROM RUSSIA WITH LOVE

BARNAUL AMMO OFFERS FRUGAL FUN WHILE DELIVERING THE PERFORMANCE SHOOTERS/HUNTERS NEED.

BY AARON CARTER
PHOTOS BY MIKE ANSCHUETZ



THERE'S NARY A SHOOTER THAT WOULD SELECT ANY thing but premium ammunition if price was no concern; however, for many of us, cost is a major consideration — especially for the high-volume rifleman. Thankfully, there's a foreign-made solution — Barnaul — an inexpensive import from Russia.

However, does the maxim, “You get what you pay for,” apply here? Let's find out.

BACKSTORY

According to Barnaul Ammunition Co.'s website, its history can be traced to the 19th century when the company was founded in Saint Petersburg, Russia. From that original location, the factory designated “Arsenal P” faithfully supplied ammunition to the army during World War I until the Bolshevik Revolution in 1917 resulted in Russia's withdrawal from the Great War.

The same internal strife that brought Vladimir Lenin to power also led to Arsenal P's abandonment in 1918. Production was subsequently moved to Podolsk, south of Moscow. However, its location near the capital required that during the early days of World War II it be relocated once again. This time, the munitions manufacturer settled in Barnaul, deep within the Russian interior. It has remained there since.

The Barnaul Cartridge Plant CJSC, which is part of Barnaul Machine-Tool Plant JSC, currently manufactures ammunition suitable for plinking, competition, hunting and self-defense that's utilized worldwide. In fact, it's likely that you've used it unknowingly. It has been previously sold under names such as Bear (Brown, Silver and Gold variants), and is currently offered by Katy and Texas' Academy Sports in the value-priced Monarch line. MKS Supply of Dayton, Ohio,



recently began importing and marketing the Russian ammunition under the Barnaul name.

STEEL A STEAL OR NOT?

Consistent with other economical centerfire ammunition from Russia, Barnaul's sizable line features Berdan-primed (read that as nonreloadable), polymer- or lacquer-finished steel cases. The reasoning for the latter is simple: steel is less costly than brass, the savings of which are passed on to the consumer, and proportionally, most shooters aren't handloaders.

An unintentional benefit is ease of cleanup. A large magnet makes short work of collecting spent steel cases. Still, steel cases draw indignation from some shooters and firearms builders. Why?

According to the World Steel Association, there are four types of steel but more than 3,500 grades.

"Determining its grade is the amount of carbon,

alloys content [type and percentage], and the way it has been processed," wrote Mike Baufield on the Mead Metals, Inc. website. Thus, steel's properties can and will vary greatly.

Therein lies the rub; the hardness of case steel could be such that it potentially affects functionality and longevity of the AR. Reportedly, the steel employed in Barnaul's single-use cases is "softer" than that used in AR parts, thereby preventing damage.

"The expansion and rebound rates of steel cases is different that of brass cases," said Rock River Arms LE/Government Sales Manager Steve Mayer. "That can reduce the use-life of the extractor and can create timing issues with the proper function of the rifles."

Accordingly, Rock River Arms' LAR-15 Rifles and Pistols Operating & Safety Instructional Manual states, "Always use factory new (not

FROM RUSSIA WITH LOVE

“ ACCORDING TO THE WORLD STEEL ASSOCIATION, THERE ARE FOUR TYPES OF STEEL BUT MORE THAN 3,500 GRADES. ”

reloaded or remanufactured), brass-cased, American-made (by commercial manufacturer) ammunition... ”

Although it doesn't expressly disallow the use of steel-cased ammunition, Springfield Armory's Media Relations Manager Mike Humphries said, "Springfield Armory strongly recommends the use of traditional, brass-cased ammo, as steel-cased ammo can cause issues in AR-pattern guns. However, using steel-cased ammo will not void the warranty."

Conversely, Ruger Director of Product Management Mark Gurney held, "We have no problem with steel-cased ammo. We don't have a written warranty. We do have a policy — we want happy customers. We have a solid reputation for being more than fair, even when the gun may have had a hard life."

If you care to keep your firearm's warranty valid, double-check to determine if there's a clause disavowing the use of steel-cased ammunition. Some companies do, and utilizing the loads will negate the coverage.

BARNAUL'S BULLETS

BarnauL offers a reasonable selection of bullets to match the target. For instance, in .223 Rem. the company has full-metal-jacket boattail (FMJ-BT), soft-point boattail (SPBT) and hollowpoint boattail (HPBT) bullets in both 55- and 62-grain weights. This will endear it to the recreational shooter, competitor and high-volume varmint.

Concerning the latter, it's not uncommon for the prairie-dog and ground-squirrel shooter armed with an AR to expend in excess of 1,000 rounds per day. Providing reliable expansion, the HPBT and SPBT bullets would be good choices for this application, while the FMJ-BT is useful for punching paper and ringing distant steel.

Is BarnauL's .223 Rem. lineup as diverse as is available premium American ammunition? No. But, BarnauL's variety in value-priced .223 Rem. loads is nevertheless impressive.

BarnauL's AR offerings go beyond .223 Rem. The company also has a 6.5 Grendel load featuring a 100-grain FMJ bullet that, according to the company's specifications, has a G1 BC of .515 and is rated at 2,707 feet per second (fps). In 5.45x39mm, there are 55-grain SPBT and HPBT options as well as a 60-grain FMJ.

For the .308 Win. (7.62x51mm) fan, BarnauL loads a 145-grain FMJ at 2,756 fps, while the 168-grain FMJ (with a .479 G1 BC) hits 2,625 fps. For hunting and self-defense, there's a 140-grain SP at 2,759 fps as well as a 168-grain SP at 2,618 fps. The sole hollowpoint in .308, a 150-grainer, attains 2,750 fps.

✦ Regardless of its design or diameter, BarnauL bullets have a lead core contained within a multi-metal jacket. Whereas most American manufacturers employ gilding metal (copper-zinc) jackets on their projectiles, those from BarnauL are made with copper-clad steel. Yes, steel.

✦ Since the copper is insufficiently thick to prevent the steel bullets from contacting the rifling, the resulting effect on rifling wear is hotly debated on forums. However, through exhaustive testing of such ammunition, Lucky Gunner Labs (luckygunner.com) noted accelerated deterioration. Again, there's a cost for going economical and only you can determine if the cost of admission is worth the price.

COMPLETE TESTING

Russian-made ammunition isn't purchased for precision so much as it is for economy, and realists understand the tradeoff for reduced cost is typically lesser performance. So don't expect it to perform to the level of premium American-made ammunition. Still, it must attain decent accuracy to engage small targets at extended range.

To evaluate BarnauL ammunition, I requested an assortment of the company's .223 Rem. loads and headed to the range with a Rock River Arms LAR-15 R3 Competition Rifle topped with a Leupold VX-3i 4.5-14x40mm scope. Before testing began, the barrel was thoroughly cleaned to gauge cleanliness at the test's conclusion.

From a weighted Caldwell 7 Rest, three five-shot groups were fired at 100 yards with each of the five loads provided (the 55-grain HPBT wasn't included). Of those utilized, the standout from the R3's 18-inch, 1:8-inch-twist barrel was BarnauL's

PRICECHECK

When looking at budget options, there are always going to be positives and negatives. So how much can you save per round?

.223 Rem.

STEEL: 23.5¢
BRASS: 43.0¢
Savings per 1,000 rounds: \$195

.308 Win.

STEEL: 44.0¢
BRASS: 85.0¢
Savings per 1,000 rounds: \$410

6.5 GRENDEL

STEEL: 41.0¢
BRASS: 80.0¢
Savings per 1,000 rounds: \$390

9mm

STEEL: 25.0¢
BRASS: 29.6¢
Savings per 1,000 rounds: \$146



TEST RESULTS

LOAD: .223 REM.

55-gr. FMJ-BT	55-gr. SPBT	62-gr. SPBT	62-gr. FMJ-BT	62-gr. HPBT
Velocity (fps)				
3,014	3,030	2,884	2,843	2,885
Standard Deviation				
15	29	21	24	31
Extreme Spread				
34	79	53	52	81
Group Size (in.) Smallest				
1.28	2.28	.9	1.4	1.28
Group Size (in.) Largest				
2.03	2.78	1.28	1.9	1.78
Average Group (in.)				
1.61	2.57	1.11	1.65	1.53

Accuracy is the average of three five-shot groups from a rest at 100 yards. Velocity is the average of 10 shots recorded by a Caldwell Ballistic Precision Chronograph placed 10 feet from the muzzle.

62-grain SPBT, which averaged 1.11 inch for the 15 consecutive shots.

Four of the other offerings had averages measuring slightly more than 1.5 inches but less than 1.75 inches. The outlier was the 55-grain SP, which had an unimpressive mean of 2.57 inches for the three groups.

During testing, it was observed on multiple occasions, three, if not four shots clustered tightly — sometimes exceptionally so — before an errant one (or two) increased group size notably. Still, for engaging targets, varmints and predators at close to midrange, all but the one .223 Rem. load provided ample accuracy for doing so. Keep in mind, though, that the test was conducted using a single rifle, so results will vary.

Besides evaluating accuracy, I also tested the BarnauL ammunition for consistency. Due to the R3's abbreviated barrel, the velocities were notably lower than published numbers (that's not relegated to just BarnauL), but we were able to ring out extreme spreads (ES) and standard deviations (SD). We also noted no failures to feed, fire, extract and eject were encountered in the more than several hundred rounds being expended for accuracy, function testing and chronographing.

With testing complete, I disassembled the rifle and cleaned the barrel using a regimen of patches soaked with Montana X-Treme Bore Solvent with intermittent brushing. Nothing atypical or excessive was noted.

BarnauL ammunition comes in no-frills, cardboard boxes with 20 rounds wrapped in paper and stapled closed to prevent spilling. Between each five rounds is a separate sheet of paper. When compared to American and European packaging, it might be viewed as crude, but the packaging occupies less space for easier transport/storage, and there's less to discard or recycle. Personally, I find it more practical and appealing.

As for cost, a quick internet search revealed BarnauL 55-grain FMJ-BT .223 Rem. ammunition could be had for less than \$4 per 20 rounds, and all options in the aforementioned cartridge were less than \$5. Surprisingly, 6.5 Grendel was only slightly more expensive than both .223 Rem. and 7.62x39mm. The .308 Win. loads were around \$10 for a 20-count box. It's little wonder why imported, steel-cased ammunition is popular among high-volume shooters.

Ultimately, the decision to use economical, steel-cased Russian ammunition, such as that from BarnauL, is predicated by one's view of his or her rifle, as well as having accurate expectations of the product itself. Concerning the former, if you view your AR as a tool, not a safe-relegated trophy that's subject to wear and are willing to replace the extractor and/or barrel as needed, even at increased intervals, then it's a good candidate for you.

Likewise, shooters and hunters who are literally seeking "more bang for the buck," and are willing to accept a lessening of performance to attain such, will appreciate BarnauL ammunition. To me, the decision is a no-brainer. *



Are steel-cased rounds worth it? If price-per-shot matters to you, they are the best option.