

TM10131 - 310SJ Backhoe Loader (S.N. —159759) Clutch Pressure Test

Clutch Pressure Test

-: Specifications

SPECIFICATIONS	
Transmission Oil Temperature	75-85°C 167—185°F
Engine Speed	1475—1525 rpm
Direction and Speed Clutches	1650—2050 kPa 16.5—20.5 bar 239—297 psi
Neutral Disconnect Deactivated Pressure	0 kPa 0 bar 0 psi

-: Service Equipment and Tools

SERVICE EQUIPMENT AND TOOLS
Quick Coupler (M10 x 1)
JT02156A Digital Pressure/Temperature Analyzer

1. Remove floor panel in cab or ROPS.



2. TX1047519-UN: Clutch Pressure Test Ports

LEGEND:

- 19 - Low Range Forward Pressure Test Port
- 20 - High Range Forward Pressure Test Port
- 21 - 1st Speed Clutch Orifice / Pressure Test Port (Alternate) (K1)
- 22 - 2nd Speed Clutch Pressure Test Port
- 32 - Reverse Clutch Pressure Test Port
- 33 - Low Range Forward Pressure Test Port (Alternate)
- 34 - 3rd Speed Clutch Pressure Test Port
- 37 - 1st Speed Clutch Pressure Test Port

Connect JT02156A digital pressure/temperature analyzer in appropriate port (19, 20 22, 32—34 and 37). See [JT02156A Digital Pressure and Temperature Analyzer Kit Installation](#) . (Group 9025-25.)

3. Warm transmission oil to specification. [See Transmission Oil Warm-Up Procedure](#) . (Group 9020-25.)

Item	Measurement	Specification
Transmission Oil	Temperature	75-85°C

167—185°F

4. **NOTE:**

All clutch pressures should be the same.

Raise machine off of ground. Engine speed at specifications and park brake OFF and transmission control lever in forward or reverse, record pressure in all speed ranges.

Item	Measurement	Specification
Engine	Speed	1475—1525 rpm
Direction and Speed Clutches	Pressure	1650—2050 kPa 16.5—20.5 bar 239—270 psi

5. Low pressure in one direction indicates a leakage in that pack or solenoid. Low pressure in both directions indicates low system pressure or leakage in the speed clutch. [See Transmission System Pressure Test](#) . (Group 9020-25.)
6. With transmission control lever in neutral, a slight pressure recorded in either the forward or reverse test port could indicate that the ball in the clutch shaft came out (lube passage).
7. With transmission control lever in neutral, pressure recorded in the speed clutch test ports could indicate a problem with the time delay relay. [See System Functional Schematic and Section Legend](#) . (Group 9015-15.)

NOTE:

When neutral disconnect is deactivated, pressure should be zero.

Item	Measurement	Specification
Neutral Disconnect Deactivated	Pressure	0 kPa 0 bar 0 psi

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