

Scoped Yugo M-48

Click on any of the images below to see a larger version of the image.

QuickLOAD Cartridge Dimensions

Selected Bullet: file:\nosler .323, 180, NDS BallTip 32180 Selected Cartridge: file:\loadiw 8 x 57 mm Mauser (SAAMI)

Tail/Base Shaped Eriction-proofed

	Inches	mm		psi	bar
Seating Depth	0.259	6.58	Pmax (MAP)	35000	2413.17
Shank Seat Depth	0.135	3.43	Meas. Method	Piezo SAAMI	
Bullet Length	1.265	32.13	Bullet Weight	180.0 Grains	11.664 Grams
Bullet Diameter	0.323	8.20	Cross-sectional Bore Area	.080399 Sq. inches	51.87 mm ²
Cartridge Length	3.250	82.55	Maximum Case Capacity, overflow	63.00 Grains H2O	4.091 cm ³
Case Length	2.244	57.00	Volume Occupied by Sealed Bullet	5.106	0.332
Groove Caliber	0.323	8.20	Useable Case Capacity	57.901	3.759
Barrel Length	31.0	787.4	Weighting Factor	0.5	
Bullet Travel	29.015	736.98			

It was Wednesday afternoon, I had mounted a scope on one of my Yugo M-48s and wanted to take it to the range on Saturday. I went to the garage to load some 8mm Mauser. I had plenty of brass, boxes of primers, pounds of powder, **but not one single .323 caliber bullet to be found**. No problem, I decided to go to the local reloading supply store to pick some up. When I got to the store all I could find was one single box of **Nosler Ballistic Tip, 180 grain, .323 Spitzer Bullets**. Not your average Military type of load, kind of pricey and very high tech! I thought, maybe I could still get something from Midway? No way - not this quick. I was getting desperate, so I took the box of Nosler bullets.

I arrived home thinking, **problem solved**. I'll just go back out into the garage and whip up a batch of cartridges for Saturday. To my surprise, not one single loading manual had load data for a .323/180 grain bullet. I went on the web to see what I could find. Not one single site had load data for a .323/180 grain bullet. I spoke with a friend of mine and he suggested I try out an application he purchased from a company called [Neco](#) for around \$150.

QuickLOAD Charge

Selected Propellant: file:\qloadiw IMR 4064

Heat of Explosion / Potential	3080	kJ/kg
Ratio of Specific Heats	1.2380	
Burning Rate Factor Ba	0.5890	1/s
Pro- or Degressivity Factor aD	0.6500	
Progressive Burning Limit z1	0.400	x 100%
Factor b	1.4491	
Propellant Solid Density	1.580	g/cm ³
Shot Start (Initiation) Pressure	3625	psi
Filling/L.R. %	72.6	
Charge Weight	38.0 Grains	2.462 Grams



The application is called QuickLoad and is one of the most extensive ballistics programs I have seen. Not only did

QuickLoad have the bullet weight and caliber I was looking for - it actually had the specific bullet listed by the Nosler part number. I then was able to select the powder I was intending to use, and length of rifle barrel.

Note: QuickLoad warns not to substitute the use of it's software product in place of established loading manuals.

I was able to extrapolate based upon loads that I had loaded for .323/170 grain bullets and what the load manuals listed for .323/190 and .323/200 grain bullets. I started with a 38 grain load of powder and QuickLoad said it was a light and safe load. Using a triangulation based method - I was able to make some fairly safe assumptions.

The data that QuickLoad displayed was very interesting - including percentage of case filled with powder, initial pressure at muzzle, percentage of powder burned, and more as shown in **figures 1 and 2**.

To learn more about QuickLoad you can go to -

<http://www.neconos.com>



I got to the range and it was almost 100 degrees, but I was determined to try out the new scope on the Yugo.

My first shot didn't even place on paper. Luckily I was able to see the bullet hit the berm behind the target. I saw that it hit very low and to the right of the target. I aimed at the top and finally placed a round in the very bottom of the target. I quickly was able to walk the rounds into the center of the Bullseye.



Having only had fifty cartridges with me, I was glad when the rifle was finally sighted in after so few rounds fired. I then fired off all of the rounds except for the last five.

When I normally shoot this M-48, I get fairly respectable groups (as shown in the figure to the right) for a short barreled rifle with open sights that are not the best for someone who needs to wear glasses when driving (or any other activity for that matter).



The resulting improvement in

accuracy with the new scope was excellent (**as shown by the target to the left**). I am definitely going to leave the scope on this rifle. The next time I go pig hunting, I will take this Yugo with me. What more could you ask for? Perfect length, great caliber of cartridge, and really accurate. The long eye relief scope is really very easy to shoot with. You can either close your non-dominant eye or leave both eyes open. The scoped Yugo even looks great. It makes me feel like Ed Harris in "**Enemy at the Gates**", although much more rugged looking (just kidding). If you don't mind putting a scope on a Military Surplus Rifle, then the M-48 is a really good candidate.

To learn how to mount a scope on a Yugo M-48 go to -

<http://www.surplusrifle.com/yugom48/scope/index.asp>

jlm ;)

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