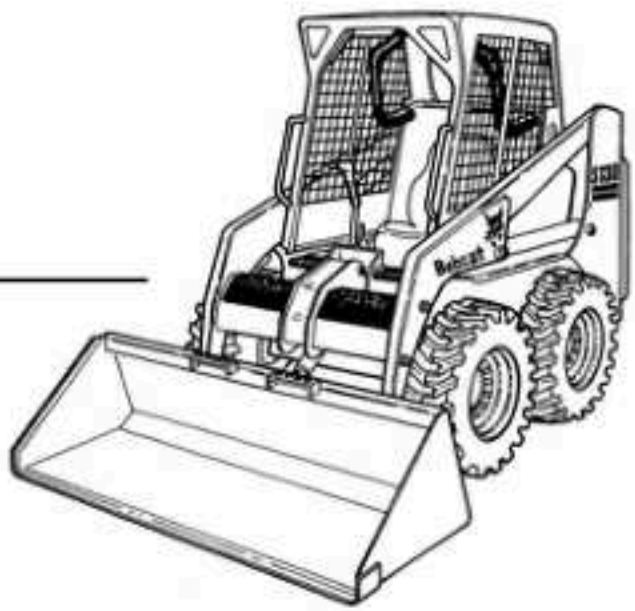
S130

Bobcat®

Service Manual

S/N 524611001 & Above
S/N 524711001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6902680 (3-06)

Ingersoll Rand
Compact Vehicle Technologies

Printed in U.S.A.

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Troubleshooting Chart

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.

⚠ WARNING

Instructions are necessary before operating or servicing a machine. Read and understand the Operation & Maintenance Manual, Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

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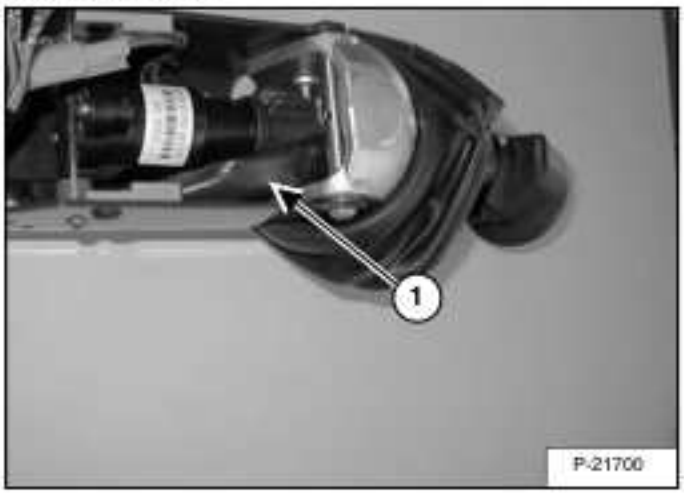
PROBLEM	CAUSE
Battery will not take a charge.	1, 2, 3, 4, 5
Alternator will not charge.	1, 2, 5
Starter will not turn the engine.	2, 3, 4, 6, 7, 8, 9

KEY TO CORRECT THE CAUSE
1. Alternator belt is loose or damaged.
2. Battery connections are dirty or loose.
3. Battery is damaged.
4. The ground connection is not making a good contact.
5. The alternator is damaged.
6. The engine is locked.
7. The starter is damaged.
8. The wiring or solenoid is damaged.
9. Check the fuses.

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Switch Handle Installation (Cont'd)

Figure 60-120-22

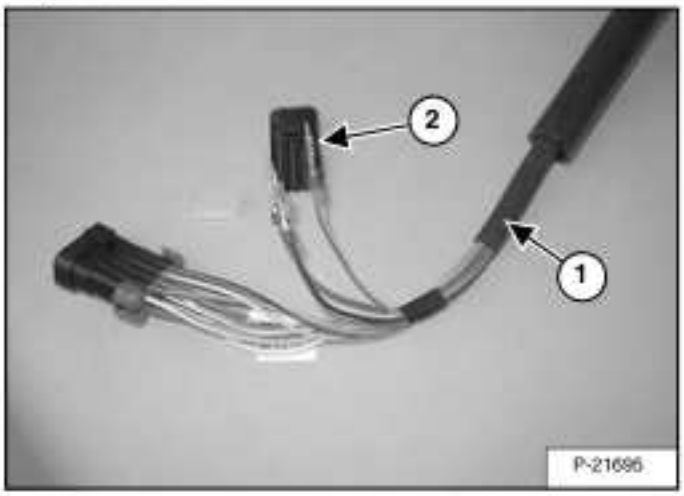


Install the new switch handle and wires from the top of the control lever.

Route wire (Item 1) **[Figure 60-120-22]** through the casting, along side the handle sensor and into the control lever tube.

NOTE: Do not pull the wire harness tight, allow a small amount of slack or slight bend at the handle pivot area. Verify the control handle returns to neutral position.

Figure 60-120-23



Remove tape from wires for installation and install the 6 inches of heat shrink tube (Item 1) **[Figure 60-120-23]** approximately 3 inches into the control lever. Apply heat heat to the exposed heat shrink tube.

Inspect the wire terminal tabs (Item 2) **[Figure 60-120-23]** and re-bend tabs if necessary.

Install the wires into the connectors as listed below:

Right Switch Handle

Ten-Pin Connector
- A-Terminal - Orange
- B-Terminal - White
- C-Terminal - White/Black
- D-Terminal - White/Red
- E-Terminal - Dk. Green
- F-Terminal - White/Lt. Green
- G-Terminal - Yellow/Red
- H-Terminal - Lt. Green
- J-Terminal - Yellow
- K-Terminal - Orange/ Black

Three-Pin Connector
- A-Terminal - Red/White
- B-Terminal - Black/White
- C-Terminal - Purple/White

Left Switch Handle

Ten-Pin Connector
- A-Terminal - Orange
- B-Terminal - Dk. Blue
- C-Terminal - White
- D-Terminal - Purple
- E-Terminal - Yellow/Red
- F-Terminal - Tan
- G-Terminal - Pink
- H-Terminal - Orange/Black
- J-Terminal - Blank
- K-Terminal - Blank

Three-Pin Connector
- A-Terminal - Red/White
- B-Terminal - Black/White
- C-Terminal - Purple/White

Two-Pin Connector
- A-Terminal - Black
- B-Terminal - Red

Five-Pin Connector
- A-Terminal - Dk. Green
- B-Terminal - Brown
- C-Terminal - Blank
- D-Terminal - Yellow
- E-Terminal - Blank

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LOADER SPECIFICATIONS (S130) (CONT'D)

Performance

Rated Operating Capacity (SAE)	1300 lb. (612 kg)
Tipping Load (SAE Rating)	2600 lb. (1179 kg)
Operating Weight	4740 lb. (2150 kg)
SAE Breakout Force - Lift	2750 lb. (12233 N)
- Tilt	2800 lb. (12455 N)
Axel Torque	4900 ft.-lb. (6644 N•m)
Travel Speed	0-7.3 MPH (11,7 km/hr.)

Controls

Vehicle Steering	Direction and speed controlled by two hand levers.
Loader Hydraulics	
Lift and Tilt	Controlled by separate foot pedals or optional hand controls.
Front Auxiliary (Std.)	Controlled by electrical switch on RH steering lever.
Rear Auxiliary (Option)	Controlled by electrical switch on LH steering lever.
Engine	Hand lever throttle: Key-type starter switch and shutdown.
Starting Aid	Glow Plug-Automatically activated by Std. or Deluxe instrumentation.
Service Brake	Two independent hydrostatic systems controlled by two hand operated steering levers.
Secondary Brake	One of the hydrostatic transmissions.
Parking Brake	Push Button switch on overhead center console.

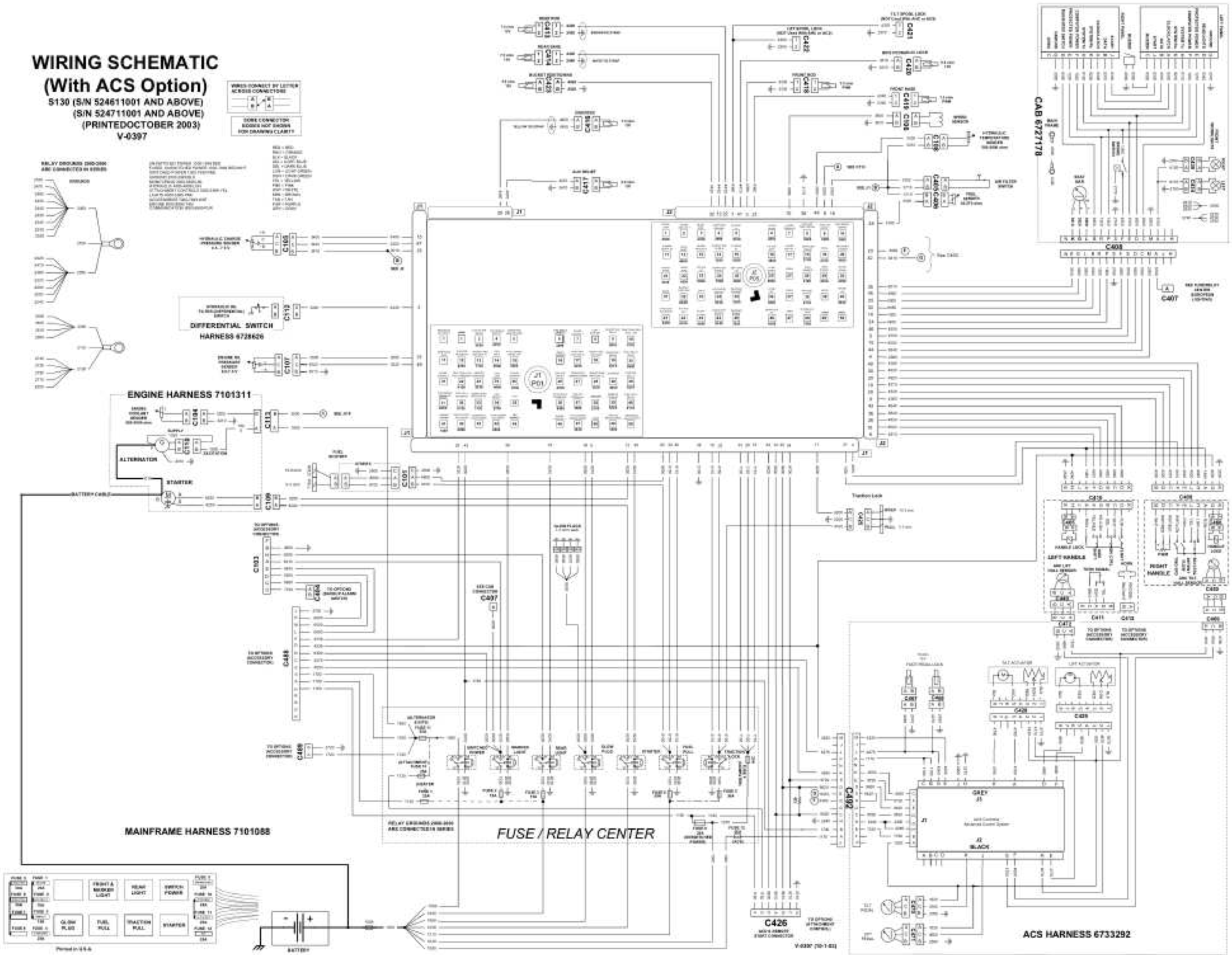
Engine

Make/Model	KUBOTA V2203-M-DI
Fuel/Cooling	Diesel/Liquid
Horsepower @ 2800 RPM (SAE)	**Net:** 46.0 HP (34.3 kW) **Gross:** 48.8 HP (36.4 kW)
Torque @ 1700 RPM (SAE)	**Net:** 103.5 ft.-lb. (140.3 N•m) **Gross:** 110.5 ft.-lb. (149.8 N•m)
Number of Cylinders	Four
Displacement	134.0 cu. in. (2195 cu. cm.)
Bore/Stroke	3.425/3.638 (87/92.4)
Lubrication	Gear Pump Pressure System W/Filter
Crankcase Ventilation	Closed
Air Cleaner	Dry replaceable cartridge w/separate safety element
Ignition	Diesel-Compression
Maximum Governed RPM	2800 RPM
Low Idle	1195-1245 RPM
High Idle	2860-3000 RPM

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WIRING SCHEMATIC
(With ACS Option)

S130 (S/N 524611001 AND ABOVE)
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V-0397



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