

# DOPE BAG

The American Rifleman has used the phrase "Dope Bag" at least since 1921, when Col. Townsend Whelen first titled his column with it. Even then, it had been in use for years, referring to a sack used by target shooters to hold ammunition and accessories on the firing line. "Sight dope" also was a traditional marksman's term for sight adjustment information, while judging wind speed and direction was called "doping the wind."

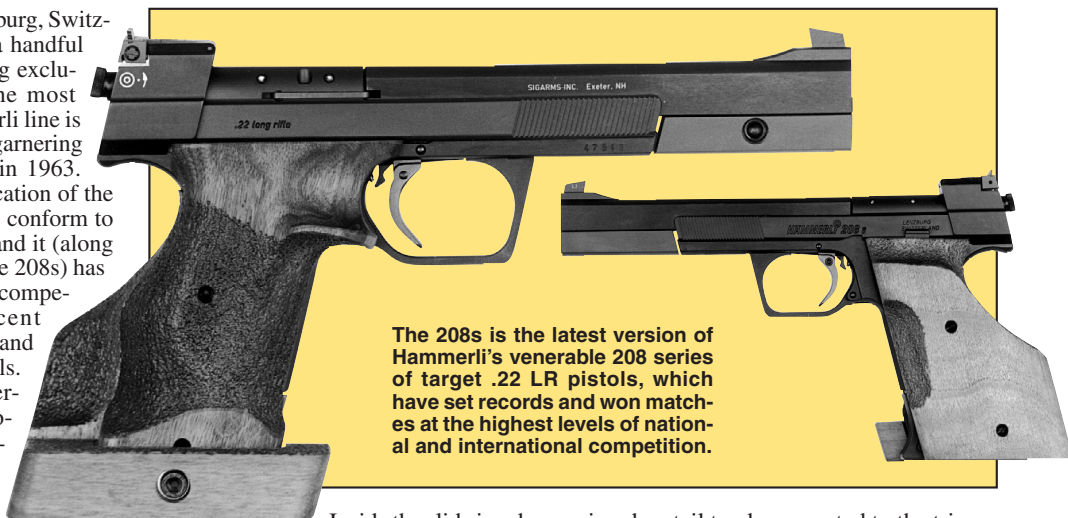
**CAUTION:** Technical data and information contained herein are intended to provide information based on the limited experience of individuals under specific conditions and circumstances. They do not detail the comprehensive training procedures, techniques and safety precautions absolutely necessary to properly carry on similar activity. Read the notice and disclaimer on the contents page. Always consult comprehensive reference manuals and bulletins for details of proper training requirements, procedures, techniques and safety precautions before attempting any similar activity.

## HAMMERLI 208s

**H**AMMERLI, LTD., of Lenzburg, Switzerland, is one of only a handful of gunmakers producing exclusively target arms. One of the most enduring staples in the Hammerli line is the 208 series, which has been garnering medals since its introduction in 1963. The original 208 was a modification of the firm's 206 pistol to enable it to conform to competition rules in the U.S., and it (along with the most recent variant, the 208s) has become one of the winningest competition pistol designs of recent decades, earning many national and international records and medals.

The 208s is a blowback-operated, single-action semi-automatic pistol having a fixed barrel, adjustable target-type sights and an ergonomic wrap-around walnut grip. All 208s pistols have blued steel frames and barrels, with polished flats on the barrel and frame and a matte black finish on the other surfaces. The barrel and frame are permanently threaded together to form a single rigid unit. The frame has rear rails on which the slide rides. The slide extends forward around and under the barrel, and is tensioned by a single captive coil spring.

Pulling the trigger pivots the trigger seesaw, which draws the trigger bar forward to rotate the sear out of the hammer notch, allowing the hammer to fall forward under spring tension to strike the firing pin. During recoil, an angled cut on the underside of the slide cams downward the trigger bar, disconnecting it from the sear and allowing that part to reset. Near the end of its stroke the slide also cocks the hammer, which is retained by the sear.



The 208s is the latest version of Hammerli's venerable 208 series of target .22 LR pistols, which have set records and won matches at the highest levels of national and international competition.

Inside the slide is a double-pinned block bored out to accept the pistol's inertia firing pin. On the right side of the breechface is the claw of a long, spring-tensioned extractor. A thick ejector pinned to the left side of the frame rides in a recess in the slide and kicks the empty brass out after the slide has recoiled about 1".

As expected on a target pistol of the 208s' quality and price, the gun's trigger is almost infinitely adjustable. The trigger piece can be moved longitudinally more than 1/2" by loosening and then retightening a set screw that clamps the pistol's split trigger around the trigger seesaw (a pivot-

ing dovetail track connected to the trigger bar). Overall trigger weight is the sum of trigger slack weight and trigger pull weight, both of which are user-adjustable. Trigger pull travel and coupling creep between the trigger bar and sear are also adjustable using the supplied Allen wrenches. From the factory, the trigger is set at 1,000 grams (2.2 lbs.) in accordance with international rules. It is worth noting that changing factory trigger settings is potentially hazardous, and many users should refer adjustments to a gunsmith.

The safety consists of a serrated cylindrical piece located at the end of the slide. When the safety piece is rotated so that the white mark faces upward, an internal block prevents the hammer from falling and the



Disassembly begins by turning out the rear sight screw (left) and pulling the sight rearward off the frame. Loosen the clamp screw on the barrel weight and remove it forward (above). Retract the slide, pull its rear up and back and remove it forward.



## HAMMERLI 208s

**MANUFACTURER:** Hammerli, Ltd.,Target Arms, Dept. AR, CH-5600  
Lenzburg, Switzerland**IMPORTER:** Sigarms, Inc., Dept. AR,Corporate Park, Industrial Drive,  
Exeter, NH 03833**MECHANISM TYPE:** blowback-operated  
semi-automatic pistol**CALIBER:** .22 LR (standard velocity only)**OVERALL LENGTH:** 10"**BARREL LENGTH:** 6"**WEIGHT:** 38 ozs.**WIDTH:** 2"**HEIGHT:** 6"**MAGAZINE CAPACITY:** eight**TRIGGER:** two-stage, 2½ lbs.**SIGHTS:** undercut post front; rear notch  
adjustable for windage and elevation**STOCK:** walnut, oversize with adjustable  
hand support**ACCESSORIES:** cleaning kit, four Allen  
wrenches, combination tool, dry fire  
plug**PRICE:** \$1925

pistol is in the "safe" condition. Rotating the safety so that the red mark is visible unblocks the hammer, and the pistol may be fired. Note that when the slide is locked back, the safety must be in the "fire" position for the slide to go into battery.

Sights are an undercut post in front and a notched rear blade adjustable for windage and elevation. The rear sight is located on a mounting plate that straddles the slide and attaches directly to the frame. The owner's manual lists several front sight elements varying in width and height that are retained by a spring-loaded detent ball. Also interchangeable are the three available rear sight blades having notches 3.2, 3.6 and 4.0 mm wide. Elevation is adjustable through a screw in the sight body; windage through a screw on the right side of the rear sight blade support. Each click of windage or elevation adjustment moves bullet impact 10 mm (.4") at 25 meters, or 20 mm at 50 meters. Adjusting elevation and windage, as well as changing rear sight blades, can be done using the supplied combination tool.

Since optimum balance varies from shooter to shooter, the 208s is able to accept three different barrel weights: an 80-gram standard weight, and optional 200- and 270-gram weights.

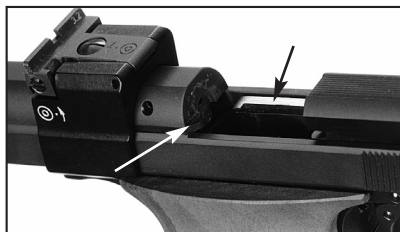
Grip shape and size also contribute to the overall ergonomics of the pistol. The 208s pistols imported here come with UIT-style target stocks with stippling and a hand support, in right-hand and left-hand versions and in small and regular sizes, as well as an extra large right-hand set. The hand support is attached to the appropriate stock panel by way of a slot that allows a 1/2" range of vertical adjustment.

The pistol's eight-round magazine has a steel body, a viewing slot that reveals the remaining rounds, a serrated button allowing retraction of the follower to ease loading and a polymer extension to facilitate seating with the extended stocks. The magazine is released by pushing its catch rearward. After the last round in the magazine is fired, the follower lifts the breech catch to hold the slide back.

Basic disassembly, detailed in the accompanying photo sequence, reduces the pistol to slide and barrel/frame sub-assemblies; further disassembly is not required for normal maintenance, which Hammerli advises be done every 1,000 rounds. Interestingly, unlike most contemporary owner's manuals, the manual for the 208s gives complete instructions for stripping the pistol down to the last pin.

We received a 208s with right-hand UIT-style stocks. Hefting the pistol experimentally, we found the stocks to be com-

**This view of the rear of the 208s (below) shows the adjustable rear sight (note windage and elevation screws), claw extractor (left arrow) and frame-mounted ejector (right arrow). The Hammerli's trigger position can be adjusted more than 1/2" fore and aft. Screw in trigger seesaw (arrow) adjusts trigger slack; pull weight and overtravel are set by way of the small screws accessed inside the magazine well.**



fortable, though angular, but with plenty of meat for the custom-contouring that most shooters will do.

The 208s was fired for accuracy with the results in the accompanying table, and was function-fired with varied target ammunition, including CCI, Eley, Federal, RWS and Winchester. There were no malfunctions. No high-velocity ammunition was tried, as the manufacturer warns that such fodder may damage the pistol.

At first glance, our accuracy results with the 208s might seem somewhat disappointing, given its reputation and the one-hole, 25-meter test target that was enclosed with the pistol. That target, however, was shot with the barrel clamped in a special fixture.

While a few pistols we have tested here recently grouped better than the 208s, those guns were either fitted with telescopic sights or fired from our Ransom Rest, or both. Given that the Hammerli was fired off sandbags using iron sights, its accuracy was very good indeed, and it would be difficult to name another pistol we have tested under the same conditions that shot better.

The Hammerli's handling and ergonomics were fully up to what one would expect from an Olympic-quality target pistol. Balance, grip comfort and trigger quality were all judged to be very good. The standard 80-gram barrel weight seemed to give the ideal degree of muzzle-heaviness, and the supplied 3.2 mm (.125") front sight post filled the 3.2 mm rear notch well, leaving the right amount of daylight visible on each side of the post.

A subtle but significant advantage of the 208s is its slender profile compared



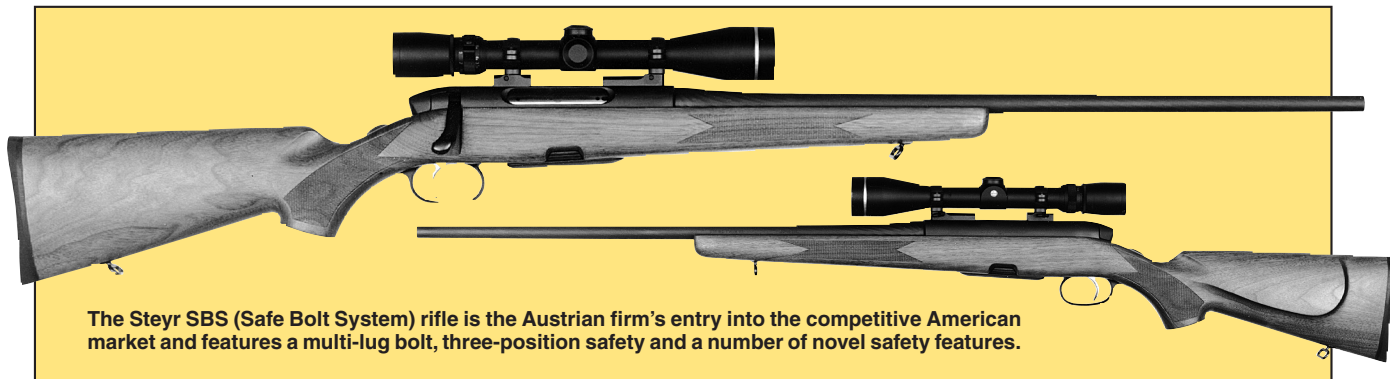
with many more "modern" designs. This profile reduces the amount of arm sway caused by crosswinds at the firing line, and helps to explain why the 208s is favored by many individuals and teams at Camp Perry and other outdoor venues.

Judging by its ergonomics, accuracy, reliability and overall high level of quality, as well as its reputation among world-class shooters, the Hammerli 208s would seem to be an excellent choice for those seeking an arm capable of taking them to the highest levels of competition. **NRP**

## ACCURACY RESULTS

.22 LR Cartridge	Vel. @15' (f.p.s.)	Smallest (ins.)	Largest (ins.)	Average (ins.)
Fed. Ultra Match	1056 Avg. 8 Sd	0.56	1.25	1.00
Lapua Match Grade	1030 Avg. 18 Sd	0.63	1.16	0.92
RWS Pistol Match	949 Avg. 19 Sd	1.25	1.61	1.46
Average Extreme Spread				1.12
Five consecutive 5-shot groups from 25 yds., fired from sandbags. Abbreviations: Sd (standard deviation), Fed. (Federal)				

## STEYR SYSTEM SBS RIFLE



The Steyr SBS (Safe Bolt System) rifle is the Austrian firm's entry into the competitive American market and features a multi-lug bolt, three-position safety and a number of novel safety features.

**L**ONG a name well-known to aficionados of European-style sporting arms, Steyr Mannlicher AG has, in recent years, tended to produce guns having a price tag out of reach of the average American hunter. About six years ago, Steyr began developing a new rifle that, by employing advanced engineering and manufacturing concepts, would have the quality, features and cost to compete in the American market. The result is the Steyr SBS (Safe Bolt System) rifle.

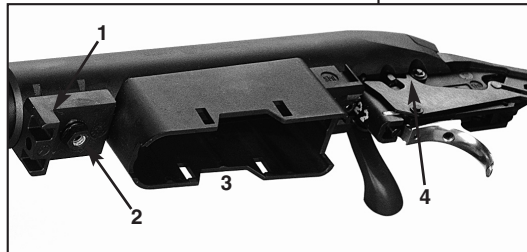
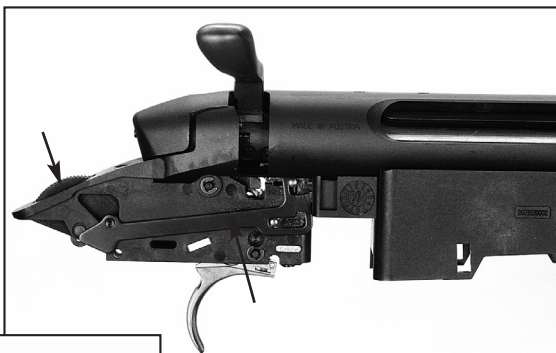
The SBS is available in several variants: a wood-stocked Forester model, a synthetic-stocked Pro Hunter and a Mannlicher model with a polished blue finish and several barrel and stock options, including a traditional Bavarian stock with rosewood Schnabel fore-end tip. Two action lengths are available, for .308- and .30-'06-length cartridges. All current SBS versions are of blued chrome-moly steel only. American chamberings include the .243 Win., .25-'06 Rem., .270 Win., 7 mm-08 Rem., .308 Win. and .30-'06, with magnum chamberings in 7 mm Rem. Mag. and .300 Win. Mag. Also available are the European 6.5x55 mm, 6.5x57 mm, 7x64 mm and 9.5x62 mm, and the 6.5x68 mm and 8x68S magnums. Barrels are 23.6" long (600 mm), except on magnum rifles, which sport 25.6" tubes.

The receiver of the System SBS is a 1.372"-diameter tube about 8½" long, with a section of its top ground to a flatter contour to accommodate Browning A-Bolt-pattern scope mounts, which attach by way of four drilled and tapped mounting holes. The SBS rifle's minimum-dimension ejection port, a Steyr trademark, impedes entry of dirt, twigs and so forth while enhancing receiver rigidity (though it may make single-loading with heavy gloves much more difficult).

The Steyr uses a full-diameter bolt whose body and lug circle have the same .825" diameter. The .636"-diameter bolt head has a .135" recessed face and features a plunger ejector opposite a spring-loaded

claw extractor about .19" wide, as well as four lugs arranged in two 180°-opposed rows in the bolt head, giving a 90° bolt lift. The two rear lugs are smaller than the front lugs; all are surprisingly beefy for a multi-lug full-diameter bolt, measuring some .367" wide and about .1" high, giving a theoretical bearing area close to .15 sq. in.—more than that of almost all American bolt

**This right-side action view shows the distinctive Steyr bolt shroud profile and handle pattern, as well as the roller safety (left arrow) and the linkage arm (right arrow) that cams down the bolt stop when the safety is in the "safe" position, allowing bolt removal. The left-side view (below) shows (1) the recoil lug attached by a machine screw (2) having a threaded hole for the forward stock screw; (3) the polymer magazine well with slots for the magazine lug detents; and (4) the sear-blocking safety linkage.**



to vent gases from a case rupture or primer leak.

An oval groove in the bolt body .120" wide and .050" deep surrounds the ejection port and serves to keep ice and dirt from building up between the bolt and receiver and impeding operation. A straight track

.160" wide by .085" deep along the bolt's underside is engaged by the bolt stop to help guide bolt movement.

The rear section of the bolt, which forms the rifle's familiar butter-knife bolt handle, is separate from the forward portion, and the two parts are keyed together and joined by three hex-head set screws. At the rear of the bolt shroud, which blends sleekly with the receiver contour, is an indicator pin that protrudes when the firing pin is cocked.

Inside the bolt body are dual opposed cocking cams, a feature considered by some

guns. However, due to the substantial cams cut into the lug corners, which reduce the area of the lug face available for seating, the actual bearing area is actually only about .1 sq. in. This figure, as well as the Steyr's calculated lug shear area, is more in line with that of popular commercial bolt-action designs.

Rather than engaging seats contained within the receiver ring, the bolt lugs lock into a barrel extension. This bolt-to-barrel lockup simplifies manufacture and permits faster, easier headspacing.



## STEYR SBS

**MANUFACTURER:** Steyr Mannlicher Ges. m.b.H., Shoenauer Strasse 5, 4400 Steyr, Austria

**IMPORTER:** GSI, Dept. AR, 108 Morrow Ave., Trussville, AL 37173

**MECHANISM TYPE:** bolt-action rifle

**CALIBER:** .30-'06 (tested), .243 Win., .25-'06 Rem., 6.5x55 mm, 6.5x57 mm, .270 Win., 7 mm-08 Rem., 7x64 mm, .308 Win., 9.5x62 mm, 6.5x68 mm, 8x68S, 7 mm Rem. Mag. and .300 Win. Mag.

**OVERALL LENGTH:** 44½"

**BARREL LENGTH:** 23¾"

**WEIGHT:** 7 lbs., 6 ozs.

**MAGAZINE CAPACITY:** four

**RIFLING:** four-groove, RH twist

**TRIGGER:** two-stage, 3½-lb. pull

**SIGHTS:** none; receiver drilled and tapped for scope mounts

**STOCK:** walnut; length of pull, 13½"; drop at heel, 1½"; drop at comb, 1½"

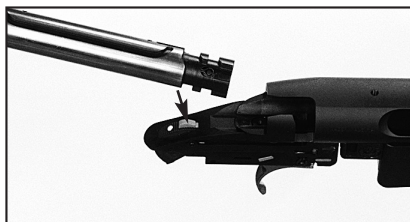
**ACCESSORIES:** sling swivels

**PRICE:** Forester, \$929 (standard calibers), \$1045 (magnum calibers); Pro Hunter, \$799 (standard calibers), \$899 (magnum calibers); Mannlicher from \$2795 (standard calibers), \$2995 (magnum calibers)

to better balance cocking forces and to give smoother bolt lift.

Bolt disassembly, though not required for routine cleaning and maintenance, is accomplished by simply depressing the disassembly button on the left side of the shroud and then turning the shroud about 1/4" clockwise. The shroud, firing pin and firing pin spring, as well as the cocking cam ring, can then be easily slid rearward out of the bolt body. Reassembly is in the reverse order.

A large L-shaped recoil lug is located beneath the receiver ring and is attached to the receiver by both a large machine screw



**Bolt removal is accomplished by lifting the bolt handle, rotating the roller safety until the gray button (arrow) appears, and pulling the bolt rearward and out of the receiver.**

and two crossribs on the lug that engage cross-slots cut into the underside of the receiver. The head of the machine screw is itself drilled and tapped for the forward stock screw.

The polymer magazine well has two elongated slots on each side that are engaged by laterally-protruding lugs on the magazine body. Pinching in the bilateral maga-

zine catches retracts the lugs and releases the magazine. Each lug has two detent positions. When in the first detent position, the magazine protrudes about 1/4" from the stock, and cartridges are prevented from feeding from the magazine when the bolt is cycled. Seating the magazine flush with the stock engages the upper detent position and allows normal feeding.

Behind the magazine well is the polymer trigger housing that extends rearward to form the rifle's tang. Although there seem to be trigger adjustment screws in the trigger piece, both pull weight and pre-travel are set at the factory and are not to be changed by the end user. Curiously, while the trigger face is smooth, the back of the trigger is serrated.

Also attached to the trigger housing is the Steyr's safety mechanism, which forms an integral part of the Safe Bolt System. Rotating the safety roller all the way forward exposes a red dot, indicating that the rifle is ready to fire. When the safety is rotated rearward to the "ready" position, exposing a white dot, a left-side linkage blocks the sear from releasing the cocking piece, while still allowing the bolt to be worked.

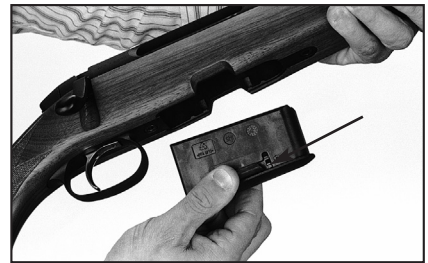
Further rearward rotation of the safety



**The SBS bolt head has four locking lugs in two opposed rows, a claw extractor and plunger ejector, and a machined groove on the bolt body for ice and dirt build-up (arrow).**

piece to the "safe" position exposes a gray plastic button that pops up to block the safety piece from being rotated forward. When the tang safety is in this position and the bolt is closed, pushing down on the bolt handle about 1/2" locks both the handle and the firing pin. They are released only when the gray button is pressed and the safety is rotated back to the "ready" or "fire" positions.

If the roller safety is moved to the "safe" position while the bolt is open, a right-side linkage cams downward the rifle's bolt stop, allowing bolt removal. The gray button must be depressed before the safety can be rotated forward, a feature preventing the safety piece from being inadvertently moved to either the "ready" or "fire" positions with the bolt removed; in either of those positions, the bolt stop is



**Depressing the bilateral magazine catches on both sides of the magazine causes the spring-loaded lugs (arrow) to retract, allowing magazine withdrawal. Note the two detents on each lug, allowing two magazine positions as explained in the text.**

raised, making bolt reinsertion impossible.

We received a System SBS rifle chambered in .30-'06. Our gun was furnished with a plain but functional walnut stock having a raised cheekpiece, integral sling swivels and 22 LPI checkering in an unbordered point pattern. The execution of the checkering was generally competent, with no runovers, though there were several flattened diamonds. Clear bedding material was present inside the stock in the areas around both stock screws, and the barrel was free-floating forward of the receiver ring.

The rifle was fired for accuracy with the results in the accompanying table, and function-fired with mixed Federal, Hornady, PMC, Remington and Winchester ammunition. There were no functional failures.

Overall, we were impressed with the System SBS. Our test rifle's trigger was ideal for a hunting rifle, breaking at a crisp and creep-free 3½ lbs. Though bolt lift was somewhat stiff (possibly the result of the gun's newness), the rifle's bolt guide system gave slick, bind-free operation. The stock was also given high marks for properly positioning the head for scope use.

The Steyr System SBS combines traditional and modern elements of gun design with good performance, and constitutes a strong, accurate and competitively-priced European alternative to American arms. *NR*

## ACCURACY RESULTS

.30-'06 Cartridge	Vel. @15' (f.p.s.)	Smallest (ins.)	Largest (ins.)	Average (ins.)
Fed. No. 165-gr. TB	2769 Avg. 12 Sd	1.23	2.49	1.94
PMC No. ELD3006XA 150-gr. X-Bullet	2749 Avg. 21 Sd	2.15	2.88	2.56
Win. No. S3006X 180-gr. FS	2695 Avg. 38 Sd	0.99	2.04	1.64
Average Extreme Spread				2.04
Five consecutive 5-shot groups from 100 yds., fired from sandbags Abbreviations: Sd (standard deviation), Fed. (Federal), TB (Trophy Bonded), Win. (Winchester), FS (Fail Safe)				

## KAHR ARMS K40 PISTOL

**A**s we reported two years ago (July 1995, p. 36), the increasing demand for a backup or carry semi-automatic with the simplicity of operation of a double-action revolver has produced a new breed of "slick slide" compacts, so called because such pistols neither have nor need the protruding safety or decocker levers common to other autoloaders. The Kahr Arms K9 9x19 mm, introduced in 1995, has become a popular choice for those preferring such handguns, and, perhaps inspired by its success, the firm has now introduced a .40 S&W version of that gun called the K40.

The K40 is an all-steel, striker-fired semi-automatic pistol having a six-round single column magazine and Hogue pebbled rubber wrap-around stocks. Both stainless-steel and chrome-moly steel versions are available; the latter may be had in both matte black oxide and electroless-nickel-plated finishes. According to Kahr Arms, the K40 utilizes the same frame as the K9 as well as many internal parts, allowing about 90% parts interchangeability between the two. The primary differences lie in the barrels and slides; the slide of the K40 is .040" thicker and .1" longer, giving it about two ounces additional weight to help absorb the .40 S&W's increased recoil.

Mechanically, the new Kahr retains the same operating mechanism. Positioned in the rear of the slide is a spring-loaded striker with a downward-projecting lug that is engaged by the cocking cam, which has two



The new Kahr Arms .40 S&W K40 retains both the looks and features of its 9 mm predecessor, including its passive firing pin block and double-action-only striker-fire mechanism.

offset lobes and rotates around a pin in the frame. A right-side trigger bar connects the cocking cam to the trigger. Pulling the trigger draws the trigger bar forward, causing the lobes of the cocking cam to rotate rearward. The left-hand lobe draws the striker rearward against its spring; the other lobe pushes up the safety block in the slide. The safety block, in its downward position, blocks full striker travel.

At the end of the trigger stroke, the safety block is raised fully out of the striker's path, and the striker lobe of the cocking cam slips off the striker lug, allowing the striker to fly forward and hit the primer.

Disconnection is by the familiar upward-projecting tab on the trigger bar, which rests in a recess in the underside of the slide when that part is in battery. Slide motion upon firing cams the tab and trigger bar downward, disconnecting the trigger and the cocking cam and allowing the latter part to rotate forward to retain the striker, which is retracted by the recoiling slide. Reconnection occurs when the slide returns forward and the trigger is released.

Barrel locking and unlocking are accomplished by a kidney-shaped cam track in the barrel underlug that engages the slide stop pin. In battery, the blocky chamber portion of the K40's barrel engages the front edge of the ejection port in the pistol's slide, locking those two parts together. When the K40 is fired, the slide and barrel recoil together for 1/4" or so, at which point the engagement of the angled portion of the cam track with the slide stop pin has caused the barrel to drop about .040" down, unlocking it from the slide, which continues rearward to eject the spent case. On the forward stroke, the angled cam surface rides up the slide stop pin, lifting the barrel until it engages the slide. The barrel lug is

cut away somewhat on its right side to allow clearance for a thickened area of the frame that overhangs the head of the trigger bar.

Extraction in the K40 is by a massive claw at the rear of the ejection port that is tensioned by a spring-loaded plunger. The equally stout ejector is actually a forward extension of a part called the frame block, which is pinned in place in a cut at the top of the frame backstrap.



Disassembly of the Kahr Arms K40 begins in an M1911-like fashion, with removal of the slide stop after aligning that part with a disassembly notch for it on the slide.

### KAHR K40

**MANUFACTURER:** Kahr Arms, Dept. AR,

184 Prescott St., Worcester, MA 01605

**MECHANISM TYPE:** short-recoil-operated semi-automatic pistol

**CALIBER:** .40 S&W

**OVERALL LENGTH:** 6 1/4"

**BARREL LENGTH:** 3 1/2"

**WEIGHT:** 28 ozs.

**WIDTH:** 1 1/8"

**HEIGHT:** 4 1/4"

**MAGAZINE CAPACITY:** six

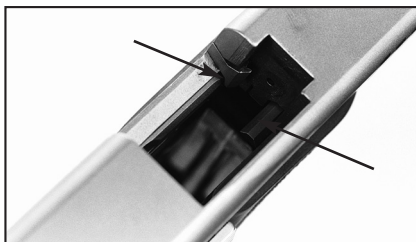
**TRIGGER:** 8 1/4 lbs. pull

**SIGHTS:** fixed, white dot on ramped front post, white bar under rear notch; drift-adjustable for windage

**STOCKS:** soft rubber wraparound, pebble-grain texture

**ACCESSORIES:** plastic carrying case, extra magazine

**PRICE:** matte black, \$552; stainless steel, \$602; electroless-nickel plated, \$626



The K40 has a beefier slide to handle the greater recoil of the .40 S&W cartridge. The K40 has a large claw extractor (left arrow) and a stout ejector (right arrow).

Kahr Arms to alert shooters to an empty magazine. Disassembly of the K40 is identical to that of its 9 mm predecessor, detailed previously.

We received a K40 finished in electroless nickel, giving the gun an attractive golden-silver appearance that was even and free of blemishes. According to Kahr, the pistols are plated by Westfield Electroplating, which also does work for several other firearms manufacturers.

We fired the K40 for accuracy with the results in the accompanying table, and function-fired the pistol with more than 300 rounds of mixed Black Hills, CCI, Federal, Hornady, PMC and Winchester ammunition. Overall average accuracy, at a hair under four inches at 25 yds., was equal to that of the K9, and more than adequate for its intended self-defense purpose. There was only a single failure to feed, with a Hornady XTP load.

Our first impression of the K40 was pretty much the same as for the K9: the little pistol felt surprisingly substantial for its size, the result of its all-steel construction. Machining quality was quite good, and the robustness of its parts gave one the impression that the pistol had perhaps been over-engineered—a desirable and comforting trait in a personal protection gun. Kahr Arms reports that in its own torture tests, the K40 withstood more than 10,000 rounds with no disabling failures and only regularly-scheduled cleaning and spring replacement.

The K40's recoil was sharp, as was to be expected from the .40 S&W, but not unpleasant nor uncontrollable. The pistol's 8½-lb. trigger pull weight was smooth, with no grittiness and very little stacking, and reminded us of a good revolver trigger. For some, it will take a little mental adjustment to get used to a semi-automatic pistol having no safety, decocker or hammer, nor indicators showing a loaded chamber or cocked striker. The Kahr K40 is thus similar to a typical double-action revolver, and requires the same level of care in its use and operation.

Few criticisms can be leveled at the K40. Chief among them would probably be its 28-oz. weight, which will tend to cause trousers to sag and purs-



Barrel lockup in the K40 is accomplished by way of a kidney-shaped cut in the lower barrel lug that engages the slide stop pin, causing the barrel to be cammed down as the slide retracts and up as it goes into battery.

es to bulge a bit more than would a lighter gun. The extra weight, however, is a boon when shooting the compact pistol, and gives the gun a gratifyingly solid feel. This feel, combined with the K40's reliability, simplicity and strength, will undoubtedly make the new pistol appealing to many.

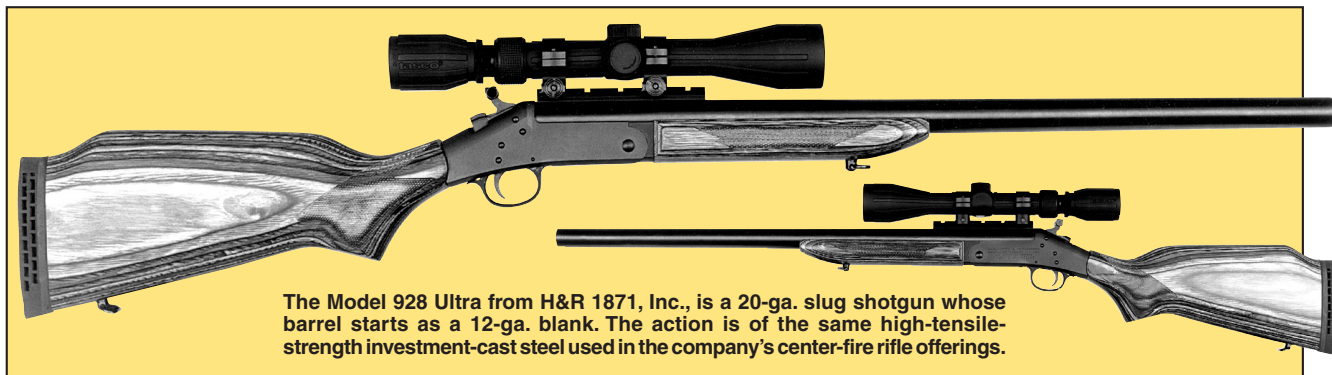
NRB

## ACCURACY RESULTS

.40 S&W Cartridge	Vel. @15' (f.p.s.)	Smallest (ins.)	Largest (ins.)	Average (ins.)
Fed. No. P40HS2 155-gr. HS	1055 Avg. 7 Sd	2.32	3.86	3.05
Hdy. No. 9132 155-gr. XTP	1137 Avg. 14 Sd	2.48	5.53	4.22
PMC No. C40SFB 155-gr. SF	1078 Avg. 22 Sd	3.53	5.07	4.48
Average Extreme Spread				3.91

Five consecutive 5-shot groups from 25 yds., fired from sandbags. Abbreviations: Sd (standard deviation), Fed. (Federal), HS (Hydra-Shok), Hdy. (Hornady), XTP (Extreme Terminal Performance), SF (Starfire)

## H&R 928 ULTRA SHOTGUN



The Model 928 Ultra from H&R 1871, Inc., is a 20-ga. slug shotgun whose barrel starts as a 12-ga. blank. The action is of the same high-tensile-strength investment-cast steel used in the company's center-fire rifle offerings.

**W**HEN we reviewed the 12-ga. H&R 980 Ultra (Jan. 1996, p. 54), one of our first comments to the manufacturer was, "How about a 20-ga.?" H&R responded that one was in development at that time, and it was announced earlier this year and dubbed the Model 920 Ultra. A variant of the 920, the Model 928 Ultra, was

received for testing, and is reviewed here.

Like with the 980, H&R approached designing the 928 as if they were working on a rifle. The firm reasoned that since most accurate target rifles utilize a heavy barrel, that feature could be adapted to an accurate slug gun. To that end, the 928 Ultra is made using a low-luster blue 12-

ga. barrel blank, bored out to 20-ga., and its entire length has eight-groove 1:38" right-hand twist rifling. The matte black 12-ga. action is made from the same high-tensile-strength investment-cast steel used in the company's center-fire rifle models. The 928 uses a transfer-bar system that greatly reduces the chance of an acciden-





An 8" piece of steel round stock weighing 1½ lbs. is secured in the buttstock with a wood screw to offset the weight of the bull barrel.

tal discharge from a blow to the hammer or from a dropped hammer during the cocking process.

The sample we received for testing came with a camouflage-laminate hardwood Monte Carlo stock with hand-cut checkering on the pistol grip and fore-end. The stock comes equipped with sling swivels and a generous ventilated recoil pad.

A reversible extension is attached to the hammer to permit easy cocking with a scope attached. The pushbutton break-open latch is to the right of the hammer.

No sights are provided with the 928 Ultra, though it does come with a factory-mounted Weaver-style scope base.

The 928 Ultra is essentially a scaled-down version of the 980 Ultra, though "scaled-down" could be misinterpreted, as the weight is only six ounces less, thanks to the additional weight of the laminated stock. The 920 is a lighter version, and uses a solid birch stock and weighs in at 8½ lbs.—about a pound less than the 12-ga. model.

Like with the 980, an 8" piece of steel round stock weighing 1½ lbs. is retained in the buttstock to counterbalance the weight of the barrel.



A reversible extended hammer spur helps make cocking easier when a scope is mounted on the Model 928 Ultra's factory-installed Weaver-style base. A transfer-bar safety system helps to prevent accidental firing.

Take-down follows that of other H&R and New England Firearms single-barrel break-open shotguns. Begin by ensuring the gun is unloaded, and all ammunition is removed from the area. Next, turn out the single Phillips-head screw from the gun's fore-end, allowing it to be lifted off, and tip the barrel from the action. No further disassembly is required for routine cleaning or maintenance. Reassembly is in the reverse order.

We fired the H&R 928 for accuracy with the results shown in the accompanying table, and function-fired it with Brenneke, Federal, Lightfield, Remington and Winchester ammunition. There were no failures of any kind. In hindsight, we had underestimated the ability of the Model 980 Ultra by testing it for accuracy at only 50 yds. That being the case, we mounted a Tasco rubber-armored 3-9X scope on the 928 Ultra and attempted to test the gun at 100 yds. Gusty spring winds blew the 20-ga. slugs around to the point that we had to return to the NRA Technical Staff's 50-yd. indoor range for testing with the results shown in the accompanying table.

The H&R 928 can safely fire any saboted or non-saboted 2¼" or 3" slug, though



## ACCURACY RESULTS

20-ga. Cartridge	Vel. @15' (f.p.s.)	Smallest (ins.)	Largest (ins.)	Average (ins.)
Lightfield Hybred LFEN12S 2½" 7/8 oz. HPS	1477 Avg. 13 Sd	1.87	2.80	2.23
Federal Premium P203 SS 2¼" 5/8 oz. H-SHPS	1421 Avg. 11 Sd	1.23	1.72	1.44
Remington PR20RS 2¼" 3/4 oz. CSHP	1456 Avg. 18 Sd	2.49	3.14	2.75
Winchester Super-X SX20RS5PK 2¼" 5/8 oz. FRS	1523 Avg. 12 Sd	2.67	4.13	3.63
Average Extreme Spread				2.14
Five consecutive 5-shot groups from 50 yds., fired from sandbags Abbreviations: Sd (standard deviation), CSHP (Copper Solid hollow-point), FRS (Foster-type rifled slug), HPS (hollow-point sabot), H-SHPS (Hydra-Shok hollow-point sabot)				

## H&R 928 ULTRA

**MANUFACTURER:** H&R 1871, Dept. AR, 60 Industrial Rowe, Gardner, MA 01440

**MECHANISM TYPE:** break-open, single-shot shotgun

**GAUGE:** 20, 3"

**OVERALL LENGTH:** 39¾"

**BARREL LENGTH:** 24"

**WEIGHT:** 9 lbs., 2 ozs.

**RIFLING:** eight-groove, 1:35" RH twist

**TRIGGER:** single-stage, 4 lbs. pull

**SIGHTS:** none, equipped with Weaver-style scope base

**STOCK:** camouflage laminated hardwood: length of pull, 14½"; drop at comb, 1"; drop at heel, 1½"

**ACCESSORIES:** black nylon sling, reversible hammer extension

**PRICE:** \$239.95

accuracy will be best realized with the use of saboted slugs. Foster and Brenneke-type rifled slugs were tried in the course of test firing, with the Winchester Foster-type load shown in the accompanying table. Its inclusion is only for the sake of showing the superiority of the saboted slugs in the H&R 928, so the accuracy of this load is not included in the average.

Recoil was considered minimal, and judged tolerable, even to the recoil sensitive, after firing nearly 100 slugs during a single testing session. Further aiding

the gun's accuracy was the crisp trigger that broke clean at four lbs.

We found the H&R 928 Ultra to be no less of a gun than the larger 980, and were pleased to see it too deliver accuracy above and beyond what one would expect from a gun in its economical price range.

**NRD**