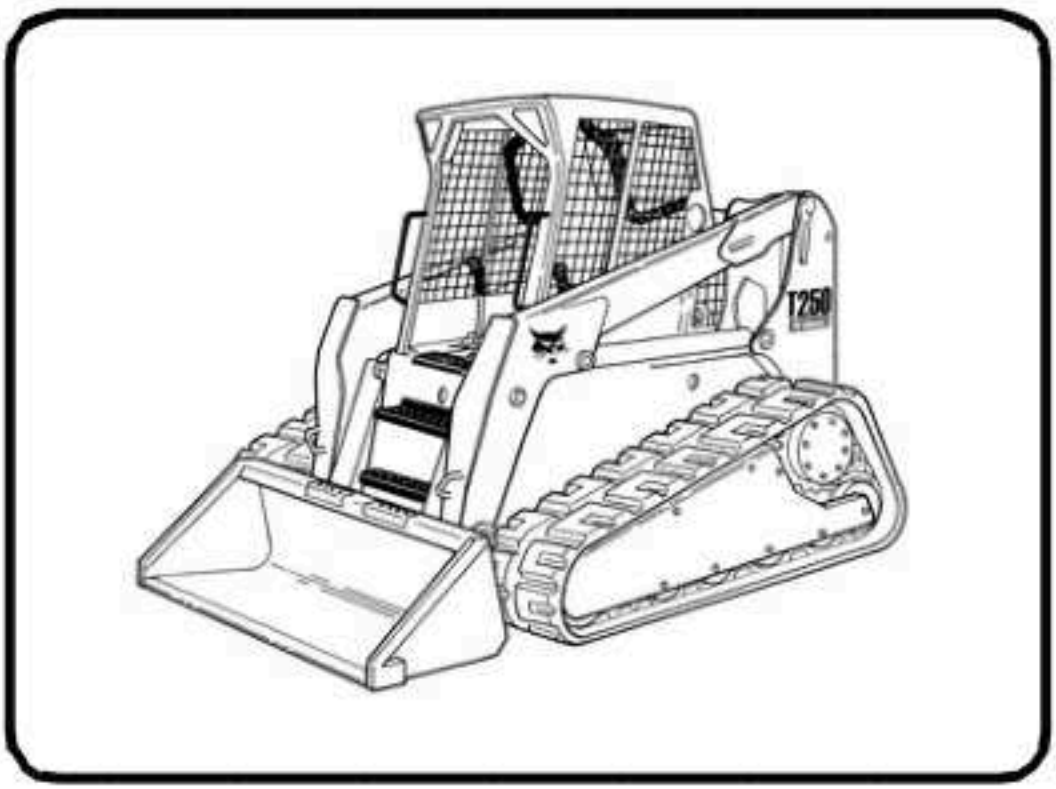
Bobcat®

Service Manual
T250 Compact Track Loader

S/N A5GS11001 - A5GS19999
S/N A5GT11001 - A5GT19999



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS™)

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ACS- ADVANCED CONTROL SYSTEM
AHC- ADVANCED HAND CONTROL SYSTEM
BICS™-BOBCAT INTERLOCK CONTROL SYSTEM

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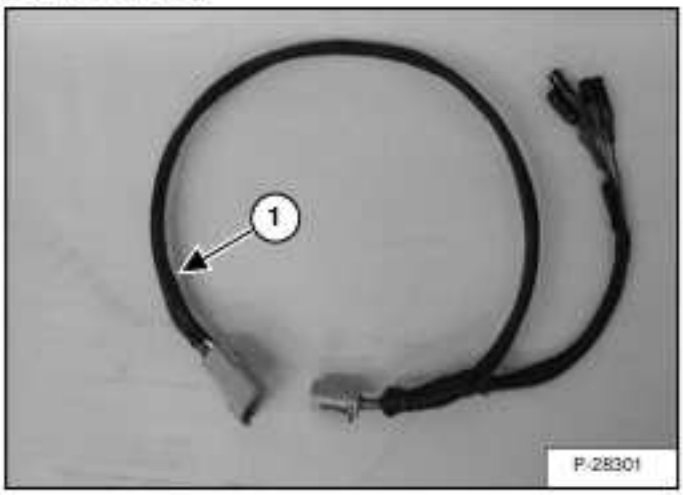
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Testing

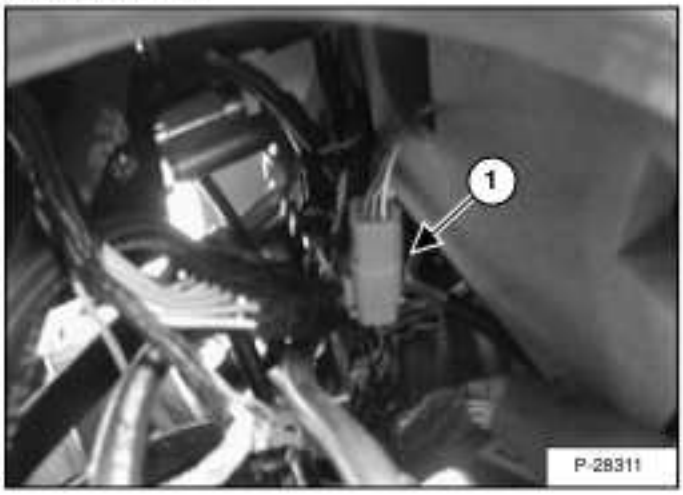
Figure 50-112-1



The tools listed will be needed to do the following procedure:

MEL1608-Joystick Test Harness **[Figure 50-112-1]**
MEL1563 or 6689779-Remote Start Tool
Multimeter

Figure 50-112-2



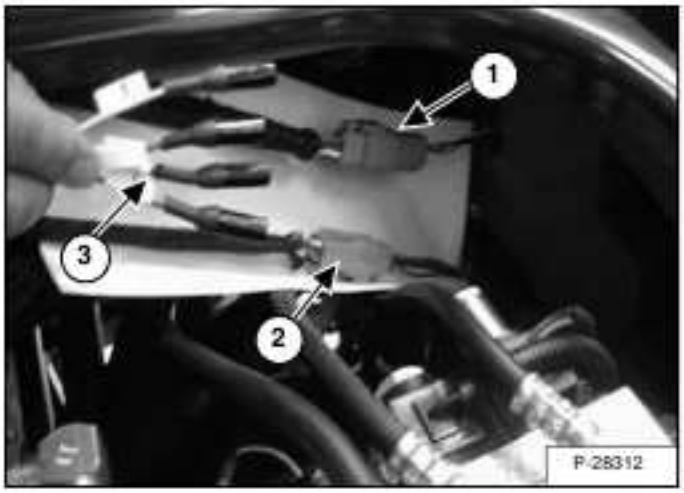
Raise the lift arms and install an approved lift arm support device. (See Installing on Page 10-20-1.)

Raise the operator cab. (See Raising on Page 10-30-2.)

Connect the remote start tool to the loader. (See REMOTE START TOOL KIT-MEL1563 on Page 10-60-1.)

At the back side of the control panel, locate the left joystick wire connector (Item 1) **[Figure 50-112-2]**.

Figure 50-112-3



Disconnect the joystick harness connector (Item 1) from the loader wiring harness (Item 2) **[Figure 50-112-3]**.

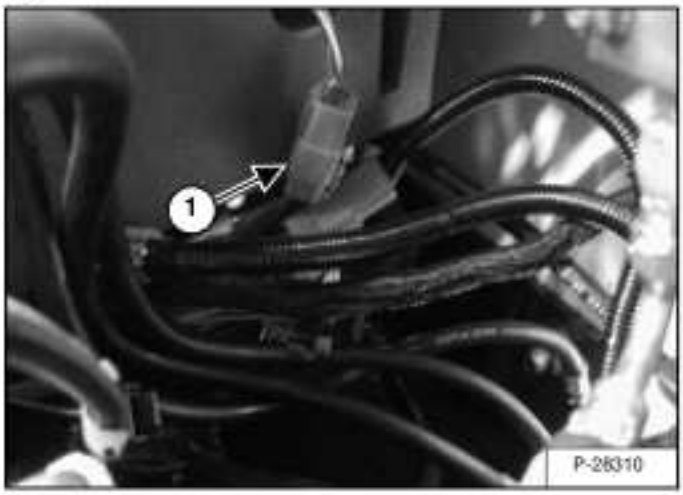
Install the test harness (Item 3) **[Figure 50-112-3]** between the two connectors.

Turn the remote start key to ON position without starting the loader.

Check the voltage between pin 3 and pin 5 on the joystick test harness (Item 3) **[Figure 50-112-3]**.

The voltage should be between 2.45 and 2.55 volts.

Figure 50-112-4



Repeat the procedure at the right joystick wiring harness connector (Item 1) **[Figure 50-112-4]**. (If needed.)

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Specifications (Cont'd)

All dimensions are given in inches. Respective metric dimensions are given in millimeters enclosed by parentheses.

Timing Gear

Timing Gear Backlash	
Crank Gear - Idler Gear	0.00193 - 0.00759 in. (0,049 - 0,193 mm)
Allowable Limit	0.0087 in. (0,22 mm)
Idler Gear - Cam Gear	0.00193 - 0.00744 in. (0,049 - 0,189 mm)
Allowable Limit	0.0087 in. (0,22 mm)
Idle Gear - Injection Pump Gear	0.00119 - 0.00649 in. (0,0300 - 0,165 mm)
Allowable Limit	0.0087 in. (0,22 mm)
Clearance Between Idle Gear Shaft And Idle Gear Bushing	0.0020 - 0.0035 in. (0.050 - 0.091 mm)
Allowable Limit	0.0039 in. (0,10 mm)
Idle Gear Bushing I.D.	1.7727 - 1.7736 in. (45,025 - 45,050 mm)
Idle Gear Shaft O.D.	1.7701 - 1.7706 in. (44,959 - 44,975 mm)
Idle Gear Side Clearance	0.0059 - 0.011 in. (0,15 - 0,30 mm)
Allowable Limit	0.04 in. (0,9 mm)

Cylinder Head

Cylinder Head Surface Flatness - Allowable Limit	0.002 in. (0,05 mm)
Compression Pressure	504 PSI / 250 RPM (34,749 bar / 250 RPM)
Compression Pressure - Allowable Limit	371 PSI / 250 RPM (25,579 bar / 250 RPM)
Compression Ratio	19.0
Variance Among Cylinder - Allowable Limit	10% or less
Firing Order	1-3-4-2

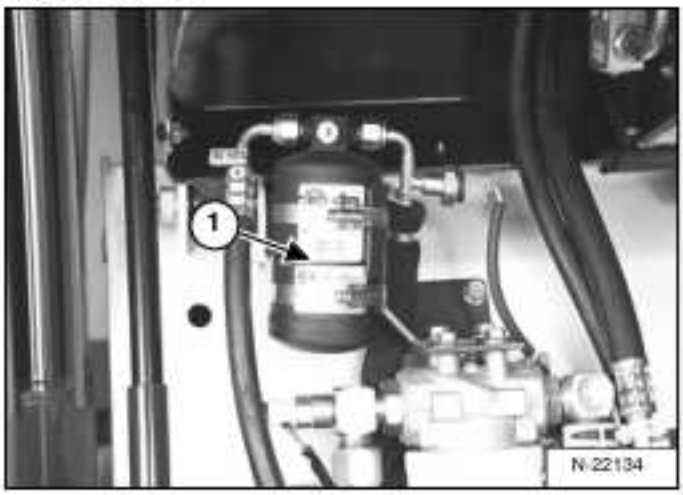
Piston And Piston Ring

Piston Pin Bore I.D.	1.1811 - 1.1816 in. (30,000 - 30,013 mm)
Allowable Limit	1.183 in. (30,05 mm)
Clearance Between Compression Ring 1 and Ring Groove	0.002 - 0.003 in. (0,05 - 0,09 mm)
Allowable Limit	0.0059 in. (0,15 mm)
Clearance Between Compression Ring 2 and Ring Groove	0.00367 - 0.00472 in. (0,0930 - 0,120 mm)
Allowable Limit	0.0079 in. (0,20 mm)
Clearance Between Oil Ring And Ring Groove	0.0008 - 0.0023 in. (0.020 - 0,060 mm)
Allowable Limit	0.0059 in. (0,15 mm)
Ring Gap	
Compression Ring 1	0.012 - 0.017 in. (0,30 - 0,45 mm)
Allowable Limit	0.0492 in. (1,25 mm)
Compression Ring 2	0.012 - 0.017 in. (0,30 - 0,45 mm)
Allowable Limit	0.0492 in. (1,25 mm)
Oil Ring	0.0099 - 0.017 in. (0,25 - 0,45 mm)
Allowable Limit	0.0492 in. (1,25 mm)

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HVAC Repair And Leaks

Figure 80-30-3



Whenever the A/C system is opened to the atmosphere or there has been a leak in the system, the receiver/drier (Item 1) **[Figure 80-30-3]** must be changed.

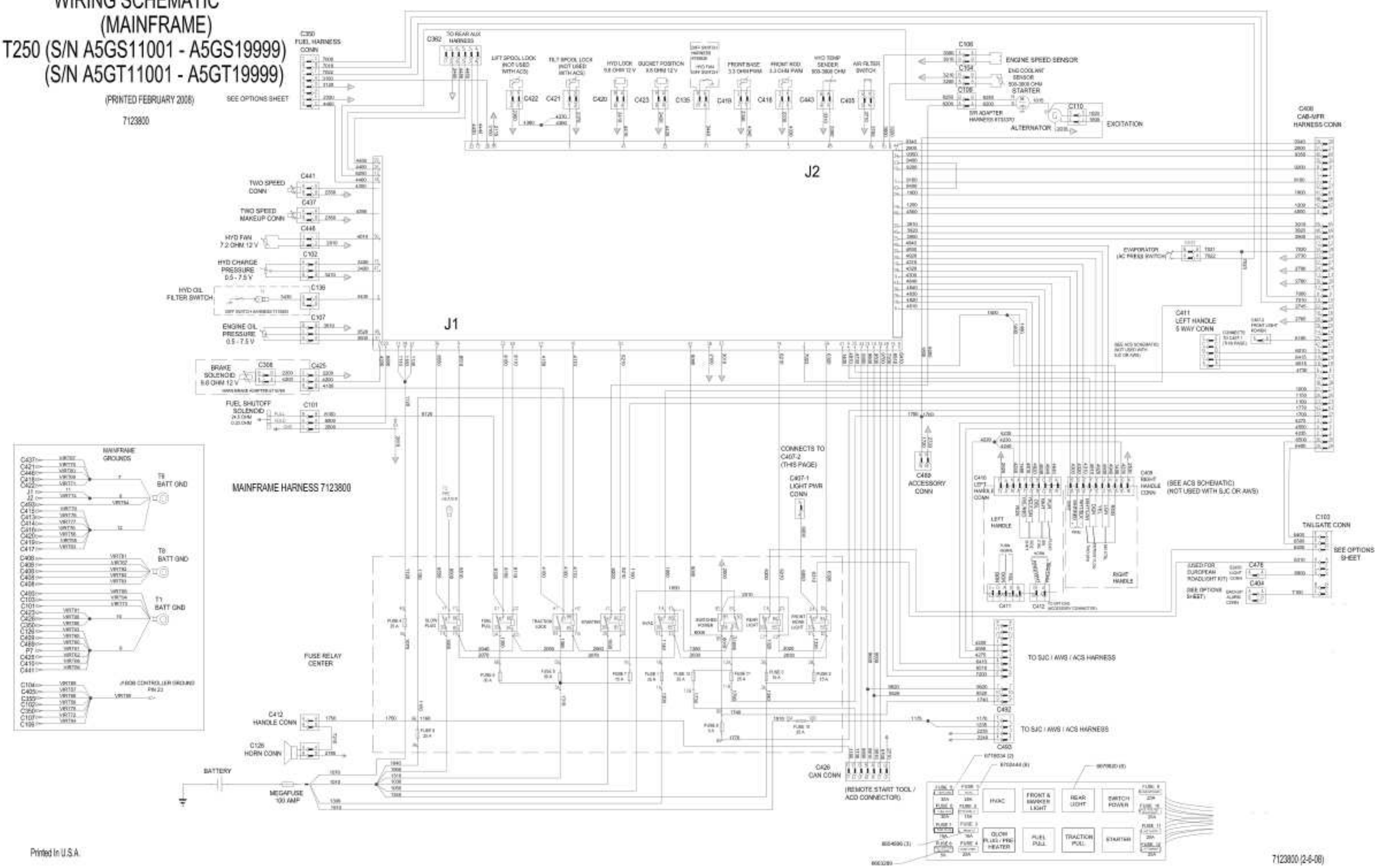
Never leave hose fittings, compressor fittings or components uncapped while working on the A/C system.

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WIRING SCHEMATIC
(MAINFRAME)
T250 (S/N A5GS11001 - A5GS19999)
(S/N A5GT11001 - A5GT19999)

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