Reloading Data for 6.5mm BRM Bench Rest Magnum - Hand loading the mild recoil 6.5mm cartridge for single shots.

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Click Photos to Enlarge: Groups and method photo for this practical field-bipod shooting test.

Handloading the 6.5mm Benchrest Magnum (6.5 BRM)

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The 6.5mm BRM was designed to give big game hunting performance to small frame single shots like our Model 97D rifle, TC Encore, BF pistol, etc. The long range accuracy, mild recoil, and easy-to-shoot-well characteristics of this cartridge have won over many of our single shot customers. And though we offer loaded ammo for it, I thought to give some fresh loading data to our handloading customers. I did loads with Sierra 140 gr. Game King and Hornady 140 gr. Amax bullets. In both instances, everything was tested with 5 shot groups at 100 yards. Worst group in all cases was 1 inch. Best was 5/8ths with the average being 5/8ths to 3/4ths inch off a bipod rest.

Brass Preparation - We just went out and shot EABCO loaded ammo to get our fire-formed brass. Case mouths were trimmed square and same length. Actual trim length is



6.5mm BRM Goes to Africa!

Franz Metz sent us some beautiful pictures from his recent hunting trip to Namibia. He shot the 97D rifle in 6.5 BRM. He hunted the Gemsbok above plus Springbuck, Zebra, and black Wildebeest. "All the animals taken were with one shot... Gemsbok and Springbuck were 200 yards plus.... My Professional Hunter and I called the 97D my pea shooter for lack of muzzle blast and recoil. He had never seen such an accurate rifle and could not believe its knock down power for such a small caliber..."

not critical, it's just good to get them all the same length and then chamfer off the burrs. **Hand Loading Technique -** Cases were full length sized with the die adjusted just far enough to bump the shoulder of the case. Primed with a Lee Auto-Prime. Powder charges were thrown with a Redding powder measure - Each was also weighed. Bullets were seated as far out as possible. No need to seat close to rifling, just to leave enough room for the maximum powder charge to reach the bottom of the bullet.

Comments - 6.5mm BRM is a long and skinny cartridge. Alignment and concentricity is important for ammo to fit and function reliably but then, alignment and concentricity is always important when you're seeking the best accuracy.

Loads - I did two loads and both worked great. The first was with the Sierra 140 gr. Game King bullet and VihtaVuori 160 powder. Accuracy and performance were excellent. I shot 5 groups of 5 shots each at 100 yards and all were under an inch shooting off a bipod rest. The second load was with a Hornady 140 gr. Amax bullet and Hodgdon 4831SC powder. Again, excellent accuracy though slightly slower maximum velocity. Either of these loads should drill under 1/2" groups all day long for a skilled benchrest shooter (which I'm not).

Load #1 - Sierra 140 gr. SBT Game King #1730, CCI-BR large rifle primers, 38.0 grains VihtaVuori N-160 powder, EABCO/R-P Brass. Avg. velocity 2,496 fps. This load functioned well in the gun. Worst groups was 1". Best was 5/8" with a called flyer. MAX LOAD!

Load #2 - Hornady 140 gr. Amax #26332, CCI-BR large rifle primers. 39.5 grains of Hodgdon 4831SC powder, EABCO/R-P Brass. Avg. Velocity 2,401 fps. This load also functioned well in the gun. Shot 5/8" group with first attempt. Others 5/8-3/4 inch.

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Shooting Tips - being a nunting cartriage, the o.b brive is tested here with a nunting style rest. I use a Harris bipod front rest and a canvas sand bag rear. To keep the rubber bipod feet from binding on the bench surface, I rest them on two sheets of cardboard with wax paper sandwiched between. At the rear, I grip along the sides of the buttstock to hold it firmly against the sandbag and on target. I don't press my shoulder against the recoil pad though, just a light shoulder contact. Watch so you don't get hit in the face with the scope. Hold your breath and squeeze.

Chamber Preparation - To keep bolt thrust consistent (and minimum) dry the chamber by swabbing with acetone and then a dry patch. Fire a few times off target to dry any lube out of the bore and settle it down before shooting groups.

Final Comments - I'm always impressed with how easy 6.5mm BRM is to handload and shoot well. In this case, I set out to try two things I'd never tried before: A Sierra 140 gr. bullet with my usual VihtaVuori 160 powder. And Hodgdon 4831SC powder with my usual Hornady 140 Amax bullet. Both loads worked up and shot well without any finicky-ness or tweaking.

Remember, the advantage to this cartridge is how easy and comfortable it is to shoot well. Get out and practice a bit... you'll have fun, because you'll hit what you're aiming at and you can shoot all day without recoil discomfort.



Brown Custom TC Encore Rifle

500 Yard Accuracy 6.5 BRM Load Data Click Here

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