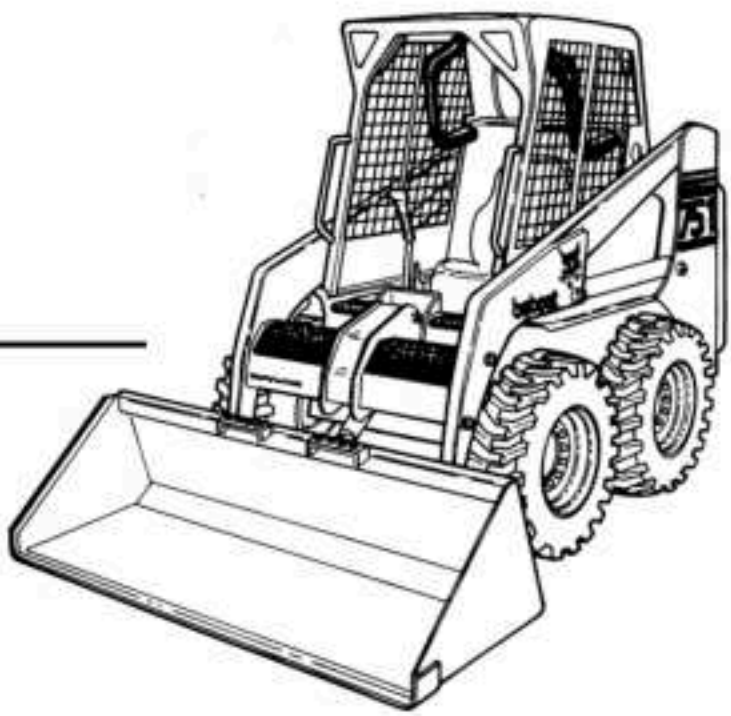
751

Bobcat®

Service Manual

(S/N 515730001 & Above)
(S/N 515620001 & Above)



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6900975 (2-06)

Ingersoll Rand
Printed in U.S.A.

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HYDRAULIC/HYDROSTATIC SCHEMATIC
751 (S/N 515730001 AND ABOVE)
(S/N 515620001 AND ABOVE)

(PRINTED SEPTEMBER 2003)
V-0366legend

LEGEND

1. RESERVOIR:
   Capacity . . . . . 14 Qts. (13,2 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: 5000 PSI (345 Bar)
6. RELIEF VALVE - CHARGE INLET:
   185-195 PSI (12,8-13,5 Bar)
   at 14.3 GPM (54 L/min.)
   at 2650 Enginre RPM
   With 140 degrees F. (60 degrees C.) Fluid
7. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - AUXILIARY BLEED VALVE (USED ON MACHINES WITHOUT REAR AUXILIARY)
8. HYDRAULIC PUMP . . . . . Gear Type
   14.3 GPM (54 L/min.) at 2650 RPM
   at 1150 PSI (79,3 Bar)
9. RELIEF VALVE - MAIN:
   2500-2600 PSI (172-179 Bar)
   at Front Quick Couplers
10. RELIEF VALVE - PORT: . . . . . (Optional)
    3500 PSI (241 Bar)
11. ANTICAVITATION VALVE
12. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - AUXILIARY
13. RELIEF VALVE - PORT: . . . . . (Optional)
    3500 PSI (241 Bar)
14. LOAD CHECK VALVE
15. ONE WAY RESTRICTOR VALVE (Optional - ADVANCED HAND CONTROLS ONLY)
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 - BLEED OFF REAR AUXILIARY ("SV2")
24. LOAD SHUTTLE VALVE - BLEED OFF
25. PILOT ACTIVATED DIRECTIONAL CONTROL VALVE - FOR REAR AUXILIARY - NORMALLY CLOSED ("P2" and "F2")
26. PILOT ACTIVATED DIRECTIONAL CONTROL VALVE - FOR REAR AUXILIARY - NORMALLY OPEN ("D1" and "P1")
27. PILOT ACTIVATED DIRECTIONAL CONTROL VALVE - FOR REAR AUXILIARY - NORMALLY OPEN ("D2" and "P2")
28. FILTER - DIVERTER VALVE (SINTERED BRONZE)
29. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - TO ACTIVATE REAR AUXILIARY ("SV1")
30. PILOT ACTIVATED DIRECTIONAL CONTROL VALVE - FOR REAR AUXILIARY - NORMALLY CLOSED ("P1" and "F1")
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 BIDIRECTIONAL HYDROSTATIC PUMP
37. SHUTTLE RELIEF VALVE
    (Not Adjustable - Factory Set)
    65 PSI (4,5 Bar)
38. FIXED CAPACITY DISPLACEMENT BIDIRECTIONAL HYDROSTATIC MOTOR
39. ONE WAY RESTRICTOR VALVE
40. SOLENOID ACTIVATED DIRECTIONAL CONTROL VALVE - BUCKET POSITION VALVE (ON/OFF)
41. CHECK VALVE - BICS CONTROL VALVE
42. MUFFLER (If equipped)
43. LOAD SHUTTLE VALVE - AUXILIARY BLEED VALVE (USED ON MACHINES WITHOUT REAR AUXILIARY)
44. ANTICAVITATION VALVE (TILT BASE END)

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

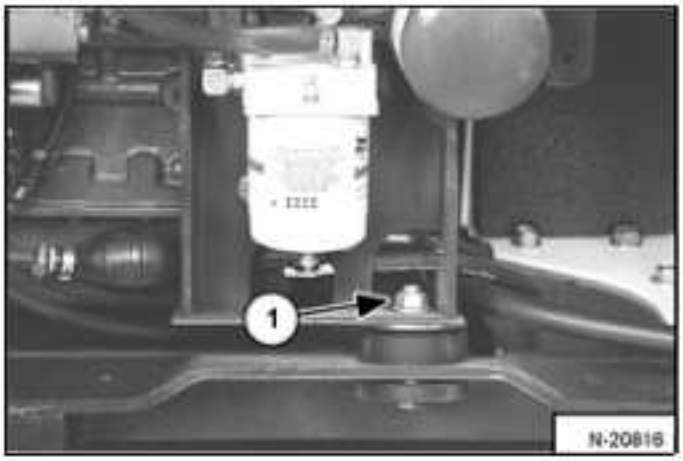
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Removal And Installation (Cont'd)

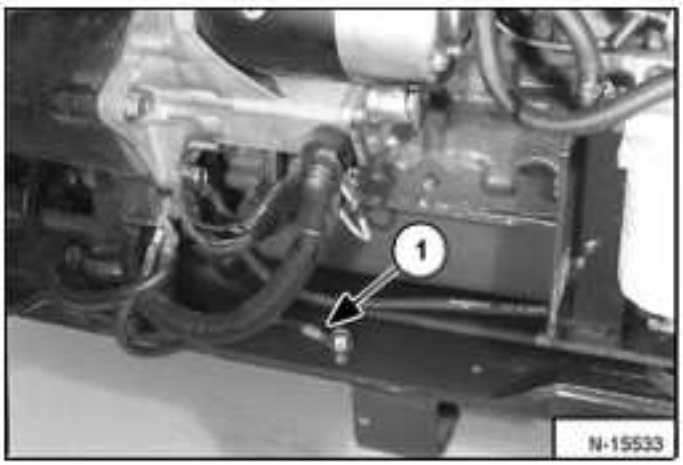
Figure 70-80-11



Remove the mounting bolt and nut (Item 1) **[Figure 70-80-11]** from the right rear engine mount.

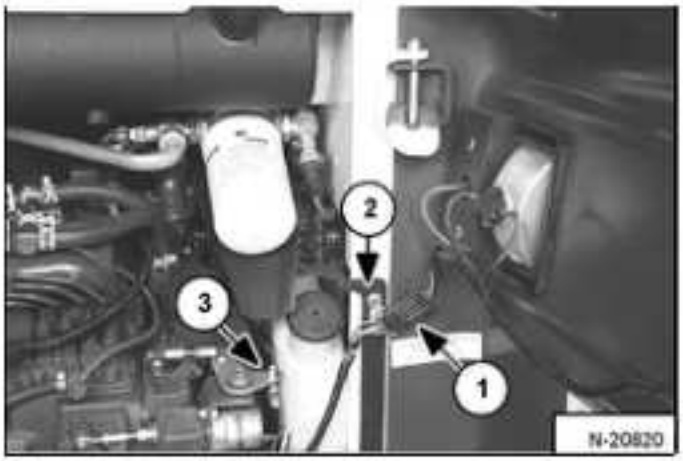
Installation: Tighten the mounting bolt to 70 ft.-lbs. (95 Nm) torque.

Figure 70-80-12



Disconnect the ground cable (Item 1) **[Figure 70-80-12]** from the loader frame.

Figure 70-80-13



Disconnect the rear light harness connectors (Item 1) **[Figure 70-80-13]** from the engine harness.

Remove the belt shield mounting bolt (Item 2) **[Figure 70-80-13]**.

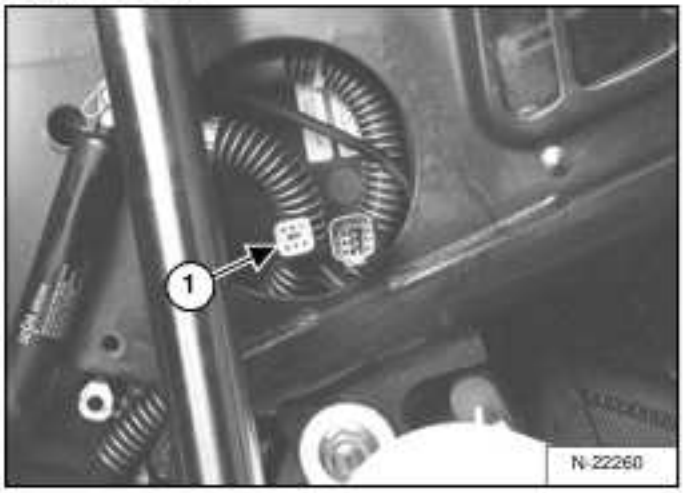
Remove the belt shield.

Disconnect the engine speed control rod (Item 3) **[Figure 70-80-13]** from the linkage.

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Checking The Electrical System (Cont'd)

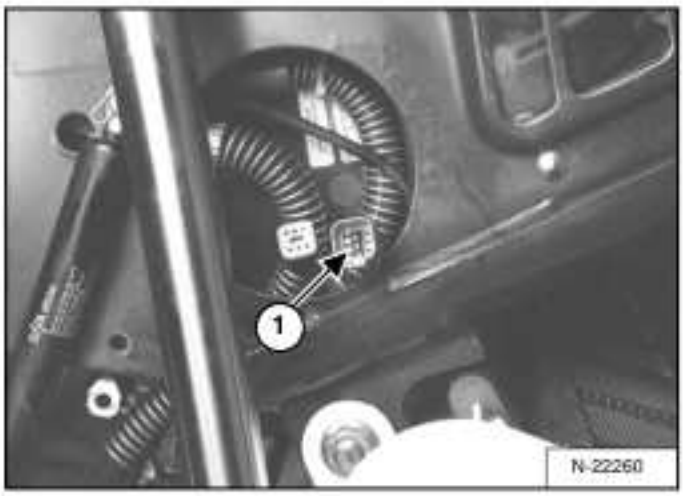
Figure 80-30-12



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

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

Figure 80-30-13

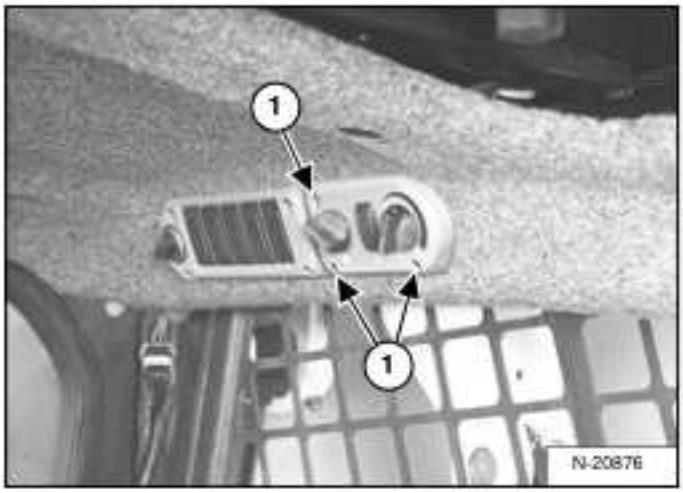


If there is voltage at the wiring harness, check the resistance to the blower fan at the blower fan wiring connector (Item 1) **[Figure 80-30-13]**.

If there is no resistance value replace the blower fan. (See Removal And Installation on Page 80-70-1.)

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

Figure 80-30-14



Remove the three mount screws (Item 1) **[Figure 80-30-14]** from the cab control panel.

Figure 80-30-15



Remove the control panel and wiring harness from the cab **[Figure 80-30-15]**.

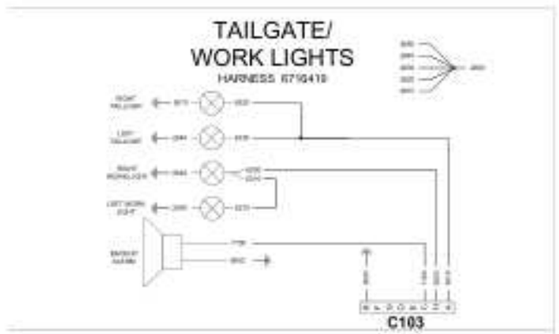
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751 WIRING SCHEMATIC

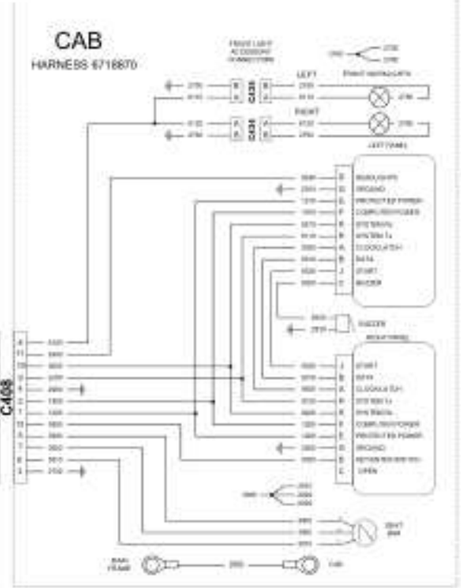
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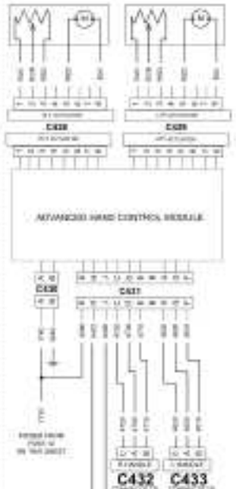
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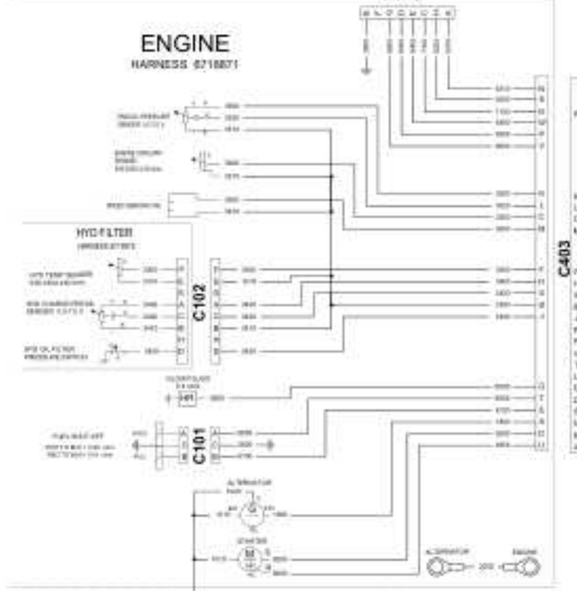
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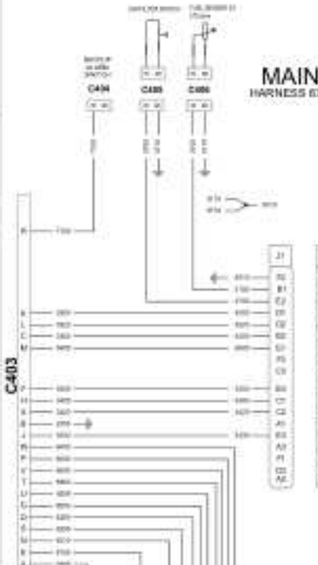


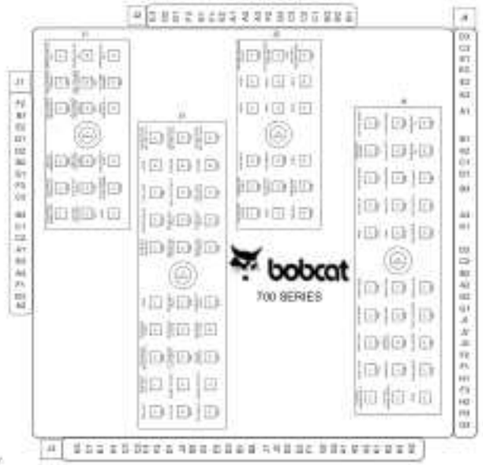


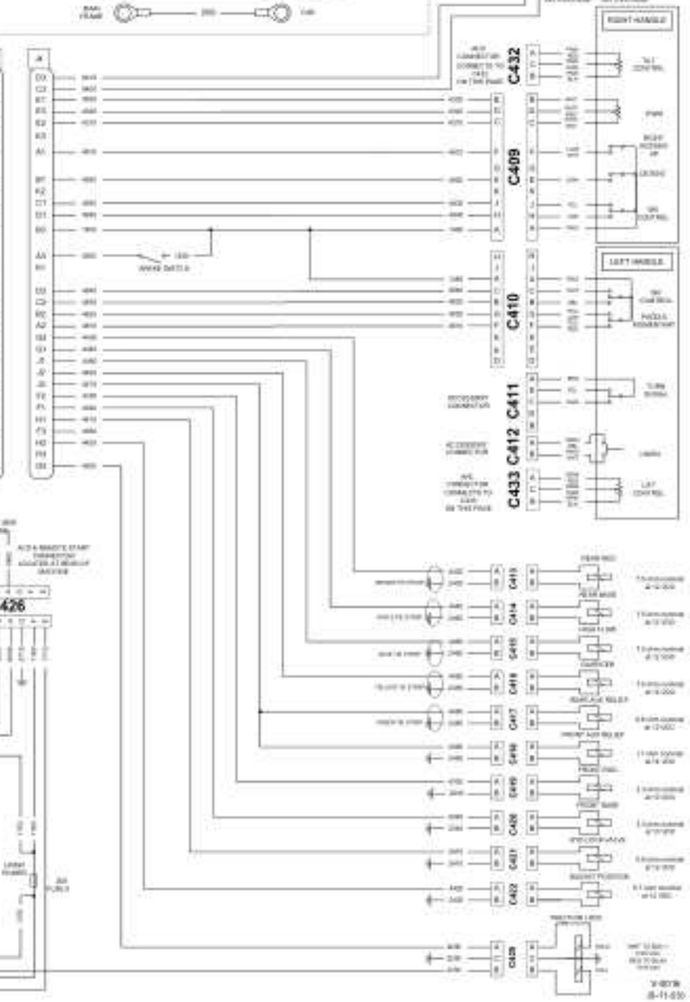












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