


.30-30 Winchester

.30-30 Winchester			
			
.30-30 cartridge (center) between 5.56x45mm NATO (.223 Remington), left, and 7.62x51mm NATO (.308 Winchester), right			
Type	Rifle		
Place of origin	United States		
Production history			
Designer	Winchester		
Designed	1895		
Manufacturer	Winchester		
Produced	1895-Present		
Variants	.25-35 Winchester, .219 Zipper, .30-30 Ackley Improved, 7-30 Waters		
Specifications			
Case type	Rimmed, bottlenecked		
Bullet diameter	.308 in (7.8 mm)		
Neck diameter	.330 in (8.4 mm)		
Shoulder diameter	.401 in (10.2 mm)		
Base diameter	.422 in (10.7 mm)		
Rim diameter	.506 in (12.9 mm)		
Rim thickness	.063 in (1.6 mm)		
Case length	2.039 in (51.8 mm)		
Primer type	large rifle		
Ballistic performance			
Bullet weight/type	Velocity	Energy	
110 gr (7 g) FP	2,684 ft/s (818 m/s)	1,760 ft·lbf (2,390 J)	
130 gr (8 g) FP	2,496 ft/s (761 m/s)	1,799 ft·lbf (2,439 J)	
150 gr (10 g) FN	2,390 ft/s (730 m/s)	1,903 ft·lbf (2,580 J)	
160 gr (10 g) cast LFN	1,616 ft/s (493 m/s)	928 ft·lbf (1,258 J)	
170 gr (11 g) FP	2,227 ft/s (679 m/s)	1,873 ft·lbf (2,539 J)	
<i>Source(s): Hodgdon^[1]</i>			

The **.30-30 Winchester/.30 Winchester Center Fire/7.62×51mmR** cartridge was first marketed in early 1895 for the Winchester Model 1894 lever-action rifle.^[2] The .30-30 (*thirty-thirty*), as it is most commonly known, was the USA's first small-bore, sporting rifle cartridge designed for smokeless powder. In Mexico and Latin America, it is known as the *treinta-treinta* (Spanish for "30-30").^[3]

Naming

.30 WINCHESTER SMOKELESS first appeared in Winchester's catalog No. 55, dated August, 1895. As chambered in the Winchester Model 1894 carbine and rifle, it was also known as **.30 Winchester Centerfire** or **.30 WCF**. When the cartridge was chambered in the Marlin Model 1893 rifle, rival gunmaker Marlin used the designation *.30-30* or *.30-30 Smokeless*.^[9] The added **-30** stands for the standard load of 30 grains (1.9 g) of early smokeless powder, according to late-19th century American naming conventions for black powder-filled cartridges. Both Marlin and Union Metallic Cartridge Co. also dropped the Winchester appellation as they did not want to put the name of rival Winchester on their products.^[4]

The modern designation of **.30-30 Winchester** was arrived at by using Marlin's variation of the name with the Winchester name appended as originator of the cartridge, though *.30 WCF* is still seen occasionally. This designation also probably serves to avoid consumer confusion with the different yet similarly-shaped .30-40 Krag, which has been referred to as ".30 US" and ".30 Army".

Characteristics and use

As originally produced by Winchester Repeating Arms (WRA) and Union Metallic Cartridge Company (UMC, who dubbed the cartridge .30-30), it was manufactured with a "metal patched" (jacketed) lead bullet weighing 160 gr. One year later, UMC produced a 170 gr. bullet offering, which is still the most popular loading for the cartridge. Both 150 gr. and 170 gr. bullets continue to be very popular, as seen in the number of these weights offered by current manufacturers, although the 160 gr. bullet weight has reappeared in modern cartridges from Hornady, as noted below. Jacketed bullets for the .30-30 are .308 inches nominal diameter. Cast lead bullets for the .30-30 are also popular, and usually are dimensioned to .309 inches in diameter for use in the .30-30.

The .30-30 is considered to be the "entry-class" for modern big-game hunting cartridges, and it is common to define the characteristics of cartridges with similar ballistics as being in ".30-30 class" when describing their trajectory. While it is very effective on deer-sized and black bear-sized game, most commercial loadings are limited in effective range to approximately 200 yards (183 m) for that purpose, except when using ballistic tip ammunition. The cartridge is typically loaded with bullets weighing between 150 and 170 grains (9.7–11.0 g), but lighter loads are possible. Bullets of up to 180 grains (11.7 g) can be used but the overall length restrictions of the lever action rifles most commonly chambered for this round limit their usefulness.

In Canada and the U.S. the cartridge has also been used on moose, caribou, and pronghorn. Modern opinions in Canada on its suitability for moose are mixed. Paul Robertson, a Canadian hunting firearms columnist, says, "Too many moose have been taken with the 30/30 to rule it out as good for this purpose as well."^[5] In both Canada and the U.S. it has a long history of use on moose.^[6] It is generally agreed that the .30-30 is not a good choice for hunters who wish to shoot animals at longer ranges. The cartridge, with flat- or round-nosed bullets, does not meet minimum energy standards required for moose hunting in Finland, Norway, or Sweden.^[7] Hunting technique and style, as well as law and culture, dictate cartridge choices.^[8] Thor Strimbold, a Canadian who has made more than 20 one-shot kills on moose with a .30-30, advises most moose hunters to use more than minimal power if they can handle the recoil.^[9] While the .30-30 is legal for hunting moose in Newfoundland, Canada, game authorities do not recommend its use.^[10]

One of the primary reasons for the .30-30's popularity amongst deer hunters is its light recoil. Average recoil from a typical 150-grain (9.7 g) load at 2,390 feet per second (730 m/s) in a 7.5-pound (3.4 kg) rifle is 10.6 foot-pounds

(14.4 J) of felt recoil at the shooter's shoulder, about half that of a comparable rifle chambered for the .30-06 Springfield.^[11]

Because the majority of rifles chambered in .30-30 are lever-action rifles with tubular magazines, most .30-30 cartridges are loaded with round-nose or flat-nose bullets for safety. This is to prevent a spitzer-point bullet (the shape seen on the .308 Winchester above) from setting off the primer of the cartridge ahead of it in the magazine during recoil, resulting in potentially catastrophic damage to both firearm and shooter. The Savage Model 99 was introduced in 1899 with a rotary magazine, in part to avoid that issue. When used in single-shot rifles or handguns, such as the Thompson Center Arms Contender or Encore series, it is common for shooters to handload the cartridge with spire-point bullets for improved ballistics.

A notable exception to the "no pointed bullets" guideline for bullet selection in rifles with tubular magazines are the new flexible "memory elastomer"-tipped LEVERevolution cartridges as produced by Hornady.^[12] The soft tips of these bullets easily deform under compression, preventing detonations while under recoil in the magazine, yet also return to their original pointed shape when that pressure is removed, thus allowing for a more efficient bullet shape than previously available to load safely in such rifles. The more aerodynamic shape results in a flatter bullet trajectory and greater retained velocity downrange, significantly increasing the effective range of rifles chambered for this cartridge.^{[13][14]}

Rifles and handguns chambered in .30-30

The .30-30 is by far the most common chambering in lever action rifles^[15] such as the Winchester Model 1894, the Savage Model 99, and the Marlin Model 336. Mossberg also came out with lever action rifles in the chambering, the Mossberg model 472, 479 and the newer 464. One can also find these Mossberg rifles under the brands of Western Field (sold through Montgomery Wards as the M72). The 472 was only produced from 1970 to 1979, and the 479 until 1983 - both of which are rare and often confused with the Marlin 336 due to their similar appearance. There is a Roy Rogers edition with a gold trigger, butt plate and Roy Rogers signature on the stock. Rossi of Brazil has recently started offering what is essentially a clone of the Marlin 336 series in .30-30 as well. Winchester produced a simplified and more economical version of their popular Model '94 through Sears and Roebuck under the Ted Williams name, and through Western Auto under the Revelation label.



The rimmed design is also well suited for various single-shot actions, so it is commonly found there as well. Rimmed cartridges are chambered in bolt action rifles, but .30-30 bolt actions are uncommon today. "At one time Winchester turned out the Model 54 bolt-action repeater in this caliber [.30 WCF], but it was a decided failure, chiefly because the man desiring a bolt action preferred to take one of the better and more powerful cartridges. However, in this particular caliber, the .30 WCF cartridge proved to be decidedly accurate."^[1] In addition, rimmed cartridges typically don't feed well with the box magazines normally found on bolt-action rifles.^{[16][17][18][19]} Other examples of bolt action rifles offered in .30-30 Winchester are the Stevens Model 325, the Savage Model 340^[20], the Springfield/Savage 840, and the Remington 788.

In the sport of handgun metallic silhouette shooting, the .30-30 has been used. The Thompson Center Arms Contender pistol, with its compact frame and break-action design, is available for the .30-30 cartridge. The .30-30 will produce velocities of nearly 2000 f/s (610 m/s) out of the 10 inch (25 cm) Contender barrel, though recoil and muzzle blast are stronger due to the short barrel. The longer barrel results in significant reductions in felt recoil (due to increased weight) and muzzle blast, with higher velocities, especially if factory loaded rifle ammunition is used. Magnum Research offers their five-shot BFR revolver in .30-30.^[21]

Derivative cartridges

In addition to the most common factory derivations, the .25-35 Winchester, 6.5x52R and the less well known .219 Zipper, the .30-30 has also spawned many wildcat cartridges over the years. One example is the 7-30 Waters, made by necking the .30-30 case down to 7 mm (.284 inch). The 7-30 Waters eventually moved from a wildcat design to a factory chambering, with rifles being made by Winchester, and barrels made by Thompson/Center for their Contender pistol. Other .30-30 based wildcats are used almost exclusively in the Contender pistol. One of the more notable examples is the .30 Herrett, a .30-30 case necked back to reduce case capacity for more efficient loading with fast burning powders. The .30 Herrett produces higher velocities with less powder than the larger .30-30 case in the short 10 and 14 inch (25 and 35 cm) Contender barrels. Other examples are the .357 Herrett, developed to handle heavier bullets and larger game than the .30 Herrett, and the 7mm International Rimmed, a popular metallic silhouette cartridge. Bullberry, a maker of custom Contender barrels, offers proprietary .30-30 wildcats in 6 mm, .25 caliber, and 6.5 mm diameters.^{[22][23][24][25][26]} In addition, P.O. Ackley used the cartridge as the basis for the .30-30 Ackley Improved.

Notes

- [1] ".30-30 load data (http://data.hodgdon.com/cartridge_load.asp)" from Hodgdon.
- [2] ".30-30 Winchester ([http://www accuratepowder.com/data/PerCaliber2Guide/Rifle/Standarddata\(Rifle\)/308Cal\(7.82mm\)/30_30_Winchester_pages_253_to_254.pdf](http://www accuratepowder.com/data/PerCaliber2Guide/Rifle/Standarddata(Rifle)/308Cal(7.82mm)/30_30_Winchester_pages_253_to_254.pdf))" data from Accurate Powder.
- [3] Barnes, F.C. 1989. Cartridges of the World, 6th Edition, Ken Warner, editor. DBI Books. Northbrook, IL.
- [4] Leverguns.com (<http://www.leverguns.com/articles/3030history.htm>) article on History of the .30-30.
- [5] "The Immortal 30-30," *Western Sportsman* Oct. Nov. 1990.
- [6] Bert Stent, "A Small Wonder--The .30-30 Carbine," *BC Outdoors* July 1988; Bob Milek, "The Old .30-30 is as good as ever!" *Guns & Ammo* July 1985; Grits Gresham, "The 30/30" *Sports Afield* August 1989.
- [7] Hornady's Lever Evolution 160gr flex-tipped spitzer ammunition might complicate the matter. Based on the results of a *Real Guns* review (reviewguns.com), the retained energy of the load in a tested carbine might retain more than 2000 joules at 100 yards and, thereby, which is close to what is required at 100 meters in Finland and Norway (2200 in Sweden).
- [8] Bob Milek, "What determines 'maximum effective range'?" *Guns & Ammo* December 1989.
- [9] H. V. Stent, "The Winchester Model 94," *Gun Digest* 1980.
- [10] Newfoundland hunting regulations.
- [11] "Chuck Hawks (http://www.chuckhawks.com/ideal_deer_cartridges.htm)" article IDEAL DEER CARTRIDGES.
- [12] "LEVERevolution (<http://www.hornady.com/story.php?s=198>)" at Hornady web site.
- [13] Hornady LEVERevolution Ammunition (<http://www.chuckhawks.com/leverevolution.htm>) by Guns and Shooting Online Staff at Chuck Hawks.
- [14] The .30-30 Rides Again (<http://www.gunsandhunting.com/3030.html>), Shooting Illustrated's Guns and Hunting.
- [15] Chuck Hawks (http://www.chuckhawks.com/deer_rifle.htm) article The Deer Rifle
- [16] "Rimmed cartridges have certain drawbacks, but these were of no concern at the time the design was introduced. The biggest of these is the difficulty in obtaining reliable feeding from a box type magazine. The rims tend to interfere with each other during the feeding cycle. This occurs when the rim of the cartridge being chambered tries to strip the round beneath it, since the rims do not easily ride over one another." in The Cartridge case (<http://www.exteriorballistics.com/reloadbasics/cartcase.cfm>) article by Sierra Bullets.
- [17] "The rimless cartridge design, generously borrowed from Mauser, was also an improvement as it featured superior feeding from a box magazine." in .30-06 Springfield (<http://www.reloadbench.com/cartridges/3006s.html>) article at the Reload Bench.
- [18] "When several cartridges are stacked in a magazine, the rims get in the way." in GUNS AND AMMO: Terminology - Firearms (http://www.dyerlabs.com/guns_and_ammofirearms.html).
- [19] "The 222 Remington is in about the same class as the 219 Zipper, but is rimless and adapted to modern bolt action rifles." in .222 Remington article (<http://www.reloadbench.com/cartridges/222.html>) at the Reload Bench.
- [20] http://www.wisnersinc.com/additional_info/Savage_340.htm
- [21] BFR article (<http://www.magnumresearch.com/Expand.asp?ProductCode=BFR30-30>) at Magnum Research web site.
- [24] .30 Herrett, 130 grains at 2344 ft/s with 22 grains of H110; .30-30 pistol, 130 grains at 2238 ft/s with 36 grains of Varget

References

- Barnes, Frank C.; Skinner, Stan (Ed.) (1965, 1969, 1972, 1980, 1985, 1989, 1993, 1997, 2000, 2003). *Cartridges of the World* (10th ed.). Iola, Wisconsin: Krause Publications. ISBN 0-87349-605-1.
 - Chuck Hawks (<http://www.chuckhawks.com/30-30Win.htm>) article on the .30-30
 - Leverguns.com (<http://www.leverguns.com/articles/3030history.htm>) history of the .30-30
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