

RICARICA 300 Win Mag - RS60 - 68gr - L84.84 - BARNES TTSX BT 180gr

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 personell 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:20-lug-2014	Time:18:50:16	File: *.dat
Cartridge / Caliber	.300 Win. Mag.(@)	Bullet	.308, 180, Barnes 'TTSX'BT 3
Maximum Average Pressure, allowed	4300 bar	62366 psi. (Piezo CIP)	with boattail
Groove Caliber	7.82 mm	0.308 in.	Bullet Weight
Case Capacity, overflow	5.941 cm³	91.5 gr. H2O	Bullet Length
Case Length	66.55 mm	2.620 in.	Bullet Seating Depth
Cartridge O.A. Length	84.84 mm	3.340 in.	Barrel/Tube Length
Shot Start / Init Pressure	300.0 bar	4351 psi.	Cross Section Area of Bore
			0.4732 cm² 0.07335 in.²

Propellant type	ReloadSwiss RS 60		
Charge Weight	4.406 gm	68.0 gr.	Load Density
Heat of Explosion, Potential	3990 J/gm	258.5 J/gr.	Energy Density of Charge
Propellant Solid Density	1.61 gm/cm³	407.15 gr./in.³	Used Ratio of Specific Heats cp/cv
Burning Rate Factor Ba	0.468 1/s		Weighting Factor
Burning Function Limit Z1	0.695		Prog./ Degressivity Factor a0
Factor b	2.192		Bulk Density
			0.876 gm/cm³ 221.5 gr./in.³
			3496 J/cm³ 57289 J/in.³
			1.2291
			0.5
			0.669
			0.965 gm/cm³ 244.0 gr./in.³

Calculated and Estimated Data:

Bullet Shank Seating Depth	16.13 mm	0.635 in.	Capacity Displaced by Seated Bullet	0.913 cm³	0.0557 in.³
Useable Case Capacity	5.028 cm³	0.3068 in.³	Bullet Travel at Muzzle Exit	613.15 mm	24.14 in.
Loading Ratio("Density") / Filling	90.8 %		Charge Fraction Burnt at Shot Start	1.71 %	

Predicted Data:

Maximum Chamber Pressure	4154 bar	60250 psi.	Bullet Travel at Pmax	66.5 mm	2.62 in.
at Muzzle Exit:					
Bullet Velocity	939.5 m/s	3082 fps.	Pressure at Muzzle	706 bar	10233 psi.
Bullet Energy	5148 Joule	3797 ft.lbs.	Bullet Barrel Time	1.218 ms	
Propellant Burnt	100.0 %		Ballistic Efficiency	29.3 %	

Additional Data:

Powder Lot	Primer Type and Lot	RWS 5333 LRM Sinoxid
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.



