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Service Bulletin 1004
Potentiometer Replacement – 4100

Date

Issued 1-May 2011

Product

4100 HiTorque Mini Lathes serial numbers below 06685

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:

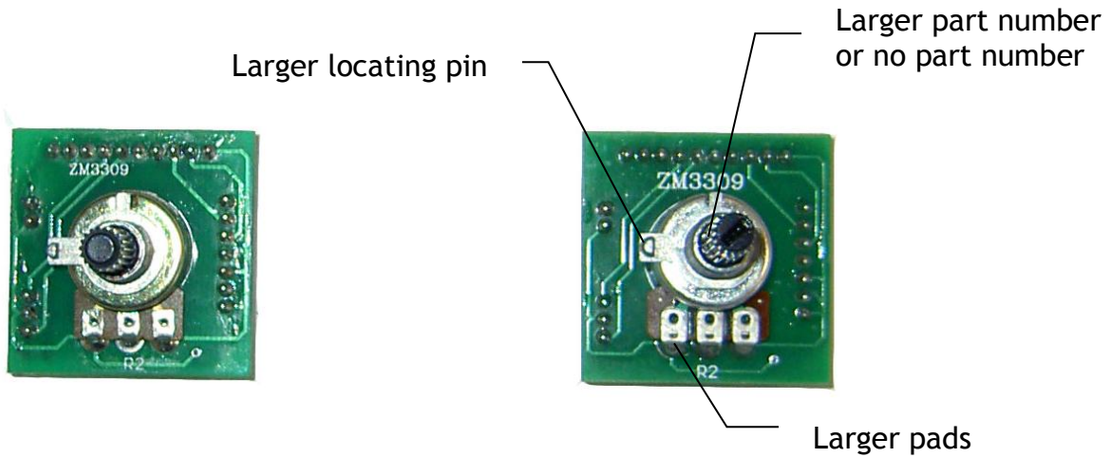
- No motor operation with or without a fault indication
- Erratic or no speed control
- Pulsing motor speed

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



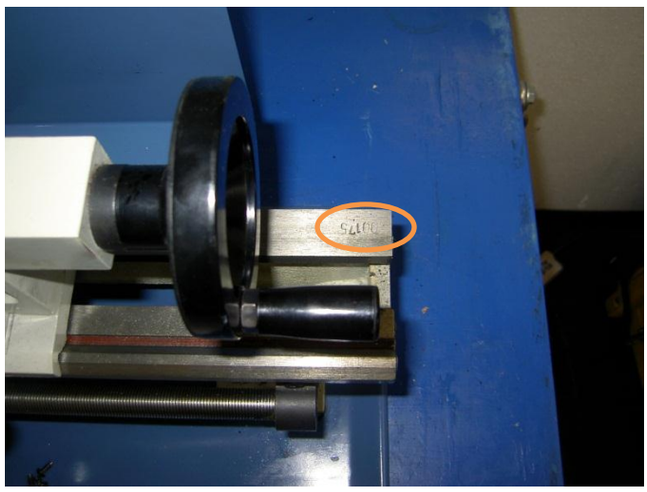
Discontinued Version

Reengineered Version

Serial Number Location

Locate and determine the serial number of your machine.

1. The serial number is located on the way casting at the far right end.
2. Replace the potentiometer if your serial number is lower than 06685.



Installation

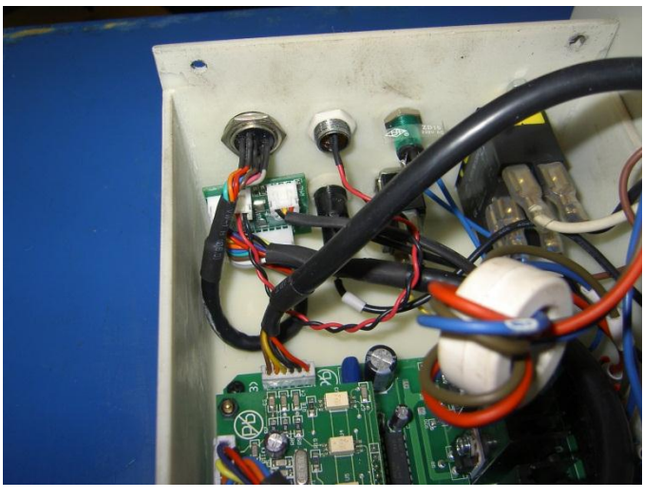
Follow these steps to install the new potentiometer:

1. Unplug the power cord and wait 10 minutes for the power capacitors to discharge.
2. Remove the knob from the speed control potentiometer by pulling it straight off.
3. Remove the nut from the potentiometer.

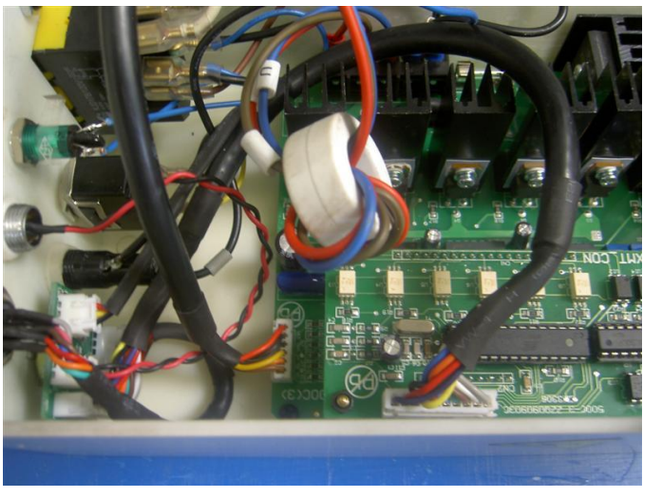
4. Move the lathe to the front of the workbench and remove the two screws that retain the bottom of the control box.
5. Move the lathe back from the edge of the workbench.
6. Raise the chuck guard.

7. Remove the two screws that retain the top of the control box.
8. Pull the control box away from the headstock and turn it so you can access the interior.

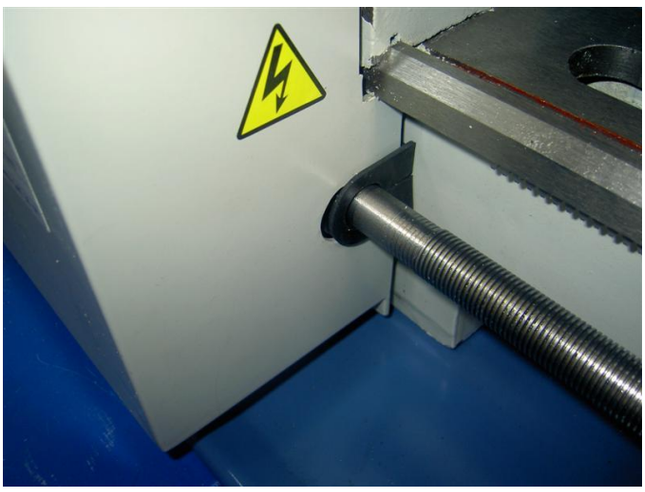
9. Pull the potentiometer into the control box.
10. Unplug each connector and move it to the new potentiometer.
11. Put the potentiometer shaft back through the hole in the control panel and replace the nut.
12. Turn the potentiometer shaft fully counterclockwise and replace the knob with the line at the zero mark.



13. Adjust the ferrite ring so it is inside the control box.



14. Reposition the control box on the front of the headstock. Be sure to engage the slot in the rubber chip guard on the lead screw.
15. Replace the two top screws.
16. Move the lathe to the front of the workbench and replace the two screws that retain the bottom of the control box.



17. Move the lathe back from the edge of the workbench.
18. Lower the chuck guard into the running position.
19. Turn the speed control knob all the way counterclockwise.
20. Plug in the power cord.
21. Press the green ON button. You should hear the interlock relay latch.
22. Turn the speed control knob clockwise. The motor should start to turn.