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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 personnel 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:8-Apr-2015

Time:22:41:56

File: xpert 260 rem 98gr.dat

Cartridge / Caliber

.260 Rem

Bullet

.264, 98, XPERT

Maximum Average Pressure, allowed
Groove Caliber
Case Capacity, overflow
Case Length
Cartridge O.A. Length
Shot Start / Init Pressure

60191 psi. 4150 bar (Piezo CIP)
0.264 in. 6.71 mm
53.5 gr. H2O 3.474 cm³
2.030 in. 51.56 mm
2.717 in. 69.0 mm
3625 psi. 249.94 bar

with flatbase
98.0 gr. 6.35 gm
Bullet Weight
Bullet Length 1.240 in. 31.5 mm
Bullet Seating Depth 0.554 in. 14.07 mm
Barrel/Tube Length 24.0 in. 609.6 mm
Cross Section Area of Bore 0.05385 in.² 0.3474 cm²

Propellant type

Somchem S341

Charge Weight
Heat of Explosion, Potential
Propellant Solid Density
Burning Rate Factor Ba
Burning Function Limit Z1
Factor b

40.0 gr. 2.592 gm
237.2 J/gr. 3660 J/gm
409.68 gr./in.³ 1.62 gm/cm³
0.56 1/s
0.45
1.557

Load Density 220.3 gr./in.³ 0.871 gm/cm³
Energy Density of Charge 52242 J/in.³ 3188 J/cm³
Used Ratio of Specific Heats cp/cv 1.242
Weighting Factor 0.5
Prog.-/ Degressivity Factor a0 0.74
Bulk Density 250.4 gr./in.³ 0.990 gm/cm³

Calculated and Estimated Data:

Bullet Shank Seating Depth
Useable Case Capacity
Loading Ratio("Density") / Filling

0.554 in. 14.07 mm
0.1816 in.³ 2.976 cm³
88.0 %

Capacity Displaced by Seated Bullet 0.0304 in.³ 0.498 cm³
Bullet Travel at Muzzle Exit 22.52 in. 572.11 mm
Charge Fraction Burnt at Shot Start 1.50 %

Predicted Data:

Maximum Chamber Pressure
at Muzzle Exit:

46911 psi. 3234 bar
Bullet Velocity
Bullet Energy
Propellant Burnt

Bullet Travel at Pmax 1.85 in. 47.0 mm
Pressure at Muzzle 8334 psi. 575 bar
Bullet Barrel Time 1.160 ms
Ballistic Efficiency 27.5 %

Check Loading Manuals for Safe Minimum Charge Weight to Avoid Hazardous Ignition Conditions like Secondary Explosion Effects !
Real maximum (peak) of pressure is reached while bullet moves within barrel.
End of combustion occurs after the bullet's base passes muzzle.

