

Cross slide nut modification

This is working for me on my Grizzly 7x12/24 so I thought I would pass it along to maybe help others. I was having problems maintaining the adjustment of the lead screw nut for the cross slide. While adjusting it a while back I noticed that no matter what I did, there was still slop in the cross slide travel. I have no movement of the cross slide lead screw since it rides in pre loaded ball bearings since I did my CNC conversion. If you study the cross slide nut mounting arrangement, (Photo 1) you will see that it is held in place by two 4mm SHCS (Socket Head Cap Screws) and rides on a 4mm set screw in the middle. Therein lies the problem, the nut is 'floating' on that center set screw which adjusts the center height of the nut and held in place by the two SHCS. I noticed the heads of the SHCS moving in the cross slide when I changed directions of cross slide movement.

Here is what I did to fix this problem. I removed the nut, and created a dimple where the set screw contacts the nut using a #2 center drill. I went deep enough to create a tapered recess slightly larger than the set screw (Photo 2). I put the nut back on the cross slide using two new 4mm x 10mm SHCS and adjusted the screws as necessary. The new slightly longer SHCS grab more threads in the nut and at least on mine do not interfere with the lead screw. The set screw now fits in the dimple (Photo 3) and keeps the cross slide nut located in one place. Adjustment was easy, backlash is almost non existent, at least for the last two weeks, and I am a happy camper.

If this works for others, this may be a solution to a problem that has long plagued these 7x imported lathes. I look forward to hearing your comments and whether it works for others.

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Photo 1: Normal cross slide nut

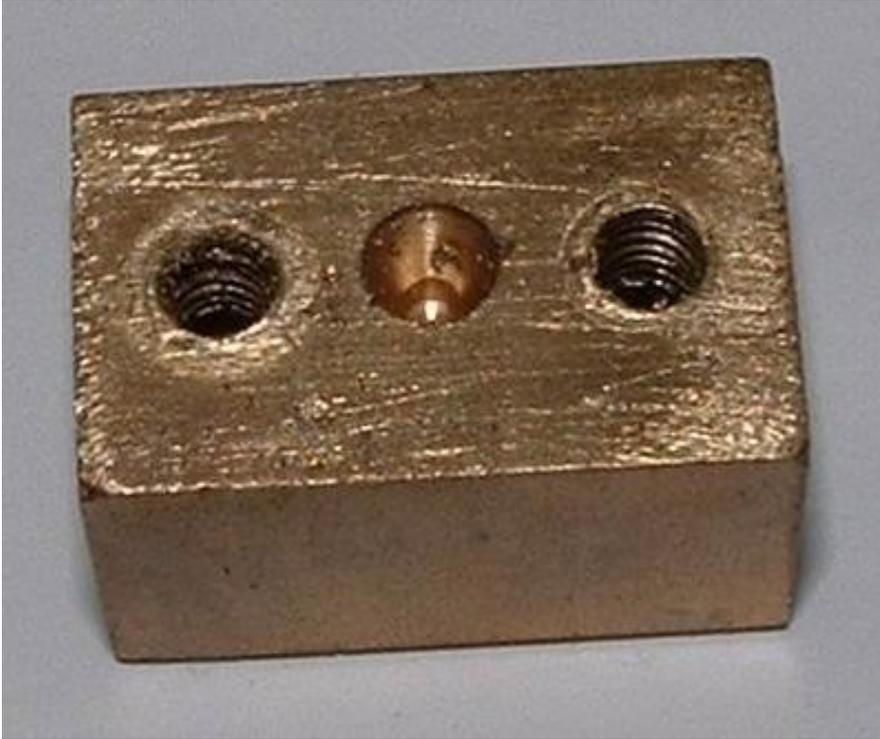


Photo 2: Modified cross slide nut

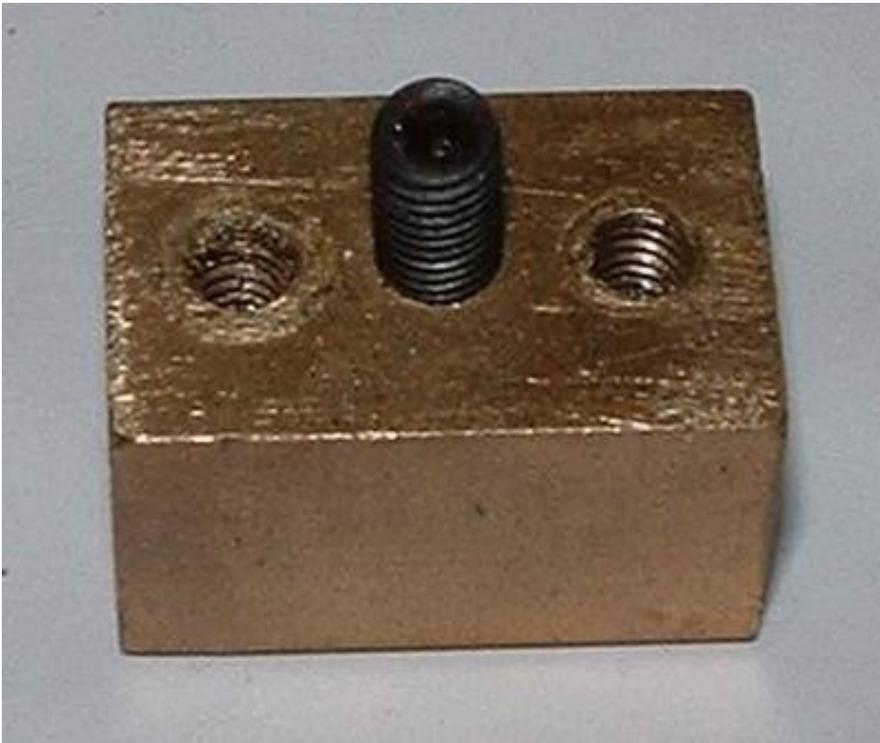


Photo 3: Modified cross slide nut with center set screw

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All ideas, procedures, modifications and whatever is described or shown here is to be used at risk of the reader.
Take care and work safely.