

.28 Nosler

Shooting a New 7mm Magnum

Brian Pearce

The Nosler Model 48 first appeared in 2005 as Nosler's first entry into the sporting rifle market. During the 1940s, John Nosler began experimenting with premium hunting bullets, which ultimately led to the development and production of the Nosler Partition bullet in 1948 and explains why this rifle is appropriately known as the Model 48. By producing its own rifle and hunting ammunition, Nosler was positioned to develop new cartridges. Examples include the .280 Ackley Improved and .26 Nosler. A new cartridge for 2015 is the .28 Nosler that features a beltless case, power, high velocity and a flat trajectory.



The Model 48 has earned a reputation for quality and accuracy. The flagship rifle is the NoslerCustom in a fancy-grade checkered walnut stock, and it is guaranteed to give .5-inch or less groups at 100 yards with prescribed ammunition. Retail is \$4,495. Although there are many variants, including the Long Range, Expedition, Brush Country, etc., the Patriot, Outfitter and Heritage models are production rifles and retail between \$1,795 and \$1,895.

All metal is coated with CERAKOTE, which helps reduce friction on working parts, is largely scratch resistant and helps prevent rust. Nosler bead blasts the metal before the CERAKOTE is applied, which is then baked on and results in a nonglare matte finish.

The Nosler Model 48 action is a push-feed system with typical countersunk bolt face, plunger ejector and rotating extractor that measures 1.300 inches in length and is staked to the bolt body. It resembles the AR-15/M16 pattern extractor. The bolt features twin locking lugs and results in a 90-degree lift. The bolt body is fluted to reduce friction and is generously vented to divert gases down into the magazine and away from the shooter in the unlikely event of a ruptured case. The bolt sleeve cap likewise offers protection from gases. The firing pin is a one-piece design and is easily removed for cleaning without tools. The bolt stop is constructed of a minimum of materials but is nonetheless strong. The bolt handle is gracefully swept back, while the knob is knurled.

The receiver is flattened on each side just below the round top, giving it a unique look, but also serves to reduce weight. The action is secured to the stock via two guard screws with Torx heads, and the floorplate is hinged. The trigger guard and floorplate are constructed of alloy, at least on the Patriot model used herein.

Model 48 variants are offered with two- and three-position safeties, with the Patriot model having the two-position type that allows the bolt to be opened when it is in the ON position. Trigger options include Timney for a three-position safety and Rifle Basix for a two-position safety (standard on the Patriot). Either is fully ad-



Left to right: .28 Nosler, 7mm Remington Magnum, 7mm Weatherby Magnum, 7mm STW and 7mm Remington Ultra Mag.

justable and offers a crisp let-off that is factory set at around 3 pounds.

The stock is constructed of a blend of Kevlar and other synthetic materials that provide lightweight construction and strength. It is a classic design with a cheekpiece and is fitted with a black, one-inch Pachmayr Decelerator pad. The base color is gray with a dash of green and is painted with a black speckling overlay. The stock is fitted with aluminum pillars, but the receiver and stock are also carefully bedded using MarineTex. The barrel free floats in the forearm channel and is stainless steel, button rifled and hand-lapped.

To evaluate the Model 48 Patriot, a Leupold VX-6 2-12x 42mm CDS-ZL scope (30mm main tube) was installed using Leupold QR bases and rings. It offers 6x optical zoom with a twin bias erector system constructed of beryllium copper alloy leaf springs that are lightweight and shock-resistant. The 2-12x power combination allows it to be at home when hunting in the brush and timber or in open country. In addition to being illuminated, it features ¼-MOA finger click adjustments, fast-focus eyepiece and is argon/krypton gas-filled to provide waterproofing. It also features Leupold's Xtended Twilight coatings to optimize light transmission that is coordinated specifically to match the human eye, and the ion-assisted coating offers a tough, scratch-resistant finish.

Open-country hunters will appreciate the Leupold Custom Dial System (CDS) that compensates for bullet drop. It was given a thorough workout on a 500-



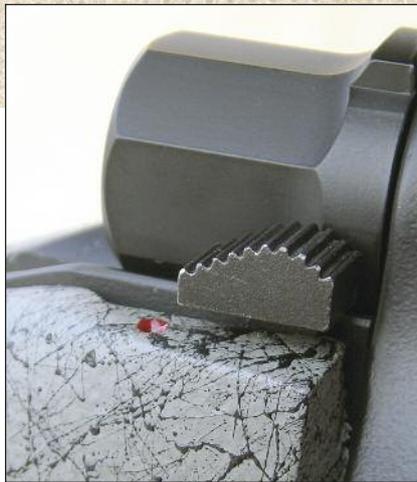
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yard range, and it worked precisely. As a free service, contact Leupold with the ballistics of your cartridge and load, (bullet, BC, velocity, average elevation, temperature, etc.), and the company will send a customized dial to match. The dial is available with a one-turn zero stop or two-turn without the zero stop.

The .28 Nosler is based on the .26 Nosler case necked to accept 7mm or .284-inch bullets. It is based loosely on the beltless .404 Jeffery case or the more familiar Remington Ultra Mag with the shoulder set back to reduce case capacity when compared to the 7mm Remington Ultra Mag.

By moving the shoulder back, reducing capacity and changing

Below, the classic-styled stock on the Model 48 Patriot features a cheekpiece. Right, it also features an alloy, hinged floorplate.



Above, the Nosler Model 48 Patriot features a two-position safety. Right, the Rifle Basix trigger is fully adjustable for pull and after-travel.



RUM – or any other commercially available 7mm cartridge, for that matter. Although a number of NoslerCustom factory loads are expected to begin appearing by early spring 2015, initially the .28

advertised velocities by around 100 fps and are well below SAAMI maximum average pressure limits (65,000 psi).



the shoulder angle to 35 degrees, Nosler claims to increase efficiency. Advertised velocities for the .28 Nosler exceed the 7mm

is advertised to push a 160-grain AccuBond Long Range bullet 3,300 fps or a 175-grain AB LR 3,125 fps. These figures exceed 7mm RUM

Maximum overall loaded length for the .28 Nosler is 3.340 inches, the same as the .30-06, so it can be housed in standard length actions rather than the .375 H&H “magnum” length required for the 7mm RUM and 7mm STW cartridges.

The only factory load available at press time was the NoslerCustom 175-grain AccuBond Long Range, which was effectively prototype ammunition. In checking velocity, five shots averaged 3,209 fps (84 fps faster than advertised) and had an extreme velocity spread of 38 fps.

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The twin-lug bolt head features a rotating extractor, plunger ejector and countersunk face.

Nosler guarantees each Model 48 Patriot to produce a .75-inch group or less using its premium ammunition. From a sandbag rest, four, three-shot groups averaged .68 inch.

Before discussing specific handload data, the folks at Nosler indicated its factory loads are well below industry maximum average pressure limits that are established



A variety of bullets and powders was used to develop .28 Nosler handload data.

at 65,000 psi. With the right powder and bullet combinations, it is possible to exceed factory load performance.

To begin developing handload data, a sized case was checked for water capacity, which was 101.6 grains when filled level with the case mouth. With this much case volume, combined with .28 caliber, powders with a burn rate

that fall roughly between Alliant Reloder 22 through Hodgdon US 869 will probably give the best overall performance. Although a complete handloading feature article will eventually be published in *Handloader* magazine, for the purposes of this article, four powders were selected: IMR-7828, Ramshot Magnum, Alliant Reloder 25 and Hodgdon Retumbo. To as-

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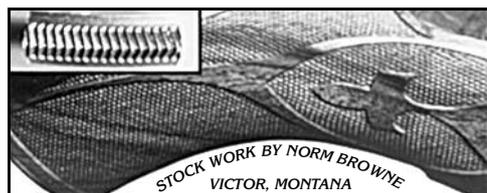
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bullet (grains)	powder	charge (grains)	overall loaded length (inches)	velocity (fps)
140 Barnes TTSX BT	IMR-7828	83.0	3.283	3,417
		84.0		3,449
		85.0		3,504
		86.0		3,577
		87.0**		3,626*
160 Sierra spitzer BT	Magnum	83.0	3.335	3,153
		84.0		3,182
		85.0		3,222
		86.0		3,249
		87.0		3,288
162 Hornady A-MAX	RL-25	82.0	3.340	3,197
		83.0		3,235
		84.0		3,280*
		85.0		3,324
		86.0		3,373
168 Berger VLD	Retumbo	83.0	3.340	3,187
		84.0		3,228*
		85.0		3,277
		86.0		3,317
		168 Nosler AccuBond LR		Retumbo
84.0	3,205			
85.0	3,255			
86.0	3,289*			
175 Nosler Partition	Retumbo		80.0	
		81.0	3,113	
		82.0	3,143	
		83.0	3,165	
		84.0	3,182*	
175 Nosler AccuBond LR factory				3,209

* most accurate powder charge for that bullet

** maximum

Notes: A Nosler Model 48 Patriot with a 26-inch barrel was used to test-fire the above loads. Nosler-Custom cases and Federal 215 Match (large rifle magnum) primers were used throughout. Bullet diameter: .284 inch; maximum OAL: 3.340 inches; maximum case length: 2.590 inches; trim-to length: 2.570 inches.

Be Alert – Publisher cannot accept responsibility for errors in published load data.

semble ammunition, a set of Redding Deluxe dies was ordered that included both neck and full-length sizer dies.

There is a huge selection of 7mm/.284-inch hunting and match bullets that typically weigh be-

tween 100 and 180 grains, but 140-through 175-grain weights will probably prove most popular and useful in this cartridge.

Using the Barnes 140-grain Tipped TSX pushed with 87.0 grains of IMR-7828, velocity reached over 3,600 fps and groups hovered between .75 and 1.00 inch. Moving up to the Sierra 160-grain spitzer boat-tail, 86.0 grains of Ramshot Magnum reached around 3,250 fps, and groups hovered around one inch. Changing the bullet seating depth (COAL) to 3.335 inches



This tight group was fired with handloads containing Nosler 168-grain AccuBond LR bullets and Hodgdon Retumbo powder.

and increasing the powder charge to 88.0 grains jumped velocity to over 3,300 fps, and three shots clustered just under .70 inch.

The Hornady 162-grain A-MAX gave remarkable accuracy when pushed 3,280 fps using 84.0 grains of Alliant RL-25 (with maximum velocities reaching 3,373 fps with 86.0 grains). With three shots in a single hole, the best group easily measured under .5 inch and was the most accurate load recorded from this rifle.

Both the Berger 168-grain VLD and Nosler AccuBond LR reached around 3,300 fps using 86.0 grains of Hodgdon Retumbo. Both bullets have unusually high ballistic coefficients and produced excellent long-range accuracy. The Nosler 175-grain Partition reached 3,182 fps using 84.0 grains of Retumbo and stayed under one inch.

It is suggested to use a large rifle magnum primer, with the Federal 215 Match selected to develop all accompanying handload data. To achieve uniform ballistic performance, the powder charges listed as "start" loads should not be reduced.

In developing handloads and working with factory ammunition, the .28 Nosler performance exceeded that of any other regularly available commercial 7mm cartridge. The .28 Nosler is modern in every respect; it is beltless, accurate, fast and fits in a standard .30-06 length action.

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