



Remington 700 Rebuild

.243

Dec 2007 – Jan 2008

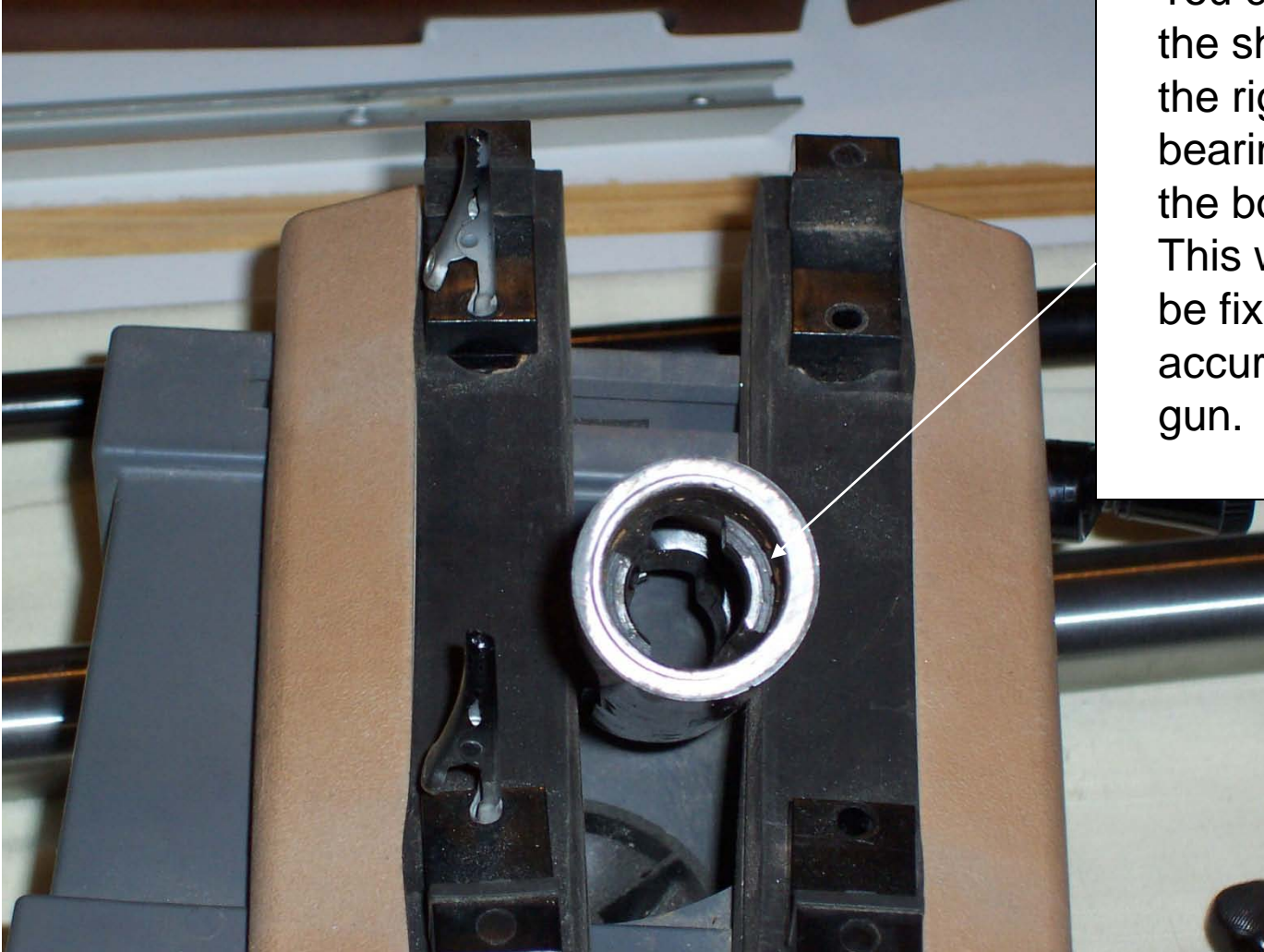
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Rifle Torn Down and Ready for Rebuild

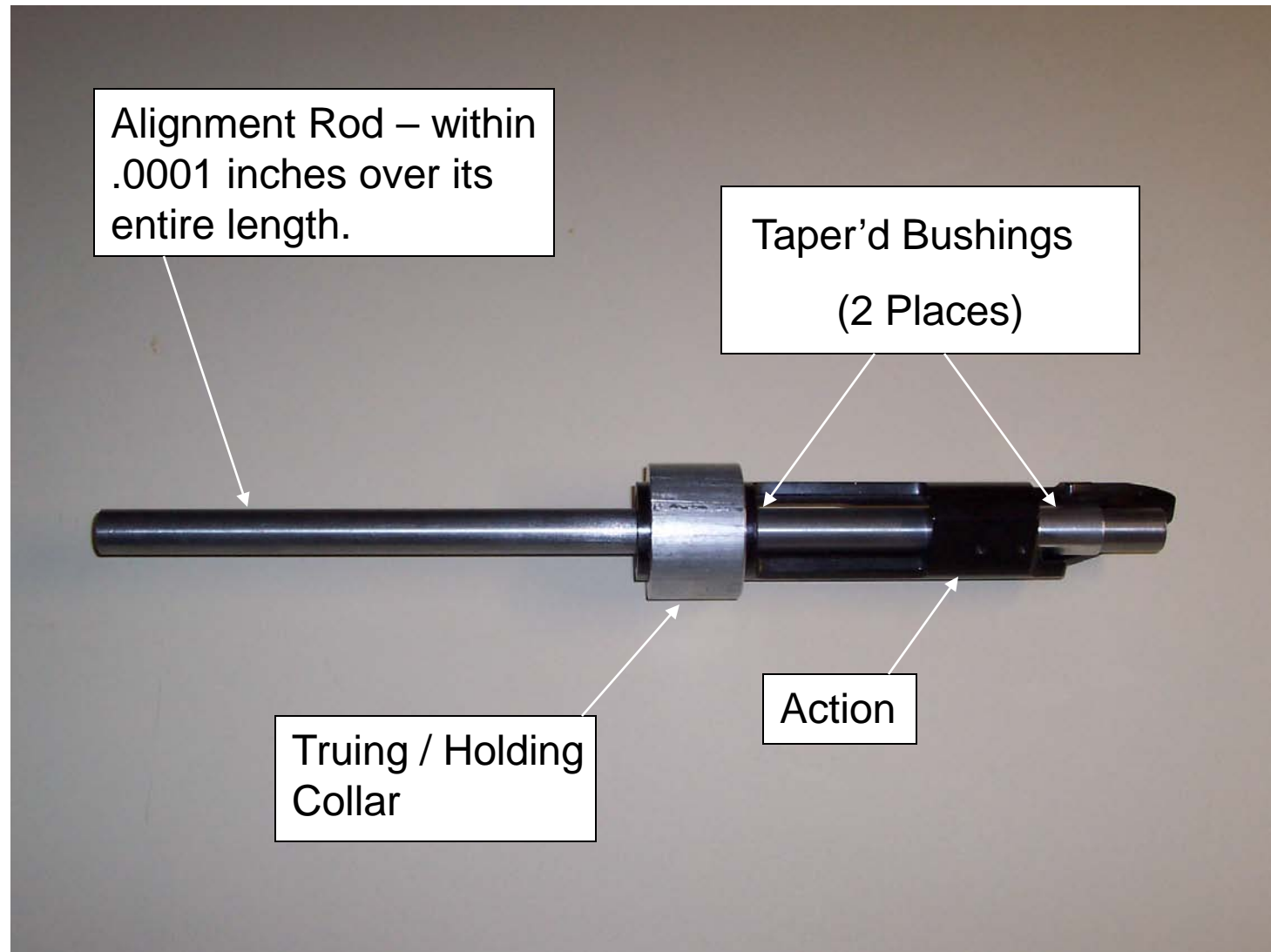


Look at Shoulders in the Action.

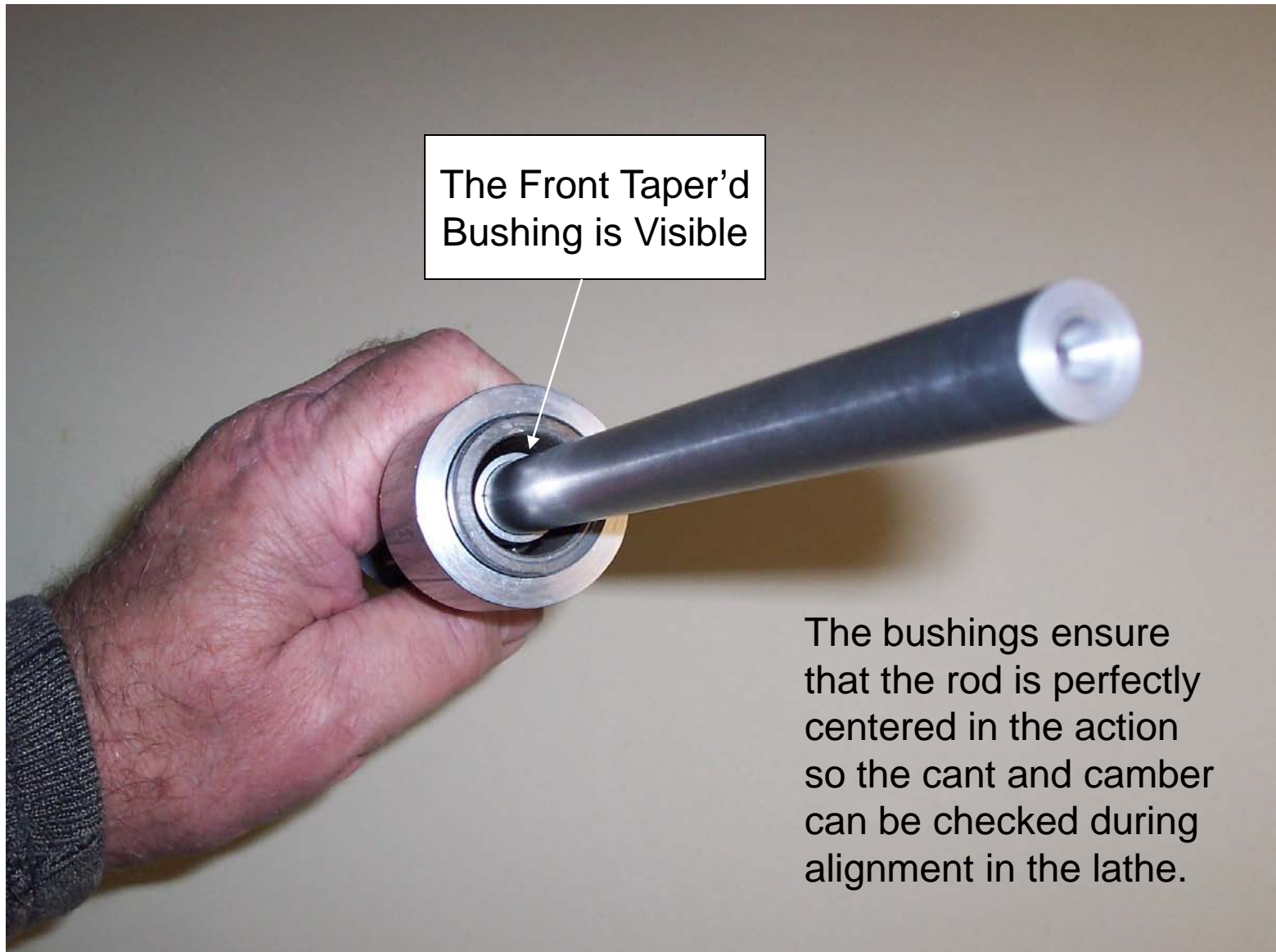


You can see that the shoulder on the right has been bearing most of the bolt lug load. This will need to be fixed to improve accuracy of this gun.

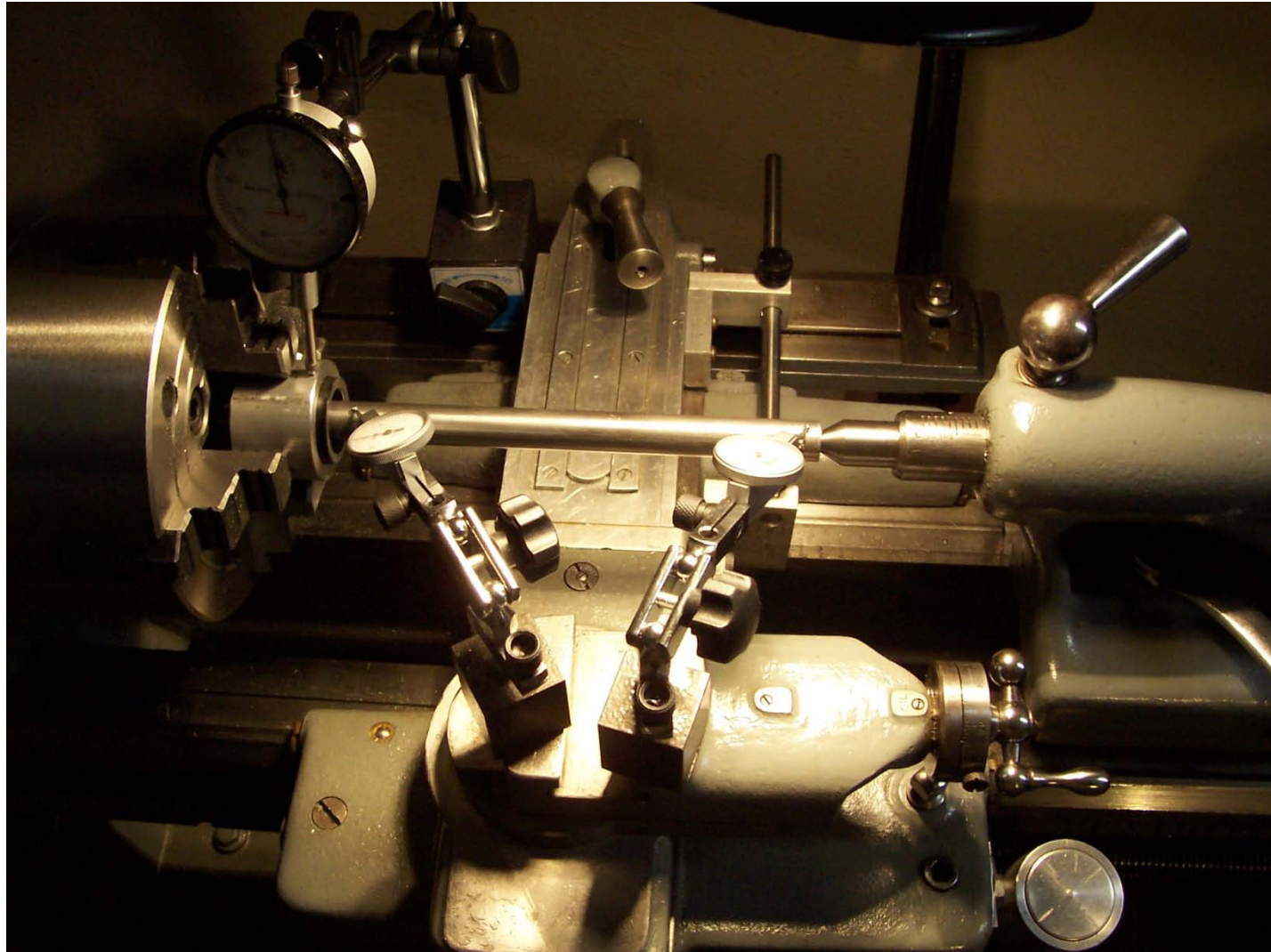
Action Blueprinting Jig



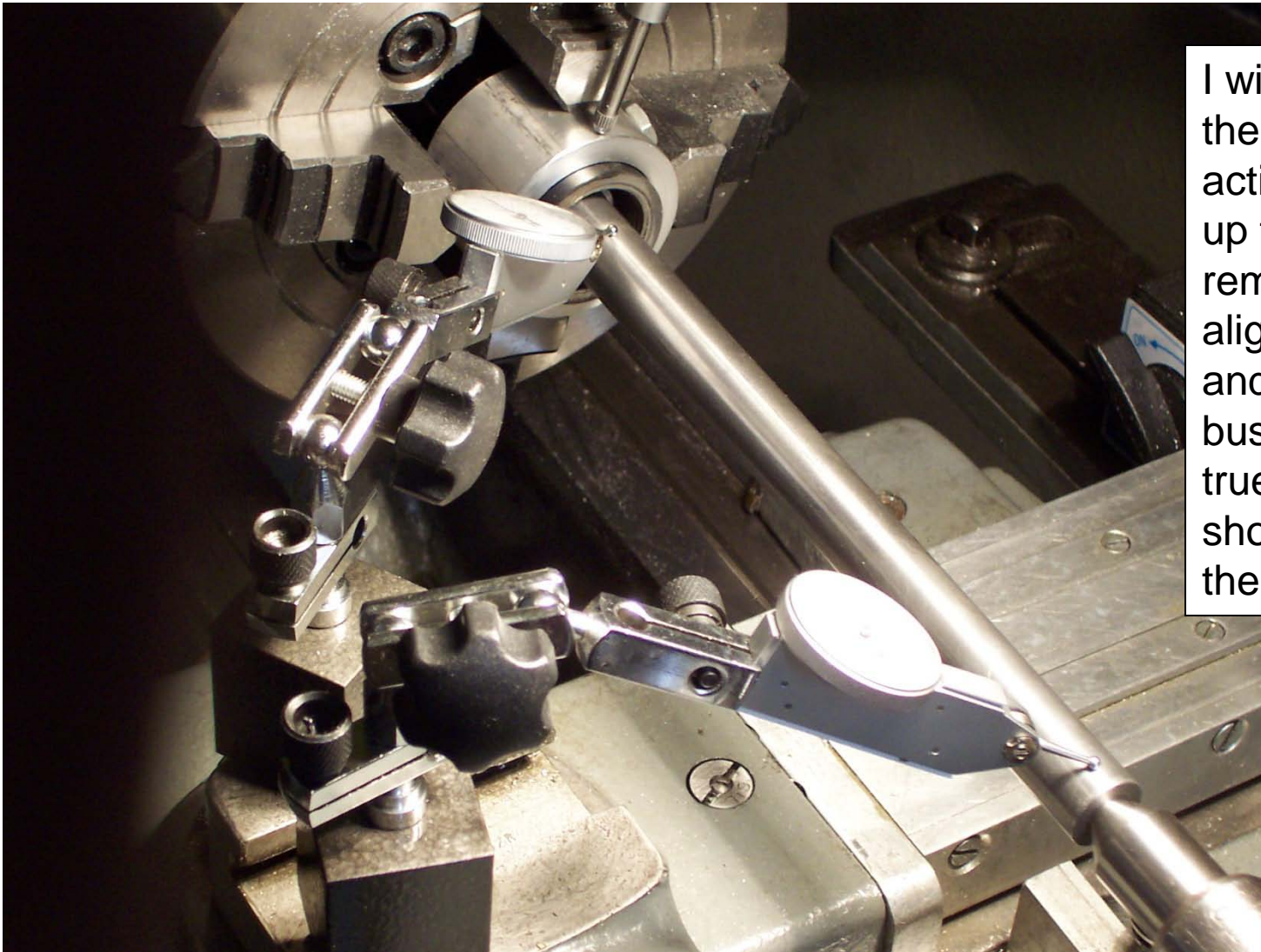
Inside View of Alignment Jig



Action Setup and Alignment in the Lathe

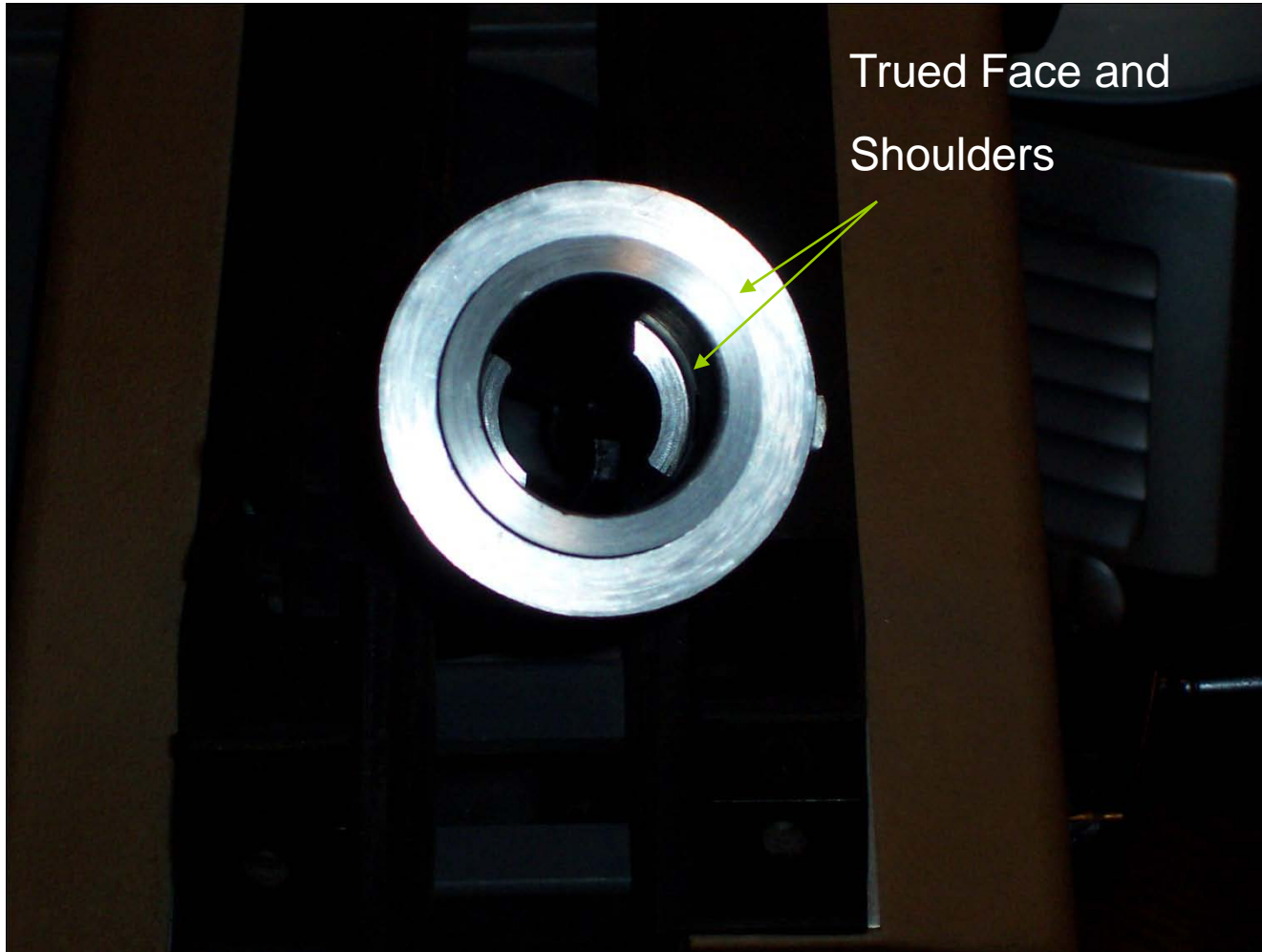


Ready to Turn



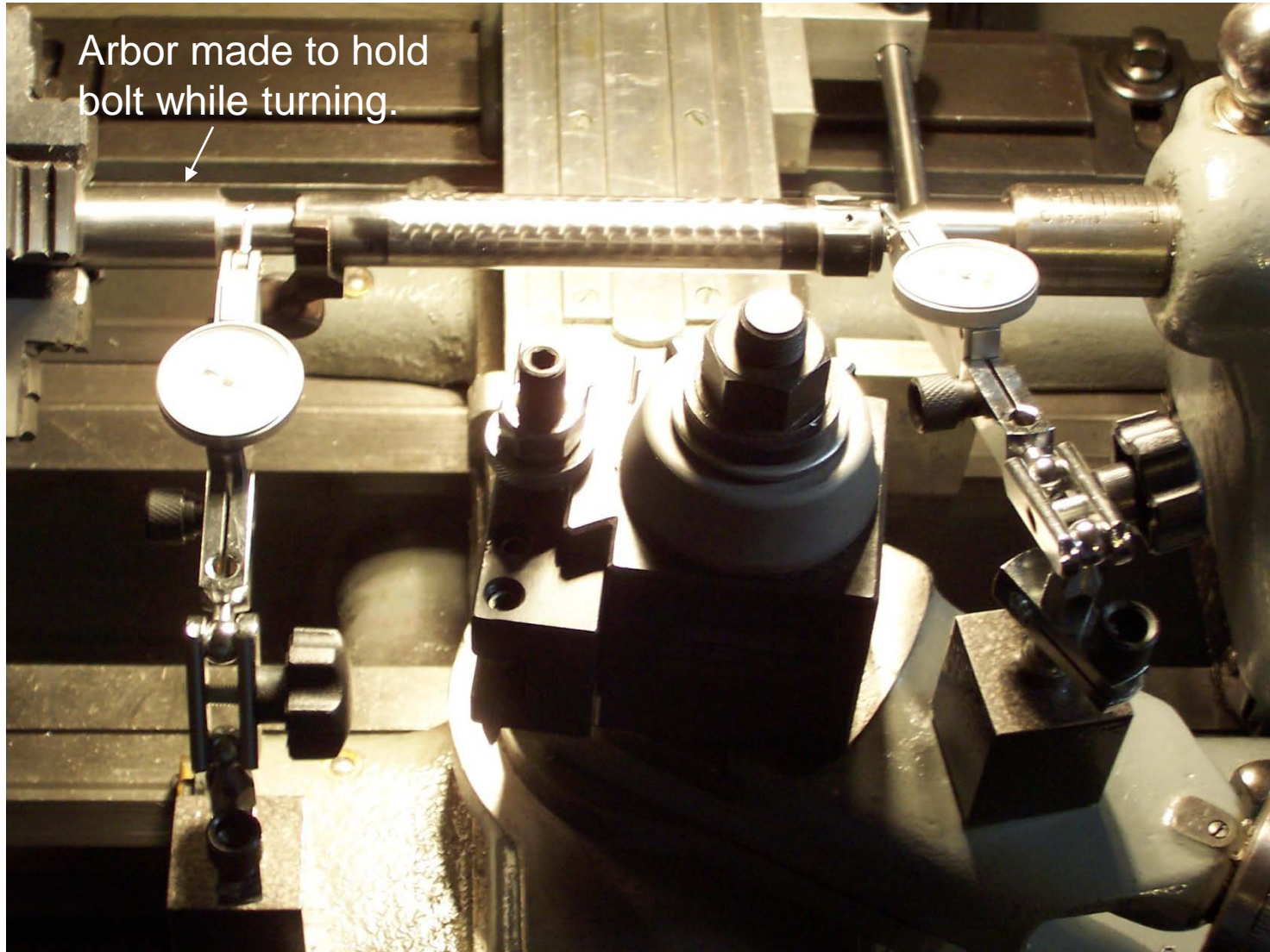
I will now turn the face of the action to true it up then I will remove the alignment rod and the taper'd bushings and true up the shoulders inside the action.

Trued Face and Shoulders

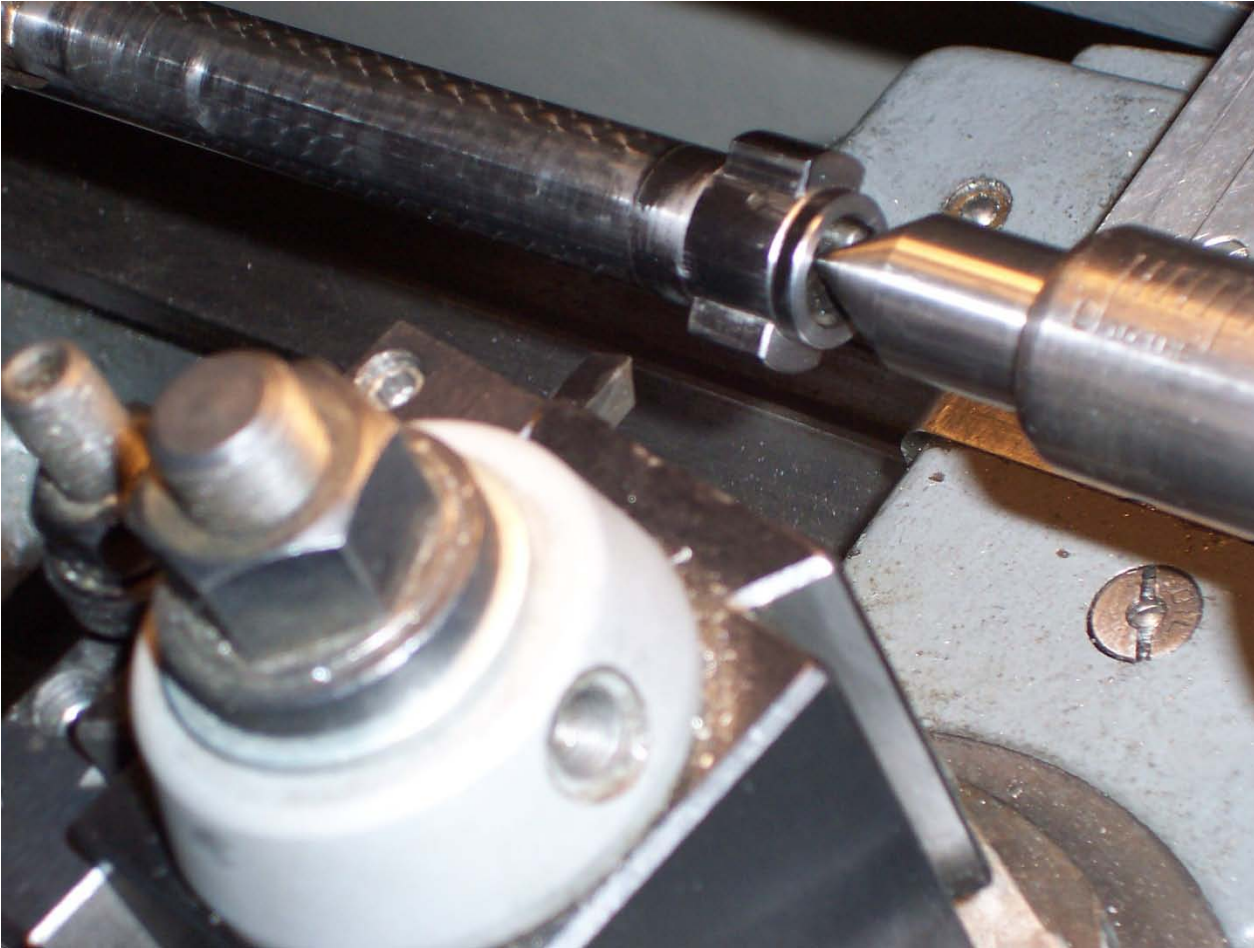


Removed .003" from action face and .002 from shoulders. Action sides remain untouched. Action is now ready for lapping in the lugs once the bolt lugs are trued up. I use anti-seize compound to verify 100% lug engagement.

Bolt Setup



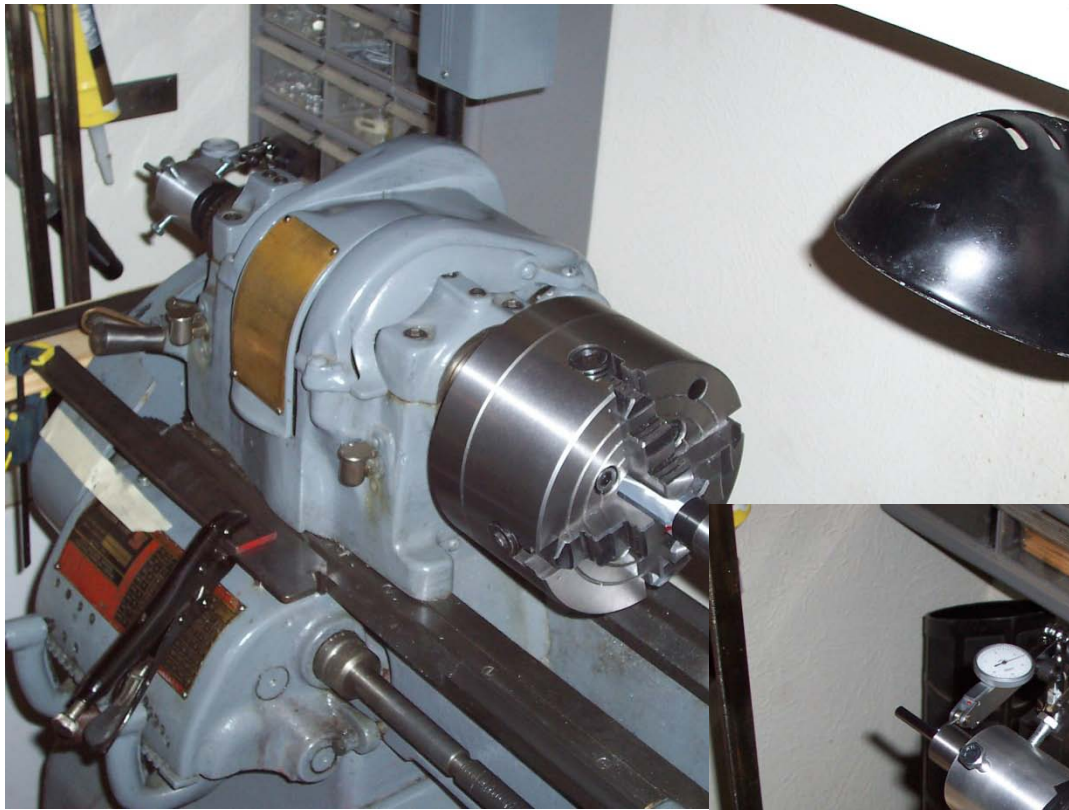
Trued Lugs and Bolt Face



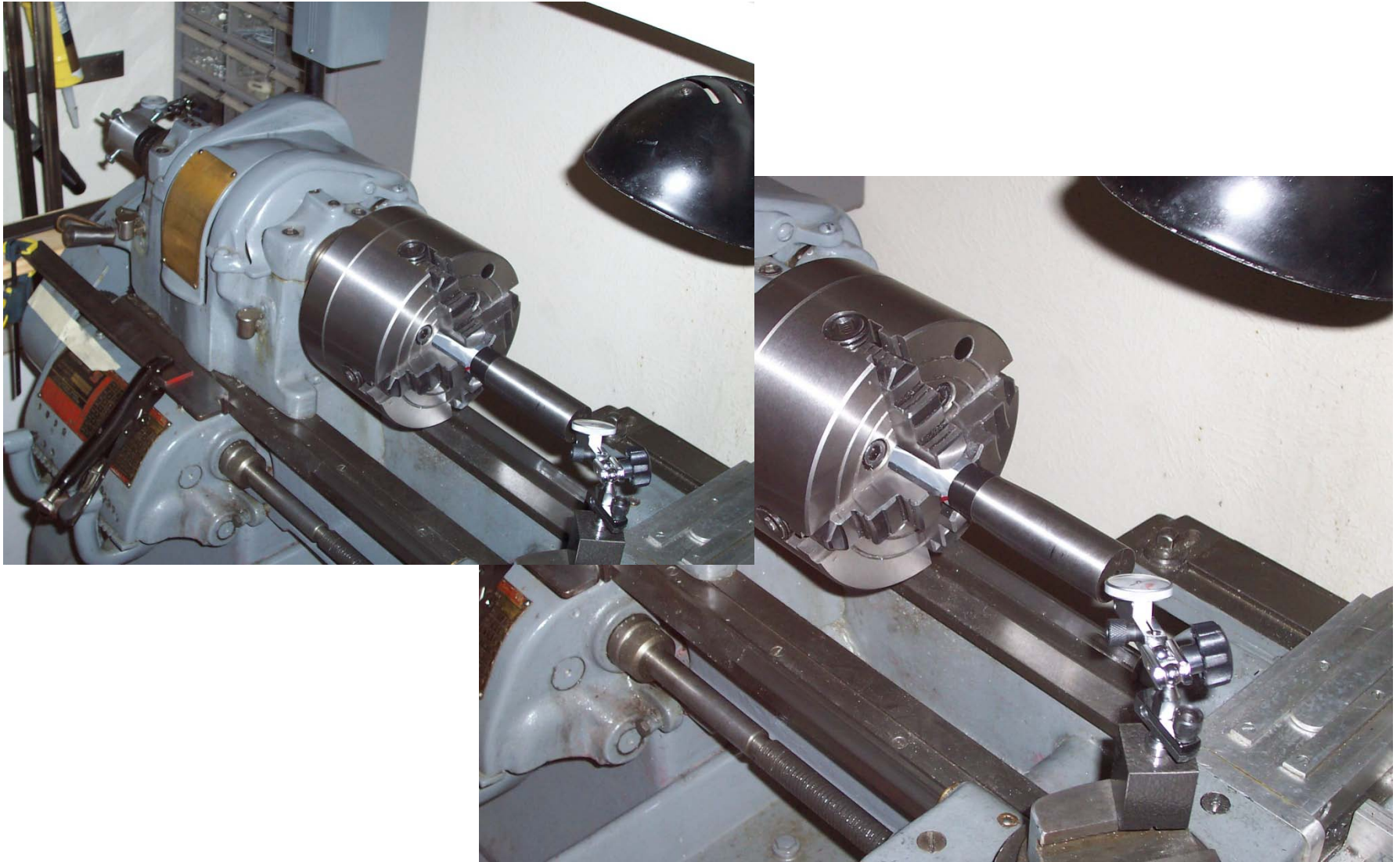
After I turned the bolt face, and both sides of the bolt lugs, I lapped them into the action to ensure that there was a 100% lug fit with the action shoulders. They look real good after lapping. The new headspace is 0.950". I am now on to turning the shank, threading, inseting, and chambering the barrel.

Barrel Setup for Bench-rest Quality Chambering

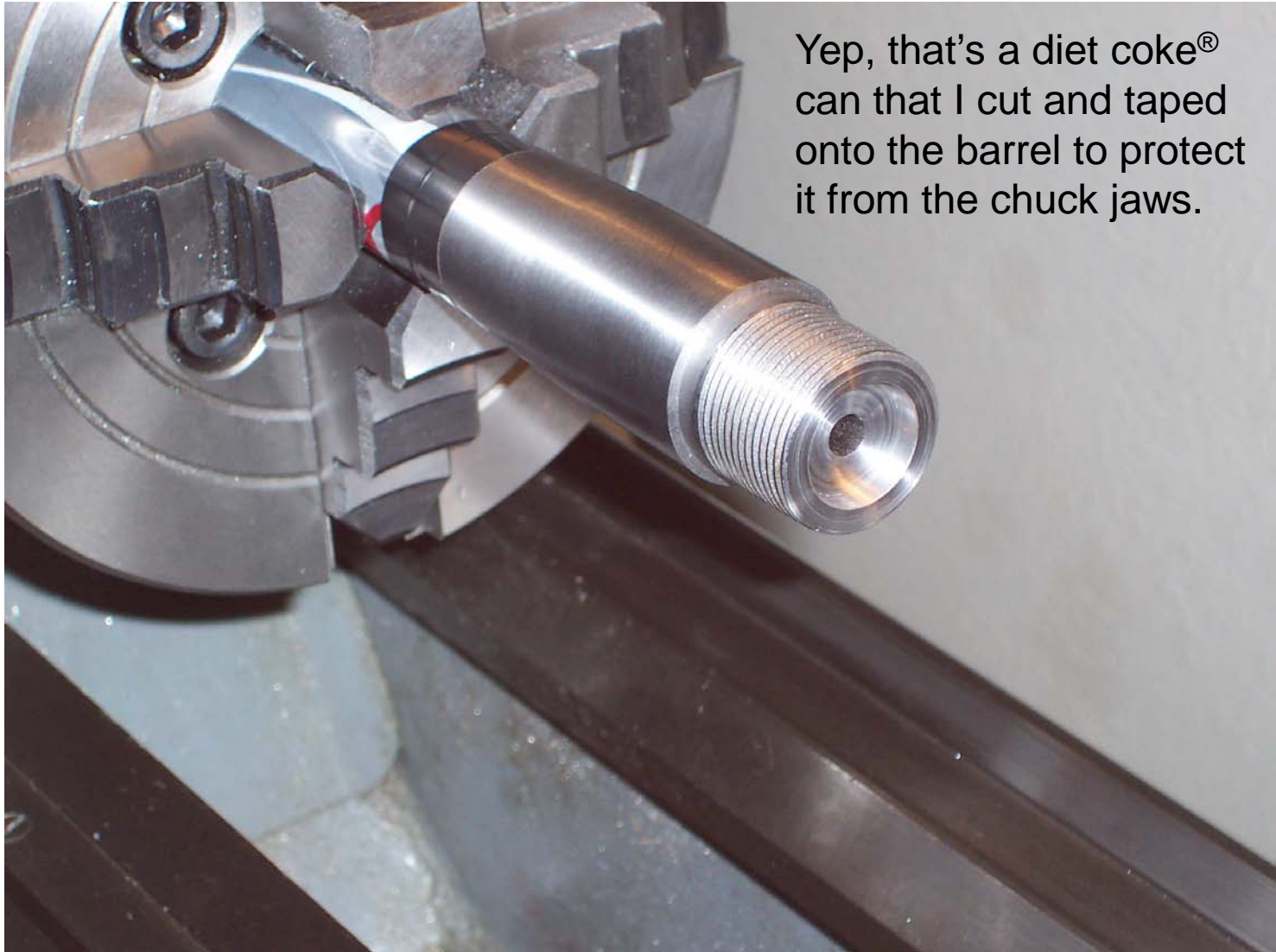
I try to get the bore run-out within $.0001''$ at both ends of the barrel and check to make sure I'm not stressing or bending the barrel in any way by using an o-ring on the spider – the electrical tape holds it in place so spider will flex if barrel is stressed.



Barrel Setup for Bench-rest Quality Chambering – setups take longer than the actual turning



Barrel Shank Turned, Threaded, and Inset



Yep, that's a diet coke[®] can that I cut and taped onto the barrel to protect it from the chuck jaws.

Test to Make Sure Bolt Drops Freely (Barrel is now ready for Chambering)



Barrel Chambering

- I use a floating reamer guide to chamber the barrel
- I have made a special round handle that I attach to the reamer and hold while reaming so I can tell if it's dragging
- I never back out a reamer with the lathe running – I simply let go of the handle when I reach my depth which rotates the reamer – I then stop the lathe, back off the tailstock, and remove the reamer
- After each cut (0.100 at first and then later 0.050 until nearing headspace dimension) I remove the reamer, blow it off, blow out the chamber, dip the reamer in mineral spirits to clean it thoroughly and then dip it in cutting oil
- I place the reamer into the chamber, carefully run the tailstock up to it and crank it in until the tailstock moves backward and is at a zero indicated on the dial where I tighten it down
- I then back the tailstock cut setting off slightly and pull the reamer back to the reamer guide mounted into the tailstock, turn on the lathe while holding the round reamer handle and run it in to the proper depth using the tailstock.

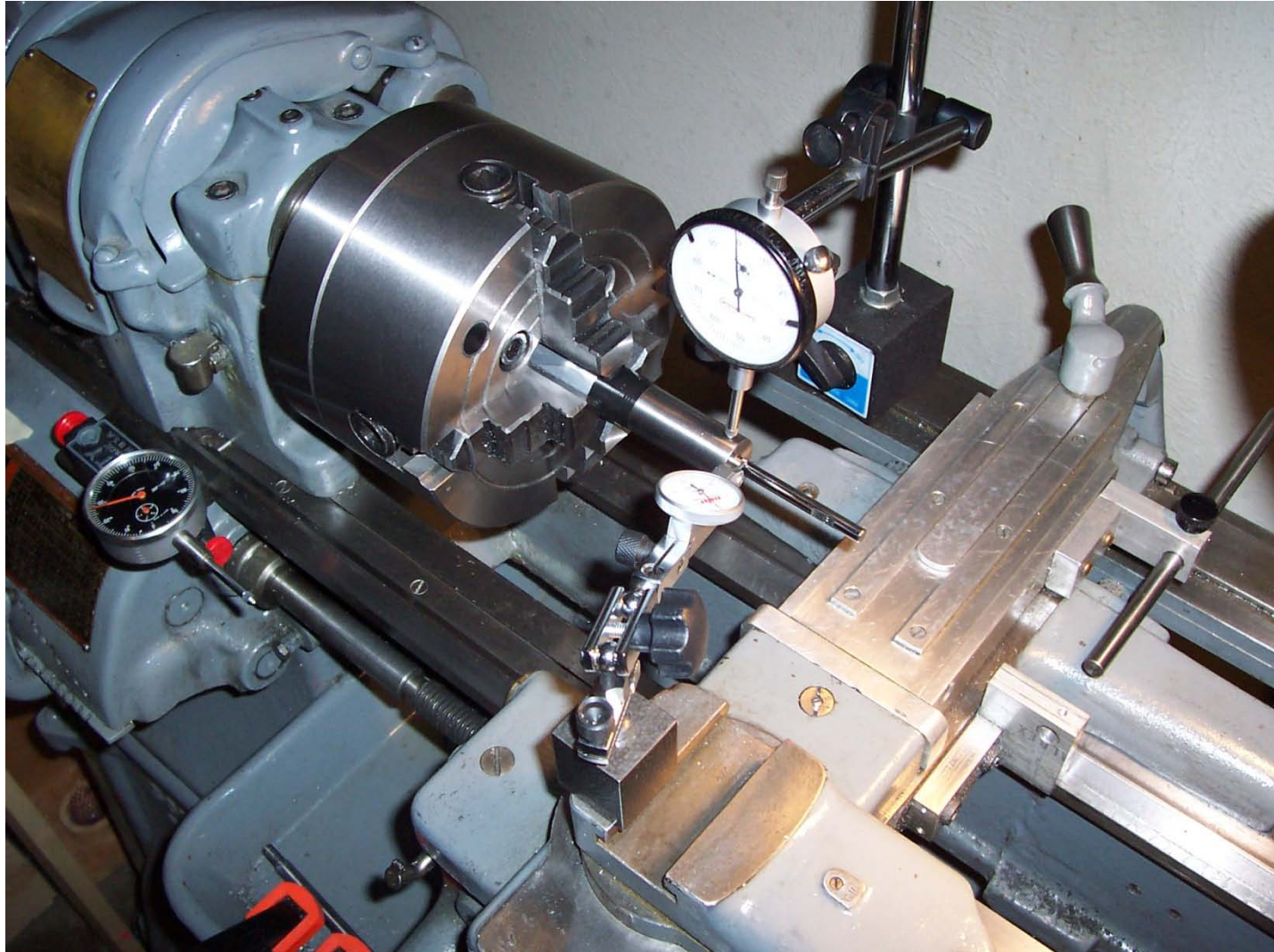
Barrel Chambered



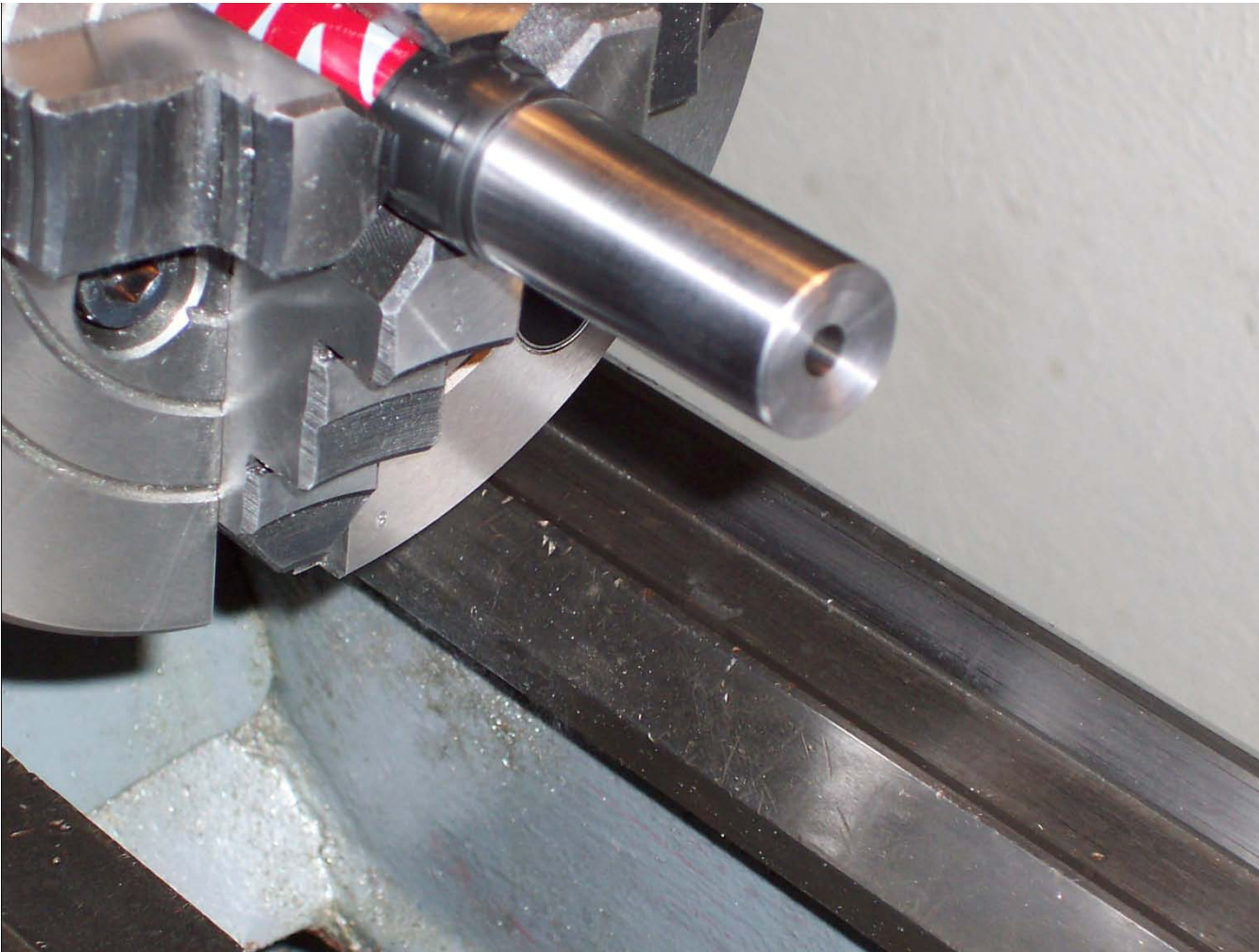
Headspace Measurement



Setup for Crowning Barrel

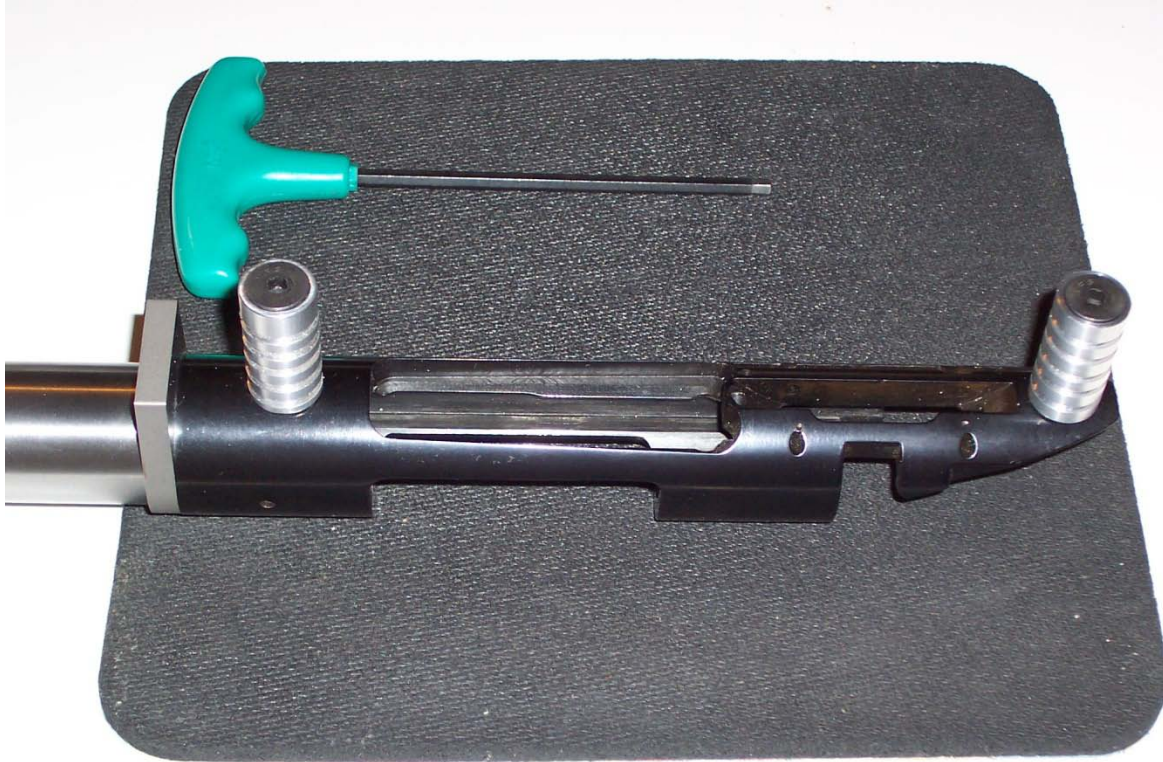


Eleven Degree Crown Cut



I use a cotton swab to ensure that no burs were caused when cutting the crown. A little cleanup and this barrel is now ready for installation.

Pillars for Pillar Bedding



Made pillars and bolts to fit the action and stock to provide on metal to metal action insertion. Special flat head bolts were made to ensure accurate action lockup in the stock.

Pillars Installed



Stock milled to accept pillars and pillars glued into the stock with action aligned and pillars bolted to action. After pillar bedded, I glass bedded the stock –with Acraglas®. I then milled out the stock to accept the magazine and the new trigger (not shown).

Ready to Shoot



Well, I've finished fitting and installing everything –lots of detail work getting it all to fit properly. It's now ready to take to the range to make sure it shoots well and to break in the barrel.

Another Shot of Ready to Shoot



The Harris Bipod is their top line tilt model and the trigger is Jewell's best HVR trigger. Hope it shoots as good as it looks.