

BD-07d: Set Home (Cincinnati T-30)**SAFETY FIRST**

- Follow all Caterpillar facility safety standards when performing this task.
- The spindle rotates and the axis moves leading to potentially hazardous conditions for personnel.
- The surfaces of the Cincinnati are slick; use caution when moving.

EQUIPMENT

- P50 Test bar
- Plunger type dial indicator capable of measuring ten thousandths – 0.0001” with a magnetic base
- 4.5 inch indicator gauge block

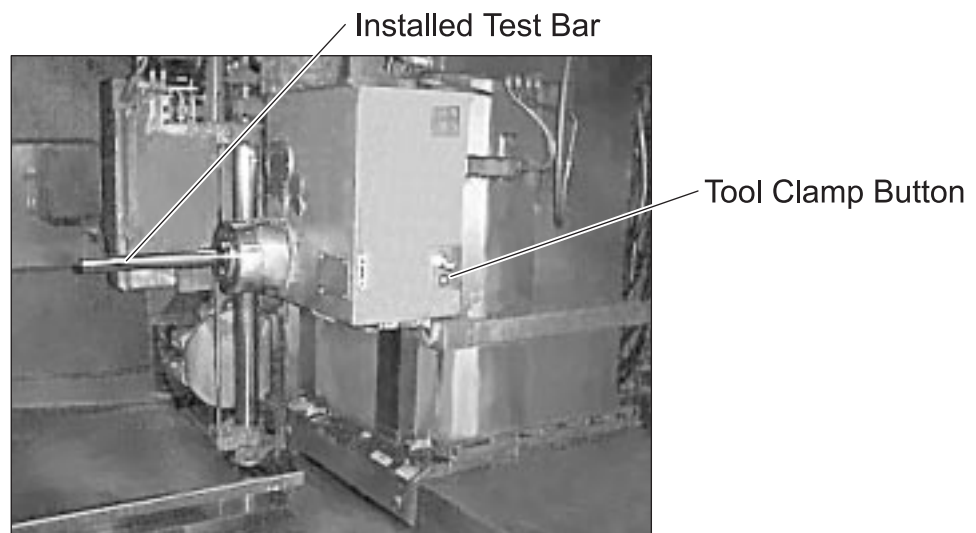
RESOURCES

- Cincinnati Operator’s Manual
- Cincinnati Milacron (A950) System Configuration Manual



Set Home (Cincinnati T-30)**1. Install the test bar.**

- Press and hold the tool clamp button on the head.
- Slide the test bar in until fully seated.
- Release the tool clamp button.

**2. Change the measuring system from metric to standard.**

- Put the control into MDI mode.
- Type G70 and press Cycle Start.

3. Set the Y-axis into position for measurement.

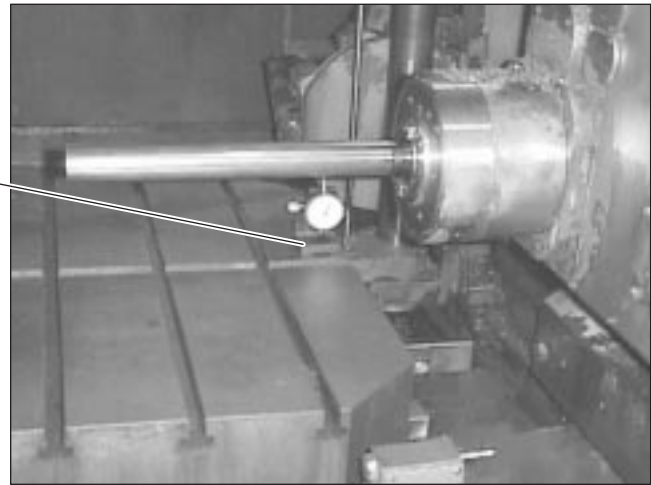
- Type Y5.5F1000, press Enter, then press Cycle Start.

Note: The value 5.5 is 1/2 the diameter of the test bar plus the height of the indicator gauge block.

- Position the Z-axis over the table so the test bar is well over the center position.

- Slide the indicator under the test bar, as close as possible to the spindle face.

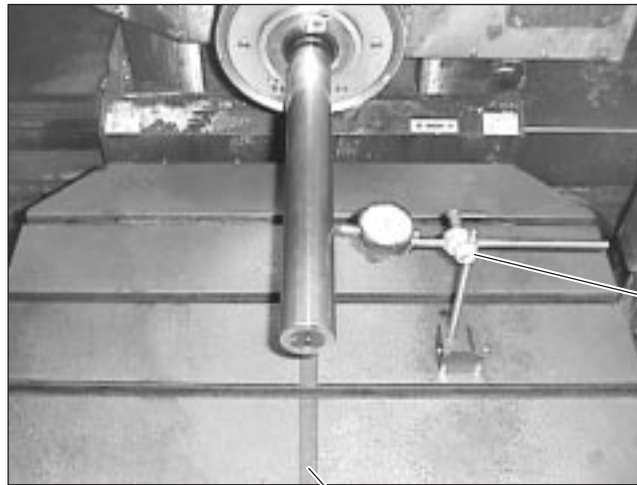
4.5 Inch Gauge Block
Indicator Positioned
Near Spindle Face



- Rotate the test bar to determine the maximum and minimum readings.
 - Stop the bar exactly halfway between.
 - Expect to read within .0005 inches, noting any discrepancies.
- 4. Ask the Electrician to adjust the Y-axis for error, if the readings exceed .0005 inch.**
- Ask the Electrician to perform the Entry Procedure for Marriage Parameters according to the Acramatic 900 Technical Assistance Guide (TAG).
- 5. Verify any changes made to the Y-axis.**
- Repeat steps 3-5 as needed until the Y-axis is within .0005 inch.
- 6. Record the changed values for the Y-axis in the Marriage Parameters Log.**
- 7. Set up to measure the X-axis.**
- Type X0.0F1000 and press Cycle Start to send the X-axis to the center of the table.
 - Type Y10.0F1000 and press Cycle Start.

8. Measure the X-axis for error.

- Position the Z-axis over the table so the test bar is well over the center position.
- Set the indicator so it is against the side of the test bar near the center keyway.



Dial Indicator Set up to Measure X-axis

Center Position of Table

- Find the high point of the test bar.
- Zero the indicator so that the high point of the test bar runout is the zero on the indicator.
- Record the Y-axis position.
- Move the Y-axis 10 inches in the positive direction.

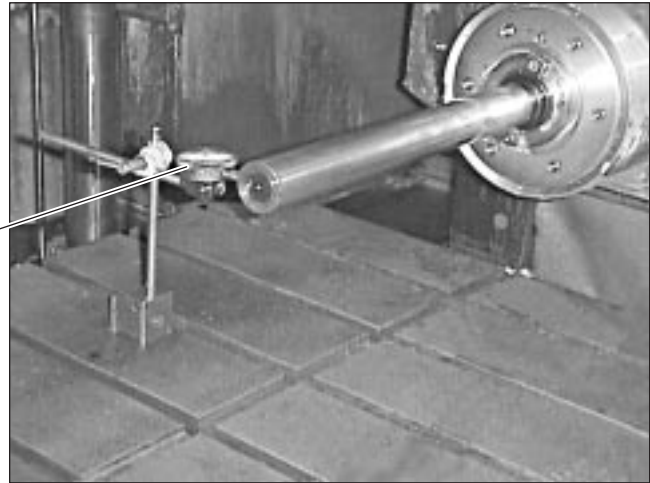
Raised Y-axis



- Type B180 and press Cycle Start to rotate the table 180 degrees on the B-axis.
- Type the previously recorded Y-axis position and F1000, then press Cycle Start to return the test bar to the same Y-axis position.



Dial Indicator After Rotating Table 180°



- Expect to read zero (0) to within .0005 inch, noting any discrepancies.
- 9. Ask the Electrician to adjust the X-axis for error if the readings exceed .0005 inch.**
- Ask the Electrician to perform the Entry Procedure for Marriage Parameters according to the Acramatic 900 Technical Assistance Guide (TAG).
- 10. Verify any changes made to the X-axis.**
- Repeat steps 7-11 as needed until the X-axis is within .0005 inch.
- 11. Record the changed values for the X-axis in the Marriage Parameters Log.**
- 12. Move the Z-axis into position for measurement.**
- Z-axis should be centered on the center keyway.
 - MDI the Z-axis to the length of the test bar (18.0004 inches).
- 13. Set up the dial indicator on the magnetic base and measure the Z-axis.**

- Position the indicator against the end of the test bar.

Dial Indicator Positioned to Measure Z-axis



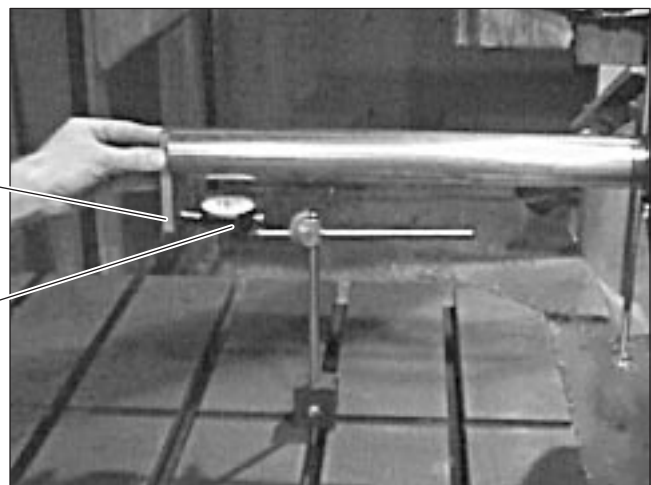
- Zero the indicator.
- Move the Y-axis clear of the magnetic base.
- Rotate the B-axis 180 degrees.

14. Measure the Z-axis for error.


- Lower the Y-axis to one inch above the indicator.
- Place a Jo block against the end of the test bar and indicator.

Jo Block

Indicator After B-axis is Rotated 180°



- Expect to read zero (0) to within .0005 inch, noting any discrepancies.

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15. **Ask the Electrician to adjust the Z-axis for error, if the readings exceed .0005 inch.**
 - Ask the Electrician to perform the Entry Procedure for Marriage Parameters according to the Acramatic 900 Technical Assistance Guide (TAG).
 16. **Verify any changes made to the Z-axis.**
 - Repeat steps 13-16 until the Z-axis is within .0005 inch.
 17. **Record the changed values for the Z-axis in the Marriage Parameters Log.**