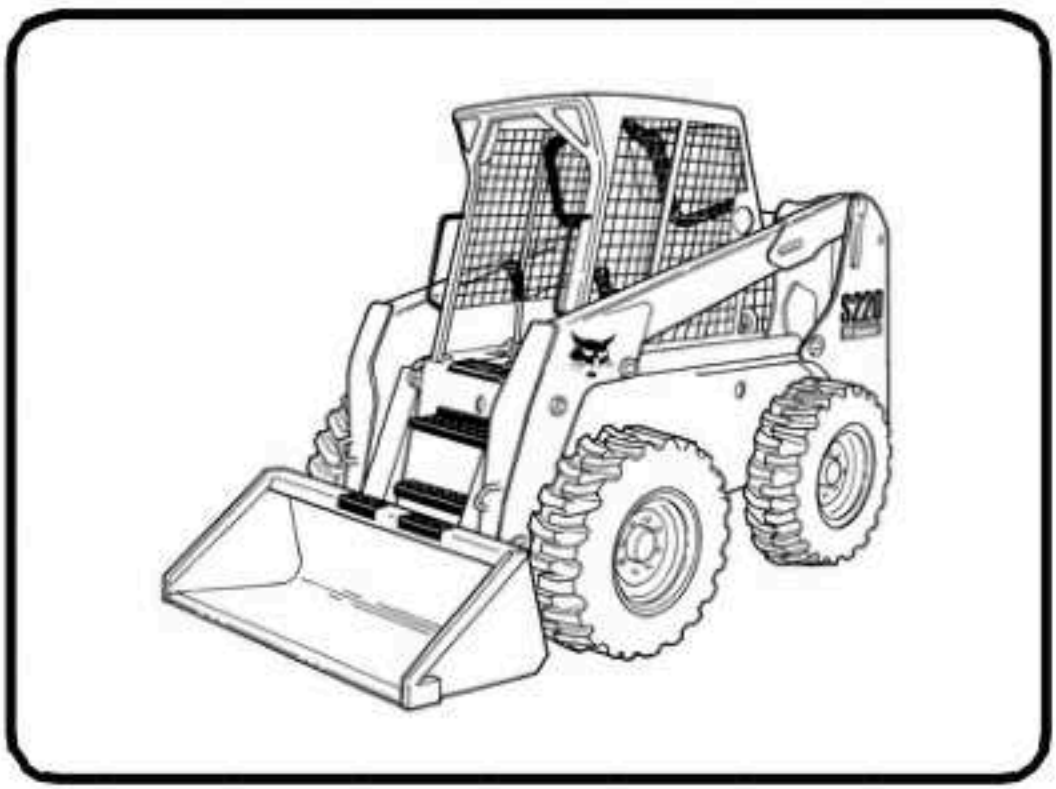
Bobcat®

Service Manual
S220 Skid-Steer Loader

S/N 530711001 & Above
S/N 530811001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6904154 (3-09)

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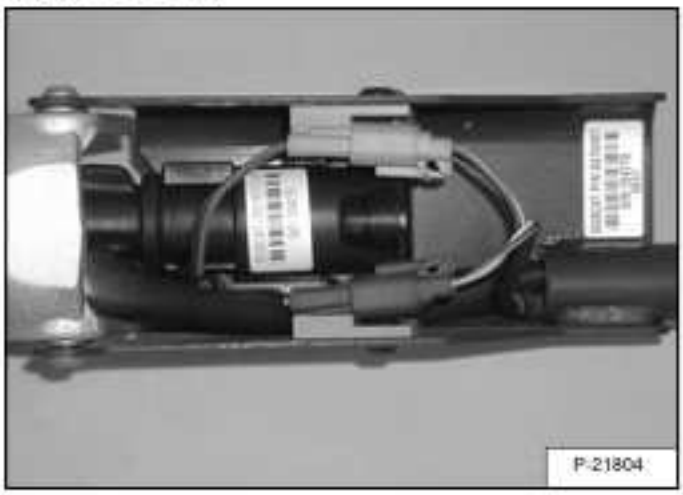
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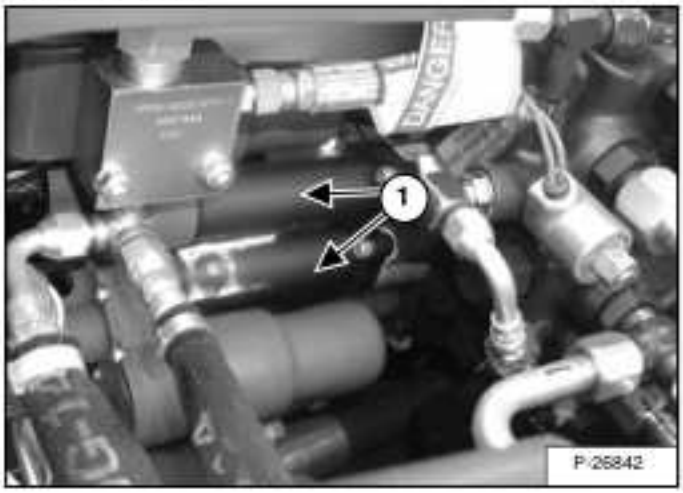
Figure 60-130-21



Connect the handle harness connectors to the sensor and lock solenoid connectors **[Figure 60-130-21]**.

Actuator Connector Disassembly And Assembly

Figure 60-130-22

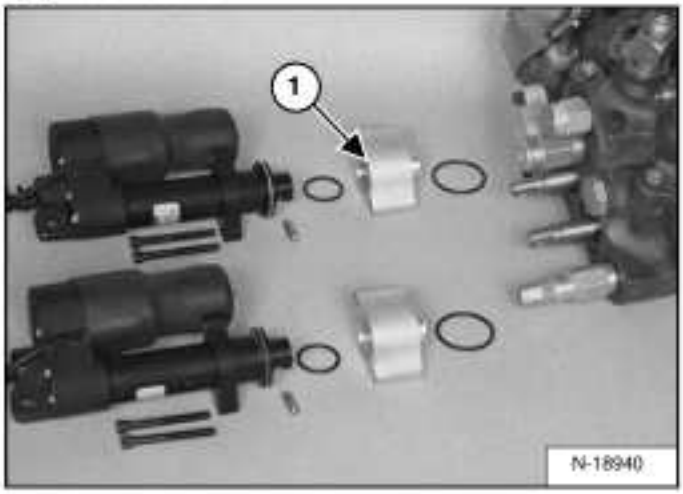


Remove the control panel. (See Removal And Installation on Page 50-100-2.)

Remove the actuator (Item 1) **[Figure 60-130-22]** from the hydraulic control valve. (See Actuator Removal And Installation (In Loader) on Page 20-41-6.)

Installation: Tighten the mount bolts to 90-100 in.-lb. (10.2-11.3 N•m) torque.

Figure 60-130-23

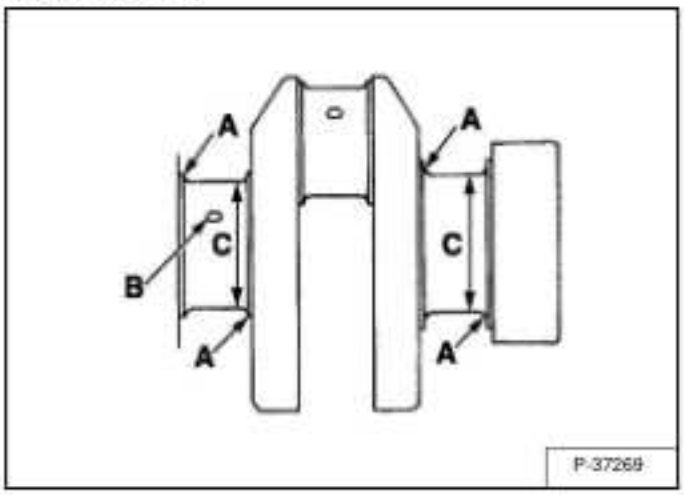


Check the mounting block (Item 1) **[Figure 60-130-23]** and bolts for wear and replace as needed.

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Crankshaft And Bearings - Servicing (Cont'd)

Figure 70-90-44

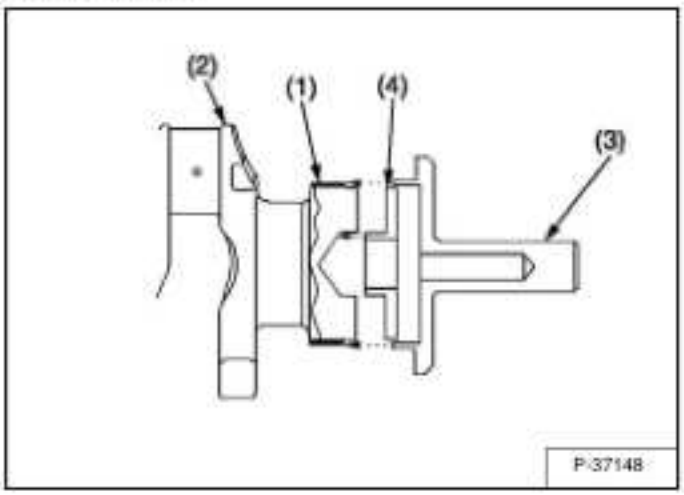


Undersize dimensions of crank pin **[Figure 70-90-44]**.

Undersize	0.2 mm 0.008 in.	0.4 mm 0.016 in.
Dimension A	2.8 to 3.2 mm radius 0.1102 to 0.1260 in. radius	2.8 to 3.2 mm radius 0.1102 to 0.1260 in. radius
Dimension B	1.0 to 1.5 mm radius 0.0394 to 0.0591 in. radius	1.0 to 1.5 mm radius 0.0394 to 0.0591 in. radius
Dimension C	74.777 to 74.790 mm 2.9440 to 2.9445 in.	74.577 to 74.590 mm 2.9361 to 2.9366 in.
The crank pin must be fine-finished to higher than (0.8-S)		

Crankshaft Sleeve

Figure 70-90-45



Remove the used crankshaft sleeve (Item 1) **[Figure 70-90-45]** using a special-use puller set (Code No.: 07916-09032).

Set the sleeve guide (Item 4) to the crankshaft (Item 2) **[Figure 70-90-45]**.

Heat a new sleeve to a temperature between 150 and 200°C (302 and 392°F), and fix the sleeve to the crankshaft.

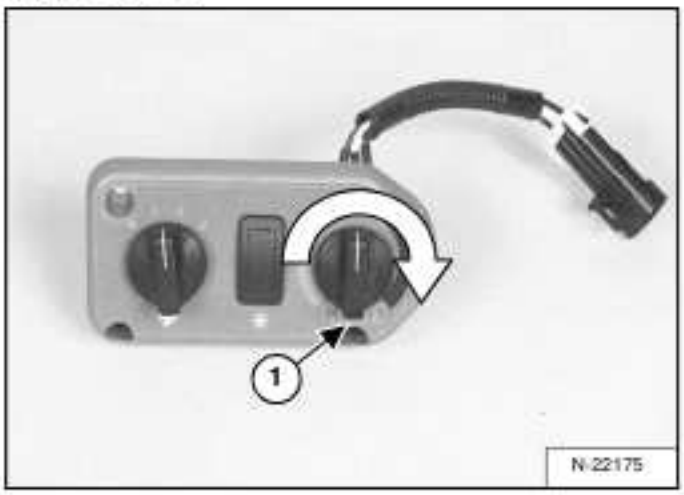
Press fit the sleeve using the auxiliary socket for pushing (Item 3) **[Figure 70-90-45]**.

NOTE: Mount the sleeve with its largely chamfered surface facing outward.

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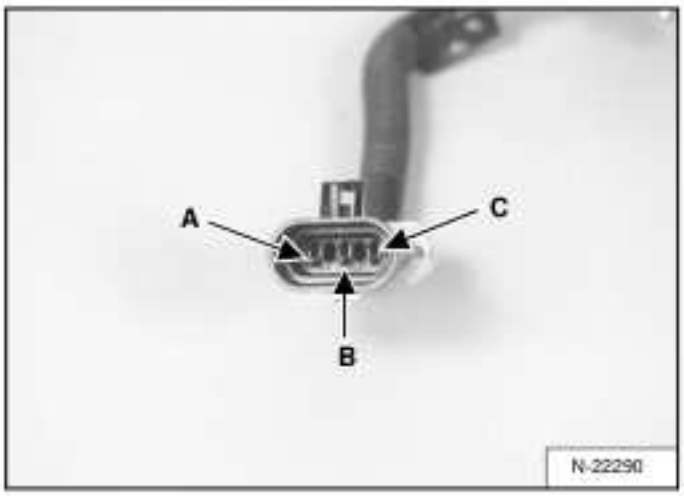
Electrical System (Cont'd)

Figure 80-30-29



To check the resistance of the white wire, turn the potentiometer control (Item 1) **[Figure 80-30-29]** to the full Heater position.

Figure 80-30-30



Check the resistance between the wire terminal **A** and wire terminal **B** frame **[Figure 80-30-30]** should be around 39K Ohms.

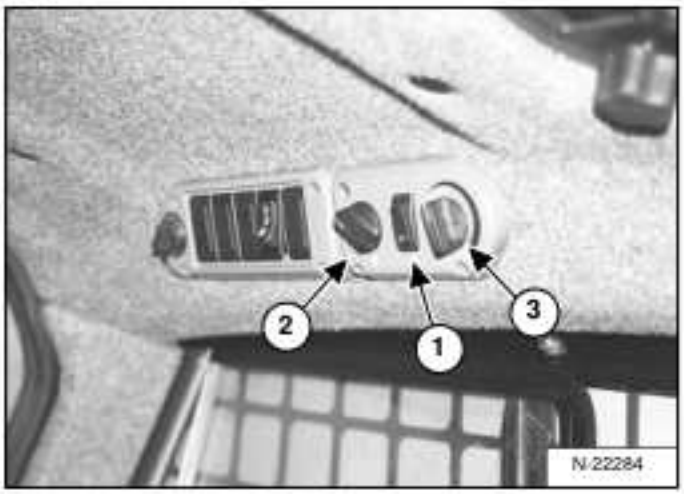
Check the resistance between the wire terminal **C** and wire terminal **B** frame **[Figure 80-30-30]** should be around 49K Ohms.

If the resistance is not found replace the potentiometer.

Engine Coolant Bypassing The Heater Valve

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

Figure 80-30-31



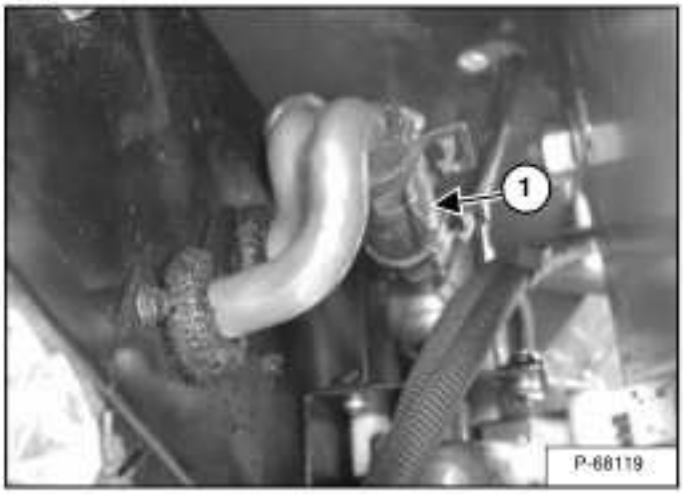
Push the A/C switch (Item 1) to the OFF position, turn the blower switch (Item 2) to position **1**, then turn the temperature control (Item 3) **[Figure 80-30-31]** to the High A/C position, with the loader ignition switch OFF.

Raise the operator cab. (See Raising on Page 10-30-1.)

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

Start the loader and run at high idle, for ten minutes.

Figure 80-30-32



Check the heater hose (Item 1) **[Figure 80-30-32]** for temperature.

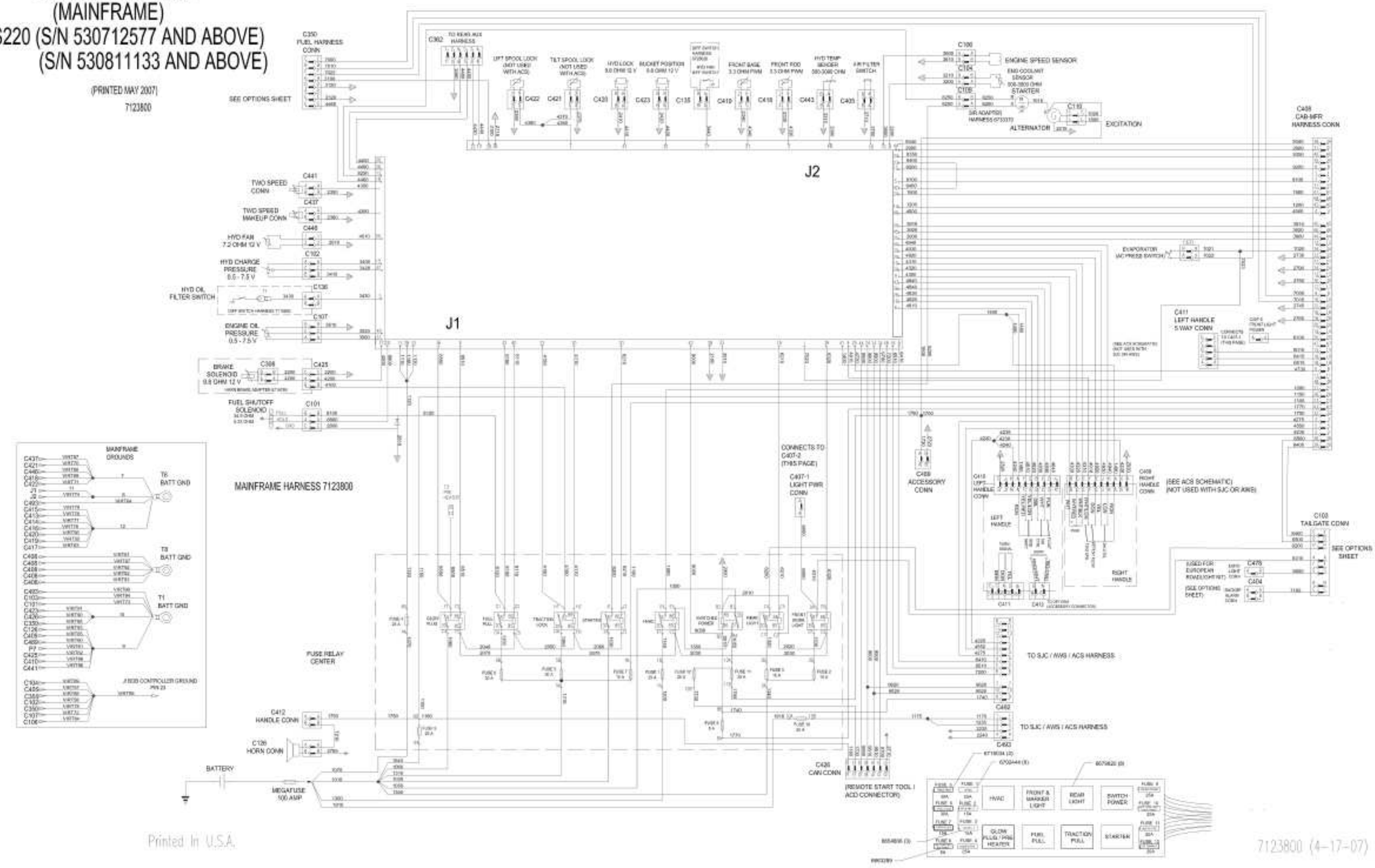
If the hose is hot, the heater valve is leaking by, and needs to be replace.

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WIRING SCHEMATIC
(MAINFRAME)
S220 (S/N 530712577 AND ABOVE)
(S/N 530811133 AND ABOVE)

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