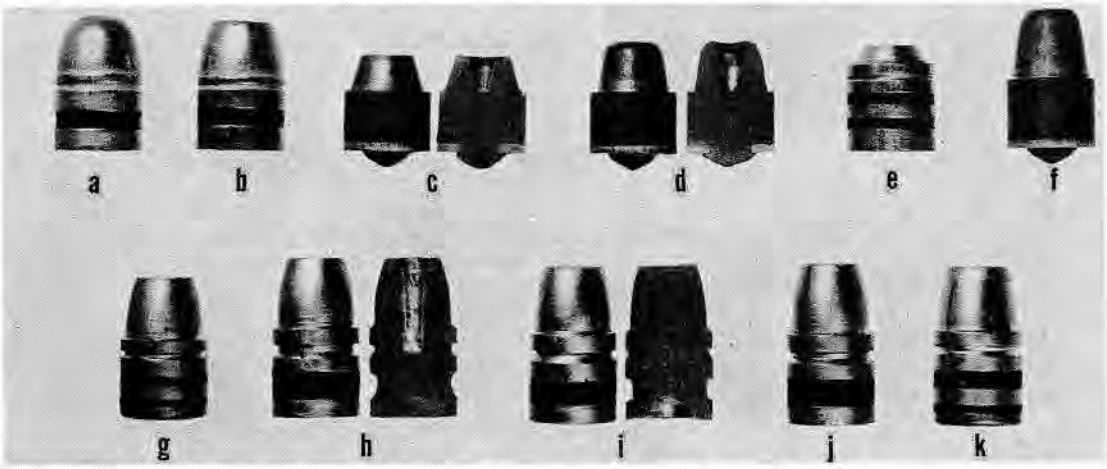


.44 cal. bullets: (a) 130-gr. Cladaloy round-nose; (b) 128-gr. Cladaloy flat-nose; (c) 158-gr. Harvey, zinc washer base, hollow point; (d) 170-gr. Harvey, zinc washer base, hollow point; (e) 185-gr. Hensley & Gibbs Wadcutter No. 107 B; (f) 220-gr. Harvey, zinc washer base; (g) 215-gr. Ideal No. 431215 gas check; (h) 232-gr. Ideal No. 429421 hollow point; (i) 235-gr. Ideal No. 429422 hollow base; (j) 250-gr. Ideal No. 429421; (k) 244-gr. Ideal No. 431244 gas check

Loads for the .44 S&W Special

Ballistic data supplied by H. P. White Laboratory

By M. D. Waite
Technical Editor
THE AMERICAN RIFLEMAN

For defense, target shooting, or as a second gun to supplement the hunting rifle, a revolver chambered for the .44 Smith & Wesson Special cartridge can hardly be excelled. Factory ammunition, loaded with the 246-grain lead bullet at a velocity under 800 feet per second, gives an entirely erroneous picture of the capabilities of the cartridge as such loads are not particularly accurate or impressive from the standpoint of energy or 'knockdown' power. By handloading, however, one can obtain a full variety of superbly accurate loads, ranging from low-velocity short-range target loads to high-velocity heavy bullet combinations delivering greater muzzle energy than the 200-grain .44 WCF load fired from a rifle. In short, the .44 S&W Special can be handloaded to give superior ballistics.

Many bullet types available

A wide variety of excellent bullet molds is available in this caliber, plus several interesting pre-cast and swaged commercial bullets of both lead and zinc alloy as well as lead bullets with integral zinc gas checks.

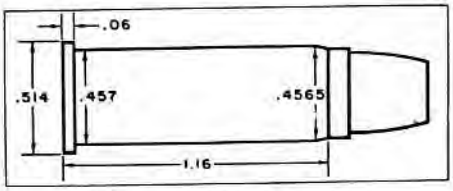
With the exception of the Harvey Prot-X-Bore and zinc Cladaloy bullets, supplied by their manufacturers, all other bullets used in these tests were cast in standard molds—supplied by Lyman Gun Sight Corporation and Hensley & Gibbs.

The Saeco thermostatically-controlled electric furnace was maintained at an average temperature of 750 degrees F., which proved to be an ideal temperature for the alloy of one part tin to 16 parts lead used. This alloy gave a fairly hard bullet which could just be marked by thumbnail impression. It is appropriate to emphasize at this point that neither excessively soft nor excessively hard bullets should be used in this caliber if one is to avoid leading or excessive pressures.

All bullets were sized and lubricated to a uniform .429-inch diameter with a heavy duty Go-Wad sizer-and-lubricator and Lyman-Ideal lubricant. This combination turned out surprisingly uniform and concentric bullets which varied as little as .4 grain in weight within random ten-bullet samples.

Production of flawless cast bullets involves extreme care and attention to detail. Large caliber bullets are prone to develop hollow cores in casting which seriously affect their ballistic performance. Thus one should feed the mold for a minimum time of five seconds, to insure a constant head of molten alloy as the bullet cools. By careful selection and culling of suspect bullets it is possible to obtain extremely small velocity spreads with attendant superb accuracy.

The choice of sizer-and-lubricator is also important since a misshapen bullet will not shoot accurately. The diameter of the bullet as cast should not be more than .002 inch in excess of the groove diameter of the barrel in which it is to be used. Essentially, the sizing die should merely true up the bullet as any obvious swaging or malformation of the driving bands indicates an over-diameter bullet which is virtually impossible to size concentrically.



Maximum cartridge dimensions

Bullets should be sized to groove diameter, or not more than .001 inch in excess of this dimension, as the use of oversize bullets will result in excessive pressures and mediocre accuracy.

With the exception of the Harvey Prot-X-Bore bullets requiring a .25-inch seating depth, all others specified have a crimping groove which automatically determines correct seating depth. For that reason this figure is omitted from the load specifications. All bullets should be given a hard crimp to insure their staying put when subjected to recoil inertia in the revolver cylinder.

Comments on loads

Every load was initially fired for both velocity and pressure in the pressure gun prior to accuracy and velocity testing in a hand-held Model 1950 Smith & Wesson Target revolver. It will be noted that the necessary clearance between cylinder and barrel of the revolver always resulted in a velocity loss which varied in degree from inconsequential to considerable. This loss could not be predicted according to bullet type, pressure level, or the type of powder used. While all loads proved to be acceptably accurate, the individual handloader may find it necessary to adjust charges by fractions of a grain in order to obtain finest accuracy in his own gun.

The standout bullet in this series proved to be the 246.9-grain Keith, Ideal No. 429421 bullet, which has a nominal catalog weight of 250 grains. It invariably gave superb accuracy at all velocity levels with every powder used, and with almost no sign of leading. Other finely accurate bullets were the Thompson-Ideal No. 431244 gas check, and the Harvey Prot-X-Bore 220-grain with zinc washer base.

It will be noted that a number of loads call for heavy charges of Hercules 2400 powder, which is normally considered to be a rifle rather than pistol powder. It cannot be emphasized too strongly that *all charges with this powder must be weighed* rather than measured. This warning naturally holds true for heavy charges of any powder in either pistol or rifle cases, but it is mandatory in this instance.

With the exception of Load No. 20, the new solid-head case was used for all loads listed in this table. The heavier web of this case resulted in an average pressure differential of over 7,000 pounds per square inch higher, indicating that heavy loads originally worked up in the old-style balloon-head case must be cut not less than two full grains when used in the smaller capacity solid-head case. Preliminary loads with Hercules 2400 powder were based upon the older balloon-head case and in every instance pressures exceeded 25,000 to 30,000 pounds per square inch. These loads all gave fine accuracy when fired in the revolver, but also gave terrific muzzle blast and recoil, plus excessive wear and tear on the shooter's nerves. All such charges were accordingly reduced to fall well within a 25,000-pound-per-square-inch pressure level, but circumstances prevented a subsequent accuracy and velocity test with the revolver. ◆ ◆ ◆

For your convenience.

Hensley & Gibbs, Box 10, Murphy, Oreg. 97533
Lyman Gun Sight Corp., Middlefield, Conn. 06455
Santa Anita Engineering Co., 3270 E. Foothill Blvd., Pasadena, Calif. 91107

Load	Bullet	Bullet Weight (grains)	Bullet Type	Case Make & Type	Primer	Charge Weight (grains)	Type	Lot No.	Velocity, Pressure Gun (f.p.s.)	Velocity, Revolver (f.p.s.)	Pressure (lbs. per sq. in.)	REMARKS
1	a	129.8	Cladaloy round-nose	WRA solid head	WRA 111	8.0	Unique	256	1143.5	979.3	7,500	Zinc, copper-plated
2	b	128	Cladaloy flat-nose	WRA solid head	WRA 111	8.0	Bullseye	411	1420.1	1401.2	19,740	Zinc, copper-plated
3	c	158	Harvey hollow-point, zinc washer base	WRA solid head	WRA 111	9.0	Unique	256	1160	1100	10,600	
4	d	170	Harvey hollow-point, zinc washer base	WRA solid head	WRA 111	5.5	Bullseye	411	997	933	9,260	
5	e	184.1	Hensley & Gibbs 107 B	WRA solid head	WRA 111	4.5	Bullseye	411	863.7	829.5	4,200	
6	e	184.1	Hensley & Gibbs 107 B	WRA solid head	WRA 111	6.0	Bullseye	411	1055.4	1031.2	12,840	
7	f	220	Harvey, zinc washer base	WRA solid head	WRA 111	7.5	Unique	256	972	872	9,760	
8	g	222.6	Ideal No. 431215 gas-check	WRA solid head	WRA 111	5.0	Bullseye	411	855	803.8	8,480	
9	g	222.6	Ideal No. 431215 gas-check	WRA solid head	WRA 111	17.0	2400	158	1091.9	.....	19,050	Check load—not fired in revolver
10	h	231.8	Ideal No. 429421 hollow-point	WRA solid head	WRA 111	16.0	2400	158	1148.1	1056	16,880	
11	i	237	Ideal No. 429422 hollow-base	WRA solid head	WRA 111	5.0	Bullseye	411	856.8	831.3	9,800	
12	i	237	Ideal No. 429422 hollow-base	WRA solid head	WRA 111	8.0	Unique	256	1034.7	957.5	12,570	
13	i	237	Ideal No. 429422 hollow-base	WRA solid head	WRA 111	16.5	2400	158	1197	.....	21,370	Check load—not fired in revolver
14	i	237	Ideal No. 429422 hollow-base	WRA solid head	WRA 111	16.0	2400	158	1130.5	1043.5	16,930	
15	j	246.9	Ideal No. 429421	WRA solid head	WRA 111	6.5	5066	3	914.4	895.5	15,390	
16	j	246.9	Ideal No. 429421	WRA solid head	Factory	7.5	Unique	256	940.2	.....	10,940	Check load—not fired in revolver. Factory primer.
17	j	246.9	Ideal No. 429421	WRA solid head	WRA 111	7.5	Unique	256	948.5	927.6	11,250	
18	j	246.9	Ideal No. 429421	WRA solid head	WRA 111	5.0	Bullseye	411	829.5	822.9	10,370	
19	j	246.9	Ideal No. 429421	WRA solid head	WRA 111	16.0	2400	158	1138.8	.....	18,860	Check load—not fired in revolver
20	j	246.9	Ideal No. 429421	WRA balloon head	WRA 111	18.5	2400	158	1233.6	.....	20,870	Check load—not fired in revolver. Balloon-head case
21	k	254.5	Ideal No. 431244 gas-check	WRA solid head	WRA 111	6.5	5066	3	901.9	886.9	15,650	
22	k	254.5	Ideal No. 431244 gas-check	WRA solid head	WRA 111	17.5	2400	158	1163.2	1142.2	22,960	
		246	Remington factory load			...	....	...	779.4	723.8	8,420	

Instrumental velocities taken at 20 ft. from muzzle of pressure gun and revolver. Range temperature maintained at 72° F. Relative humidity varied from 49% to 68%. Loads were tested in an S&W pressure barrel, 6½" length, .4308" groove diameter, .4188" land diameter, 5 grooves right-hand twist, 1 turn in 20", and in a Model 1950 S&W Target Revolver, 6½" barrel length, .4292" groove diameter, .4182" land diameter 5 grooves, right-hand twist, 1 turn in 20". All rounds fired in same revolver chamber.
NOTE: Bullet weights listed are of .429" sized and lubricated bullets and differ from catalog weights given in photo caption.