

Service Bulletin 1005 Potentiometer Replacement - 3900

Date

Issued 1-May 2011

Product

3900 HiTorque Mini Mills serial numbers below 01245

Issue

On some HiTorque Mini Lathes and HiTorque Mini Mills sold between May 2010 and March 2011, the speed-control potentiometer has failed. Although the number of failures has been small, it is higher than we (LittleMachineShop.com) or the manufacturer (SIEG) are willing to accept.

Symptoms

We have seen a lot of different symptoms. Some of them are:

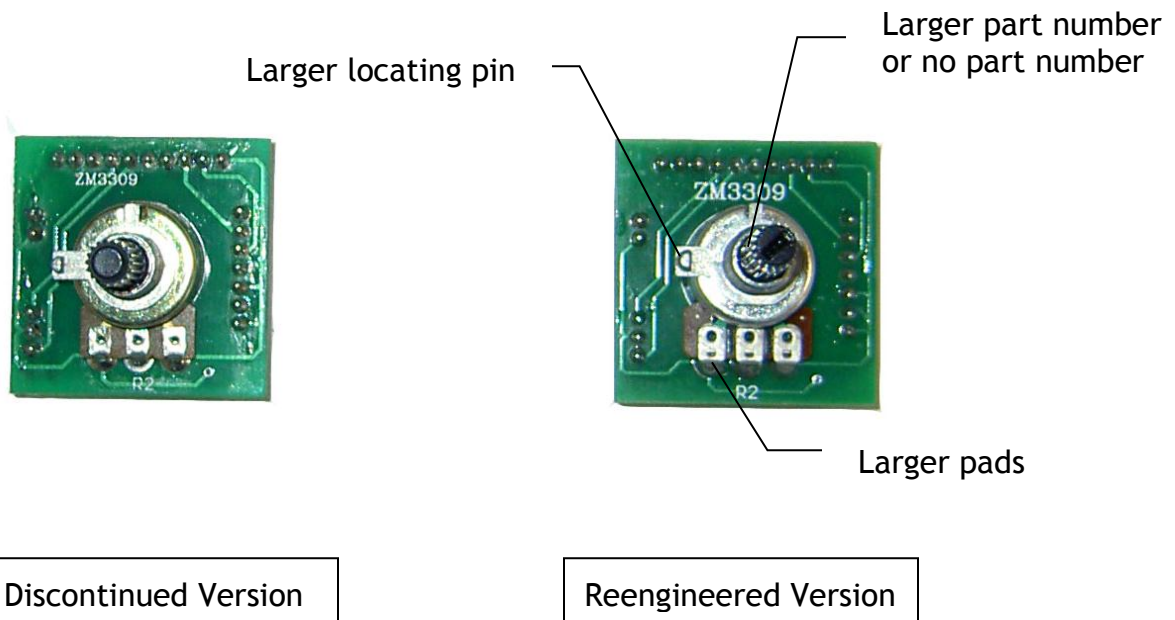
- No motor operation with or without a fault indication
- Erratic or no speed control
- Pulsing motor speed

These symptoms can occur on a brand-new machine or on one that has been in use for a few months.

Solution

A redesigned potentiometer assembly from a different, higher quality supplier eliminates the problem.

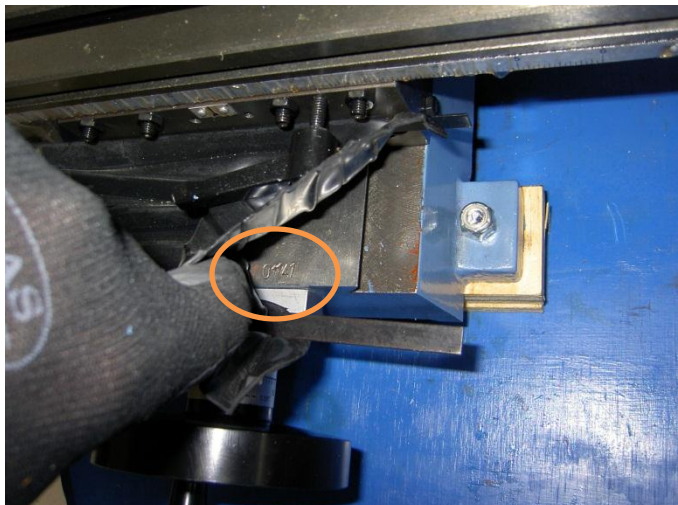
Potentiometer Identification



Serial Number Location

Locate and determine the serial number of your machine.

1. The serial number is located on the base casting behind the Y-axis hand wheel.
2. Replace the potentiometer if your serial number is lower than 01245.



Installation

Follow these steps to install the new potentiometer:

1. Unplug the power cord and wait 10 minutes for the power capacitors to discharge.
2. Remove the four Phillips head screws retaining the control box cover.



3. Remove the knob from the potentiometer by pulling it straight off.
4. Remove the nut from the potentiometer.



5. Pull the potentiometer into the control box.
6. Unplug each connector and move it to the new potentiometer. Note that one connector on the potentiometer is not used.
7. Put the potentiometer shaft back through the hole in the control panel and replace the nut.



8. Replace the four control box cover screws.
9. Turn the potentiometer shaft fully counter-clockwise and replace the knob with the line at the zero mark.



10. Turn the speed control knob all the way counter clockwise.
11. Plug in the power cord.
12. Press the green ON button. You should hear the interlock relay latch.
13. Turn the speed control knob clockwise. The motor should start to turn.