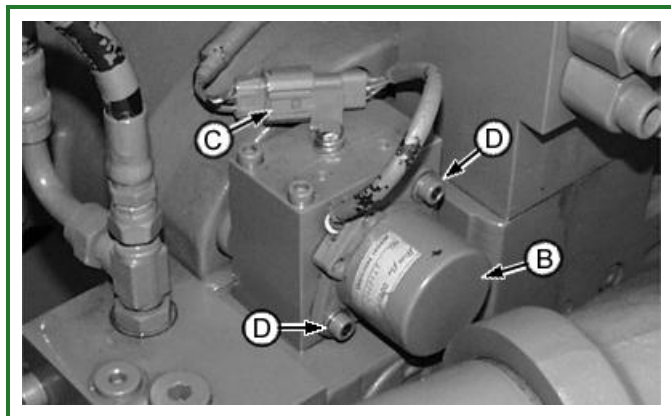


Pump Angle Sensor Adjustment



T124451B-UN: Pump Angle Sensor (A Sensor)

LEGEND:

B - Angle Sensor

C - Angle Sensor Connector

D - Cap Screw (2 used)

-: Specifications

SPECIFICATIONS	
Pump Angle Sensor	
Pump Displacement Flow Rate	243-246 cc/rev
Angle Sensor Cap Screw Torque	13 N·m (110 lb-in.)

-: Service Equipment and Tools

SERVICE EQUIPMENT AND TOOLS
JT07290 Laptop Computer
JT07274J Excavator Diagnostics Program Disk
JT07273 Cable

NOTE:

Pump 1 angle sensor (B) is located on the top center of pump 1. Pump 2 angle sensor (B) is located on the bottom center of pump 2. The A sensors measure displacement angle of its pump by converting the position of swash plate to a DC voltage signal. The signal goes to the pump and valve controller (PVC).

The swash plate angle determines the pump displacement (flow rate).

1. Turn key switch ON. Connect laptop computer. Start diagnostic software. Check service codes.
2. Repair or replace all other malfunctioning components. Do "Retry Procedure A" and/or "Retry Procedure B". (See Excavator Diagnostic Software Feature-Service Codes in this group) to clear service codes. If service code 23 or 24 cannot be cleared, adjustment of A sensor(s) is needed.
3. Start engine and operate at slow idle.
4. Click on **Adjust** icon from tool bar.
5. Increase pump displacement to maximum by selecting YES and then NO. Engine will pull down

noticeably. Run machine at least 5 seconds to allow pump to stabilize.

6. Click on **Monitor** icon for tool bar and select approximate pump 1 displacement (9) and approximate pump 2 displacement (3) from monitor data window. If either pump displacement is not to specification, adjust angle sensor on that pump.

Item	Measurement	Specification
Pump Angle Sensor		
Pump Displacement	Flow Rate	243-246 cc/rev

7. Loosen cap screws (D) on A sensor requiring adjustment using 5 mm hex wrench.
8. Turn A sensor counterclockwise to increase pump displacement reading. Adjust until 270-273 cc/rev is indicated on computer screen.
9. Tighten angle sensor cap screws (D).

Item	Measurement	Specification
Pump Angle Sensor		
Angle Sensor Cap Screw	Torque	13 N·m (110 lb-in.)

10. Observe computer screen to ensure A sensor did not move when cap screws were tightened.
11. Adjust other A sensor if needed, by following Steps 7, 8, 9, and 10.
12. Close monitor data window and select **Adjust** icon from tool bar.
13. Return hydraulic pump to minimum displacement by selecting YES and then NO. Pump displacement goes to minimum and engine speed increases to slow idle.

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