

# REPLACING THE HALF NUT ON THE GRANITE 1300 SERIES MACHINES

The apron assembly must be removed from the machine to gain access to the half nut for replacement. The first part of this document is how to remove the apron assembly. Any numbers referenced come from the parts diagrams in your machine manuals.

The second part of this document is how to remove and install the half nut.

## APRON REMOVAL

The apron and lead screw can be removed from the machine as individual items or as a single unit then separated later. Have the owner's manual available when doing any machine maintenance. The items referenced in these instructions can be found in the parts section of the owner's manual. **MAKE SURE THE MACHINE IS UNPLUGGED BEFORE ANY DISASSEMBLY IS STARTED.**

### LEADSCREW REMOVAL

1. Disengage the half nut and place all powerfeed controls on neutral.
2. Position the carriage close to the center of the machine bed.
3. Remove the two screws (G01-016) from the right hand lead screw support (G01-022).
4. Drive the taper pin out of the left end of the lead screw. This pin is larger on one end than it is on the other, be sure to drive it out from the small end toward the large end.
5. Rotate the lead screw so the key slot is facing downward. This will keep the worm gear key (G09-006) from falling out of place when the lead screw is pulled from the apron.
6. Pull the lead screw out of the apron. If the lead screw is stuck in the apron, the apron and lead screw can be taken off together.

### APRON REMOVAL

The cross feed table covers the screws that hold the apron to the carriage. Part of this section involves moving the table back to gain access to these screws.

1. Remove the two screws (G08-007) that mount the front cross feed screw support (G08-034) to the table.
2. Separate the table from the support and push the table back far enough to expose the four screws that hold the apron to the carriage.
3. Remove the four mounting screws and drop the apron off the bottom of the carriage.

### INSTALLATION

***It is best to put the lead screw into the apron before installing the apron on the machine because it is easier to make sure the worm gear drive key (G09-006) is in place while inserting the lead screw.*** A coating of grease on the key and the inside of the worm gear will also help hold the key in place during assembly. The remainder of the installation is a reversal of the removal instructions above.

# **HALF NUT REPLACEMENT**

## **REMOVAL**

With the apron sitting on the bench, position the apron so you are looking at the back side of the apron.

1. Remove the 2 screws securing the thread dial to the side of the apron.
2. After the thread dial is removed, you will see the 3 gib screws for the half nut on the side of the apron. Loosen the lock nuts and back the screws out enough so the gib will slide out the bottom of the apron.
3. On the opposite side of the half nut from the gib you will see the retaining plate with 3 Allen head cap screws holding it in place. Remove the screws and the plate.
4. Lift the 2 half nut pieces out of the apron.
5. Remove the metal pins installed in the old half nut and install them into the new half nut.
6. It is not necessary to reuse the setscrew that is coming up from the bottom of the lower half nut. It is there so you can set the half nut to not close all the way. I have never found an instance that you would not want full contact of your half nut so I do not install them.
7. Clean the area of the half nut mounting and remove any burrs or sharp edges from the new half nut.

## **INSTALLATION**

1. Look at the area the half nut will set into and note the 2 curved slots in the end of the drum that moves the half nut. The pin from each piece of the half nut needs to go into one of the curves groves.
2. Apply a coating of grease to the half nut sliding surfaces and the apron casting. And position the new half nut in place making sure the pins go into the proper groves.
3. Turn the half nut lever back and forth to make sure the nut is positioned properly.
4. Install the retaining plate with the 3 screws and tighten in place. Try the half nut lever. If the nut is not moving freely, it will be necessary to remove the retaining plate and shim and shim it to give additional clearance for proper travel of the half nut.
5. Coat the gib with grease and slide it into position from the bottom of the apron.
6. Slowly tighten one of the gib screws. Move the gib back and forth to assure the screw is going into the indents on the gib.
7. Tighten each gib screw slowly as you move the half nut lever back and forth. When you feel the lever trying to get tight, back off the screw slightly and tighten the locking nut on the screw.
8. Repeat the procedure for the other 2 gib screws.
9. Try the half nut operation.
10. Install the thread dial and the apron is ready to install on the machine.

**END**

