

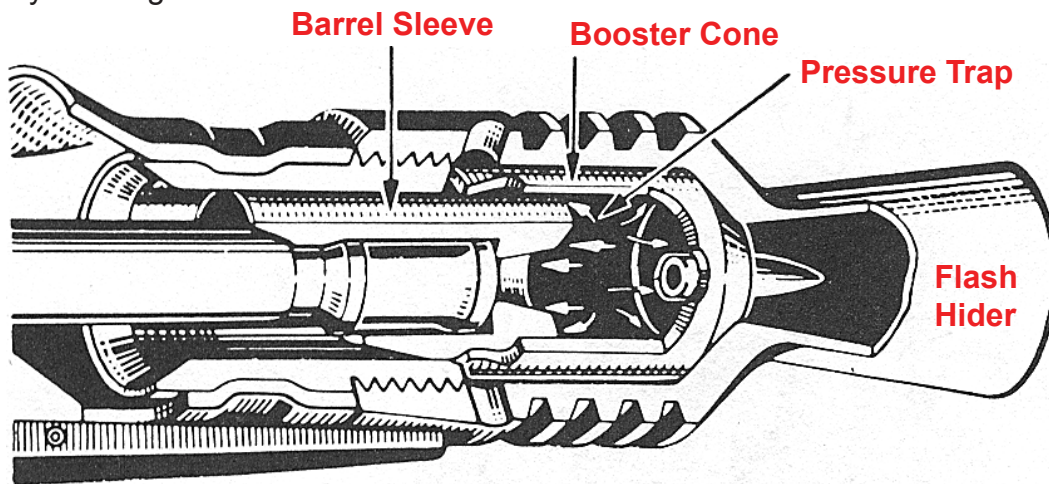
MG42SA Bolt Setup

The rear spring support area of your MG42SA bolt is very thin and hard. Any impact of the bolt carrier on the buffer assembly will cause it to break in this area. To prevent damage to the rear spring support area of your MG42SA Bolt you must do the following:

1) Slow the gun down to compress the buffer spring less:

A gun firing from the closed bolt will have more bolt acceleration at the moment of firing so less pressure / short recoil energy is required to properly cycle the action. To reduce wear and potential breakages, only channel just enough energy back into the system to properly cycle the action.

The MG42 is a Short-Recoil operated gun. When the bullet reaches the muzzle, the recoil and excess propellant gases enter the booster area and drive the barrel rearward against the mainspring and barrel return piston (recuperator). This movement forces the bolt locking rollers against the trunion to unlock the bolt and allow it to reciprocate in the body of the receiver. The 308 cartridge is slightly weaker & lighter than the 8mm cartridge and more cycling / booster pressure may be necessary to properly cycle the gun.

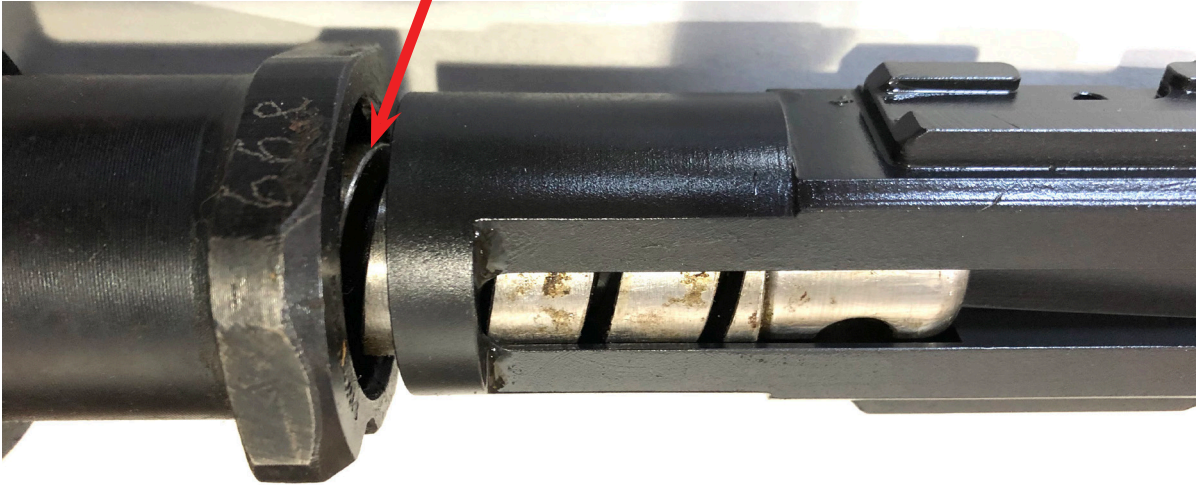


The 308 booster sets and German WW2 pattern booster sets have less internal volume and smaller diameter exit holes for these gasses to expand compared to Yugoslav M53 booster sets. These shapes restrict more pressure in the booster assembly compared to the M53 booster sets thereby driving the barrel rearward with more force. The barrel sleeve portion of the M53 booster set is also shorter compared to the German sets which in turn relieves more pressure at the front resulting in a weaker short recoil stroke and less bolt speed. Typically you can just use the M53 booster sets to run both 308 and 8mm. Use German MG42 or MG3 booster parts only if necessary to increase cycle pressure. If you want to use and MG3 flash hider / booster cone piece, you may have to drill out the front hole up to .5".

To determine the amount of booster pressure you'll need to properly cycle your gun, you should fire some single shots with the standard M53 booster set to see if your gun cycles properly. If the gun fails to eject the spent case, more pressure is needed to cycle the action and other booster parts should be substituted to increase pressure.

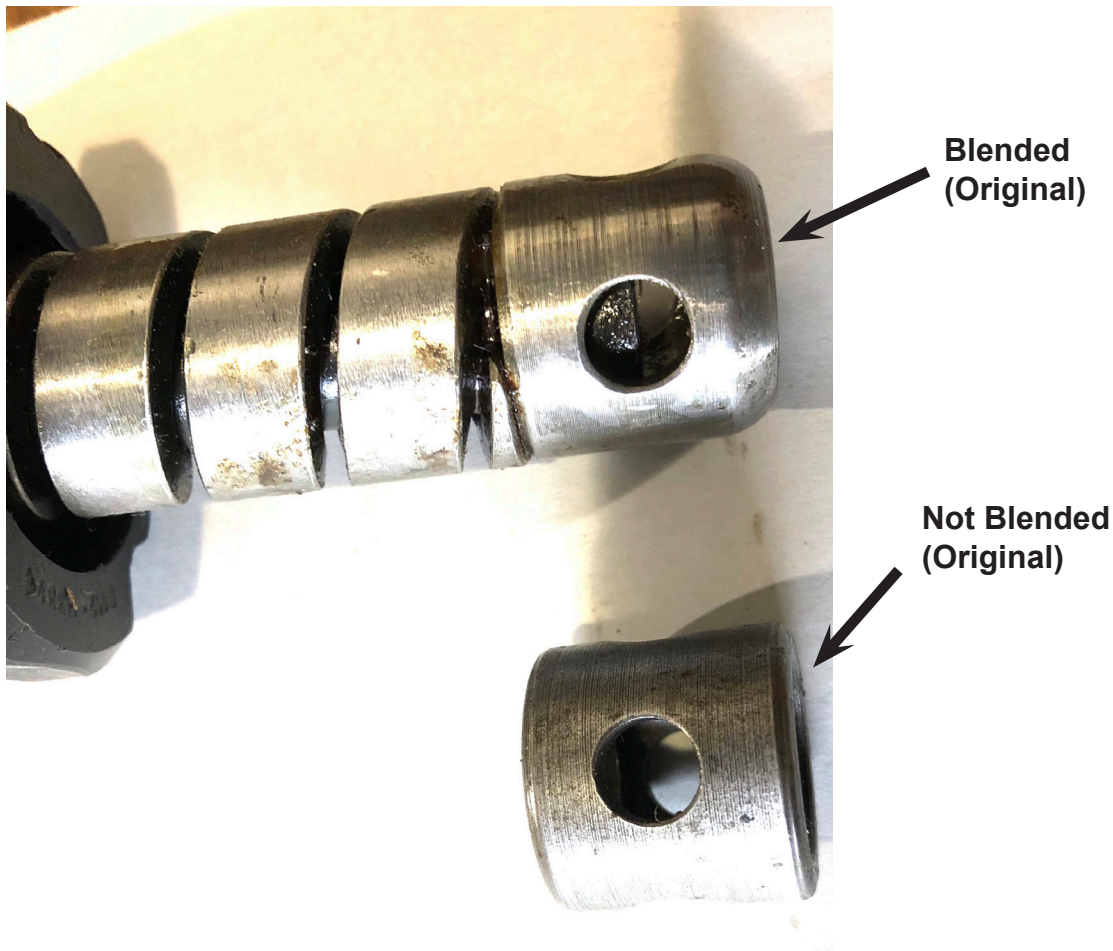
If the system cycles too hard with the M53 booster set, as can be felt by the shooter and seen in majorly deformed spent cases, the overall pressure in the system can be reduced by loosening the flash hider 3-5 clicks by lifting the spring loaded lever. With some guns, it may be necessary to drill out Yugo booster cone beyond the 13mm standard in order to further reduce cycling pressure.

Bolt to Buffer Compression Gap



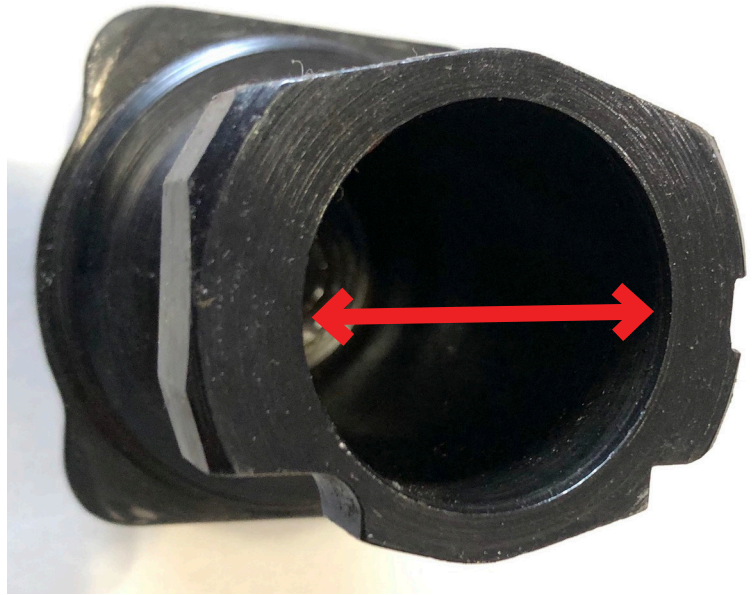
2) Shape the buffer tip:

- Unlike with the full auto MG42/53 bolt, the buffer must guide into the ID rear of the semi auto bolt carrier. Make sure that the tip of the buffer is sufficiently blended to guide smoothly into the rear of the semi auto bolt carrier. Some original buffer tips already have this shape



3) Increase the ID bore of the buffer to **1.4"**

- Some buffers are shorter than others, some buffer springs are weaker than others, and some inner bore diameters are smaller than others. It is important to make sure that the rear OD of the bolt carrier can clear the ID of the buffer housing. We've found that this can be done easily with a Dremel and a carbide burr. You only need to go down .25".



4) Add a divot on the buffer screw to clear the firing pin.

- The rear of the firing pin is almost the same diameter as the screw slot width of the buffer screw. Add a divot with a ball mill or drill so the firing pin cannot get stuck in this slot. We typically just do this on a lathe with a 3/16" or 1/4" ball mill.

