

Compared: Rifle and Shotgun Recoil Table

Compiled by Chuck Hawks

A common question among shooters is how rifle and shotgun recoil compares. The list below provides some objective answers.

However, is is worth noting that shotguns are generally fired at moving targets from a standing position at the trap, skeet or sporting clays range. The shooter's attention is necessarily focused on the target, not the gun. Conversely, at rifle ranges, rifles are normally fired from a sitting position at a bench rest at static targets and the shooters attention is focused on the gun's sights (or scope). The former situation minimizes the subjective recoil, while the latter maximizes subjective recoil. Shoot your 12 gauge pump or O/U shotgun from a bench rest some day and you will see what I mean.

Gun weight is an important, and inversely proportional, component of recoil. Shooting the exact same load, the heavier the gun, the lower the recoil energy; a gun that weighs twice as much, kicks half as hard. Therefore, gun weight is crucial to determining the recoil a shooter experiences when he or she pulls the trigger.

In order to give a realistic idea of how much various shotgun and rifle loads are liable to kick the shooter, the recoil figures below are for hunting guns of typical weight for their caliber or gauge. It happens that small gauge field shotguns typically weigh less than small bore hunting rifles, while the weight of large bore field shotguns (12 and 10 gauge) are more generally comparable to the weight of larger caliber hunting rifles. (Remember, hunting rifles are usually equipped with a scope and shotguns are not.)

There are a great many rifle cartridges, far more than there are shotgun gauges. In the interest of brevity and to facilitate comparison, I have listed only reasonably well known rifle calibers/loads and shotgun gauges/loads that are similar in recoil energy. The recoil kinetic energy figures below are taken from the [Rifle Recoil Table](#) and the [Shotgun Recoil Table](#).

Note that the most powerful shotgun loads generate recoil comparable to elephant rifle cartridges. Shooters who would never think of shooting a .416 Rem. Mag. or .450 Nitro Express rifle even once will casually buy a box of 12 gauge, 3-inch Magnum shot shells for hunting season and shoot all 25 shells at a single sitting. It is no wonder flinching (and missing!) is so common.

<u>Cal./Gauge (weight of load at MV fps)</u>	<u>Gun weight (lbs.)</u>	<u>Recoil energy (ft. lbs.)</u>
7.62x39 Soviet (125 gr. at 2350)	7.0	6.9
.410 bore, 2.5" (1/2 oz. at 1200)	5.5	7.1
6mm Rem. (100 gr. at 3100)	8.0	10.0
.410 bore, 3" (11/16 oz. at 1135)	5.5	10.5
.30-30 Win. (150 gr. at 2400)	7.5	10.6
7mm-08 Rem. (140 gr. at 2860)	8.0	12.6
28 gauge, 2.75" (3/4 oz. at 1200)	6.0	12.8
.308 Win. (150 gr. at 2800)	7.5	15.8
20 gauge, 2.75" (7/8 oz. at 1200)	6.5	16.1
.270 Win. (140 gr. at 3000)	8.0	17.1
12 gauge, 2.75" (1 oz. at 1180)	7.5	17.3
.30-06 (180 gr. at 2700)	8.0	20.3
20 gauge, 2.75" (1 oz. at 1220)	6.5	21.0
.270 Wby. Mag. (130 gr. at 3375)	9.0	21.0
16 gauge, 2.75" (1 oz. at 1220)	7.0	21.5
7mm Rem. Mag. (175 gr. at 2870)	9.0	21.7
12 gauge, 2.75" (1-1/8 oz. at 1200)	7.5	23.0
.300 Win. Mag. (150 gr. at 3320)	8.5	23.5
.300 Wby. Mag. (150 gr. at 3400)	9.3	24.6
20 gauge, 2.75" (1-1/8 oz. at 1175)	6.5	25.0
.300 WSM (180 gr. at 2970)	7.3	27.1
16 gauge, 2.75" (1-1/8 oz. at 1240)	7.0	27.6
.35 Whelen (250 gr. at 2400)	7.5	27.9
.405 Win. (300 gr. at 2200)	8.0	30.6
20 gauge, 3" (1-1/4 oz. at 1185)	6.5	31.0
.300 Wby. Mag. (180 gr. at 3240)	9.0	31.6
12 gauge, 2.75" (1-1/4 oz. at 1330)	7.5	32.0
.338 Win. Mag. (200 gr. at 2950)	8.5	32.8
.340 Wby. Mag. (250 gr. at 2941)	9.0	43.4
12 gauge, 2.75" (1-1/2 oz. at 1260)	7.5	45.0
.375 Wby. Mag. (300 gr. at 3240)	10.0	47.3
12 gauge, 3" (1-5/8 oz. at 1280)	7.5	52.0
.416 Rem. Mag. (400 gr. at 2400)	10.0	52.9
.375 Ultra Mag (300 gr. at 2800)	8.8	53.2
12 gauge, 3" (1-7/8 oz. at 1210)	8.75	54.0
.450 NE (465 gr. at 2150)	11.0	55.5
.458 Win. Mag. (500 gr. at 2100)	9.0	62.3
10 gauge, 3.5" (2-1/4 oz. at 1210)	10.5	62.9

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