

Removing Stepper Motors and the Mill Saddle to Gain Access to the X-Axis Slide Nut

Mill Saddle Removal on CNC Machines to Gain Access to the X-Axis Slide Nut

1. Loosen the set screw in the CNC coupling that secures the shaft of the stepper motor. Gain access to the set screw through the access hole on the side of the motor mount.



FIGURE 1—Shows the access hole on the motor mount.

2. Cut the zip tie which holds the stepper motor cable to the motor mount.



FIGURE 2—Carefully snip the zip tie so you don't cut into the motor cable.

Video Instructions for Removing Stepper Motors

<https://youtu.be/npBj9XVhPqs>

Written Instructions for Installing Stepper Motors

<http://sherline.com/Wordpress/wp-content/uploads/2015/10/67127inst.pdf>

3. Remove the (3) 8-32 stepper motor mounting screws.

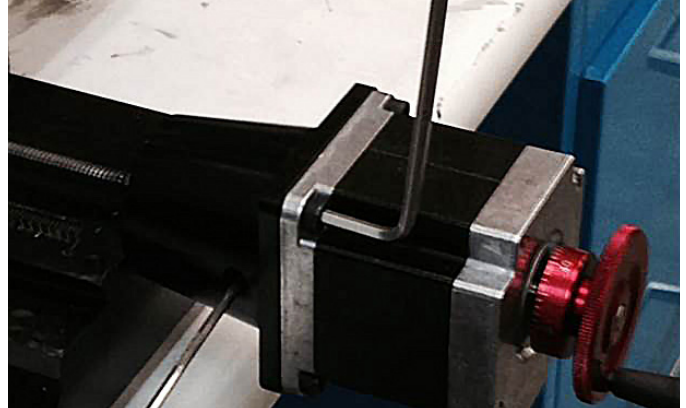


FIGURE 3—Remove the screws with a 9/64" Allen wrench.

4. The most common error made when removing the stepper motor is pulling it out of the coupler when there is resistance. If there is resistance it is usually for two reasons.

- A. The set screw is not backed out far enough.
- B. There is a bur on the shaft.

Start by leaving the set screw Allen wrench in place and slowly pull the stepper motor off. If you feel resistance, first back out the set screw a bit more, and then turn the handwheel one or two full revolutions. If the handwheel turns a full revolution, the set screw is backed out far enough and there is no bur. Now turn the handwheel as you are pulling the motor off, with the Allen wrench still in place so the coupler will not be pulled apart.

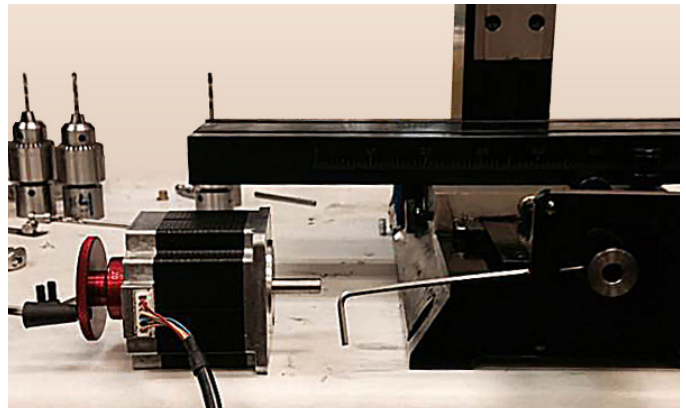


FIGURE 4—Shows the 3/32" Allen wrench still engaged with the CNC coupling.

5. Now remove the (2) 5-40 screws that hold the motor mount onto the mill base.

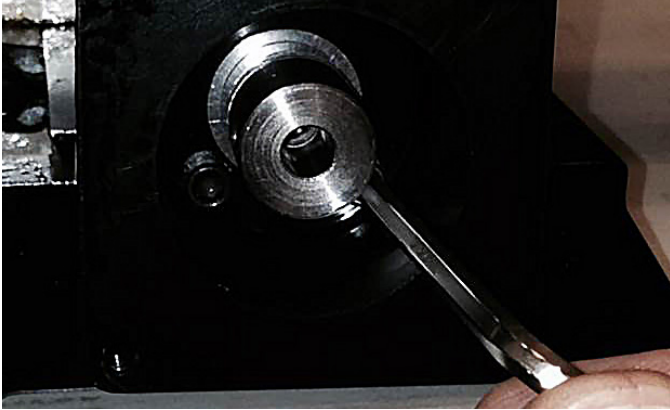


FIGURE 5

6. Loosen the gib lock set screw and back out the gib a bit.



FIGURE 6

7. Remove the 10-32 Y-axis stop screw from the top of the mill base.

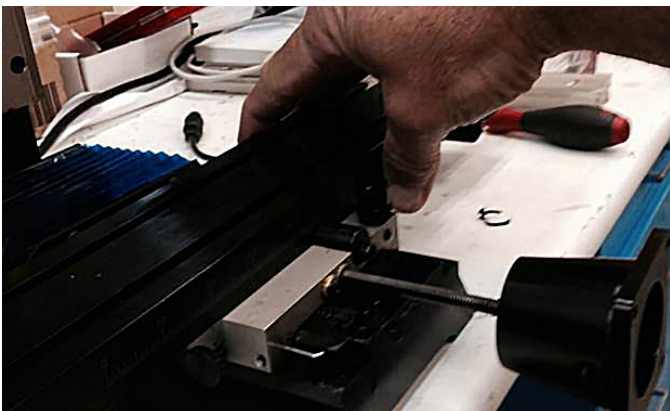


FIGURE 7

8. Slide the entire mill table and mill saddle assembly off of the base by pulling it towards you.

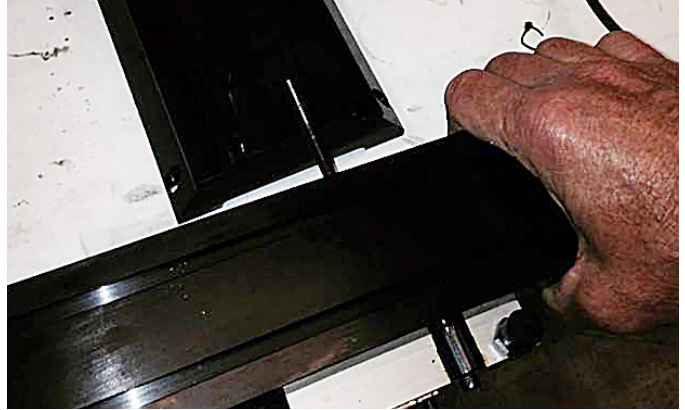


FIGURE 8

9. Flip the assembly over and loosen the X-axis slide nut set screw. Adjust this nut and anti-backlash nut the same as the Y-axis.

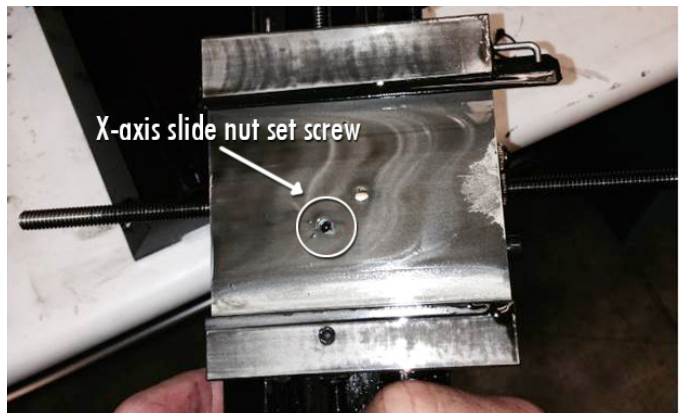


FIGURE 9

To install the stepper motor reverse the process. For detailed installation instructions of stepper motors please see the following link: <http://sherline.com/Wordpress/wp-content/uploads/2015/10/67127inst.pdf>