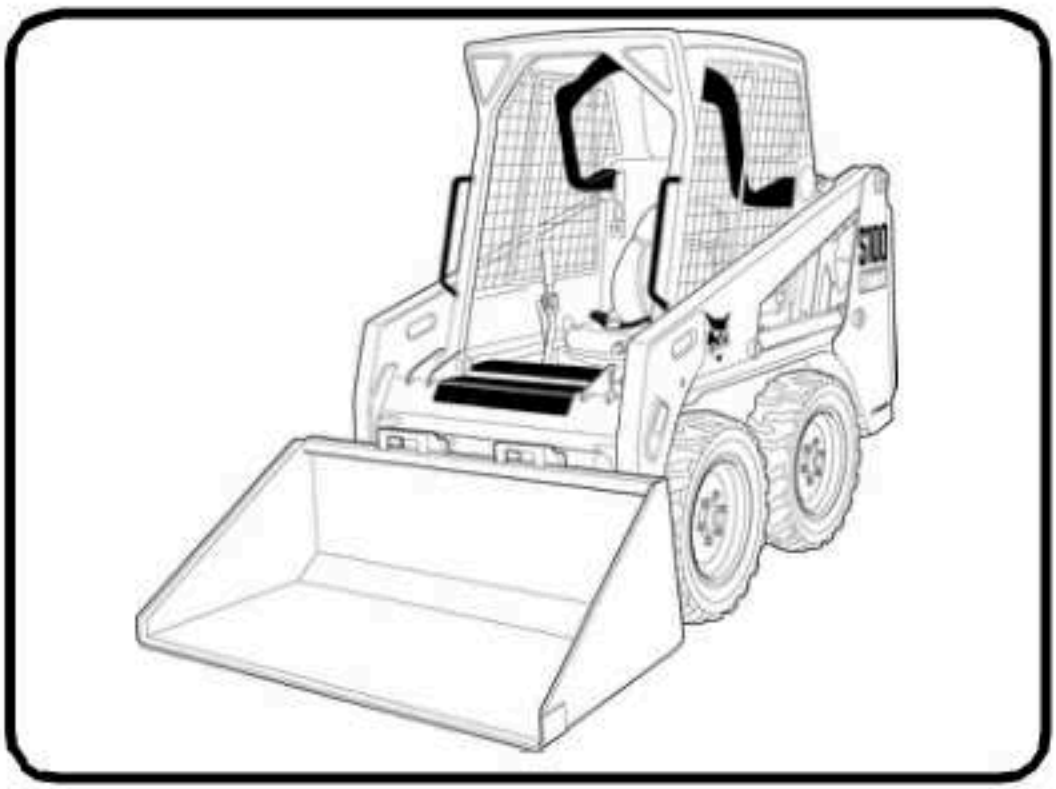
Bobcat®

Service Manual
S100 Skid-Steer Loader

S/N AB6411001 & Above



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS™)

6987131 (9-08)

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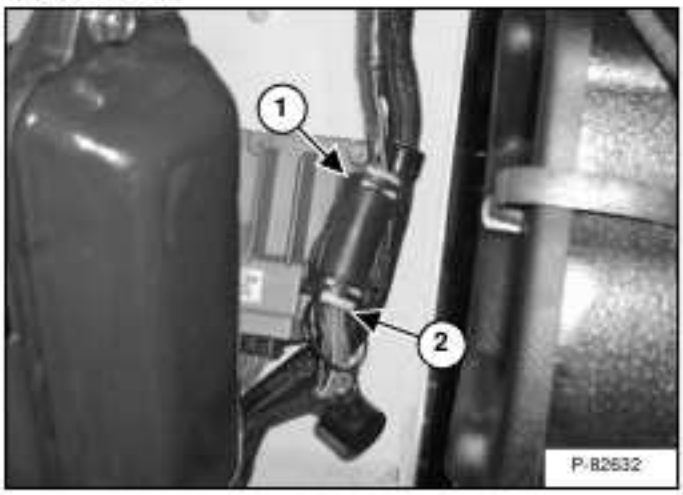
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Service Tool Harness Control - MEL1565 (Cont'd)

Figure 10-60-7



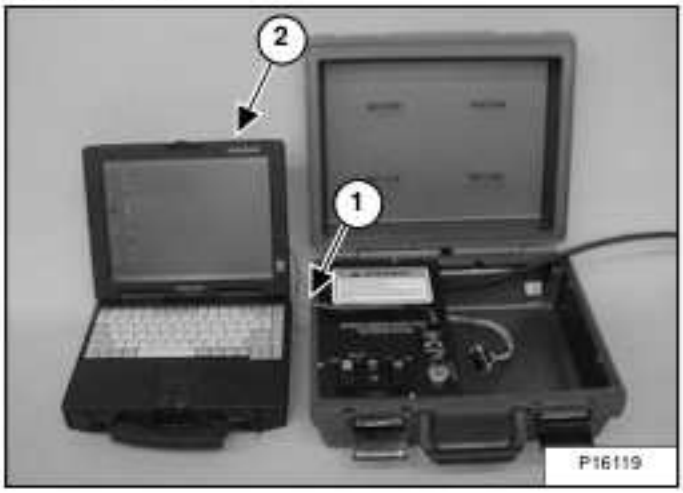
Loaders equipped with an attachment harness (Item 1) **[Figure 10-60-7]** must disconnect the attachment harness from the loader harness (Item 2) **[Figure 10-60-7]**.

Connect the service tool harness to the ACD connector and the loader harness connector.

NOTE: To monitor, diagnose or load new software the Service PC must be connected to the Remote Start Tool Switch.

Service Tool Harness Communicator - MEL1566

Figure 10-60-8



The service tool harness communicator (Item 1) **[Figure 10-60-8]** is required to connect remote start tool to the Service PC (Item 2) **[Figure 10-60-8]**.

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Specifications

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

Fuel Injection Nozzles

Opening Pressure	1992 - 2133 PSI (137,3 - 147,1 bar)
Fuel Tightness Nozzle Seat	Dry Nozzle at 1849 PSI (127,5 bar)

Fuel Injection Pump

Fuel Tightness Plunger	10 sec.: initial pressure 1849 - 1991 PSI (127,5 - 137,3 bar)
Allowable Limit	5 seconds 1991 PSI (137,3 bar)
Injection Timing	17 - 19 degrees B.T.D.C.
High Idle	3000 - 3200 RPM
Low Idle	1100 RPM

Cylinder Head

Cylinder Head Surface Distortion	0.002 in. (0,05 mm)
Top Clearance (Piston to Head)	0.0217 - 0.0276 in. (0,55 - 0,70 mm)
Compression	541 - 597 PSI (37,3 - 47,2 bar)
Allowable Limit	327 PSI (22,5 bar)
Allowable Difference Between Cylinders	10% or less

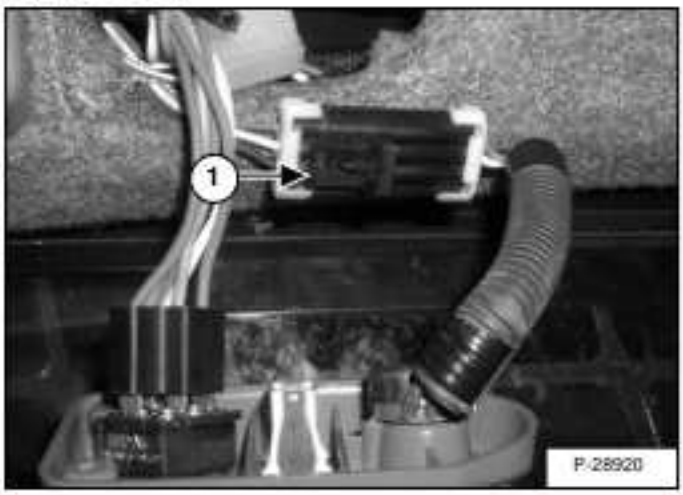
Valves

Valve Seat Width (Intake & Exhaust)	0.0835 in. (2,12 mm)
O.D. of Valve Stems	0.2741 - 0.2746 in. (6,960 - 6,975 mm)
I.D. of Valve Guides	0.2760 - 0.2765 in. (7,010 - 7,025 mm)
Clearance Between Valve Stem & Guide	0.0014 - 0.0025 in. (0,035 - 0,065 mm)
Allowable Limit	0.0039 in. (0,1 mm)
Valve Clearance (Cold)	0.00571 - 0.00728 in. (0,145 - 0,185 mm)
Valve Recessing (Protrusion)	0.0020 in. (0,05 mm)
(Recess)	0.0098 in. (0,25 mm)
Allowable Limit (Recess)	0.0157 in. (0,4 mm)
Valve Seat Angle (Int.)	60 degrees
Valve Seat Angle (Exh.)	45 degrees

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Electrical System (Cont'd)

Figure 20-20-8

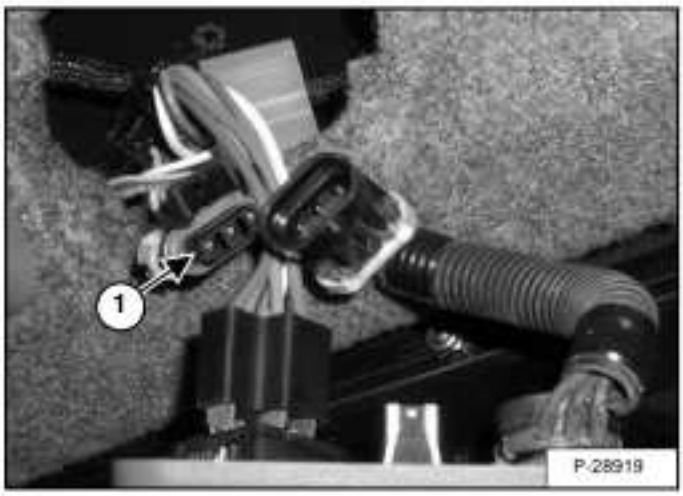


The potentiometer will affect the operation of the heater.

If heater valve does not open, or close, check the potentiometer.

At the loader cab, disconnect the loader harness (Item 1) **[Figure 20-20-8]** from the potentiometer.

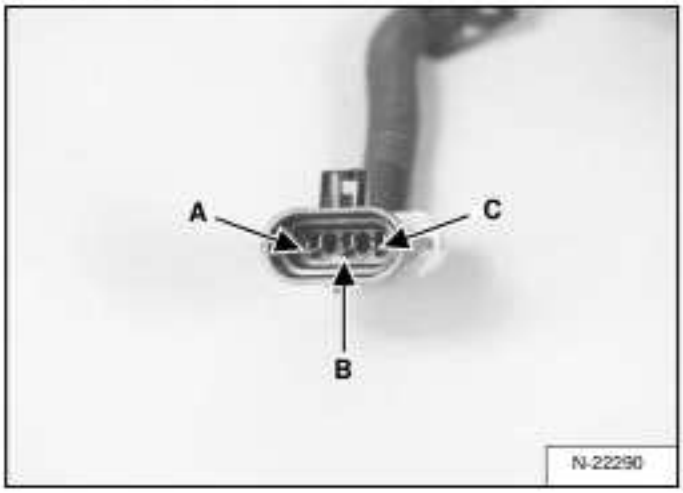
Figure 80-30-9



Check the loader harness (Item 1) **[Figure 80-30-9]** for voltage. The voltage should be 12 volts.

If there is no voltage at the wiring harness, check the harness for broken wires or blown fuse.

Figure 80-30-10

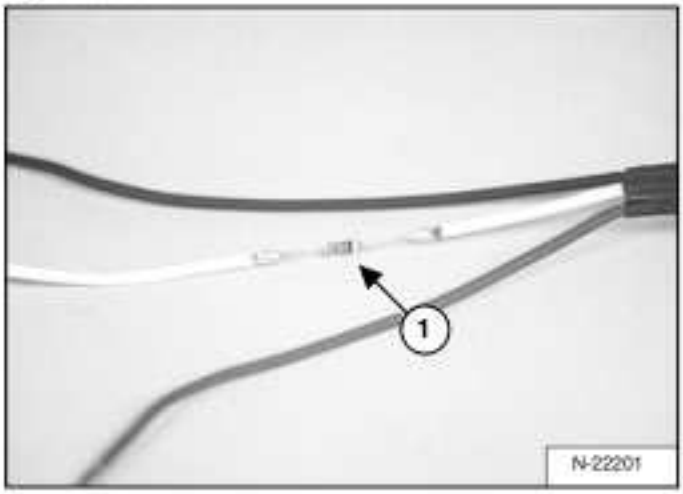


If there is voltage at the wiring harness, check the potentiometer **[Figure 80-30-10]** for resistance.

The resistance should be 10 K Ohm's between wire terminal **A** and wire terminal **C** frame **[Figure 80-30-10]**.

If no resistance is found replace the potentiometer.

Figure 80-30-11

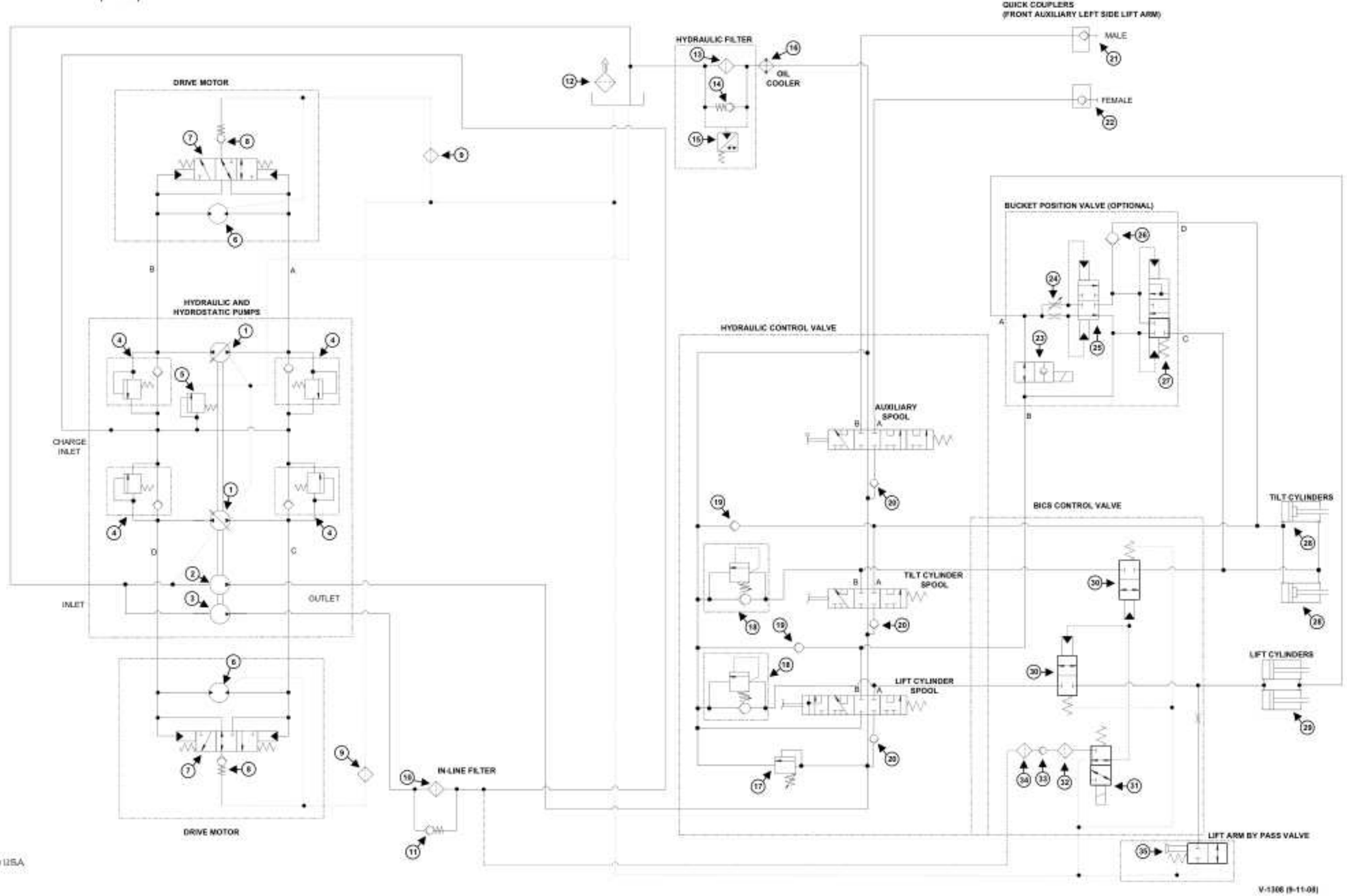


The white wire **B**, (Item 1) **[Figure 80-30-11]**, on the potentiometer, is a resistor wire.

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HYDRAULIC/HYDROSTATIC SCHEMATIC
S100 (S/N AB6411001 AND ABOVE)

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