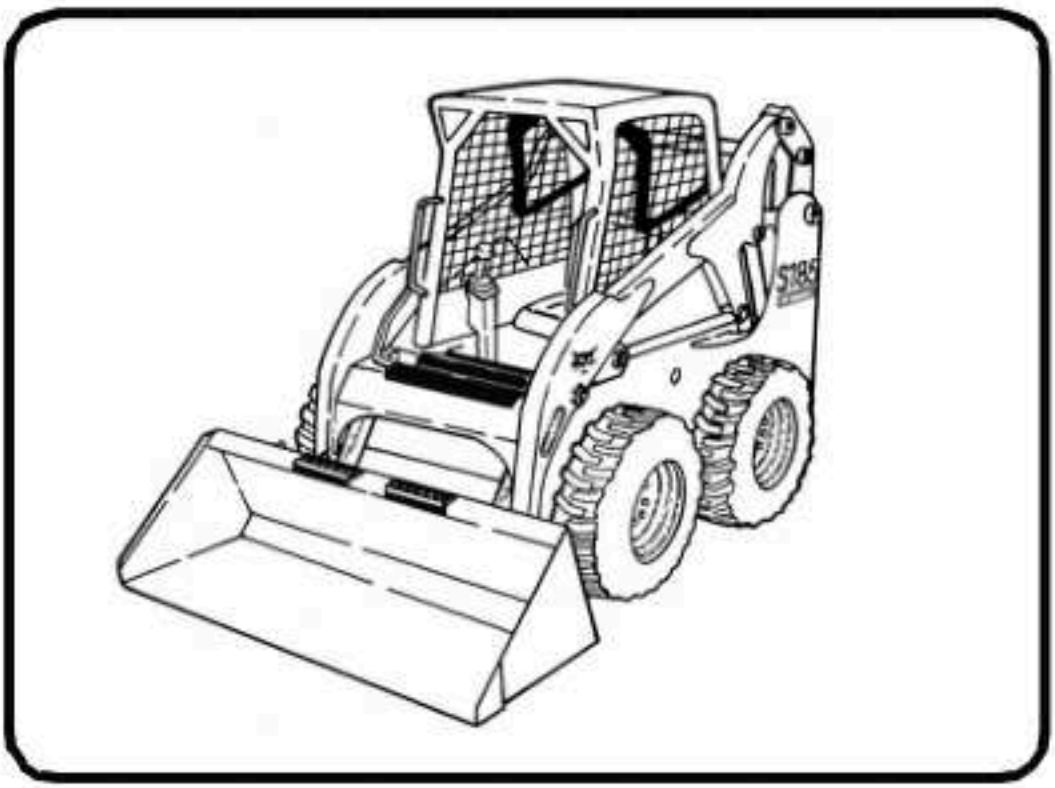
Bobcat

Service Manual
S185 Skid-Steer Loader

S/N 530360001 & Above
S/N 530460001 & Above
S/N ABRT60001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6987036 (8-09)

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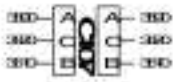
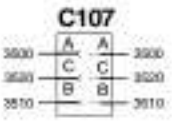
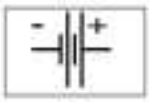
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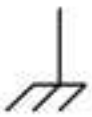
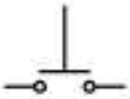
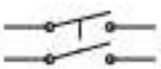
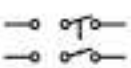
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Glossary Of Electrical Symbols

SYMBOL	DESCRIPTION
	CONNECTIONS
	CONNECTOR - Harness - Used for connecting 2 harnesses together or a harness to a component. The connector can vary from a single pin to any number of pins (Example: 3 pin connectors shown). The connector pins can be numbered alphabetical (shown) or numerical (1, 2, 3 etc.). The harness wires numbers are called out next to the connector (Example: 3500).
	The connector number is called out next to the connector (Example: C107). These connector numbers are used for schematic identification only and do not appear on the harness or connector.
	COMPONENTS
	BATTERY - Used for supplying and storing electrical power for the machine.
+	POSITIVE ELECTRICAL CIRCUIT - Indicates positive battery circuit.
-	NEGATIVE ELECTRICAL CIRCUIT - Indicates battery ground circuit.
	ALTERNATOR - Used to create the electrical current to supply voltage to the battery and components.
	STARTER - Uses battery current to start the machine engine.
	GROUND - Used to represent an external ground connection.

SYMBOL	DESCRIPTION
	COMPONENTS
	GROUND - Frame - Used to represent an component that is internally grounded.
	LIGHT -
	SWITCH - Single Pole - Single Throw (ON-OFF) Normally Open
	
	SWITCH - Single Pole - Single Throw (ON-OFF) Normally Closed.
	
	SWITCH - Single Pole - Double Throw (ON-OFF-ON) - This switch can be in any of three positions. (Some switches are spring activated to return them to a certain position when released.)
	SWITCH - Double Pole - Single Throw (ON-OFF) Open and Closed positions will be specified depending on switch application.)
	SWITCH - Double Pole - Double Throw (ON-OFF) Open and Closed positions will be specified depending on switch application.
	POTENTIOMETER - Variable resistance - Provides variable resistance.

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Specifications (Kubota V2003-M-DI-T (Turbo)) (Cont'd)

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

Crankshaft

Crankshaft Alignment Limit Permitted	0.00079 (0,02)
Oil Clearance Between Journal & Bearing #1	0.0016 - 0.0046 (0,04 - 0,118)
Limit Permitted	0.0079 (0,2)
Journal O.D. #1	2.3591 - 2.3598 (59,921 - 59,940)
Bearing I.D. #1	2.3614 - 2.3637 (59,98 - 60,039)
Oil Clearance Between Journal & Bearing #2	0.0016 - 0.0041 (0,04 - 0,104)
Limit Permitted	0.0079 (0,2)
Journal O.D. #2	2.3591 - 2.3598 (59,921 - 59,940)
Bearing I.D. #2	2.3614 - 2.3632 (59,98 - 60,025)
Oil Clearance Between Crank Pin & Bearing	0.0010 - 0.0034 (0,025 - 0,087)
Limit Permitted	0.0079 (0,2)
Crank Pin O.D.	1.8488 - 1.8494 (46,96 - 46,97)
Crank Pin Bearing I.D.	1.8504 - 1.8522 (47,0 - 47,046)
Crankshaft Side Clearance	0.0059 - 0.0138 (0,15 - 0,35)
Limit Permitted	0.0197 (0,5)

Timing Gear

Timing Gear Backlash:	
Crank Gear-Idle Gear	0.0016 - 0.0044 (0,0415 - 0,1122)
Allowable Limit	0.0059 (0,15)
Idle Gear-Cam Gear	0.0016 - 0.0045 (0,0415 - 0,1154)
Allowable Limit	0.0059 (0,15)
Idle Gear-Injection Pump Gear	0.0016 - 0.0045 (0,0415 - 0,1154)
Allowable Limit	0.0059 (0,15)
Crank Gear-Oil Pump Gear	0.0016 - 0.0043 (0,0415 - 0,109)
Allowable Limit	0.0059 (0,15)
Clearance Between Idle Gear Shaft & Idle Gear Bushing:	
Idle Gear	0.001 - 0.0026 (0,025 - 0,066)
Allowable Limit	0.0039 (0,10)
Idle Gear Bushing I.D.	1.4961 - 1.4970 (38,0 - 38,025)
Allowable Limit	0.0039 (0,10)
Idle Gear Shaft O.D.	1.4944 - 1.4951 (37,959 - 37,975)
Idle Gear Side Clearance Idle Gear	0.0079 - 0.020 (0,2 - 0,51)
Allowable Limit	0.0315 (0,8)

Thermostat

Valve Opening Temperature	176.9° - 182.3° F (80.5° - 83.5° C)
Valve Fully Open	203° F (95° C)

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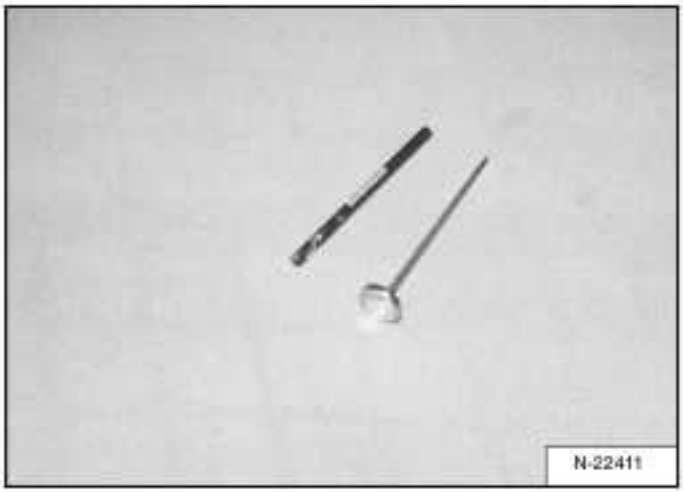
Poor A/C Performance

Start the loader, engage the parking brake. Engage the A/C system with the blower fan on high. Run the loader at full RPM for approximately 15 minutes, with the loader cab door closed.

Figure 80-30-1



Figure 80-30-2



Check the temperature at the louvers (Item 1) **[Figure 80-30-1]** with a thermometer **[Figure 80-30-2]**.

The louver temperature should be between 36° - 53° F. (2,2° - 11,6° C) depending on the amount of humidity in the air.

If louver temperature is too high, (See Troubleshooting Tree on Page 80-30-4.)

Check the blower fan for proper operation or noise, and replace if necessary. (See BLOWER FAN on Page 80-130-1.)

Check the belt tension on the A/C compressor. (See Compressor Drive Belt Adjustment on Page 80-20-2.)

Check the A/C condenser for dirt or mud, and clean if necessary. (See Condenser on Page 80-20-2.)

Check the A/C evaporator coil for dirt or mud, and clean if necessary. (See Air Conditioning Service Chart on Page 80-20-3.)

Inspect the sight glass located on the receiver/drier for air bubbles. (See Receiver / Drier Removal And Installation on Page 80-70-1.)

Check the engine coolant to see if it is bypassing the heater valve. (See Disassembly And Assembly on Page 80-140-2.)

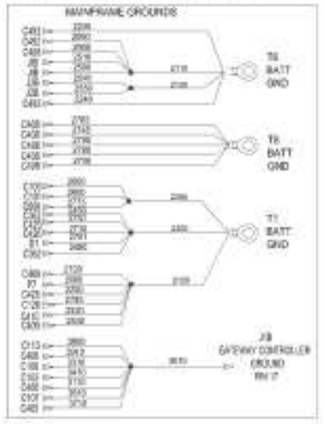
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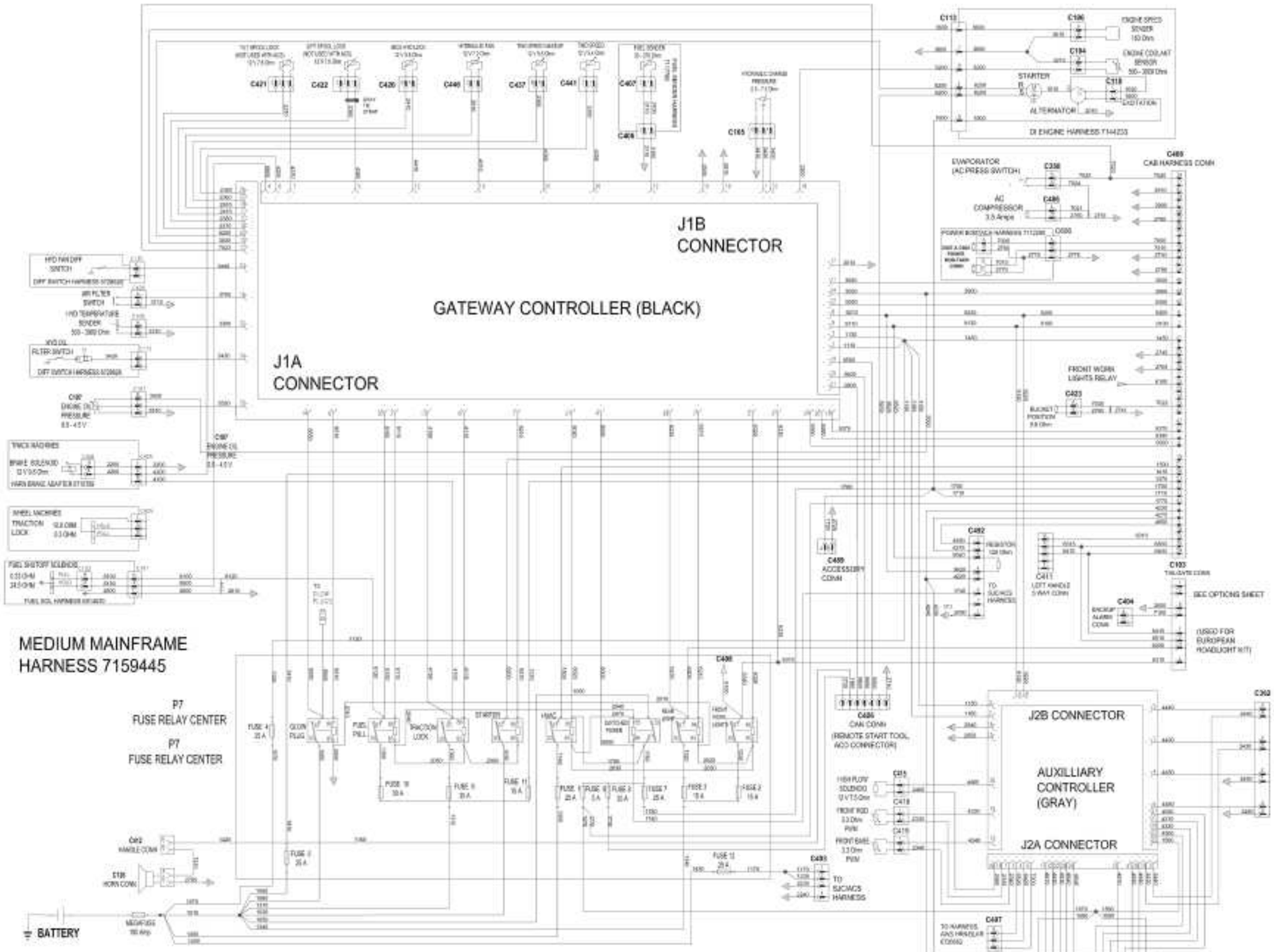
WIRING SCHEMATIC
MAINFRAME
S185 (S/N 530360001 AND ABOVE)
(S/N 530460001 AND ABOVE)
(S/N ABRT60001 AND ABOVE)

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