

EAA "BLACK ARROW" M93 RIFLE



If a single word could describe the Serbian "Black Arrow" M93 .50 BMG, it would be "massive." At 40 lbs. and nearly 60" in length, everything about this rifle is classic Model 98 Mauser magazine-fed, bolt action—except on a steroidal scale.

Imported by European American Armory (EAA) in Rockledge, Fla., the .50 BMG M93 Black Arrow is manufactured by Zastava Arms factory in Kragujevac, Serbia. Established in 1857, Zastava is among the oldest armsmakers in the world.

The Model 93 Black Arrow has been in service since 1990, first in the former Yugoslavia and now with Serbian armed forces. It is produced in two variants; one is chambered in the potent Russian DSHK 12.7x107 mm, and the other in .50 BMG is imported by EAA.

Machined from a solid block of

ordnance steel, the massive square receiver is 14" long, 3" tall, and 2" wide. The detachable five-round box magazine is held in place by a spring-loaded pivoting latch located midway on the right side of the receiver.

The 3-lb., 1"-diameter, 11"-long bolt is a standard controlled-round-feed 98 Mauser; with a claw extractor, dual opposing front locking lugs and a safety lug at the rear. The bright blued bolt is finely machined and polished giving it a very slick feel in the receiver raceways. The bolt handle—measuring 3½" from the root to the ball—provided sufficient leverage to open the action. Even so, some rounds required "gentle application of a soft rubber hammer to open the bolt—a condition not uncommon with .50 BMG rifles.

Two large gas-relief ports are located an inch behind the lugs

to divert gas into the magazine well in the event of a compromised primer or case. In addition, the back of the bolt is capped to prevent any escaping gas from reaching the shooter. The finish on the rifle provides a black, non-reflecting surface.

The 33"-long slightly tapered fluted bull barrel measures 1.26" in diameter at the fore-end and 1.1" at the muzzle. The blocky muzzle brake has four opposing square horizontal chambers that direct gas rearward at a 60 degree angle. Eight deep lands and grooves produce a 1:15.5" right-hand twist.

The Black Arrow is equipped with a non-removable bipod of robust design. The 9" legs extend to 13" and are locked by a threaded, knurled collet tube. Their short, welded, sheet-metal duck feet give stability and prevent digging into soft soil. The one fault with the bipod is its location—the back of the short composite fore-end at the dead center of gravity of the rifle. With the bolt removed, the rifle is very muzzle heavy.

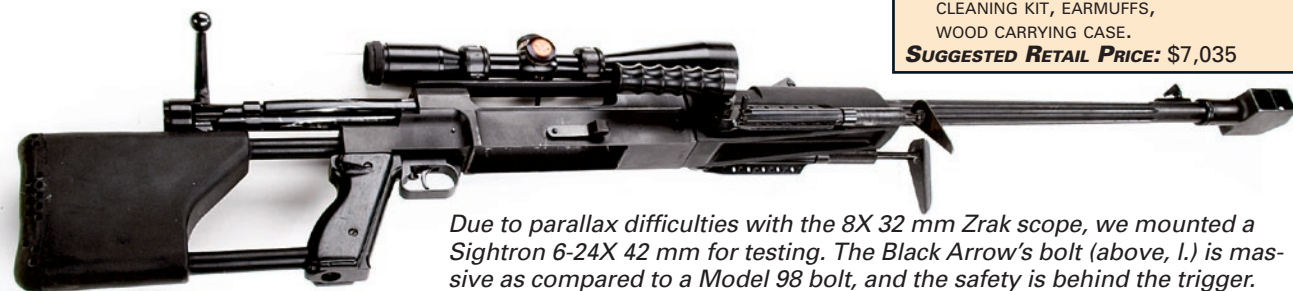


The Black Arrow comes as a kit inside a wooden crate, complete with its scope and bipod. Recoil was not unpleasant, as the big gun tops the scales at about 40 lbs.

SHOOTING RESULTS (100 YDS.)

.50 BMG CARTRIDGE	VEL. @ 10' (F.P.S.)	ENERGY (FT.-LBS.)	GROUP SIZE IN INCHES		
			SMALLEST	LARGEST	AVERAGE
BARRETT .50 BMG BALL, M33, 661-GR. FMJ	2842 AVG. 6 SD	11,098	2.20	6.11	4.01

MEASURED AVERAGE VELOCITY FOR 10 ROUNDS FROM A 34" BARREL OVER AN OEHLER MODEL 35P CHRONOGRAPH. RANGE TEMPERATURE: 68° F. HUMIDITY: 58%. ACCURACY FOR FIVE CONSECUTIVE, FIVE-SHOT GROUPS AT 100 YDS. FROM A SANDBAG. ABBREVIATIONS: FMJ (FULL-METAL JACKET), SD (STANDARD DEVIATION).



Due to parallax difficulties with the 8X 32 mm Zrak scope, we mounted a Sightron 6-24X 42 mm for testing. The Black Arrow's bolt (above, l.) is massive as compared to a Model 98 bolt, and the safety is behind the trigger.

The 8X 32 mm Zrak 1"-tube scope is mounted in rings lined with a relatively hard neoprene. The rings, hinged at the top, are secured to a massive tip-off mount by two slot-head screws. The 10" long scope mount straddles the entire receiver on a flat that is milled at 30 degrees. Removing the mount is accomplished by releasing the lever and holding down the detent and sliding it back off the dovetails.

With the large objective bell, light transmission is excellent, with good contrast and little spherical aberration, though the lens coating produces a greenish tint. The windage and elevation on the Zrak scope are coarse, each click providing approximately 3 m.o.a. of movement. Clicks are precise, as is return to zero. The glass also suffers from parallax; head movement produces 4" of apparent reticle movement at 100 yds., which we found frustrating. For that reason we mounted a Sightron 6-24X 42 mm scope in the supplied 1" rings.

The trigger pull was gritty,

with unpredictably long creep. Its almost 9-lb. let-off detracted greatly from the accuracy potential of the rifle, though the gritty feel smoothed out with wear after about 20 rounds.

There is one other design feature of the Black Arrow that tends to hinder accuracy for some shooters. In order to accommodate the long bolt, the comb of the glass-fiber composite stock lines up just below the bolt when the action is fully open. The operator must assume a heads up position. Though not natural, it can be mastered.

Given the relatively short eye relief of approximately 3", initial trepidation over possible bruised or cut eyebrows, proved unfounded. Recoil is further mitigated by a generous 1" recoil pad and by a pair of heavy spring buffers mounted in the two steel tubes that fasten the buttstock to the rear of the receiver and to the bottom of the pistol grip.

In accuracy testing, the rifle was nestled in a Caldwell Lead Sled

EAA M93 BLACK ARROW

MANUFACTURER: ZASTAVA ARMS, KRAGUJEVC, SERBIA

IMPORTER: EUROPEAN AMERICAN ARMORY (DEPT. AR), 402 RICHARD ROAD, ROCKLEDGE, FL 32955; (321) 639-4842; WWW.EAACORP.COM

CALIBER: .50 BMG

ACTION TYPE: CENTER-FIRE, REPEATING BOLT-ACTION RIFLE

RECEIVER: BLUED STEEL

BARREL: 33", 36" WITH MUZZLE BRAKE

RIFLING: EIGHT-GROOVE, 1:15.5" RH TWIST

MAGAZINE: MAUSER-STYLE STAGGERED DETACHABLE BOX; FIVE-ROUND CAPACITY

SIGHTS: ZRAK 8X 32 MM SET IN INTEGRAL TIP-OFF MOUNT; FLIP-UP IRON SIGHTS.

TRIGGER PULL: SINGLE-STAGE; 9 LBS

STOCK: BUFFERED COMPOSITE; LENGTH OF PULL, 13½"; DROP AT HEEL 2½"; DROP AT COMB 2½"

OVERALL LENGTH: 60"

WEIGHT: 40 LBS WITH SCOPE AND MOUNT

ACCESSORIES: EXTRA MAGAZINE, CLEANING KIT, EARMUFFS, WOOD CARRYING CASE.

SUGGESTED RETAIL PRICE: \$7,035

DFT with a single 25-lb. bag of shot for ballast weight. In all, we fired 80 rounds of ball ammunition. There were no failures to feed. Functioning was surprisingly smooth and consistent, using the two magazines provided with the rifle.

Range testing of the Black Arrow was accomplished with a single lot of Barrett headstamped .50 BMG M-33 Ball loaded with 661-gr. FMJ bullets. The rifle was sighted-in at 100 yds., and the five-shot groups produced an average of 4". Accuracy improved at 200 yds. as the bullets stabilized. The rifle tended to string vertically when the barrel became heated. Cooling between shots produced consistent groups.

The rifle comes with two magazines, a wooden crate carrying case, cleaning rod and other accessories. As a long-range shooter, the Black Arrow exhibits considerable potential. For Mauser collectors, it is a true rarity among military long-range rifles and might well find a place beside the equally massive venerable World War I *Panzerbuchse* 1918. 