

Backboring And Muzzle Velocity Loss

Dear Technoid:

In a recent article in sporting clays a statement was made that for shotguns with overbored barrels some wads would not keep all the gas behind the wad. This, the author said would ruin the pattern.

Question? I shoot a Browning sporting clays special edition with back bored barrels. What wads will work best with this barrel?

Boyd

Dear Boyd,

I read Ed Mantuas' article. Ed worked for Winchester for many years and I certainly respect his opinion. But- I don't always agree with him.

I do agree with him that backboring is mostly just a marketing gimmick, but I do not agree that modest backboring will cause significant loss of muzzle velocity. The only way to really be sure about wad obturation, backboring or not, is to chronograph your loads on a warm day and on a cold one when the shells have been sitting outside overnight. Temperature alone will cause a decrease in muzzle velocity, apart from gas seal leakage, so make sure that you take that into account. In winter I use 3 dram loads, in summer 2 3/4 dram. That seems to keep things about even more or less. I doubt very much that you will find a significant difference that can be attributed to warm weather/cold weather gas seal variance.

Your Browning should have bores measuring around .742" vs the de facto industry standard of .725". This is an increase of about 4.74%. I seriously doubt if this is enough to matter at all- either in recoil, pattern or wad obturation.

If you don't want to do the work of chronographing, just poke through the wads mentioned in your reloading recipes and select the one with the deepest skirt. I would suggest a factory wad as the after market wads are often made of less flexible recycled polyethylene. Some of the after-market wad people say that they use virgin plastic so those should be OK too. I use after market Clay Buster brand clone wads quite a bit and have always been pleased. Big Three factory wads have always worked well too.

Mantuas says that "it is impossible to increase the bore diameter without decreasing the velocity of the ejecta and gasses." That is the exact opposite of what Stan Baker, the well known gunsmith, claims for his "Big Bore" .800" I.D. barrels. Stan claims an increase in velocity due to reduced friction and larger "pushing" area on the base of the wad. Stan (and Browning Japan, Krieghoff and SKB, but not Beretta and Browning Belgium) also claim improved patterns from guns with enlarged bores. I will let Stan and Ed duke this one with chronographs at twenty paces. I stand in the middle as I could never tell the pattern or velocity difference one way or another in

guns that I had backbored. I backbore my guns for one reason and for one reason only- to alter barrel weight and balance.

Best regards,
Bruce Buck
Shotgun Report's Technoid