S250 TURBO

S300 TURBO

INCLUDES HIGH FLOW

Bobcat®

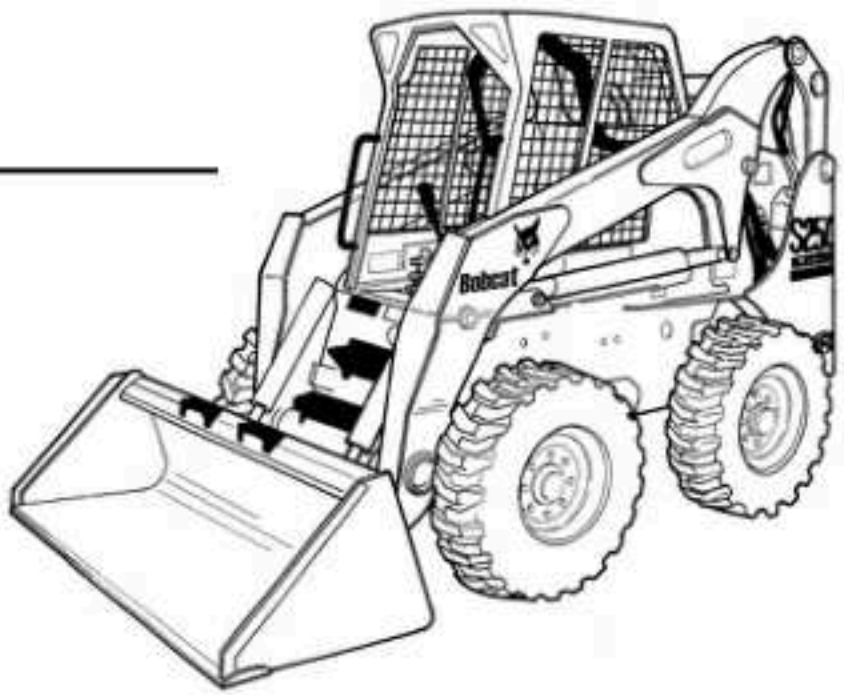
Service Manual

S250

S/N 526011001 & Above
S/N 526111001 & Above

S300

S/N 525811001 & Above
S/N 525911001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6902711 (3-06)

Ingersoll Rand
Compact Vehicle Technologies
Printed in U.S.A.

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SEAT BAR SENSOR

Troubleshooting Chart

The following troubleshooting chart is provided for assistance in locating and correcting BICS system problems. It is recommended that these procedures be done by authorized Bobcat Service Personnel only.

⚠ 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

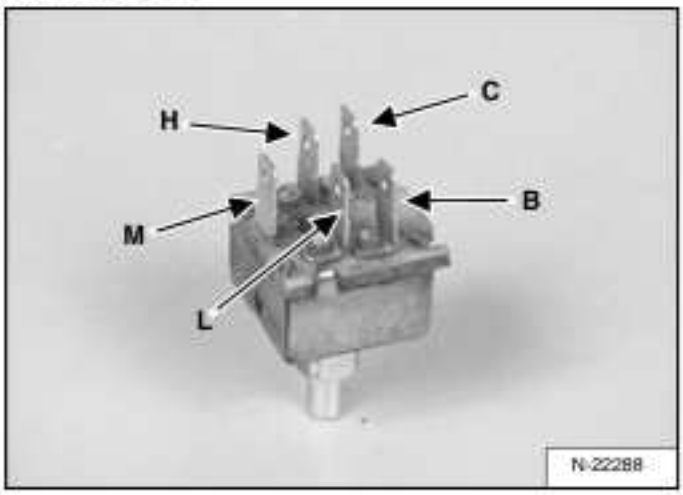
PROBLEM	CAUSE
Indicator light does not come ON when seat bar is lowered.	1, 2, 3, 4, 5

KEY TO CORRECT THE CAUSE
1. Check sensor wire connection.
2. Use the BICS sensor tester MEL1428 with seat bar adapter MEL1567 to check sensor and controller.
3. Check for loose hardware.
4. Check keyed bushing to make sure magnet collar rotates with seat bar.
5. Check magnet collar magnets for contamination such as metal particles.

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Checking The Electrical System (Cont'd)

Figure 80-50-26



If there is voltage at the wiring harness, check the blower switch **[Figure 80-50-26]** for resistance.

With the switch in the **OFF** position, there should be zero resistance between all terminals.

With the switch in the **1** position, there should be resistance between **C** terminal and the **B** terminal. And also between the **C** terminal and the **L** terminal frame **[Figure 80-50-26]**.

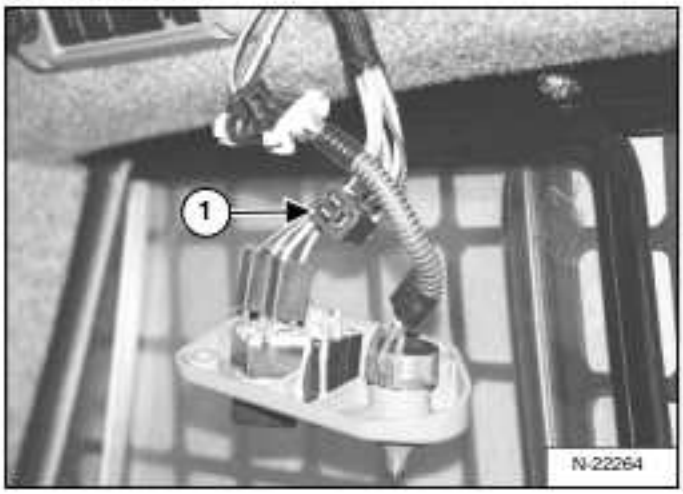
With the switch in the **2** position, there should be resistance between **C** terminal and the **B** terminal. And also between the **C** terminal and the M terminal frame **[Figure 80-50-26]**.

With the switch in the **3** position, there should be resistance between **C** terminal and the **B** terminal. And also between the **C** terminal and the **H** terminal frame **[Figure 80-50-26]**.

If any of the above resistance tests fail, replace the blower switch.

If the above resistance tests are good, check the A/C switch.

Figure 80-50-27



At the loader cab, disconnect the loader harness (Item 1) **[Figure 80-50-27]** from the A/C switch.

Check the harness for voltage. The voltage should be 12 volts.

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

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LOADER SPECIFICATIONS (S250) (CONT'D)

Performance

Rated Operating Capacity (SAE)	2500 lbs. (1134 kg)
Rated Operating Capacity (SAE) With Counterweight	2600 lbs. (1179 kg)
Tipping Load (SAE Rating)	5000 lbs. (2268 kg)
Operating Weight	7723 lbs. (3503 kg)
SAE Breakout Force - Lift	6300 lbf. (2858 kg)
SAE Breakout Force - Tilt	6840 lbf. (3103 kg)
Axle Torque	5957 lbf. (8077 kg)
Travel Speed - Single Speed Loader - Two-Speed Loader (Opt.) Low/High	 7.2 MPH (11,6 km/hr) 7.2 MPH (11,6 km/hr) / 12.5 (20,1 km/hr)

Controls

Vehicle Steering	Direction and speed controlled by two hand levers
Loader Hydraulics - Lift and Tilt - Front Auxiliary (Std.) - Rear Auxiliary (Option)	 Controlled by separate foot pedals or optional Advanced Control System (ACS) Controlled by electrical switch on Right Hand steering lever Controlled by electrical switch on Left Hand steering lever
Auxiliary Pressure Release	Pressure relieved through quick couplers. Push couplers in, hold for 5 seconds.
Engine	Hand lever throttle; key-type starter switch and shutdown
Starting Aid	Intake Air Heater automatically activated as needed by Instrument Panel
Service Brake	Two independent hydrostatic systems controlled by two hand operated steering levers
Secondary Brake	One of the hydrostatic transmissions
Parking Brake (Std.)	Mechanical disc, hand operated rocker switch on instrument panel
Parking Brake (Two-Speed Option)	Spring applied pressure release multi-disk brake activated by rocker switch in instrument panel

Engine

Make/Model	Kubota V3300-DI-T Turbo-Charged
Fuel/Cooling	Diesel/Liquid
Horsepower, Maximum	74.9 HP (55,9 kW) @ 2400 RPM
Maximum Governed RPM	2600 RPM
Low Idle	1125-1175 RPM
High Idle	2525-2575 RPM
Torque, Maximum	200.6 lbf.-ft. (272,0 Nm) @ 1400 RPM
Number of Cylinders	4
Displacement	202.5 cu. in. (3,32 L)
Bore/Stroke	3.86/4.33 (98/110)
Lubrication	Pressure System with Filter
Crankcase Ventilation	Open Breathing
Air Cleaner	Dry replaceable paper cartridge with safety element
Ignition	Diesel-Compression
Engine Coolant	Propylene Glycol / Water Mixture
Starting Aid	Intake Air Heater

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WIRING SCHEMATIC
(With ACS Option)

S250 (S/N 526011001 - 526015999)
(S/N 526111001 - 526111999)
S300 (S/N 525811001 - 525814999)
(S/N 525911001 - 525911999)
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