

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.

SAFARI ARMS ENFORCER .45 ACP

SEEMS like just about everyone is making an M1911 clone these days. One of the oldest makers of such guns is Safari Arms, whose distinctive designs have been marketed since the early 1980s. Originally MS Safari Arms, the firm was acquired in 1988 by Olympia, Washington-based Olympic Arms, whose products include a Ruger 10/22 clone with a stainless-steel receiver, a variety of AR-15-based rifles, pistols and accessories and a line of custom bolt-action rifles. Olympic Arms owns its own in-house foundry to both reduce costs and to assure continuity and quality of production. Safari Arms also produces M1911 parts, a line of semi-custom M1911-based pistols under the Schuetzen Pistol Works rubric, and has announced the introduction of its Partner pistol, a close copy of the Whitney Wolverine.

One of the mainstays of the Safari Arms line is the M1911-based .45 ACP Enforcer, first introduced by MS Safari Arms in 1983. The pistol is about 1/4" short-



The Enforcer is one of the more radically-styled production M1911s, with an integral finger groove and recurved trigger guard, beavertail grip safety and spider pattern stocks.



Rear view showing the LPA adjustable sight, wide, angled slide serrations, beavertail grip safety, skeletonized hammer, lightweight aluminum trigger, and extended thumb safety and slide release.

er than a Colt Commander, having a barrel length just a hair under four inches, and its grip frame is some 3/8" shorter than the Colt's, giving it a six-round magazine capacity. The gun is available in stainless steel, blued steel or a two-tone configuration with a blued slide and stainless frame.

Outwardly, the Enforcer is one of the more radical M1911-style production guns

made. In addition to such custom features as a King's-type beavertail grip safety, lightweight aluminum trigger, extended slide release and extended thumb safety, extended ejector, fluted ejection port and Commander-style hammer, the Enforcer

also offers Safari's signature recurved trigger guard and integral finger-groove front-strap with a molded-in checkered panel. In the rear, a flat grooved mainspring housing sits below the beavertail.

The gun's sights are of the adjustable variety, with an LPA unit dovetail-mounted at the rear of the slide and a dovetailed ramped front post that is slightly angled on top to facilitate reholstering. Both sights are plain black. Below the rear sight on the slide, the Enforcer eschews the familiar series of narrow V-groove serrations for five broad, angled flat-bottomed cuts .125" wide.

ENFORCER .45 ACP

MANUFACTURER: Safari Arms, Dept.

AR, 620 Old Pacific Highway, SE,
Olympia, WA 98513

MECHANISM TYPE: single-action, short
recoil-operated semi-automatic pistol

CALIBER: .45 ACP

OVERALL LENGTH: 7¾"

BARREL LENGTH: 3½"

RIFLING: six-groove, LH twist

WEIGHT: 36 ozs.

WIDTH: 1¼"

HEIGHT: 5½"

MAGAZINE CAPACITY: six

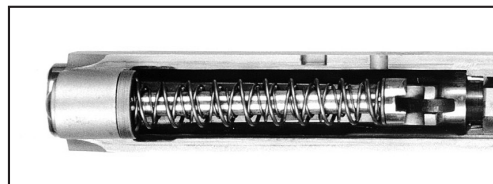
TRIGGER: ¾ lbs. pull

SIGHTS: ramped post front, elevation-
and windage-adjustable rear

STOCKS: smooth walnut

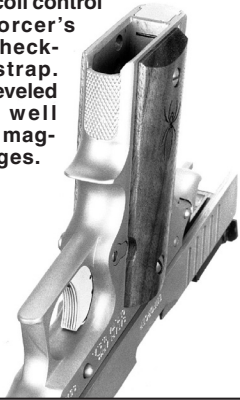
ACCESSORIES: plastic case

PRICE: \$750



The Enforcer employs a triple recoil spring system with full-length guide rod and reverse spring plug. The recoil system can be retrofitted to earlier-vintage Enforcers.

Aiding in recoil control is the Enforcer's grooved, checkered frontstrap. The gun's beveled magazine well helps speed magazine changes.



Adding to the pistol's external distinctiveness are its smooth walnut stocks with a black widow spider design. At the bottom of the pistol's butt, the magazine well has also been beveled to enable speedier magazine insertion.

Internally, the Enforcer is of familiar M1911 design, but with a few twists, such as its triple-coil spring recoil system and its large-diameter barrel, which mates directly with the slide, eliminating the barrel bushing. The new recoil system replaces the fatigue-prone single- and dual-coil systems on older Enforcers (which, according to Safari Arms, can be retrofitted with it).

In addition to the new recoil system, current Enforcers are also subtly improved in the areas of tuning, throating, polishing

and similar reliability-enhancing modifications.

The Enforcer retains the M1911 grip and thumb safeties, but lacks the Colt Series 80-type passive firing pin block.

Our test stainless steel Enforcer showed evidence of good quality control, being devoid of pits or other common casting flaws. Fit and finish were generally good, with about an average degree of slide/frame play, and a bit of a gap between the beavertail and the frame.

We fired the Enforcer for accuracy with the results listed in the accompanying table, and function-fired the pistol with Black Hills, CCI, Federal, Hornady, Remington and Winchester ammunition. Out of some 120 rounds, there was a single malfunction, a smokestack jam with target ammunition.

Our Enforcer exhibited only moderate recoil even with heavy +P .45 ACP loads, probably thanks to its stiff triple-recoil spring system. The finger groove and checkered panel seemed to aid in recoil control, though the groove did not fit all hands equally. High marks were given to the gun's sights, 3/4-lb. trigger and extended thumb safety (though some complained of sharp edges on the beavertail and finger groove). One shooter also reported that his thumb tended to engage the pistol's thumb

ACCURACY RESULTS

.45 ACP Cartridge	Vel. @15' (f.p.s.)	Smallest (ins.)	Largest (ins.)	Average (ins.)
Fed. No. P45HS1 230-gr. HS	794 Avg. 27 Sd	2.19	4.43	3.46
Hdy. No. 9111 200-gr. FMJ Match	853 Avg. 19 Sd	2.26	4.10	2.86
Win. No. X45ASHP2 185-gr. ST	862 Avg. 35 Sd	2.65	6.04	4.22
Average Extreme Spread				3.51
Five consecutive five-shot groups from 25 yds., fired from sandbags. Abbreviations: Sd (standard deviation), Fed. (Federal), FMJ (full metal jacket), Hdy. (Hornady), HS (Hydra-Shok), ST (Silvertip), Win. (Winchester)				

safety while shooting using a high grip.

The Enforcer joins the approximate length of a Colt Commander with the frame length of an Officer's ACP, giving a more discreet profile when worn vertically, as in a belt or inside-the-pants holster. Note that the Enforcer will fit in many, but not all, holsters for the Colt Commander. Many holstermakers offer models specifically for the Enforcer; the latest Olympic Arms catalog has a list of several of these.

The Safari Arms Enforcer may not be everyone's ideal as the ultimate .45 ACP carry gun. However, many will gladly accept the Enforcer's weight and size as a good trade-off for its controllable recoil. The gun should appeal to fans of Commander-size M1911s and those who are drawn to its unique styling.



TIKKA MODEL 595 SPORTER



The Tikka 595 Sporter is a new model, based on the proven 595 action, that is suitable for both target shooting as well as the police counter-sniper role.

CENTER-FIRE bolt-action target rifles for NRA highpower or International Shooting Union (ISU) competition are generally characterized by heavy barrels, light, crisp triggers, and (in some disciplines) stocks offering cheekpiece and buttplate adjustments and a fore-end accessory rail—features also demanded by many contemporary police marksmen.

Such specialized precision does not come cheap, however. Even the least expensive of these rifles runs more than \$1,000,

with most costing around \$2,600 to more than \$8,000—a price that can easily preclude purchase of such a rifle by either a would-be target competitor or a smaller police department. The Tikka 595 Sporter, introduced in 1997, offers many of the features most desired by competitors and police marksmen, and at a more affordable cost.

In general description, the 595 Sporter is a bolt-action repeater with a medium-heavy, 23 3/4" barrel, a flat-bottomed receiver with an integral dovetail for scope base

mounting, a detachable five-round magazine, an adjustable single-stage trigger and a target-style hardwood stock adjustable for comb height, length of pull and buttplate position. Currently the Sporter is currently available in the U.S. in .308 Win. only; other target-type chamberings may follow.

Turnbolt actions for serious accuracy work have a rigid receiver with thick walls, minimal cutouts for the ejection port and magazine, and plenty of bedding area. Most commonly employ a two-lug bolt (a design

DOPE BAG



A serrated button in the right side of the stock is depressed to release the single-column five-round magazine. Magazine release can also be performed with the left hand reaching around under the stock.

that still dominates bench-rest competition). The action of the 595 Sporter has all these characteristics. Its investment-cast receiver is 1.28" wide, 1.25" high and 8.6" long, with a wall thickness outside the locking lug raceways of .17" and a .110" high and .650" wide dovetail for scope base mounting along the receiver top.

On many repeating bolt actions, the ejection port and magazine openings leave (on right-handed actions) a relatively thin right siderail—a less-than-optimal situation for maximum rigidity and accuracy. The 595's siderail is as substantial as we've ever seen—.63" high at the ejection port and more than .3" thick—due to both the receiver's flat-bottomed design and the gun's single-column five-round magazine, which requires a narrower cut through the receiver floor than do the typical staggered-column boxes used on many other bolt guns.

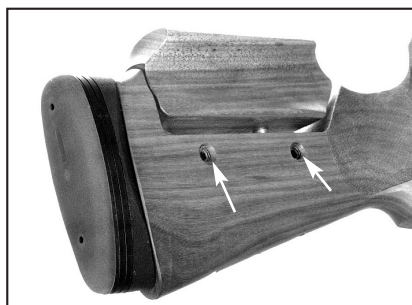
The 595's bolt is machined from bar stock and has a .682" diameter body and .921" diameter lug circle. Calculated lug

bearing area is on the order of .079 sq. in., while shear area is some .40 sq. in.—about the same as other modern high-strength actions. The bolt head is integral with the bolt body and contains a Sako-style extractor and a plunger ejector, and is counter-bored about .11".

At the rear of the bolt, a single helical camming surface cocks the firing pin. The bolt handle is neither welded to, nor integral with the bolt; its inboard end fits into a dovetail cut in the bolt body. During bolt disassembly (detailed in the Tikka Owner's Manual) the handle may be removed, along with the firing pin, cocking piece and synthetic bolt shroud. Bolt disassembly is not normally required for routine maintenance.

Bolt removal is accomplished by simultaneously retracting the bolt and depressing the bolt stop lever set into the left receiver wall. The stop's beveled rear face is overridden when the bolt is reinserted.

The barrel of the 595 is a medium-heavy tube that tapers from 1.12" at the receiver to .785" at the muzzle, and the crown is



Two aluminum rods in the comb lock into the stock by hex-head screws (arrows); loosening these screws allows comb height adjustment. The butt moves vertically and laterally by loosening a machine screw under the buttplate; length of pull can be modified by way of .2"-thick spacers.

recessed. The four-groove hammer-forged rifling has (in .308 Win.) a 1:11" RH twist.

The Sporter's trigger is user-adjustable from two to four pounds pull by way of a hex-headed screw in the forward face of the trigger unit that is accessible upon removal of the action from the stock.

At the rear right side of the action is the Sporter's serrated safety button, which in the rearward, "safe" position blocks both trigger and bolt. Moving the safety forward to the "fire" position frees both parts and also exposes a red dot on the receiver tang. When the rifle is cocked a red-painted indicator protrudes from under the bolt shroud.

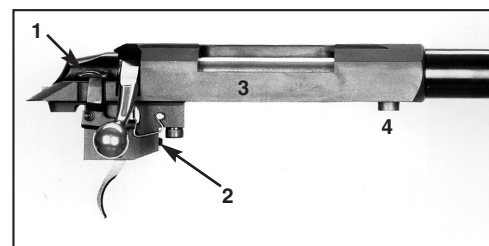
The 595 Sporter's most distinctive feature is probably its stock, which slightly resembles that of the British Accuracy International sniper rifle. Made of European walnut, the stock features a wide channel for the free-floating barrel; stippling in all gripping areas; a nearly vertical handgrip with

palm swell for prone, bipod or sandbag shooting; a 8.12"-long accessory rail running along the downward-sloping underside of the fore-end, a left-side mounting plate for a sling; and an adjustable comb and buttplate. The straight comb is mounted on a pair of vertical metal rods that are clamped in place by two hex-headed screws set into the buttstock's right and which allow 1¾" of vertical adjustment. Length of pull is adjusted by adding or removing .2"-thick spacers between the buttplate and its mounting plate. Removing the buttplate and loosening a large hex screw allows the buttplate to be moved vertically along the curved butt, as well as pivoted inward or outward.

Surprisingly, the stock, though well sealed against moisture, showed no traces of bedding compound. The Sporter's recoil lug is a separate, thick L-shaped aluminum piece having a hole centered in the longer, horizontal side that engages a same-size boss around the forward stock screw hole in the receiver, and a shorter leg that projects downward into a stock recess. When the receiver is in the stock, it is locked securely to the recoil lug which, in turn, butts up against the face of its stock recess. The recoil lug is loose in the stock, so care must be taken not to lose it during disassembly.

Magazine retention is via a serrated button set into the right side of the stock. In normal operation, the magazine catch would be operated by curving the left hand under the stock and depressing the button with the fingertips of the left hand. This positions the hand to catch the freed magazine, whose release is assisted by a small spring-loaded plunger in the lip of the magazine well that pushes against the magazine's plastic basepad. The steel-bodied magazines feature a synthetic follower, and may be disassembled for cleaning.

The 595 Sporter is not supplied with sights, but the receiver is drilled and tapped and is equipped with the aforementioned integral dovetail rail designed for Tikka bases, which feature a recoil stop pin in the forward base that engages a semicircular recess in the top of the receiver just forward of the ejection port. The interior surfaces of the steel rings accept rounded one-piece flexible synthetic inserts that rotate to fit around a 1" scope tube without any torsional



The right-side view of the Tikka 595 action shows the (1) safety, (2) trigger adjustment screw, (3) thick right siderail and (4) boss that engages hole in L-shaped recoil lug.

TIKKA 595 SPORTER

MANUFACTURER: Sako, Ltd., Box 149, 11101 Riihimäki, Finland

IMPORTER: Stoeger Industries, Dept. AR, 5 Mansard Court, Wayne, NJ 07470

MECHANISM TYPE: bolt-action rifle

CALIBER: .308 Win. (tested),

OVERALL LENGTH: 44"

BARREL LENGTH: 23¾"

RIFLING: four groove 1:11"RH twist

WEIGHT: 9½ lbs.

MAGAZINE CAPACITY: five

TRIGGER: single-stage, 3 lbs. pull

SIGHTS: none; receiver drilled, tapped and dovetail-contoured for scope mounts

STOCK: European walnut; cheekpiece adjustable for height, buttplate adjustable for pitch

ACCESSORIES: none

PRICE: \$875

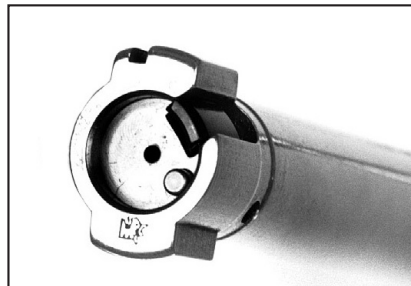
stress, similar in principle to the Burris Pos-Align system. Target iron sights should be easily installed by a competent gunsmith.

To disassemble the Sporter, first ensure that the magazine is removed and the chamber empty. Turn out and remove the front and rear stock screws; be careful not to lose their respective washers. Lift the barreled action free of the receiver, heeding the aforementioned caution regarding the loose recoil lug. No further disassembly is required for maintenance or cleaning.

Reassemble the rifle in the reverse order.

We fired our sample 595 Sporter for accuracy with the results reported in the accompanying table, and function-fired it with Black Hills, Federal, PMC, Remington and White Feather ammunition. There were no malfunctions. The gun's trigger was excellent, breaking at a dead crisp 3 lbs., and bolt operation was extremely smooth.

The Tikka showed exceptional accuracy with both Federal and White Feather match ammunition. The rifle's .49" average group size with Federal loads—praiseworthy performance in a match rifle costing \$2,000 or more—is astonishing in a factory, wood-stocked rifle at the Tikka's \$875 list price. Although the gun's nominal 1:11" rifling twist is theoretically optimal for projectiles of 168 grs. or less, good results were obtained with White Feather loads with Sierra's 175-gr. MatchKing.



The 595 uses a two-lug bolt with a plunger ejector and Sako-style extractor. The notch in the upper lug is for the bolt guide rib.

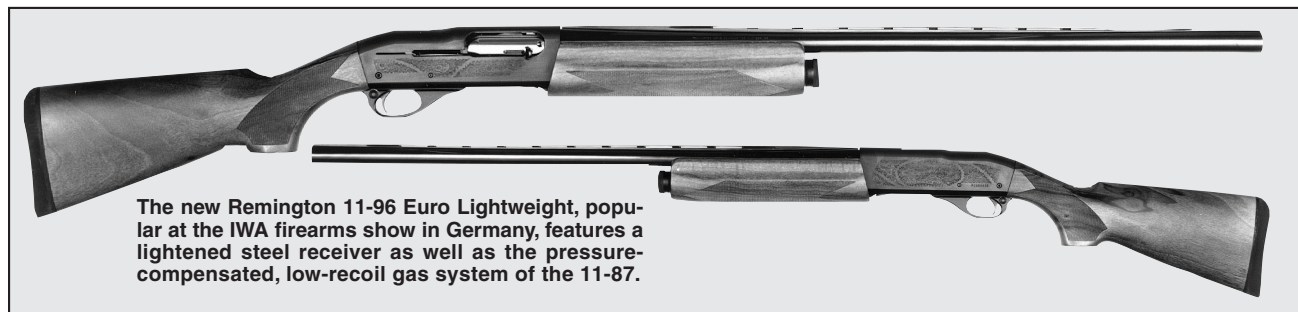
We found few faults with the Sporter. We'd like to see an optional stainless match-grade barrel, a metal bolt shroud and bottom metal to replace the (functionally adequate) plastic units supplied with the rifle and a fully adjustable synthetic stock (the latter item is reportedly under consideration). Yet even without these changes (which would increase its cost), the 595 Sporter remains a very reasonably priced rifle with the adjustability, trigger quality and pinpoint accuracy required by both target shooters and police marksmen. **NRB**

ACCURACY RESULTS

.308 Win. Cartridge	Vel. @15' (f.p.s.)	Smallest (ins.)	Largest (ins.)	Average (ins.)
Fed. No. 308M 168-gr. HPBT Match	2519 Avg 13 Sd	0.37	0.65	0.49
PMC No. 308 SMB 168-gr. HPBT Match	2644 Avg. 15 Sd	1.22	1.68	1.38
White Feather. 175-gr. HPBT Match	2631 Avg. 11 Sd	0.49	0.82	0.65
Average Extreme Spread				0.84

Five consecutive five-shot groups from 100 yds., fired from sandbags. Abbreviations: Sd (standard deviation), Fed. (Federal), HPBT (hollow-point boattail)

REMINGTON 11-96 LIGHTWEIGHT



The new Remington 11-96 Euro Lightweight, popular at the IWA firearms show in Germany, features a lightened steel receiver as well as the pressure-compensated, low-recoil gas system of the 11-87.

SOMETIMES bigger isn't necessarily better. This is especially true with rifles that may need to be lugged up steep mountains at high altitudes or handguns that are legally tucked away on the body. The shotgun isn't absolved from this requisite, either. To that end, Remington Arms recently introduced its Model 11-96 Euro Lightweight, reviewed here.

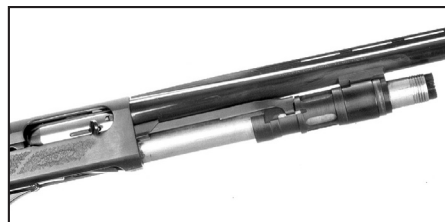
As its name suggests, the Euro Lightweight has European influence. According to Jay Bunting, Remington's firearms business unit manager, "The European market told us that they [sic] wanted an ultra-light autoloader that was as good as a Remington 11-87 ... The 11-96 was so well received at the IWA firearms trade expo in Germany that we decided that we should introduce it here in the United States."

The sample 11-96 shotgun we received sported a light-colored Claro walnut stock with 22 line-per-inch cut checkering on the pistol grip and fore-end, and a 1/2" thick solid rubber recoil pad.

Unlike the aluminum receivers of most other lightweight autoloading shotguns, particularly European ones, the 11-96's receiver is machined from a single block of steel that has a "hump-back" profile where superfluous metal is removed. Scroll and floral engraving embellishes the side panels, and the lightweight trigger guard is made using a metal injection molding process.

Like the 11-87, the 11-96 employs Remington's pressure-compensated, low recoil gas system that is touted to handle both 2¾" field and 3" magnum shotshells.

Another weight-saving step was to shorten the tubular magazine assembly, giving the 11-96 a capacity of three in the magazine and one in the chamber. A magazine plug, included with each gun, limits the total capacity to three to comply with the Federal Migratory Bird Treaty Act.



Visible here is the right-hand action bar, the shortened tubular magazine, and the Euro Lightweight's gas piston assembly.

DOPE BAG

Both 26" and 28" ventilated rib Rem Choke barrels are offered. Our sample came with the latter having a single .058" brass bead on the 6 mm rib. Both length barrels are of chrome-moly steel and have chrome-plated bores and are of lightweight contour so they should not be over-bored or polished. Three flush-fitting Rem Choke tubes for lead or steel shot and a tube wrench are supplied.


The NRA staff was first introduced to the Remington Model 11-96 Euro Lightweight during the 1996 Remington Writer's Seminar at Remington's new world headquarters in Madison, North

Carolina. During a seminar-sponsored hunt for pheasants at the Primland Hunt Preserve, our staffers found the guns pleasant to carry even though the pheasant fields on the side of a mountain, where a heavier gun would have been taxing. Functioning was 100% reliable for several boxes of Remington Premier Field Loads fired during the intermittent drizzle that dampened an otherwise fine shoot.

Though we did not witness it, other writers who had chosen to shoot ducks reported some split fore-ends under the recoil of the heavy steel magnum loads. Remington also reported that some fore-ends split during shipping. These guns were early prototypes, however, and our production gun had its fore-end reinforced with fiberglass cloth at the receiver and a brass through-bolt near the magazine cap. Function firing several boxes of magnum steel loads pro-

duced no splitting in our sample's fore-end, so this problem seems to have been corrected.

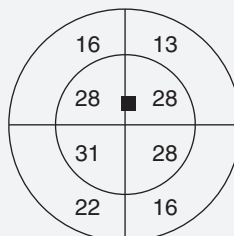
The Remington 11-96 Euro Lightweight was patterned at 40 yds. with the results shown in the accompanying table. We had no malfunctions, even with several boxes of Remington's Premier 1 oz., 2³/₄ dram-equivalent Target Load. Although the gun tips the scales at little more than seven pounds, recoil—even with 1³/₈ oz. of magnum steel shot—was light, thanks to the gun's fit and gas system.

Aesthetically, the new receiver profile took some time to accept, and there was concern that its stepped contour could be distracting when shooting. We found, however, no distraction, and that the gun was pleasant to shoot and carry. 

A fiberglass cloth patch is used to reinforce the Remington's fore-end forward of the receiver.

REMINGTON

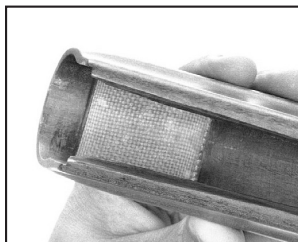
AVERAGE OF 10 PATTERNS AT 40 YDS.



Modified Tube

■ = Point of Hold
Sovereign Aristocrat 3¹/₄-1¹/₄-6
Pellet count=281

Total Hits	182 (65%)
21.2" Inner Circle	115 (41%)
30" Outer Ring	67 (24%)



REMINGTON 11-96

MANUFACTURER: Remington Arms Company, Inc., Dept. AR, 870 Remington Dr., Madison, NC 27025-0700

MECHANISM TYPE: gas-operated, semi-automatic shotgun

GAUGE: 12, 3"

OVERALL LENGTH: 48¹/₂"

BARREL LENGTH: 26", 28" (tested)

WEIGHT: 7 lbs., 5 ozs.

MAGAZINE CAPACITY: three

TRIGGER: single stage, 4¹/₂ lbs. pull

STOCK: Claro walnut: length of pull, 13¹/₂"; drop at heel, 2"; drop at comb, 1¹/₂"

ACCESSORIES: three choke tubes, choke tube spanner

PRICE: \$862

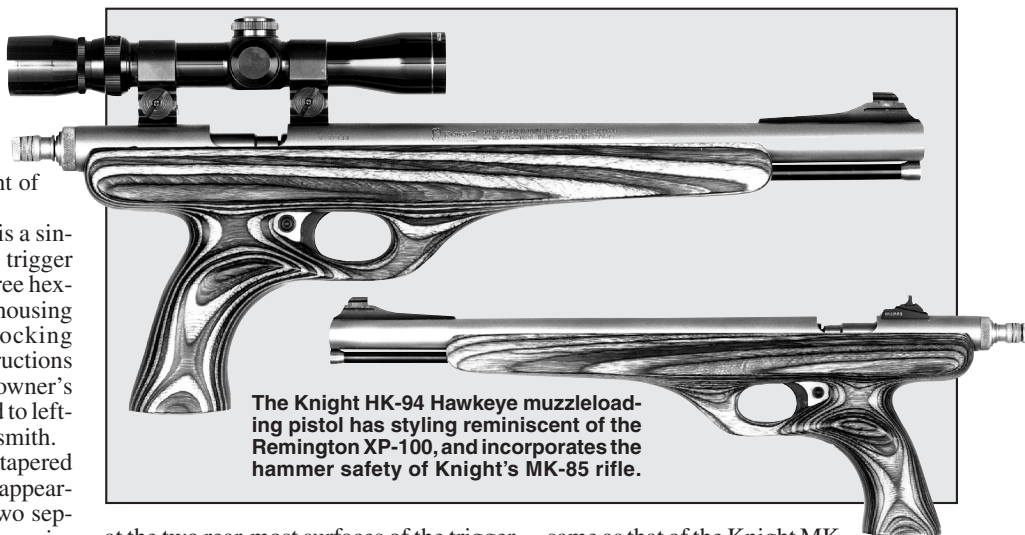
KNIGHT HK-94 HAWKEYE

NEVER one to "stay with the flock," Modern Muzzleloading's HK-94 in-line muzzleloading pistol departs radically from traditional lines. Black and beige laminated hardwood is used for its stock that is reminiscent of that of the Remington XP-100.

At the rear of the trigger guard is a single stock bolt that screws into the trigger housing, which is attached with three hex-head screws to the receiver. This housing contains the manual trigger-blocking cross-bolt safety and trigger; instructions on adjusting the latter are in the owner's manual. The safety can be switched to left-hand operation by a qualified gunsmith.

A slight step at the rear of the tapered 12" stainless steel barrel gives the appearance that barrel and receiver are two separate pieces, but they are in fact one, giving the gun added rigidity. The breech plug is stainless steel and is drilled and tapped at its rear for a removable nipple that takes a standard No. 11 percussion cap.

The action is glass bedded in the stock



The Knight HK-94 Hawkeye muzzleloading pistol has styling reminiscent of the Remington XP-100, and incorporates the hammer safety of Knight's MK-85 rifle.

at the two rear-most surfaces of the trigger housing, and the black aluminum ramrod is retained beneath the barrel by a flat spring screwed into the stock at the bottom rear of the ramrod channel.

The hammer and its operation are the

same as that of the Knight MK-85 series rifles (November 1990, p. 54). As with the MK-85, the HK-94 Hawkeye uses a patented secondary safety at the rear of the hammer that screws down toward the end cap to prevent the hammer from falling

far enough forward to strike a percussion cap should the trigger be unintentionally pulled. When the secondary safety is turned to the off position, a red annular ring can be seen on the hammer screw.



The leg can be used to support the Hawkeye during loading (above l.). The drilled and tapped holes in the Hawkeye's receiver (r.) allow the mounting of a telescopic sight or the supplied iron sights.



step, allowing the hammer to fly forward and strike the percussion cap. The trigger is returned to the forward position by a coil spring.

The Hawkeye comes equipped with a fully-adjustable Williams rear sight and a

hooded gold-bead front sight. The pistol is drilled and tapped for Warne bases or Weaver No. 45 scope bases.

To load the Hawkeye, begin by screwing a cleaning jag onto the end of the ramrod and pushing a clean patch down the barrel until it stops against the breech plug. With the ramrod in this position, point the Hawkeye in a safe direction, place a cap on the nipple and fire the cap. Repeat this process several times to clear the nipple.

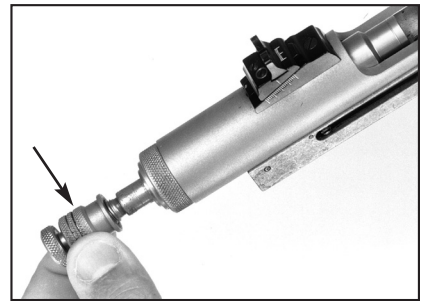
Pull the ramrod from the barrel. The patch should be blackened, or have a hole burned through it, indicating a clear nipple and flash channel. Place the push-button and secondary safeties on and confirm there is no percussion cap or cap residue on the nipple. Step on a raised surface to elevate your knee so that the Hawkeye can be supported on your thigh during loading. For the rest of the process *keep the muzzle pointed away from you.*

Pour a pre-measured powder charge down the barrel from a powder measure. Never pour directly from a flask. Tap the side of the barrel to settle the powder, and insert a proper size muzzleloading projectile into the muzzle. Start the bullet into the bore using a short starter, then seat it fully against the powder charge using the ramrod by holding around, not over, the ramrod. Don't pound or bounce the ramrod; blackpowder and Pyrodex are impact sensitive and could ignite.

Next, remove the ramrod, point the Hawkeye down range and pull back on the knurled hammer screw until the hammer locks into the cocked position. Ensure both the push-button and secondary safeties are on safe, then place a No. 11 percussion cap on the nipple. The pistol is now loaded.

It is necessary to use a patch on the ramrod and fire caps to ensure the nipple is clear only after the Hawkeye has been cleaned—not between shots.

To disassemble the unloaded Hawkeye for cleaning, remove the ramrod and turn out the hex-headed stock screw from the rear of the trigger guard and lift the barreled action from the stock. Next, remove the three hex-headed screws from the trigger assembly and lift it from the receiver. Grasp the knurled end-cap at the rear of the receiver and unscrew it until the hammer assembly can be pulled free. Insert the supplied combo tool into the receiver while pulling the trigger, engage the nipple and turn it




A secondary safety (arrow) can be screwed forward to prevent the hammer from contacting a percussion cap should the gun's trigger be inadvertently pulled.

out. Reverse the combo tool, reinsert it into the action and unscrew the breech plug.

Reassembly is in the reverse order. It is important to lightly grease the nipple and breech plug threads and hand tighten only. Remember to pull the trigger as you insert the hammer assembly to lower the sear.

The Hawkeye fitted with a Tasco 4x28 extended-eye-relief scope was fired for accuracy at 50 yds. with blackpowder, Black Canyon and Pyrodex loads using muzzleloading bullets and bullets in sabots with the results in the accompanying table.

The owner's manual suggests loads between 50 and 70 grs. of blackpowder or blackpowder equivalent. With the Black Canyon blackpowder substitute, the 90 gr. charge is by volume and is equal to a 70-gr. charge of blackpowder. Heavier charges are not recommended, and in a 12" barrel, will likely not yield any more velocity. All powder charges shown are expressed in grains, but measured by volume.

The Hawkeye approaches the accuracy of some muzzleloading rifles, perhaps due to the added rigidity of the short barrel. Though the properties of blackpowder limit the power of this pistol, in the hands of a skilled shooter using maximum loads at reasonable ranges, it should be suitable for medium-size game where legal. 

KNIGHT HK-94

MANUFACTURER: Modern Muzzleloading, Inc., Dept. AR, P.O. Box 130, 234 Airport Rd., Centerville, IA 52544

MECHANISM TYPE: in-line percussion muzzleloading pistol

CALIBER: .50

OVERALL LENGTH: 20"

BARREL LENGTH: 12"

WEIGHT: 3 lbs., 4 ozs.

WIDTH: 1 1/4"

HEIGHT: 6 1/2"

RIFLING: eight-groove, 1:20" RH twist

TRIGGER: single-stage adjustable, 4 1/2 lbs. pull

SIGHTS: Williams adjustable blade rear, hooded gold-bead front

ACCESSORIES: instructional video, three hex wrenches, combo tool, sample pack of bullets

PRICE: \$449.95 (stainless) \$399.95 (blued)

ACCURACY RESULTS

.50 cal. Load	Vel. @15' (f.p.s.)	Smallest (ins.)	Largest (ins.)	Average (ins.)
RWS No. 11 percussion cap Knight 260-gr. LHP SB 90.0 grs. Black Canyon	656 Avg. 7 Sd	3.78	4.98	4.36
RWS No. 11 percussion cap T/C 275-gr. M-H 60.0 grs. Pyrodex P	1008 Avg. 16 Sd	3.05	4.71	3.87
CCI No. 11 percussion cap Buffalo 245-gr. Ball-et 70.0 grs. Elephant FFFg	1147 Avg. 7 Sd	2.66	4.64	3.63
Average Extreme Spread				3.95

Five consecutive five-shot groups from 50 yds., from sandbags. Abbreviations: Sd (standard deviation), LHP SB (lead hollow-point sabot), M-H (Maxi-Hunter), T/C (Thompson/Center)