

44 MAG BBLE VOL., NO. 2 101 SUMMER 1979

News in News

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FIREARMS EXPERT
MYRON FASS
SPEAKS ON IMPROVING YOUR
PERFORMANCE
WITH A HANDGUN

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LEAD BULLETS ARE A
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CHEAPER—IF YOU
LOAD THEM
YOURSELF

Weatherby Magnum Rifles
FEW PEOPLE
LIVE TO SEE
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THE LONGER THE BARREL, THE GREATER THE VELOCITY IS TRUE—BUT ONLY TO A POINT

Special Service

ARTICLE BY LEE E. JURRAS

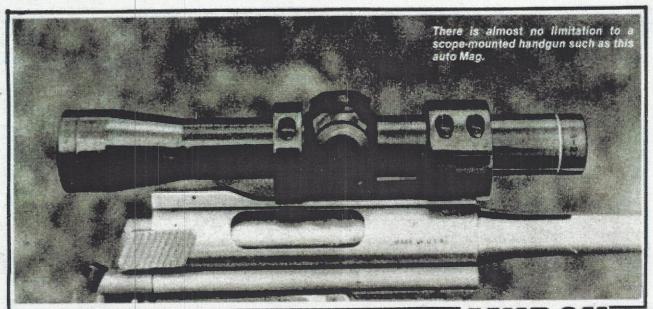
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MYRON FASS TALKS TO LEE JURRAS ABOUT THE PASSING OF THE AUTO MAG

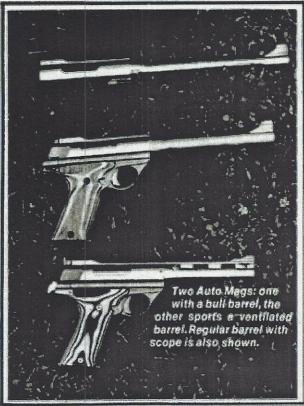
WAIT TILL YOU HEAR WHAT'S COMING NEXT!

The following text is an edited conversation which took place over the telephone between publisher Myron Fass and Lee Jurras, shortly before publication of this issue

Both Mr. Fass and Mr. Jurras are considered top authorities in the handgun field in general, but particularly so in the specific field of the magnum.

The editing consisted of omitting material of a personal nature, and certain words making it possible to have this magazine printed!

After eight years with the NYPD as Press and Community Relations Consultant, Myron Fass speaks with authority on all aspects of police work.







Editor's Note: We are sorry that we cannot complete this conversation, but it seems that somehow, the recorder got turned off. We are not too disturbed, however, as we know the American public is used to missing time on tapes, sometimes as long as twenty minutes...

FASS: "Good Morning, Lee, how are you, you old son of a ***?"

JURRAS: "Myron! Long time no hear, you miserable" *** ****! What's up.

ol' buddy?"

FASS: "I'll tell you what's up, you****

JURRAS: "Well, now that I know you're still your old self, Myron, What can I do for you?"

FASS: "I heard that you're no longer making the auto mag, but I just couldn't believe it. I figured it was just some fertilizer!" (not quite the terminology used!)

terminology used!)

JURRAS: "No, Myron, you heard correctly—I am no longer making the
Auto Mag."

FASS: "How come? I thought you were doing quite well with them, judging from what you charged me for that 31" barrel .44, I figure you were making a mint, you **** ****!"

JURRAS: "No, Myron, not really, it just wasn't worth the time and effort involved in producing such a quality

piece, even on a custom basis."

FASS: "What about ammo, Lee? Does this mean there'll be a problem

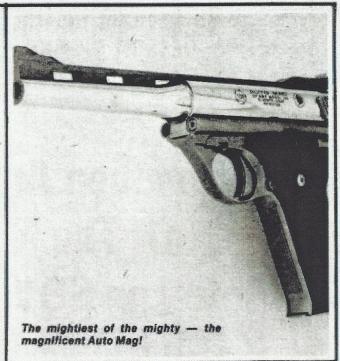
getting Auto Mag ammo?"

JURRAS: "No, not really. The standard .44 is, of course, available and the .44 AMP components will still be available in component parts for the reloader from SUPER VEL and others."

FASS: "Good, Lee—I'm glad to hear that. They're just too great a gun to leave on the shelf, so to speak!"

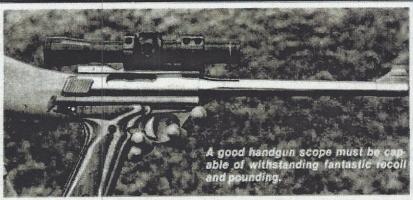
JURRAS: "That's true, Myron; and I'm really sorry that we had to stop them. Without doubt, they were 50% more 41





The Auto Mag and a scope — power and accuracy!

This scoped Auto Mag is amongst the most powerful, extremely accurate handguns in the world.





accurate than any revolver on the market today!"

FASS: "What are your plans, now, Lee?"

JURRAS: "I've been working on a dynamite new gun, which really has me excited!"

FASS: "A dynamite gun?"

JURRAS: "No, Myron, you ***! The principle is dynamite—not the gun! It will be a single shot pistol of enormous strength and capable of extreme accuracy."

FASS: "What caliber, Lee?"

JURRAS: "That's really the exciting 42 part! I'm working up some really big

stuff; in 50 and 60 caliber size!"

FASS: "Do you think there'll be a market for such a handgun, outside of a collector's interest sort of thing?" JURRAS: "Definitely! There is an ever growing demand upon the part of handgunners for a more potent caliber than the .44 for hunting, with these new biggies, the handgun hunter can tackle anything on earth without fear of being under-gunned!" FASS: "Sounds fantastic, Lee! What about scopes for such a gun?"

JURRAS: "At the moment, that's a problem, but I'm working on it with some of the better outfits. I believe

we'll have it licked by the time the guns are ready."

FASS: "Really sounds great, Lee. Tell you what, send me one of each caliber as they come off, and we'll do a test and give you some advertising. How's that sound?"

JURRAS: "Sounds great, Myron, but .

FASS: "But, what, Lee?"

JURRAS: "But you'll still have to pay for them, Myron!"

FASS: "Pay!"

JURRAS: "Yes, Myron, and I would also appreciate a deposit of a couple hundered . . . "

World's Most Potent Auto: THE AUTO MAG

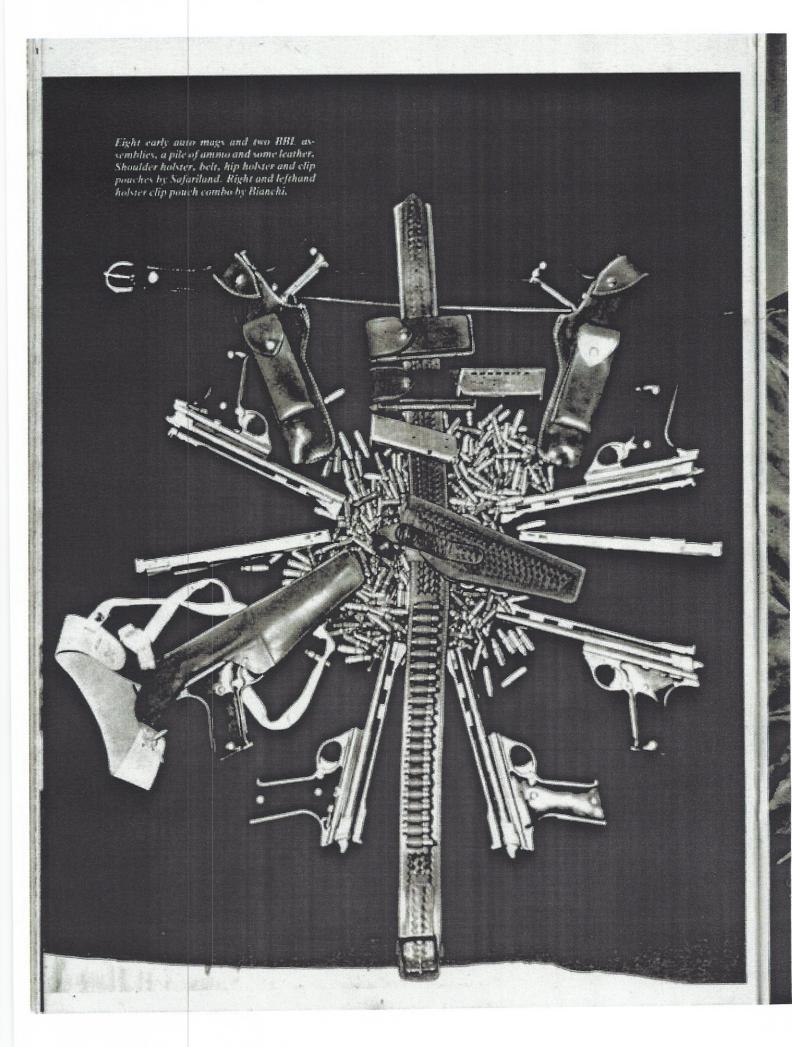
By Kent Lomont

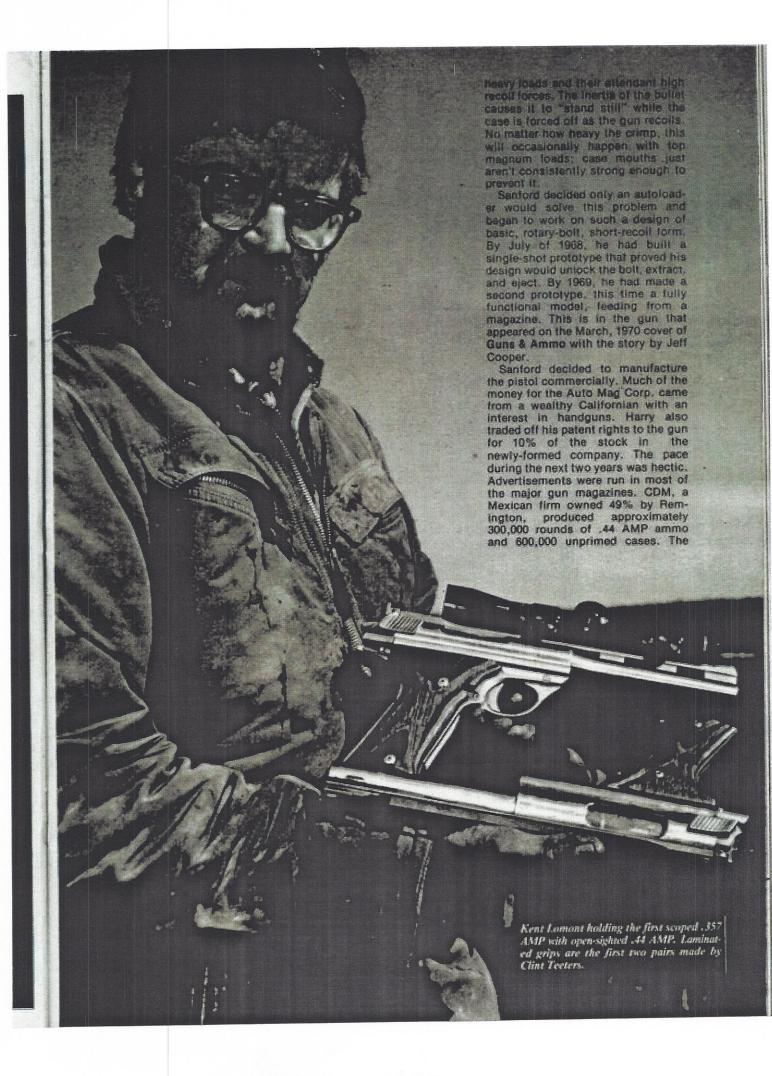
Advantages of the Auto Mag over the revolver include faster repeat hits, greater velocity and accuracy, and instant changes to other calibers and barrel lengths. Harry Sanford was hunting bear in the 1960s with a .44 Magnum revolver when he encountered a heart-stopping malfunction. When attempting a fast followup shot, he discovered the cylinder wouldn't rotate; the gun was locked up and incapable of being fired! A bullet had "walked" forward in its case to protrude from the face of the cylinder and jam against the frame to prevent rotation.

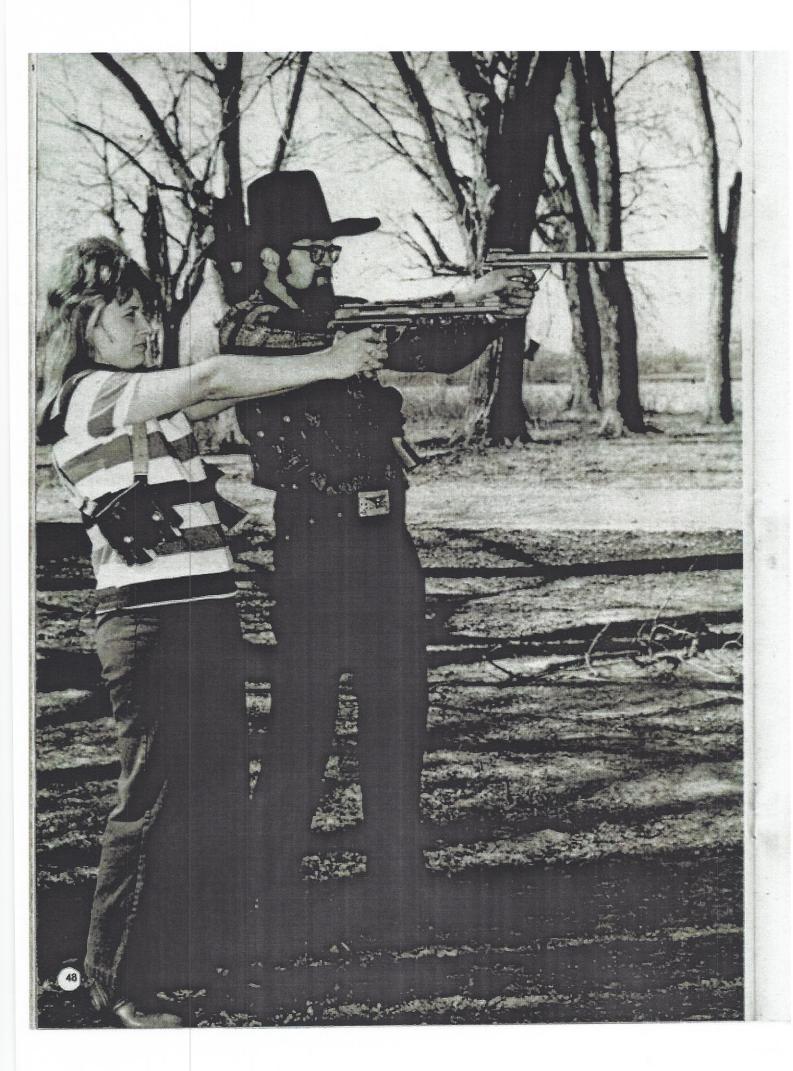
This is a potential problem inherent in all revolver designs; with











WORLD'S MOST POTENT AUTO

Auto Mag concept was tested in .357 and .45 caliber using the basic .44 case. Many tests were run to determine the best bullet shape, propellant, actual tolerances required for various parts, optimum materials required, heat treatment, small design changes, general debugging. best assembly and fitting procedures, etc. This would be a very difficult task for one of the large arms makers to perform on such a sophisticated piece of ordnance and seemingly impossible for a neophyte company like AMC. As it developed, ammunition working pressures were established in the 40-50,000 CUP range, well above the upper limits for

For these tests, the company hired a staff of metallurgists, engineers, draftsmen, ballisticians, tool and die makers and just plain gun nuts. Since the initial outlay to tool up to produce every part of the pistol was prohibitive, both as to cost and time factors, various vendors were contracted to manufacture many of the parts, with assembly to be done by Auto Mag. There were many delays, partly due to the failure of vendors to meet delivery schedules. Much of the delay was due to difficulties in working with the tough stainless steel. There were also the usual problems common to the manufacture of any new high-precision item-parts out of print and small design changes that were found necessary to facilitate manufacture various components. Heat-treat problems arose, and much trouble was experienced obtaining correct springs.

Then, finally, in the early part of 1971, the company began delivering a handgun unlike any other ever produced — a beautiful stainless-steel pistol weighing over 31/2 pounds, that bespoke quality and craftsmanship at a glance. This was the end result of a vast expenditure-the Pasadena Auto Mag. The manufactured from was 17-4pH; the bolt and entire barrel assembly from Carpenter 455. Most small parts were also from 455 with a few of 17-7 and 17-4. The pistol was delivered in a black, foam-lined, plastic attache case complete with

Author's loading bench set up with separate Star Progressive Reloads for each AMP caliber: .44, .41, .351, .30 and .25. Quite an investment.

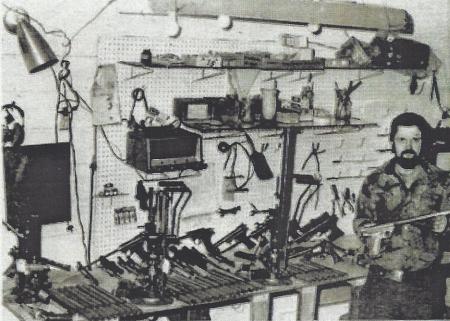
stainless Allen wrenches, special lubricant and the finest instruction manual ever to be included with a commercial firearm.

Although the piece cost much more to produce than the initial estimates had shown, those who had ordered while the price was under \$200 received their Auto Mags for that price. However, the retail price was soon forced up to \$275.

The Auto Mag Corp. was making and delivering guns, and had a fine staff with real interest in the Auto Mag's future, but the company was not progressing fast enough to suit the major financial backers. Late deliveries of a few critical parts put delivery months behind—and early in 1971, the investors pulled out. Auto Mag Corp. would have survived were it not for the late delivery of some of the parts. Although the company had almost all the parts on hand for 5000 guns, it became bankrupt in May of 1971.

At the bankruptcy auction, Tomas Oil Company bought up most of the

Lomont holds 16-inch .44 Auto Mag. In background, left, on bench are many new Auto Mag barrels in process of fitting, as well as numerous other Auto Mags used in his tests.



Two Auto Mags in action at Lomont's range: 8½-inch in foreground, 16-inch at arear. Latter has had barrel lightened by milling flats on both sides; extra long barrels can easily get too heavy for even the heavy-recoiling .44 AMP cartridge.

(Continued from page 49)

parts and tooling and formed TDE Corp. (Trust Deed Estates) with the purpose of assembling the guns after manufacturing the missing parts. Many people that had paid for their Auto Mag in full lost all in the bankruptcy. However, those that had made only a deposit had their money refunded as it had been placed in escrow. Some ill will still exists as a result of that unfortunate situation.

Tomas realized that revitalizing the Auto Mag required someone that understood it well-and who knew it better than Harry Sanford? Therefore, Harry was hired to head TDE. Initially TDE located in North Hollywood, but soon required more space and was moved to El Monte, its present location.

High Standard became interested in the Auto Mag and several hundred were purchased from TDE with the High Standard markings. Lee Jurras. founder of Super Vel and handgun hunter extraordinaire, became interested and had 100 each made in .357 and .44 caliber marked with special serial numbers and dubbed "The Jurras Custom 100 Series." Approximately 50 more were manufactured in the .41 JMP (for "Jurras Magnum Pistol"). At approximately this time, Sanford and his partner purchased TDE from Tomas and obtained the patent rights.

The major change in the Auto Mag

original "A" Series to the "B" Series. An explanation of the difference follows: First and most obviously, the "A" Model serial numbers start with the prefix AO and the "B" Models with the prefix BO. AO guns with the "B" Series bolt are converted "A" Series guns.

The main difference is in the bolt. "A" Model bolts were initially manufactured from Carpenter 455 and at a Rockwell hardness of 44-48 RC. At El Monte, they were changed to 17-4pH (Carpenter Custom 630) at an RC of 39-44, "B" Model bolts are fabricated from Carpenter 158 at hardness RC 55-58. Carpenter 158 is not stainless. but a highly shock - resistant tool steel.

All Auto Mag frames to date have been of investment-cast 17-4pH; originally the breeches were 455 at 45-52 RC. At El Monte, they were changed to 17-4pH hardened to 39-44 RC. Most modern repeating arms utilize bolts approximately 10 points RC harder than the breeches to aid in smootheness, among other things. Most of the "B" Model bolts, as mentioned before, are at 55-58 RC. Therefore, it can be seen that they are around 10-15 points harder than the breech which aids in smoothness of operation.

The "A" Model bolt weighs approximately 1820-1870 grains, depending upon the amount they were milled out on the bottom for cartridge clearance. The "B" Model bolt weighs roughly 2715 grains, which is a weight increase of around 50% over the "A" Model.

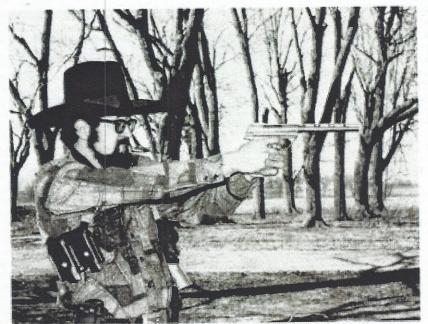
The additional weight of the "B" bolt arises from the fact that it is an almost "solid" bolt. The overall length of both bolts is the same at approximately 4,298-4,300 inch. The "A" Model bolt has a slot clear through it, measuring approximately 3.315 inches long and 0.325 inches wide. The new "solid" bolt has a groove, corresponding in location to the old slot, measuring approximately 0.325 inches wide and 0.135 inches deep. This groove extends through the rear of the bolt.

In the "A" Model gun the rotation pin must be removed to free the bolt so that it can be removed from the integral frame projection that it rides through. The rotation pin in the "B" Model is welded in with the central portion then removed, leaving two small lugs sticking out; one on each side of the inside of the projection. These lugs engage the slots in the bolt. The bolt must be inserted first from the front of the projection. The front stopped by the rotation lugs at the rearmost portion of its travel.

Some of the last "B" Model bolts have had the hole for the captive end

The Lomonts, father & son, wearing/





of the rotation spring relocated to increase the bolt rotation force at the moment of locking. Also some of the "B" Model bolts require small modification of the diameter of the firing

Generally, the "B" Model functions better than the "A," especially in the .44 AMP. This better functioning increases as the power of the load is increased. Recoil and the jolt of the bolt stopping sometimes causes the shells in the magazine to tip up at the nose and down at the base, causing what I call "hit the shell in the middle" malfunction. This occurs when the bolt closes before the base of the shell is back in pick-up position and is exemplified by a shell caught in the middle by the bolt.

The heavier "B" Model bolt causes the gun to work smoother and softer, thereby, lessening this tendency. Either model profits from the heavier operating rod springs for the same reason. Smoothness is further enhanced by the harder bolt explained above. The "B" Model firing pin and spring is completely protected from dirt and oil accumulation because it is housed in the bolt and not out in the open riding through the rotation pin as in the "A" Model. This decreases misfires due to dirt and oil accumulation on the pin and spring.

Due to its increased weight, the "B" bolt slams home harder and rotates to tock better, especially with a dirty chamber. The models with the

relocated rotation spring seem to work better than those without, but results are not positive due to the short experimental time.

Recently, Carpenter Tool Steel Co. has recommended that some bolts from the H-13 be tried as they are supposedly tougher than the 158. With luck, I will be testing some of these as you read this.

From the above, it can be seen that "A" Model guns can be converted to the "B" Model by welding in the rotation pin (only pins of 17-14pH) and removing the correct amount from the center, and then fitting the solid bolt. If necessary, the operating rods can be changed and sometimes the firing pin modified. Original Auto Mags were fitted with operating rods

Author shooting standard 8½-inch .44 Auto Mag, carrying a spare 10½-inch gun with scope in shoulder. Custom shoulder rig holds two upside-down magazines ready for instant use.

of .200 inch diameter, weighing approximately 360 grains per pair. Around serial number A06500, the diameter was reduced to .180 inch, with weight reduced to 300 grains per pair.

The "B" Model offers functional advantages in the .44 and .41 AMPs with heavier bullets, but not as much, if any in the .357, .30, .25, and .22 calibers.

The advantages of the Auto Mag over the revolver would be the following: Faster repeat hits, greater instant velocity and accuracy, changes to other calibers and barrel lengths. The disadvantages would be greater cost, less reliability and durability, loss of fired cases, smaller load tolerance and currently no factory ammo is available. Now , let's examine each of these so you, the reader, can make up your own mind. We will mainly be comparing the Auto Mag to the Smith & Wesson and Ruger .44 Magnums.

When Ma-Na-Ported, especially, the Auto Mag offers faster repeat hits than with the revolver, because of its autoloading action. However, the difference is very small and generally would be of no practical value for long-range work. At close range, the Smith has a very fast double-action—the Ruger a poor third even in very experienced hands.

As a general rule, working velocities with the same barrel lengths in the Auto Mag are around 250 fps

Lomont is one of the niggardly few handloader/shooters who have their very own ballistics laboratory set up. Here he prepares to insert copper-crusher cylinder in Phelps-type universal pressure gun. Other pressure barrels are racked on the wall at faster than with the revolver. With lighter bullets, the gain in favor of the Auto Mag is greater and it lessens as weight is increased. This is due to both higher chamber pressures and the absence of a barrel/cylinder gap. Heavy working loads in revolvers with the 180-grain bullet would produce approximately 1,550 fps, 1,625 fps, 1,690-1,750 fps from 4 inch, 5 inch and 61/2-81/2 inch barrels respectively. With 265 grain bullets, velocities will run about 1,100 fps, 1,200 fps, and 1,325 fps. As a general rule, there is no difference between the 71/2 and 8-3/8 inch barrel and often only 50 fps between the 61/2 and 8-3/8 inch tubes. Of course, individual guns may show up to a 200 fps difference with the same barrel length. But, the above figures stand as averages taken from over 50 ,44 Magnums chronographed.

Heavy working loads in the .44 Auto Mag would look like this: With the 180-grain bullet-1,800 fps at 61/2 inches; 2,200 fps at 81/2 inches; 2,050 fos at 101/2 inches; 2,100 fps at 121/2 inches; 2,200 fps at 16 inches. With the 265 grain bullet, it would look like this: 1,400 fps, 1,500 fps, 1,600 fps, 1,650 fps and 1,700 fps respectively. Very heavy super loads in the Auto Mag will push the 180-grain bullet at 2,200 fps from the 101/2 inch barrel and the 265 at 1,750 fps. This is very hard on the gun and for this reason such loads are not practical.

Notice that in the revolvers, there is very little reason to go longer than 61/2-71/2 inches for velocity only. Of course, if you find that you shoot better with the longer barrels, by all means use them. My favorite revolver is by far the 8-3/8-inch Smith. 44 Magnum with 250-grain bullets. The Auto Mag of course, gains velocity all the way up to 101/2 inches but becomes impractical with the 121/2 and 16-inch barrels. The factory manufactures 61/2, 81/2 and 101/2-inch barrels only. Of course, for special applications like the Jurras Alaskan Model with shoulder stock, the 121/2-inch can be utilized. My favorite barrel in the .44 Auto Mag is two heavy custom barrels that I made up in nine-inch length, although the heavier factory barrels in 101/2-inch will do nicely.

After having fired literally several hundred thousand rounds at targets, many using scoped 8 3/8 inch Smith's and 71/2-inch scoped Ruger's with the .44 Magnum and very close to 20,000 rounds using scoped Auto Mags in .44 Caliber, the results are as follows: Optimum loads in the .44 Magnum wil consistently group in three to four inches at 100 yards. Super loads will stay under 21/2 all day. In the .44 AMP, best loads will

stay under two inches all day. Both the ,44 Magnum and the .44 AMP will one-inch a occasionally turn five-shot group, with the latter doing it more often.

Therefore, we may say that by using the optimum loads, the Auto Mag is approximately 50% more accurate than the best revolver. Also, a greater range of bullet types and loads will shoot more accurately from the Auto Mag than from the revolver. As a very crude guesstimate. I would say that with all loads and bullets, the Auto Mag would be around two to three times as accurate as the revolver. Remember, this is inherent mechanical accuracy, not fleld accuracy. In the field, it takes an exceptional shot to tell the difference between even 3 MOA and 6 MOA ammo. I can't do so under field conditions most of the time, but it will show up off the bench using scoped guns.

For what it's worth, the Auto Mag can be instantly changed to other calibers and barrel lengths. This is not the great advantage usually supposed, though, for the serious shooter. A really serious shooter who burns up lots of ammunition should own at least two of each handgun used regularly because all are subject to parts breakage.

The initial cash outlay for the Auto Mag is greater than the revolver. Also, it is more expensive to shoot, by a very large margin, due to the expense of replacement parts. Actually, the best buy in a Magnum Handgun would have to be the Ruger Super Blackhawk, It will run more rounds than any other if its tendency to shoot off the ejector rod housing is discounted, and this does not put it out of action, just makes reloading slower.

The Ruger is therefore the most durable magnum handgun, the Smith & Wesson running a close second, and the Auto Mag a very poor third. An Auto Mag is definitely not reliable enough to safely hunt dangerous game unless two very well tuned guns are used in the hands of an expert. Actually, I would never bet on any one handgun and would always carry a spare. Also, it makes sense when hunting something dangerous to employ an experienced rifleman as a back-up wherever possible.

Currently there is no factory ammo for the Auto Mag. Ammo is being supplied by several custom loaders in the U.S. The price of this ammo is necessarily high, as there is a great amount of time required to form the Auto Mag brass from the .308 or .30-06. Therefore, anyone using the Auto Mag will, out of necessity, have to become a handloader in short order. Also, the Auto Mag, being semi-automatic, loses more brass than the revolver and this adds to overall ammunition cost.

In summary, the Auto Mag offers greater velocity, flatter trajectory, and faster repeat shots than the revolver. It does this at a great sacrifice in durability and reliability and a great increase in expense. However, in the hands of an expert, the Auto Mag will outperform any repeating handgun in the world.



BARREL LENGTH vs. Velocity

greater the velocity is true only to a point. Because of this general understanding, barrels of 8, 10 and 12 inches are appearing in competitive handgun events with the belief that length gives the owner a bit of an edge.

By Lee E. Jurras

III It's been said, and I agree, that .44 Magnum full-charge loads shot from a four-inch barrel are a handful.

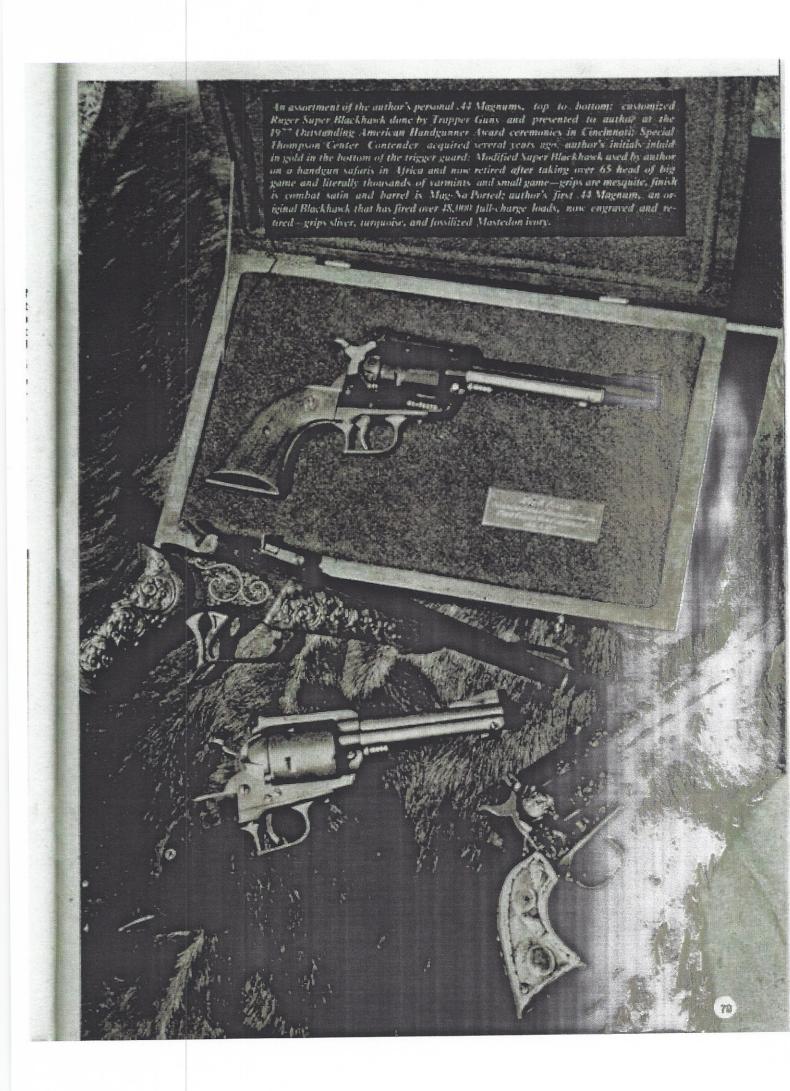
The longer the barrel, the Recoil is smart, to say the least, and blast and flash are vicious. Jump is very substantial, too, a good bit more than with the longer tubes. The only guy I know who can hold that muzzle down consistently is ham-handed Bill Jordan. But if you think the four-inch is bad, friend, you ain't seen nothin' yet unless you've tried those full-bore factory loads in a two-inch barrel. I have, and I know, It all started when I received a phone call asking me if I'd care to run barrel-length vs. velocity tests for this book; I agreed (for a fee) but little did I realize just what I was getting into.

It is generally understood that handgun barrels of different lengths produce different velocities with the same load. Until recent availability of the moderately priced chronograph it was amazing to meet and talk with numerous pistoleros who thought their favorite .44 Magnum produced 1450 fps with a 240 grain bullet, regardless of barrel length. Laugh if you want, but it still amazes me today the number of would-be pistoleros, including many professional gun handlers, who still harbor the same thought about it and most other cartridges.

The Super Vel Cartridge Corp. in 1967 was the first major ammo maker to advertise velocities of standard commercial loads, taken from individual handguns in various barrel lengths. This was followed a few years later by Speer as they entered

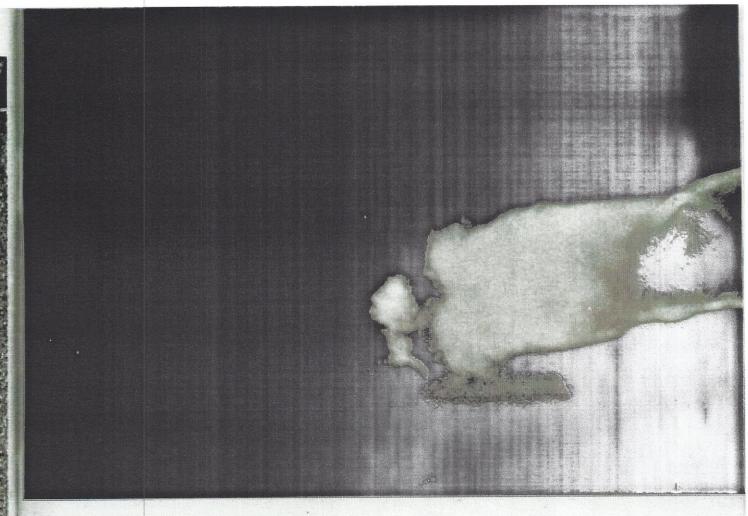


Ruger, shown with 2" bbl. and eight 1" increments.









Customized New Model Ruger Super Blackhawk made up specially for the author-by Lin Trapper. Presented to Jurras 19 May 1977 as a token of appreciation for the great amount of handgunning promotion he has done over the past two decades. Gun Ma-Na-Ported, finished in mirror-bright blue, with hammer and trigger gold-plated, ejector rod housing finished in silver.

the commercial ammo market. The excellent No. 9 Speer loading manual discusses this in generalities in various calibers and loads. More recently, Remington announced it would begin measuring velocities of revolver cartridges in vented barrels intended to duplicate the barrel/cylinder gap inherent in all modern domestic sixguns.

When these velocity differentials became generally known to the growing number of students of the various phases of hand-gunnery, many felt they had been ripped-off by false advertising and claims. Nothing could be further from the truth.

Stop and think for a moment; wouldn't it seem feasible that major ammo makers would have an estab-

Original Thompson/Center Contender used as display gun. Engraved with gold inlays including owner's initials and birth date, serial number, ornately carved grips of nicely figured wood. lished manner or standard for maintaining quality control during the manufacturing process, as well as established standards from which to initiate research and development?

It is not within the scope of this article to elaborate on these standards and specifications nor how they are maintained. It is fair to say they exist, and are established to rigid specifications by the Sporting Arms and Ammunition Manufacturers institute (S.A.A.M.I.). The system may not seem the best today, but it originated many years ago and has served us all well. In a way, its results are more comparative than quantitive. If not truly repetitive of performance in individual guns, they still allow comparison and evaluation by the shooter, as well as control by the manufacturers.

Briefly, let us state that chamber pressures and velocities are measured in fixed (one-piece) barrels of given length, for a particular callber; bore and groove diameter, throat, headspace and chamber dimensions are likewise held to close tolerances, closer than they are held in production guns. Consequently, when velocities are published they are usually published as from the taken pressure S.A.A.M.I,-specification and velocity barrels and become what is known as the "standard of the industry." If no such standards

Muzzle flash from the two-lock barrel was quite erratic, ranging from moderate factually less than expected) up so the tremendous, elongated closed of miriling flame that extended well outside the camera's field. Both flashes shown were produced by the Norma JSP load. Hierzle flash provided the only illumination for these pictures, which were shot outdoors in almost full dark.

existed, there would be no basis upon which to make any intelligent comparison or choice.

Common sense must dictate; that if Harry Handgunner uses a revolver that has a barrel 2 to 6 inches shorter than the "standard," having a gsp between cylinder and barrel, and possible a slightly larger bore and groove diameter, plus maybe a longer throat, that he will probably obtain a velocity somewhat less than that "standard" we spoke of.

To the more knowledgeable and/or experienced handgunner/handloader the above statements are reasonably understood and seem rather basic. It is also generally understood among this group that in handguns, the longer the barrel the higher the velocity. This is true to a point—but only to a point. Because of this general understanding, and with the growing interest in handgun hunting and handgun metallic allhouette

BARREL LENGTH vs VELOCITY

competition, barrels of 8, 10, and 12 inch length are arriving on the handgun scene in increasing numbers, in the expectation that they will give the owner a bit of an edge.

In actuality, the longer tube serves a dual purpose to the handgun specialist. First, the longer barrel offers an increased sight radius, reducing sighting error over the longer ranges. Secondly, when handproper propellloaded with the ant/projectile combinations, it can offer 75-100 fps more velocity per barrel inch than certain commercial loadings. During the past two months I have attended three metallic silhouette matches. In discussing loads with various competitors in both "production" and "unlimited" classes a full 50 percent were using loads totally unsuitable or at least not the most efficient loads for their

long-barreled .44's. They wrongfully assumed that because they had the ionger barrels, they were getting more velocity. In some cases they may well have been getting less, and thus unwittingly handicapping themselves.

Incidentally, this is not only true of handloads, but of some factory loads as well. The .357 Magnum in light-bullet loadings is a particular offender, often producing greater velocity from a 6-6½ inch barrel than from the classic 8-3/8 inch tube.

Handloading for high performance and hunting will be dealt with in another chapter. Briefly, let me state that WW-231, Unique, and WW-630 will generally "peak" in barrels of 6½ inches or less and are not the best choice for long barrels or long-range loadings. Stick with the WW-296 and H-110 and propellants of comparable

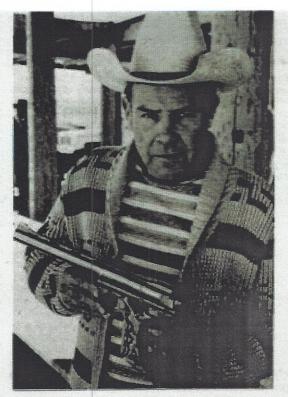
burning rates, to attain maximum velocities in the longer barrels.

Again, it is beyond the scope of this effort to compare all the suitable propellant/projectile combinations for each barrel-length/velocity test. The purpose of this article is to develop a general guideline of velocity/barrel-length combinations, from readily available factory loadings of the hunting type, as well as the medium velocity, lead-bullet variety.

By using different guns with different barrel lengths to do a test of this type, the many variables in manufacturing tolerances are compounded and gun-to-gun variations would make the results rather in-

Ruger S.B.H. with Douglas premium 10" bbl.. Ruger finish, SS Chromium M by Metalife Industries, shown with test ammo and Oebler Mod. 32 Chronotach.





Lee Jurrus develops a general guideline of velocity/barrel-length combinations from readily available factory loadings of the hunting type, as well as the medium velocity, lead-bullet variety.



norma -44 MAGNUM BAT HOSE FOERAL Remington

Ruger S.B.H. with Douglas premiuw grade bbL, SS Chromium M Snish by Metalife Industries, Ochler Mod. 32 Chronotach and Ochler Mod 61 38 passesen in background.

Ammunition used in the test.

conclusive. To minimize these variables we have taken a single handgun whose known bore dimensions fall well within the accepted parameters of S.A.A.M.I. standards for the .44 Magnum. To further minimize these variables, all shots were fired from the same caliber. Ten rounds of each load were fired at each 1 inch increment, starting with the 10 inch

In conclusion, I'll state, I've found the .44 Magnum a pleasure to shoot in 61/2 inch to 10 inch barrels. But it's a real bear, to say the least, with factory 240's from the snub-nose version.

Nothing worthwhile is without cost, so we decided to sacrifice the 10-inch custom barrel on one of my Ruger Super Blackhawk .44 Magnums; its barrels had been carefully checked and found to be within SAAMI test-barrel specifications. Test procedure was established requiring 10 rounds of each make of ammunition to be tested for velocity from the full 10-inch barrel; the tests then to be repeated after sawing off the barrel to 9 inches; again at 8 inches, and 7, 6, 5, 4, 3, and 2 inches. This involved a lot of shooting—at least 310 rounds 310 rounds -which developed into much more when some strings had to be re-shot, guns as fast as possible. because of muzzle blast triggering

the chronograph before the bullet reached the screens. To avoid this, a heavy baffle was installed between the gun and the start screen containing a 1½ inch x 3 inch hole; alming and shooting had then to be done through the hole in the balille. Then there was the matter of hacksawing an inch off the barrel and trueing up the muzzle eight times. The itrel test series could be aimed with the original front sight, but thereafter, re-installation of the sight was necessary to avoid the possibility of a poorly-directed bullet wrecking an expensive Oelher Model 81 Skyscreen and stopping the tests. Drilling and tapping the barral after each cutoff was out of the cuestion various 80 adhealves tried-with the result that none of them, not even cyanoacrylate "super glues" would hold against the big 44's recoil. No matter how well "glued" in place, the front eight popped off, and at the shorter barrel lengths, was thrown 15 to 20 feet (really) into the air. Eventually I just gave up and simply set the front sight on the barrel for alming, then picked it up off the ground behind me after each shot.

I've shot lots of .44 Magnums, over 5,000 full-charge loads at varmints alone during the past year. Recoil and blast have never bothered me, even when function-firing 4-inch

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