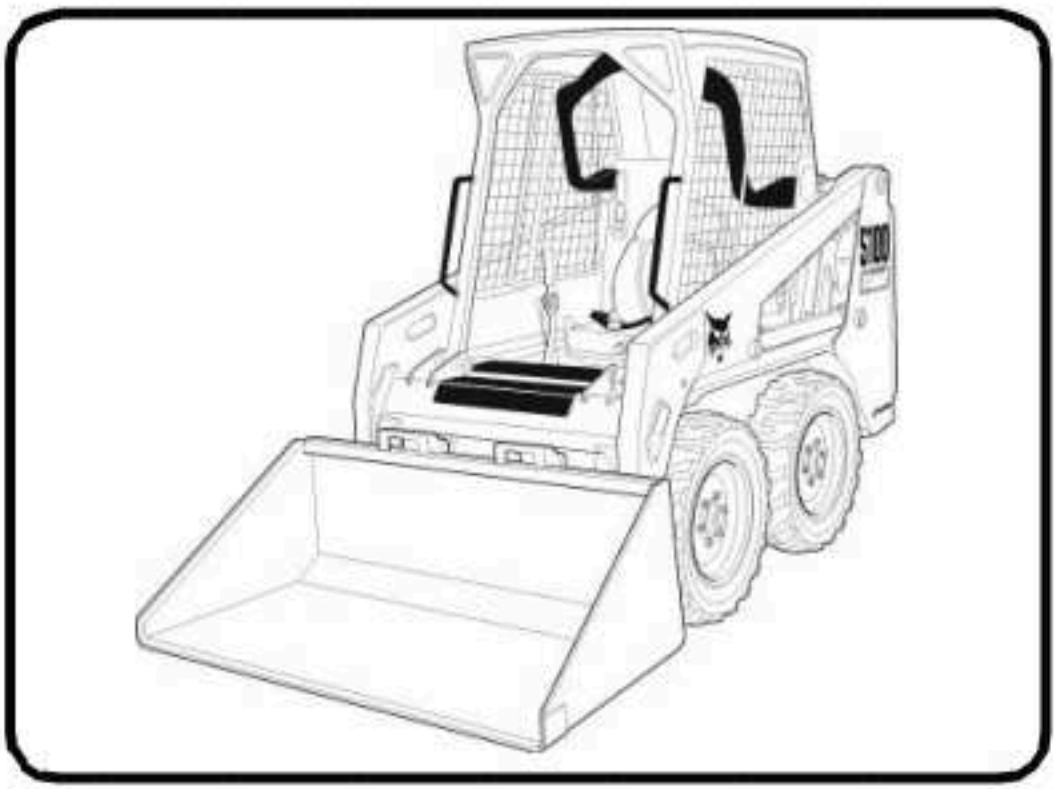
Bobcat

Service Manual
S100 Skid-Steer Loader

S/N A2G711001 & Above
S/N A89L11001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6904926 (4-11)

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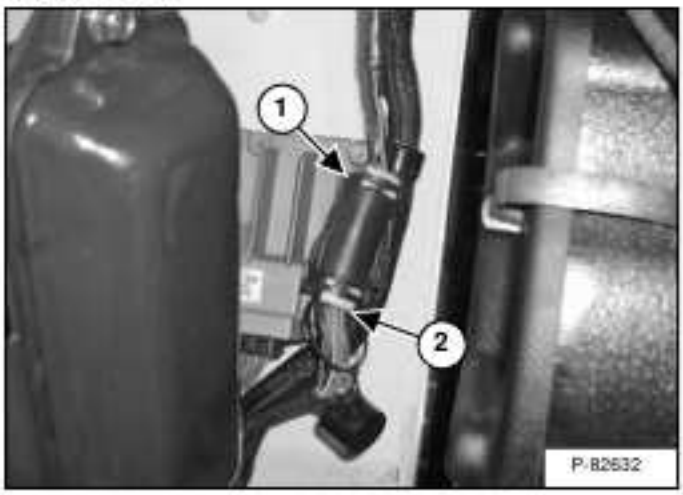
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Service Tool Harness Control - MEL1565 (Cont'd)

Figure 10-60-7



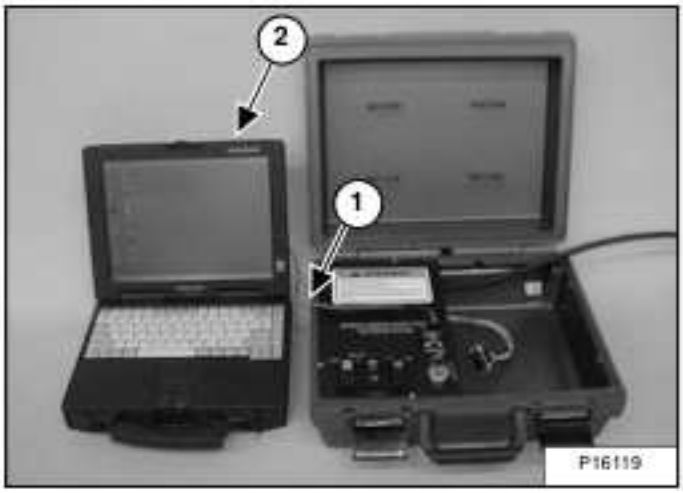
Loaders equipped with an attachment harness (Item 1) **[Figure 10-60-7]** must disconnect the attachment harness from the loader harness (Item 2) **[Figure 10-60-7]**.

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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Troubleshooting

The following troubleshooting chart is provided for assistance in locating and correcting problems which are most common. Many of the recommended procedures must be done by authorized Bobcat service personnel only.

If the service code appears in the left instrument panel, refer to the Electrical Service Manual for the probable cause.

⚠ WARNING

Check for correct function after adjustments, repairs or service. Failure to make correct repairs or adjustments can cause injury or death.

W-2004-1285

PROBLEM	CAUSE
The hydraulic system will not operate.	1, 2, 3, 5, 8
Slow hydraulic system action.	1, 3, 4, 6, 8
Hydraulic action is not smooth.	1, 4, 5, 6, 7
Lift arms go up slowly at full engine RPM.	1, 3, 4, 6, 7, 8, 9
The lift arms or Bob-Tach will move when the pedal is in neutral position.	4
The lift arms come down with the pedal in the neutral position.	4, 9, 10, 11
bypass valve stuck.	12
bypass valve stem bent or broke.	13

KEY TO CORRECT THE CAUSE
1. The fluid level is not correct.
2. The pedal linkage is disconnected.
3. The hydraulic pump has damage.
4. The pedal linkage is not adjusted correctly.
5. Relief valve is not at the correct pressure.
6. Suction leak on the inlet side of the hydraulic pump.
7. Fluid is cold. Wrong viscosity fluid.
8. Using the loader for more than its rated capacity.
9. Internal leak in the lift cylinder(s).
10. External leak from the lift cylinder(s).
11. Damaged lift spool.
12. Rotate shaft.
13. Replace manual spool cartridge.

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(S100) LOADER SPECIFICATIONS (CONT'D)

Engine

Make / Model	KUBOTA V1505-E2B-BCZ-1
Fuel / Cooling	Diesel / Liquid
Horsepower @ 3000 RPM (SAE)	Net: 33.5 HP (25 kW) Gross: 35.5 HP (26,5 kW)
Torque @ 1700 RPM (SAE)	Net: 67 ft.-lb. (91 N•m) Gross: 68 ft.-lb. (92 N•m)
Number of Cylinders	Four
Displacement	91.41 cu. in. (1498 cu. cm.)
Bore / Stroke	3.07 / 3.09 (78,0 / 78,4)
Lubrication	Gear Pump Pressure System W / Filter
Crankcase Ventilation	Closed-Breathing
Air Cleaner	Dry replaceable paper cartridge w / separate safety element
Ignition	Diesel-Compression
Low Idle	1100 RPM
High Idle	3200 RPM

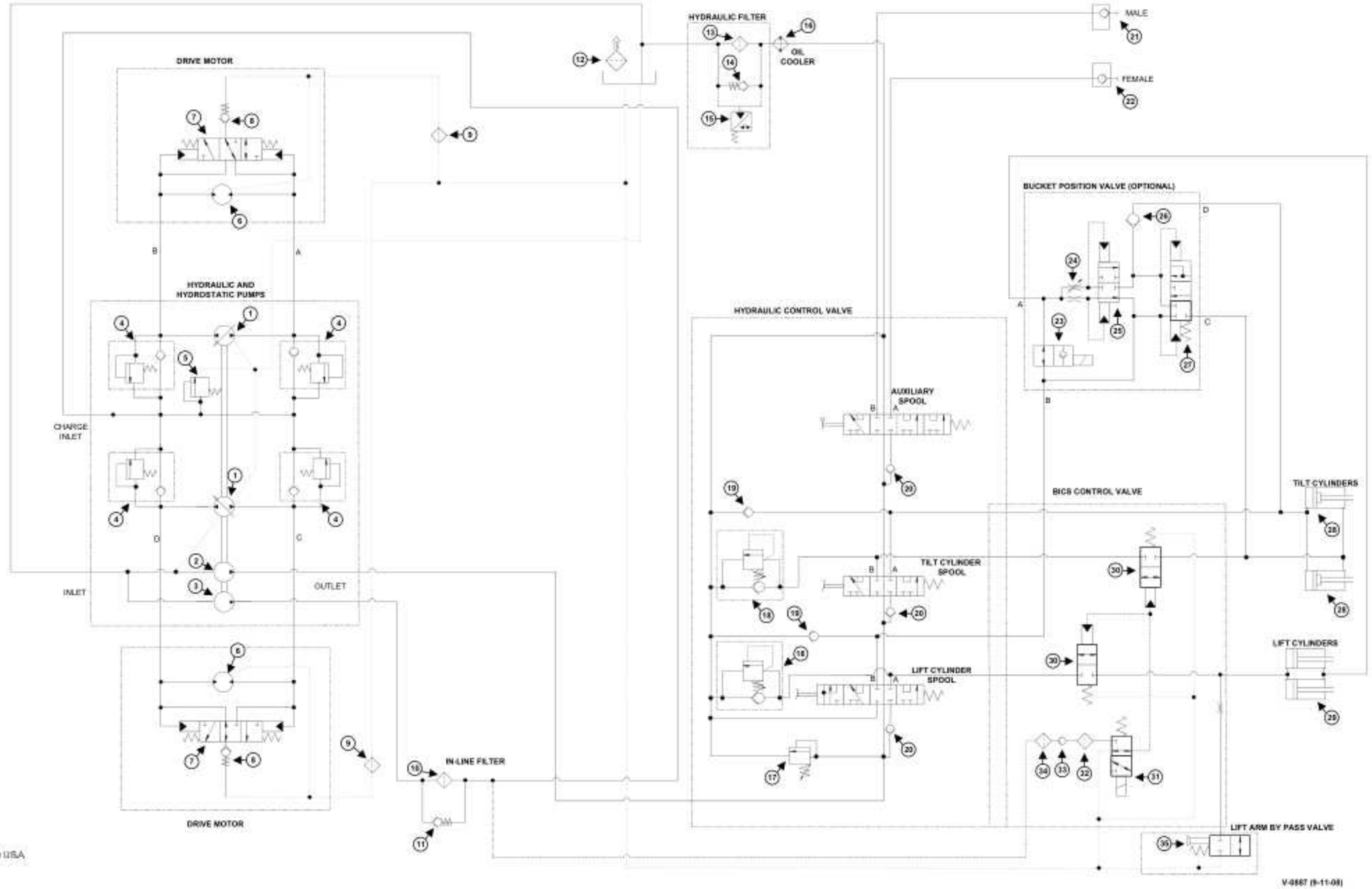
Hydraulic System

Pumps	Engine driven, Gear type
Pump Capacity	13.1 GPM (49,6 lpm) @ 3270 Pump RPM @ 91% efficiency
Filters	Full flow replaceable, 3 micron synthetic media element
System Relief Valve Setting	3000 PSI (20.7 MPa)
Hydraulic Cylinders	Double acting; Tilt cylinder has cushioning feature on dump and rollback
Bore Diameter: Lift Cylinder (2)	2.00 in. (50,8 mm)
Tilt Cylinder (1)	2.25 in. (57,2 mm)
Rod Diameter: Lift Cylinder (2)	1.25 in. (31,8 mm)
Tilt Cylinder (1)	1.50 in. (38,1 mm)
Stroke: Lift Cylinder (2)	25.73 in. (653,54 mm)
Tilt Cylinder (1)	12.09 in. (307,1 mm)
Control Valve	3-spool, open center type w / float detent on lift and electrically controlled auxiliary spool.
Fluid Lines	SAE standard tubelines, hoses and fittings.
Fluid Type	BOBCAT FLUID, Hydraulic / Hydrostatic 6903117 - (2.5 Gal.) 6903118 - (5 Gal.) 6903119 - (55 Gal.)
Hydraulic Function Time:	
Raise Lift Arms	2.8 Seconds
Lower Lift Arms	1.8 Seconds
Bucket Dump	1.6 Seconds
Bucket Rollback	1.2 Seconds

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HYDRAULIC/HYDROSTATIC SCHEMATIC
S100 (S/N A2G711001 AND ABOVE)
(S/N A2G811001 AND ABOVE)
(S/N A8ET11001 AND ABOVE)
(S/N A89L11001 AND ABOVE)

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