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Win a **DESERT EAGLE .357 MAGNUM AUTO**

Cover Story **The MARTZ CUSTOM LUGERS**



ASKING:
*"For Real Shooting
Go to 3,000 FPS"*

BEHIND THE SCENES
THE CENTURY
45/70 SIXGUN

AUTOMAG II
*Magnum Rimfire
Power*

Classic Gun **ENGRAVED
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WEATHERBY'S EUROMARK ...
Not Quite a Classic





The first production .22 Magnum autoloading pistol may look sort of ordinary on the outside, but the unusual chambering required some real technical innovations.

AUTOMAG II

At last, a production auto pistol that shoots the .22 Rimfire Magnum cartridge.

By James Mason

While the .22 Winchester Magnum Rimfire cartridge has been around since 1959, there have not been any commercially successful self-loading pistols for this ammunition. Until now, that is.

Now Arcadia Machine & Tool has brought out the Automag II self-loading pistol chambered for the .22 Magnum. This is a sleek handgun, weighing in at 33 ounces (unloaded) with an overall length of 9½ inches for the 6-inch barrel model. AMT plans to offer an additional 8-inch-barrel version in the future.

The Automag II follows the AMT policy of stainless steel production. Made from 17-4 stainless steel investment castings (with a 416 alloy barrel), the new handgun is satin finished on the side flats of the slide. All other frame and slide surfaces show the dull, matte finish of bead-blasted castings.

The design follows closely the outside features of Browning-type pis-

tols (notably the Government Model). Some shooters may object to the Beretta influence, where a 2½-inch portion of the top of the slide is cut away to expose the barrel. This is supposed to lighten the slide for functional purposes, but to some eyes it breaks the continuity of the sleek, trim Browning-style slide.

Ergonomically, the Automag II has a lot going for it. Many shooter-oriented features will be appreciated. For an autopistol with a 6-inch barrel, the Automag II has exceptional balance, noticeable immediately on hefting the pistol. The grip is hand-filling for moderate to large male hands, aiding in stability of hand hold. The horizontal grooves in the molded synthetic grip panels are attractive and functional.

The front edge of the trigger guard has been squared off as on many competition autopistols. This has always been a feature that I can live without, but I don't deny the

popular appeal of such a finger support. The extended forefinger of the weak hand can be used comfortably by shooters with large hands, but it could be a dangerous habit for shooters who also carry small-frame pocket handguns. That random finger position may some day inadvertently get in the way of the muzzle on a hideout pistol with embarrassing or even disastrous results.

The Automag II safety is carried on the slide and, when applied, blocks and locks the firing pin. It does not drop the hammer since this is a single-action lock. The safety does not disconnect or block trigger movement, but does prevent discharge if the hammer should fall with the safety applied. Since the safety is a casting, the particular ledge shape of the hammer block could make it vulnerable to repeated hammer droppings. I would make it a practice to ease the hammer down and save impact on the safety block.

The detent on safety rotation is positive and moderate, working with equal pressure in the "on" or "off" mode. The shape of the safety lever facilitates release as a natural thumb movement for right-handed shooters. The safety is not ambidextrous. Slide mounted safeties can

have objectionable performance characteristics, but on the Automag II the device works quite well.

Sights are from Millet; a white-outline rear notch and orange front ramp. Colored sights are designed for quick sight acquisition in low-light combat conditions. I prefer black sights for general field shooting, so I blacked them out with spray paint. If this alternative is not available from the factory, it should be offered.

DESIGN PROBLEMS SOLVED

The big problems with the .22 Magnum cartridge in self-loaders involves the high aspect ratio of the round; its length is quite a lot greater than its diameter. This situation makes for feeding problems as well as extraction difficulties in blowback operated handguns.

Larry Grossman, General Manager of AMT and designer of the Automag II, has overcome the feeding problems by raising the magazine in its well to minimize elevation into the breech. Proper magazine lip angles along with optimal magazine springs minimize "nose dive" so the long .22 Magnum rounds zip right out of the magazine into the chamber. I suffered no failures to feed in the several boxes of ammo shot during field tests. However, prudent shooters may want to ease the chamber mouth edges and polish the feed ramp on new guns.

Magazine loading can be a chore if all 10 rounds are loaded. After six to seven rounds are in, negotiating the last three to four rounds takes a lot of effort. AMT might want to offer a loading tool for this purpose. Otherwise, since the shooter may not be loading more than six to seven rounds routinely, this may not be a concern. To maximize feeding reliability it is a good idea to keep the case heads well back on the magazine spine. Do this by rapping the magazine spine in the palm of the hand after loading.

Once the .22 WMR case is chambered, another problem relates to case length. The case is not lubed and upon firing the front end of the case is held fast to the chamber walls by rising chamber pressure, but the rear end is not so well supported. As a result, chamber pressure holds the case mouth tight while it bulges the head area. To correct this, Automag II chamber features were altered to effect reliable operation.

The chamber end of the barrel is machined down in diameter with a .025-inch smaller waist section. Three sets of six holes (.060-inch) are

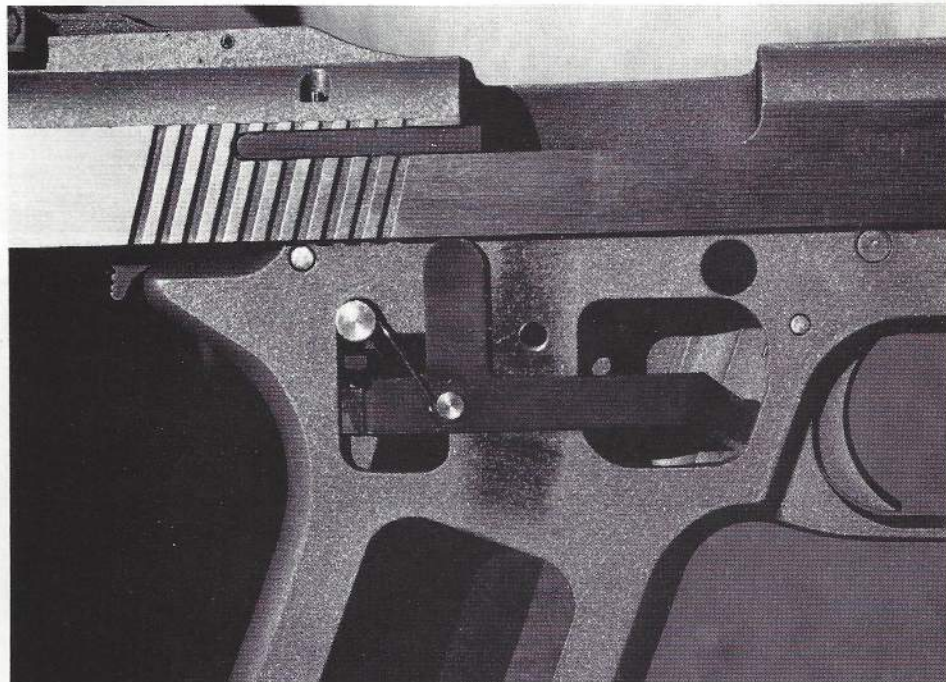
drilled radially through the chamber walls every 60 degrees of arc. The leading set of holes are drilled just ahead of the case mouth in the chamber. A sleeve, the same outside diameter as the barrel, slips over the reduced chamber section and is welded in place. With the sleeve installed, a shallow plenum chamber is formed internally that connects the three sets of holes with a common airspace.

Upon firing, propellant gases enter the forward holes and send gas

pressure throughout the plenum chamber and out the other 12 holes over the cartridge case. Distribution of propellant gases neutralizes chamber pressures and allows the brass case to "relax" from chamber walls, uniformly floating it out of the barrel with no sticking or bulging of the case head.

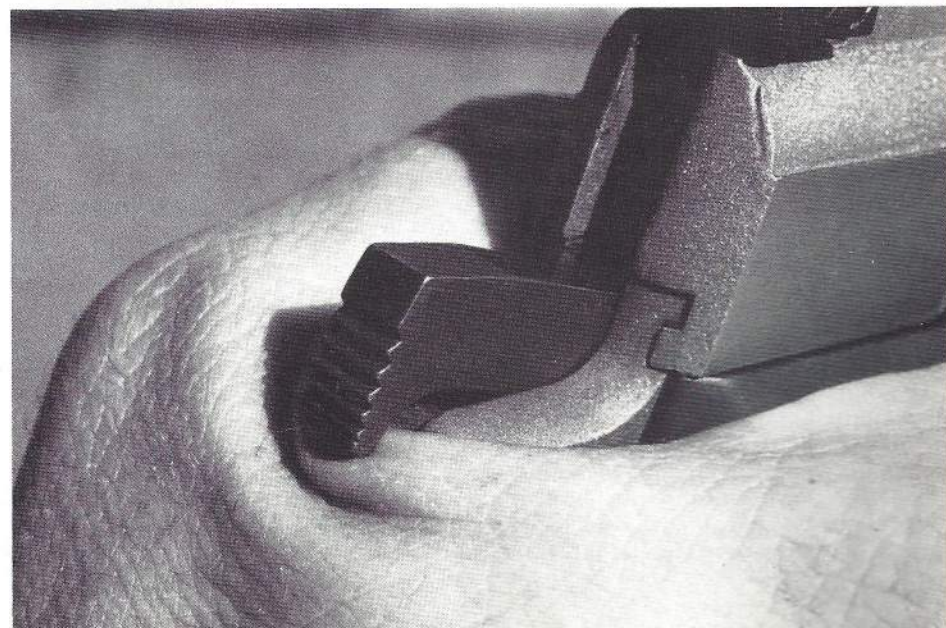
The Automag II performed marvelously on the range. Current production ammunition was available from CCI, Winchester, Federal, and

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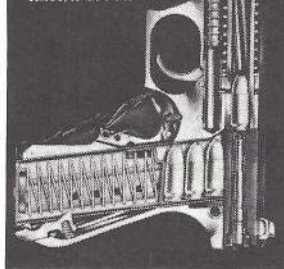
The Automag II uses the same trigger setup as AMT's Backup pocket pistols. It's OK as-is, but can be improved by a good gunsmith.

The original test gun's hammer pinched some shooters with beefy hands, but this problem has been corrected on production pistols.



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edited by Edward C. Irall



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Win. Mag. with 180-grain bullet serves up 3,000 foot-pounds of energy at 200 yards. Even closer at 100 yards the blow amounts to 3,420 foot-pounds. I'd reckon this number is adequate to the job.

The .308 Norma Magnum has all the slambang force of the .300 Winchester Magnum. It fires only a 180-grain bullet and gooses this big slug along at 3,050 fps. It will do the job on big game.

A more powerful .30 caliber than either the Winchester or the Norma is the .300 Weatherby Magnum. This big bruiser drives the 180-grain slug at 3,245 fps with an attendant muzzle energy of 4,200 foot-pounds! This is enough to kill an elephant, and while I wouldn't use it on the mighty pachyderm, I have a friend who did shoot a tusker with the .300. One shot, one elephant.

The recoil of the .300 Weatherby causes some gunners to turn deathly pale, tremble slightly at the knees, and drool unconsciously. The fact is, the kick from a 9½-pound rifle is only 28 foot-pounds. A hefty 12-gauge goose load will kick just as

"The .340 is strictly
for men with plenty
of hair on their
 chests."

much. The .300 Win. Mag. from an 8-pound rifle churns up 26 foot-pounds. GIs during World War II fired the '06 cartridge and the recoil was 15 foot-pounds. The .300 Weatherby almost doubles that kick. Timidity abounds in the ranks of the modern sports clan.

There is another 3,000-footer of which I am inordinately fond. This is the 8mm Remington Magnum. Its best loading is the 180-grain bullet, and this sizeable slug journeys along at 3,080 fps. Muzzle energy stands at 3,900 foot-pounds and even out at 100 yards this blow stands at 3,540 foot-pounds. I have taken a variety of the bigger African fauna with the 8mm, these to include both buffalo and lion. The round was a bit overmatched on the 1,800-pound bovine, but it did him in—although in all honesty it required three quick shots. The lion succumbed to a single hit from the 185-grain slug.

There is one other 3,000-footer for which I must admit a large amount of affection and regard. This is the .340 Weatherby Magnum. In truth, if

I had to live out my remaining days with only one rifle and one caliber it would be the Mark V and the .340 cartridge.

The .340 ain't for growing boys nor yet the ladies. It is strictly for men and them with plenty of hair on their chests. The best loading is the 200-grain bullet, which speeds along at 3,210 fps and puts out 4,577 foot-pounds of muzzle English. At 300 yards the round is still ambling along at 2,460 fps and energy stands at 2,700 foot-pounds. I shot a Kodiak bear one gloomy spring afternoon with this gun and its load and when I had him measured by the Boone&Crockett boys he went in the North American record book—the only bruin I've managed to record.



UNREPENTANT SINNER is the autobiography of Col. Charles Askins, who raises hell around the world and tells it all in this life story. Paratrooper, pistol champion, border patrolman, big-game hunter, Askins' story is guns, guts and glory. Get your copy today for \$17.95 check or money order, plus \$3 postage from Tejano Publications, 903 Melissa, San Antonio, TX 78213.

Automag II

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RWS in both solid and hollowpoint loadings. It is important to use several brands and bullet styles when test-firing a gun to find the optimum load for that particular piece. This is especially true of rimfire guns, since no handloads can be tried for comparison.

HEAVY TRIGGER

Trigger pull was a heavy 9 pounds. This is consistent with current manufacturing procedures for handguns in view of the product liability factors. Manufacturers are putting grossly heavy triggers on handguns to avoid possible lawsuits. Consequently, the Automag produced about 3- to 4-inch groups off of a sandbag at 25 yards. The gun is capable of much better accuracy but required a trigger job to realize its potential.

Ray Peet, pistolsmith at Poway Gun Works (13168 Poway Road, Poway, CA 92064), did the trigger work. The shop gets \$45 (return postage included) to rework the lock to a safe, crisper, low-creep 5-pound pull. Basically, squaring the hammer/sear contact and smoothing the letoff is involved. Do not reduce engagement contacts on the hammer;

rework the sear only. The sear spring can be lightened (the trigger requires 4 pounds to depress with no mainspring pressure applied), but mainspring tension is critical for reliable ignition; do not cut coils off the mainspring. Ray installs an overtravel stop to improve letoff quality.

The Automag trigger design is essentially that of the Backup guns produced by AMT. This is not a trigger designed for match work and will not clean up to match standards, but the rework is well worth the effort for improved pistol performance. This same job can be done by Ray Peet on Backup pistols. Working over a trigger requires an experienced hand. Unless you are fully qualified, never touch the lock work on a gun even if you are skilled at other aspects of gunsmithing.

The trigger job on my Automag II reduced group sizes by about one-half. The 25-yard groups registered 1½ to 2 inches, and some individual loads produced ¾- to 1-inch groups (three shots). Having a decent trigger pull on this handgun is essential to obtaining its best performance.

BALLISTIC PERFORMANCE

Many people buy .22 Magnum handguns for superior ballistic performance compared to .22 Long Rifle loadings. The actual differences are appreciable and effective, but a few ballistic facts of life will give some perspective.

The .22 WMR was designed to produce optimal velocities in rifles. As loaded with Ball propellant, it will produce close to 2,000 fps in a 24-inch rifle barrel. In pistols, however, the relatively slow-burning powder cannot produce its full energy potential. Ballistic efficiency falls off much faster for the WMR than for high-speed Long Rifle ammunition.

In pistols, my chronographing experience with WMR ammo rates velocities in the 1,330 to 1,350 fps range (6-inch barrels). This is slightly better than what would be expected from a .22 Long Rifle out of a long barrel. The .22 LR registers slightly shy of 1,300 feet per second out of a 20-inch barrel and will produce about 1,075 fps out of a 6-inch pistol. All this represents a drop of 21 percent in velocity for a .22 Long Rifle and a 30 percent drop for the WMR, comparing rifle and handgun ballistics.

With this drop in ballistic efficiency the shooter experiences greater muzzle blast and flash. The Automag II recoil is pleasant enough, but it has a pronounced bark with a rather large orange ball at the muzzle. Ear protection is needed for shooters and bystanders.

CCI .22 Magnum ammunition loaded prior to August, 1987 uses a relatively fast-burning flake propellant. In Automag pistols, particularly new ones, such older CCI ammunition may not reliably cycle the slide. If you have any of the older CCI ammo that does not cycle the action, send it to Omark and they will replace it with their new loadings.

The only ammo that goes over 1,400 fps in the pistols is Federal and RWS. These register 1,410 to 1,430 fps out of the pistol, but accuracy in my particular gun was not the best.

Three-shot groups with different loads produced 25-yard groups that were consistently between 1 and 2 inches. Federal's new 50-grain hollowpoint loads registered several three shot groups slightly under 1 inch. This is pretty good shooting for silhouette and is certainly more than adequate for field targets. The best groups were shot with the trigger reworked and the sights blacked out.

Although muzzle blast is noticeably louder, the recoil factor with the Automag II is about equal to a Colt .22 Government Model conversion unit firing high-velocity .22 Long Rifle out of the floating chamber. The first-rate handle shape of the Automag II makes shooting and recovery a pleasure. Shooters with a heavy, fleshy web on the shooting hand may get pinched by the hammer spur. My hand is lean and medium-sized and I had no difficulty. However, with a high hand hold and loose web skin, it can get pinched. This problem is already corrected by a radius change on the frame. All future frame castings will be "pinch-free."

It's been a long time coming, but handgunners now have a sleek, reliable .22 Magnum autopistol. The market timing is good and AMT should enjoy success with this unique pistol.



.454 Casull

Continued from page 59

loading dies are manufactured expressly for the Casull cartridge, which is 1/10 of an inch longer than .45 Colt. Marketed by Freedom Arms, each green box and sizing die is marked FA. While the longer .454 cartridge will not chamber in a .45 Colt, the shorter cartridge works well in the Casull for light practice loads and small game. The .45 Colt handload with 230-grain cast bullet at 770 feet per second is the load my 10-year-old son Cal enjoys shooting in the Casull.

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