REPAIR MANUAL

LOADER BACKHOE

580M
580 Super M
580 Super M+
590 Super M
590 Super M+

SERIES 3

97728449

Issued 01 Feb 08

MidWestTech | Case 580M, 580 Super M, 580 Super M+, 590 Super M, 590 Super M+ Series 3 Loader Backhoe Service Manual | Publication 87728449

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129 – Right Hand Stabilizer Down Solenoid (Pilot Controls)

The solenoid is located under the machine on the pilot control hydraulic manifold.

Check Points	Reading	Possible Cause of Bad Reading
NOTE: *Disconnect the connector for the solenoid.*		
Between terminals of solenoid	Ohm	5.5 Ohm at 68° F (20° C), replace as needed
NOTE: *Make sure not to loose gasket on connector.*		

130 – Right Hand Stabilizer Up Solenoid (Pilot Controls)

The solenoid is located under the machine on the pilot control hydraulic manifold.

Check Points	Reading	Possible Cause of Bad Reading
NOTE: *Disconnect the connector for the solenoid.*		
Between terminals of solenoid	Ohm	5.5 Ohm at 68° F (20° C), replace as needed
NOTE: *Make sure not to loose gasket on connector.*		

131 – Left Hand Stabilizer Down Solenoid (Pilot Controls)

The solenoid is located under the machine on the pilot control hydraulic manifold.

Check Points	Reading	Possible Cause of Bad Reading
NOTE: *Disconnect the connector for the solenoid.*		
Between terminals of solenoid	Ohm	5.5 Ohm at 68° F (20° C), replace as needed
NOTE: *Make sure not to loose gasket on connector.*		

132 – Left Hand Stabilizer Up Solenoid (Pilot Controls)

The solenoid is located under the machine on the pilot control hydraulic manifold.

Check Points	Reading	Possible Cause of Bad Reading
NOTE: *Disconnect the connector for the solenoid.*		
Between terminals of solenoid	Ohm	5.5 Ohm at 68° F (20° C), replace as needed
NOTE: *Make sure not to loose gasket on connector.*		

133 – Auxiliary Reverse Solenoid Bi-directional (Pilot Controls)

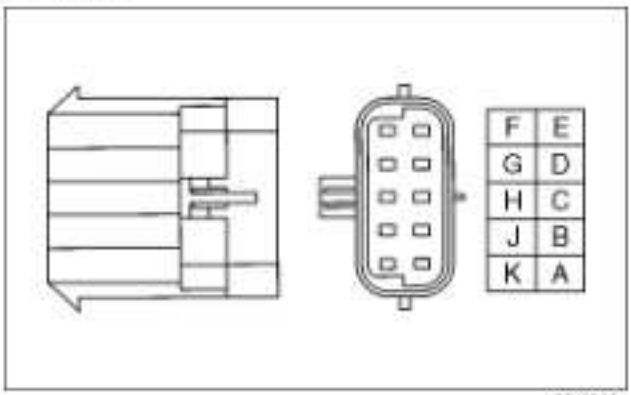
The solenoid is located under the machine on the pilot control hydraulic manifold.

Check Points	Reading	Possible Cause of Bad Reading
NOTE: *Disconnect the connector for the solenoid.*		
Between terminals of solenoid	Ohm	5.5 Ohm at 68° F (20° C), replace as needed
NOTE: *Make sure not to loose gasket on connector.*		

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CAV	WIRE IDENT	CIRCUIT
C-1	57 Red 16	Opt Radio (+), Loader Quick Coupler Switch T2, Backhoe Quick Coupler Switch "A" T2, Ride Control Switch T2, Hand Held Aux Hyd's Switch T2, (Remote) 3-Amp Boom Lock
C-2	12B Red 12	Power Relay 2 T87
C-3	19B Red 16	Hazard Switch T2, Turn/Driving Lamp/Horn Switch T49a, Flasher Relay T2, Loader Lever Differential Lock Enable Relay T85 and T30, Brake Switch (Com)
C-4	12B Red 12	Power Relay 2 T87
C-5	61 Red 12	Blower Switch (+)
C-6	12B Red 12	Power Relay 2 T87
C-7	Not Used	
C-8	12B Red 12	Power Relay 2 T87
C-9	83 Red 10	Power Plug B+
C-10	1H Red 10	Power Junction Post
C-11	84 Red 10	Power Plug B+
C-12	1J Red 10	Power Junction Post
C-13	Not Used	
C-14	Not Used	
D-1	19E Red 16	Clutch Relay T85 and T30, shuttle Interlock Timing Relay (B+)
D-2	3 White 12	Ignition Switch (Ignition)
D-3	23G Red 16	Diode
D-4	3 White 12	Ignition Switch (Ignition)
D-5	15 White 16	Fuel Shutoff, Alt T2, Cold Start T6
D-6	3 White 12	Ignition Switch (Ignition)
D-7	19C Red 12	Rear Work Lamp Switch and Relay T2
D-8	12C Red 12	Power Relay 3, T87
D-9	19K Red 14	Front Work Lamp Switch T2
D-10	12C Red 12	Power Relay 3, T87
D-11	Not Used	
D-12	12C Red 12	Power Relay 3, T87
D-13	Not Used	
D-14	12C Red 12	Power Relay 3, T87

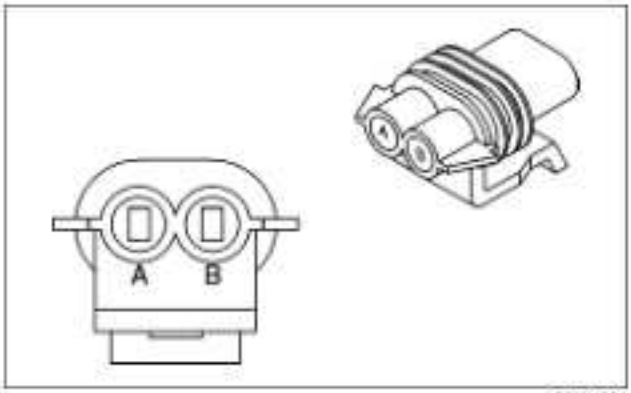
CONNECTOR - FRONT CONSOLE OPTIONS HARNESS



256354A1

CAV	WIRE IDENT	CIRCUIT
A	Not Used	
B	60 Red 16	A/C Thermostat
C	60A Red 16	A/C Relay T86 & T87
D	60B Gray 16	A/C Relay T87a
E	62 Gray 16	Windshield Washer Switch T3 (Front)
F	Not Used	
G	501 Gray 16	Ride Control Solenoids
H	502 Gray 16	Rear Quick Coupler Solenoid, Diodes
J	Not Used	
K	63 Red 16	Fuse Block 1A

CONNECTOR - BACKHOE QUICK COUPLER SOLENOID



256340A1

CAV	WIRE IDENT	CIRCUIT
A	504 Gray 16	Backhoe Quick Coupler Solenoid
B	50 Black 16	Ground

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Test 7o

- If equipped with bi-directional auxiliary hydraulics, unhook hydraulic quick disconnects or cap lines, hold the button in the out position. Record gpm (l/min) on line 7o on the check sheet.

Test 7p

- Reverse directions on the bi-directional valve. Record gpm (l/min) on line 7p on the check sheet.

NOTE: *If flow reading between test 6b and tests 7a through 7p varies more that 1 gpm (3.8 l/min) there is a problem in that circuit.*

Steering and Bucket Lock Valve Flow

- Open the flowmeter and stop the engine. Remove the caps and plugs and reconnect the auxiliary hydraulics.

NOTE: *Reconnecting hoses is only required for SM machines. Refer to illustration on page 17.*

- Disconnect flowmeter inlet from port EF and place test adapter (2) on fitting.
- Disconnect hose from "T" fitting (10). Place a cap (7) onto the "T" fitting and connect the "CF" pressure hose (9) to the flowmeter inlet hose (8).

Test 8a

- Start and run engine at high idle close the load valve on the flowmeter. Record the pressure reading on line 8a on the check sheet.

NOTE: *A pressure reading of* 172 +0 -10 bar (2500 +0 -150 psi) *should be obtained.*

Test 8b

- Turn the steering wheel full right and hold against the stop.
- Open the load restrictor on the flowmeter to a reading of 1000 psi (69 bar).
- Holding the steering wheel against the stop, slowly close the load valve observing the flowmeter.
- When the flow drops dramatically by several gpm (L/min) record the pressure on line 8b of the check sheet.

Test 8c

- Continue to close the load valve on the flowmeter observing the flow.
- When flow reaches 0 gpm (l/min), record the pressure on line 8c on the check sheet.
- Turn the steering wheel to the neutral position.

NOTE: *A pressure reading of 2050 to 2200 psi (141 to 152 bar) should be obtained.*

Test 8d

- Fully open the load valve on the flowmeter.

ATTENTION: *When performing the loader bucket or backhoe bucket coupler test, keep all personnel clear of the area.*

- Extend the backhoe bucket all the way to the dump position. Place the loader and the backhoe bucket on the ground.
- If equipped, engage the front or rear hydraulic coupler, slowly close the load valve on the flowmeter observing the flow.
- When the flow drops dramatically by several gpm (L/min) record the pressure on line 8d on the check sheet.

Test 8e

- Continue to close the load valve on the flowmeter observing the flow.
- When flow reaches 0 gpm (l/min), record the pressure on line 8e on the check sheet.

NOTE: *A pressure reading of 2700 to 2800 psi (186 to 193 bar) should be obtained. If pressure is not as specified adjust quick coupler relief valve.*

Steering and Bucket Lock Valve Leakage

- Holding the steering wheel against the left stop, close the load valve on the flowmeter to a reading of 1800 psi (124 bar), adjust engine rpm to 2000.

Test 9a

- Turn the steering wheel to full right. Record gpm (l/min) on line 9a on the check sheet.

Test 9b

- Turn the steering wheel to full left. Record gpm (l/min) on line 9b on the check sheet.

ATTENTION: *When performing the loader bucket or backhoe bucket coupler test, keep all personnel clear of the area.*

- Extend the backhoe bucket all the way to the dump position. Place the loader and the backhoe bucket on the ground.

Test 9c

- Retract the loader lock pins. Record gpm (l/min) on line 9c on the check sheet.

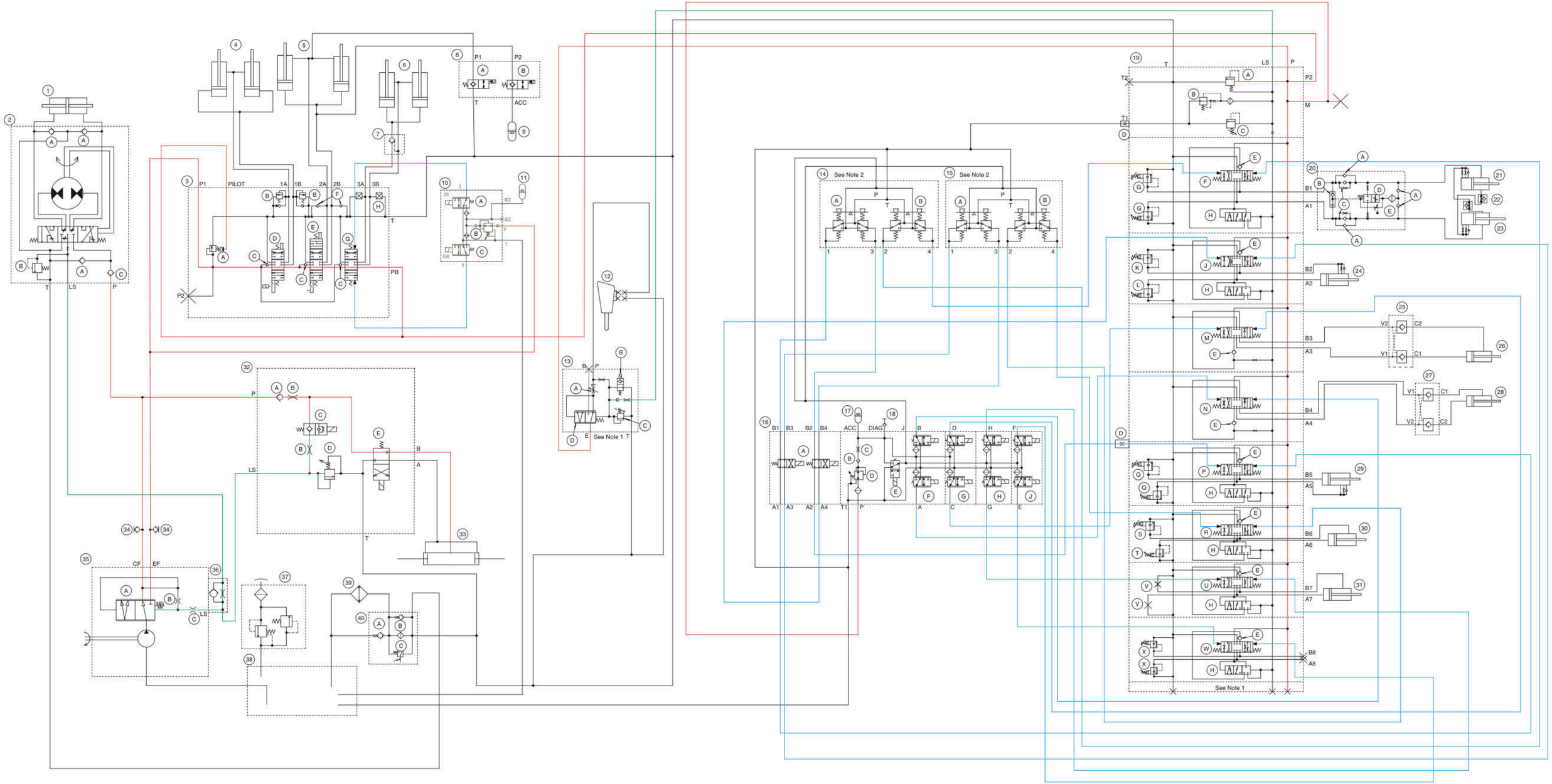
Test 9d

- Extend the loader lock pins. Record gpm (l/min) on line 9d on the check sheet.

Test 9e

- Retract the backhoe bucket lock pins. Record gpm (l/min) on line 9e on the check sheet.

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COMPONENTS

1. STEERING CYLINDER
2. STEERING CONTROL VALVE
   - A. ANTI CAVITATION VALVE
   - B. STEERING RELIEF VALVE
     - 172 +0 -10 BAR
     - 2500 +0 -150 PSI
   - C. CHECK VALVE
3. LOADER CONTROL VALVE
   - A. TWO STAGE RELIEF VALVE
     - FIRST STAGE
     - 210 ± 3 BAR
     - 3050 ± 50 PSI
     - SECOND STAGE
     - 248 TO 276 BAR
     - 3600 TO 4000 PSI
   - B. CIRCUIT RELIEF VALVE
     - WITH ANTI-CAVITATION
     - 221 ± 3 BAR
     - 3205 ± 50 PSI
   - C. LOAD CHECK VALVE
   - D. BUCKET SPOOL
   - E. LIFT SPOOL
   - F. ANTI CAVITATION VALVE
   - G. CLAM SPOOL
   - H. PLUG
4. BUCKET CYLINDERS
5. LIFT CYLINDERS
6. CLAM CYLINDERS
7. 4-IN-1 BUCKET LOCK VALVE
8. RIDE CONTROL VALVE
   - A. RIDE CONTROL SOLENOID VALVE (TANK)
   - B. RIDE CONTROL SOLENOID VALVE (ACCUMULATOR)
9. ACCUMULATOR FOR RIDE CONTROL
10. ELECTRO HYDRAULIC CLAM CONTROL
    - A. CLAM OPEN SOLENOID VALVE
    - B. PILOT PRESSURE RELIEF VALVE
      - 24-34.5 BAR
      - 350-500 PSI
    - C. CLAM CLOSE SOLENOID VALVE
11. ACCUMULATOR
12. HAMMER ATTACHMENT EXAMPLE
13. UNI-DIRECTIONAL AUXILIARY VALVE
    - A. FLOW CONTROL ADJUSTMENT
    - B. UNI-DIRECTIONAL AUXILIARY ON/OFF SOLENOID
    - C. UNI-DIRECTIONAL AUXILIARY RELIEF VALVE
    - D. PRIORITY SPOOL
14. LEFT-HAND JOYSTICK CONTROL
    - A. BOOM CONTROL
    - B. SWING CONTROL
15. RIGHT-HAND JOYSTICK CONTROL
    - A. DIPPER CONTROL
    - B. BUCKET CONTROL
16. REGULATED MANIFOLD
    - A. PATTERN CHANGE VALVE
    - B. CHECK VALVE
    - C. ORIFICE
    - D. PILOT PRESSURE RELIEF VALVE
      - 24-34.5 BAR
      - 350-500 PSI
    - E. PILOT CONTROL ON OFF SOLENOID
    - F. RIGHT STABILIZER CONTROL
    - G. LEFT STABILIZER CONTROL
    - H. EXTEND-A-HOE CONTROL
    - J. BI-DIRECTIONAL AUXILIARY CONTROL
17. ACCUMULATOR
18. PILOT MANIFOLD TEST PORT
19. BACKHOE CONTROL VALVE
    - A. BACKHOE RELIEF VALVE
    - B. LOAD SENSE DRAIN ORIFICE
    - C. LOAD SENSING RELIEF VALVE
    - D. ORIFICE
    - E. LOAD CHECK VALVE
    - F. SWING SPOOL
    - G. SWING CIRCUIT RELIEFS
      - WITH ANTI-CAVITATION CHECK VALVE
      - 207 ± 3 BAR
      - 3000 ± 50 PSI
    - H. COMPENSATOR
    - J. BOOM SPOOL
    - K. BOOM B PORT CIRCUIT RELIEF
      - WITH ANTI-CAVITATION CHECK VALVE
      - 331 ± 3 BAR
      - 4800 ± 50 PSI
    - L. BOOM A PORT CIRCUIT RELIEF
      - WITH ANTI-CAVITATION CHECK VALVE
      - 221 ± 3 BAR
      - 3205 ± 50 PSI
    - M. LEFT STABILIZER SPOOL
    - N. RIGHT STABILIZER SPOOL
    - P. DIPPER SPOOL
    - Q. DIPPER CIRCUIT RELIEFS
      - WITH ANTI-CAVITATION CHECK VALVE
      - 238 ± 3 BAR
      - 3450 ± 50 PSI
    - R. BUCKET SPOOL
    - S. BUCKET B PORT CIRCUIT RELIEF
      - WITH ANTI-CAVITATION CHECK VALVE
      - 221 ± 3 BAR
      - 3205 ± 50 PSI
    - T. BUCKET A PORT CIRCUIT RELIEF
      - WITH ANTI-CAVITATION CHECK VALVE
      - 262 ± 3 BAR
      - 3800 ± 50 PSI
    - U. EXTEND-A-HOE SPOOL
    - V. PLUG
    - W. BI-DIRECTIONAL SPOOL
    - X. AUXILIARY CIRCUIT RELIEFS
      - WITH ANTI-CAVITATION CHECK VALVE
      - 220 +5 -1 BAR
      - 3191 +72.5 -14.5 PSI
20. SWING DAMPENING VALVE
    - A. CHECK VALVE
    - B. SHUTTLE CHECK VALVE
    - C. BACK PRESSURE VALVE
    - D. SWING CUSHION SPOOL
    - E. SCREEN
21. LEFT-HAND SWING CYLINDER
22. FLOATING ORIFICE
23. RIGHT-HAND SWING CYLINDER
24. BOOM CYLINDER
25. LEFT STABILIZER LOAD CHECK VALVE
26. LEFT-HAND STABILIZER CYLINDER
27. RIGHT STABILIZER LOAD CHECK VALVE
28. RIGHT-HAND STABILIZER CYLINDER
29. DIPPER CYLINDER
30. BUCKET CYLINDER
31. EXTEND-A-HOE CYLINDER
32. QUICK COUPLER SOLENOID
    - A. CHECK VALVE
    - B. ORIFICE
    - C. PILOT SIGNAL SOLENOID
    - D. QUICK COUPLER RELIEF VALVE
      - 189.5 ± 3 BAR
      - 2750 ± 50 PSI
    - E. LOADER QUICK COUPLER SOLENOID VALVE
33. LOADER QUICK COUPLER CYLINDER
34. PUMP TEST PORTS
35. HYDRAULIC PUMP
    - 108 L/min @ 207 BAR
    - 28.5 gpm @ 3000 PSI
36. LOAD SENSE SHUTTLE VALVE
37. HYDRAULIC RESERVOIR BREATHER
38. HYDRAULIC RESERVOIR
39. OIL COOLER
40. HYDRAULIC FILTER
    - A. COOLER BYPASS
    - B. FILTER BYPASS
    - C. FILTER CONDITION SWITCH
    - A. PRIORITY VALVE
    - B. DYNAMIC SENSING ORIFICE
    - C. LS SIGNAL ORIFICE

NOTES

1. Machines will not be equipped with bi-directional and uni-directional auxiliary hydraulics on the same machine. Valves are shown for reference only.
2. Pilot controls are listed with pattern change valves not activated.

HYDRAULIC SYMBOLS

PRESSURE
COMPONENT
RETURN
LOAD SENSE
PILOT PRESSURE
CROSSING LINES
CHECK VALVE
FILTER OR SCREEN
LINE CONNECTION
RESTRICTOR
OIL COOLER

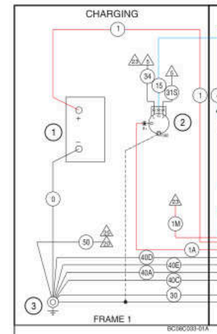
HYDRAULIC SCHEMATIC FOR 580M SERIES 3 WITH PILOT CONTROLS

Additional copies of this Hydraulic and Electrical Schematic can be ordered through Technical Publications Distribution System. The Part Number is 5-12380

BC08C036

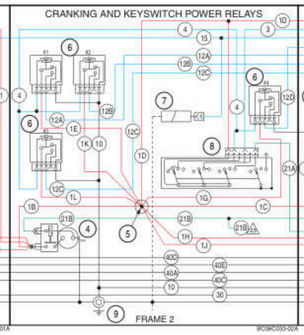
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CHARGING



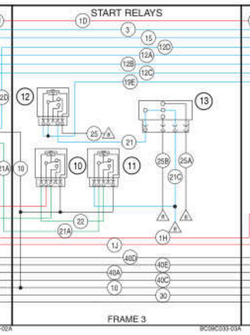
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CRANKING AND KEYSWITCH POWER RELAYS



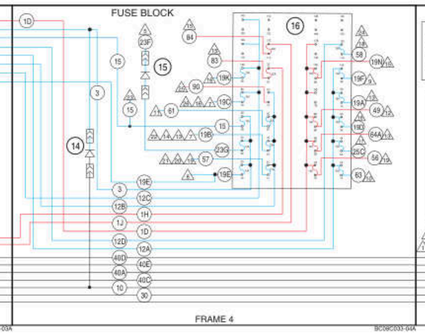
FRAME 2

START RELAYS



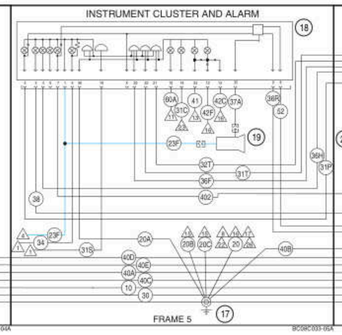
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FUSE BLOCK



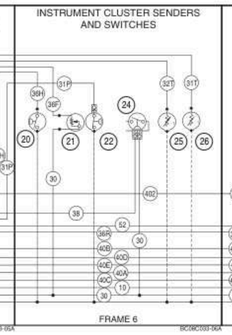
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INSTRUMENT CLUSTER AND ALARM



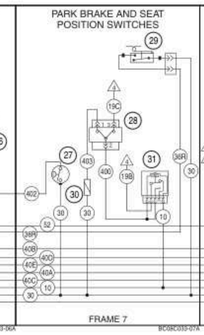
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INSTRUMENT CLUSTER SENDERS AND SWITCHES



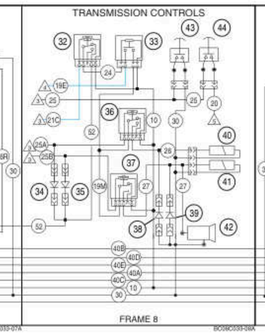
FRAME 6

PARK BRAKE AND SEAT POSITION SWITCHES



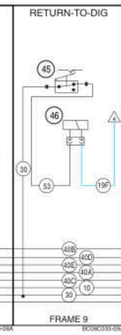
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TRANSMISSION CONTROLS



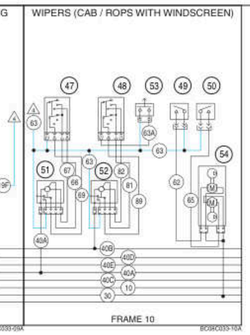
FRAME 8

RETURN-TO-DIG



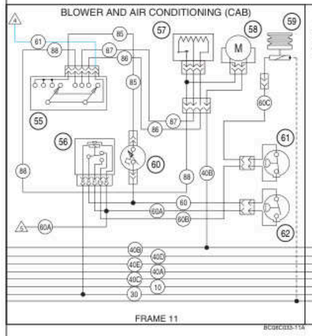
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WIPERS (CAB / ROPS WITH WINDSCREEN)



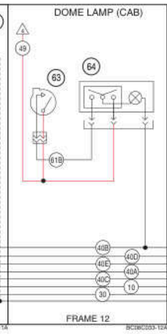
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BLOWER AND AIR CONDITIONING (CAB)



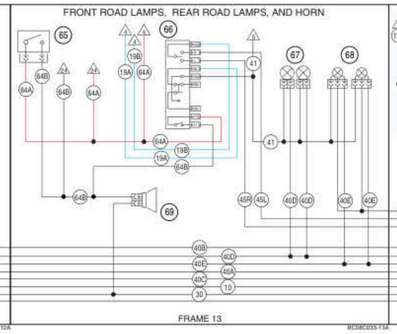
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DOME LAMP (CAB)



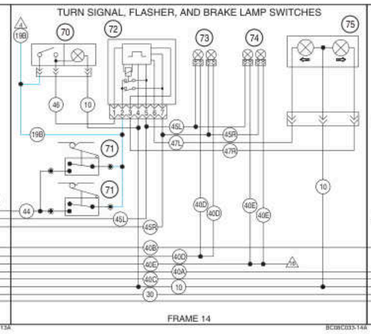
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FRONT ROAD LAMPS, REAR ROAD LAMPS, AND HORN



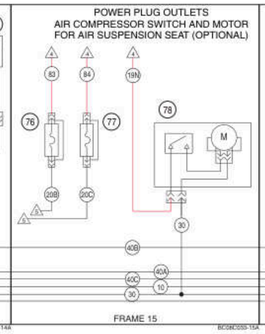
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TURN SIGNAL, FLASHER, AND BRAKE LAMP SWITCHES



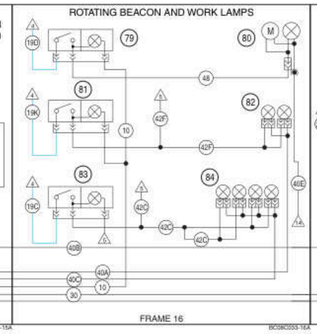
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POWER PLUG OUTLETS
AIR COMPRESSOR SWITCH AND MOTOR FOR AIR SUSPENSION SEAT (OPTIONAL)



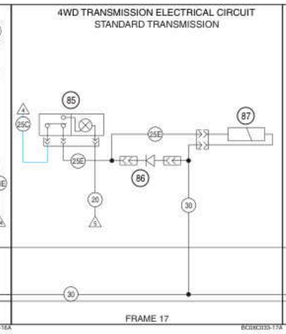
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ROTATING BEACON AND WORK LAMPS



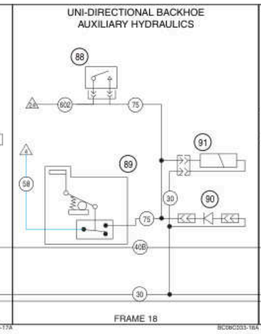
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4WD TRANSMISSION ELECTRICAL CIRCUIT
STANDARD TRANSMISSION



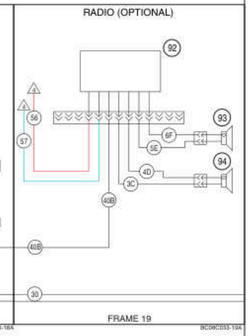
FRAME 17

UNI-DIRECTIONAL BACKHOE
AUXILIARY HYDRAULICS



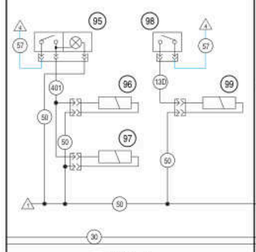
FRAME 18

RADIO (OPTIONAL)



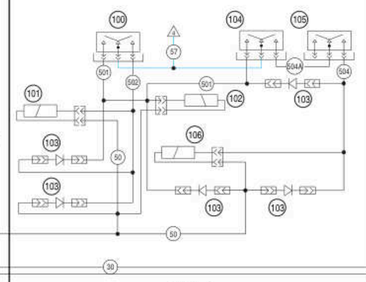
FRAME 19

RIDE CONTROL AND BOOM LOCK (OPTIONAL)



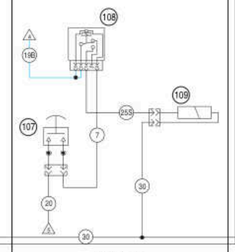
FRAME 20

QUICK COUPLER (OPTIONAL)



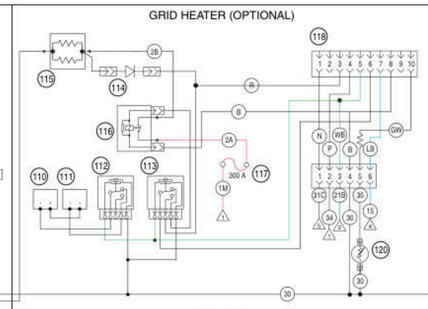
FRAME 21

DIFFERENTIAL LOCK



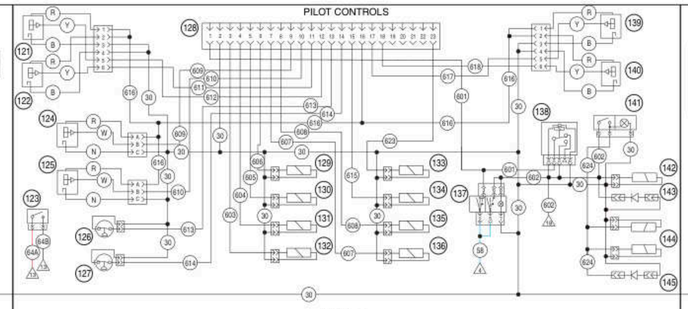
FRAME 22

GRID HEATER (OPTIONAL)



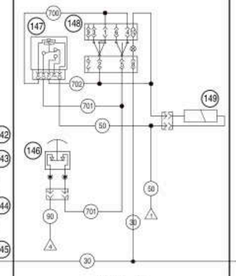
FRAME 23

PILOT CONTROLS



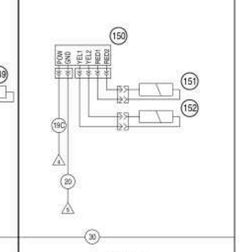
FRAME 24

COMFORT STEER



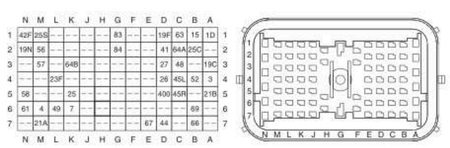
FRAME 25

ELECTRO-HYDRAULIC CLAM
(4-IN-1 BUCKET)



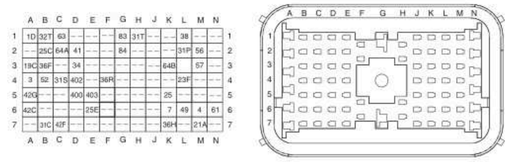
FRAME 26

MAIN CHASSIS HARNESS TO FRONT CONSOLE HARNESS



FRAME 27

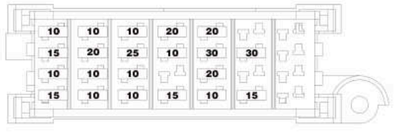
MAIN CHASSIS HARNESS TO SIDE CONTROL HARNESS



FRAME 28

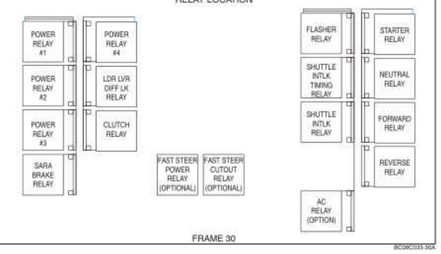
FUSE LOCATION

SPARE	NOT USED	NOT USED	NOT USED
SPARE	POWER OUTLET	SPARE	PILOT CONTROLS BH AUX (OPTION)
FRONT WORK LIGHTS	POWER OUTLET	AIR SUSP SEAT AIR COMP (OPTION)	RETURN TO DIG
REAR WORK LIGHTS	TRANSMISSION, COMFORT STEER	SPARE	DRIVING LIGHTS
FUEL SHUTOFF	BLOWER	DOME LIGHT	ROTATING BEACON (OPTION)
INSTRUMENTS ALARM SYS.	SIGNAL LIGHTS, PARK BRAKE	HORN	4WD (OPTION)
STARTING TRANSMISSION CONTROL	RADIO, RIDE CNOTRL, QUICK COUPLER (OPTION)	RADIO (BATT) (OPTION)	WIPERS



FRAME 29

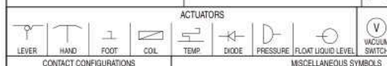
RELAY LOCATION



FRAME 30

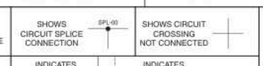
FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER	FRAME NUMBER - COMPONENT NUMBER
FRAME 1 COMPONENTS 1 - 1. Battery 1 - 2. Alternator 1 - 3. Chassis Ground FRAME 2 COMPONENTS 2 - 4. Starter and Starter Solenoid 2 - 5. Power Junction 2 - 6. Power Relays 2 - 7. Fuel Shutoff Solenoid 2 - 8. Key Switch 2 - 9. Front Console Ground FRAME 3 COMPONENTS 3 - 10. Starter Relay 3 - 11. Neutral Start Relay 3 - 12. Clutch Cutout Relay 3 - 13. FNR Switch	FRAME 4 COMPONENTS 4 - 14. Diode 4 - 15. Diode 4 - 16. Fuse Block FRAME 5 COMPONENTS 5 - 17. Side Console Ground 5 - 18. Instrument Cluster 5 - 19. Warning Alarm FRAME 6 COMPONENTS 6 - 20. Hydraulic Filter Restriction Switch 6 - 21. Fuel Level Sender 6 - 22. Engine Oil Pressure Switch 6 - 23. Not Used 6 - 24. Air Filter Restriction Switch 6 - 25. Transmission Temperature Sender 6 - 26. Engine Temperature Sender	FRAME 7 COMPONENTS 7 - 27. SAHR Brake Pressure Switch 7 - 28. SAHR ON/OFF Switch 7 - 29. Seat Position Switch 7 - 30. SAHR Park Brake Solenoid 7 - 31. SAHR Brake Relay FRAME 8 COMPONENTS 8 - 32. Shuttle Interlock Relay 8 - 33. Shuttle Interlock Timing Relay 8 - 34. Diode 8 - 35. Diode 8 - 36. Forward Relay 8 - 37. Reverse Relay 8 - 38. Diode 8 - 39. Diode 8 - 40. Forward Solenoid 8 - 41. Reverse Solenoid 8 - 42. Backup Alarm	8 - 43. Clutch Cutout Switch (shift Handle) 8 - 44. Clutch Cutout Switch Loader Handle Standard Transmission FRAME 9 COMPONENTS 9 - 45. Return-to-Dig Limit Switch 9 - 46. Loader Valve Solenoid FRAME 10 COMPONENTS 10 - 47. Front Wiper Switch 10 - 48. Rear Wiper Switch 10 - 49. Front Windshield Washer Switch (Cab/ROPS Windscreen) 10 - 50. Rear Windshield Washer Switch (Cab/ROPS Windscreen) 10 - 51. Front Wiper Motor (Cab) 10 - 52. Rear Wiper Motor (Cab) 10 - 53. Rear Wiper Cut-Off Switch 10 - 54. Windshield Washer Motor	FRAME 11 COMPONENTS 11 - 55. Blower Switch 11 - 56. Air Conditioning Pressure Relay 11 - 57. Blower Motor Resistor Board And Thermal Fuse 11 - 58. Blower Motor 11 - 59. Air Conditioner Compressor Clutch 11 - 60. Air Conditioner Temperature Switch 11 - 61. Air Conditioner Low Pressure Switch 11 - 62. Air Conditioner High Pressure Switch FRAME 12 COMPONENTS 12 - 63. Dome Lamp Switch (Door Switch) 12 - 64. Dome Lamp With Switch FRAME 13 COMPONENTS 13 - 65. Rear Horn Switch 13 - 66. Turn Signal, Driving Lamp, and Horn Switch	13 - 67. Driving Lamps 13 - 68. Rear Stop And Tail Lamps 13 - 69. Horn FRAME 14 COMPONENTS 14 - 70. Hazard Flasher Switch 14 - 71. Brake Lamp Switch 14 - 72. Flasher Relay 14 - 73. Front Turn Signal Lamps 14 - 74. Rear Turn Signal Lamps 14 - 75. Turn Signal Indicator Lamps FRAME 15 COMPONENTS 15 - 76. Power Plug #1 15 - 77. Power Plug #2 15 - 78. Air Suspension Seat - Air Compressor Switch And Motor (Optional)	FRAME 16 COMPONENTS 16 - 79. Rotation Beacon Switch 16 - 80. Rotating Beacon 16 - 81. Front Work Lamp Switch 16 - 82. Front Work Lamps 16 - 83. Rear Work Lamp Switch 16 - 84. Rear Work Lamps FRAME 17 COMPONENTS 17 - 85. 4WD Switch (If Equipped) 17 - 86. Diode 17 - 87. 4WD Solenoid FRAME 18 COMPONENTS 18 - 88. Thumb Operated Rear Auxiliary Hydraulic Switch (Pilot Control) 18 - 89. Foot Operated Rear Auxiliary Hydraulic Switch (Manual Control)	18 - 90. Diode 18 - 91. Auxiliary Backhoe Hydraulic Solenoid FRAME 19 COMPONENTS 92. Radio 93. Left Speaker 94. Right Speaker FRAME 20 COMPONENTS 95. Ride Control Engage Switch 96. Ride Control Solenoid (Accumulator) 97. Ride Control Solenoid (Tank) 98. Boom Lock Switch 99. Boom Lock Solenoid FRAME 21 COMPONENTS 100. Loader Quick Coupler Switch 101. Loader Quick Coupler Solenoid 102. Load Sensing Solenoid	103. Diode 104. Switch #A - Backhoe Quick Coupler 105. Switch #B - Backhoe Quick Coupler Solenoid 106. Backhoe Quick Coupler FRAME 22 COMPONENTS 107. Loader Lever Differential Lock Engage Switch - Standard Transmission 108. Differential Lock Enable Relay 109. Differential Lock Solenoid FRAME 23 COMPONENTS 110. KKSB Cutout Female Connector 111. KKSB Cutout Male Connector 112. KKSB Cutout Relay 113. Grid Heater Relay 114. Diode 115. Grid Heater	116. Cold Start Relay 117. Fuse 300 AMP 118. Cold Start Controller 119. Not Used 120. Cold Start Temperature Sender FRAME 24 COMPONENTS 121. E'Hoe Extend Push Button 122. E'Hoe Retract Button 123. Horn Switch 124. LH Stabilizer Switch 125. RH Stabilizer Switch 126. LH Stabilizer Pressure Switch 127. RH Stabilizer Pressure Switch 128. Electronic Pilot Controller 129. RH Stabilizer Down Solenoid 130. RH Stabilizer Up Solenoid 131. LH Stabilizer Down Solenoid 132. LH Stabilizer Up Solenoid	133. Auxiliary Reverse Solenoid 134. Auxiliary Forward Solenoid 135. E'Hoe Retract Solenoid 136. E'Hoe Extend Solenoid 137. Pilot ON/OFF Switch 138. Pilot Control Relay 139. Bi-Directional Forward Push Button 140. Bi-Directional Reverse Push Button 141. Pattern Change Switch 142. Pressure Reducing Valve Solenoid 143. Diode 144. Pattern Change Solenoids 145. Diode FRAME 25 COMPONENTS 146. Comfort Steer Transmission Switch 147. Comfort Steer Power Relay 148. Comfort Steer ON/OFF Switch 149. Comfort Steer Valve Solenoid	FRAME 26 COMPONENTS 150. Electro Hydraulic Clam Controller 151. EVI Solenoid 152. EVK Solenoid		

ACTUATORS

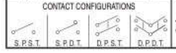


HOUSINGS



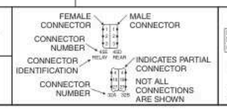


CONTACT CONFIGURATIONS

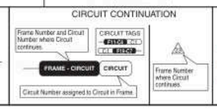


MISCELLANEOUS SYMBOLS





CIRCUIT CONTINUATION



WIRE IDENTIFICATION

- Indicates constant power
- Indicates power when key switch is in on position
- Indicates momentary power when key switch is in Start position

NOTES

NOTE 1 See the REPAIR MANUAL for locations and Troubleshooting information.

NOTE 2 Diagram shown with vehicle parked, Power OFF, and controls in OFF or Neutral position.

NOTE 3 Sheet Numbers refer to the number at the bottom center of each block.

ELECTRICAL SCHEMATIC
580M LOADER BACKHOE

Additional copies of this Hydraulic and Electrical Schematic can be ordered through Technical Publications Distribution System. The part number is 5-12380

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BC08C033-00A

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