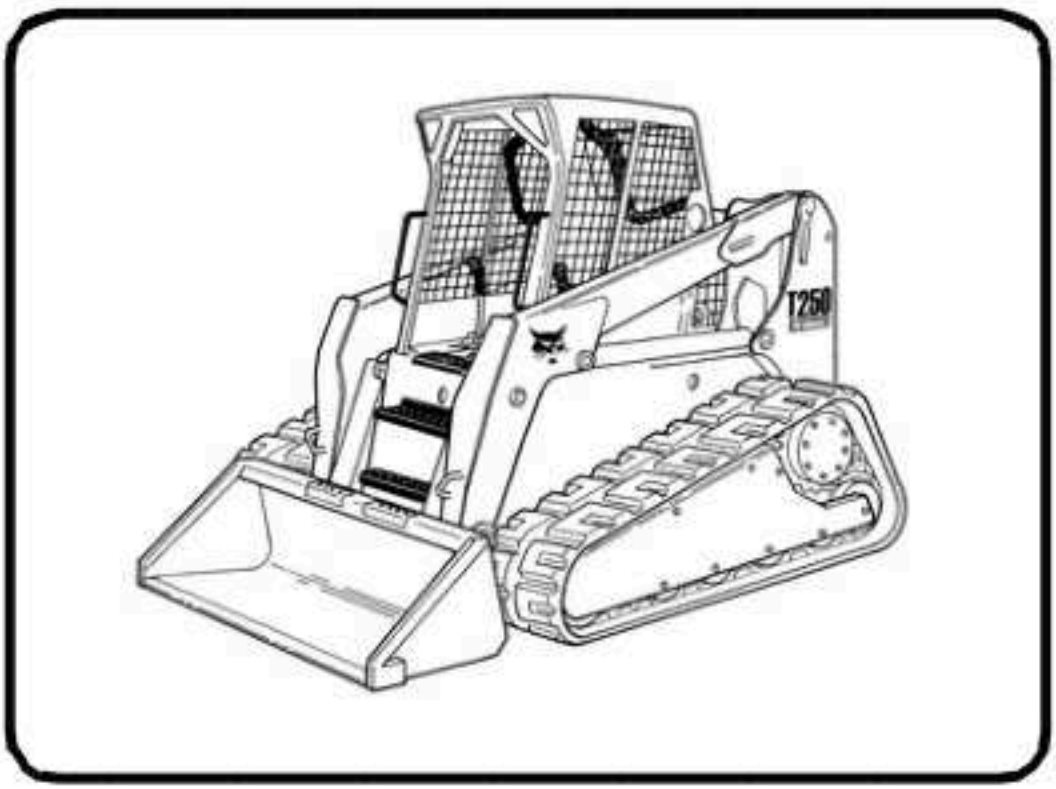
Bobcat®

Service Manual
T250 Compact Track Loader

S/N A5GS20001 & Above
S/N A5GT20001 & Above



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS™)

6987044 (2-11)

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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
BOBCAT CONTROLLER (ACS) 60-01
BOBCAT CONTROLLERS (GATEWAY AND AUXILIARY) 60-01
BOBCAT CONTROLLER (SJC) (DRIVE) 60-01
BOBCAT INTERLOCK CONTROL SYSTEM (BICS™) 60-01
BLOWER FAN 80-01
BOB-TACH (HAND LEVER) 10-01, 50-01
BOB-TACH (POWER) 10-01, 50-01
BOB-TACH (POWER) BLOCK 20-01
BRAKE 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
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 (ACS) 50-01
CONTROL PEDALS AND LINKAGES 50-01
CONTROL SYSTEM (ACS) 60-01
CONVERSIONS SPEC-01
CRANKSHAFT AND PISTONS 70-01
CYLINDER HEAD 70-01
CYLINDER (BOB-TACH) 20-01
CYLINDER (LIFT) 20-01
CYLINDER (TILT) 20-01

DIAGNOSTICS SERVICE CODES 60-01
DRIVE BELT 30-01

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, 70-01
ENGINE INFORMATION 70-01
ENGINE LUBRICATION SYSTEM 10-01
ENGINE SPEED CONTROL 70-01
ENGINE SPEED CONTROL (SJC) 70-01
EVAPORATOR COIL 80-01
EVAPORATOR / HEATER UNIT 80-01
EXHAUST GAS RECIRCULATION (EGR) SYSTEM 70-01
EXPANSION VALVE 80-01

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
HYDRAULIC CONNECTION SPECIFICATIONS SPEC-01
HYDRAULIC CONTROL VALVE (ACS) OR (SJC) 20-01
HYDRAULIC CONTROL VALVE (STANDARD) 20-01
HYDRAULIC FLUID RESERVOIR 20-01
HYDRAULIC / HYDROSTATIC FILTERS 20-01
HYDRAULIC / HYDROSTATIC FLUID SPECIFICATIONS SPEC-01
HYDRAULIC / HYDROSTATIC SYSTEM 10-01
HYDRAULIC PUMP (SJC) 20-01
HYDRAULIC PUMP (SJC) (HI FLOW) 20-01
HYDRAULIC PUMP (STANDARD) 20-01
HYDRAULIC PUMP (STANDARD) (HIGH FLOW) 20-01
HYDRAULIC SYSTEM INFORMATION 20-01
HYDROSTATIC DRIVE MOTOR 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
(T250) LOADER SPECIFICATIONS SPEC-01
LOADER STORAGE AND RETURN TO SERVICE 10-01
LUBRICATION SYSTEM 70-01
LUBRICATING THE LOADER 10-01

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

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OIL COOLER 20-01
OPERATOR CAB 10-01, 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 - 7003031 10-01

SEAT BAR 50-01
SEAT BAR SENSOR 60-01
SEAT BELT 10-200
SERVICE PC (LAPTOP COMPUTER) 60-01
SERVICE SCHEDULE 10-01
SPARK ARRESTER MUFFLER 10-01
SPEED SENSORS (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
TORQUE SPECIFICATIONS FOR BOLTS SPEC-01
TOWING THE LOADER 10-01
TRACK MAINTENANCE (RUBBER TRACK) 40-01
TRACK UNDERCARRIAGE COMPONENTS (ROLLER SUSPENSION) (RUBBER TRACK) 40-01
TRACK UNDERCARRIAGE COMPONENTS (SOLID-MOUNTED) (RUBBER TRACK) 40-01
TRACK UNDERCARRIAGE (STEEL TRACK) 40-01
TRACTION LOCK 60-01
TRANSPORTING LOADER ON A TRAILER 10-01
TROUBLESHOOTING 80-01
TURBOCHARGER 70-01

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

ACS- ADVANCED CONTROL SYSTEM
AHC- ADVANCED HAND CONTROL SYSTEM
BICS™-BOBCAT INTERLOCK CONTROL SYSTEM

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CONTENTS

FOREWORD II

SAFETY INSTRUCTIONS V

FIRE PREVENTION VII

SERIAL NUMBER LOCATIONS IX

DELIVERY REPORT X

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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HYDRAULIC/HYDROSTATIC SCHEMATIC
WITH SJC AND HIGH FLOW OPTION
T250 (S/N A5GS20001 AND ABOVE)
(S/N A5GT20001 AND ABOVE)

(PRINTED MARCH 2008)
V-1183legend

LEGEND

1. RESERVOIR:
   Capacity . . . . . 18.8 qt. (17,8 L)
2. SPRING LOADED FILTER BY-PASS VALVE: 45-55 PSI (3,1-3,8 bar)
3. DIFFERENTIAL PRESSURE SWITCH: 36-44 PSI (2,5-3,0 bar) Normally Closed
4. DRIVE MOTOR SHUTTLE VALVE
5. RELIEF/REPLENISHING VALVE - HIGH PRESSURE: 5075 PSI (350 bar)
6. RELIEF VALVE - CHARGE INLET: 360 PSI (24,8 bar) at High Engine Idle With 140 degrees F. (60 degrees C.) Fluid
7. FRONT AUXILIARY MANUAL PRESSURE BLEED-OFF VALVE
8. HYDRAULIC PUMP . . . . . Gear Type 21.2 GPM (80,2 L/min.) at High Engine Idle
9. RELIEF VALVE - MAIN: 3250-3350 PSI (224-231 bar) at Front Quick Couplers
10. PORT RELIEF/ANTICAVITATION VALVE 4000 PSI (276 bar)
11. ANTICAVITATION VALVE
12. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - AUXILIARY
13. PORT RELIEF/ANTICAVITATION VALVE: . . . . . (Optional) 3500 PSI (241,3 bar)
14. LOAD CHECK VALVE
15. LIFT CYLINDER SPOOL - MADE TO RESTRICT FLOW DURING BOOM DOWN BUT NOT DURING BOOM UP
16. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - BICS CONTROL
17. PILOTED ACTIVATED DIRECTIONAL CONTROL VALVE - TILT CONTROL
18. PILOTED ACTIVATED DIRECTIONAL CONTROL VALVE - LIFT CONTROL
19. PULL BUTTON ACTIVATED DIRECTIONAL CONTROL VALVE - LIFT ARM BY-PASS
20. PILOTED ACTIVATED DIRECTIONAL CONTROL VALVE - UNLOADING SPOOL
21. PILOTED ACTIVATED DIRECTIONAL CONTROL VALVE - FLOW CONTROL SPOOL
22. FLOW DIVIDER ADJUSTMENT VALVE
23. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - BASE
24. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - ROD
25. LOAD SHUTTLE VALVE - BLEED OFF
26. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - TWO COIL
27. PILOT ACTIVATED DIRECTIONAL CONTROL VALVE - REAR AUXILIARY
28. RESTRICTOR - 0.031 inch (0,8 mm)
29. RELIEF VALVE: 3300 PSI (228 bar)
30. HYDRAULIC BRAKE - SPRING APPLIED - PRESSURE RELEASE
31. FILTER - HYDRAULIC (CANISTER)
32. FILTER - CASE DRAIN (SINTERED BRONZE)
33. FILTER - BICS CONTROL VALVE (SCREEN)
34. CHECK VALVE - BUCKET POSITION VALVE
35. RESTRICTION
36. VARIABLE CAPACITY DISPLACEMENT BI-DIRECTIONAL HYDROSTATIC PUMP
37. SHUTTLE RELIEF VALVE (Not Adjustable - Factory Set) 65 PSI (4,5 bar)
38. FIXED CAPACITY DISPLACEMENT BI-DIRECTIONAL HYDROSTATIC MOTOR
39. CHECK VALVE - With 80 PSI (5,5 bar) Spring
40. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - BUCKET POSITION VALVE (ON/OFF)
41. CHECK VALVE - BICS CONTROL VALVE
42. RESTRICTION - 0.343 inch (8,7 mm)
43. FILTER - Bob-Tach Valve
44. PILOT ACTIVATED DIRECTIONAL CONTROL VALVE - HYDRAULIC POWERED BOB-TACH
45. RESTRICTION - 0.089 inch (2,26 mm)
46. RESTRICTION - 0.025 inch (0,6 mm)
47. RELIEF VALVE - 2000 PSI (137 bar)
48. RELIEF VALVE - 1200 PSI (83 bar)
49. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE (TWO COIL)
50. RELIEF VALVE - 3300 PSI (228 bar)
51. DUMP VALVE - (ON/OFF)
52. CHECK VALVE
53. AUXILIARY HYDRAULIC PUMP - 15.8 GPM (59,9 L/min) at High Engine Idle
54. CHECK VALVE - With 300 PSI (20,7 bar) Spring with 0.016 inch (0,40 mm) orifice
55. SOLENOID ACTIVATED CONTROL VALVE - FORWARD/REVERSE
56. SERVO PISTON -Swash Plate
57. POSITION SENSOR -Swash Plate
58. CHARGE PRESSURE SENSOR
59. CHARGE PUMP - 14.2 GPM (53,7 L/min) at High Engine Idle
60. FIXED CAPACITY DISPLACEMENT HYDRAULIC MOTOR
61. ANTICAVITATION VALVE
62. PROPORTIONAL RELIEF VALVE – (Fan Speed Regulator): 1566 - 1784 PSI (108 - 123 bar)
63. CHECK VALVE
64. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - BRAKE
65. FILTER - HYDRAULIC
66. SPRING LOADED FILTER BY-PASS VALVE: 75-83 PSI (5,2-5,7 bar)

NOTE: Unless otherwise specified, springs have NO significant pressure value.

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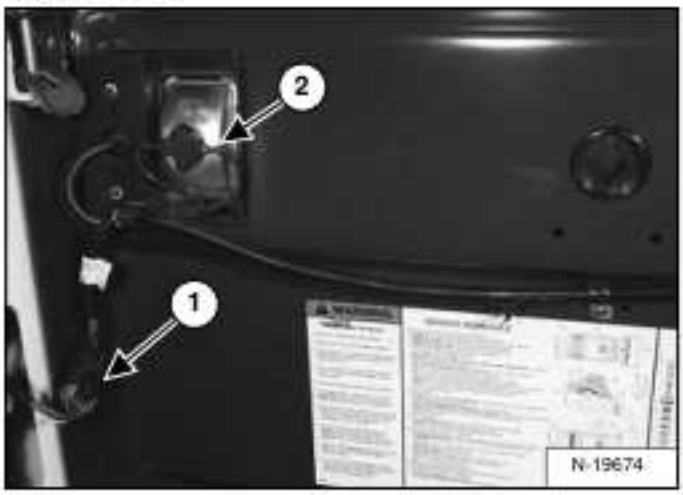
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REAR DOOR (TAILGATE)

Removal And Installation

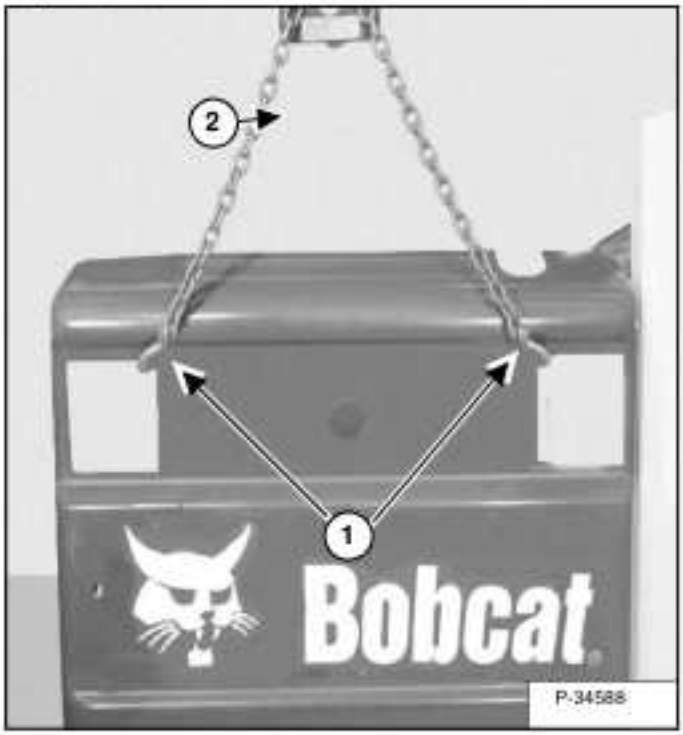
Figure 50-70-1



Disconnect the light harness connector (Item 1) **[Figure 50-70-1]** from the engine harness.

Remove both rear lights (Item 2) **[Figure 50-70-1]** from the door. (See Rear Removal And Installation on Page 60-60-2.)

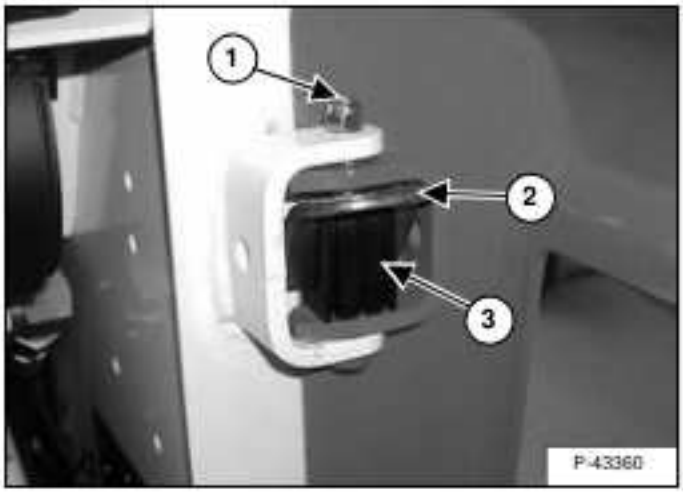
Figure 50-70-2



Secure the chain hooks (Item 1) **[Figure 50-70-2]** to the door as shown.

Connect a chain hoist (Item 2) **[Figure 50-70-2]** to the lifting chain.

Figure 50-70-3



Remove the top and bottom door hinge mounting bolts (Item 1) **[Figure 50-70-3]** and nuts.

NOTE: Install the door stop (Item 2) and the door stop retainer (Item 3) [Figure 50-70-3] in the top hinge as shown.

Installation: Tighten the mounting bolts and nuts to 34 - 38 N•m (25 - 28 ft-lb) torque.

Lift the door away from the loader frame and put the door flat on the floor.

Installation: Reverse the removal procedure to install the rear door.

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Troubleshooting

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
All indicator lights flashing.	5
One of the indicator lights flashing.	1
Intermittent indicator lights.	2, 3, 4

KEY TO CORRECT THE CAUSE
1. Refer to BICS™ troubleshooting chart.
2. Check wire connections on Bobcat Controller to make sure connectors are locked into place.
3. Check pins in connectors for pins pushed back or bent.
4. Use seat bar sensor tester MEL1428 to isolate problem between sensor and controller and wiring.
5. Possible low or high voltage.

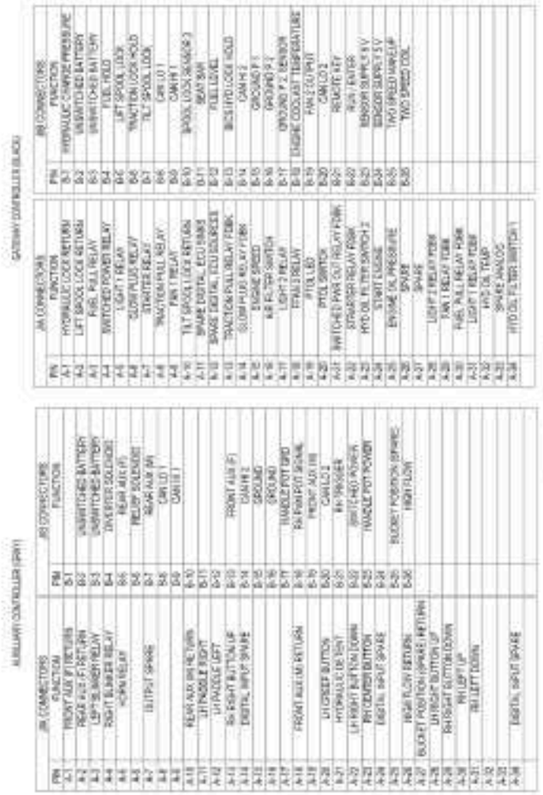
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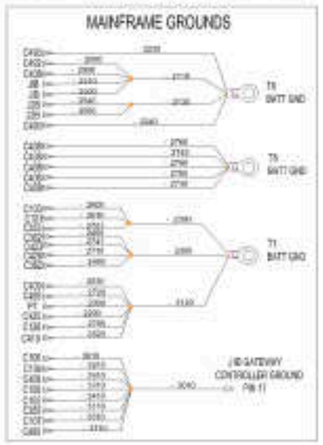
WIRING SCHEMATIC
(MAINFRAME)
T250 (S/N A5G520001 AND ABOVE)
(S/N A5GT20001 AND ABOVE)

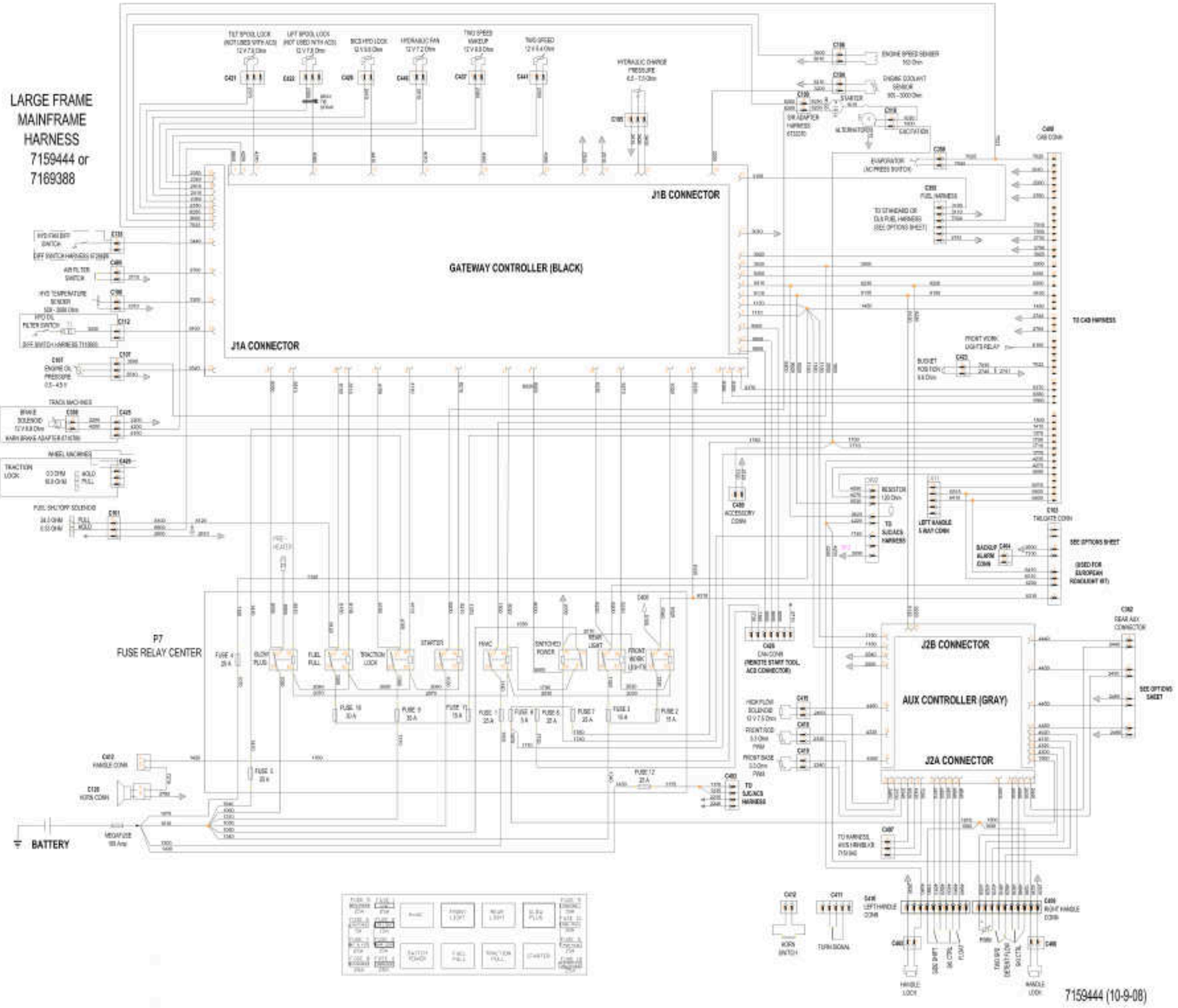
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LARGE FRAME
MAINFRAME
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