

Reloading the .44 Magnum

On the scene for nearly 50 years, it's the most versatile revolver round of them all.

By Patrick Sweeney



The author's favorite guns for the .44 Magnum are Smith & Wesson Model 29s of various vintages. However, he doesn't feed them the heavyweights, only loads up to 240s at 1,300 fps max. Hotter loads go into Rugers.

We all know the history, how Elmer Keith loaded the .44 Special case to its "true potential" and created the precursor to the .44 Magnum. And in so doing, he embarrassed the ammunition- and handgun-makers into realizing what a great cartridge they had been overlooking.

Nonsense. What Elmer Keith did to achieve his breakthrough was simple: He designed a bullet with more of its shape (and thus volume) out of the case than in. Doing so gave him more case capacity. And he used slower-burning powders than had previously been used for handguns. Whereas most handgun cartridges in the early part of the 20th century were loaded with Bullseye or other fast pistol-powders, he used fast rifle-powders. The availability of a variety of powders with differing burn rates was a relatively new development when it appeared in the 1920s. And finally, he exceeded the pressure limits of the .44 Special, something he could do only because of the greater strength of the Smith & Wesson revolvers he was using.

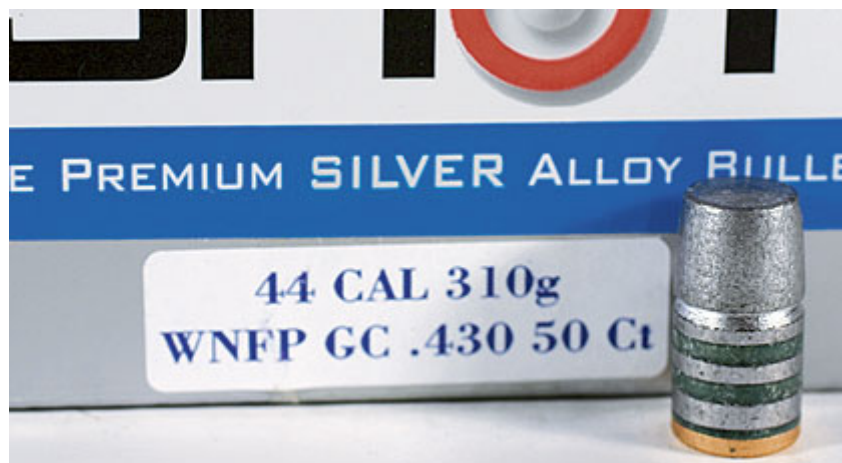
Compared to the Colt SAA or the raft of other .44 competitors available then, the S&W Triple Lock was strong. By today's standards it is not, and if you have one, you should not attempt to follow in Keith's footsteps. What was significant was that he was first, and he was a thorough experimenter who learned from his mistakes. The end result was a great advance, but you must recognize all those reasons in order to safely load the .44 Magnum beyond .44 Special pressures.

Unlike many other cartridges, the .44 Magnum is actually three cartridges. Run at the sedate and low pressures of the .44 Special, it is both a soft-shooting load and a thumper. A 240-grain lead semiwadcuter loaded to only 900 fps posts a power factor of 216--beyond all but the top-end .45 ACP +P loads.

At that power level the cases may come out of your revolver grubby from carbon. Without enough pressure to expand the case to a tight seal, gas blowback can come between the case and chamber walls, creating the carbon coat.

The same PF can be gained by launching a 180-grain JHP to 1,200 fps, something no .45 ACP +P load achieves. In its current full-power guise, the .44 Magnum pushes a 240-grain bullet to 1,200 fps, for a 288 PF. I know for a fact that a hard-cast bullet pushed along at "only" 1,000 fps can penetrate and exit

a 36-inch-deep stack of ballistic-gelatin blocks. The 240 could do the same even after going through bone. A full-power .44 Magnum load is a serious hunting load.



This is the Oregon Trail True Shot 310 Wide, a flat cast bullet with gas check. If you need a sledgehammer, this is it.

The newest and even more powerful level, the "third .44 Magnum," is achieved with even heavier bullets. The bullets range from the 270-grain Speer Gold Dot to the Hornady 300-grain XTP and Oregon Trail's 310-grain Trueshot. The only way the newest loads can be used is to extend some of the limits of what Elmer Keith started: more weight out of the case and slower powders.

The pressure can't be increased, for there is no margin left. All the top-end reloading data with pressure-tested data shows .44 Magnum loads maxing out at 35,000 psi (or 38,000 CUP). The SAAMI specs call for a limit on the .44 Magnum of 36k psi (40k CUP). When you're launching a 300-grain bullet past 1,200 fps, you want to keep the margin available in case of trouble, not use it to generate a few more feet per second.

SAMPLE RELOADS FOR THE .44 MAGNUM				
BULLET WEIGHT	PRIMER	POWDER	WEIGHT (grs.)	VELOCITY (fps)
S&W M29, 4-inch barrel				
180-gr. Oregon Trail LTC	Rem LP	Titegroup	5	926
180-gr. Hornady XTP	Rem LP	HP-38	6.3	948
180-gr. XTP	Rem LP	N-320	7.5	959
180-gr. XTP	Rem LP	N-320	10.2*	1,299*
180-gr. Oregon Trail LTC	Rem LP	Bullseye	6.7	970
180-gr. Oregon Trail LTC	Rem LP	HP-38	6.1	927
240-gr. Oregon Trail LSWC	Rem LP	2400	18.5	1,275
240-gr. Oregon Trail LSWC	Rem LP	Titegroup	5.5	853
240-gr. Oregon Trail LSWC	Rem LP	Titegroup	9.5	1,203
240-gr. Oregon Trail LSWC	Rem LP	N-350	12.6*	1,284*
240-gr. Hornady JSP	Rem LP	WW-231	9.5	1,056
240-gr. Hornady JSP	Rem LP	HP-38	9.5	1,147
240-gr. Oregon Trail LSWC	Rem LP	AA#5	10	832
240-gr. Oregon Trail LSWC	Rem LP	Clays	5.2	873
Ruger Super Blackhawk, 7.5-inch Barrel				
240-gr. Oregon Trail LSWC	Rem LP	N-350	12.6	1,289
240-gr. Hornady JSP	Rem LP	N-105	16.1	1,411

280-gr. Berry	Rem LP	H-4227	20.6	1,292
300-gr. Hornady XTP	Rem LP	N-110	17.7	1,269
310-gr. Oregon Trail Trueshot	Rem LP	N-110	17.7	1,271
310-gr. Oregon Trail Trueshot	Rem LP	H-110	21	1,311
310-gr. Oregon Trail Trueshot	Rem LP	Lil' Gun	16.2	1,211
*Loads proven safe in author's gun, but he has seen pressure signs in others. **For Ruger Redhawk, Blackhawk and Super Blackhawk revolvers only. Start at least 10 percent below and work up, watching for signs of excess pressure				

What do we need the power for? The basic .44 Magnum loads, while not running any more pressure than a warm .44 Special or a .45 ACP +P, have enough power to be a significant handgun load. You can learn to shoot a revolver accurately with such loads. A 240 at 900 is stout enough to be a "real load" but not so heavy that you'll spend more time flinching than aiming. You can easily load a 180 lead truncated cone to 950 fps and go shoot a practical match with a practical gun.

In bowling-pin shooting the .44 Magnum is very well thought of. You can get a .44 Magnum load that exceeds the working PF threshold of 195 with ease. With a pair of guns at hand you're ready to dish out destruction to a tableful of pins without beating yourself up.

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For heavy loads with heavy bullets (left to right: Berry 285 grain, Oregon Trail 300, OT True Shot 310), the author likes Hodgdon H-110. It meters well and shoots consistently.

If you're going to go to Alaska and feel the need for a bear gun, you'll want to start your practice with something easy. Working up from a "wimpy" IPSC or pin load to a hunting load, to a bear defense load, in the course of a few months of practice, you can get very good with a handgun. If you think, "I'll only need six or 12, and all I need do is check to see that it's sighted-in," you will not be as effective. Some will argue that the definition of a "bear gun" does not include any handgun, but that is a different discussion for a different article.

The next step up, the full-power hunting load, is just that. With a 240-grain bullet at 1,200 fps, you can shoot through any deer that walks the North American land mass. With a hard-cast bullet, you'll probably find your load exiting the far side of an elk. Having both entrance and exit wounds lets blood out and air in, which is desirable for a quick stop on your quarry. While wild boar are a lot tougher than any deer, the "240 at 1,200" equation will do yeoman's work in puncturing and perforating big hogs. It is also the top end of what I would subject a Smith & Wesson revolver to.

Yes, you can go a bit further if you have a current-production gun and not a 30-year-old gun. S&W has been fine-tuning the design and

manufacturing of its magnums for many years. And the alloys are tougher. But there is only so much the gun, and the shooter, can take.

Call me wimpy, but I just don't find the bullets heavier than 240 grains fired out of my M29 to be any fun to shoot. For the heavier bullets and loads, I use a Ruger--Super Blackhawk or Redhawk. The SAA-shaped handle of the Super Blackhawk or the greater mass of the Redhawk tame the heaviest loads enough that I can shoot them enough to test the loads.

The top-end loads are for those who wish to hunt the biggest game for which they have the nerve. Out of a Redhawk, Super Blackhawk or Super Redhawk, a 310-grain Trueshot hardcast bullet at 1,200 fps will shoot through an elk or three wild boars. It probably would exit the far side of a bison. You will almost

certainly have to find an outdoor range on which to practice. The indoor range I go to in the Detroit area, Double Action, has a backstop that shrugs off such loads with impunity. But many do not have such good steel and will whine about even a single shot.

Loading the .44 Magnum is pretty straightforward. It is a straight-wall, rimmed revolver case with a wide rim and tough brass. While I've run into soft 9mm, brittle .357 and .45 ACP with rims of odd dimensions, all the .44 Magnum brass I've ever used has been tough, uniform and consistent. At the pressures at which it runs, any manufacturer who got sloppy would hear about quality problems.

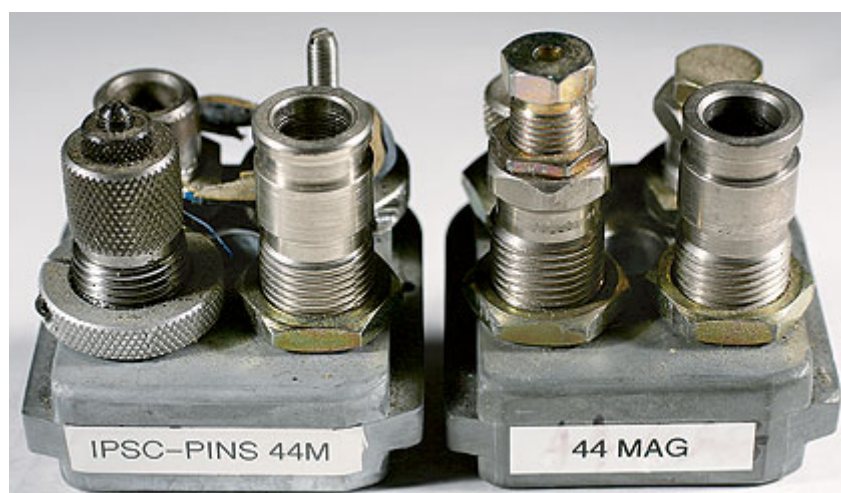
All cases used for .44 Magnum loading must be full-length resized. The rifle-only approach of neck sizing for greater accuracy (something even rifle shooters have abandoned) is not relevant or useful for the handgun. You may find that the cases used for your stoutest loads will be very hard to resize. Back when I was loading on a single-stage press, I thought I'd have to stand on the handle to size some cases or use a length of pipe for extra leverage.

The trick with the hottest loads is to use both a tungsten-carbide sizing die and lubricant. The extra step is not as much work as you'd think. After all, how many rounds of 310-grain bullets at 1,200 fps are you going to load? And having loaded them, how quickly will you be shooting them? Now, I still use that single-stage press to size my top-end power cases, then I load on a progressive once I've cleaned off the lube.

In bullet diameter, you are in luck. As the .44 Magnum is a new (relatively speaking) cartridge, the dimensions were strictly laid down from the beginning. And due to its power and the need for top-quality construction in the firearm, there were few fly-by-night manufacturers who made .44 Magnum handguns. As a result, you'll find an easy consensus on diameters: jacketed at .429 inch and lead at .430 inch. You needn't worry about experimenting with odd diameters to find the best accuracy as the likelihood of running into a barrel or chamber throats with odd diameters is exceedingly small.

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What you will have to contend with is case length. In its most powerful loads, the .44 Mag is as sensitive to case length as a rifle can be. For the standard loads, the IPSC or pin-level loads and the standard hunting load, I don't trim brass. I make sure the cases are clean and not cracked, and I load them. The taper-crimp station on the "IPSC/Pin/Mag" diehead setup crimps evenly and consistently enough to hold the bullets. However, the 260-, 280- and 310-grain bullet loads need more. I trim the cases used for those loads to 1.275 inches. I also polish down the bell-stem diameter. In the standard diehead setup, the bell stem mikes at .427 inch while the diehead for the top loads has a bell stem that mikes .425. Additionally, I use a heavy roll crimp to keep the bullets in the case under the recoil.



The author has two dieheads set up to load .44 Magnum. One is for standard loads, the other for heavy-bullet, heavy-crimp loads.

The .44 Magnum uses large pistol primers. Unless the powder manufacturer specifies a magnum primer, I stick with standard primers.

At the basic level, we're talking loads that run at .44 Special or .45 ACP pressure levels. Maybe .45 ACP +P. But the difference between a 15,500-psi .44 Special load and a 23,000-psi .45 ACP +P load is nothing to the .44 Magnum case and the firearm for which it is chambered. The SAAMI ceiling for the .44 Magnum is 36,000 psi. You do not want to approach that with any of the fast-burning powders that are appropriate for the softer loads. Powders do not always respond in a linear fashion when you get out of their comfort zones. So do not try to equal factory full-power ammo while loading with Bullseye or other fast-burning powders.

My new favorite powder for the .44 Magnum is Titegroup. I have loading data in my reloading logbooks dating back to 1976. Back then we had few choices. Since everyone was trying to load to the maximum, there was little data except for slow-burning powders.

For general fun with a bigbore and plinking, I load 5.5 grains of Titegroup under a 240-grain lead semiwadcutter (like one of the ones from Oregon Trail) and plink away at 850 fps velocity. While it seems sedate, the load delivers a Power Factor of 204--stouter than almost every factory .45 ACP load.



Some great .44 Mag bullets, left to right: the 240-grain Oregon Trail, Berry 285, Oregon Trail 300 Truncated Cone and 310 True Shot.

For a lighter load, I substitute a 180-grain lead bullet and slow down even more to five grains of Titegroup. At its 925-fps velocity, the load just makes major for USPSA/IPSC shooting, the cost in powder is cheap, and the bullet shape is conducive to quick reloading. Were I loading for better accuracy--say, for a match where I'd want to use jacketed bullets--a 180-grain Hornady XTP over 6.3 grains of HP-38 would deliver just under 950 fps--a soft load with plenty of accuracy.

The loading manuals do not have a lot of data on powder-puff loads for the .44 Magnum. One approach you can take is to use .44 Special loading data and load from the top. For example, Vihtavouri shows its "softest" load with N-320, a 180-grain Hornady XTP, as being 10.2 grains and 1,300 fps. (It is all of that!) If you want a softer load, the .44 Special data tops out at 7.5 grains of N-320 for 1,033 fps. In the longer Magnum case, 7.5 grains and a 180 Hornady delivers 959 fps out of my 4-inch Model 29.

Loading the .44 Magnum to full-power levels is what everyone has looked toward for decades. When it first came out, there were dire warnings that you could injure yourself shooting a full-power magnum. When the Dirty Harry craze hit, you had to get on a waiting list to find out if the predictions of injury were true. In the late 1970s you could walk into more than one gunshop and buy a Smith & Wesson M29 that had been fired a grand total of six times. I remember one such incident: A fellow dressed in a suit stepped to the firing line at the state range in the summer of 1974, a box of .44 Magnums in one hand, a pistol case in the other. Six one-handed full-power .44 Magnum shots later (with no hearing protection), he zipped the 4-inch M29 back into the case and left. I never saw him at the range again.

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For extreme accuracy as well as power, Hornady XTP bullets get the nod. Left to right: Hornady 240 XTP, Oregon Trail 240, Hornady XTP 300 and Oregon Trail True Shot 310 WFP.

Loading data for full-power 240s is easy to find. It is what everyone aspires to load and shoot. For the longest time I stuck with 2400, loading 18.5 grains over a lead or jacketed bullet. You can expect more than 1,300 fps out of an 8-inch barrel, just about 1,300 from a 6 and a very noisy 1,275 fps from a 4-inch barrel with that load (and a bunch of unburned powder). A much cleaner load is 9.5 grains of Titegroup, for 1,200 fps. The Hodgdon book shows that more powder gets you more velocity, but I prefer not to crowd the pressure limits with fast powders.

One load I am fond of in the 240-grain bullets is an old one: a 240 Hornady JSP (I lucked onto a bucketful at a gun show at a good price years ago) and 9.5 of WW-231. It delivers 1,056 fps out of a 4-inch M29 and is not painful to shoot. When I was offered a drum of HP-38 by a retiring reloader, I looked into loading data for it. I found that, for all intents and purposes, HP-38 and WW-231 are the same, so I've loaded that ever since. I've spent a lot of time on the range plinking at the 100-yard gong with that load, and if I hold at 12

o'clock I'll hit it every time.

If I need more than 1,050 fps, I'll go to a slower powder, and that powder often is Vihtavuori, either N-350 or N-105. N-350 is a moderate-speed powder that you can use to get to 1,300 fps and beyond (but not much beyond). In a 4-inch gun I can get 1,284 fps, and in an 8-inch gun I can stretch that to 1,321 fps. In both guns the load is 12.6 grains.

I can see someone in the back, scratching his head. "Add 50 percent more powder just to get 100 fps?" I learned from loading rifles that trying to stretch a fast-burning powder for "just 100 fps more" can leave you with a rifle in which the bolt is locked shut. I don't need to replicate that in a handgun. If I feel the need for serious velocity, I load N-105, but I reserve it for Rugers-- Super Blackhawks, Redhawks, Super Redhawks. The top load I shoot is 16.1 of N-105 under a 240-grain JHP like the Hornady. It gives me 1,411 fps out of the long barrels of those guns. I do not shoot the load out of my S&W 29s. Even if they are up to it (we're talking a 338 PF), I am not up to it.

There is someone out there who is muttering, "A 240 at 1,400 fps? It isn't so bad. I could shoot it out of a Smith." Well, you're a tougher man than I am. I prefer that on the drive home from the range I be able to feel the steering wheel of the truck. I reserve the hottest 240 loads and all the heavier bullet-weight loads for Rugers.

While I've been loading the .44 Magnum for many years, I have not spent as much time loading the heavyweights as others have. Launching a 300-grain or heavier bullet at supersonic velocities struck me for a long time as riflework. However, the increase in interest in loading for them required that I take a look. Many range reloading and chronographing sessions for other calibers can last hours and have me launching hundreds of rounds over the screens. Testing the 300s was a 20-rounds-per-session exercise. Any more than that and I found my trigger control was seriously diminished. However, I did manage to work my way through a series of loads, enough to produce interesting data.

My time was spent with Hodgdon and Vihtavouri powders. I found that they all worked as advertised, and they were all more than I found fun to shoot for more than a few rounds. Two good ones that work well are the new Oregon Trail True Shot 310-grain Wide-Flat cast gas-check bullets and 21 grains of H-110. Out of a 7.5-inch Ruger, it will deliver 1,311 fps for an impressive 406 PF. The Berry Bullets 285-grain plated bullet and 20.6 grains of H-4227 delivers 1,292 fps.

The slowest Vihtavouri handgun powder is best when running super-heavies over the chrono (and through deer, bear and elk), and thus N-110 gets the nod for Hornady 300 XTP and Oregon Trail Trueshot 310 WFN bullets. And 17.7 grains of N-110 under either delivers velocities that bracket my old radio-station frequency: 1,269 and 1,271 fps, respectively.