Reloading the Oddballs!

.300 H&H Magnum: Back In Style?

Savage .22 High Power

Loads for the .32 H&R and .327 Federal Magnums

IT'S BACK!
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The Browning B78 .223 Remington is outfitted with a Leupold 3-9x Century Limited Edition 40mm scope in Leupold rings and bases. Photo by Stan Trzoniec.

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Q: I have been subscribing to gun and reloading magazines since the late 1960s and became involved in reloading in 1969 using RCBS equipment after visiting with Mr. Huntington in Oroville, California. I follow your articles in Handloader magazine avidly upon receipt.

I’ve been reloading for revolvers since 1969, using Lyman and Speer reloading manuals (as well as others) as a guide. I have noticed over the years that as new reloading manuals are published (even the same brand) the recommended loads for the same powder (say, Hercules or Alliant Unique) have been reduced. For example when loading for the .44 Special and .44 Magnum, as well as .45 Colt, maximum listed loads now contain less powder than data from 40 years ago.

Does this mean the composition of the powder has changed requiring less powder weight for the same bullet? Would it follow then that older manuals actually become obsolete? I still have my Speer Number 8 manual, even though I’m using the Speer Number 13 now. Or have we become more conservative in our publications due to the litigious nature of our society in the twenty-first century?

Keep up the writing. Your articles are first read quickly and then studied!

– I.O., Stamps AR

A: Thank you for your kind remarks. You raise some excellent questions that are pertinent to today’s handloaders. In some instances, powders have changed enough to warrant a reevaluation of proper powder charges. For example, approximately a decade ago, Alliant Unique was “cleaned up” to burn cleaner, but the burn rate remained similar pounds per square inch (psi) in the past 40 years, with the latter version being a much more precise method. Industry standard pressures for many cartridges have also changed, which has naturally affected handload data.

Since you mention the .44 Magnum, let’s consider that in 1970 its maximum average pressure was 43,500 CUP, whereas today it has been changed to 36,000 psi. Regarding the .44 Special and .45 Colt cartridges, there was a time when reloading manuals commonly offered data that exceeded industry pressure limits, and without explanation as to the strength of specific revolvers. Today, most manuals stick with SAAMI guidelines, or at least categorize data as to the strength of different firearms. For instance, the Speer Reloading Manual #14 lists standard pressure .45 Colt loads but also offers data specifically for Ruger and Thompson/Center guns that exceed industry guidelines. For what it’s worth, I always suggest using the latest data or manuals, with fresh components.

32 WCF VERSUS 327 FEDERAL

Q: I recently acquired a .32 WCF revolver with 5½-inch barrel from USFA with an extra cylinder for .327 Federal Magnum. I might add that this is a mighty fine looking revolver too. My question is about using the gas checks as you referenced in Handloader magazine (Bullets & Brass) by Brian Pearce.

The latest reloading manuals are up to date with scientifically developed pressure test methods and should supercede older manuals and data.
No. 258. Neither Lyman nor Hornady offer a .32-caliber gas check (.311 to .313 inch), so I am wondering what was used on the 116-grain bullet mentioned in the article? Thanks.

– K.J., via e-mail

A: Lyman and Hornady each offer .30- and .32-caliber gas checks. The .30-caliber versions are designed for .308/.309-inch bullets but also work on most cast bullets for the .32 WCF (aka, .32-20 Winchester), which are generally .311 to .314 inch and have the bases cut to accept the .30-caliber checks. The .32-caliber gas checks are primarily for the .32 Winchester Special (.321 inch) and the various 8mm rifles (usually around .323 inch).

I have used both Hornady (crimp on) and Lyman gas checks in developing .32-20 handloads, with each giving excellent results.

TAURUS TRACKER .45 ACP —

Q: My 35-year subscription to Handloader does not have the information I am looking for so hope you can help. I recently purchased a Taurus Tracker .45 ACP with a 4-inch barrel and stainless steel construction. Do you have any data for 150- or 155-grain bullets and 250-grain bullets? I am also wondering if this gun can handle +P-type loads.

– J.D., Littleton CO

A: You don’t specify what type (cast or jacketed, manufacturer, etc.) of bullets you want to use or the velocities you desire. A place to start with the 150- to 155-grain versions would be 6.3 grains of Winchester 231 powder. Regarding a load for a 250-grain bullet, again you don’t specify any particular type you want to use. In jacketed versions I would suggest either the Speer Gold Dot HP or Hornady XTP-HP, while a good general-pur-

pose cast bullet would be the Lyman/Keith mould 454424. With any of the above 250-grain bullets, try 7.0 grains of Alliant Power Pistol or 6.2 grains of Hodgdon Universal. Your Taurus Tracker .45 ACP is safe with +P-type loads.

.357 MAGNUM —

Q: I have a couple of questions regarding the Registered Magnum article. What load did you use to take the mule deer with the 4-inch gun? Also, you wrote that the Lyman cast bullet from mould 358429 (173-grain Keith) could be seated and crimped over the forward band, but in an older article I found that you wrote that you could trim the .357 Magnum case down to a case length of 1.200 inches so the cartridge will fit into older Smith & Wesson N-frames. Using Alliant 2400 powder and the above 173-grain cast bullet, which would be better as far as pressure?

– K.J., via e-mail

A: Lyman and Hornady each offer .30- and .32-caliber gas checks. The .30-caliber versions are designed for .308/.309-inch bullets but also work on most cast bullets for the .32 WCF (aka, .32-20 Winchester), which are generally .311 to .314 inch and have the bases cut to accept the .30-caliber checks. The .32-caliber gas checks are primarily for the .32 Winchester Special (.321 inch) and the various 8mm rifles (usually around .323 inch).

I have used both Hornady (crimp on) and Lyman gas checks in developing .32-20 handloads, with each giving excellent results.

BLACKHORN 209 FACTS

While we appreciate the excellent article by Steve Gash in the December issue of Handloader, there are a few points we would like to clarify.

1) What is BLACKHORN 209?
Blackhorn 209 is a safe, clean propellant designed to be loaded volumetrically in the same manner as black powder in muzzleloaders with sealed 209 ignition systems. Blackhorn is also suitable for black powder cartridges.

2) Is BLACKHORN 209 a SMOKELESS POWDER?
NO, the regulatory authorities who determine the classification of energetic material, The Explosives Bureau, US DOT and the Canadian Energy Research Laboratories have determined the classification of Blackhorn 209 to be US/UN PROPELLANT, SOLID, UN0499. Blackhorn 209 shares the same legal classification as all other black powder substitutes, PROPELLANT, SOLID, UN0499. Smokeless Powders are classified as POWDER SMOKELESS, UN0161.
Blackhorn 209 was designed and engineered to provide performance characteristics similar to black powder and is distinctly different than Smokeless Powder.

3) Cartridge Loads with BLACKHORN 209.
Blackhorn was engineered to be loaded volumetrically in muzzleloaders, the same manner as black powder. For use in black powder cartridges, a full case is typical and safe. However, because Blackhorn is more efficient than black powder, when used with the 45-70 Trapdoor or for large capacity cases such as the 45-100, 110, 120 refer to our load guide for proper loads. See our web site for details www.blackhorn209.com.

www.blackhorn209.com
WESTERN POWDERS INC. MILES CITY, MONTANA

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I also have a Smith & Wesson Model 27-2 .357 Magnum with a 3½-inch barrel, which is turning out to be exceptionally accurate, and I am thinking of trying to take a whitetail deer with it. Here in the Adirondack Mountains, the ranges never really get longer than 40 to 50 yards at most, and this gun is easily accurate enough at that range. I was thinking of the Lyman bullet 358429 for the task. Any help would be greatly appreciated.

– D.L., New York

A: The spike mule deer you inquired about was taken with a Smith & Wesson “Registered Magnum” with a 4-inch barrel at around 70 yards. The handloads consisted of 1975-vintage Browning cases, 14.5 grains of Hercules (now Alliant) 2400 powder, cast bullets from RCBS mould 38-150-KT (now known as the 38-150-SWC) that weigh 158 grains from my mould and alloy, and Federal 100 primers. Velocity from the Smith & Wesson was 1,360 fps. I loaded 1,000 rounds for supply purposes back in 1984, and it was time to rotate stock. Since it shot well in the Smith & Wesson, the gun was sighted and carried during Idaho’s fall hunting season. I tried to get within range of a mature buck, but that didn’t work out, so I settled for the spike. The bullet punched through both lungs and exited on a near broadside shot. The buck crossed the creek and began climbing the mountain but collapsed and expired within 60 or 70 yards from where he was shot.

The old Lyman/Keith cast bullet 358429 is an excellent bullet for big game. It penetrates straightly and deeply and is preferred over the above 158-grain bullet based on greater penetration and ability to break bone. When loaded in .357 cases and crimped in its crimp groove or cannelure, it is too long to be used in the old short cylinder N-frame Smith & Wessons (including Registered Magnums, Models 27 and 28). The best option is to trim .357 cases to between 1.2 to 1.22 inches, then crimp in the groove, which shortens the overall cartridge length to 1.58 to 1.60 inches, which will chamber in the above guns. In effect this tailors the overall cartridge length to maximize performance in the short cylinder N-frames. Loaded in this fashion, the bullet’s front driving band will help center it in the throat and thus the bore. With cases trimmed and bullets seated in the above fashion, I would suggest using 13.5 to 14.0 grains of Alliant 2400 or 14.0 grains of Accurate Arms No. 9, each capped with a standard nonmagnun CCI 500 primer.

Another option to use the above 173-grain bullet is crimping over the front driving band, which substantially decreases powder capacity, and charges must be reduced accordingly. Loaded in this fashion some guns will yield better accuracy than others. Nonetheless, it is an effective hunting load that does not require the time-consuming job of trimming cases.

Many gun writers from yesteryear (including Elmer Keith) promoted using this bullet in .38 Special cases with powder charges that approached full-house .357 Magnum loads. These were good loads, and I personally have fired many thousand rounds through a variety of sixguns, but there are a couple of potential problems. First, .38 Special cases vary greatly in strength, so the loads have the potential to rupture weaker cases, and case life is usually very short. Second, due to the reduction in case capacity, pressures can exceed SAAMI guidelines for the .357 Magnum. Finally, there is always the possibility that one of these .357 Magnum loads with a headstamp marked “.38 Special” could find its way into a .38 Special revolver that cannot handle such pressures.

Good luck on your deer hunt in the beautiful Adirondack Mountains!
On the Browning B78, polishing is all first-class, wood is better than select, and the fit and finish are perfect in all respects.

A Classic Single Shot
After nearly 30 years, the coveted Browning B78 is again available through select Browning dealers. Since I have Browning catalogs dating back to the mid-1960s, it was easy to track the introduction, lineage and cartridge availability of this rifle.

It first appeared in the 1973 catalog in .22-250 Remington, 6mm Remington, .25-06 Remington and .30-06. With your choice of either a round or octagonal barrel, suggested retail was $247.50. Along with a few shotguns and .22 rimfire rifles, these were the only new items released that year.

Naturally, with such an introduction, accolades flowed on page 34. Browning used such phrases as “one clean, well-placed shot,” which was the “creed of the new Browning B78 rifle.” It boasted of a classic falling-block action, crisp grooved trigger and “right up to snuff” on accuracy, thanks to a longer 26-inch barrel and a strong lockup. To cinch the deal, Browning offered the B78 with a high-grade piece of wood, blued and polished “like a Browning.”

A few years later, cartridge offerings were increased to include the 7mm Remington Magnum and .45-70 complete with a straight pistol grip and a crescent buttplate. A year later, the .243 Winchester appeared. Then, after a decade of production, the...
rifle was dropped from the line around 1982 with inventory carrying into 1983.

With its strong action, good looks and Browning quality, this new version has found a home in my gun rack in spite of some changes to its original design. For one, the barrel is only available in a round configuration, limited to 24 inches and free-floating. The forearm is mounted on a hanger with two screws and is easily removed for cleaning.

**Pushing the underlever down lowers the falling block and cocks the action.**

Out of the box, the rifle is ideal in every way. The polishing and bluing on the receiver, lever and barrel are smooth and deeply blued. The wood (according to Browning) is between Grade III and IV, and my rifle came with a nice amount of feathering from comb to butt, nicely colored and finished with a glossy coating. There is more than an ample supply of checkering on both the forearm (three-panel) and pistol grip. In typical Browning fashion, it is complete with a border and Schnabel forend. Mimicking its predecessor, there is a Monte Carlo comb, cheekpiece and pistol-grip cap. Pachmayr flush mount sling swivels are included along with a classic recoil pad with a black spacer.

For operation, you cannot ask for anything smoother. Pushing the underlever down lowers the falling block and cocks the action. Place a cartridge into the breech then raise the lever, and the ejector rides over the rim of the cartridge. In keeping with the original model, there is no outward safety lever. Moving the hammer to the half-cock position during field use sets the hammer away from the firing pin, and either lowering the underlever again to load or pulling the hammer to its full rearward position allows the gun to fire.

The B78 comes from the factory with an adjustable trigger, which I adjusted to its lower limit at around 3½ pounds. Although a mite heavy for varmint shooting, the wide face of the trigger itself and the small amount of slack before the sear broke made it highly predictable at the range.

For convenience, there is a case deflector. Leaving it in the factory default position allows the case to be trapped in the action out of the box, the rifle is ideal in every way. The polishing and bluing on the receiver, lever and barrel are smooth and deeply blued. The wood (according to Browning) is between Grade III and IV, and my rifle came with a nice amount of feathering from comb to butt, nicely colored and finished with a glossy coating. There is more than an ample supply of checkering on both the forearm (three-panel) and pistol grip. In typical Browning fashion, it is complete with a border and Schnabel forend. Mimicking its predecessor, there is a Monte Carlo comb, cheekpiece and pistol-grip cap. Pachmayr flush mount sling swivels are included along with a classic recoil pad with a black spacer.

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for easy picking. However, with a scope mounted, I turned the deflector to the left, allowing the cases to come back and out for easy removal.

Sans optical gear, this gun checks in at around 8 pounds, 6 ounces, depending on the high-grade wood. With a scope, rings and bases installed, it weighs around 9½ pounds.

Browning has thoughtfully included scope mounting bases with the B78, but since I wanted to match the original look of the rifle, I opted for high-gloss Browning rings and a two-piece base by Leupold, stock number 50012. To finish off the sighting system, I attached a Leupold Century Limited Edition 3-9x 40mm scope that matched the bluing perfectly.

My B78 is chambered for the .223 Remington. Among my friends there seems to be a love-hate attitude with the .223. Many pooh-pooh it as just another common varmint cartridge with a military heritage. They lean toward newer offerings like the .204 Ruger or the .223 WSSM. So be it. I still like the looks and performance of the .223 for my needs here in New England, and considering it is still very popular, a lot can be said for a cartridge now going on its sixth decade of service to civilian and armed forces alike.

With the summer underway, my plan was simple. Research the one bullet that has gained favor with me over the course of the last year, grab a handful of propellants, benchrest primers, some unfired cases put away for a rainy day, and have at it. Later I could always fine-tune the loads. But for those with a limited time frame, this method will work the best.

The bullet chosen for the task was Hornady’s 52-grain A-MAX Match. It has served me well in both accuracy testing and small game hunts around the North-
The new Browning features an internal hanger to which the forearm is attached. Two screws hold the forearm securely, and the barrel is free-floated.

east. For some reason, this bullet feels at home with a multitude of powders regardless of the .22-caliber gun I’m loading for. Remington Small Rifle Benchrest primers and Federal’s .223 Remington nickel cases were on hand, and powders run the gamut from IMR-4198 (fast) to IMR-4320 on the slower end. In all, I have a baker’s dozen on my loading bench to wring out in the new B78.

Since I’m only using one bullet, I spent some time lamenting over the proper overall case length with the bullet inserted. According to the manuals, when using the .223 Remington, a good place to start is with an overall length of 2.230 inches, which places the base of the bullet down around the lower shoulder area of the case. Another option is to have the bullet just touch the lands, and in this case, it seems the B78 has a rather long throat, as I seated the bullet out to 2.410 inches before it was hitting the lands. Using that overall loaded length as a guide, the bullet was seated into the neck .125 inch – too little for field use. I then settled on an overall length of 2.350 inches, which places the base of the bullet at the junction of the case neck and shoulder, or approximately one bullet diameter inside the case.

I would prefer to seat the bullet level with the neck and shoulder of the case. In this way (my theory), the force of the expanding gas hits the bullet squarely, resulting in a more uniform performance downrange. Combine this with a charge that is .5 grain under maximum, it seems everything comes together in a more accurate fashion. Years of shoot-
Sans optical gear, this gun checks in at around 8 pounds, 6 ounces.

facilitate a smoother ride up and into the top of the die, without that annoying “bump.” You now can set the parameters of neck sizing more precisely and without that annoying jolt every time the expander comes up and out of the spent case.

With the case coated with soot from a candle or lighter, make sure the die only reaches the very top of the shoulder – even less would be better. Keep in mind that since we are neck sizing only, the rest of the case should remain untouched, as this is the purpose of fire-forming followed by neck sizing only. With the die set to neck-size only, replace the decapper and size one or two cases. Try them in the chamber, and if they fit okay, finish all the cases before moving on.

When all the cases are cleaned, I check overall length, trim if necessary and start priming. With the B78 and the .223 Remington being used for varmint hunting only, I like to use benchrest primers, since they deliver a more consistent result. If you are partial to CCI, you can use its small rifle BR-4s; Remington calls its competitive primer the 7 1/2, Federal has the 205M.

Out of the 16 powders listed by Hornady for its 52-grain A-MAX, I had 13 in stock. With the exception of a few of the larger grained brands, (IMR-3031, for instance) all metered smoothly and without much adjustment of the powder measure or the trickler between selections. Most filled the case right up to the base of the neck, and again, the exceptions were IMR’s 3031, 4895 and 4320, which filled the case to the point of compression. Regardless of what powder is used, precision starts at the loading bench, especially with smaller cartridges. Drop the charges like you always do, but do it within .5 grain of the desired charge weight. Use a powder trickler to bring
the seater was adjusted to an overall cartridge and bullet length of 2.350 inches. Even when neck sizing the .223 Remington cases, the design of these Hornady bullets with the beveled base makes bullet seating a pleasure even with the tight constraints encountered on some of the smaller loading presses. To finish, all loads were cataloged, put into individual envelopes ready for the range.

Book velocity (from the loading manual) versus actual velocity at the range was close in most cases, considering the B78 has a 24-inch barrel as opposed to Hornady’s 26-inch machine rest barrel. For top velocities, powders

With the bullet seated for an overall cartridge length of 2.350 inches (below left) its base is flush with the neck and shoulder juncture. Seating the bullet too deeply in the case exposes much of the side and base of the bullet to expanding gas (right).
like Accurate 2460, Winchester 748 and IMR-4320 in most cases exceed the book by 100 fps or more, which could add some elevation to bullet travel as well as a quicker downrange time to the target.

Using one bullet with a wide range of propellants puts the most accurate out front the first time around. For varmints, I like rifles that will shoot under an inch or less consistently, and with the B78, BL-C2(2) was the pick of the litter with the Hornady bullet. Although I could use a bit more push behind this bullet, I’m happy with any .22 projectile cruising along at 3,000+ fps while delivering groups around .75 inch or less downrange.

Opening the groups slightly to .875 inch, three came forward for the count using Vihtavuori N135, H-335 and trusty IMR-4320. Out of this bunch, the latter produced the highest velocity across the Oehler Model 35P chronograph. Still more favorites came to the forefront. Propellants like IMR-3031, H-322 and AA-2460 hit the mark with Benchrest and Varget nudging the one minute-of-angle requirement on a windless, 75-degree day.

Inspecting all cases I found no flattened primers, and there were no ejection problems, even with the three compressed loads. All cases looked normal, no split case mouths appeared after the initial fireforming session, and interestingly, if you average the velocities of all 13 loads you end up with a mean of 3,157 fps. Winchester 748 drove the Hornady bullet highest to 3,397 fps; Varget the lowest to 3,001 fps.

Looking back, a lot can be said for the Browning B78/.223 Remington combination. The rifle has been absent from the scene far too long, and Browning certainly deserves a pat on the back for its return. According to RCBS, the .223 Remington still holds the number one spot in reloading die sales even if it has been pushed up there by the recent surge in military type firearms.

In any event, I’m more than pleased with the outcome of both. The B78 is a dream come true for me and combined with this popular .22-caliber cartridge is not only more than accurate for my needs but will also give me more time and pleasure in the field than I deserve.