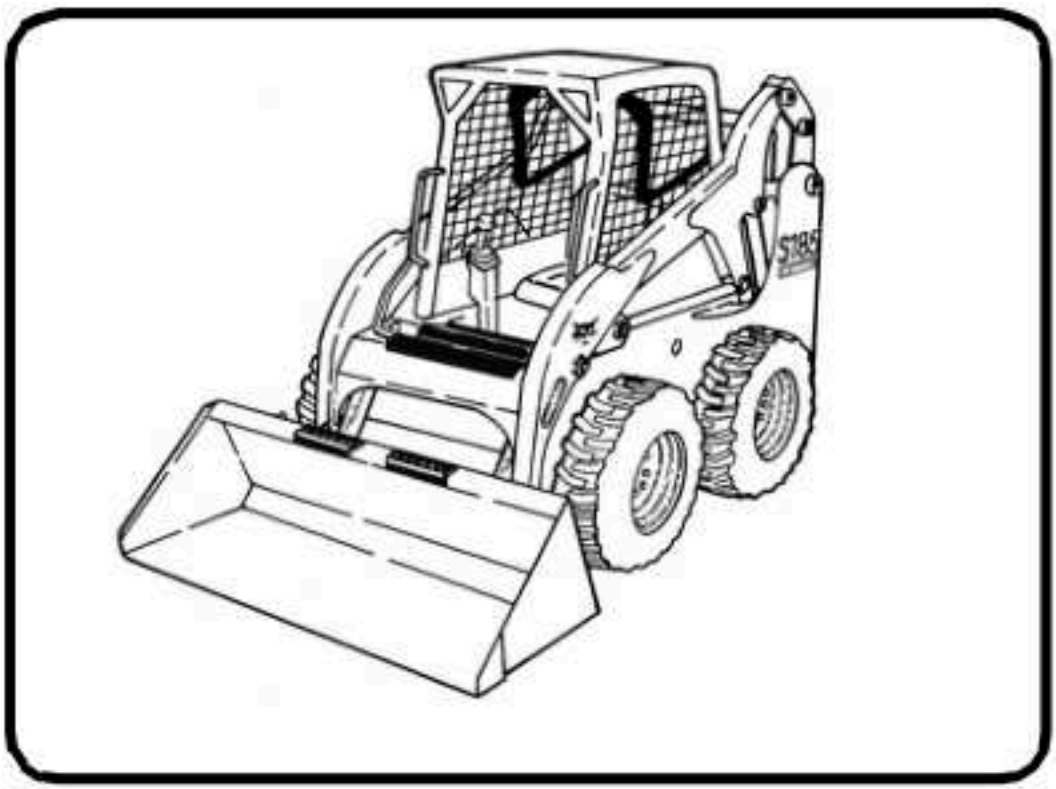
Bobcat®

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 (5-08)

Printed in U.S.A.

© Bobcat Company 2008

MidWestTech | Bobcat S185 Skid Steer Loader Service Manual | Publication 6987036_5_08 Order the manual at mid-west-tech.com >

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

BATTERY 60-01
BLOWER FAN 80-01
BOBCAT INTERLOCK CONTROL SYSTEM (BICS) 60-01
BOBCAT CONTROLLER 60-01
BOB-TACH (HAND LEVER) 10-01, 50-01
BOB-TACH (POWER) 50-01
BRAKE (SINGLE SPEED) 40-01
BRAKE (TWO-SPEED) 40-01
BUCKET POSITION VALVE 20-01

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 PEDALS AND LINKAGE 50-01
CONTROL PEDALS (ACS) 50-01
CONTROL SYSTEM (ACS) 60-01
CONVERSIONS SPEC-01
CRANKSHAFT AND PISTONS 70-01
CYLINDER (LIFT) 20-01
CYLINDER (BOB-TACH) 20-01
CYLINDER (TILT) 20-01
CYLINDER HEAD 70-01

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

ELECTRICAL SYSTEM INFORMATION 60-01
ELECTRICAL/HYRAULIC CONTROLS 60-01
ELECTRICAL/HYRAULIC CONTROLS (SJC) 60-01
ENGINE COOLING SYSTEM 10-01, 70-01
ENGINE INFORMATION 70-01
ENGINE LUBRICATION SYSTEM 10-01
ENGINE SPEED CONTROL (SJC) 70-01
EVAPORATOR COIL 80-01
EVAPORATOR/HEATER UNIT 80-01
EXPANSION VALVE 80-01

FINAL DRIVE TRANSMISSION (CHAINCASE) 10-01
FLYWHEEL AND HOUSING 70-01
FLYWHEEL RPM SENSOR 60-01
FRONT AUXILIARY HYD. 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 20-01
HYD./HYDRO FLUID SPECIFICATIONS SPEC-01
HYDRAULIC FLUID RESERVOIR 20-01
HYDRAULIC/HYDROSTATIC FILTERS 20-01
HYDRAULIC/HYDROSTATIC SYSTEM 10-01
HYDRAULIC PUMP (STANDARD) 20-01
HYDRAULIC PUMP (STANDARD) (HIGH FLOW) 20-01
HYDRAULIC PUMP (HIGH FLOW) (SJC) 20-01
HYDARULIC PUMP (SJC) 20-01
HYDRAULIC SYSTEM INFORMATION 20-01
HYDROSTATIC MOTOR 30-01
HYDROSTATIC MOTOR (TWO SPEED) 30-01
HYDROSTATIC MOTOR CARRIER (SINGLE ANDTWO-SPEED WITH MANUAL CONTROLS) 30-01
HYDROSTATIC MOTOR CARRIER (SINGLE ANDTWO-SPEED WITH SJC CONTROLS) 30-01
HYDROSTATIC PUMP 30-01
HYDROSTATIC PUMP (SJC) 30-01
HYDROSTATIC SYSTEM INFORMATION 30-01

INSTRUMENT PANELS 60-01

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
LOADER STORAGE AND RETURN TO SERVICE 10-01
LUBRICATING THE LOADER 10-01
LUBRICATION SYSTEM 70-01

MAIN RELIEF VALVE 20-01
MUFFLER 70-01

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

PIVOT PINS 10-01
POWER BOB-TACH BLOCK 20-01

MidWestTech | Bobcat S185 Skid Steer Loader Service Manual | Publication 6987036_5_08 Order the manual at mid-west-tech.com >

REAR AUXILIARY DIVERTER VALVE 20-01
REAR DOOR 50-01
REAR GRILL 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

S185 LOADER SPECIFICATIONS SPEC-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
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 LOADER ON A TRAILER 10-01
TROUBLESHOOTING 80-01
TURBOCHARGER 70-01
TWO-SPEED VALVE 30-01

WHEEL SPEED SENSORS (SJC) 60-01
WINDOW (FRONT DOOR) 50-01
WINDOW (REAR) 50-01
WINDOW (SIDE) 50-01
WINDOW (TOP) 50-01

MidWestTech | Bobcat S185 Skid Steer Loader Service Manual | Publication 6987036_5_08 Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD II

SAFETY INSTRUCTIONS V

FIRE PREVENTION VII

SERIAL NUMBER LOCATIONS IX

DELIVERY REPORT X

LOADER IDENTIFICATION XI

SAFETY AND MAINTENANCE 10-01

HYDRAULIC SYSTEM 20-01

HYDROSTATIC SYSTEM 30-01

DRIVE SYSTEM 40-01

MAIN FRAME 50-01

ELECTRICAL SYSTEM & ANALYSIS 60-01

ENGINE SERVICE 70-01

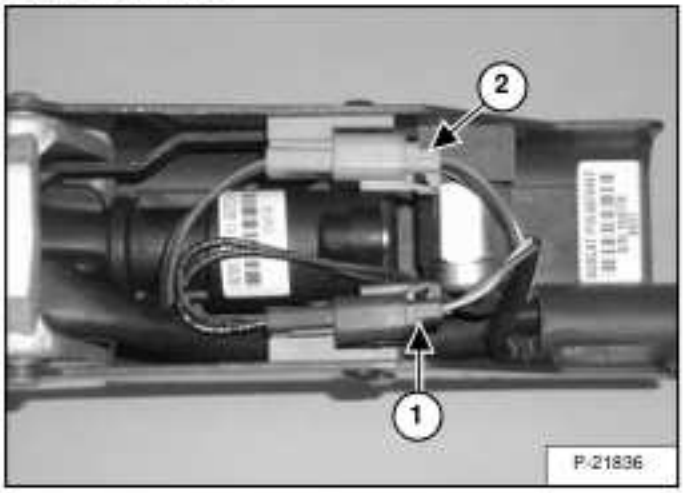
HEATING, VENTILATION, AIR CONDITIONING 80-01

SPECIFICATIONS SPEC-01

MidWestTech | Bobcat S185 Skid Steer Loader Service Manual | Publication 6987036_5_08 Order the manual at mid-west-tech.com >

Handle Lock Solenoid Removal And Installation

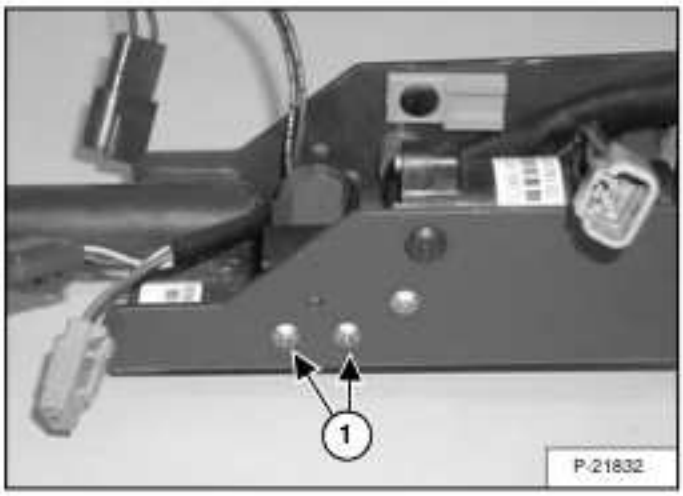
Figure 60-130-24



Disconnect the harness connector (Item 1) **[Figure 60-130-24]** from the handle sensor connector.

Disconnect the harness connector (Item 2) **[Figure 60-130-24]** from the handle lock solenoid connector.

Figure 60-130-25



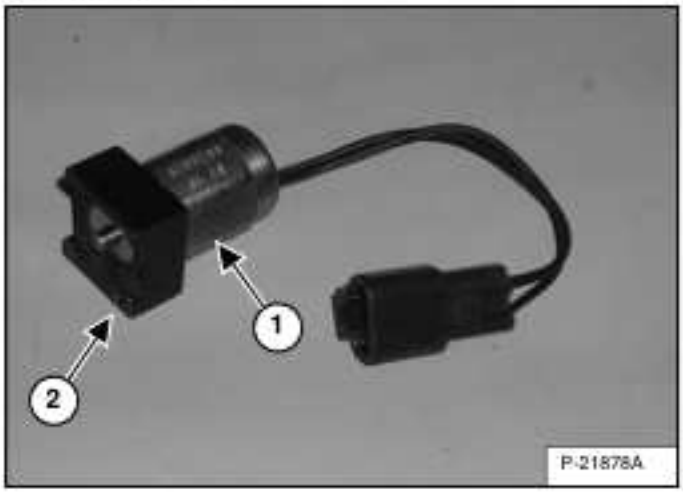
Remove the two screws (Item 1) **[Figure 60-130-25]** holding the handle lock solenoid to the handle.

Installation: Tighten the screws to 32-38 in.-lb. (3.6-4.3 N•m) torque.

Remove handle lock solenoid assembly from handle.

Handle Lock Solenoid Disassembly And Assembly

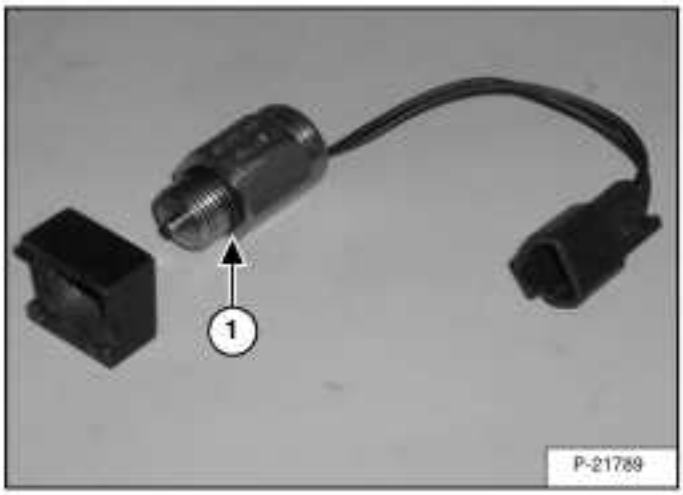
Figure 60-130-26



Remove solenoid (Item 1) from the solenoid mount (Item 2) **[Figure 60-130-26]**.

Installation: Apply a drop of oil to the solenoid threads and tighten solenoid to 35-40 ft.-lb. (47-54 N•m) lubed torque.

Figure 60-130-27

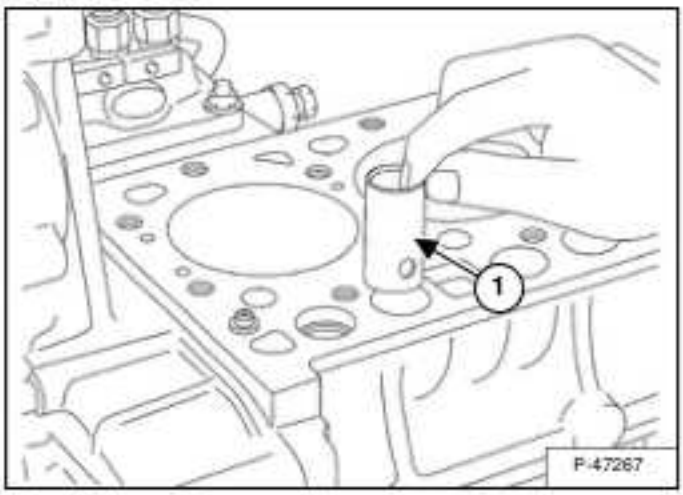


Check the O-ring (Item 1) **[Figure 60-130-27]** for damage. Replace as necessary.

MidWestTech | Bobcat S185 Skid Steer Loader Service Manual | Publication 6987036_5_08 Order the manual at mid-west-tech.com >

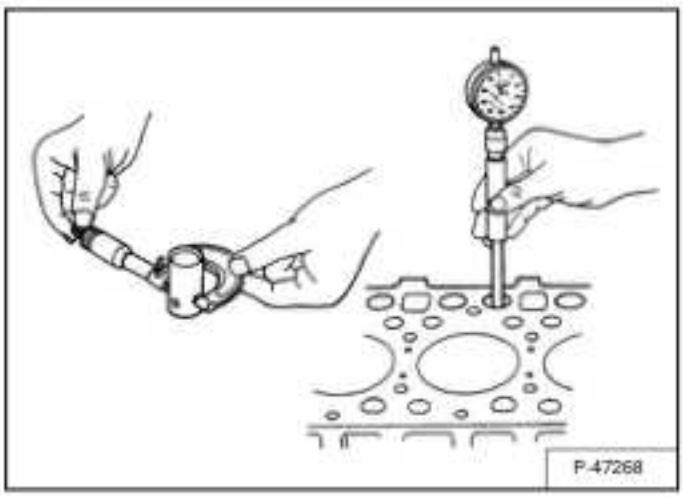
Valve Tappets

Figure 70-80-36



Remove the valve tappets (Item 1) **[Figure 70-80-36]**.

Figure 70-80-37



Measure the O.D. of the tappet **[Figure 70-80-37]**.

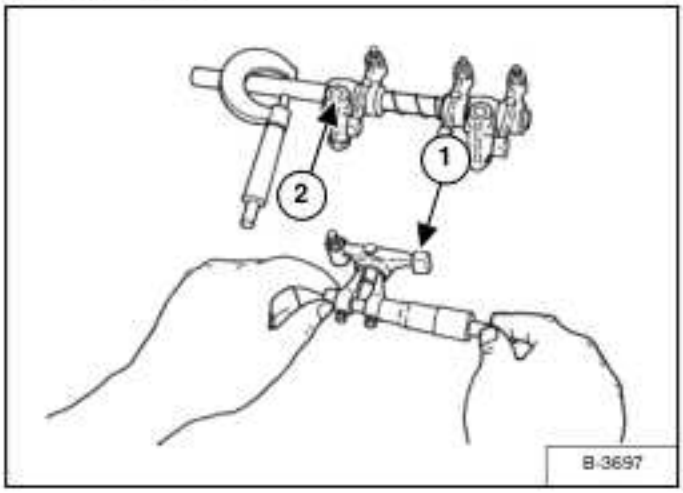
Measure the ID of the tappet bore **[Figure 70-80-37]**.

If the clearance exceeds the allowable limit, replace the tappets.

Tappet OD	0.9433-0.9441 inch (23,96-23,98mm)
Tappet Bore ID	0.9449-0.9457 inch (24-24,02 mm)
Clearance Between Tappet and Tappet Bore	0.0008-0.0024 inch (0,02-0,06 mm)
Allowable limit	0.0028 inch (0,07 mm)

Rocker Arm And Shaft Checking

Figure 70-80-38



Measure the rocker arm I.D. (Item 1) **[Figure 70-80-38]** with an inside micrometer.

Measure the rocker arm shaft O.D. (Item 2) **[Figure 70-80-38]** with an outside micrometer.

If the clearance exceeds the allowable limit, replace the bushing.

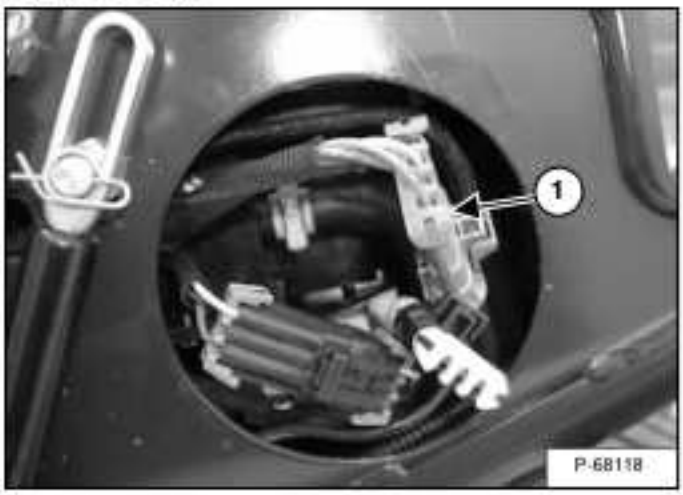
If the clearance still exceeds the allowable limit after the bushing is replace, replace the rocker arm shaft.

Oil Clearance Between Rocker Arm & Shaft	0.0006-0.0018 inch (0,016-0,045 mm)
Allowable Limit	0.004 inch (0,10 mm)
Rocker Arm Shaft O.D.	0.5501-0.5506 inch (13,973-13,984 mm)
Rocker Arm I.D.	0.5512-0.5519 inch (14,0-14,02 mm)

MidWestTech | Bobcat S185 Skid Steer Loader Service Manual | Publication 6987036_5_08 Order the manual at mid-west-tech.com >

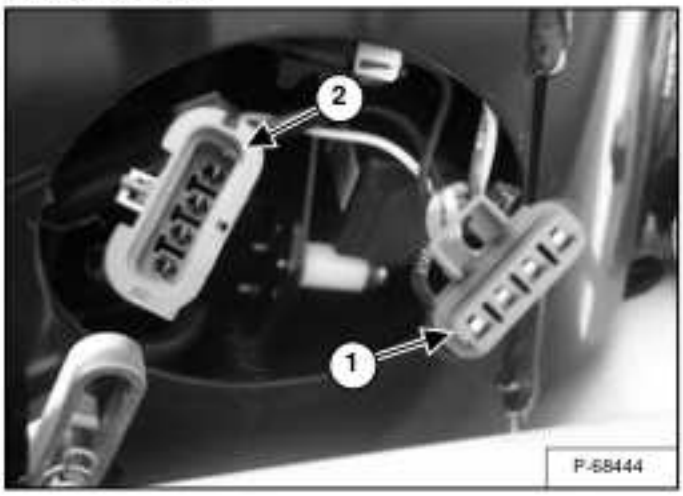
Electrical System (Cont'd)

Figure 80-30-15



Disconnect the blower wiring connector (Item 1) **[Figure 80-30-15]** from the loader wiring harness.

Figure 80-30-16



Check the loader harness (Item 1) **[Figure 80-30-16]** for voltage. The voltage should be 12 volts.

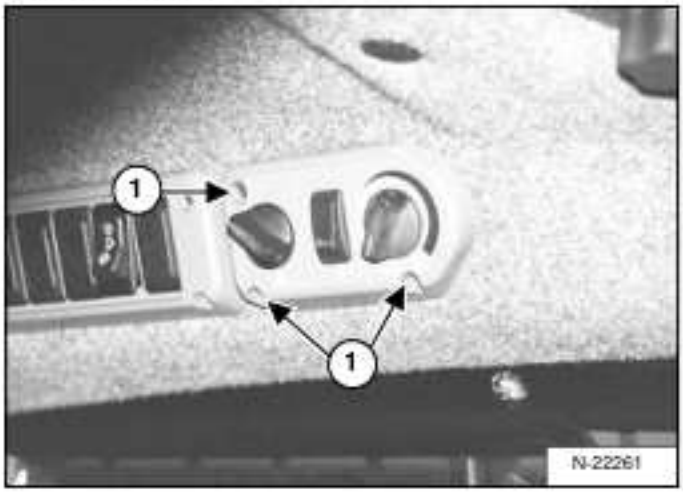
If there is no voltage at the wiring harness, check the harness for broken wires.

If there is voltage at the wiring harness, check the resistance to the blower at the blower wiring connector (Item 2) **[Figure 80-30-16]**.

If there is no resistance value replace the blower fan. (See Removal And Installation on Page 80-130-1.)

If there is a resistance value check the climate controls at the control panel inside the loader cab.

Figure 80-30-17



Remove the three mount bolts (Item 1) **[Figure 80-30-17]** from the cab control panel.

Figure 80-30-18



Remove the control panel and wiring harness from the cab **[Figure 80-30-18]**.

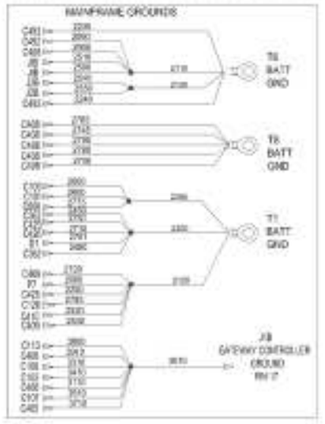
MidWestTech | Bobcat S185 Skid Steer Loader Service Manual | Publication 6987036_5_08 Order the manual at mid-west-tech.com >

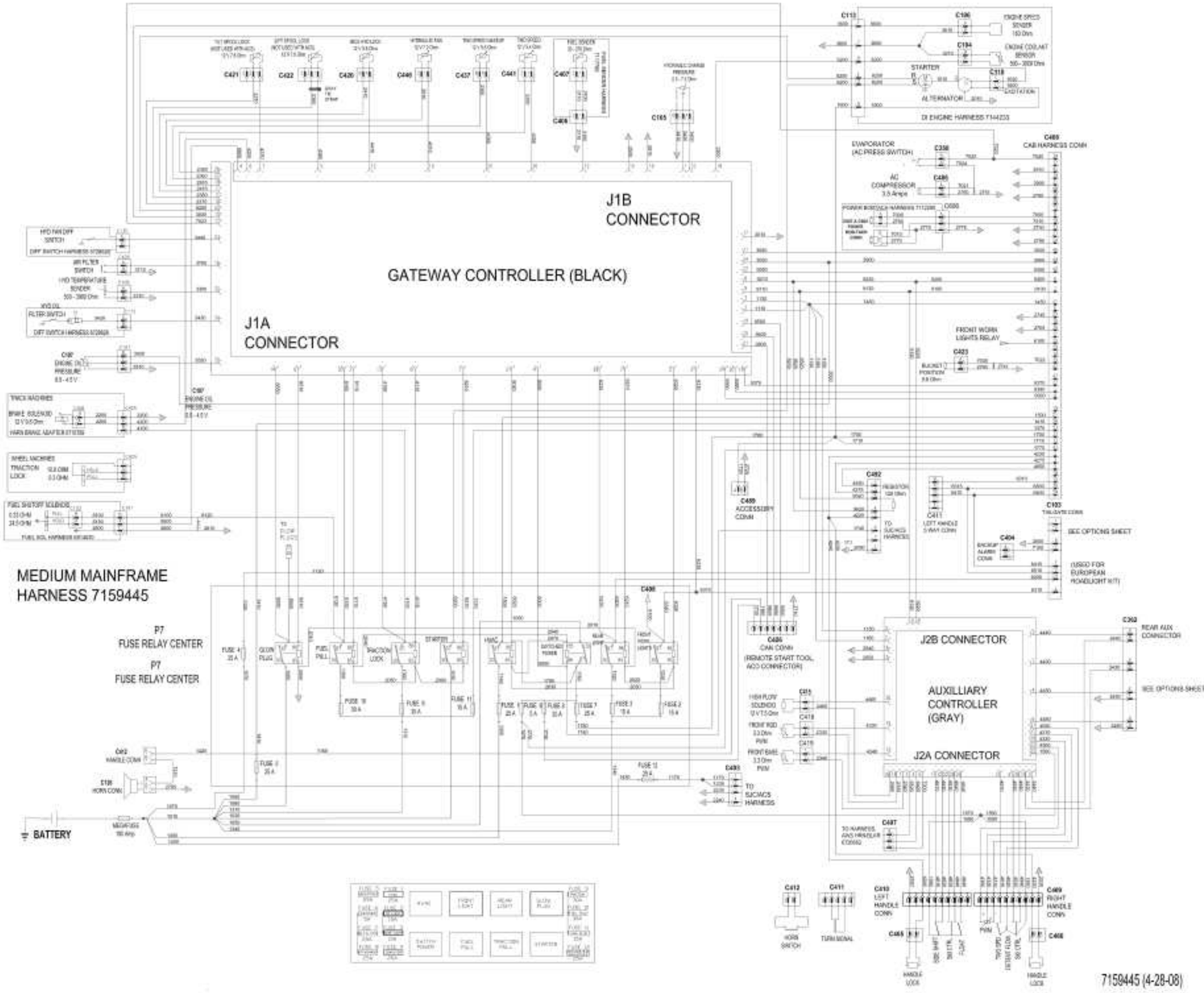
WIRING SCHEMATIC
MAINFRAME
S185 (S/N 530360001 AND ABOVE)
(S/N 530460001 AND ABOVE)
(S/N ABRT60001 AND ABOVE)

(PRINTED MAY 2008)

7159445







PRINTED IN U.S.A.

7159445 (4-28-08)

Order the manual at mid-west-tech.com >