

Service Bulletin 1010 Start and Stop Buttons on Bench Mills Don't Always Work

Date

Issued April 5, 2016

Product

5500 HiTorque Bench Mill

Issue

Imperfections in the tapping reverse mechanism can cause problems with the controls.

Symptoms

Some model 5500 Bench Mills exhibit a “dead spot” in the quill travel where the Start and Stop buttons do not work. Owners have reported intermittent operation when the quill is at or near a “dead spot.”

Solution

- Add insulation to a crimp wire terminal.
- Remove burrs from the tapping reverse mechanism.

The following steps provide details about these solutions.

Remove the Quill Feed Handles

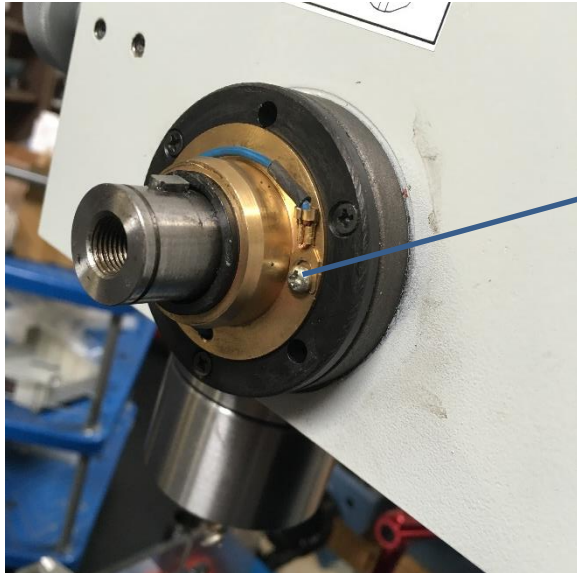
Remove the quill feed handle assembly to access the tapping reverse mechanism.

1. Remove the fine feed locking hand wheel by unscrewing it.
2. Remove the snap retaining ring with a pair of snap ring pliers.
3. Remove the washer.
4. Pull the handle assembly off the shaft.

Insulate the Crimp Connector

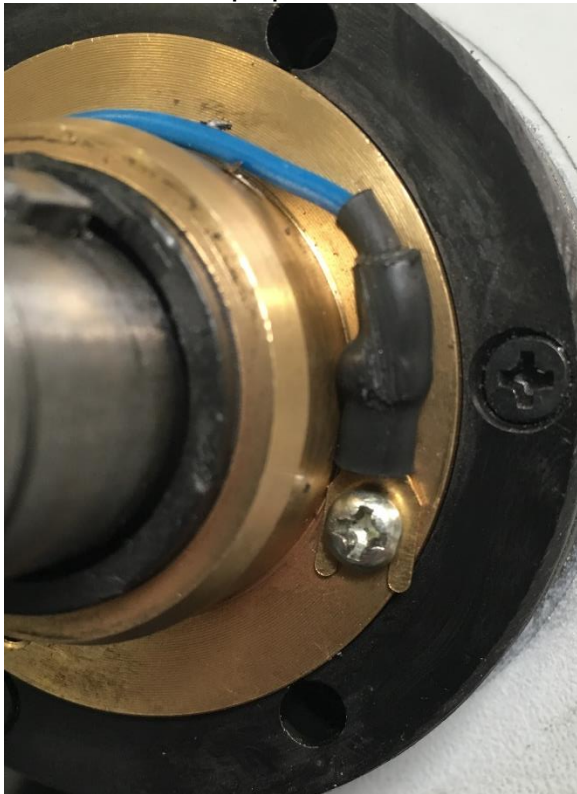
The crimp connector is the most likely part for either burrs or the tapping reverse contacts to touch. A metal part touching the crimp connector is the equivalent of pushing one of the green reversing buttons.

1. Loosen the screw that retains the crimp spade connector.



Loosen

2. Remove the crimp spade connector from the screw.
3. Cut a piece of 3/16"- or 1/4"-diameter shrink tubing to about 1/2" in length.
4. Slide the shrink tubing over the crimp connector so that only the spade end is protruding.
5. With a heat gun, shrink the tubing at this position.
6. Secure the crimp spade connector with the screw.



Deburring the tapping reverse mechanism

Burrs on the tapping reverse mechanism can also touch the crimp connector and should be removed.

1. Place the handle assembly on the bench with the inside up.
2. Use a 3-cornered scraper or other deburring tool to remove any burrs you find around the contact pins.

Reassembly

Follow these steps to reassemble the machine.

1. Ensure that the wire to the crimp connector is in the correct position, as shown in step 6 above.
2. Slide the handle assembly on the shaft, being sure the keyway goes over the key.
3. Replace the washer.
4. Replace the snap retaining ring with a pair of snap ring pliers.
5. Replace the fine feed locking hand wheel.

Testing

Follow these steps to test the machine for proper operation.

1. With the spindle fully retracted, engage the fine feed.
2. Turn the power to the machine on.
3. Use the fine feed knob to lower the spindle through its entire range while repeatedly pressing the Stop button. The machine should beep each time you press Stop.
4. Repeat the previous step, except on this pass, press and hold one of the green reversing buttons while you press Stop. You should *not* hear any beeps.