

The Complete Reloading Manual for the .303 British

The publisher is deeply indebted to the following companies for their permission to reprint their proprietary reloading information found in this manual.

**Accurate Arms Company, Inc.
Blount, Inc.
Hodgdon Powder Co., Inc.
Hornady Manufacturing Company
Lyman Products Corporation
RCBS Bullets
Sierra Bullets, L.P.
Speer Bullets**

Copyright 2004 by Loadbooks USA, Inc., P.O. Box 129, Acton, CA 93510
Phone/Fax: 661/269-8991
Printed in the United States of America. All Rights Reserved.

TABLE OF CONTENTS

.303 BRITISH

HORNADY BULLETS

Hornady Introduction	1
Hornady 123/150 grain	2
Hornady 174 grain	3

SIERRA BULLETS

Sierra Introduction	4
Sierra 125/150 grain	5
Sierra 174/180 grain	6

SPEER BULLETS

Speer Introduction	7
Speer 100 grain	8
Speer 125/150 grain	9
Speer 180 grain	10

LYMAN BULLETS

Lyman Introduction	11
Lyman 150/180 grain	14
Lyman 215 grain	15
Lyman 151 grain (Cast)	15
Lyman 200/210 grain (Cast)	16

RCBS BULLETS

RCBS 187 grain	17
----------------------	----

ACCURATE ARMS POWDERS

Accurate Introduction	18
180 grain (Lead)/125 grain Loads	19
150-180 grain Loads	20

HODGDON POWDERS

Hodgdon Introduction	21
125-180 grain Loads	22
150/180 grain Loads (Gas Check	23

ALLIANT POWDERS

123-180 grain Loads	24
---------------------------	----

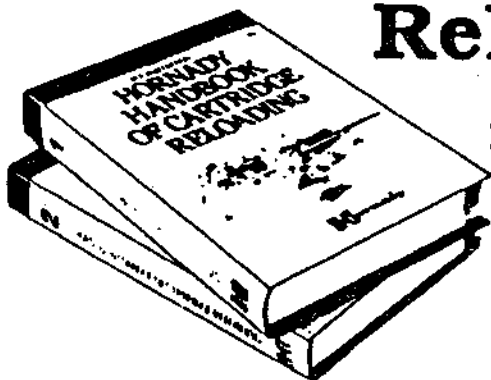
WINCHESTER POWDERS

123-180 grain Loads	25
---------------------------	----

VIHTAVUORI POWDERS

Vihtavuori Introduction	26
N140 Powder	27

The Hornady Handbook of Cartridge Reloading 5th Ed.



This new two-volume set contains the most up-to-date reloading information available. Volume I contains the loading formulas for all Hornady rifle and pistol bullets. Volume II contains the ballistic tables and charts you need to fine tune your loads.

This two-volume format enables you to have both the loading formulas and ballistics tables open to the same caliber without having to thumb back and forth.

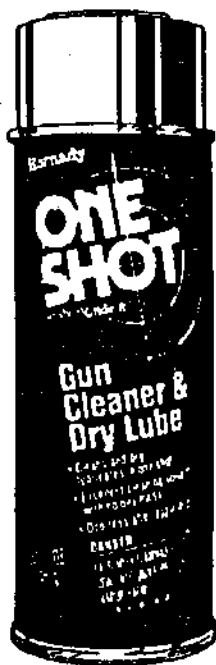
Available at your reloading dealer.

Hornady

OUR REPUTATION RIDES ON EVERY SHOT

Hornady Mfg. Co., Box 1848, Grand Island, NE 68802-1848

Save time on your next shot!



Hornady ONE SHOT Gun Cleaner and Case Lube.

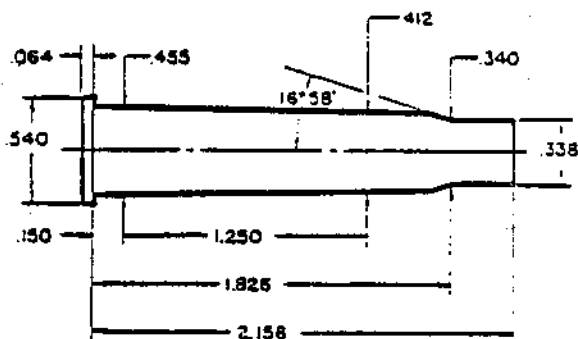
In the field or on the loading bench
Fast drying, non-olly
Cleans and lubes bullets, presses and guns

Hornady

OUR REPUTATION RIDES ON EVERY SHOT

Hornady Mfg. Co., Box 1848, Grand Island, NE 68802-1848

.303 BRITISH - HORNADY BULLETS



303 BRITISH

RIFLE: Enfield #4 Mark 2
BARREL: ... 25¼", 1 in 10" Twist
CASE: Hornady/Frontier
PRIMER: Winchester WLR

BULLET DIAMETER: 0.310"
MAXIMUM C.O.L.: 3.075"
MAX. CASE LENGTH: ... 2.222"
CASE TRIM LENGTH: ... 2.212"

From 1888 to 1950, when it was replaced by the 7.62mm NATO cartridge, the 303 British was the military service cartridge of England and the British Empire. First loaded with 70 grains of blackpowder and a 215 grain Round Nose bullet, the 303's charge was replaced in 1892 with a more modern double-based smokeless powder load of cordite (long extruded strands of powder cut to the full length of the cartridge case chamber). Sporting ammunition in 303 British, loaded with more modern powders, is available from Winchester, Remington, Federal, Dominion, Norma, and Hornady.

The 303 is roughly equivalent in power to the U.S. 30-40 Krag, itself a military cartridge later adapted to sporting purposes. Loaded with the Hornady 303 caliber 150 grain Spire Point, the 303 British is suitable for most North American hunting up to ranges of 200-250 yards. For hunting at modest or close range, the 174 grain Round Nose is an effective and quite dependable performer.

In our testing we found that case life of the 303 British in SMLE (Short Magazine Lee Enfield) actions tended to be short when top loads were fired. Such actions allow cases to stretch when high velocities are used and head separation is the final result. Load down from the fastest velocities to prolong case life—and check cases frequently for signs of separation. As with all older military rifles, careful inspection of the firearm by a knowledgeable gunsmith is highly recommended.

.303 BRITISH - HORNADY BULLETS

123 GRAIN BULLETS

SECTIONAL DENSITY: 0.183
DIAMETER: 0.310"



#3140 SP
B.C.: 0.252 C.O.L.: 2.855"

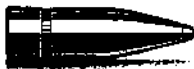


#3147 FMJ
B.C.: 0.266 C.O.L.: 2.855"

POWDER	VELOCITY (FPS—feet per second)					
	2500	2600	2700	2800	2900	3000
AA 2015 BR	35.1 gr.	36.7 gr.	38.4 gr.	40.0 gr.	41.7 gr.	
IMR 3031	37.2 gr.	38.6 gr.	40.1 gr.	41.5 gr.	42.9 gr.	
AA 2460	36.5 gr.	38.2 gr.	40.0 gr.	41.7 gr.	43.4 gr.	45.1 gr.
H 4895	36.9 gr.	38.6 gr.	40.3 gr.	42.1 gr.	43.8 gr.	45.5 gr.
VIHT N-135	36.9 gr.	38.6 gr.	40.4 gr.	42.1 gr.	43.9 gr.	45.6 gr.
RL 12	38.2 gr.	39.9 gr.	41.7 gr.	43.4 gr.	45.2 gr.	

150 GRAIN BULLETS

SECTIONAL DENSITY: 0.220
DIAMETER: 0.312"



#3120 SP
B.C.: 0.361 C.O.L.: 2.935"

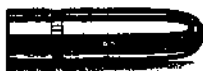
POWDER	VELOCITY (FPS—feet per second)					
	2200	2300	2400	2500	2600	2700
IMR 3031	30.0 gr.	32.0 gr.	34.0 gr.	36.1 gr.	38.1 gr.	
AA 2495	29.1 gr.	31.5 gr.	33.9 gr.	36.3 gr.	38.8 gr.	
H 4895	29.9 gr.	32.2 gr.	34.4 gr.	36.7 gr.	38.9 gr.	
RL-12	32.6 gr.	34.5 gr.	36.4 gr.	38.3 gr.	40.1 gr.	
IMR 4320	32.8 gr.	34.8 gr.	36.7 gr.	38.7 gr.	40.7 gr.	
VARGET	33.0 gr.	35.0 gr.	36.9 gr.	38.8 gr.	40.8 gr.	
AA 2520	33.9 gr.	35.7 gr.	37.5 gr.	39.3 gr.	41.1 gr.	
IMR 4064	32.8 gr.	35.0 gr.	37.2 gr.	39.3 gr.	41.5 gr.	
RL-15	35.3 gr.	37.0 gr.	38.8 gr.	40.5 gr.	42.2 gr.	43.9 gr.
VIHT N-140	34.7 gr.	36.6 gr.	38.6 gr.	40.5 gr.	42.5 gr.	
WIN 748	33.7 gr.	36.1 gr.	38.5 gr.	40.9 gr.	43.4 gr.	

■ indicates maximum load • use with caution

.303 BRITISH - HORNADY BULLETS

174 GRAIN BULLETS

SECTIONAL DENSITY: 0.255
DIAMETER: 0.312"



#3130 RN
B.C.: 0.262 C.O.L.: 2.945"



#3131 BT-FMJ
B.C.: 0.470 C.O.L.: 2.945"

POWDER	VELOCITY (FPS—feet per second)					
	2000	2100	2200	2300	2400	2500
H.4895	29.7 gr.	31.6 gr.	33.6 gr.	35.5 gr.	37.4 gr.	
AA 2520	30.7 gr.	32.7 gr.	34.8 gr.	36.9 gr.	39.0 gr.	
IMR 4320	31.8 gr.	33.8 gr.	35.4 gr.	37.2 gr.	39.0 gr.	
VARGET	31.6 gr.	33.5 gr.	35.3 gr.	37.2 gr.	39.1 gr.	
IMR 4064	31.4 gr.	33.4 gr.	35.4 gr.	37.3 gr.	39.3 gr.	
WIN 748	32.8 gr.	34.6 gr.	36.4 gr.	38.2 gr.	40.0 gr.	
RL 15	33.3 gr.	35.0 gr.	36.6 gr.	38.3 gr.	40.0 gr.	
VIHT N-140	33.5 gr.	35.2 gr.	36.9 gr.	38.6 gr.	40.3 gr.	
IMR 4350	37.0 gr.	38.9 gr.	40.8 gr.	42.7 gr.	44.6 gr.	
H 414	35.2 gr.	38.0 gr.	40.8 gr.	43.6 gr.	46.4 gr.	49.2 gr.

■ indicates maximum load • use with caution



When You Need ALL the Facts...

The Sierra 4th Edition Reloading Manuals have the information you need. Rifle and Handgun reloading information are in two separate volumes, and each one covers its subject thoroughly. No matter what brand of bullet, powder, or primer you like to use, the Sierra manuals give you the full story.

They also help you with practical tips on hunting and target shooting reloading specialties from the people who are recognized as top-flight experts—like Bob Milek on loads for handgun hunters or David Tubb for big bore target rifle.

Available at your reloading retailer or call direct 1-800-223-8799. When you reload with Sierra, you reload with the Bulletsmiths®!

SIERRA

The Bulletsmiths®

Here's everything you
need to know about
your toughest reloading
problems...

1-800-223-8799

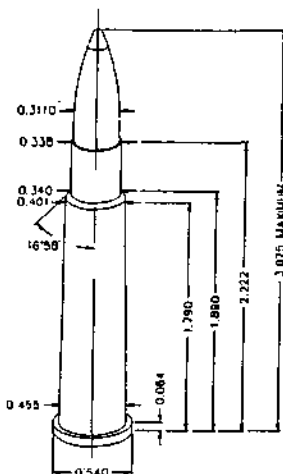
That's the Sierra Bullets TOLL-FREE Tech Line. Our Bulletsmiths® are on hand from 7 am to 4 pm Central Time, Monday through Friday, ready to answer your reloading questions. No matter what brand of powder or bullet, no matter the caliber or conditions, the Bulletsmiths® can help you develop the load to suit your need.

So don't be bashful, go ahead and give us a call.

SIERRA
The Bulletsmiths®

.303 BRITISH - SIERRA BULLETS

303 British



Test Specifications/ Components

Firearm Used: No. 4 MK2

Barrel Length: 25"

Twist: 1 x 10"

Case: Winchester

Trim-to Length: 2.212"

Primer: Remington 9 1/2

Remarks:

Adopted in 1888, the 303 cartridge served the British Empire well through two world wars and countless smaller uprisings and skirmishes. While no longer used in a military role in United Kingdom or Commonwealth, 303 Enfields are still in service in several third-world countries. The 303 continues

to be a popular sporting cartridge, particularly in Canada and Australia.

Originally loaded with a 215 grain jacketed bullet and a compressed charge of black powder, the 303 is one of a select few cartridges that successfully made the transition from black to smokeless powder. With the 1892 development of cordite, a long-grained, double-based extruded powder, the 303 continued to serve as the official British service cartridge for the next half century. The standard cartridge used in both world wars was referred to as the Mk VII and was loaded with a 174 grain Spitzer bullet at 2440 fps.

As a sporting cartridge, the 303 has proven adequate for most North American big game. Sierra's .311" 150 grain Spitzer will give good performance on deer-sized game, while the 180 grain bullet provides deeper penetration on moose or elk. While several powders gave outstanding results, our test rifle showed its best accuracy with IMR 4064. Caution should be used when reloading the 303 cartridge, however, as Berdan cases may still be encountered. Winchester, Remington and several other commercial manufacturers have produced soft-nosed hunting ammunition for the 303 with standard Boxer primed cases. By avoiding surplus ammunition and sticking with U.S. made cases, this situation can be avoided completely. While the later Enfields, such as our No. 4 MK 2 test rifle are strong, the rear-locking lug system has been noted as a factor in case stretching and separation. Keeping loads down to velocity levels similar to the original specifications (with appropriate powder selection) will help combat this situation.

.303 BRITISH - SIERRA BULLETS

303 British continued

#2305 .311" 125 gr. SPT
C.O.A.L. 2.900"



Powder/Velocity →	2600	2700	2800	2850	2900
XMR-2015	38.4	40.0	41.6	42.4	43.2
IMR-3031	39.2	40.8	42.4	43.2	
Benchmark	38.3	39.7			
AA-2460	37.7	40.1	42.5	43.7	44.9
H4895	41.1	42.5	43.9	44.6	45.3
Vihht N135	40.1	41.8	43.5	44.4	45.2
Varget	42.2	44.0	45.8	46.7	47.6
IMR-4064	42.4	44.0	45.6		
AA-2520	41.0	42.6	44.2	45.0	
Vihht N140	42.9	44.6	46.3		
Energy/ft.lbs	1876	2023	2176	2255	2334
	Powder	Grains	Velocity	Ft. lbs.	
Accuracy Load	XMR-2015	41.6	2800	2176	
Hunting Load	XMR-2015	43.2	2900	2334	

#2300 .311" 150 gr. SPT
C.O.A.L. 3.075"



Powder/Velocity →	2300	2400	2500	2600	2650	2700
IMR-3031	35.4	37.2	39.0	40.8	41.7	
Benchmark		35.1	37.4			
748		37.2	40.0	42.9		
H4895	36.1	37.4	38.7			
XMR-2495	32.9	34.9	36.9	38.9		
IMR-4895	36.8	38.6	40.4	42.2	43.1	44.0
Varget	37.0	38.6	40.2			
IMR-4064	38.0	39.6	41.2	42.8	43.6	44.4
AA-2520	37.3	38.6	39.9	41.2		
IMR-4320	40.1	41.6	43.1	44.6		
Vihht N140		38.7	40.7	42.7		
RE-15	37.0	38.8	40.6	42.4		
H380		41.3	44.1			
H414		42.8	45.4	48.0		
Energy/ft.lbs	1762	1918	2082	2252	2339	2428
	Powder	Grains	Velocity	Ft. lbs.		
Accuracy Load	IMR-3031	40.8	2600	2252		
Hunting Load	IMR-4064	44.4	2700	2428		

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

.303 BRITISH - SIERRA BULLETS

303 British *continued*

#2315 .311" 174 gr. HPBT MatchKing
C.O.A.L. 3.075"



#2310 .311" 180 gr. SPT
C.O.A.L. 3.075"



Powder/Velocity --	2100	2200	2300	2400	2450
IMR-3031	34.3	35.8	37.3	38.8	
Benchmark	32.6	34.5	36.4		
748	35.2	37.6	40.0		
H4895	34.3	35.8	37.3		
XMR-2495	30.9	33.6	36.3		
IMR-4895	35.3	37.1	38.9	40.7	41.6
Varget	34.5	36.5	38.5		
IMR-4064		37.5	39.1	40.7	
IMR-4320		38.5	40.3	42.1	43.0
Viht N140	35.0	37.0	39.0	41.0	
RE-15	34.9	36.7	38.5		
H380		39.9	41.9	43.9	
H414		41.2	43.6	46.0	
IMR-4350	40.8	42.9	45.0		
Energy/ft.lbs	1763	1934	2114	2302	2399

	Powder	Grains	Velocity	Ft. lbs.
Accuracy Load	XMR-2495	33.6	2200	1934
Hunting Load	Viht N140	41.0	2400	2302

Sierra does not recommend MatchKing bullets for hunting applications.

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

SPEER®

SPEER®

SPEER®

SPEER®

SPEER™ HAS A MORE POTENT RECIPE FOR PUNCH.

JACKET OPENING ENGINEERED FOR RELIABLE EXPANSION, EVEN AT LOW VELOCITIES.

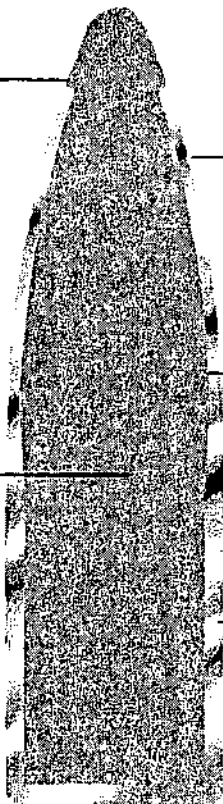
DOUBLE-SWAGED FOR TIGHT DIAMETER CONTROL AND IMPROVED ACCURACY.

"SOLDER-TYPE" BOND OF LEAD CORE TO JACKET.

MOLTEN 1.5% ANTIMONY LEAD IS Poured INTO JACKET, UNIFYING CORE AND JACKET.

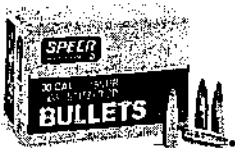
HEAVY JACKET IS 45.6% THICKER THAN OLD DESIGN, GIVING BULLET GREATER STRENGTH AND WEIGHT RETENTION DURING IMPACT AT HIGH VELOCITIES.

THE IMPROVED
165 GRAIN — .308"
HOT-COR™ BULLET.



.308, 165 GR.
72% RETAINED
WEIGHT SHOT INTO
BALLISTIC TEST MEDIA.

The secret of its success—Hot-Cor.™ Our own special process that injects molten lead into the jacket, rather than forcing in a cold lead slug. The result: greater expansion and weight retention than conventional "cold core" bullets. With deadly accuracy and consistency. Shot after shot after shot.



SPEER®

YOUR SHOOTING PARTNER.
CCI • SPEER • RCBS • OUTERS • WEAVER

Although only modestly popular in the United States, this old British service cartridge has seen extensive use in the rest of the world, and particularly in those countries that were once part of the vast British Commonwealth. The 303 was adopted as a service cartridge in 1888 in the Lee-Medford Mk I rifle and carbine. Original military ammo featured a 215 grain full-jacketed bullet over a charge of black powder. Later, smokeless powder loads using Cordite were introduced. During the first World War, a 174 grain spitzer bullet at 2400 feet/sec was adopted as the Mk VII round. The military 303 cartridge used this basic configuration until it was replaced by the 7.62mm NATO round in 1957.

Most soft point hunting ammunition for the 303 has been loaded with both 215 and 170 grain bullets, although other weights will be encountered. The famous Short Magazine Lee-Enfield rifle—the SMLE—has been widely distributed as a surplus item. One of the nicest variations is the light and handy No. 5 Mark I*—the Jungle Carbine. It can be used as a hunting rifle without any modification other than the fitting a five-shot magazine.

The 303 is ballistically equivalent to the 30-40 Krag, and can be used on the same types of game with proper bullet selection. The reloader should use .311" or .312" bullets. True 30 caliber bullets are .308" in diameter and will seldom give good accuracy. Speer makes three Hot-Cor bullets in .311" diameter. The 150 and 180 grain bullets are the best choices for deer. However the 125 grain bullet, although designed for the 7.62x39mm cartridge, shot surprisingly well in our test rifle. This bullet can be used on varmints up to the size of coyotes.

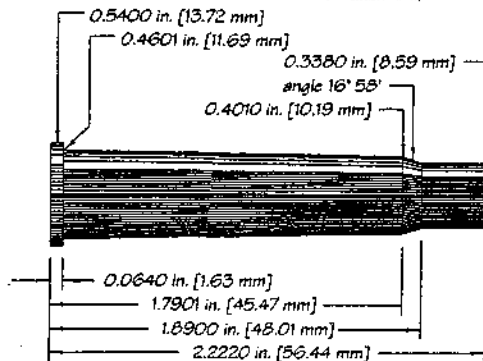
Lee-Enfield rifles were made in a dizzying number of variations but all share one common feature. The bolt locks at the rear causing the action to be somewhat springy. This limits the 303 to rather modest pressures and case life is usually short. Cases can be used for full-power loads for two firings but then must be relegated for use with lighter practice loads. Check often for signs of incipient case head separations.

Surplus rifles show a wide variation in condition, and some may have excessive headspace. Have your rifle thoroughly checked by a competent gunsmith before attempting to fire it with any ammunition. Another 303 service rifle, the Enfield Pattern 14, uses a Mauser-type lock-up. It is much stronger than any Lee-Enfield, but is not as common on the surplus market. The P14 Enfield with its front locking lugs gives much longer case life.

Factory ammunition is loaded to less than 45,000 cup in deference to the SMLE action. These loads were safe in the test rifle but, as always, maximum loads should only be approached with caution.

LAB NOTES...

Here's a handy bit of information. Many Lee-Enfields models have replaceable bolt heads that come in three lengths, so correcting headspace problems is not hard if you can find a supply of proper size replacement heads. They simply screw into the front of the bolt body.



Max. Case Length: 2.222" **Test Firearm:** Enfield (SMLE)
Trim-to Length: 2.212" **Case:** R-P
Max. Cart. Length: 3.075" **Primers:** CCI 200, 250
RCBS Shellholder: #7
Barrel Length: 25.25"
Twist: 1-8"



.308" Dia.
100 Grain
 Sect. Density .151

	30 RN-SP					
Ballistic Coefficient	0.124					
C.O.L. Tested At	2.567"					
Speer Part No.	1805					

Powder	Wt. Grs.	Mzi. Vel.	Powder	Wt. Grs.	Mzi. Vel.	Powder	Wt. Grs.	Mzi. Vel.
IMR	44.0	2933	IMR	46.0	2882		48.0	2811
3031	40.0	2671	4064	42.0	2637	748*	44.0	2541
IMR	48.0	2924		51.0	2841		51.0	2584
4320	44.0	2693	H380*	47.0	2617	H414*	47.0	2396
IMR	45.0	2907	IMR	50.0	2618	Reduced Load	20.0	1980
4895	41.0	2663	4350	46.0	2430	SR	16.0	1587
						4759		

Notes: Bold print denotes maximum loads. They should be used with caution.
 * CCI Magnum Primer used with this powder.

.303 BRITISH - SPEER BULLETS



**.311" Dia.
125 Grain**

Sect. Density .184

**.303
Spitz-SP**

Ballistic Coefficient	0.292				
C.O.L. Tested At	2.915"				
Speer Part No.	2213				

Powder	Wt. Grs.	Mzl.Vel.	Powder	Wt. Grs.	Mzl.Vel.	Powder	Wt. Grs.	Mzl.Vel.
	49.0	2979		43.0	2790		48.0	2700
H335*	45.0	2803	AA	39.0	2602	H380*	44.0	2534
	49.0	2944		46.0	2788		51.0	2666
BL-C(2)*	45.0	2751	IMR	42.0	2531	H414*	47.0	2458
	45.0	2840		46.5	2775		51.0	2646
IMR	41.0	2656	Re15	42.5	2570	760*	47.0	2464
4895								
	44.0	2816		48.0	2744		50.0	2601
AA	40.0	2615	748*	44.0	2562	IMR	46.0	2427
2520*						4350		



**.311" Dia.
150 Grain**

Sect. Density .221

**.303
Spitz-SP**

Ballistic Coefficient	0.411				
C.O.L. Tested At	3.075"				
Speer Part No.	2217				

Powder	Wt. Grs.	Mzl.Vel.	Powder	Wt. Grs.	Mzl.Vel.	Powder	Wt. Grs.	Mzl.Vel.
	48.0	2631		50.0	2584		44.0	2470
H414*	44.0	2418	IMR	46.0	2391	H380*	40.0	2262
	42.0	2594		48.0	2575	Reduced Load	25.0	1925
IMR	38.0	2343	760*	44.0	2319	SR	21.0	1613
4895						4759		
	44.0	2585		43.0	2554			
IMR	40.0	2348	IMR	39.0	2319			
4320			4064					

Notes: Bold print denotes maximum loads. They should be used with caution.

* CCI Magnum Primer used with this powder.

.303 BRITISH - SPEER BULLETS



**.311" Dia.
180 Grain**

Sect. Density .265

303 RN:SP								
Ballistic Coefficient	0.328							
C.O.L. Tested At	3.075"							
Speer Part No.	2223							

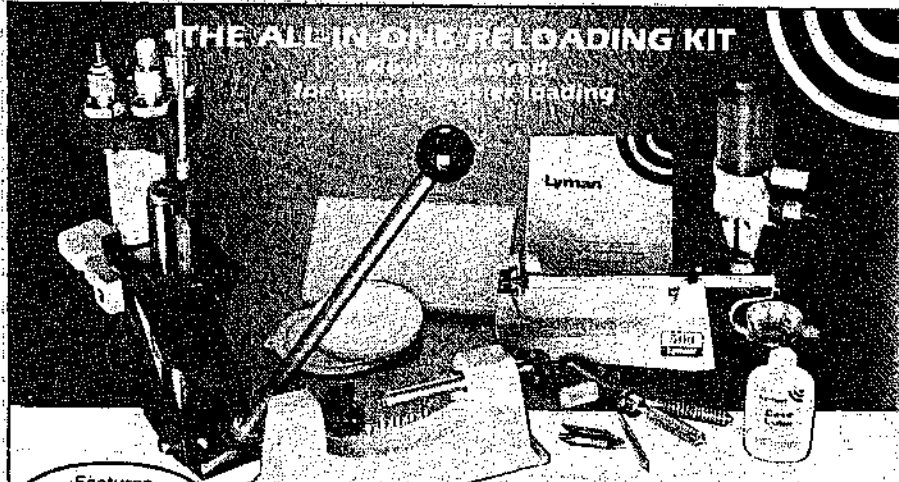
Powder	Wt. Grs.	Mzl. Vel.	Powder	Wt. Grs.	Mzl. Vel.	Powder	Wt. Grs.	Mzl. Vel.
	46.0	2439		46.0	2375		40.0	2283
H414*	42.0	2219	IMR 4350	42.0	2183	IMR 4064	36.0	2049
	45.0	2439		40.0	2320	Reduced Load IMR	25.0	1839
760*	41.0	2197	IMR 4895	36.0	2083	4198	21.0	1543
	47.0	2421		41.0	2288			
IMR 4831	43.0	2218	IMR 4320	37.0	2073			

Notes: **Bold print** denotes maximum loads. They should be used with caution.
 * CCI Magnum Primer used with this powder.

SHOOTER'S LOG

THE ALL-IN-ONE RELOADING KIT

ALL-NEW
VERSATILE T-MAG PRESS



Features
Qwik-Disconnect
Turret System

Make Custom Ammo Today
with One Easy Purchase

Our popular Expert Kit is now even better since we upgraded to the versatile T-MAG Press. Combines the speed of a turret press with the strength and ease of compound leverage. Accepts all std. 7/8" x 14 dies. Removable turret holds up to 6 dies for easy set-up and storage.

This Kit combines everything needed to load quality pistol or rifle ammunition except the components. Available with or without a die set.

Lyman's Expert Kit includes:

- T-Mag Press complete
- Universal[®] case trimmer and Pilot Pack
- Model 500 Powder Scale
- Model 55 Powder Measure
- Misc. accessories and case prep gear
- "How To" Reloading Guide

Interested in Handloading? Save money and time! Ask for the Lyman Expert Kit. Available at your dealer today!

Write for free mini-catalog.

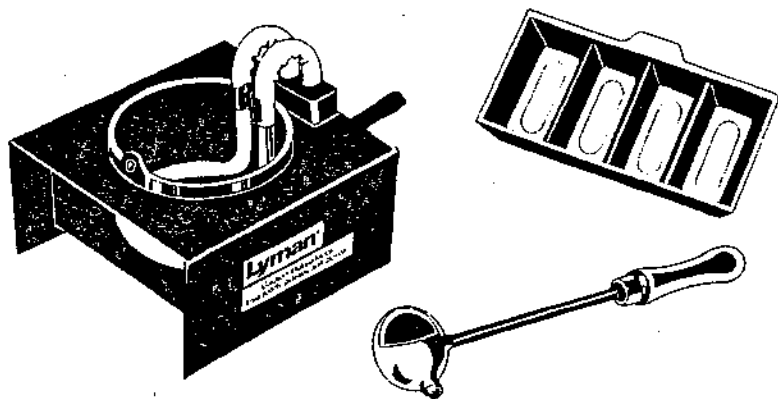
Questions?
Call toll free 1-800-22-LYMAN.

Lyman Dept 000, Route 147
Middlefield, CT 06455

NEW PRODUCTS REPORT

CAST YOUR OWN

And cast high cost to the wind



Enjoy the satisfaction of casting your own bullets, fishing jigs or sinkers. The fully electric Mini-Mag Furnace features a long life, heavy duty heating coil that will give you years of quality melting.

The Mini-Mag Furnace is designed for use with a ladle and has an operating capacity of 8 lbs. It reaches a temperature of over 700° in about 20 minutes and the stable metal base can be used as a pre-heater for mould blocks. The furnace comes with a 3 prong safety cord.

It is the best capacity value available today. Try Lyman and cast with confidence.

See your Lyman dealer for our complete line of casting equipment. Also available direct for \$39.95 postpaid. Send check or money order. Visa/MC accepted. Write for free mini-catalog.

Questions? Call toll free 1-800-22-LYMAN

Lyman®

Dept 000, Route 147 Middlefield, CT 06455

.303 BRITISH - LYMAN BULLETS

Reloading Data Introduction:

The data listed in this section have been tested by our technicians and found to be safe when loaded with our test components and fired (under our laboratory controlled conditions) in our testing equipment. Since Lyman Products Corporation has no control over the manufacture of the various components listed, the actual loading, choice or condition of the firearms and components used, no responsibility for use of this data is implied or assumed.

Components:

The reader should bear in mind that the components listed are not of Lyman manufacture. Therefore, it is impossible that production changes affecting ballistic performance can occur at any time without our knowledge. If there is ever a question as to the correctness of the component specified, write to its manufacturer.

Starting Load:

It is essential that the reader begin with the suggested weight of powder listed in this bracket and work up slowly (following load development precautions) to his best performing load. The novice should use only the "starting load" for a period of time until he builds confidence and experience. Never decrease this charge as an increase in pressure could be encountered.

Maximum Load:

All loads which are listed as maximum were tested and classified as maximum by our technicians in accordance with our laboratory standards. Under no circumstances should these loads be exceeded, nor should they be quickly accepted by the reader as a safe working maximum for his particular rifle or pistol.

Many reloaders misinterpret the meaning of the "maximum load." They wrongly assume that if a high pressure load proved safe in a test laboratory then it is equally safe under any and all conditions. This is not true. The reader must start with the "starting load" and work up his load carefully. Working with his particular firearm and component combination, he may encounter signs of excess pressure before he reaches the maximum charge listed.

The technician classifies a load as maximum after carefully considering many aspects of its ballistic performance. The maximum average pressure of the load is not the only criteria. Often a load having an acceptable maximum average pressure will be rejected (or reduced) due to its erratic performance. Accuracy must also be considered, particularly when dealing with cast lead alloy bullets. In all instances, the maximum listing represents what our technicians consider to be the maximum working combination for the bullet, powder and caliber listed. These loads do not exceed SAAMI standards.

Accuracy Loads:

When a load is noted as such in the data tables proper, it means that the given combination of components produced the most uniform internal ballistics of any load tested utilizing that particular bullet design.

.303 BRITISH - LYMAN BULLETS

Unless noted in "Comments," the accuracy load was not fired at targets. The load, however, does have a high potential--assuming all external factors are optimum--for producing outstanding accuracy since uniform internal ballistics are critical to accuracy on target. You cannot have one without the other.

Test Parameters:

Velocities shown were taken at fifteen feet and not corrected to the muzzle.

Each test string began with a clean dry barrel and consisted of ten shots.

Loads exhibiting erratic internal ballistics were not pursued.

We had no problem with leading in any of our testing.

Bullets:

Bullet numbers are listed in the introductory specifications for each cartridge and in the headline above the appropriate data block--along with an illustration of that particular bullet.

Please note these bullets are artists' rendering. Comparing your bullet against the drawing could reveal minor differences. Furthermore, minor changes are sometimes made to bullets. These drawings, which appear throughout the data sections, are for general reference only and are not intended to be a precise representation.

Bullet alloy is noted as is the exact weight of each tested bullet.

Not all cast bullets within a given caliber are intended to perform equally. We have used them in the most appropriate chamberings.

Powders:

We have limited our testing to those powders which are manufactured in the United States and which are readily available to the consumer. The following brands are listed: Dupont (now IMR), Winchester, Hercules, Alean, Hodgdon and Gearhart-Owen.

Compressed Loads:

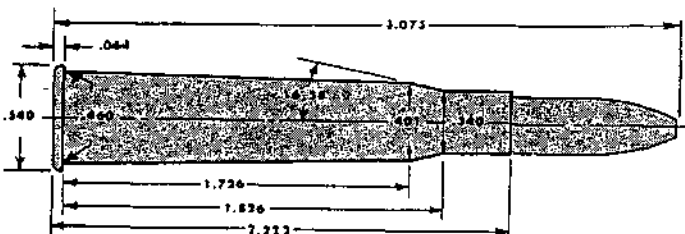
All compressed loads are indicated with a +. Depending upon the volume of the specific cartridge case used by the reader, he may, or may not, have difficulty starting bullets in such loads. If the bullet will not start, reduce the load sufficiently so that 1/10" of space remains in the case neck. Start the bullet into the case and use whatever additional pressure is required to fully seat the bullet. Failure to comply could result in a bulged case.

Filler Wads:

Dacron filler wads in the form of 1/4-inch thick batting were used in conjunction with cast bullet loads, where indicated. This material can be purchased in most yard-goods stores. It should be cut into squares, which seal the case.

When developing a load, if a wad is desired, its should be used from the beginning as the charge weight is increased. It should never be added as an afterthought, once a maximum load has been established, since its presence could result in a pressure increase of 2,000 CUP or more.

.303 BRITISH - LYMAN BULLETS



COMMENTS:

An extreme variation in groove diameters occurs in rifles chambered for this cartridge. Samples have been examined with groove measurements ranging from 0.308 to 0.317 inch. Naturally results will be poor if the barrel dimensions are incompatible with the jacketed or cast bullet diameter used.

Nominal bullet diameter is 0.312" with an honest plus or minus 0.001" being acceptable. Because of chamber limitations no attempt to use bullets larger than 0.313" should be made. A good cast bullet choice is #314299.

TEST COMPONENTS:

Cases	Remington and Federal
Trim-to Length	2.212"
Primers	Remington 9½ and Federal 210
Primer Size	Large Rifle
Lyman Shell Holder	No. 7
Jacketed Bullets Used	Speer Spitzer, 150 gr. Remington SPCL, 180 gr. Remington SP, 215 gr.
Cast Bullets Used	(Sized to .312" dia.)
*Gas Check Bullets	*#311466, 151 gr. *#314299, 200 gr. *#311284, 210 gr.

TEST SPECIFICATIONS: (Velocity Only)

Firearm Used	S.M.L.E. Mark III and Martini, Single Shot
Barrel Length	S.M.L.E. 25"; Martini 22"
Twist	1-10"
Groove Dia.312"

.303 BRITISH - LYMAN BULLETS



150 gr. Jacketed Spitzer

Powder	Sugg. Starting Grains	Velocity fps	Pressure C.U.P.	Max. Load Grains	Velocity fps	Pressure C.U.P.
IMR-3031	38.0	2288	—	42.0	2597	—
IMR-4064	40.0	2304	—	44.0	2577	—
IMR-4895	41.0	2409	—	45.0	2666	—
IMR-4320	41.0	2331	—	46.0	2672	—
H-380	42.0	2309	—	47.0	2570	—



180 gr. Jacketed SP

Powder	Sugg. Starting Grains	Velocity fps	Pressure C.U.P.	Max. Load Grains	Velocity fps	Pressure C.U.P.
IMR-3031	35.0	2044	—	39.0	2320	—
IMR-4064	38.0	2127	—	42.0	2386	—
IMR-4895	39.0	2207	—	43.0	2469	—
IMR-4320	40.0	2207	—	‡44.0	2469	—
H-380	41.0	2127	—	45.0	2369	—

MAXIMUM LOADS SHOULD ALWAYS BE USED WITH

EXTREME CAUTION

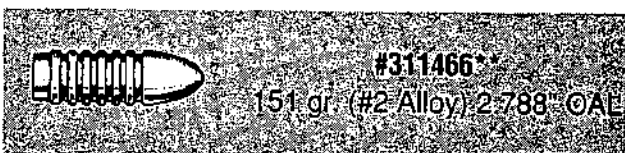
‡ Designates a factory velocity duplication load.

.303 BRITISH - LYMAN BULLETS



215 gr Jacketed SP

Powder	Sugg. Starting Grains	Velocity fps	Pressure C.U.P.	Max. Load Grains	Velocity fps	Pressure C.U.P.
IMR-3031	32.0	1840	—	36.0	2057	—
IMR-4064	35.0	1698	—	39.0	1996	—
IMR-4895	36.0	2000	—	40.0	2217	—
IMR-4320	37.0	2008	—	41.0	2217	—
H-380	40.0	2028	—	43.0	2150	—



#311466**

151 gr (#2 Alloy) 2.788" OAL

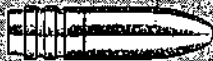
Powder	Sugg. Starting Grains	Velocity fps	Pressure C.U.P.	Max. Load Grains	Velocity fps	Pressure C.U.P.
Red Dot	10.0	1430	—	13.5	1695	—
700X	10.0	1445	—	13.0	1660	—
Green Dot	10.5	1460	—	14.0	1715	—
PB	10.5	1410	—	13.0	1585	—
Unique	11.0	1475	—	15.0	1760	—
SR-7625	11.0	1425	—	13.5	1610	—

MAXIMUM LOADS SHOULD ALWAYS BE USED WITH

EXTREME CAUTION

** Indicates use of Fed. 210 primers and Fed. cases.

.303 BRITISH - LYMAN BULLETS



#314299**

200 gr. (#2 Alloy) 2.930" OAL

Powder	Sugg. Starting Grains	Velocity fps	Pressure C.U.P.	Max. Load Grains	Velocity fps	Pressure C.U.P.
Red Dot	10.0	1290	—	13.0	1490	—
700X	9.5	1240	—	12.5	1460	—
Green Dot	10.0	1280	—	13.5	1515	—
PB	10.0	1220	—	12.5	1390	—
Unique	10.5	1295	—	14.0	1530	—
SR-7625	10.5	1250	—	12.5	1380	—



#311284**

210 gr. (#2 Alloy) 3.005" OAL

Powder	Sugg. Starting Grains	Velocity fps	Pressure C.U.P.	Max. Load Grains	Velocity fps	Pressure C.U.P.
Red Dot	10.0	1245	—	12.5	1415	—
700X	9.0	1165	—	12.0	1375	—
Green Dot	9.5	1190	—	13.0	1425	—
PB	9.5	1130	—	12.0	1310	—
Unique	10.0	1210	—	13.5	1450	—
SR-7625	10.0	1170	—	12.0	1300	—

MAXIMUM LOADS SHOULD ALWAYS BE USED WITH

EXTREME CAUTION

** Indicates use of Fed. 210 primers and Fed. cases.

RCBS®

RCBS®

RCBS®

RCBS®

THE RCBS® LIFETIME GUARANTEE.



RCBS.
**EVERYTHING
WE MAKE
IS GUARANTEED
FOR LIFE
OR FOREVER:
WHICHEVER
COMES FIRST.**

*If your RCBS equipment breaks or
doesn't work, we'll fix it or replace it. Free.
No time limit. No questions asked.*

GUARANTEE

.303 BRITISH - RCBS BULLETS

Gun: Enfield Model SMLE

Barrel: 25¼"

Twist: 1-8

Cases: W-W

Primers: CCI 200, *250

Wt. 187 GR.
Dia. .308"
Lube: Rifle

30-180-FN



POWDER	WT. IN GRAINS	MUZ VEL	POWDER	WT. IN GRAINS	MUZ VEL
H380	*35.0	1945	IMR	25.0	1893
	*33.0	1818	4198	23.0	1756
IMR	32.0	2011	Unique	14.0	1501
4320	30.0	1893		12.0	1378

*DENOTES USE OF CCI #250 MAGNUM PRIMER

Introduction

There has been a re-evaluation of the criteria for selecting data for inclusion. This means there will be some disagreement with previous data. The data in this guide takes precedence over all prior publications. *Previous editions of this loading guide should be discarded.*

For instance, we left out load combinations that were 'position sensitive'. This is what occurs when the load density is low. Velocity with the powder at the bullet is different from the velocity with the powder at the primer. More of these were noted with the ball propellants than with the extruded propellants.

In light of the growth of IPSC shooting, 38 Super Auto loads that make the 'major' classification (bullet weight x velocity = 175,000) are identified. While we have tested many combinations of components in 9mm Luger to attempt to meet 'major' requirements, we have not been able to find a load that makes the power floor for 'major' without exceeding SAAMI pressure recommendations. And while we were able to find loads for 38 Super Auto, they were not with lighter bullets. Turn to the data section for specific details.

In the charge tables, the 'START' charge listed for each load is our suggested beginning point with the components listed. There is the possibility that changing the named components could cause the maximum charge to be excessive, thus a reduction of the charge would be necessary. Some batches of military brass may require reducing the maximum charge by 8-12% to keep chamber pressure in line.

If you find signs of excessive pressure while using loads in this loading guide, STOP TESTING and verify all data and loading procedures. If they seem to be in order, check with our lab facility before proceeding.

Charge weights were obtained using industry standard pressure barrels. When time permitted, off-the-shelf weapons were used to obtain velocity figures. The guns used are noted.

In reloading, the prime concern should always be SAFETY. Always wear eye protection when reloading, even when working with the 'non-volatile' components. Always keep the reloading area clean. Never have more than one propellant within easy reach at any given time. Avoid having similar looking bullets of different weights on the bench at the same time. Read the safety notes before loading.

We have not found magnum primers to offer any particular advantage with our handgun powders. But, there are some rifle cartridges where they were used.

Handgun loads using the slower powders (No.7, No.9, and 1680) require heavy crimp and high bullet pull to insure consistency - particularly with cast bullet loads or in extremely cold weather. Be sure your dies are capable of this, otherwise the consistency of the load will be affected.

In the text, bullet weights for cast bullets - identified by (L) are actual weights, not the nominal weights.

.303 BRITISH - ACCURATE POWDERS

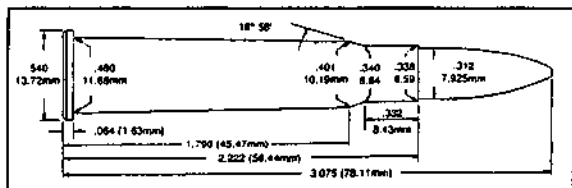
.303 BRITISH

The .303 British was the official military cartridge of England and the British Empire from 1888 until it was replaced by the 7.62 NATO in the 1950's. Originally a black powder cartridge, the .303 British was loaded with

smokeless propellant after 1892. The original load for hunting used a 215 grain bullet and developed a good reputation for effectiveness on large game in the Canadian wilderness.

Of the same general performance and design of the U.S. .30-40 Krag, the .303 British is loaded to higher pressure levels making it better suited for handloading.

The SAAMI Maximum Average Pressure for the .303 British is 45,000 C.U.P.



.303 BRITISH			
Gun	DOUGLAS	Max Length	2.222"
Barrel Length	24"	Trim Length	2.202"
Primer	CCI 250	OAL Max	3.075"
Case	REM	OAL Min	2.915"

Bullet	START LOADS			MAXIMUM LOADS			C.U.P.	Cartridge Length	Comment	
	Powder	Grains	Vel.	Powder	Grains	Vel.				
180 (L) RINGC	5744	25.0	1983	5744	28.0	2159	40,700	2.930"	LY311467 (.312 dia.)	
	2015	34.2	2167	2015	38.0	2462	41,400			
	2230	35.1	2164	2230	39.0	2459	42,500			
	2460	36.0	2182	2460	40.0	2480	40,800			
	2495	39.6	2226	2495	44.0	2529	39,500			
	2520	36.0	2154	2520	40.0	2448	40,300			
	4064	39.6	2220	4064	44.0	2523	38,700			
	2700	37.8	2035	2700	42.0	2312	41,400			
	4350	41.4	2028	4350	46.0	2302	38,000			
	3100	41.4	1815	3100	46.0	2063	28,700			Compressed
8700	43.2	1434	8700	48.0	1630	26,500	Compressed			
SPR 125 SP	5744	28.8	2322	5744	32.0	2639	45,600	2.870"		
	2015	41.4	2706	2015	48.0	3075	44,200			
	2230	39.6	2561	2230	44.0	2910	42,600			
	2460	41.4	2622	2460	46.0	2979	42,500			
	2495	43.2	2541	2495	48.0	2887	35,900			Compressed
	2520	42.8	2657	2520	47.5	3019	44,800			
	4064	45.0	2589	4064	50.0	2954	38,100			Compressed
	2700	45.0	2419	2700	50.0	2749	43,400			

.303 BRITISH - ACCURATE POWDERS

Bullet	START LOADS			MAXIMUM LOADS			C.U.P.	Cartridge	
	Powder	Grains	Vel.	Powder	Grains	Vel.		Length	Comment
HDY 150 SP	5744	27.9	2123	5744	31.0	2413	45,000	3.010"	
	2015	36.9	2388	2015	41.0	2714	42,300		
	2230	38.7	2380	2230	43.0	2704	43,500		
	2460	39.6	2401	2460	44.0	2728	42,900		
	2495	41.4	2400	2495	46.0	2727	42,500		Compressed
	2520	41.4	2437	2520	46.0	2769	45,000		
	4064	42.7	2424	4064	47.5	2755	40,500		Compressed
	2700	43.2	2254	2700	48.0	2561	43,200		Compressed
4350	41.4	1984	4350	46.0	2254	30,100	Compressed		
SRA 174 HPBT	2495	37.8	2196	2495	42.0	2456	42,300	3.075"	
	2520	35.1	2153	2520	39.0	2447	42,900		
	4064	36.0	2136	4064	40.0	2428	43,300		
	2700	38.7	2068	2700	43.0	2351	44,600		
	4350	41.4	2118	4350	46.0	2407	42,800		Compressed
	3100	42.3	1870	3100	47.0	2126	34,900		Compressed
SRA 160 SP	5744	26.1	1926	5744	29.0	2169	44,900	3.000"	
	2015	34.2	2130	2015	38.0	2420	42,300		
	2230	36.0	2175	2230	40.0	2472	43,800		
	2460	36.5	2149	2460	40.5	2442	41,500		
	2495	39.6	2181	2495	44.0	2478	42,700		
	2520	39.6	2260	2520	44.0	2568	45,000		
	4064	40.5	2232	4064	45.0	2537	41,700		
	2700	41.4	2137	2700	46.0	2428	44,100		
	4350	41.4	2006	4350	46.0	2280	35,800		Compressed
	3100	41.4	1797	3100	46.0	2042	30,800		Compressed

Praise The Lord



With the Superior Performance of Hodgdon Powders

Superior accuracy can be achieved through reloading with reliable, consistently performing powder. To achieve this level of consistency, the experts at Hodgdon's select only the finest raw materials and give special attention to blending. Rigorous testing of *each* batch of powder further attests to Hodgdon's commitment to quality.

For over 45 years, Hodgdon Powder has been a performance leader among shooters. This explains why more winning shooters competing in benchrest matches use Hodgdon Powder.

Hodgdon encourages every shooter to enjoy the advantages and economy of reloading with the superior performance of Hodgdon Powders.

For more information on reloading & Hodgdon Powders, write:

HODGDON POWDER COMPANY, INC.

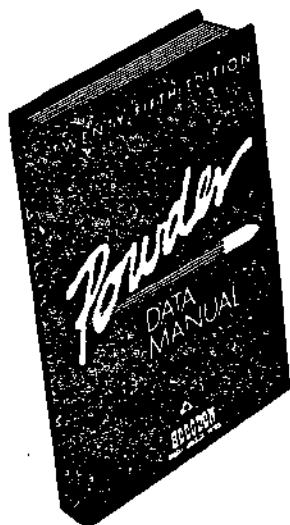
P.O. Box 2932, Dept. AB

Shawnee Mission, KS 66201

HODGDON'S INDUSTRY INSIDERS



Russ Rolandoon
Sales, Speer Bullets
300 Win. Mag. Caliber
165 gr. Speer Grand Slam
72 Gr. Hodgdon H4350 Powder



**Required
Reading
for
All Reloaders!**
*The
Hodgdon
Data Manual*

The Hodgdon Data Manual is the most extensive reloading manual produced by a powder company. **Over 500 pages** of rifle, pistol and shotgun data and includes articles by many well known writers.

- Includes data on Hodgdon, Hercules, Winchester and IMR powders for rifle calibers.
- Complete rifle, lead bullet, shotshell, pistol, military and silhouette data included.
- Complete Pyrodex® section of data and loading information for muzzleloading guns and early cartridge firearms.

THE FAVORITE OF HANDLOADERS SINCE 1946

The most current edition of the Hodgdon Data Manual is available from your local dealer or may be ordered directly from:

Hodgdon Powder Company, Inc.

P.O. Box 2932, Dept. AB

Shawnee Mission, KS 66201

(913) 362-9455

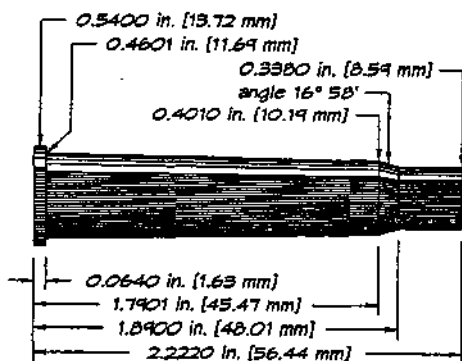
**HODGDON
POWDER CO.**

303 BRITISH

At one time the 303 British was a very popular big game cartridge in Canada and the British colonies in Africa. It is very similar to the 30-40 Krag and was once chambered in the Model 95 lever-action rifle. With the influx of war surplus military rifles that have entered the U.S. in the last few years, the 303 British is bound to enjoy some continued measure of popularity, both here and in Canada. With the right bullet it does quite well on everything from deer to moose.

H4895 and H335 along with 150 grain projectiles makes an excellent deer combination.

• • •



REMINGTON
24"

FEDERAL 210

1-10
2,212

.303 BRITISH - HODGDON POWDERS

Powder	Starting Loads			Maximum Loads		
	Gr.	Vel.	Pressure	Gr.	Vel.	Pressure

303 BRITISH

Case: REMINGTON Twist: 1:10"
 Barrel: 24" Trim: 2.212" Primer: FEDERAL 210

Bullet: 125 GR. SPR SP Dia.: .311" COL: 2.915"

VARGET	45.0	2766	39,200 CUP	48.0	2883	42,100 CUP
H335	42.0	2741	35,900 CUP	46.0	2966	43,000 CUP
H4895	41.0	2791	42,400 CUP	45.0	2931	43,700 CUP

Bullet: 150 GR. HDY SP Dia.: .312" COL: 2.995"

VARGET	39.0	2458	39,600 CUP	43.0	2656	42,700 CUP
BL-C(2)	43.0	2502	34,000 CUP	48.0	2756	39,200 CUP
H335	37.0	2430	34,700 CUP	42.0	2706	43,100 CUP
H4895	36.0	2447	40,300 CUP	40.0	2627	43,600 CUP

Bullet: 174 GR. SIE HPBT Dia.: .311" COL: 3.075"

H4350	43.0	2266	35,400 CUP	48.0	2517	41,900 CUP
H414	43.0	2302	35,200 CUP	46.0	2447	41,000 CUP
VARGET	38.0	2345	38,800 CUP	42.0	2509	43,800 CUP
BL-C(2)	43.0	2442	36,400 CUP	46.5	2616	42,900 CUP
H335	36.0	2340	38,600 CUP	39.5	2503	43,400 CUP
H4895	34.0	2262	38,800 CUP	38.0	2446	43,600 CUP

Bullet: 180 GR. SIE SP Dia.: .311" COL: 3.075"

H4350	44.0	2295	35,700 CUP	48.0	2500	43,800 CUP
H414	42.0	2231	35,400 CUP	46.0	2435	42,500 CUP
VARGET	37.0	2282	38,200 CUP	41.0	2440	43,400 CUP
BL-C(2)	41.0	2395	37,100 CUP	45.0	2563	43,000 CUP
H335	36.0	2286	36,400 CUP	39.0	2449	42,700 CUP
H4895	34.0	2178	35,200 CUP	38.0	2400	43,500 CUP

.303 BRITISH - HODGDON POWDERS

Bullet Diameter: .311
Barrel Length: SMLE 24"

HODGDON POWDER								
STARTING LOADS					MAXIMUM LOADS			
BULLET	POWDER	GRS.	VEL.	CUP	POWDER	GRS.	VEL.	CUP
150 GR. (GAS CHECK)					H4831	44.0	2014	
					H380	36.0	2151	
					BL-C(2)	34.0	2060	
					H4895	34.0	2106	
					H4198	24.0	1884	
					H4227	17.0	1602	
180 GR. (GAS CHECK)					H4831	44.0	1950	
					H380	36.0	2088	
					BL-C(2)	34.0	2004	
					H4895	34.0	2098	
					H4198	24.0	1842	
					H4227	17.0	1554	

NEVER EXCEED MAXIMUM LOADS.
(Source: Hodgdon Reloading Manual # 26)



Get Superior Control With Winchester

Reloaders make strenuous demands on their components, and that's the reason why, year after year, more reloaders depend on Winchester.

Winchester is the only ammunition company that makes all of its own components, from raw materials through final product, for the control reloaders demand. Winchester primers are tested for consistent and dependable ignition in extreme temperatures. They are non-corrosive and non-mercuric, and they're carefully controlled for weight and height.

Winchester's patented smokeless, clean-burning BALL POWDER propellants are free-flowing for precise metering and chemically stable for consistent muzzle velocity, and reduced flash and barrel erosion.

Winchester metallic components offer the consistent performance found in factory loads.



WINCHESTER Centerfire Rifle Components

When selecting reloading supplies, be sure to look for the following finest quality Winchester components.

Primers

WLR, #8-1/2 - 120, Large Rifle
WLRM, #8-1/2M - 120, Large Rifle Magnum
WSR, #6-1/2 - 116, Small Rifle

BALL POWDER Propellants

680 Powder, 1 Lb. Container
748 Powder, 1 and 8 Lb. Containers
760 Powder, 1 and 8 Lb. Containers

Unprimed Rifle

U218	218 Bee	U300H	300 H&H Mag.
U22H	22 Hornet	U300	300 Savage
U22250	22-250 Rem.	U307	307 Win.
U220S	220 Swift	U308	308 Win.
U223R	223 Rem.	U3220	32-20 Win.
U225	225 Win.	U338	338 Win. Mag.
U243	243 Win.	U348	348 Win
U6MMR	6mm Rem.	U356	356 Win.
U2520	25-20 Win.	U358	358 Win.
U2506	25-06 Rem.	U375H	375 H&H Mag.
U257P	257 Roberts +P	U375W	375 Win.
U264	264 Win. Mag.	U4440	44-40 Win.
U270	270 Win.	U44M	44 Rem. Mag.
U284	284 Win.	U4570	45-70 Govt.
U7MM	7mm Mauser	U458	458 Win. Mag.
U3006	30-06 Springfield		
U3040	30-40 Krag		
U300WM	300 Win. Mag.		

WINCHESTER



.303 BRITISH - WINCHESTER POWDERS

WINCHESTER						
CASE: WINCHESTER		BARREL: 24"		PRIMER: WINCHESTER LR		
POWDER	STARTING LOADS			MAXIMUM LOADS		
	GRS.	VEL.	PRESSURE	GRS.	VEL.	PRESSURE
BULLET: 123 GR. WIN SP. DIA. .311" C.O.L. 2.915" MAX.						
748				47.3	2720	34,000 PSI
BULLET: 150 GR. WIN PSP DIA. .311" C.O.L. 2.915" MAX.						
748				45.4	2565	37,700 PSI
BULLET: 180 GR. WIN SP. DIA. .311" C.O.L. 2.915" MAX.						
760				46.3	2435	46,550 PSI
748				39.8	2345	46,600 PSI

NEVER EXCEED MAXIMUM LOADS.

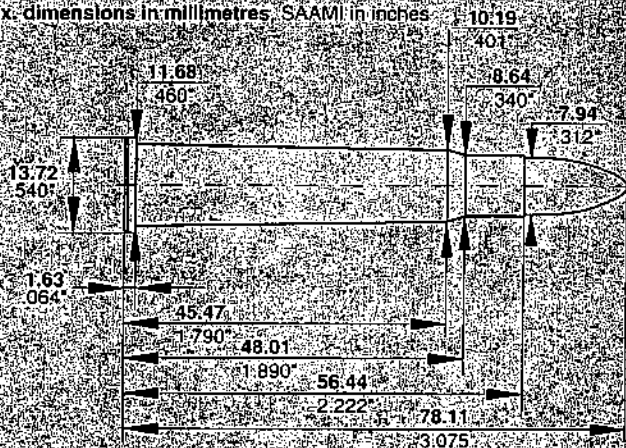
= WARNING =

Winchester makes no warranties express or implied, limited or full; specifically disclaim any and all warranties of fitness for a particular purpose and merchantability; and specifically disclaim any and all liability for consequential damages of any kind whatsoever. Failure to comply with these warnings or to use this data exactly as shown may result in accidents with serious injury and/or death to the shooter and/or bystanders.

.303 BRITISH - VIHTAVUORI POWDERS

.303 British

CIP max. dimensions in millimetres, SAAMI in inches



Country of origin:	England
Year of introduction:	1888
Max. bullet diameter:	7.94 mm (.313")
Max. cartridge length:	78.11 (3.075")
Max. case length:	56.44 (2.222"), trim to 56.20 mm (2.212")
Max. CIP piezo pressure:	365 MPa (52925 psi)

The .303 British was the official military rifle cartridge of England and the British Commonwealth from its adoption in 1888 until it was replaced with the 7.62 NATO in the 50's. The original load was a blackpowder one and the smokeless powder, cordite, became the propellant in 1892. Sporting ammunition in the .303 British loaded with more modern components is today available from many cartridge companies.

The .303 British has always been popular among the British Commonwealth, but in the U.S it has not, because its very similar ballistics to the U.S.-born .30-40 Krag. However, after the WW II lots of military surplus British Lee-Enfield rifles have been imported to the States altering the situation for the .303 British.

The nominal bullet diameter of the .303 British is 7.92 mm (.312"). This limits the flexibility of the cartridge due to the limited bullet selection of that caliber. There, however, exist cal. .312" bullets weighing 130 - 215 gr. (8.5 - 13.9 g) on the market allowing the reloader match the bullet for her/his application. Reloaded with modern components the .303 British is good for anything the .308 Winchester can do, if one has paid attention to careful bullet selection.

.303 BRITISH - VIHTAVUORI POWDERS

.303 British

TEST COMPONENTS:

Test barrel: 610 mm (24"), 1 in 10" twist, manufactured to meet CIP minimum dimensions.

Primers: Large Rifle

Cases: Remington, trim-to length 56.20 mm (2.212")

Reloading Data, English Units:

Bullet				Powder	Starting Load		Maximum Load		
Weight [grs]	Type	Mfg.	C.O.E. [gr]	Type	Weight [grs]	Velocity [fps]	Weight [grs]	Velocity [fps]	Pressure [psi]
180	SP	Sako	2.897	N140			41.7	2540	max.

NOTE!

ONLY THE MAXIMUM LOAD IS SHOWN IN THE TABLES ABOVE. START LOADING WITH APPROXIMATELY 10% SMALLER POWDER CHARGE.

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

This is a unique reloading/information manual. It contains currently available data regarding loading information for this individual cartridge. This data is compiled from the leading U.S. Bullet and gunpowder manufacturers.

This manual is not intended to replace the many comprehensive, in-depth reloading manuals available from a host of publishers, but instead provide you with a quick and *easy-to-use reference source* which will enable you to compare loads, types of powders, bullets and shot charges for components you may have on hand.

Loadbooks USA, Inc., also offers the following cartridges in this series of unique One Book/One Caliber reloading manuals: .22 Hornet, .220 Swift, .222 Remington, .223 Remington, .22-250 Remington, .225 Winchester, .243 Winchester, .244/6mm Remington, 6.5x55 Swedish, .25-06 Remington, .250-3000 Savage, .270 Winchester, 7x57 Mauser, 7mm-08 Remington, .280 Remington, .284 Winchester, 7mm Remington Magnum, 7.62x39mm, 7.62x54mm Russian, .30-30 Winchester, .303 British, .308 Winchester, .30-06 Springfield, .300 Winchester Magnum, .300 Weatherby Magnum, .300 Savage, 30/40 Krag, .300 & .375 H & H Magnum, .338 Winchester Magnum, 8mm Remington Magnum, 8mm/06 & .338/06, 8mm Mauser, .356 & .358 Winchester, .35 Whelen, .35 Remington & .350 Remington Magnum, .375 & .458 Winchester, .444 Marlin, .45-70 Government, .25 & .32 A.C.P., .32 H&R Magnum, .380 ACP, 9mm Luger, .38 Super, .38 Special, .357 Magnum, 10mm/.41 Auto, .41 Magnum, .44 Magnum, .44 Special, .45 ACP, .45 Colt, .454 Casull, and The Weatherby Magnums covering 10 different Weatherby calibers.

There's also two shotshell books for the 12 Gauge, and the 20/28 Gauge and .410 bore. Plus there's a large reloading manual covering 30 calibers for the Thompson/Center Contender single-shot pistol and the Remington XP-100 pistol.

Online Ordering <http://www.loadbooks.com>

Published by Loadbooks USA, Inc.

Printed in the United States

POWDER BURNING RATE CHART

Current Canister Grade Powders in order of approximate burning rate.
 (R1 being the fastest, 748 the slowest)
 This list is approximate only and not to be used for developing loads.

1. R-1, Norma	36. No. 9, Accurate Arms
2. N31, Vihtavuori	37. R123, Norma
3. TITEWAD, Accurate Arms	38. N110, Vihtavuori
4. RED DOT, Alliant	39. H110 Hodgdon
5. CLAYS, Hodgdon	40. 296, Winchester
6. "HI-SKOR" 700-X, IMR Co.	41. IMR4227, IMR Co.
7. BULLSEYE, Alliant	42. H4227, Hodgdon
8. TITEGROUP, Hodgdon	43. SR4759, IMR Co.
9. American Select, Alliant	44. 1680, Accurate Arms
10. SOLO 1000, Accurate Arms	45. 200, Norma
11. GREEN DOT, Alliant	46. Reloader 7, Alliant
12. INTERNATIONAL, Hodgdon	47. IMR4198, IMR Co.
13. PB, IMR Co.	48. H4198, Hodgdon
14. N320, Vihtavuori	49. N120, Vihtavuori
15. WST, Winchester	50. H322, Hodgdon
16. No.2, Accurate Arms	51. 2015 BR, Accurate Arms
17. SR 7625, IMR Co.	52. N130, Vihtavuori
18. HP-38, Hodgdon	53. IMR3031, IMR Co.
19. 231, Winchester	54. N133, Vihtavuori
20. UNIQUE, Alliant	55. H335, Hodgdon
21. UNIVERSAL, Hodgdon	56. N135, Vihtavuori
22. Power Pistol, Alliant	57. 2230, Accurate Arms
23. N330, Vihtavuori	58. 2460, Accurate Arms
24. HERCO, Alliant	59. H4895, Hodgdon
25. WSP, Winchester	60. IMR4895, IMR Co.
26. N340, Vihtavuori	61. RELOADER-12, Alliant
27. "HI-SKOR" 800-X, IMR Co.	62. IMR-4320, IMR Co.
28. SR4756, IMR Co.	63. 3100, Accurate Arms
29. NO. 5, Accurate Arms	64. IMR 4064, IMR Co.
30. HS-6, Hodgdon	65. 202, Norma
31. 3N37, Vihtavuori	66. 2520, Accurate Arms
32. N350, Vihtavuori	67. RELOADER-15, Alliant
33. BLUE DOT, Alliant	68. N140, Vihtavuori
34. No. 7, Accurate Arms	69. VARGET, Hodgdon
35. 2400, Alliant	70. 748, Winchester