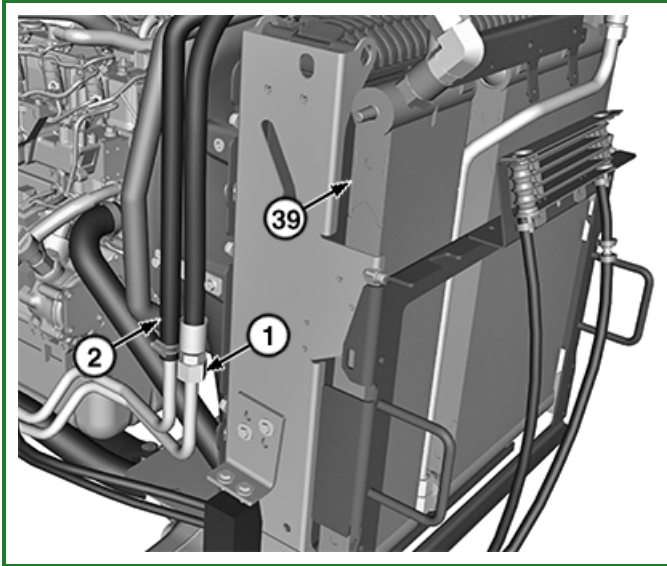


2.

**TX1251903A-UN: Transmission Cooler****LEGEND:**

1 - Thermal Bypass Valve-to-Transmission Oil Cooler Line

2 - Transmission Oil Cooler-to-Thermal Bypass Valve

39 - Transmission Oil Cooler

Disconnect thermal bypass valve-to-transmission oil cooler line (1).

3. Connect tee fitting and quick coupler to transmission cooler line.
4. Disconnect transmission oil cooler line-to-thermal bypass valve line (2).
5. Connect test hose, quick coupler, and tee fitting to transmission cooler line.
6. Install JT02161 Transducer and JT02158 Digital Pressure and Temperature Analyzer to quick couplers. [See JT02156A Digital Pressure and Temperature Analyzer Kit Installation](#) . (Group 9025-25.)
7. View transmission oil temperature on monitor. [See Diagnostics—Transmission](#) . (Group 9015-16.)
8. Warm transmission oil to specification. [See Transmission Oil Warm-Up Procedure](#) . (Group 9020-25.)

Item	Measurement	Specification
Transmission Oil Temperature		80—90°C 176—194°F

9.

NOTE:

Pressure specifications should be similar in all gears.

With transmission control lever (TCL) in neutral, operate machine to specification and record pressure.

Item	Measurement	Specification
Engine	Speed	2250 rpm
Transmission Cooler In	Pressure	415—620 kPa 4.2—6.2 bar 60—90 psi

10. Check transmission cooler out pressure and record.

Item	Measurement	Specification
Transmission Cooler	Pressure Differential (drop)	345—380 kPa 3.5—3.8 bar 50—55 psi

11. If cooler pressure differential is above specification, inspect cooler hoses and cooler for damage. If no damage is found, clean cooler using oil filter caddy. [See General Oil Cleanup Procedure](#) . (Group 2160.)
12. If cooler pressures are low, possible locations include:
 - Transmission control solenoid. Check solenoids. [See Solenoid Circuit Leakage Test](#) . (Group 9020-25.)
 - Pump problems. Check transmission pump flow. [See Transmission Pump Flow Test](#) . (Group 9020-25.)
 - Torque converter may be plugged. [See Torque Converter Stall Speed Test](#) . (Group 9020-25.)

[Go to Section_9020:Group_25](#)

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