338 Lapua Magnum, Nosler 200gr BalTip

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21:35

RICARICA 338 LapuaMagnum - NormaMRP - 94gr - L91.5 - Nosler 200 BalTip

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.

User Data:

Date:27-giu-2014 **Time:21:33:05** **File: 338lapuamagnum200grnoslerbalistictip33200-no**

Cartridge / Caliber	**.338 Lapua Mag.**		**Bullet**	**.338, 200, Nosler BalTip 3320**	
Maximum Average Pressure, allowed	4200 bar	60916 psi. (Piezo CIP)		with boattail	
Groove Caliber	8.59 mm	0.338 in.	Bullet Weight	12.96 gm	200.0 gr.
Case Capacity, overflow	7.012 cm³	108.0 gr. H2O	Bullet Length	33.53 mm	1.320 in.
Case Length	69.19 mm	2.724 in.	Bullet Seating Depth	11.22 mm	0.442 in.
Cartridge O.A. Length	91.49 mm	3.602 in.	Barrel/Tube Length	660.4 mm	26.0 in.
Shot Start / Init Pressure	250.0 bar	3626 psi.	Cross Section Area of Bore	0.5686 cm²	0.08813 in.²
Propellant type	**Norma MRP**				
Charge Weight	6.091 gm	94.0 gr.	Load Density	0.954 gm/cm³	241.3 gr./in.³
Heat of Explosion, Potential	4020 J/gm	260.5 J/gr.	Energy Density of Charge	3837 J/cm³	62877 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	0.55	
Burning Function Limit Z1	0.552		Prog.-/ Degressivity Factor a0	1.737	
Factor b	2.091		Bulk Density	0.960 gm/cm³	242.8 gr./in.³

Calculated and Estimated Data:

Bullet Shank Seating Depth	7.92 mm	0.312 in.	Capacity Displaced by Seated Bullet	0.63 cm³	0.0385 in.³
Useable Case Capacity	6.382 cm³	0.3894 in.³	Bullet Travel at Muzzle Exit	602.43 mm	23.72 in.
Loading Ratio("Density") / Filling	99.4 %		Charge Fraction Burnt at Shot Start	1.16 %	
Predicted Data:					
Maximum Chamber Pressure	4031 bar	58465 psi.	Bullet Travel at Pmax	75.0 mm	2.95 in.
at Muzzle Exit:					
Bullet Velocity	972.5 m/s	3190 fps.	Pressure at Muzzle	824 bar	11957 psi.
Bullet Energy	6129 Joule	4521 ft.lbs.	Bullet Barrel Time	1.204 ms	
Propellant Burnt	99.8 %		Ballistic Efficiency	25.0 %	

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 occurs after the bullet's base passes muzzle.