

# REMOVING THE PULLEY SEAT (G03003) FROM THE LATHE HEAD

Removing the G03003 pulley seat is a very detailed process. The sequence of disassembly below must be followed to prevent damaging other internal parts of the lathe head. The pulley seat, right coupler, bearing, oil collar and bevel gear are removed as an assembly. The lathe mill powerfeed selector and the # 1 shaft and associated gears must be removed to allow the seat/ bevel gear assembly to be removed. See page 84 of your owners manual for the exploded view of the lathe head and identification of individual parts. It is necessary to remove the pulley seat to gain access to the inner spindle bearing.

## OVERVIEW

We will be removing the following assemblies in the order listed below.

1. Remove the rear cover.
2. Remove the lathe / mill shifter.
3. Remove the pulley assembly.
4. Remove the lathe / mill powerfeed selector assembly.
5. Remove the #1 shaft assembly.
6. Remove the pulley seat assembly.

## REMOVE THE REAR COVER

- Remove the 4 screws holding the cover G03033 in place.
- Pry the cover loose from the lathe head. The oil level is below the opening so there should be only minimum oil loss because of the cover being removed.

## REMOVE THE LATHE / MILL SHIFTER

- Loosen the setscrew holding the lathe / mill shifter in place. (see item 7 on page 88).
- Pull the shifter up away from the main spindle and remove the shifter fork 90.
- Remove the belt from the pulleys.

## REMOVE THE PULLEY ASSEMBLY

- Remove the two setscrews 8 that go into the small pulley groove and hold the coupler sleeve in place.
- Remove the coupler sleeve 17 by screwing two screws onto the holes in the face of the coupling and letting the screws push the coupling out of the pulley.
- Remove the snap ring 24 from inside the center bore of the pulley.
- Pry the pulley and bearing off the pulley seat 3.

### REMOVE THE LATHE / MILL POWERFEED SELECTOR ASSEMBLY

- Remove both the handles 67 from the handle seats.
- Remove the Aluminum cover plate from the front of the lathe head.
- Remove the 3 screws holding the lathe / mill powerfeed shifter cover 74 in place.
- Go in through the rear of the head and use a punch to tap the end of the shaft 75, this will drive the entire shifter assembly out the front of the mead casting. You will get parts 62, 76, 75 and 74 in one piece.

### REMOVE THE #1 SHAFT ASSEMBLY

- Remove the two screws 78 from the bearing cover 77 from the pulley end of the #1 shaft 53. It is located just below the pulley seat.
- Remove the two set screws from the 77 cover and install two 5mm screws into the holes. Screw the screws inward to pull the bearing cap out of the casting.
- If the bearing cap 77 comes off the end of the shaft then continue on to the next step. If the entire #1 shaft comes loose with the bearing cap, use two large screw drivers and pry the cap off the bearing on the end of the shaft.
- Remove just the center set screw from the bearing cap 51 that is on the other end of the #1 shaft and located just below the spindle nose. Install a 5mm screw and use it to push the #1 shaft out of the bearing seat 51.
- remove the remaining two set screws and use the screw installed in the center of the 51 cap to pry the cap out of the casting.
- The entire #1 shaft assembly can now be moved toward the spindle nose end of the casting and the other end will pull free out of the casting. Remove the shaft bearings and gear assembly as one unit.

### REMOVE THE PULLEY SEAT ASSEMBLY

- Remove the three screws holding the pulley seat 3 in place.
- Remove the pulley seat. It may be necessary to use a punch from inside the head casting to loosen the pulley seat for removal.

### **NOTE**

Reassembling the headstock requires that the above procedures be followed in reverse order. Make sure all parts are clean and well lubricated before assembly. Use an oil resistant silicone as a sealant on all bearing caps, the pulley seat and the rear cover. As each piece is assembled, try the operation of that part before installing the next item. OPERATION CHECK EACH PART AS YOU GO, DO NOT WAIT TILL THE END.