

The Perfect Big Bore

Layne Simpson

In *African Rifles & Cartridges*, John Taylor grouped cartridges into several categories. He described the .470 Nitro Express, .505 Gibbs and .600 Nitro Express, along with several others, as “large bores.” His “large medium bore” group included the .416 Rigby, .400 Nitro Express and other cartridges up to and including the .425 Westley Richards. As far as I know, an official dividing line has yet to be carved in stone, but proper or not, some of us simply lump everything from .400 on up in the big-bore category.

A quest for the ideal big-bore cartridge began soon after my second trip to Rhodesia during the 1970s. At the time, there was a hush war, and hunting was quite affordable. I had been making plans for elephant in Kenya, but the offer of a 14-day hunt in Rhodesia for \$2,900 changed my mind. The package included

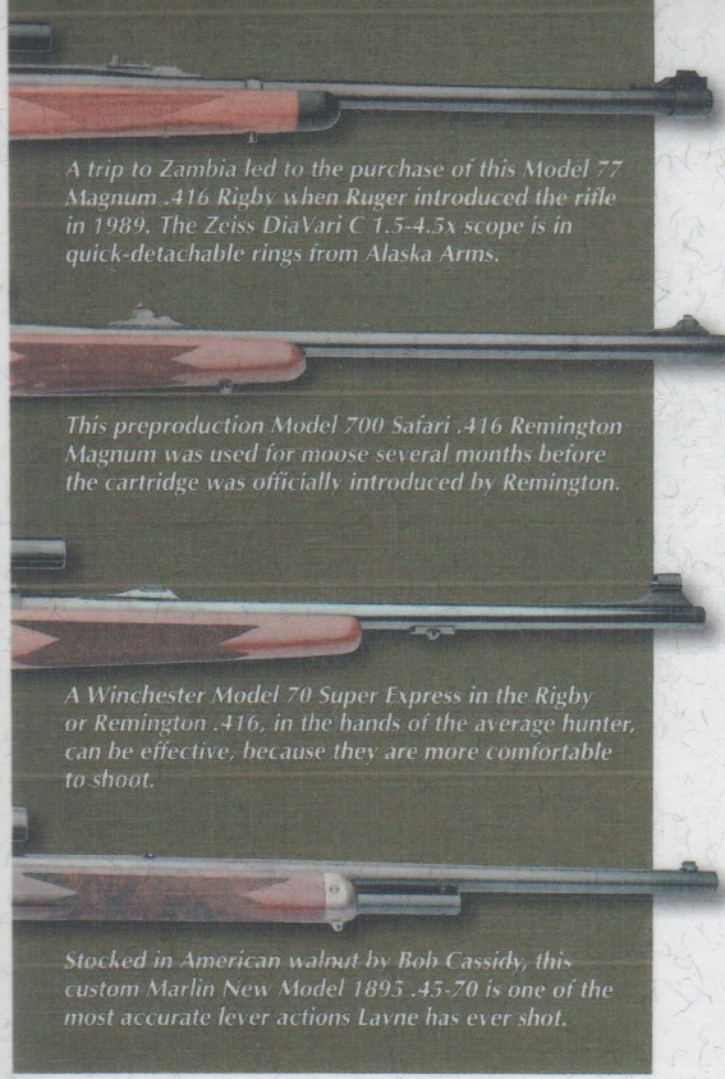


roundtrip airfare from New York – but excluded hunting license, trophy fees and the other usual items.

Professional hunter John Tolmay was at the airport when I arrived in Salisbury, and from there we flew to Kariba, then took a long boat ride across Lake Kariba to the Bumi Hills Lodge, located on a tall hill with a magnificent view overlooking the lake. Phil Palmer, another PH, hooked up with us at Bumi Hills. In addition to a Ruger Model 77 .458 Winchester Magnum, John carried a Ruger Mini-14 with a couple of 30-round magazines. Phil had a Mauser in (I believe) .404 Jeffery, as well as his government-issue FN FAL.

My buffalo rifle was a Browning Safari Grade .375 H&H Magnum built on the FN Mauser action. Its two handloads consisted of the Sierra 300-grain softnose and Hornady solid of the same weight over 85.0 grains of H-4831. The plan for the .375 was to use a softnose close behind the shoulder and into the lungs of a buffalo, followed by solids wherever they could be placed. Possibly due to its boat-tail design, the Sierra

For enthusiasts, the quest may never end.



A trip to Zambia led to the purchase of this Model 77 Magnum .416 Rigby when Ruger introduced the rifle in 1989. The Zeiss DiaVari C 1.5-4.5x scope is in quick-detachable rings from Alaska Arms.

This preproduction Model 700 Safari .416 Remington Magnum was used for moose several months before the cartridge was officially introduced by Remington.

A Winchester Model 70 Super Express in the Rigby or Remington .416, in the hands of the average hunter, can be effective, because they are more comfortable to shoot.

Stocked in American walnut by Bob Cassidy, this custom Marlin New Model 1895 .45-70 is one of the most accurate lever actions Layne has ever shot.

often shed its jacket, but the lead core was usually found nicely expanded against the offside hide. Some would consider that bullet failure, but the ghosts of several buffalo might argue the point.

The Hornady .375 solid also fell short of perfection in those days. If one of the .458s made by Hornady at the time was recovered, its condition was good enough to allow it to be shot again, should one have chosen to do so. Not so for the .375 solid, as it often bent when encountering heavy bone. Even so, the buffalo shot then and later with the Hornady and Sierra bullets never took more than four shots before tossing in the towel.

My second rifle, a 7mm wildcat on the .308 Winchester case, accounted for a very nice impala. When we later moved to the lowveld, the little 7mm proved to be equally capable of taking greater kudu, sable, reedbuck and various other antelope. For it, there were two handloads, but mostly I used the then-new Speer 160-grain Grand Slam over 50.0 grains of W-785 for a velocity of 2,710 fps. Every animal taken with that rifle was a one-shot kill.

Much better bullets available today for the .375 H&H make it even more effective on large game than when

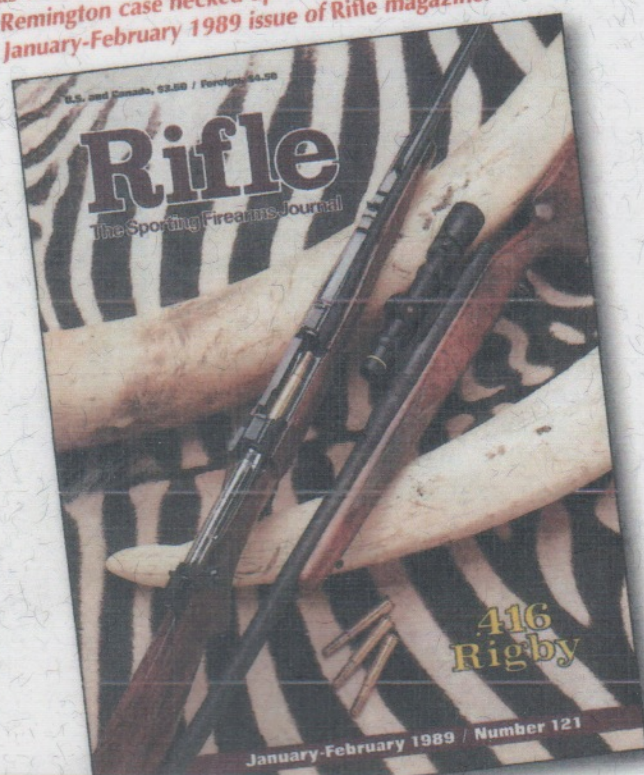
I first used it in the 1970s. I would not hesitate to use it on buffalo tomorrow, but few will argue that moving up in bullet diameter and weight increases cartridge effectiveness on game enough to notice. This brings up the .416s in general and the Rigby and Remington versions in particular.

I am by no means an expert on big-bore cartridges but have used the .416s and .458s enough to be convinced that while the larger of the two has an edge in effectiveness on heavy game, the smaller caliber is more effective in the hands of the average hunter due to less recoil. The .458 Winchester Magnum and .458 Lott are better stoppers, but the .416 Rigby is preferred simply because, when the chips are down and the heat, dust and miles afoot have taken their toll, I shoot it a bit more accurately.

During the 1980s, I came up with several wildcats on the 8mm Remington Magnum case, the first being the 7mm STW built by Kenny Jarrett in 1987. Lesser known is the fact that it was a switch barrel rifle with its second barrel chambered for the 8mm Remington Magnum case necked up to .416 inch. Clymer ground the chamber reamer and RCBS made the dies. That rifle, its barrel marked “.416 Experimental,” appeared on the cover of *Rifle* No. 121 (January-February 1989) several months prior to Remington’s official announcement of its .416 cartridge.

Before getting around to writing about the wildcat, I learned that Remington was collaborating with George

A Kimber African .416 Rigby used by Layne in Zambia, as well as his Jarrett-built rifle chambered for the 8mm Remington case necked up to .416, appeared on the January-February 1989 issue of *Rifle* magazine.





This scoped rifle with six-groove rifling and a 1:20 twist was used to take a caribou at over 200 yards.



This earlier production .444 Marlin has Micro-Groove rifling with a 1:38 twist.



Built by SSK Industries, this stainless Model 1895 .50 B&M Alaskan has a McCowen 22-inch barrel with a rifling twist of 1:18 inches. The open sights are N.E.C.G.; the scope is a Weaver 1.5-3x.

Hoffman on the development of a commercial version of his .416 cartridge. Hoffman was killing game with his cartridge long before Jarrett built my rifle. The shoulder of the .416 Remington case is a bit farther back than on the .416 Hoffman case, giving it a slightly longer neck, but the ballistics are the same. The Remington cartridge can be fired in a rifle chambered for the Hoffman cartridge – but not conversely.

In 1988, several months before the cartridge was officially introduced, Remington rounded up several writers and hauled us to Alaska to hunt moose. The load used was one previously developed for the Jarrett rifle, a Swift 400-grain A-Frame atop 75.0 grains of IMR-4064 for about 2,450 fps. We used the first Model 700 Safari rifles in .416 Remington Magnum built by the Remington Custom Shop. I later took the same rifle to Australia for Asiatic buffalo with outfitter Bob Penfold, where the perform-

ance of Speer's 400-grain African Grand Slam softnose was great, but an overly complex design made it expensive to manufacture so was discontinued several years ago.

I first used a .416 Rigby only a few weeks prior to the moose hunt in Alaska. Greg Warne, who with his father Jack founded Kimber of Oregon during the 1970s, had just introduced the Model 89 African rifle in various calibers. So we headed to Zambia with a couple of rifles in .416 Rigby and .505

Gibbs, as well as two equally new Kimber Big Game rifles in .270 Winchester. At the time, elephant had recently been heavily culled in the area, and it seemed every cow we encountered had a big chip on her trunk. Only a few weeks prior, our PH Johan Potgieter was driving through tall grass when a cow suddenly appeared, plucked one of the guys from the back of the safari car and ended his life in a flash. I did manage to put the .270 and .416 through their paces, and one of the .416 Rigby rifles we

Built by Sterling Davenport, this Oberndorf Mauser .500 Jeffery belongs to Tony Hober of Swift Bullets. Shown with it are a couple of cartridges and three 570-grain A-Frame bullets, one recovered from Tony's Cape buffalo.



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The .416 Remington Magnum (center) can be fired in a .416 Hoffman (right) chamber but not conversely. Due to greater case capacity, the .416 Rigby (left) operates at lower chamber pressures, making it a bit more desirable for use in tropical climates.

hunted with also appeared on the cover of the *Rifle* issue mentioned earlier.

For the Rigby, 400-grain Swift A-Frame and A-Square monolithic solids were handloaded, both at 2,375 fps. While in Zambia, I grew quite fond of the cartridge, and when it became available in the Ruger Model 77 Magnum in 1989, I immediately purchased one. A second one in .375 H&H soon joined it. Both wear identical Zeiss DiaVari C 1.5-4.5x scopes.

If I were a brown bear guide in Alaska, the .416 Remington would be the first choice simply because



Four big-bore cartridges for lever-action rifles are shown here for comparison (left to right): .30 WCF, .38-55 WCF, .444 Marlin, .45-70, .50 B&M Alaskan (.500-inch bullet) and .50 Alaskan (.510-inch bullet).



Michael McCourry has developed these cartridges for bolt-action rifles using North Fork and Cutting Edge bullets (left to right): .416 B&M, .458 B&M, .458 B&M Super Short, .475 B&M, .475 B&M Super Short, .50 B&M, .50 B&M Super Short and .500 MDM.

of its availability in rifles of less weight. Due to the larger powder capacity of the Rigby case, it reaches the same velocities with 400- and 450-grain bullets at considerably lower chamber pressures, and for that reason it is a better choice for the heat of Africa.

I have a soft spot for lever action rifles, so my quest for the perfect big bore has not been restricted to bolt guns. Four have bores bigger than the .38-55 Winchester I used to take a nice black bear on Vancouver Island. All are Marlins, two custom and two off-the-shelf. One, stocked in very nice American walnut by Bob Cassidy, is one of the first New Model 1895s in .45-70 to leave the factory in 1972. First-year rifles are easily recognized by a straight-grip stock, square-shaped finger lever and front sight dovetailed to the barrel. A closer look

will reveal 8-groove rifling, which eventually was changed to 12 groove.

Not too long ago, the .45-70 fired a five-shot group at 100 yards measuring .354 inch, the smallest I have shot and probably will ever

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shoot with any lever action. It is by no means typical of what the rifle is capable of doing on a consistent basis, but it is proof that a good load fired in a good Marlin by a rifleman who occasionally

gets lucky can result in a bragging-size group. The load consists of a Federal case, a Federal 210 primer and a Hornady 325-grain FTX bullet over 51.0 grains of Reloder 7.

There are also two Marlin .444s with 22-inch barrels. One has the earlier Micro-Groove rifling with a one-in-38-inch twist rate; the other has six-groove, one-in-20-inch rifling. Heavier bullets are preferred in this cartridge, and whereas the quicker twist shoots all 300-grain bullets quite accurately, the slower twist is accurate only with the Speer and Sierra bullets of that weight. Accuracy of the two rifles is about the same with bullets from 240 to 280 grains.

A lever-action rifle in .444 Marlin is hardly the ideal choice for open-country hunting, but a hunter who does his homework can get by with it. I first learned of its existence while in college. The cartridge was brand new at the time, and prior to its introduction, several Marlin employees had used it on caribou in Canada. Little did I realize at the time that about four decades later, 2003 to be exact, I would receive an invitation from Marlin to hunt caribou in Canada. I also had my pick of rifles. This was before the .308 and .338 Marlin Express cartridges were introduced, but even if they had been available at the time, I probably would have chosen the .444 Marlin simply because of the article I had read so many years before.

The load settled on, 54.0 grains of H-322, pushes a Swift 280-grain A-Frame along at 2,231 fps. Zeroed 3.5 inches high at 100 yards, it is dead-on at 200 yards. Using the first and second tick marks on the lower quadrant of the vertical crosshair of a Burris 3-9x Fullfield scope for aiming puts the A-Frame dead-on at 250 and 300 yards. Accuracy for five shots seldom exceeds 1.5, 2.75 and 4.5 inches at 100, 200 and 300 yards. That knowledge, along with a laser rangefinder, allowed me to easily take a nice caribou bull at 248 yards.

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bullet (grains)	powder	charge (grains)	velocity (fps)
.416 Rigby (Ruger Model 77 Magnum Rifle, 24-inch barrel)			
400 Barnes Banded Solid	H-4831	95.0	2,368
400 Barnes TSX/FB	I	95.0	2,384
400 Swift A-Frame	RL-19	100.0	2,335
450 Woodleigh Weldcore	RL-22	93.0	2,167
400 Barnes TSX/FB Federal Premium Cape-Shok			2,351
400 Speer TBBC Federal Premium Cape-Shok			2,344
400 Speer TBSH Federal Premium Cape-Shok			2,365
400 Swift A-Frame Federal Premium Cape-Shok			2,359
.416 Remington Magnum (Jarrett Switch-Barrel M700, 24-inch barrel)			
350 Barnes TSX/FB	Varget	83.0	2,594
350	RL-15	82.0	2,622
400 Barnes Banded Solid		76.0	2,355
400 Swift A-Frame		80.0	2,378
450 Woodleigh Weldcore		72.0	2,217
400 Barnes Banded Solid VOR-TX			2,422
400 Barnes TSX/FB Federal Premium Cape-Shok			2,349
400 Speer TBBC Federal Premium Cape-Shok			2,388
400 Speer TBSH Federal Premium Cape-Shok			2,412
400 Swift A-Frame Federal Premium Cape-Shok			2,369
.444 Marlin (Marlin Model 444SS, 22-inch, six-groove, 1:20 twist barrel)			
225 Barnes XFB	VV-N120	50.0	2,524
240 Swift A-Frame	IMR-4198	48.0	2,364
265 Hornady FTX*	A-1680	47.0	2,272
265 Hornady InterLock FP	RL-7	46.0	2,177
280 Swift A-Frame	H-322	52.0	2,231
300 Hornady HPXTP	VV-N130	46.0	2,029
300 Sierra JSP	TAC	50.0	1,987
300 Swift A-Frame	H-4895	51.0	2,029
265 Hornady FTX LeverEvolution			2,348
280 Cor-Bon BCSP Hunter			2,239
265 Hornady InterLock FP Superformance			2,318
399 Buffalo Bore JSFN Heavy			2,161
.50 B&M Alaskan (SSK Custom Marlin 1895, 22-inch McGowen barrel)			
300 Hornady FTX**	IMR-4198	67.0	2,428
325 Swift A-Frame	RL-7	66.0	2,251
395 Cutting Edge HP	I	64.0	2,122
400 Barnes Buster	IMR-4198	59.0	2,057
425 Cutting Edge CS	RL-7	62.0	2,080
500 Hornady FP-XTP	I	58.0	1,876
500 Hornady FP-XTP	RL-10x	62.0	1,947

.500 Jeffery (Davenport Custom Oberndorf Mauser, 22-inch barrel)***

570 Swift A-Frame	RL-19	125.0	2,150
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* Trim case to 2.070 inches for cartridge overall length not to exceed 2.59 inches.

** Trim case to 1.97 inches for cartridge overall length not to exceed 2.55 inches.

*** Data courtesy of Tony Hober, Swift Bullets.

Notes: Powder charges should be reduced by 10 percent for starting loads. Cases: Norma for the .500 Jeffery, Starline for the .50 B&M Alaskan, Federal for the .416s and Hornady for the .444 Marlin. Primers: Federal 215 in the Jeffery and the Rigby; Federal 210 in all others. Velocities are averages of five or more rounds by an Oehler Model 33, 12 feet from the muzzle.

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

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Layne took this buffalo in Rhodesia in the 1970s with a Browning Safari Grade .375 H&H Magnum, a Sierra 300-grain softnose bullet and a Hornady solid.



This Alaska-Yukon moose was shot with one of the first Model 700 Safari .416 Remington Magnum rifles built by Remington's custom shop.



This Cape buffalo was taken with the Kimber Model 89 African .416 Rigby. Two loads with 400-grain Swift A-Frame expanding and A-Square monolithic solids, both at 2,375 fps, were used.

bullets and big holes through rifle barrels seems to never fade.

Several friends own rifles chambered for big cartridges for different reasons. One is an avid bullet-caster who has probably pushed about a half-ton of scrap wheel-weights through his Ruger No. 1 .458 Winchester Magnum. Another has a library full of books on Africa, and while he enjoys reading about hunting there, he has no interest in doing so himself but owns vintage rifles chambered for several big cartridges, including O'Connor's old favorite buffalo-thumper, the .450 Watts. Others have no special interest in big bores but simply prefer to take an old classic on their one and only safari. Another friend borrowed money to purchase a very handsome Westley Richards double .470 Nitro Ex-

press. He went to Africa, got his elephant and buffalo and soon after returning home sold the .470 for more than he paid for it.

Long after the last elephant is shot and buffalo are too expensive for most of us to shoot, big-bore rifles and cartridges will remain popular, not because they are actually needed but due to the love and affection so many of us have for them. Swift Bullets' Bill Hober and son Tony are examples. Among other game, Bill has taken several elephant with his Holland & Holland double .470 Nitro Express.

A couple of years ago Tony began planning a hunt for Cape buffalo in Zimbabwe with Clinton Rogers. When Christmas rolled around, Santa surprised him with a custom rifle built on a Oberndorf Mauser action by Sterling Davenport. I have handled the rifle and found it to be magnificent to say the least. One of the .416s or perhaps a .458 would have been a practical choice in cartridges, but Tony got his buffalo with a single 570-grain bullet from the .500 Jeffery at 40 yards. A PH's dream come true, he practiced shooting the rifle offhand (no shooting sticks) until he was quickly and consistently keeping a magazine full of shots inside 2.0 inches at 50 yards.

Michael McCourry is another friend whose hobby (or perhaps addiction) is developing big-bore cartridges. Rather than simply creating a new cartridge and leaving it at that, he comes up with a com-

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plete package consisting of the perfect bullet and rifle for the cartridge. I have lost count of the number of times he has been to Africa and Australia. His creations range in size from 9.3mm to .500, some almost as long as your arm, others on super-short cases for the Winchester Model 70 WSSM action.

My latest custom rifle is a Marlin New Model 1895 chambered for Michael's .50 B&M Alaskan. It pushes 450- and 500-grain bullets along at 2,000 and 1,950 fps. Built by SSK Industries, the 22-inch McGowen barrel has Masterpiece open sights made by N.E.C.G., No. 61 Adjustable at the rear and No. 661 Banded Ramp with the S-4 sight up front. In addition to a fixed, $\frac{3}{32}$ -inch silver bead, the front sight has a $\frac{1}{64}$ -inch white bead.

The larger front bead can be hinged up in front of the smaller bead for use when light is bad or hinged down out of the way when it is not needed. The idea goes back well over a century and was an option offered on sporting rifles by English makers. The British called it a "night sight," and the white folding bead was often made from warthog tusk, because it does not turn yellow with age as elephant ivory is prone to do. The .50 also wears a Weaver V3 scope attached to the SSK TSOB base with Warner quick-detach rings.

Unlike Harold Johnson's original .50 Alaskan and its .510-inch bullet, the B&M uses .500-inch bullets made for the .500 Smith & Wesson revolver cartridge. The 500-grain Hornady FP/XTP, as well as several bullets from North Fork and Cutting Edge in that diameter, have proven capable of handling any game the cartridge is suitable for, but I also wanted the option of using the Swift 450-grain A-Frame and the 500-grain Woodleigh. These are .510-inch diameter, but one trip through a Corbin .500-inch draw die in a CSP-1 press takes care of that. Only someone who does not appreciate big-bore rifles and cartridges would dare ask why someone would go to so much trouble to shoot something they honestly do not need. 