

338 Lapua Mag - Berger Hunt 300gr

mercoledì, 1. aprile 2015

05:09

RICARICA 338 Lapua Mag - Berger Hunt 300gr

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:1-apr-2015 Time:05:05:52 File: 338lapuamagnum300grberger-normamrp80gr.da

Comment Norma MRP 80gn - Velocità 800 m/s - 6226 J
Cartridge / Caliber .338 Lapua Mag. Bullet .338, 300, Berger Hunt Hybri
Maximum Average Pressure, allowed 4200 bar 60916 psi. (Piezo CIP) with boattail
Groove Caliber 8.59 mm 0.338 in. Bullet Weight 19.44 gm 300.0 gr.
Case Capacity, overflow 7.012 cm³ 108.0 gr. H2O Bullet Length 46.23 mm 1.820 in.
Case Length 69.19 mm 2.724 in. Bullet Seating Depth 21.92 mm 0.863 in.
Cartridge O.A. Length 93.5 mm 3.681 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 5.184 gm 80.0 gr. Load Density 0.889 gm/cm³ 224.8 gr./in.³
Heat of Explosion, Potential 4020 J/gm 260.5 J/gr. Energy Density of Charge 3572 J/cm³ 58535 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 15.06 mm 0.593 in. Capacity Displaced by Seated Bullet 1.178 cm³ 0.0719 in.³
Useable Case Capacity 5.834 cm³ 0.356 in.³ Bullet Travel at Muzzle Exit 613.13 mm 24.14 in.
Loading Ratio("Density") / Filling 92.6 % Charge Fraction Burnt at Shot Start 1.37 %

Predicted Data:

Maximum Chamber Pressure 4098 bar 59437 psi. Bullet Travel at Pmax 65.6 mm 2.58 in.
at Muzzle Exit:
Bullet Velocity 800.3 m/s 2626 fps. Pressure at Muzzle 729 bar 10567 psi.
Bullet Energy 6226 Joule 4592 ft.lbs. Bullet Barrel Time 1.436 ms
Propellant Burnt 100.0 % Ballistic Efficiency 29.9 %

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.

