

DOPE

BAG

Dope Bag is compiled by Staff and Contributing Editors: Dave Andrews, Hugh C. Birnbaum, Russ Carpenter, W.H.J. Chamberlain, William C. Davis, Jr., Pete Dickey, Roy Dunlap, Charles Fagg, Robert W. Hunnicutt, Mark A. Keefe, IV, Ron Keysor, Dennis Marshall, Charles E. Petty, Robert B. Pomeranz, O.D., Peter Reiff, Charles R. Suydam and A.W.F. Taylerson.

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Norinco NDM-86 Rifle



BEFORE the 1989 import ban, we became accustomed to seeing semi-automatic variants of the AK-47 rifle from China, Egypt, Finland, Israel and other nations. These are reappearing as importers come up with rule-beating modifications like thumbhole stocks and solid flash hiders.

A stud atop the bolt head rides in a Z-shaped track in the carrier, acting to lock and unlock the three-lug bolt head.



One little-seen relative is the SVD Dragunov sniper rifle, a gun that has the basic outline of the AK-47 but shows the influence of other arms like the AR-15 and SKS. The

The NDM-86 travels in two guises, with iron sights (top) or with scope and cheekpiece.

SVD was designed by Yevgeny Feodorovich Dragunov beginning in 1958, and it was adopted in 1963 to replace the old M1891 Moisin-Nagant and Tokarev sniper rifles of World War II.

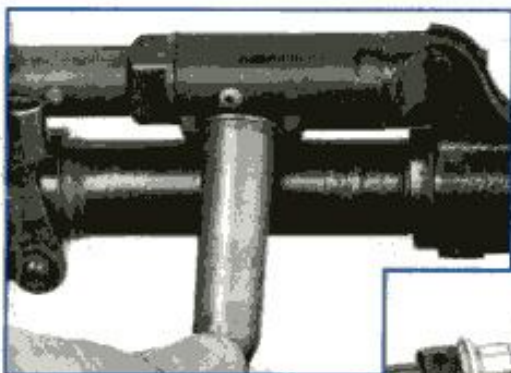
While Soviet-made Dragunovs are seen mainly in military museums, the rifle also was made by East Germany and by China. The Russians also have manufactured a hunting version of the rifle called the *Medved* (Bear) that fires a 9x54 mm cartridge.

The Chinese call it the Type 79, and export it under the Norinco trademark as the NDM-86. We recently received one from Navy Arms and found it to be an unusually interesting military rifle.

The 7.62x39 mm cartridge used in the AK-47 is underpowered for sniping, so the NDM-86 uses the big rimmed 7.62x54 mm round of the M1891 rifle and Soviet medium machine guns. This, of course, requires a longer receiver and different magazine shape. The NDM-86 magazine resembles that of the SVT 40 Tokarev rifle,

NORINCO NDM-86

Manufacturer: China North Industries Corp., 7A Yue Tan Nan Jie, Beijing 2137, 10045, PR China
Importer: Navy Arms, 689 Bergen Blvd., Ridgefield, N.J. 07657
Mechanism Type: gas-operated semi-automatic
Caliber: 7.62x54 mm
Overall Length: 48 1/4"
Barrel Length: 27 1/2"
Weight: 8 lbs., 6 ozs.
Magazine Capacity: 10
Trigger: two-stage, 2 1/4 lbs. pull
Sights: hooded post front, adjustable for windage; elevator open rear
Stock: laminated hardwood; length of pull 12 1/4"; drop at heel, 2"; drop at comb, 1 1/2"
Accessories: tool kit, cleaning rod, two spare magazines, carrying case, oil bottle, bayonet and scabbard. Scope includes carrying case, spare bulbs, shades
Price: \$3,575



The gas regulator (above) is adjusted with a cartridge rim. The piston (r.) is heavily chrome-plated to resist rusting.

though with heavy ribbing for better rigidity and durability.

The long 27½" barrel and unusual stock design make the SVD and its variants easy to identify. The buttstock is of laminated hardwood, extensively cut away to reduce weight, an important consideration when a rifle has a long barrel and will be used most of the time



The 4X scope's top turret regulates for range from 0 to 1000 meters. The scope comes from the factory already zeroed.

with a bulky combination scope/mount assembly.

The NDM-86's buttstock resembles nothing so much as a modern biathlon rifle. It also conveniently fits the current bureaucratic imperative for thumbhole stocks in preference to two-piece butt/pistol grip configurations when semi-autos are imported.

The length of pull is quite short at 12¼". The short length is no doubt specified for better fit with the very heavy garments needed for the severe Russian winter weather and the quilted Chinese uniforms.

The fore-end appears to be of an impregnated laminate, and is split length-

wise in the style of the AR-15, with ventilating holes in the sides and bottom. The system is unlike the AR-15 in that there is no aluminum heat shield.

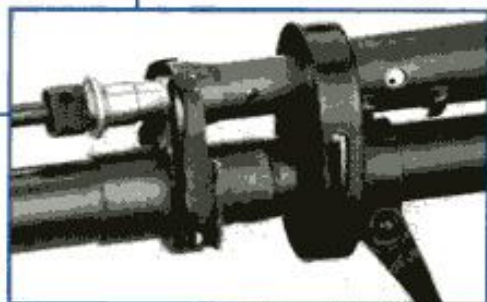
The rifle's operating system combines elements from the AK-47 and SKS with

with a cartridge rim to close off the holes. Once the piston has moved rearward about 1", remaining gas is vented out an additional pair of holes at the rear of the cylinder.

Meanwhile, the operating rod passes through the rear sight base and strikes the top front of the bolt carrier. As that part is thrown rearward, a stud on the top of the bolt head engages a Z-shaped track in the carrier, disengaging the three locking lugs from the receiver.

The spent case is withdrawn by a large pivoting extractor and pulled against a fixed ejector in the left receiver rail. After ejection and recocking, the bolt picks up another cartridge from the magazine and thrusts it into the chamber. A wedge pinned into the left front of the receiver bears against an inclined surface on one locking lug for extra closing power.

The receiver follows the general outline of the AK-47, but with several detail differences. The receiver cover is ribbed for extra rigidity and is retained by a lever and shaft rather than the AK-47's button catch.



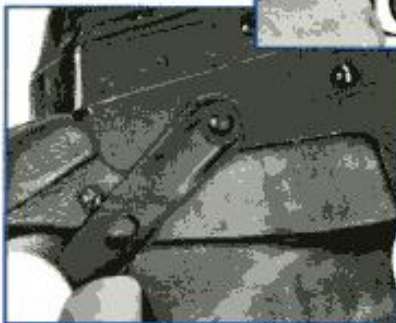
a few features unique to it.

Those who fancy military arms will recall that the AK-47 uses a long-stroke piston that is permanently attached to the bolt carrier. This system, while reliable, results in a large reciprocating mass that is undesirable for precision shooting.

Dragunov solved the problem by adapting the short-stroke piston of the SKS, though with considerable modification. As the fired bullet passes the port at the top front of the fore-end, gas is tapped out and presses against the chrome-plated piston. As the piston moves rearward in the chrome-plated cylin-



Rotating the takedown lever at the right rear of the receiver (l.) allows the receiver cover to be lifted away.



The safety lever is shorter than the AK's and is curved to block the rear of the operating handle slot when it is in its upward safe position. This prevents foreign matter entering the action and also allows the chamber to be checked for a loaded round with no fear of ejecting it, since the handle can only be drawn back about 1".

Most importantly, the trigger unit can be removed from the receiver for cleaning, maintenance or replacement.

The NDM-86 is equipped with me-

der, it passes a pair of gas relief holes in the exterior of the cylinder.

In cold weather or when the rifle is quite dirty, these can be closed for more gas pressure by rotating the regulator

talic sights in the AK-47 pattern. The open rear sight is adjustable for elevation in a range of 100 to 1200 meters. Fine elevation and windage adjustments are made by turning the front sight post in or out and by moving it left or right in its dovetail. A sight adjusting tool is provided with the rifle.

The barrel is chrome-lined, and its four-groove rifling has a 1:10" twist. The flash hider is similar in size to the M14's, and the barrel is fitted with a bayonet lug (though the importer informs us that future shipments will come in sans lug).

To disassemble the NDM-86, depress the catch at the rear of the magazine and remove it, then ensure the chamber is empty.

Rotate the takedown lever at the right rear of the receiver until it catches on the small slotted screw in the buttstock. This allows the receiver cover to be lifted up and off. The recoil spring and guide remain attached to the receiver cover.

Next, pull the bolt assembly all the way to the rear of the receiver and lift it out of the disassembly slots. Remove the bolt head from the carrier by turning it counterclockwise. This frees the cam lug from its slot.

To remove the trigger assembly, rotate the safety lever 90° upward and pull it out of the receiver. The trigger assembly then can be rotated down and out.

To disassemble the fore-end and gas system, begin by pushing in and rotating



set make the cheekpiece a necessity.

The scope is a 4X with 24 mm objective lens. The lenses are coated, though not up to U.S., Japanese or European commercial standards. The sight has a battery-operated system to detect infrared radiation. Infrared sighting systems like the U.S. Sniper Scope were common at the time the Dragunov was designed, but have been supplanted by passive night vision devices in most armies.

The scope is equipped with a range-finding reticle. The horizontal axis is graduated in 1 mil (10

Rotate the safety lever upward to remove. Then the trigger assembly can be turned downward and out.



cylinder. The cylinder itself can be turned off its base with the supplied open wrench.

Reassembly is in reverse order; be sure the takedown latch is in proper position against its stop screw before installing the receiver cover.

The scope/mount system of the Soviet SVD is called the PSO-1, and the Chinese version is identical, except the export model has markings in English. The unit fits on a dovetail on the left side of the receiver; to install it, turn the locking lever out and slide the unit forward on the rail.

A leather-covered cheek-

cm at 100 meters) divisions to compensate for wind or to fire at moving targets. The vertical axis has four inverted Vs. The topmost is for firing at ranges up to 1000 meters, while the others are for 1100, 1200 and 1300 meters.

The top adjustment knob regulates elevation for ranges from 0 to 1000 meters, while the one on the side regulates windage in a range of 20 mils, with graduations at 1-mil intervals and intermediate half-mil clicks.

The scope and rifle are fine-zeroed at the factory. If the zero has shifted or is inapplicable, it can be reset by a process too complicated to be described here but thoroughly, if laboriously, covered in the supplied instructions.

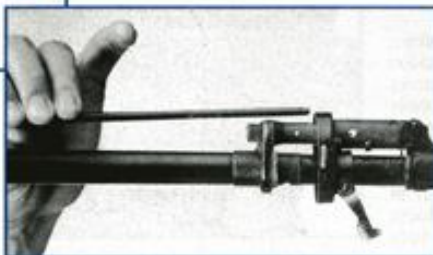
The range-finding feature is a curved dashed line over a solid line. When a standing man 5½ ft. tall is positioned between the two lines, the rough range is indicated. The indicated range can be transferred to the range drum and, the sniper hopes, the bullet impact will be



Slide the cap assembly forward to release the fore-end halves. Then press the operating rod rearward to remove it.

the catch at the right front of the fore-end down 180°.

Then slide the cap assembly forward and remove the fore-end halves. With the bolt latched back and the muzzle pointed downward, pull up on the operating rod, disengage it from the piston and pull it out of the receiver. The piston then is free to be removed from the



piece is provided, and it must be used by anyone with a normal-sized face, since the buttstock is shaped for the iron sights. The scope's height and slight off-

on target with the first shot he fires.

The scope is supplied in a steel carrying case that resembles a very sturdy child's lunch box. This has room for a screwdriver, eyeshades and tool kit. A small wooden box built into the case stores extra bulbs for the infrared system and a cleaning cloth for the lenses.

The rifle is supplied with an unusually comprehensive set of accessories, including two spare magazines, a three-piece cleaning rod, a combination wrench/punch, a gas port reamer, cylinder reamer, a tool box with leaf springs to keep parts from rattling, an oil bottle and a canvas carrying case.

The NDM-86 was fired for accuracy, with results shown in the accompanying table, and function-fired with military FMJ and soft-point hunting ammunition from Century Arms and World War II surplus Finnish ball rounds imported in the early 1960s by Interarms. There were no failures of any kind.

Before we ever shot the rifle, we knew something had to be done about the very short pull length. This was easily corrected with a slip-on pad intended for the SKS. The pad both made the buttstock long enough and gave it a non-slip surface.

The NDM-86 is an unusually pleasant gun to shoot. Recoil is quite mild and the long barrel puts the muzzle blast

well out in front of the shooter. There is no two-part feel to the firing sensation—the impression is much more like that of a bolt-action rifle. The ventilated fore-end does a good job of insulating the hand from heat, even in long strings of fire.

The trigger has a long first-stage take-up that those unused to military arms are wont to call "creep," but serves

heavy lacquer finish familiar from thousands of SKS and AK-47 rifles imported here.

The scope has a very limited eye relief and is not especially bright, but is well-mated to the rifle. The reticle is hard to see in low-light conditions or when the target background is leafy. Some Warsaw Pact users corrected for this by using an illuminated reticle.

Accuracy Results Five Consecutive 5-Shot Groups at 100 Yds. Fired From Sandbags				
7.62x54 mm Cartridge	Vel. @15' (f.p.s.)	Smallest (ins.)	Largest (ins.)	Average (ins.)
Century Arms 184-gr. FMJ	2557 Avg. 12 Sd	1.69	2.56	2.19
Century Arms 180-gr. SP	2603 Avg. 9 Sd	1.20	2.47	1.97
Sd (standard deviation)		Average Extreme Spread 2.08		
Abbreviations: FMJ (full metal jacket), SP (soft point)				

as a safety measure in battlefield conditions. We found the trigger very controllable and conducive to good accuracy, both offhand and from the bench.

Like almost all Chinese arms, the NDM-86 is very well finished where it needs to be, and very poorly finished elsewhere. The metal finish is black paint, while the wood had the very

The NDM-86, then, is an interesting and unusual arm that could be the centerpiece of any collection of Soviet weaponry or sniper rifles. It is expensive, but the package supplied is very complete. It's clearly not a gun for everyone, but it is one that some military arms enthusiasts will probably find very hard to resist.

AyA No. 2 Shotgun



Built on traditional Holland & Holland principles, the 28-ga. AyA sidelock sports double triggers and auto ejectors.

Of all the dozens of shotgun makers in the Spanish city of Eibar, none is more famous than Aguirre y Aranzabal, commonly referred to as AyA.

Following World War II, the firm almost single-handedly drove many British shotgun manufacturers to the wall, capturing a good part of the low end of the UK market. Today, some of the premier London makers employ AyA alumni.

In this country, the AyA Matador was one of the top-selling shotguns of the now-defunct Firearms International Corp. throughout the 1950s and 60s, and, with FIC as middleman, Sears,

Roebuck sold a less-sophisticated AyA as the J.C. Higgins Model 100 from about 1953-56.

Despite this long tradition of success, the early 1980s recession and declining demand for side-by-side shotguns crippled AyA and many other Eibar makers. The Spanish government stepped in and provided funding for the establishment of a gunmakers consortium that combined AyA with Armas Erbi, Guisasaola, Sarriugarte and some others (February 1987, p. 30)

While the consortium, called DIARM, was located in a large and

modern factory in Deba, near the Atlantic coast, the participants brought their tradition of cutthroat competition from Eibar along with their tools. DIARM dissolved in confusion within a couple of years, marking the end of the line for many workers.

The end of the consortium left large stocks of guns to be disposed of, both those made at Deba and stocks made before the joint venture. Hundreds of AyA