



SPECIAL REPORT

Bolt-Action Big-Game Rifle

SHOOTING TIMES'

DREAM RIFLE

**This is the hunting rifle readers
would like to build.**

By Layne Simpson

The response to my "Design Your Dream Bolt-Action Big-Game Rifle" article in the December 1991 issue was, to put it mildly, just short of overwhelming. For the benefit of those

who missed it, I included a 59-question form and asked readers to fill it out and send it to me. I asked for objective opinions based not on what had been heard or read, but on first-hand expe-

rience with various factory rifles. I also stated that if enough of the questionnaires were returned, I would write a follow-up report and describe the ideal composite rifle "designed" by you, the readers of *Shooting Times*. Wow, and respond you did.

Questionnaires forwarded from *Shooting Times* headquarters to my office began to arrive soon after the article was published. Just removing them from their envelopes and unfolding them represented quite a task. Then came tabulating all the information and converting it to chart form. The stream of questionnaires eventually eased up a bit, but as I write this eight months after the article was published, they are still trickling in from around the world. As you can see by perusing "Chart A," California and Texas hunters represented over 16% percent of the input, with Pennsylvania, New York, and Washington rounding out the top five. There are obviously lots of big-game hunters in those states.

One thing is certain, the voice of *Shooting Times* reaches far beyond the borders of the United States. Canada and Australia lead the race in sheer numbers of completed questionnaires received from hunters residing outside the U.S., but friends in other countries also voiced their opinions. In no particular order, they included New Zealand, Thailand, Namibia, Scotland, Greece, Switzerland, Denmark, Pakistan, Norway, Sweden, Finland, Germany, Spain, France, Mexico, Holland, Great Britain, South Africa, Zambia, Zimbabwe, and several other countries.

The drudgery of tabulating the thousands of bits and pieces of information into chart form was eased considerably by a large percentage of readers who went beyond merely filling out and returning the questionnaire. Those extra efforts ranged from short notes thanking me for the opportunity to voice opinions on the type of bolt-action big-game rifle our manufacturers should be building, to gracious (and a much-appreciated) invitations to hunt various and sundry big-game animals (some of which I plan to accept), to multiple-page letters that expanded on answers to various questions on the questionnaire. The letters came from places as far apart as the snowy river country of Australia, to the cedar thickets of Maine, to the Swiss Alps, to the bear country of southeastern Alaska, to the lion country of Zambia.

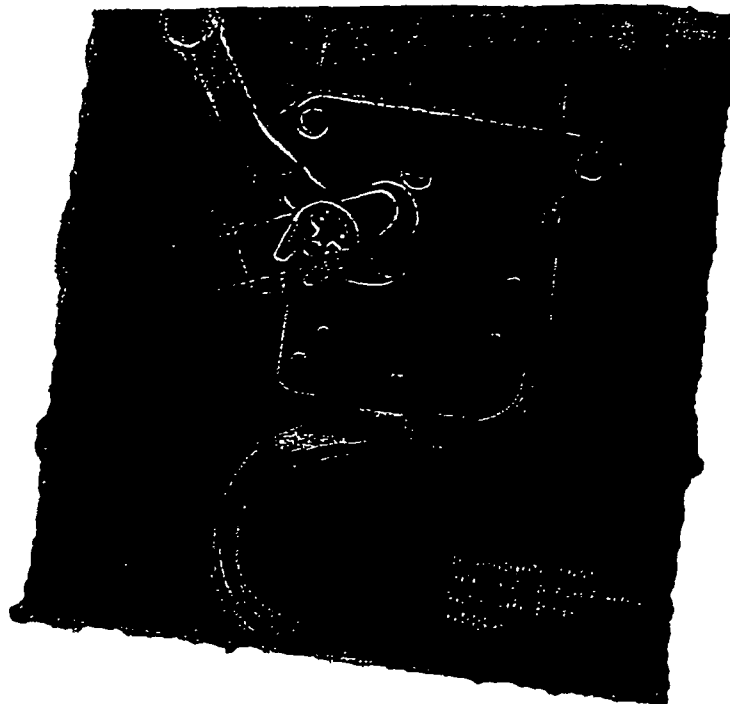
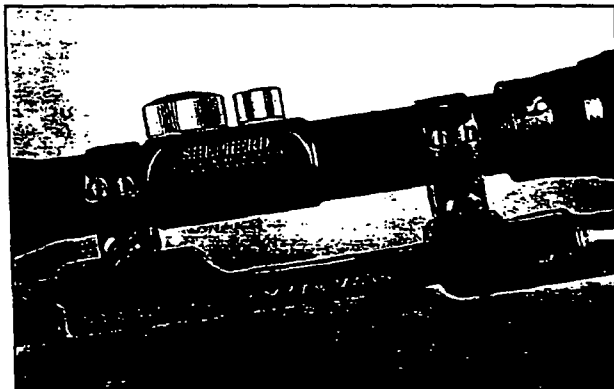
The letters and questionnaires came from people of all walks of life: carpenters, doctors, plumbers, lawyers, surgeons, car salesmen, dentists, house painters, oil tycoons, service station attendants, retired folks, gunshop own-

lawmen, elk guides, ranch hands, military personnel, moose guides, accountants, farmers, gunsmiths, sheep guides, football players, baseball players, basketball players, pronghorn guides, African professional hunters, country music singers, housewives, race car drivers, you name it. They even came from employees of several firearms manufacturing companies.

My sincere thanks goes out to those of you across the country and around the world who took the time to become involved in my project. I also want to express my appreciation for the high level of objectivity that was obviously reflected in your answers to various questions. Human nature being what it is, one might think that the majority of the answers would be totally influenced by the rifle a hunter owns. In other words, if a fellow hunts with a "Brand-X" rifle, he might indicate it as best in all categories. In some cases it probably was true, and there's nothing wrong with that. But believe me, it wasn't that way with the majority of *Shooting Times* readers. Over 85 percent of those who answered question No. 58 ("What rifle do you use most often for hunting big game?") chose features or characteristics of other rifles they considered better than those on the rifle or rifles they used.

Considering the number of days a very large percentage of the respondents spend hunting big game each year, plus the variety of animals hunted along with the various types of terrain hunted in, I believe the composite rifle that could be put together based on the survey results would represent what the majority of hunters want. In addition, many of the respondents mentioned how many years they had been hunting big game and their age. Some have more than a half century of hunting seasons under their belt. Based on that information alone, you can rest assured that the survey results reflect a tremendous amount of hunting experience.

Sixty percent of readers prefer integral scope mounts on the receiver, like Ruger's patented system shown.



Understanding "Chart B"

To make it easier for you to understand the main chart, I have used percentages rather than numbers to indicate your opinions. For example, in response to question No. 1 on the questionnaire which asked which barreled action material and finish is preferred, 40.5 percent of those who responded picked stainless steel with a blue/black finish, 23.9 percent chose stainless steel with a brushed finish, 21.6 percent voted for blued carbon steel, 10.5 percent want carbon steel with a black Teflon finish, less than one percent asked for carbon steel with a hard-chrome finish, and 2.9 percent had no preference in this category.

The percentages in some categories in the main chart are self-explanatory so I'll spare you further elaboration.

For the benefit of those who are not entirely familiar with the various design details, I'll add a few explanatory comments for other categories. Also, many readers qualified their answers to certain questions and I believe that information should be included for clarification. For example, some made additional notes and comments on the type of scope-mounting system they would like to see on their "dream" rifle.

Scope-Mounting Systems

Almost 60 percent of the respondents want their big-game rifle to have an integral scope-mounting base on the receiver compared to 34.8 percent who prefer the receiver be drilled and tapped for the mounting of a base.

Among those who chose the integral style and included additional comments, the majority voted the Ruger Model 77 design as best with the Sako and Tikka designs in second and third places. Some who voted in favor of the Sako or Tikka added that they actually considered the Ruger design better, but didn't vote that way because even when the lowest Ruger rings are used, they believed it positioned a scope too high above the receiver.

Receiver Drilled And Tapped For Receiver Sight

I wasn't surprised to see the majority of respondents opine that a rifle does not need to come from the factory with its receiver drilled and tapped for an aperture-type sight. I say this because



Weatherby had a better idea when designing his Mark V rifle.

most of today's hunters who graduate from open sights choose the scope rather than the once-popular peep sight. For this reason, I was surprised to see almost 35 percent want the receiver drilled and tapped for a receiver sight. In fact, a surprising number would like to see this type of sight offered as a factory-installed option. The old peep sight is nowhere near as popular as it once was, but it obviously isn't ready to be buried yet.

Safety Type

The three-position Model 70-style safety got the most votes with the tang safety of the Savage Model 110 and old-style Ruger Model 77 (which Ruger seems to be phasing out) in a strong second place. In third place was the Remington Model 700-style safety with the Weatherby Mark V-style in a distant fourth place.

Bolt-Locking Lug Type And Location

I wasn't surprised to see the majority prefer locking lugs at the front of the bolt rather than at the rear (the discontinued Remington Model 788 has the latter type), but the number of votes cast for multiple-locking lugs numbered greater than I had expected. Although the majority prefer dual-opposed lugs, over one-third are convinced that Roy

Extractor Type

Listen up you fledgling designers of future rifles: Even though Peter Paul Mauser's extractor design is approaching its 100th birthday, 55.5 percent of the respondents still consider it best. Among rifles of yesteryear with the '98 Mauser extractor are the 1903 Springfield, 1917 Enfield, the Winchester Model 54, the Remington Model 30, the pre-'64 Model 70, and the Kimber Model 89. As U.S.-manufactured rifles go, U.S. Repeating Arms' Winchester Model 70 Super Grade and Featherweight Classic, the Ruger Model 77 Mark II Magnum, and the Dakota have this type of extractor.

Ejector Type

The '98 Mauser was voted into the No. 1 slot in the extractor category, but it came in third in the ejector design department. The spring-loaded, plunger-type ejector now commonly seen on many rifles, including the various Remington bolt actions and the post-'64 Model 70 got the most votes. The Winchester Model 70 Super Grade ejector which is the same as the one on the pre-'64 Model 70, ranked second. Looking at it from another angle, even though the Super Grade and the Mauser '98 ejector are different designs, they operate the same when ejecting a

case. So, if we combine the number of votes cast for those two, the fixed-type ejector located in the receiver edges out the plunger type located at the boltface for first place. From a realistic point of view, the relatively narrow vote count margins between the top three choices in this category indicate that a lot of hunters are happy with a rifle with either type of ejector design.

Sorry, But We Can't Have Both

Some who voted for combining the original nonrotating, exterior-mounted extractor of the '98 Mauser with the Remington 700-type ejector overlooked the fact that the two designs are not compatible. The confusion may be due to the fact that the original Ruger Model 77 appeared to successfully combine those two designs. After all, its extractor "looks" the same as that of the Model 700. There's a subtle yet important difference.

When the bolt of the '98 Mauser pushes on the head of a cartridge and begins to strip it from the magazine, the rim of the cartridge slides between the boltface and extractor claw before the cartridge enters the chamber, hence "controlled feeding."

In the old-style Ruger 77, the front of the ejector pushes on the head of a cartridge and its extractor claw does not engage the rim of the cartridge until it is completely chambered. As the cartridge comes to rest in the chamber, the claw of the extractor cams over its rim and the plunger-type ejector is depressed into the boltface. This type of ejector won't work with the original controlled-feed Mauser extractor because it protrudes from the boltface and would prevent the rim of a cartridge from sliding beneath the claw of the extractor. This is why factory rifles with a true controlled-feed design like the pre-'64 Model 70, Model 70 Super Grade, and Model 70 Featherweight Classic have a blade-type ejector located in their receiver rather than a plunger type located at the front of their bolt.

Bolt (Cocking Piece) Shroud

The majority (41.8 percent) prefer a closed-end style of bolt shroud simply because it better shields the shooter's face from rampaging propellant gas that might escape rearward in the event of a ruptured case or blown primer. On the other hand, 32.7 percent prefer the open-end style because they can tell at a glance if the firing pin is cocked and ready for firing. Quite a large number of voters in the second group did note that they would prefer

More respondents want a closed bolt shroud like the Weatherby Mark V, which shields shooter's face from escaping gases.



some type of device to indicate when the firing pin is cocked. Three such rifles that spring immediately to mind are the Weatherby Mark V, the Weatherby Vanguard, and the Sako. When the firing pin of those rifles is in its cocked position, a metal tab protrudes from beneath their closed-end bolt shroud.

Magazine Type

Considering that the Model 788 with its detachable magazine was less than a blazing success for Remington, this one really caught me by surprise. More than 50 percent of the respondents prefer the more traditional Mauser-type, enclosed magazine, but a surprising 42.7 percent voted for the detachable magazine. Perhaps this explains why the Savage Model 110C, the Tikka, and U.S. Repeating Arms' new Model 70 DBM (Detachable Box Magazine) are selling so well. Now that *Shooting*



Times' readers have opened other manufacturers' eyes on this particular detail, I won't be surprised to see the option become available for other bolt-action rifles in the near future.

Magazine Floorplate Design

Some who voted for the blind magazine (solid-bottom magazine box cutout in the stock with no steel floorplate like on the Remington Model 700 ADL) prefer it because it is less likely to go "bombs away" and dump its cartridges in the dirt due to recoil opening a hinged floorplate. Several pointed out its importance on a rifle to be used for hunting potentially dangerous game. On the other hand, some members of the opposing team pointed out that unloading the magazine or clearing a cartridge jam in a bolt action is easier and more convenient if it has a hinged floorplate. Others also mentioned that snow or debris that might enter the action during a hunt is easily removed by opening the floorplate whereas a rifle with a blind magazine may require removal of its barreled action from the stock.

Barrel Length

No surprises here, but it does appear that many hunters associate short cartridges with relatively short barrels. Over 40 percent voted for the 20-inch for cartridges such as the 7mm-08 Remington and .308 Winchester. A number even went on to note that rifles chambered for short cartridges should also have short actions.

It would also appear that quite a large number of hunters are taking a serious look at a barrel length longer than the standard 24 inches for some of the belted magnums. Almost 35 percent would like to see rifles with 26-inch barrels chambered for magnum cartridges in calibers ranging from .240 to .300. As factory big-game rifles go, the Weatherby Mark V, the Ultra Light Model 28, and the Winchester Model 70 Sharpshooter Sporter (from the US-RAC Custom Shop) are among the very few big-game rifles presently available with a barrel longer than 24 inches.

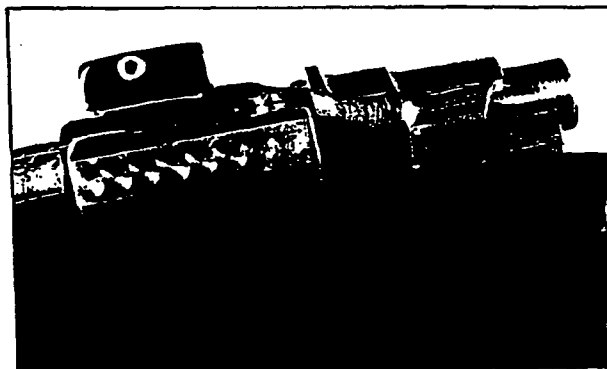
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CHART A

QUESTIONNAIRES RETURNED

BY STATE

State	Percentage
California	8.3
Texas	8.3
Pennsylvania	5.9
New York	4.4
Washington	3.9
Michigan	3.8
Wisconsin	3.2
Missouri	3.1
Oregon	3.0
Colorado	2.9
Florida	2.8
Montana	2.7
Ohio	2.6
Alaska	2.2
Minnesota	2.2
Utah	2.2
Virginia	2.2
Illinois	2.1
Georgia	2.0
Indiana	2.0
Arizona	1.9
North Carolina	1.9
Tennessee	1.9
Maryland	1.7
New Mexico	1.4
Wyoming	1.4
Idaho	1.2
Arkansas	1.3
Kansas	1.1
Mississippi	1.1
Oklahoma	0.9
West Virginia	0.9
Nebraska	0.8
Connecticut	0.8
Iowa	0.8
Massachusetts	0.8
Nevada	0.8
New Jersey	0.8
Kentucky	0.7
South Carolina	0.7
Alabama	0.6
Remaining states	4.9
Other countries	1.8



The Mauser 1898 bolt-release style received 40 percent of all votes, making it the most popular.

By ST Readers

Wanted: Top 25 Cartridges

Item No. 34 on the questionnaire included in my "Design Your Dream Bolt-Action Big-Game Rifle" article asked readers to "list any factory or wildcat cartridge(s) presently unavailable that you would like to see become available." Over 200 cartridges ranging in caliber from the .17 Hornet for varmints to the .244 H&H Magnum for deer to the 9.3x62mm Mauser for elk to the .505 Gibbs for elephant got votes.

My original intent was to include only those cartridges that are not presently available in a factory big-game rifle, but I changed my mind after the thousands of votes were tabulated. Several factory cartridges that are presently available only in a very limited number of rifles were asked for so often, I decided they simply couldn't be ignored. The .284 Winchester, .350 Remington Magnum, and .257 Roberts are good examples. So, I ended up with a "Most Wanted" list of the 25 wildcat, improved, and factory cartridges with some of the latter available in a limited number of factory rifles.

Seventeen (58 percent) of the 25 cartridges most wanted by *Shooting Times* readers are wildcats so I'll take a brief look at them first. Prior to tabulating all the votes, I knew the 7mm Shooting Times Westerner (7mm STW) and the .338-06 (.30-06 case necked up) had very strong followings, simply because I receive lots of letters from readers on both. I did not, however, realize just how strong the support was. Among those who voted cartridges into the top-25 group, 18.4 percent asked for the 7mm STW and 13.1 percent would like to see ".338-06" stamped on the barrels of rifles sitting in the rack at their local dealer. Something I found quite interesting but am at a loss to explain is the fact that a high percentage of those who asked for one cartridge also asked for the other. At any rate, the .338-06 and 7mm STW received close to one-third of the votes.

I discovered many points of interest that may be overlooked by a brief glance at the top 25 chart. The .264 Winchester Magnum received votes, but not enough to squeeze it into the top 25. On the other hand, smaller cartridges of the same caliber garnered five slots on the chart and received a combined tally of 16.6 percent of the votes. The 6.5-06 snatched third-place honors, just behind its .338-06 littermate. The 6.5x55mm Swedish, 6.5-08, 6.5-284, and 6.5 Remington Magnum rounded out cartridges loaded with .264-inch bullets. Just over 60 percent of those who asked for the 6.5-08 want the improved version with minimum body taper and a sharper shoulder angle, while others asked for the .308 Winchester case necked down (or the .243 Winchester case necked up) with no other change. Since their

performance is quite similar, I lumped them together on the chart. When combined, those two got almost as many votes as the 6.5 Swede. Lots of big-game hunters (including quite a few outside the U.S.) obviously want (as several respondents put it) an "American version of the Swedish cartridge with a standard rim diameter and short enough to work in a short-action rifle."

Surprise, Surprise

The .358 Shooting Times Alaskan won fourth-place honors among wildcats and fifth overall. Not bad when you consider that when the votes were cast, I had yet to write an article on the big .35-caliber wildcat, and the *Hodgdon Data Manual* No. 26 (which has load data for it) had yet to become available. In fifth-place among wildcats and sixth overall, the .257 Roberts Improved placed higher than its factory-loaded parent. That's probably due to two facts: it's a great little cartridge and the latest Nosler and Hornady handloading manuals contain load data for it.

Nipping at the .257 Improved's heels was the .280 Remington Improved. A gunsmith friend who builds super-accurate big-game rifles says the .280 Improved ranks among the five most popular chamberings with his customers. The .30-338 (.338 Winchester Magnum case necked down) got enough votes to put it in 10th place overall. This came as a

surprise considering that most factory big-game rifles are already available in .300 Winchester Magnum, which is one of the most inherently accurate cartridges ever developed.

The .284 Winchester's wildcat offspring got enough votes to indicate to me that rifemakers and ammunition manufacturers might be missing out on a few dollars in sales by not offering at least one. The 6.5-284, 6mm-284, and .25-284 were asked for most often, but their .30-caliber cousin also has its share of fans. Since the .240 Weatherby, .25-06, and .30-06 are already available for long-action

rifles, this tells me that no small number of hunters want the same levels of performance in short-action rifles.

Puzzling Presence

The .338 Winchester case necked up to .375 caliber got quite a few votes from those who want near .375 H&H Magnum power from a shorter cartridge. The .30-06 Improved, one of P.O. Ackley's most controversial cartridges, also made the chart. I am puzzled by the presence of the .416 Taylor among the top 25. Formed by necking down the .458 Winchester Magnum case, it's a good cartridge, but 100 to 200 feet per second (fps) slower than the factory-loaded .416 Remington Magnum.

Two wildcats on the huge .378 Weatherby Magnum case made the top 25 chart. I had assumed that the .338-caliber version is more popular, but more *Shooting Times* readers asked for the .30 caliber.

There was a real battle for the 25th slot between the .338-378 and, believe it or not, the 9.2x62mm Mauser.

First From Factory

Among factory cartridges, the .284 Winchester was asked for more often than any other. It got more votes than the .257 Roberts, .35 Whelen, and 6.5 Remington Magnum combined. The .358 Winchester took second place in the factory-loaded class and 8th overall. The 6.5x55mm Swedish was voted into 9th place overall and was the third most requested among factory cartridges. It was followed closely by the .250-3000 Savage, .350 Remington Magnum, and .257 Roberts. Interestingly enough, more *Shooting Times* readers asked for the .358 Winchester and .350 Remington Magnum than for the .35 Whelen. More readers also requested the .250-3000 than the .257 Roberts. ■



Open Sights On Barrel

They say open sights are bordering on obsolete for big-game hunting and no longer necessary nor wanted on factory bolt-action rifles, but 38.9 percent of the respondents disagree with that line of thinking. Based on additional comments made by that group, it appears that the majority use a scope for hunting, but still feel more comfortable if their rifles wear iron sights in case the scope goes haywire in the field.

Individual Statistics Can Be Misleading

I'm sure all of you are familiar with the old story about several blind men who were asked to examine a single part of an elephant's body and then describe the animal they had touched. For obvious reasons, the chap who ran his hands over the elephant's trunk came up with an entirely different description of the animal than the one who examined an ear.

It is easy to fall into the same trap by singling out specific design details of a product, asking for opinions on them, and then drawing misleading conclusions about what the product will look like when all the pieces are put together. For example, 76.5 percent of the respondents voted for a classic-style stock, 61.6 percent chose a solid recoil

Even though most ST readers say they use scopes for hunting, almost 40 percent also want open rear sights like those on Remington's M700.

pad, 62.9 percent don't want a forearm tip of contrasting color, 85.4 percent would rather live without white line spacers, and 83.3 percent prefer a low-luster finish. Now for the interesting part.

The stock of the Weatherby Mark V is the Monte Carlo style, has a contrasting forearm tip, a ventilated recoil pad, white line spacers, an extremely shiny finish, and when judged individually as a component part of a rifle, it ranked down in 9th place in the "Best Looking And Feeling" department among other factory stocks. And yet, the "California-style" Weatherby Mark V and the "Classic-style" Ruger Model 77 virtually tied for first place in the "Factory Rifle Considered Most Handsome" category. Perhaps this tells us that when examined individually, some aesthetic details are less appealing to some than others, but when those same details are combined into

one complete package, they become quite appealing. Or *Shooting Times* readers could be telling us that the Weatherby Mark V looks the way it does because it wouldn't look like a Weatherby Mark V if it looked any other way.

Wood Versus Synthetic

Many respondents noted that if they had to do all their hunting with one rifle, it would have a synthetic stock, but since they didn't, they also owned rifles with wood stocks. Several pointed out that any time they hunt in areas that get lots of wet weather (like southeastern Alaska), they always use a rifle with a synthetic stock. On the



Cartridges ST Readers Want

25 Most-Wanted Cartridges

Ranking	Cartridge	Percentage Of Requests
1.	7mm Shooting Times Westerner	18.4
2.	.338-06	13.1
3.	6.5-06	5.9
4.	.284 Winchester	5.7
5.	.358 Shooting Times Alaskan	5.6
6.	.257 Roberts Improved	4.9
7.	.280 Remington Improved	4.1
8.	.358 Winchester	4.0
9.	6.5x55mm Swedish	3.8
10.	.30-338	3.4
11.	6.5-08/6.5-08 Improved	3.2
12.	250-3000 Savage	2.9
13.	.350 Remington Magnum	2.7
14.	6.5mm-284	2.5
15.	6mm-284	2.4
16.	.257 Roberts	2.2
17.	.25-284	2.1
18.	.375-338	2.0
19.	.30-06 Improved	1.9
20.	.35 Whelen	1.8
21.	.30-284	1.8
22.	.30-378 Weatherby Magnum	1.7
23.	.416 Taylor	1.6
24.	6.5 Remington Magnum	1.2
25.	.338-378 Weatherby Magnum	1.1

Represents the percentage of the total number of requests for these cartridges.

25 Honorable Mentions

Cartridge	Parent Case	Case Forming Procedure
1. .22 Hornet	Factory cartridge	-
2. .22-250 Improved	.22-250 Remington	A
3. .22-243	.243 Winchester	B
4. 6x45mm	.223 Remington	C
5. 6mm BR Remington	Factory cartridge	-
6. 6mm-06	.30-06	B
7. .25-06	.308 Winchester	B
8. .264 Winchester Magnum	Factory cartridge	-
9. 7mm T/CU	.223 Remington	E
10. 7x57mm Mauser	Factory cartridge	-
11. 7x57mm Mauser Improved	7.57mm Mauser	A
12. 7mm ST Easterner	.307 Winchester	O
13. 7x84mm Brenneke	Factory cartridge	-
14. 7.62x39mm Russian	Factory cartridge	-
15. .300 H&H Magnum	Factory cartridge	-
16. .300 Jarrett	8mm Remington Magnum	O
17. 8x57mm Mauser	Factory cartridge	-
18. 8mm Remington Magnum	Factory cartridge	-
19. 8mm-06	.30-06	C
20. .338-08	.308 Winchester	C
21. .338-284	.284 Winchester	C
22. .35-284	.284 Winchester	C
23. .35 Whelen Improved	.35 Whelen	A
24. .358 Norman Magnum	Factory cartridge	-
25. 9.3x62mm Mauser	Factory cartridge	-

*Or the .358 Shooting Times Alaskan necked down.

A. Parent case fireformed to the improved shape.

B. Parent case necked down. D. Parent case necked down and fireformed to the improved shape.

C. Parent case necked up. E. Parent case necked up and fireformed to the improved shape.

NOTES: These cartridges did not make the "25 Most-Wanted List," but a lot of *Shooting Times* readers are obviously great fans of them. They are not listed in order of preference.



Three popular wood stock styles are (L-R) Classic, Monte Carlo, and Classic with cheekpiece.

each year are during rainy or snowy weather. As might be expected, more of them voted for the synthetic stock than those who experienced 10 to 20 percent wet hunting days.

Odds And Ends

Quite a few respondents went beyond the scope of my questions with comments on various design details that were not addressed by my questionnaire. Space limitations do not allow me to cover them all, but here are those that got mentioned most often.

Anyone who has hunted a great deal in freezing rain knows that if enough water is allowed to accumulate in the action of a rifle, it can freeze up and become inoperable. This can also happen if snow melts, enters the action in the form of water, and then refreezes. Those hardy souls among us who have experienced this problem asked for one of two things on their "dream" bolt-action rifle. Some asked for a sliding dust cover that prevents water and dust from entering the action when the bolt is closed. The old Siamese Mauser military rifle had such a device, but as U.S.-manufactured big-game rifles go, only the Remington Model 760 slide action has it. Others asked for a more narrow ejection port in the receiver, like the one on the Tikka, the Remington 788, and the old Schultz & Larson.

other hand, when going on a dry-country hunt (like for Wyoming pronghorn), they hunt with a wood-stocked rifle. Several dozen asked for a rifle that comes from the factory with two stocks, one carved from wood and another of synthetic materials.

This tells us that the majority of hunters (including yours truly) are still tradition bound and actually prefer the look and feel of a wood stock. Hunters are not buying synthetic-stocked rifles because they like them better than wood. Quite the contrary, there are more things hunters don't like about the synthetics than is the case with wood. They're buying them because, from a purely practical point of view, they are superior in several ways. This also tells us that even though the synthetics have become extremely popular, there will always be a great demand for the more handsome wood stock.

I find it interesting that 57.8 percent of the respondents indicated that from 20 to 50 percent of their hunting days



The two most popular synthetic stock colors are wood grain and black.

There were other requests, including a band-type quick-detach sling swivel mounted out on the barrel of rifles chambered for hard-kicking cartridges rather than the screw-type back on the forearm. Remington's Custom Shop Model 700 Safari Custom KS (Kevlar stock) in .375 H&H, .416 Remington, and .458 Winchester has the barrel-band-type front sling swivel. The front swivel on the barrel of the Winchester Model 70 Super Express in those calibers is not the band type, but is mounted out on the barrel.

Other frequent requests include a bolt that is locked from rotation when the safety is "On" (like the Model 70 Super Grade, Ruger 77 Mark II, and Weatherby mark V); preference of leather slings over nylon; a stainless-steel/synthetic, heavy-barrel varmint rifle (the Ruger has a laminated wood stock); a heavy bead-blasted finish for less sparkle and shine from the finish of stainless-steel rifles; a quiet, no-click safety; and last but certainly not least in importance, a price within reach of the working man.

CHART B What ST Readers Prefer In A Bolt-Action Big-Game Rifle

Barreled Action Material And Finish	34.3%	Two-position on receiver tang	Extractor Type	Bolt Shroud (Cocking Piece) Style
40.8% Stainless steel with blue/black finish	15.2%	Two-position beside receiver tang	55.5% Pre-'64 Model 70/Model 70 Super Grade/Model '98 Mauser	41.8% Closed at rear
23.9% Stainless steel with brushed finish	7.9%	Two-position on bolt shroud	18.4% Remington Model 700	32.7% Open at rear
21.6% Blued carbon steel	0.1%	No preference	8.2% Ruger Model 77	25.5% No preference
10.5% Carbon steel with black Teflon finish		Bolt-Locking Lug Type	7.6% Sako	Bolt Body Style
0.3% Carbon steel with hard-chrome finish	57.5%	Dual-opposed	7.0% Post-'64 Model 70	52.1% Nonfluted
2.9% No preference	35.3%	Multiple	0.2% Others	27.5% Fluted
Scope Mounting System	7.2%	No preference	5.1% No preference	20.4% No preference
59.9% Integral base on receiver		Locking Lug Location	Ejector Type	Bolt Body Finish
34.8% Receiver drilled and tapped	88.6%	At front of bolt	31.3% Remington Model 700/Post-'64 Winchester Model 70	44.3% Polished and jeweled (engine-turned)
5.3% No preference	0.3%	At rear of bolt	28.6% Model 70 Super Grade/Pre-'64 Model 70	28.1% Blue/black
Receiver Should Be Drilled And Tapped At Factory For Receiver Sight	13.1%	No preference	25.6% Model 1898 Mauser	22.2% Polished
48.4% No		Bolt Handle Style	8.3% Ruger Model 77	5.4% No preference
29.3% Yes	25.6%	Remington Model 700	7.1% No preference	Bolt Handle Knob Style
22.3% No preference	23.2%	Winchester Model 70	Bolt Release Type	66.6% Checkered surface
Safety Type	19.1%	Ruger Model 77	40.6% Model 1898 Mauser	27.5% Smooth surface
42.5% Three-position on bolt shroud	11.6%	Browning A-Bolt	26.5% Remington Model 700	5.9% No preference
	8.4%	Sako	20.6% Winchester Model 70	Magazines
	3.6%	Weatherby Mark V	3.5% Savage Model 110	57.1% Mauser-type enclosed box
	4.4%	Others	8.8% No preference	42.7% Detachable
	4.1%	No preference		0.2% Rotary

Magazine Floorplate Release Location
83.7% Hinged
11.5% Blind
4.8% No preference

At front of trigger guard
65.6%
23.8% Inside trigger guard
10.6% No preference

Barrel Length (Inches)
Short Cartridges (7mm-08, .308, etc.)
37.4% 18.5
42.3% 20
14.1% 22
6.2% 24

Long Cartridges (.270, .30-06, etc.)
16.1% 20
59.3% 22
23.1% 24
1.5% 26

Belted Magnums (.240 to .300 calibers)
8.8% 22
58.3% 24
34.9% 26

Belted Magnums (8mm to .358 calibers)
77.3% 24
22.7% 26

Belted Magnums (.418 to .458 calibers)
2.4% 20
28.1% 22
63.2% 24
6.3% 26

Open Sights On Barrel
56.3% No
38.9% Yes
4.8% No preference

Stock Material
42.2% Synthetic
41.6% Walnut
16.2% Laminated wood

Stock Style
76.4% Classic
23.6% Monte Carlo

Recoil Pad Type
61.7% Solid
28.6% Ventilated
9.7% No preference

Cheekpieces
61.2% Yes
38.8% No

Whiteline Spacers
85.4% No
14.6% Yes

Detachable Carrying Sling Swivels
100% Yes

Wood Stock Finish
83.3% Low-luster satin
11.1% High-gloss
5.6% No preference

Synthetic Stock Finish
36.4% Smooth texture with molded-in checkering
31.5% Rough texture
23.1% Rough texture with molded-in checkering
6.9% Smooth texture
2.1% No preference

Synthetic Stock Color
39.5% Black
29.3% Figured walnut
20.1% Camouflage
8.6% Gray

Green
0.8% Brown
0.4% Others

Buttstock Options
89.7% Rubber recoil pad
6.1% Steel buttplate
1.1% Synthetic buttplate
3.1% No preference

Stock/Action Bolt Type
62.1% Hex (Allen) head
26.4% Slotted head
11.5% No preference

Most Important Advantage Of A Synthetic Stock Over A Wood Stock
64.1% More stable
19.5% Lighter
16.4% Stronger and more durable

Dislikes About Synthetic Stocks
46.4% Ugly
24.2% Noisy
11.6% Cold feel
9.3% Paint coating easy to scratch or chip
0.4% Slippery when wet
2.1% High cost

Factory Wood Stock Considered Best Looking And Feelling
16.9% Ruger Model 77
13.8% Remington Model 700 Classic
13.1% Remington Model 700 Mountain Rifle
12.3% Winchester Model 70 Featherweight
11.5% Remington Model 700 BDL
5.5% Sako
4.5% Ruger Model 77 RSI
4.3% Winchester Model 70 Sporter
4.2% Weatherby Mark V
4.1% Browning A-Bolt
2.6% Remington Model Seven
7.2% Others

Factory Rifle Considered Most Accurate
54.4% Remington Model 700
12.6% Sako
10.1% Winchester Model 70
8.9% Ruger Model 77
5.5% Browning A-Bolt
3.7% Savage Model 110
4.6% Others

Factory Rifle Considered Most Dependable
29.6% Remington Model 700
27.6% Ruger Model 77
20.1% Winchester Model 70
9.1% Interarms Mark X
4.2% Sako
3.3% Weatherby
3.8% Browning A-Bolt
2.3% Others

Factory Rifle Considered Most Handsome
16.7% Ruger Model 77
16.6% Weatherby Mark V
12.4% Winchester Model 70 Featherweight
9.4% Remington Model 700 Mountain Rifle
9.0% Sako
7.8% Remington Model 700 Classic
7.2% Browning A-Bolt
5.2% Remington Model 700 BDL

Winchester Model 70 Super Grade
3.9%
3.5% Winchester Model 70 Sporter
8.3% Others

Factory Rifle With The Best Trigger
58.6% Remington Model 700
16.9% Winchester Model 70
10.3% Sako
3.5% Weatherby Mark V
2.6% Savage Model 110
1.7% Browning A-Bolt
8.4% Others

Factory Rifle Considered Best Handling
20.2% Ruger Model 77
19.3% Winchester Model 70
12.2% Featherweight
11.0% Remington Model 700
8.0% Browning A-Bolt
7.2% Remington Model Seven
6.3% Sako
3.4% Winchester Model 70
2.9% Remington Model 700
1.8% Ultra Light Model 20
1.7% Ruger Model 77 RSI
1.5% Weatherby Mark V
4.5% Others

New Rifle Should Be Offered With Optional Left-Hand Action
73.9% Yes
26.1% No preference

New Rifle Should Be Offered In An Optional Short-Action Version
88.0% Yes
11.4% No
0.6% No preference

Short-Action Rifle Should Be Offered In:
25.5% .308 Winchester
18.9% 7mm-08 Remington
13.3% .243 Winchester
6.7% .284 Winchester
6.6% 6.5-08 Improved (wildcat)
5.8% .358 Winchester
5.5% .250 Savage
3.5% 6mm Remington
3.3% 6mm-284 (wildcat)
3.2% .257 Roberts
2.9% .350 Remington Magnum
1.4% 6.5 Remington Magnum
1.4% 7.62x39mm Russian
1.2% .300 Savage
0.8% Others

New Rifle Should Be Offered In Optional Carbine Version
57.3% Yes
23.7% No
19.0% No preference

Stock Style Of Carbine Should Be:
51.3% Conventional
42.5% Mannlicher (full-stock)
6.2% No preference

Mechanical Problems Experienced With Factory Bolt-Action Rifles
68.1% No problems
14.3% Cartridges wouldn't feed from magazine

Extractor broke or malfunctioned
6.6%
5.4% Point of impact shifted (loss of zero)
3.3% Floorplate latch popped loose from recoil
1.1% Action froze during extremely cold, wet weather
1.1% Ejector malfunctioned

What Manufacturers Could Do To Improve The Bolt-Action Rifle
24.4% Better bedding of barreled action in stock
23.4% Better overall fit and finish
13.6% Lighter and smoother trigger pull
13.5% Smoother bolt travel in receiver
12.2% Nothing needs improving
6.1% Better bore quality of barrels
2.2% Reduce bolt wobble in receiver
2.3% Offer an optional aperture-type receiver sight
1.4% Quieter safety operation
0.9% Closer alignment of scope mount base screwing on receiver with axis of the bore

Characteristics Of The Bolt-Action Rifle That Cause You To Choose It Over Other Types Of Big-Game Rifles
22.3% More accurate
14.5% More reliable
14.1% Stronger
10.2% More handsome
7.6% More calibers available
6.7% Fits, feels, and handles better
5.5% Easier to clean
4.7% Simple design
4.5% More durable
3.3% Trigger easier to adjust or have adjusted
2.1% Usually weighs less
1.2% Better trigger
1.2% Better for handloads
1.1% More positive chambering and extraction
1.0% Easier to unload

Acceptable Factory Big-Game Rifle Accuracy For A Series Of Three-Shot Groups At 100 Yards
42.3% 1.25-1.50 inches
33.3% 0.50-1.00 inch
14.4% 1.50-2.00 inches
6.7% 1.00-1.25 inches
3.3% Over two inches

Percentage Of Bolt-Action Rifles Compared With Other Types Of Rifles Owned
37.5% Bolt actions
24.1% Lever actions
16.3% Autoloaders
15.3% Single shots
6.8% Slide actions

Bolt-Action Rifles Made Today Are:
79.9% More accurate than rifles made 20 years ago
17.5% As accurate as rifles made 20 years ago
2.6% Less accurate than rifles made 20 years ago