



Bullet Fit in Revolvers

One of the most important factors in revolver accuracy is the bullet's dimension in relation to both the barrel's groove and cylinder's chamber mouth diameters. With a proper fit the revolver will be accurate, all other factors considered. An ill-fitting bullet will usually result in poor accuracy.

So, what constitutes a proper fit? The general rule of thumb pertaining to cast projectiles is that a proper fit in any rifled firearm is a bullet .001 inch over the barrel's groove diameter. For example, with a barrel measurement of .357 inch, the cast bullet should be .358 inch. However, occasionally cast bullets .002 or even .003 inch over the barrel's groove diameter can be used in a firearm without the slightest ill effect. In my personal experience, however, a cast bullet even .001 inch undersize for the barrel will result in very poor accuracy, and occasionally even tumbling.

But, then we must consider the cylinder. Ideally, the cylinder's chamber mouths should also be no more than .001 inch over the barrel's groove diameter. Sadly, that is not always the case. The 45 Colt caliber is probably the worst offender here. For instance, in every single second or third generation Colt SAA or foreign made clone that I have ever personally measured, the cylinder's chamber mouths measure .456/.457 inch, but the barrels in those guns are a tight .451 inch. On the surface then, a bullet for a Colt SAA 45 (or one of the clones) should be .452 inch. However, quite often a .452-inch bullet gives poor accuracy in such guns because the loose fit in the chamber mouth allows it to enter the barrel's forcing cone cocked off its axis.

For a bullet to properly fit those 45 Colt cylinder chamber mouth dimensions it would have to be .456 inch, but making one swage down a full .005 inch when passing through the bore seems like a bit much. Therefore, I compromise in my personal reloading for Colt SAA and clone 45s by loading bullets in .454 inch. The increase in accuracy is noticeable, while the increase in pressure is not. For those 45 Colt revolvers whose makers are aware of this mismatched dimension problem and cut their cylinder chamber mouths at .452 inch, then that is also the correct size for the bullet.

My own very rough rule of thumb concerning bullet fit is as follows. Take your cylinder from the revolver, and from the rear end drop your intended bullet into a chamber. If it falls all the way through and bounces off your toe, then it is too loose a fit and probably will not be accurate. On the other hand if the bullet hangs up in the chamber with just the nose protruding from the cylinder front then most likely it will give good accuracy.

— *Mike Venturino*

