308Win - RS50 44,6gr - RWS Evo 185gr - L71mm - 802m/s

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19:14

RICARICA 308win RS50-44e6gr - L71.00 - RWSEvo185gr - 802m/s

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:17-dic-2014 **Time:19:12:47** **File: 308winrwsevolution184gr.dat**

Cartridge / Caliber	**.308 Win. (CIP)**		**Bullet**	**.308, 185, RWS Evolution**	
Maximum Average Pressure, allowed	4150 bar	60191 psi. (Piezo CIP)		with hollowbase	
Groove Caliber	7.82 mm	0.308 in.	Bullet Weight	12.0 gm	185.2 gr.
Case Capacity, overflow	3.636 cm³	56.0 gr. H2O	Bullet Length	32.89 mm	1.295 in.
Case Length	51.16 mm	2.014 in.	Bullet Seating Depth	13.05 mm	0.514 in.
Cartridge O.A. Length	71.0 mm	2.795 in.	Barrel/Tube Length	660.4 mm	26.0 in.
Shot Start / Init Pressure	250.0 bar	3626 psi.	Cross Section Area of Bore	0.4751 cm²	0.07364 in.²
Propellant type	**ReloadSwiss RS 50**				
Charge Weight	2.89 gm	44.6 gr.	Load Density	0.957 gm/cm³	242.0 gr./in.³
Heat of Explosion, Potential	3815 J/gm	247.2 J/gr.	Energy Density of Charge	3650 J/cm³	59813 J/in.³
Propellant Solid Density	1.61 gm/cm³	407.15 gr./in.³	Used Ratio of Specific Heats cp/cv	1.239	
Burning Rate Factor Ba	0.52 1/s		Weighting Factor	0.5	
Burning Function Limit Z1	0.394		Prog.-/ Degressivity Factor a0	1.231	
Factor b	1.565		Bulk Density	0.957 gm/cm³	242.0 gr./in.³

Calculated and Estimated Data:

Bullet Shank Seating Depth	13.05 mm	0.514 in.	Capacity Displaced by Seated Bullet	0.615 cm³	0.0375 in.³
Useable Case Capacity	3.021 cm³	0.1843 in.³	Bullet Travel at Muzzle Exit	622.29 mm	24.5 in.
Loading Ratio("Density") / Filling	100.0 %		Charge Fraction Burnt at Shot Start	1.16 %	
Predicted Data:					
Maximum Chamber Pressure	4020 bar	58299 psi.	Bullet Travel at Pmax	31.7 mm	1.25 in.
at Muzzle Exit:					
Bullet Velocity	802.3 m/s	2632 fps.	Pressure at Muzzle	456 bar	6608 psi.
Bullet Energy	3863 Joule	2849 ft.lbs.	Bullet Barrel Time	1.277 ms	
Propellant Burnt	98.8 %		Ballistic Efficiency	35.0 %	

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.