

300 WinMag Barnes LRX BT 200gr

mercoledì, 17. settembre 2014

19:00

RICARICA 300 Win Mag - Norma MRP - 71.56gr - L84.84 - Barnes LRX BT 200gr

WARNING: Since we have no control over equipment or data which may be used with this program, no responsibility is implied or assumed for results obtained through its use. Input data and results may be incorrect or wrong. Therefore the use of this data for loading ammunition can cause serious injury to personnell and material. The computer-results had to be checked against data available in current loading manuals.

LOT-TO-LOT VARIATIONS OF POWDERS, PRIMER SUBSTITUTION AND COMPONENT CHANGE OFTEN RAISE PRESSURES TO UNSAFE LEVELS. THE USER MUST ASSUME THE ENTIRE RISK OF USING THIS DATA FOR LOADING PURPOSES.

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User Data:	Date:17-set-2014	Time:18:57:02	File: 300winmag-barneslrxbt200grnormamrp.dat		
Cartridge / Caliber	.300 Win. Mag.(@)	Bullet	.308, 200, Barnes 'LRX' BT 3		
Maximum Average Pressure, allowed	4300 bar	62366 psi. (Piezo CIP)	with boattail		
Groove Caliber	7.82 mm	0.308 in.	Bullet Weight	12.96 gm	200.0 gr.
Case Capacity, overflow	5.941 cm³	91.5 gr. H2O	Bullet Length	41.25 mm	1.624 in.
Case Length	66.55 mm	2.620 in.	Bullet Seating Depth	22.96 mm	0.904 in.
Cartridge O.A. Length	84.84 mm	3.340 in.	Barrel/Tube Length	660.4 mm	26.0 in.
Shot Start / Init Pressure	300.0 bar	4351 psi.	Cross Section Area of Bore	0.4732 cm²	0.07335 in.²
Propellant type	Norma MRP				
Charge Weight	4.637 gm	71.56 gr.	Load Density	0.950 gm/cm³	240.2 gr./in.³
Heat of Explosion, Potential	4020 J/gm	260.5 J/gr.	Energy Density of Charge	3821 J/cm³	62615 J/in.³
Propellant Solid Density	1.61 gm/cm³	407.15 gr./in.³	Used Ratio of Specific Heats cp/cv	1.2285	
Burning Rate Factor Ba	0.369 1/s		Weighting Factor	0.5	
Burning Function Limit Z1	0.552		Prog.-/ Degressivity Factor a0	1.737	
Factor b	2.091		Bulk Density	0.960 am/cm³	242.8 gr./in.³

Calculated and Estimated Data:

Bullet Shank Seating Depth	17.88 mm	0.704 in.	Capacity Displaced by Seated Bullet	1.062 cm³	0.0648 in.³
Useable Case Capacity	4.879 cm³	0.2977 in.³	Bullet Travel at Muzzle Exit	616.81 mm	24.28 in.
Loading Ratio("Density") / Filling	99.0 %		Charge Fraction Burnt at Shot Start	1.41 %	

Predicted Data:

Maximum Chamber Pressure	4222 bar	61232 psi.	Bullet Travel at Pmax	64.6 mm	2.55 in.
at Muzzle Exit:					
Bullet Velocity	907.1 m/s	2976 fps.	Pressure at Muzzle	768 bar	11137 psi.
Bullet Energy	5333 Joule	3934 ft.lbs.	Bullet Barrel Time	1.276 ms	
Propellant Burnt	100.0 %		Ballistic Efficiency	28.6 %	

Additional Data:

Powder Lot		Primer Type and Lot	
Bullet Lot		Case Manufacturer	
Measured Muzzle Vel., StdDev.		Measured Pressure, StdDev.	

WARNING: Near Maximum Average Pressure - unknown tolerances may cause dangerous pressures !
Real maximum (peak) of pressure is reached while bullet moves within barrel.
End of combustion reached before bullet's base passes muzzle.

