



Replace Knee Mill X Axis Motor

Procedure covering replacing the motor and tensioning the drive belt.

Written By: Trent Plungas



INTRODUCTION

For a detailed drawing of the parts involved with this motor, see the drawing attached at the end of this guide.

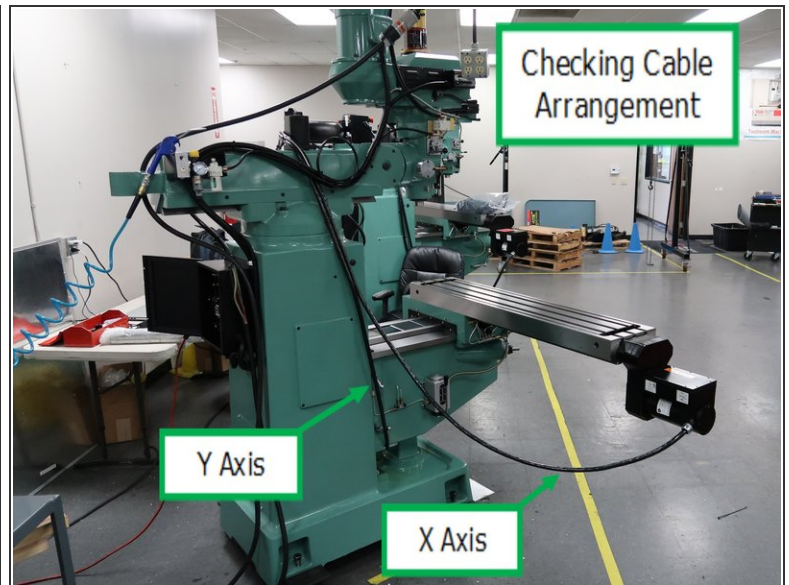
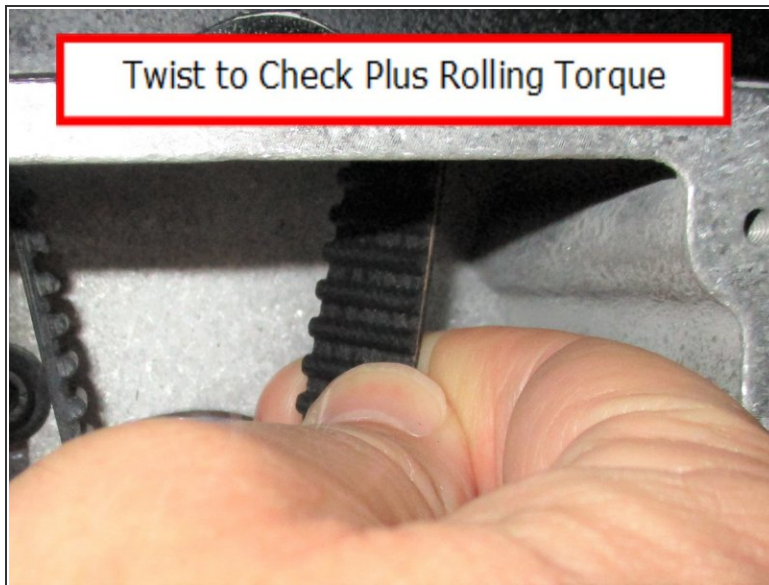
Step 1 — Remove X Axis Brushed Motor



Safety First -Power Down Mill

- Remove inside cover and loosen the four support bolts for the axis motor. Lift the motor slightly in order to remove the belt from the pulley.
- Based upon configuration and options, the electric cable is connected to the pendant or auxiliary input output box. Follow the wires and remove tie bands as needed to disconnect the motor cable at its source. The replacement motor comes with the cable attached.
- Remove the four bolts to remove the motor from the front cover. Replace the old motor with the new one P/N 20296 or equivalent on the front cover. The bolts should be loose enough to adjust the belt.
- If you are going to replace the belt, now is a good time. Careful hands may be able to remove the belt without removing the front cover but might be easier to remove cover.
- Slide the belt over the lower pulley.

Step 2 — Tension the Belt and Reassemble



- Create tension on belt by applying downward pressure on motor and then tighten screws. Tighten screws on motor to motor bracket – 7 ft-lb.
- Verify tension on belt by twisting it to 90 degrees max and or check rolling torque not more than 15 in lbs rolling torque. Redo the downward force while tightening the bolts to correct the belt tension if needed. Photo shows the belt at about 45° from the original position.
- Run the cable back to its source and neatly secure it with tie bands in the original path.
- The photo for this step shows the knee mill with both X & Y axes fully extended. Keep in mind the travel spans of either axis when you install the cable so it will not bind or run out of travel under normal operation. Install the cable neatly securing it with tie bands along the original path.
- Note in this case the Y axis cable is a little tight but usable.