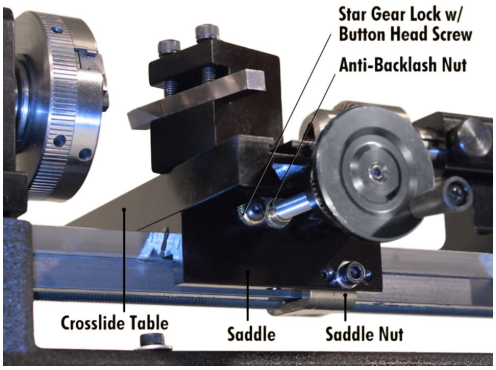

SHERLINE PRODUCTS
INCORPORATED 1974

Lathe Crosslide Assembly (Troubleshooting)

These instructions are for people having trouble assembling the crosslide to the lathe.

Crosslide, Gib, Slide Screw, and Backlash Assembly

Below are pictures showing the sequence for taking the crosslide and handwheel/screw assembly apart. These pictures are followed by more pictures for proper assembly.

Please go one step at a time.

1. Loosen the locking wheel on your adjustable handwheel so you can turn the number collar.

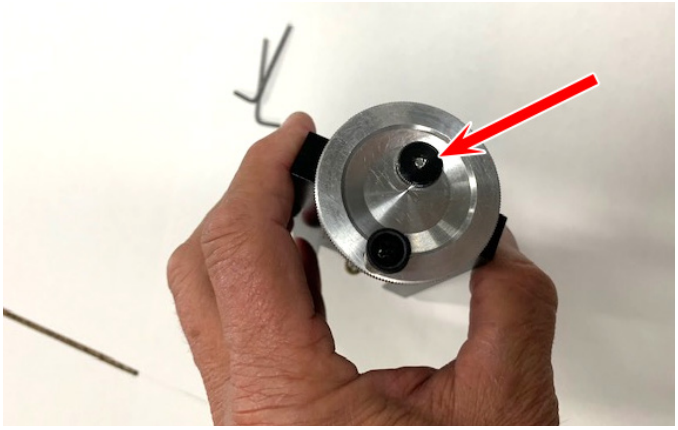

FIGURE 1

2. Turn the collar until the access hole lines up with the set screw.

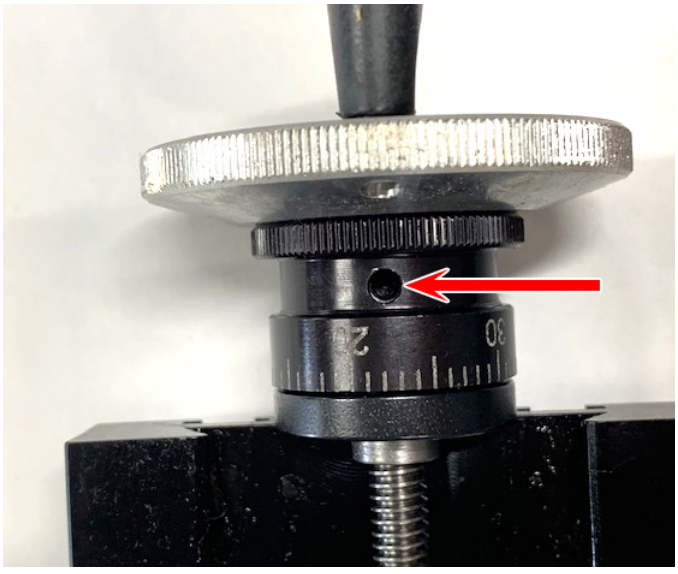

FIGURE 2

3. Loosen the set screw, back it out a few turns, and remove the handwheel from the slide screw.

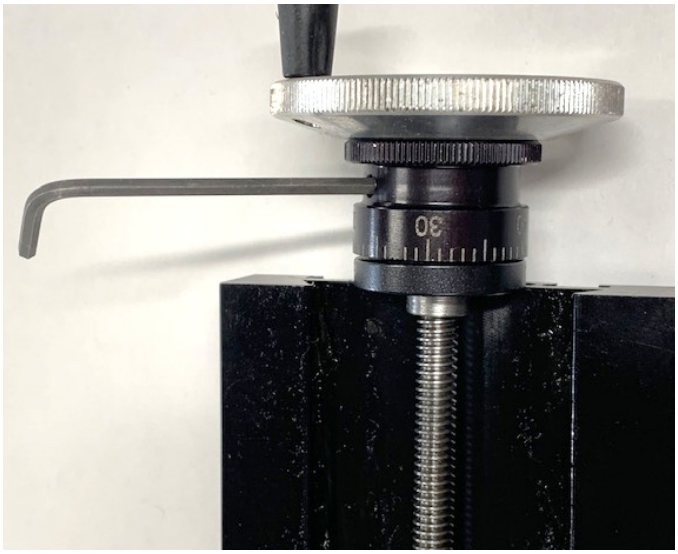

FIGURE 3

4. There may be a shim washer on the face of the thrust collar. Take care not to lose it.

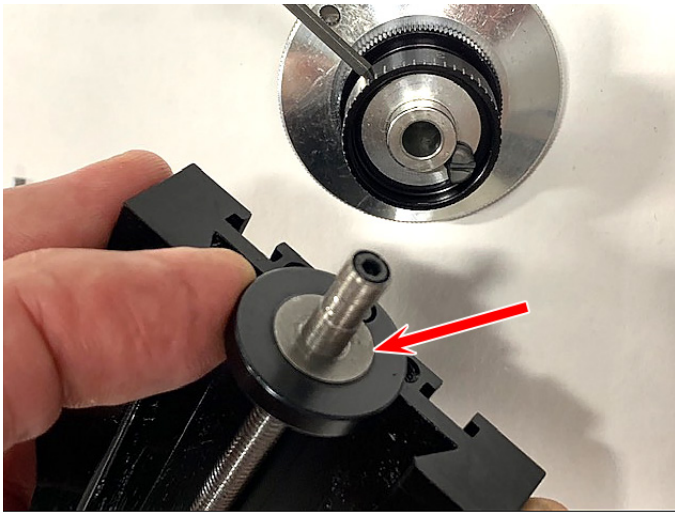

FIGURE 4

5. Remove the slide screw from the thrust collar.

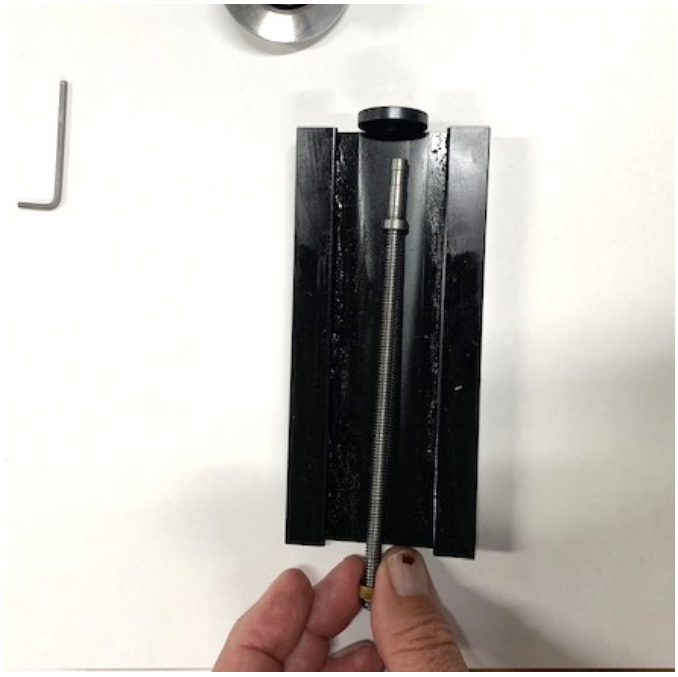

FIGURE 5

6. Remove the thrust collar from the crosslide.

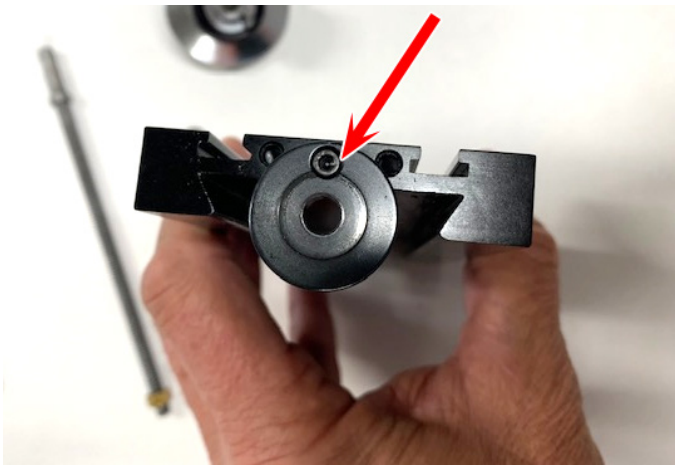

FIGURE 6a

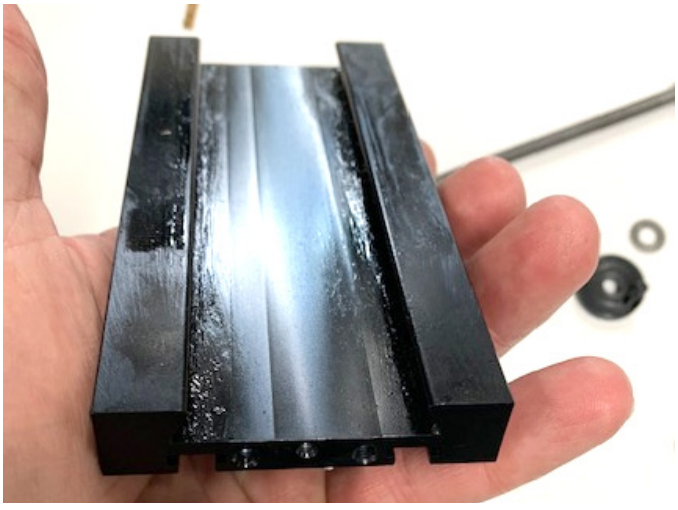

FIGURE 6b

7. This is what your lathe saddle, gib, and slide screw nut should look like. Make sure that the slide screw nut is recessed into the lathe saddle as shown, and that it has not come loose and moved out toward the front of the hole.

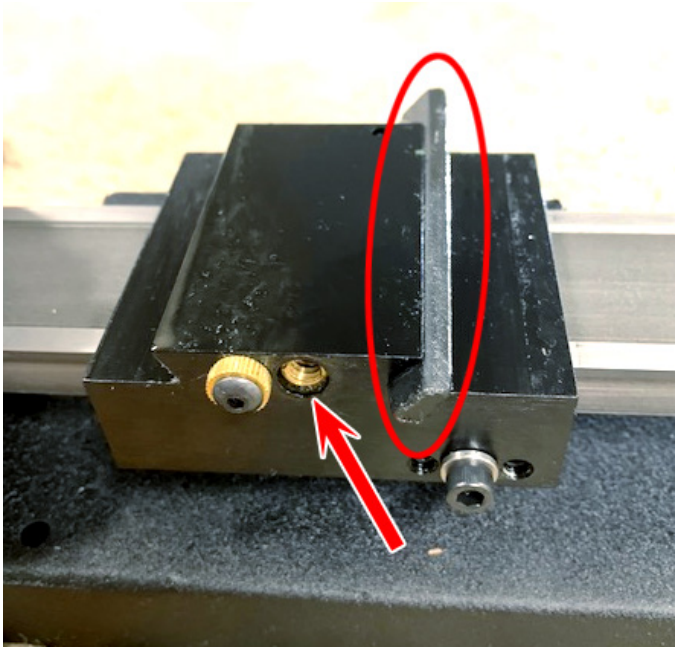

FIGURE 7

8. Assemble the crosslide to the saddle. Start by aligning the 60 degree dovetail opposite of the gib first (with the crosslide at a slight angle). Then wiggle the crosslide onto the gib side. Then push and pull the crosslide back and forth. It should move smoothly. You may need to loosen the gib fit a little. If the crosslide moves back and forth smoothly, then the crosslide fit is fine.

FIGURE 8

9. End view of the assembly.

FIGURE 9

10. Remove the anti-backlash locking wheel.

FIGURE 10

11. Thread the slide screw into the slide nut (see Figure 11a). Make sure that the anti-backlash nut has the step side facing the lathe saddle (see Figure 11b). The slide screw should thread into the slide nut with relative ease (see Figure 11c).

FIGURE 11a

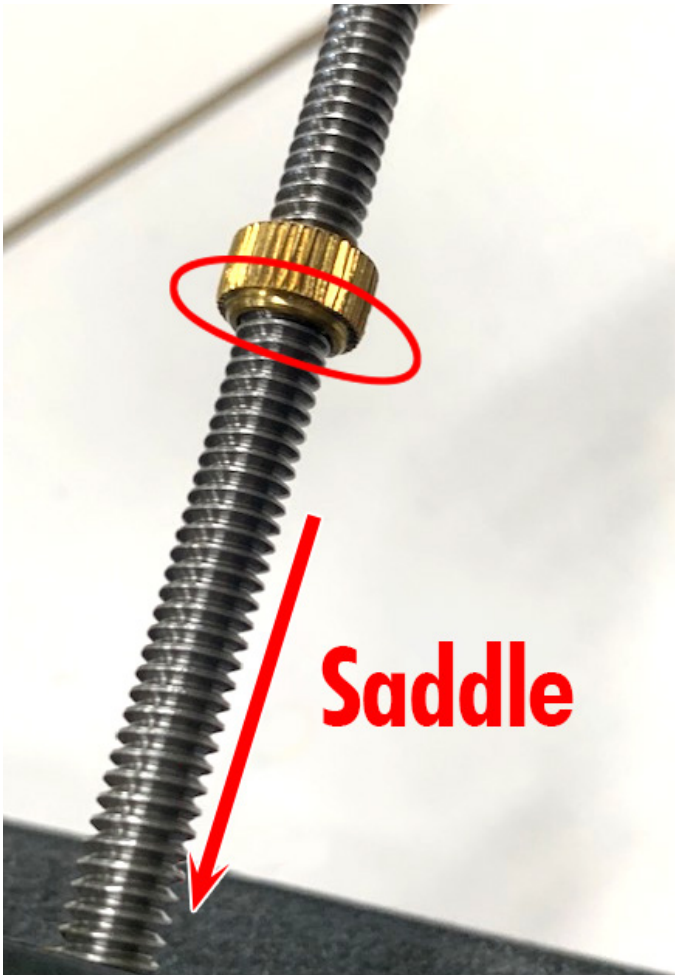

FIGURE 11b

FIGURE 11c

12. Thread the slide screw all the way in until the step on the anti-backlash nut is flush with the saddle. Once it is flush, hold the nut by hand so it can't turn and then turn the slide screw to see how tight it is. At this point, you can tighten or loosen the fit just by turning the anti-backlash nut by hand. This will give you a feel for how tight you want the backlash to be.

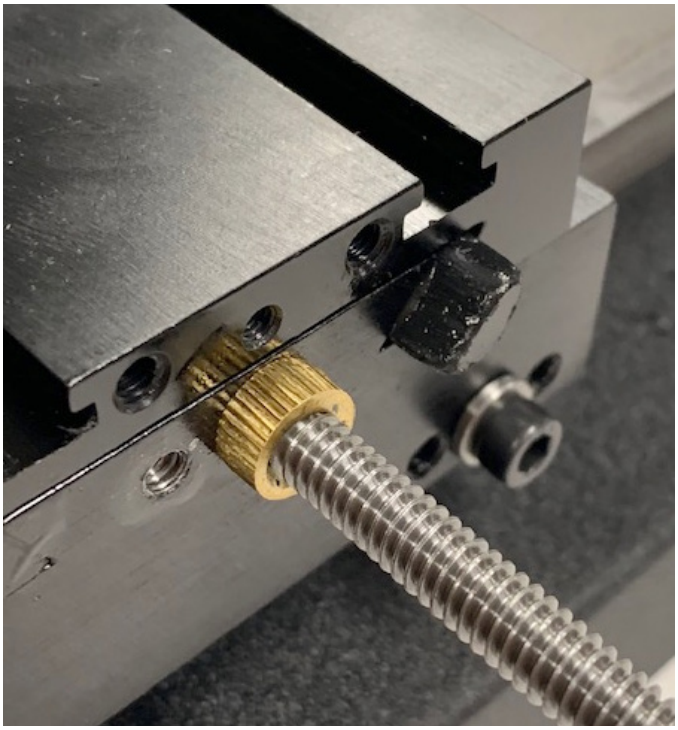

FIGURE 12

13. Once you have the backlash fit where you want it, put the anti-backlash locking wheel back on the handwheel. The screw may be a bit hard to start. Play with it. Once the screw is in, lock it in place and then turn the slide screw to check the fit again. Loosen or tighten as needed and re-lock it.

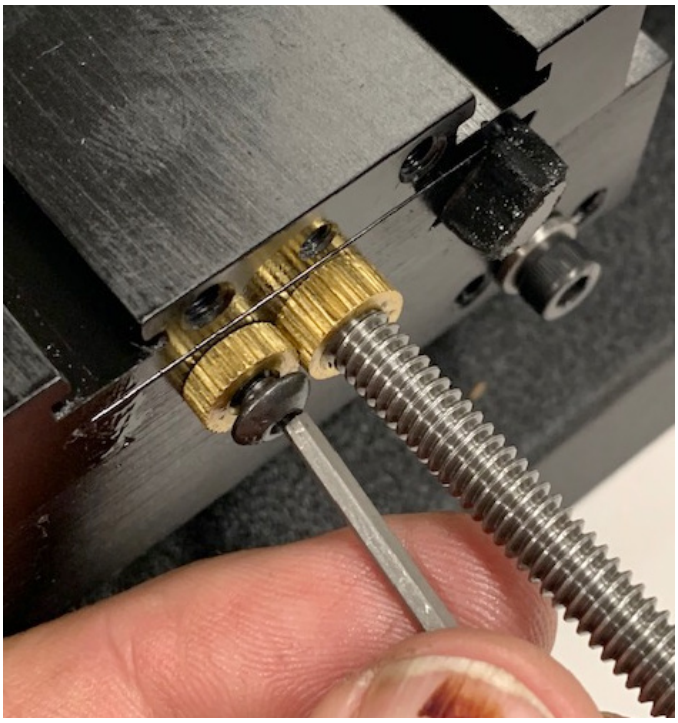

FIGURE 13

NOTE: If the slide screw is moving smoothly at this point, then the slide screw assembly is fine.

14. Thread the slide screw in as shown below (almost all of the way).

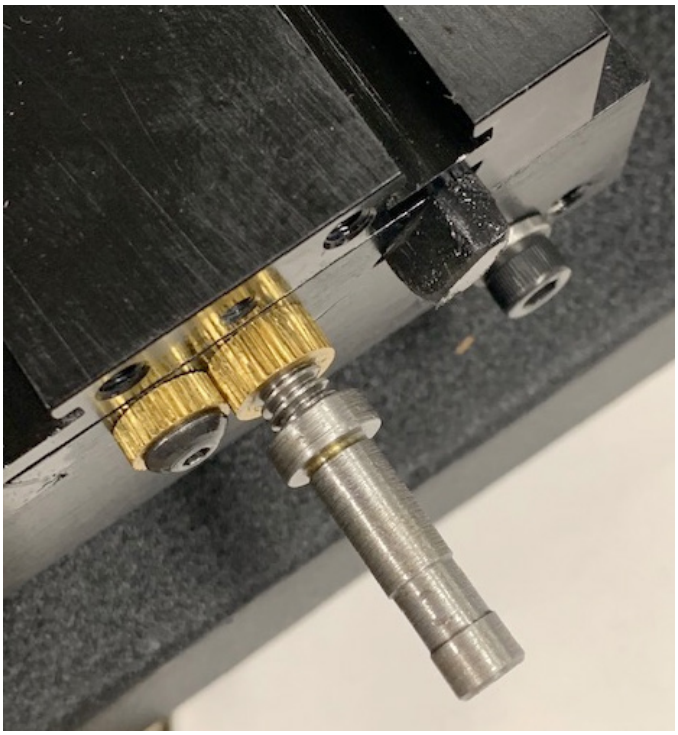

FIGURE 14

15. Now it's time to align the thrust collar with the slide screw and mount it to the lathe saddle. Put the thrust collar onto the screw adapter. Then pull the crosslide out to the thrust collar (see Figure 15a). Insert the screw into the thrust collar and tighten it almost all the way (see Figure 15b). Then wiggle the thrust collar to get it aligned with the slide screw, and then tighten the screw all the way.

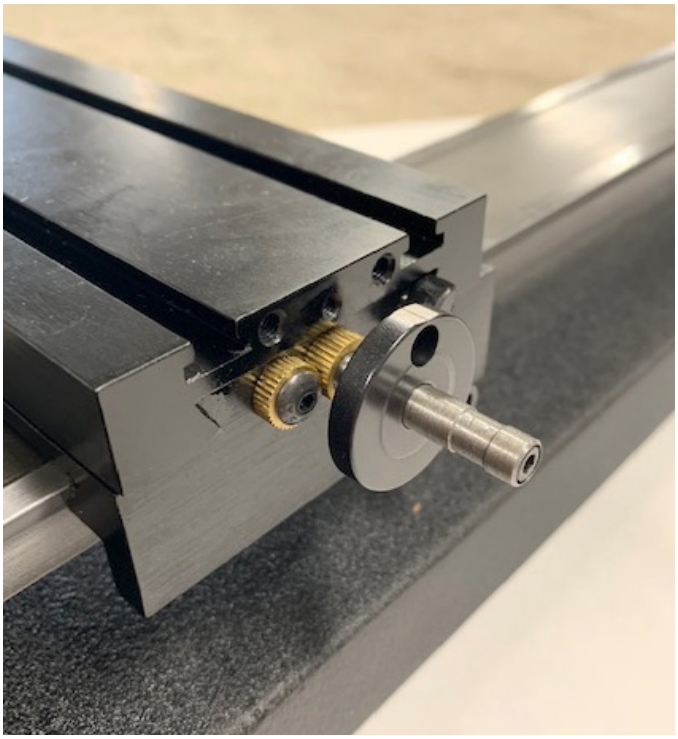

FIGURE 15a

FIGURE 15b

16. Put the shim washer back on (if you had one). Put the handwheel back on. Press the handwheel against the thrust collar with moderate force, and tighten the handwheel set screw to lock the handwheel onto the adapter.

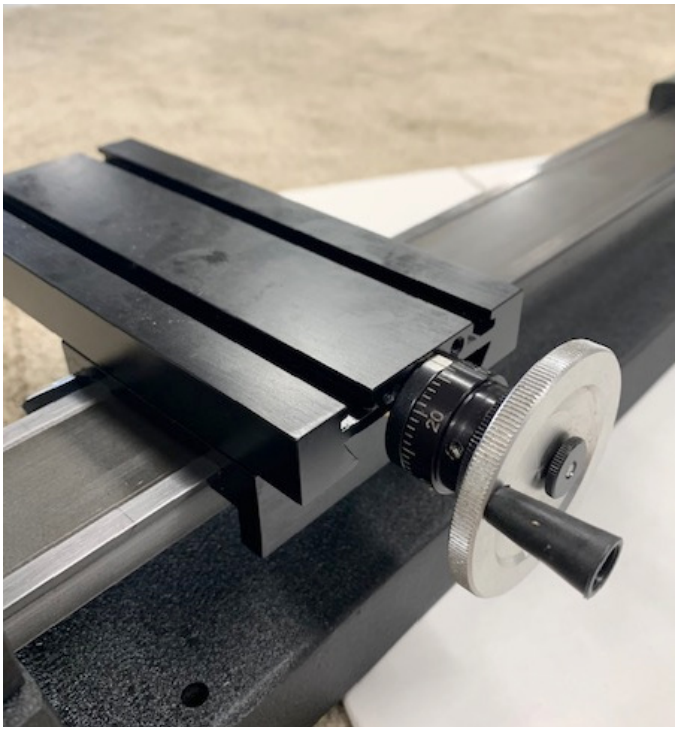

FIGURE 16

Finished!

Now use the handwheel to move the crosslide in and out. It should move smoothly.

You may need to tighten or loosen the gib a bit more or less.

Check the amount of backlash, and adjust as needed (should be less than .002")

Thank you,
Sherline Products Inc.