

## **Tool Setter - Electronic Calibration. (Vertical)**

### **Equipment.**

Digital Volt Meter.  
Special Fixture.

### **Purpose.**

To calibrate the vertical probe.

### **Tolerance.**

None.

### **Method.**

1. By jogging X and Z, position the LVDT over one of the free toolposts.
2. Set the DVM for DC volts and attach terminals TP5 and TP6 on the tool set amplifier board.
3. Raise the toolpost until the surface of the toolpost comes into contact with the LVDT ruby tip, continue moving until zero volts is obtained.
4. Set the toolpost height gauge to zero.
5. Measure the voltage between TP6 and TP7, and adjust R25 to obtain +5 volts.
6. Move the toolpost upward 0.003" (76 $\mu$ m)
7. Measure the voltage between TP5 and TP6, and adjust R24 to obtain +1.905 volts.
8. Move the toolpost back to zero, then down 0.003" (76 $\mu$ m), and verify the reading is -1.905 volts.
9. Move the toolpost back to zero, and verify that the reading between TP6 and TP7 is +5 volts.
12. Move the toolpost down until zero volts are obtained. Move the toolpost back up while verifying the voltage changes smoothly through the whole range until +10 volts is obtained.

**Note: If the above is unobtainable, retest with another LVDT. If the same results persist, change the tool set amplifier board.**