

BC-04: Check Axis for Lost Motion (Sundstrand)

SAFETY FIRST

- Follow all Caterpillar facility safety standards when performing this task.
- A greasy surface, wires, cables, and hoses on and around the Sundstrand contribute to an existing tripping hazard.

EQUIPMENT

- Maintenance Mechanic hand tools
- Dial indicator with magnetic base

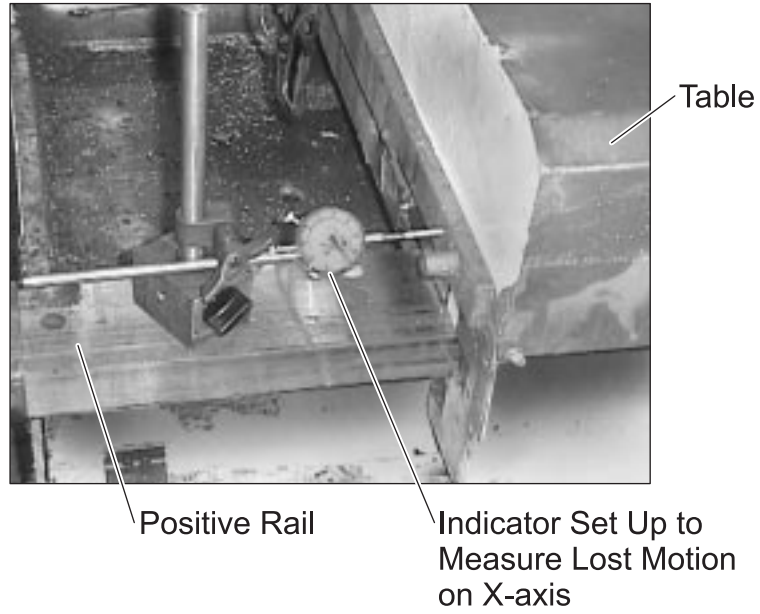
RESOURCES

- Sundstrand Maintenance Mechanic Manual

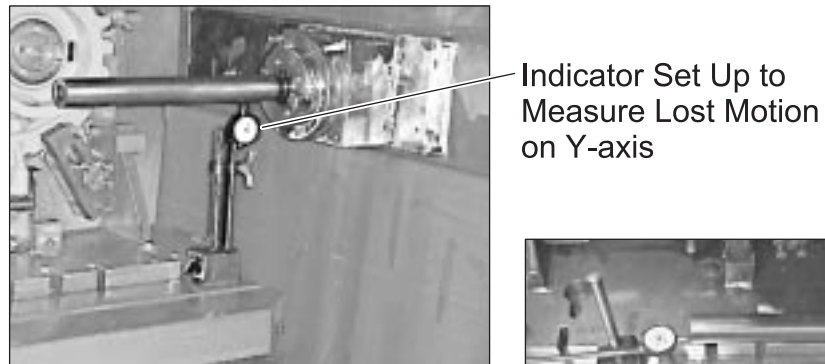
Check Axis for Lost Motion (Sundstrand)

1. **Remove way covers if working on the X-axis.**
2. **Position the axis and provide access to set up the indicator to measure lost motion on the head or the table.**
 - Position the spindle head over the table to check for lost motion on the Y- and Z-axes.
3. **Set up the dial indicator to measure for lost motion on the required axis.**
 - Place the magnetic base on the positive rail if checking for lost motion on the X-axis.

- Position the indicator against the table.



- Place the indicator on the table and set up to measure for the Z- and Y-axes, as required.



Indicator Set Up to Measure Lost Motion on Z-axis



4. **Zero the indicator.**
5. **Set the machine to increment .01 inches.**
6. **Move the axis five times in the Plus (positive) direction.**



Increment Axis Five Times
in the Positive Direction

7. **Move the axis back five times (in the Minus direction).**

8. **Check the indicator for lost motion.**

Expect to read motion within .001 inches.



Indicator Showing
Lost Motion

9. **If reading exceeds .001", check for lost motion between the motor and ball screw coupling.**

10. **Perform BC-03: Check Ball Screw Nut if the problem is not resolved in step 9.**
11. **If lost motion is within .001 inch, replace the way covers, if removed.**
12. **Cycle the machine to verify proper operation.**

