

# .45-70 GOVERNMENT

## Test Specifications:

Twist: 1 x 22"

## Components:

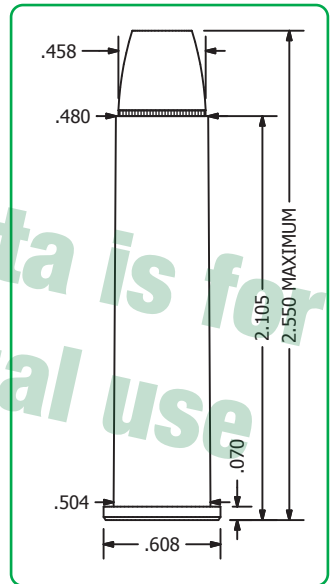
Trim-to Length: 2.095"

## Remarks:

The .45-70 Government was one of the last big bore black powder cartridges adopted for U.S. military service. Originally designated the .45-70 500, this straight wall .45 caliber cartridge was loaded with 70 grains of black powder and a 500 grain lead bullet. Designed for the full size infantry model of the Springfield Model 1873 Trap door rifle, this load developed too much recoil when fired in the relatively light carbine issued to mounted troops. In response to complaints about this, Frankford Arsenal began loading the same case with a reduced charge of 55 grains of black powder and a 405 grain lead bullet. Known as the .45-55 405, this load was completely interchangeable with the .45-70 and could be used in either the rifle or carbine.

Any cartridge adopted as our standard service round is virtually guaranteed to be a commercial success, and the .45-70 is no exception. Today, the .45-70 remains a popular sporting cartridge. At this time, at least four of our major U.S. arms manufacturers are still chambering rifles for the .45-70 Government cartridge. Lever actions and single shot falling block actions are among the most common, but there are several handguns being chambered for it as well! It would be very interesting to hear what the old cavalry troopers would think of this cartridge in a handgun, after objecting to the .45-70's recoil in a rifle.

Data for the .45-70 is presented in a slightly different format, due to the tremendous difference in action strength of various guns chambered for the cartridge. With the action types used with the .45-70, it might almost be thought of as three entirely different cartridges. Maximum loads for an original trapdoor 1873 Springfield will be fairly mild in a Marlin 1895 or Ruger Number One. Conversely, heavy loads for the Ruger will most likely destroy one of the less robust designs. In the middle, we have such actions as the Winchester Model 1886, Remington Lee Repeater, and the Navy Arms Rolling Block. Loads for the .45-70 must be appropriate for the action type used. If the handloader has several rifles chambered for the .45-70, especially if they are of differing levels of strength, extreme caution must be used to avoid using the wrong combination of rifle and ammunition. The .45-70 is an excellent cartridge and despite its age, is still one of our better cartridges for truly heavy game at moderate ranges.



# 45/70 Government (1886 Winchester - 28,000 PSI)

Bullet	Caliber	Weight	Type	C.O.A.L.
#8950	.458"	400 gr	HPFN	2.520"

## Remarks:

Loads for the Model 1886 Winchester, Sharps Borchardt, Remington and Navy Arms Rolling Block designs.

Powder	Velocity >	1400	1450	1500	1550	1600	1650	1700
IMR 4227		28.5	29.3	30.1				
R-7				37.0	38.4	39.8	41.2	
IMR 4198		33.3	34.4	35.5	36.7	37.8	38.9	
H4198		33.2	34.4	35.6	36.8	38.0	39.2	
R-10x			35.7	37.0	38.3	39.6		
IMR 3031		42.0	43.0	43.9	44.9	45.9		
H 335		41.6	43.0	44.4	45.8			
C-terminator							46.5	48.2
H4895				42.9	44.1	45.3	46.6	47.8
IMR 4895	41.4	42.8	44.1	45.4	46.8			
IMR 4064		44.9	46.2	47.4	48.7	49.9		
SW Match			45.5	47.1	48.7			
Varget	44.0	45.2	46.4	47.6	48.8	50.0		
W Precision	45.7	46.9	48.1	49.3	50.5	51.7	52.9	
Taball Match	45.1	46.4	47.8	49.1	50.4	51.8	53.1	
2000-MR		48.2	49.6	51.1	52.6			
Energy Ft. Lbs		1741	1867	1998	2133	2273	2418	2566

Special Load	Powder	Grains	Velocity fps	Energy Ft. Lbs
Accuracy Load	IMR 4895	46.8	1600	2273
Hunting Load	SW Match	48.7	1600	2273

Sierra does not recommend MatchKing bullets for hunting applications.



INDICATES MAXIMUM LOAD - USE CAUTION

LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.

**45/70 Government**

(Marlin 1895 - 38,000 PSI)

Bullet	Caliber	Weight	Type	C.O.A.L.
#8950	.458"	400 gr	HPFN	2.520"

**Remarks:**

Loads for the Model 1895 marlin and Ruger No. 1 and No. 3 rifles, and Siamese Mauser bolt action

Powder	Velocity >	1650	1700	1750	1800	1850	1900	1950
R-7				44.1	45.4	46.8	48.2	
IMR 4198			40.0	41.2	42.3	43.4	44.4	
H4198			40.4	41.6	42.8	44.0	45.4	
R-10x			42.2	43.5	44.8	46.1		
IMR 3031	46.9		47.8	48.8	49.8	51.1		
H 335	48.6		50.0	51.3	52.7			
terminator				49.6	51.4	53.1	54.7	
H 4895				49.1	50.3	51.5	52.8	54.0
IMR 4895	48.1	49.4	50.8	52.1	53.4			
IMR 4064	49.9	51.2	52.5					
SW Match			53.6	55.3	56.9	58.5		
Varget	50.0	51.2	52.4	53.6	54.8	56.2		
W Precision	51.7	52.9	54.1	55.5				
taball Match		53.1	54.5	55.8	57.1	58.4	59.6	
2000-MR	54.1	55.6	57.1	58.6	60.5			
Energy Ft. Lbs	2418	2566	2720	2877	3039	3206	3377	

Special Load	Powder	Grains	Velocity fps	Energy Ft. Lbs
Accuracy Load	IMR 3031	51.1	1850	3039
Hunting Load	Varget	56.2	1900	3206

Sierra does not recommend MatchKing bullets for hunting applications.



INDICATES MAXIMUM LOAD - USE CAUTION

LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.

# 45/70 Government

(1873 Trapdoor - 18,000 PSI)

Bullet	Caliber	Weight	Type	C.O.A.L.
#8950	.458"	400gr	HPFN	2.520"

**Remarks:**

Loads for the Model 1873 Springfield, Remington Rolling Block, other old black powder rifles, replicas, and modern reproductions.

Powder	Velocity >	1100	1150	1200	1250	1300	1325	1350
IMR 4227		23.7	24.5	25.3				
IMR 4198				28.8	29.9	31.0	31.6	32.2
H4198				28.3	29.5	30.8	31.4	
IMR 3031				38.0	39.1	40.1	40.6	
IMR 4895				36.1	37.4	38.8	39.4	
Varget				39.2	40.4	41.6	42.2	
Energy Ft. Lbs		1075	1174	1279	1388	1501	1559	1618

Special Load	Powder	Grains	Velocity fps	Energy Ft. Lbs
Accuracy Load	Varget	42.2	1325	1559
Hunting Load	IMR 3031	40.6	1325	1559

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INDICATES MAXIMUM LOAD - USE CAUTION  
LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.

# 45-70 GOVERNMENT

## Test Specifications:


Firearm Used: Model 1873 Trapdoor Springfield
Barrel Length: 32 1/2"

## Components:

Case: R P
Primer: Remington 9 1/2

## Remarks:

Loads for the Model 1873 Springfield, Remington Rolling Block, other old black powder rifles, replicas, and modern reproductions.

Bullet Caliber Weight Type								C.O.A.L.
		#8900	.458"	300gr.	HP/FN			2.525"
Powder	Velocity	1450	1500	1550	1600	1650	1700	
2400		24.5	25.6	26.7	27.7	28.7	29.7	
IMR 4227		26.8	28.1	29.4	30.7	32.0		
IMR 4198		31.1	32.4	33.6	34.8	36.0		
IMR 3031		38.4	40.1	41.8	43.5			
Energy Ft. lbs		1400	1499	1600	1705	1813	1925	
Special Load	Powder	Grains		Velocity fps		Energy Ft. lb		
Accuracy Load	IMR 4198	33.6		1550		1600		
Hunting Load	IMR 4198	36.0		1650		1813		

# 45-70 GOVERNMENT

## Test Specifications:

Firearm Used: Model 1886 Winchester

Barrel Length: 26"


## Components:

Case: R P

Primer: Remington 9 1/2

## Remarks:

Loads for the Model 1886 Winchester, Sharps Borchardt, Remington and Navy Arms Rolling Block designs.

		Bullet	Caliber	Weight	Type	C.O.A.L.			
		#8900	.458"	300gr.	HP/FN	2.525"			
Powder ▾	Velocity >	1550	1600	1650	1700	1750	1800	1850	
2400				29.8	30.8	31.8	32.7	33.6	
IMR 4227			31.8	32.9	34.0	35.0	36.0	37.0	
IMR 4198	36.3	37.3	38.3	39.2	40.1	41.0			
IMR 3031	42.8	44.1	45.4	46.7	48.0	49.2			
IMR 4895	47.5	48.4	49.3	50.2	51.1	52.0			
IMR 4320	47.7	49.0	50.3	51.6	52.8	54.0			
Energy Ft. lbs	1600	1705	1813	1925	2040	2158	2279		
Special Load	Powder	Grains	Velocity fps	Energy Ft. lb					
Accuracy Load	IMR 4198	39.2	1700	1925					
Hunting Load	IMR 4198	41.0	1800	2158					

45-70 GOVERNMENT

Test Specifications:

Firearm Used: Model 1895 Marlin

Barrel Length: 22"


Components:

Case: Federal

Primer: Fed 210

Remarks:

Loads for the Model 1895 Marlin and Ruger No. 1 and No. 3 rifles, and Siamese Mauser bolt action.

Bullet Caliber Weight Type								C.O.A.L.
	#8900	.458"	300gr.	HP/FN	2.525"			
Powder	Velocity	1900	1950	2000	2050	2100	2150	2200
2400		36.9	37.9	38.9	39.9	40.9		
Viht N120				46.5	47.5	48.5	49.5	
IMR 4227		42.4	43.5	44.6				
H4198		48.9	49.8	50.7	51.6	52.5	53.4	54.3
IMR 4198		45.5	46.6	47.7	48.8	49.9	51.0	
XMR 2015			54.9	56.2	57.5			
RE 7			48.8	50.3	51.8	53.3		
IMR 3031		56.1	57.4	58.7	60.0			
Benchmark		55.5	56.5	57.5	58.5	59.5	60.5	61.5
X Terminator			51.8	53.6	55.4	57.2	59.0	
H335				57.6	59.1	60.6	62.1	63.6
H4895		57.3	59.6	61.9				
IMR 4895		58.7	59.9	61.1				
Varget		59.9	61.5	63.1				
Energy Ft. lbs		2404	2533	2664	2799	2937	3079	3224
Special Load	Powder	Grains		Velocity fps		Energy Ft. lb		
Accuracy Load	IMR 4198	49.9		2100		2937		
Hunting Load	H4198	54.3		2200		3224		