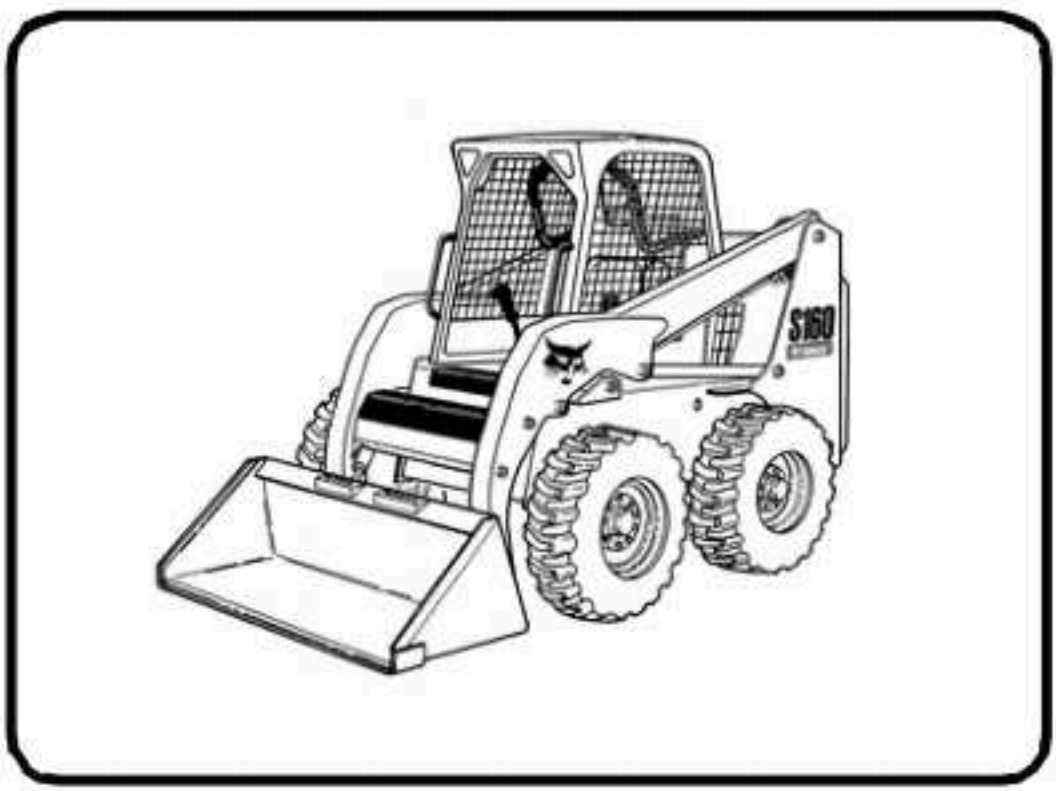
Bobcat

Service Manual
S160 Skid-Steer Loader

S/N A3L311001 & Above
S/N A3L411001 & Above
S/N AEYN11001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6987048 (11-10)

Printed in U.S.A.

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ALPHABETICAL INDEX

ACCESS PANEL (INSIDE) 50-01
ACCESS PANEL (INSIDE) (SJC) 50-01
AIR CLEANER 70-01
AIR CLEANER SERVICE 10-01
AIR CONDITIONING SYSTEM FLOW 80-01
ALTERNATOR 60-01

BACK-UP ALARM SYSTEM 60-01
BATTERY 60-01
BLOWER FAN 80-01
BOBCAT CONTROLLER (ACS) 60-01
BOBCAT CONTROLLER (GATEWAY AND AUXILIARY) 60-01
BOBCAT CONTROLLER (SJC) (DRIVE) 60-01
BOBCAT INTERLOCK CONTROL SYSTEM (BICS) 60-01
BOB-TACH (HAND LEVER) 10-01, 50-01
BOB-TACH (POWER) 10-01, 50-01
BOB-TACH (POWER) BLOCK 20-01
BRAKE (SINGLE SPEED) 40-01
BRAKE (TWO-SPEED) 40-01
BUCKET POSITION VALVE 20-01

CAB DOOR 50-01
CALIBRATION 60-01
CAMSHAFT AND TIMING GEARS 70-01
CASE DRAIN FILTER 30-01
CHAINCASE 40-01
CHARGE PRESSURE 30-01
COMPRESSOR 80-01
CONDENSER 80-01
CONTROL HANDLE / LEVER 50-01
CONTROL HANDLE / LEVER (ACS) 50-01
CONTROL HANDLE / LEVER (SJC) 50-01
CONTROL PANEL 50-01
CONTROL PANEL (SJC) 50-01
CONTROL PANEL SETUP 60-01
CONTROL PEDALS AND LINKAGES 50-01
CONTROL PEDALS (ACS) 50-01
CONTROL SYSTEM (ACS) 60-01
CONVERSIONS SPEC-01
CRANKSHAFT AND PISTONS 70-01
CYLINDER (BOB-TACH) 20-01
CYLINDER (LIFT) 20-01
CYLINDER (TILT) 20-01
CYLINDER HEAD 70-01

DIAGNOSTICS SERVICE CODES 60-01
DRIVE BELT 30-01
DRIVE COMPONENTS 40-01

ELECTRICAL / HYDRAULIC CONTROLS 60-01
ELECTRICAL / HYDRAULIC CONTROLS (ACS) 60-01
ELECTRICAL / HYDRAULIC CONTROLS (SJC) 60-01
ELECTRICAL SYSTEM INFORMATION 60-01
EMERGENCY EXIT 10-01
ENGINE COOLING SYSTEM 10-01
ENGINE COOLING SYSTEM 70-01
ENGINE LUBRICATION SYSTEM 10-01
ENGINE INFORMATION 70-01
ENGINE SPEED CONTROL 70-01
ENGINE SPEED CONTROL (SJC) 70-01
EVAPORATOR 80-01
EVAPORATOR / HEATER UNIT 80-01
EXHAUST GAS RECIRCULATION (EGR) SYSTEM 70-01
EXPANSION VALVE 80-01

FINAL DRIVE TRANSMISSION (CHAINCASE) 10-01
FLYWHEEL AND HOUSING 70-01
FLYWHEEL RPM SENSOR 60-01
FRONT AUXILIARY HYDRAULIC COUPLER BLOCK 20-01
FUEL SYSTEM 10-01, 70-01
FUEL TANK 50-01

HEATER COIL 80-01
HEATER VALVE 80-01
HIGH FLOW VALVE 20-01
HYDRAULIC CONNECTION SPECS SPEC-01
HYDRAULIC CONTROL VALVE (ACS) OR (SJC) 20-01
HYDRAULIC CONTROL VALVE (STANDARD) 20-01
HYDRAULIC / HYDROSTATIC FILTERS 20-01
HYDRAULIC FLUID RESERVOIR 20-01
HYDRAULIC / HYDROSTATIC FLUID SPECIFICATIONS SPEC-01
HYDRAULIC / HYDROSTATIC SYSTEM 10-01
HYDRAULIC PUMP (STANDARD) 20-01
HYDRAULIC PUMP (STANDARD) (HIGH FLOW) 20-01
HYDRAULIC PUMP (SJC) 20-01
HYDRAULIC PUMP (SJC) (HIGH FLOW) 20-01
HYDRAULIC SYSTEM INFORMATION 20-01
HYDROSTATIC DRIVE MOTOR 30-01
HYDROSTATIC DRIVE MOTOR (TWO SPEED) 30-01
HYDROSTATIC MOTOR CARRIER (SINGLE ANDTWO-SPEED WITH MANUAL CONTROLS) 30-01
HYDROSTATIC MOTOR CARRIER (SINGLE AND TWO-SPEED WITH SJC CONTROLS) 30-01
HYDROSTATIC PUMP 30-01
HYDROSTATIC PUMP (SJC) 30-01
HYDROSTATIC SYSTEM INFORMATION 30-01

INSTRUMENT PANELS 60-01

MidWestTech | Bobcat S160 Skid Steer Loader Service Manual | Publication 6987048_11_10 Order the manual at mid-west-tech.com >

LIFT ARMS 50-01
LIFT ARM BYPASS CONTROL VALVE 20-01
LIFT ARM SUPPORT DEVICE 10-01
LIFTING AND BLOCKING THE LOADER 10-01
LIGHTS 60-01
(S160) LOADER SPECIFICATIONS SPEC-01
LOADER STORAGE AND RETURN TO SERVICE 10-01
LUBRICATING THE LOADER 10-01
LUBRICATION SYSTEM 70-01

MAIN RELIEF VALVE 20-01
MAINTENANCE CLOCK 60-01
MUFFLER 70-01

OIL COOLER 20-01
OPERATOR CAB 10-01, 50-01
OPERATOR SEAT 50-01
OPERATOR SEAT (SUSPENSION) 50-01

PASSWORD SETUP (DELUXE INSTRUMENTATION PANEL) 60-01
PASSWORD SETUP (KEYLESS START PANEL) ..60-01
PIVOT PINS 10-01

REAR AUXILIARY DIVERTER VALVE 20-01
REAR DOOR (TAILGATE) 50-01
REAR GRILLE 50-01
RECEIVER / DRIER 80-01
REGULAR MAINTENANCE 80-01
REMOTE START TOOL KIT-MEL1563 10-01
REMOTE START TOOL (SERVICE TOOL) KIT - 6689779 10-01

SEAT BAR 50-01
SEAT BAR SENSOR 60-01
SERVICE PC (LAPTOP COMPUTER) 60-01
SERVICE SCHEDULE 10-01
SPARK ARRESTOR MUFFLER 10-01
SPEED SENSOR (SJC) 60-01
STARTER 60-01
STEERING DRIFT COMPENSATION 60-01
STOPPING THE ENGINE AND LEAVING THE LOADER 10-01
SYSTEM CHARGING AND RECLAMATION 80-01

THERMOSTAT 80-01
TIRE MAINTENANCE 10-01
TORQUE SPECIFICATIONS FOR BOLTS SPEC-01
TOWING THE LOADER 10-01
TRACTION LOCK 60-01
TRANSPORTING THE LOADER ON A TRAILER .. 10-01
TROUBLESHOOTING 80-01
TURBOCHARGER 70-01
TWO-SPEED VALVE 30-01

WINDOW (CAB DOOR) 50-01
WINDOW (REAR) 50-01
WINDOW (SIDE) 50-01
WINDOW (TOP) 50-01

MidWestTech | Bobcat S160 Skid Steer Loader Service Manual | Publication 6987048_11_10 Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD II

SAFETY INSTRUCTIONS V

FIRE PREVENTION VII

SERIAL NUMBER LOCATIONS IX

DELIVERY REPORT X

BOBCAT LOADER IDENTIFICATION XI

SAFETY & MAINTENANCE 10-01

HYDRAULIC SYSTEM 20-01

HYDROSTATIC SYSTEM 30-01

DRIVE SYSTEM 40-01

MAINFRAME 50-01

ELECTRICAL SYSTEM & ANALYSIS 60-01

ENGINE SERVICE 70-01

HEATING, VENTILATION, AIR CONDITIONING 80-01

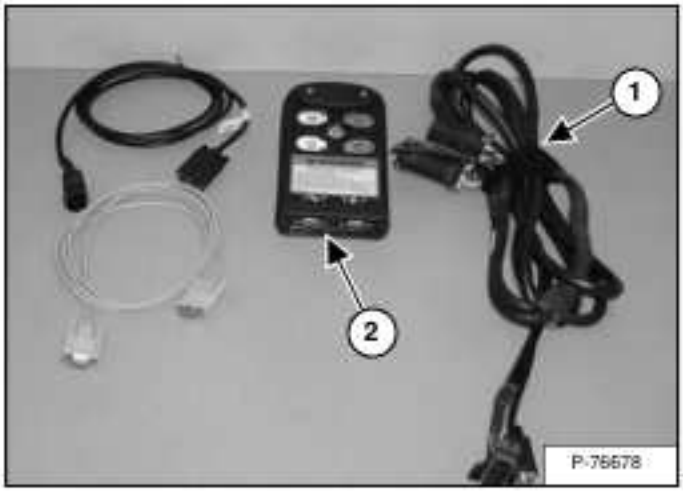
SPECIFICATIONS SPEC-01

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REMOTE START TOOL (SERVICE TOOL) KIT - 7003031 (CONT'D)

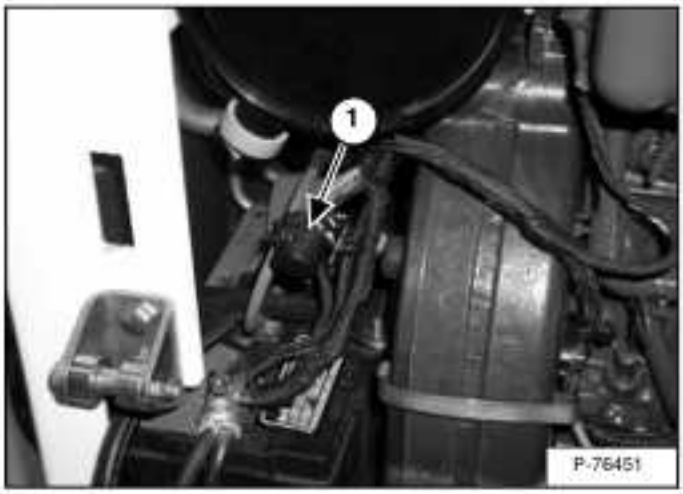
Loader Service Tool Harness - 6689747

Figure 10-61-3



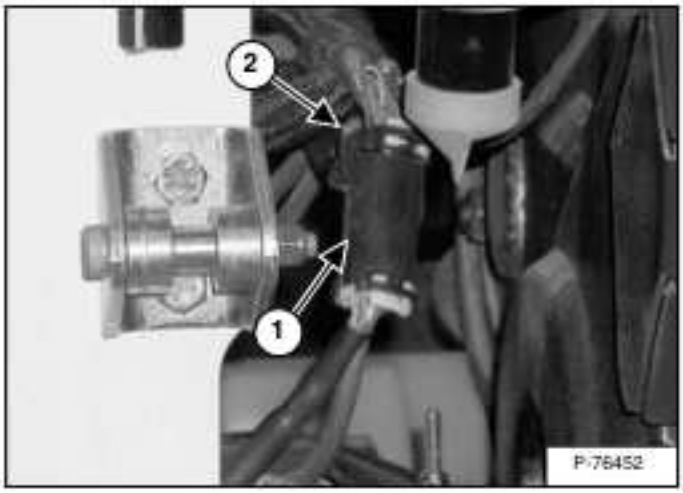
The loader service tool harness (Item 1) **[Figure 10-61-3]** is used to connect the remote start tool (service tool) (Item 2) **[Figure 10-61-3]** to the electrical system on the loader.

Figure 10-61-4



Loaders without an attachment control harness, remove the loader harness cap (Item 1) **[Figure 10-61-4]** and connect the Loader Service Tool Harness from the Remote Start Tool (Service Tool).

Figure 10-61-5



Loaders with an attachment control harness (7 pin or 14 pin), the attachment harness (Item 1) must be disconnected from the loader harness (Item 2) **[Figure 10-61-5]**.

When the remote start procedure is completed, replace the loader connector cap (Item 1) **[Figure 10-61-4]** or reconnect the attachment control harness to the loader harness **[Figure 10-61-5]**.

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HYDROSTATIC SYSTEM INFORMATION

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 a service code appears in the left instrument panel (See DIAGNOSTIC SERVICE CODES on Page 60-90-1.)

⚠ 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
No drive on one side, in one direction.	1, 2
No drive on one side in both directions.	2, 3, 4, 5
The loader does not move in a straight line.	2, 3, 5, 6, 7, 10
The hydrostatic system is overheating.	8, 9

KEY TO CORRECT THE CAUSE
1. The hydrostatic pump relief / replenishing valves not seating.
2. The steering linkage needs adjustment.
3. The hydrostatic pump has damage.
4. The final drive chains are broken.
5. The hydrostatic motor has damage.
6. The tires do not have the correct tire pressure.
7. The tires are not the same size.
8. The hydrostatic fluid is not at the correct level.
9. The oil cooler has a restriction.
10. The hydrostatic pump is not properly calibrated, and / or incorrect steering drift compensation setting.

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Specifications (Cont'd)

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

Cylinder Liner

Cylinder Bore I.D.	87,000 - 87,022 (3.4252 - 3.4260)
Allowable Limit	87,15 (3.431)
Oversized Cylinder Liner (Bore) I.D.	87,250 - 87,272 (3.3450 - 3.4359)
Allowable Limit	87,40 (3.441)

Piston Rings

Ring Gap (Top Ring)	0,20 - 0,35 (0.0079 - 0.013)
Allowable Limit	1,25 (0.0492)
Ring Gap (2nd Ring)	0,30 - 0,45 (0.012 - 0.017)
Allowable Limit	1,25 (0.0492)
Ring Gap (Oil Ring)	0,25 - 0,45 (0.0099 - 0.017)
Allowable Limit	1,25 (0.0492)
Side Clearance of Ring Groove:	
Top Ring	0,050 - 0,090 (0.002 - 0.0035)
Allowable Limit	0,15 (0.0059)
Second Ring	0,090 - 0,12 (0.0035 - 0.0047)
Allowable Limit	0,0079 (0.20)
Oil Ring	0,020 - 0,060 (0.00079 - 0.0023)
Allowable Limit	0,15 (0.0059)

Pistons

Piston Pin Bore	26,000 - 26,013 (1.0237 - 1.0241)
Allowable Limit	25,05 (0.9862)

Connecting Rod

Piston Pin O.D.	26,006 - 26,011 (1.0239 - 1.0240)
Small End Bushing I.D.	26,025 - 26,040 (1.0246 - 1.0252)
Oil Clearance Between Piston Pin And Small End Bushing	0,014 - 0,034 (0.00056 - 0.0013)
Allowable Limit	0,15 (0.0059)
Connecting Rod Alignment Allowable Limit	0,05 (0.002)

Oil Pump

Oil Pressure Rated RPM	193,1 - 393,0 kPa (1,9 - 3,9 bar) (28 - 57 psi)
Allowable Limit	144,8 kPa (1,4 bar) (21 psi)
Idle Speed Allowable Limit	48,3 kPa (0,5 bar) (7 psi)
Clearance Between Inner Rotor And Outer Rotor	0,030 - 0,090 (0.0012 - 0.0035)
Clearance Between Outer Rotor And Pump Body	0,100 - 0,184 (0.00394 - 0.00724)
End Clearance Between Inner Rotor And Cover	0,025 - 0,075 (0.00099 - 0.0029)

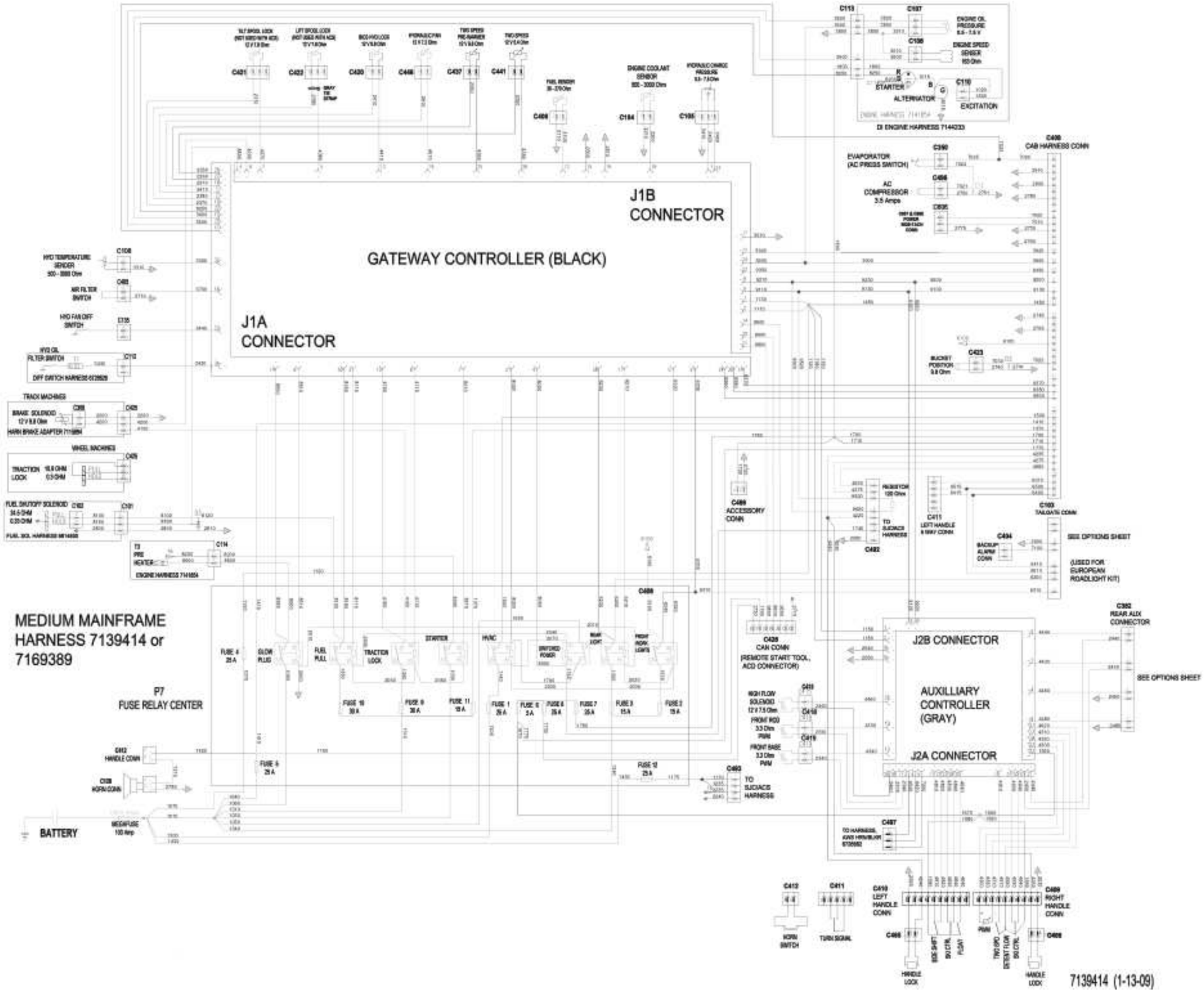
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WIRING SCHEMATIC
MAINFRAME
S160 (S/N A3L311001 AND ABOVE)
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(PRINTED JANUARY 2009)

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