

# BEVEL GEAR ADJUSTMENT

## Granite Series Machines

The fit between the bevel gear on the main spindle (G03025) and the bevel gear on the lower end of the mill support column (G05003) is adjustable and should be set whenever either of the bevel gears has been replaced. It is recommended to have the machine owner's manual available when performing the adjustments. Diagrams of the parts referenced in the instructions can be found in the parts section of the manual.

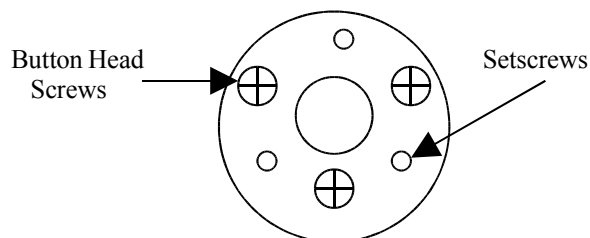
This procedure will involve the removal of one of the pulleys to gain access to the top of the mill support column and then moving the center shaft of the support column up and down to acquire the desired fit between the two gears.

### PREPAIRING THE MACHINE AND GAINING ACCESS TO THE COLUMN TOP

1. Make sure the machine is unplugged.
2. Place the MILL / LATHE selector in the NEUTRAL position.
3. Place the POWER FEED selector in the LATHE position.
4. Remove the mill head cover (g05059) and the drive belt g05042).
5. Remove the screws (G05040) holding the pulley bearing seat (G05039) in place and remove the pulley, bearing, and seat as one piece.

### ADJUSTING THE GEAR FIT

1. There are three setscrews that thread into the bearing seat (G05012) on top of the mill column. These lock the seat in position. Loosen these setscrews until they are no longer showing through the bottom of the seat.
2. There are three button head screws in the seat that are spaced between the setscrews. They pass through the seat and thread into the column (G05011) below. Turning these screws inward will move the seat, the mill drive shaft (G05022), and the bevel gear (G03003) downward toward the other bevel gear in the lathe head. Turn the screws in  $\frac{1}{2}$  turn at a time, alternating between the three screws to pull the seat down in a uniform manner.



3. Rotate the end of the mill drive shaft back and forth as the seat is being adjusted down.
4. Continue steps 2 & 3 until you can feel a slight resistance in the rotation. This is the point at which the two bevel gears are tightly meshed together.
5. Back the screw off  $\frac{1}{4}$  of a turn and tighten the setscrews down against the column to lock the seat, shaft, and gear into position. Adjustments are now complete.
6. Install the upper pulley assembly, the mill drive belt, and the mill cover and test run the mill.