SERVICE MANUAL

DC75
DC85
DC95
Crawler Dozer

NEW HOLLAND
CONSTRUCTION

Bur 6-76640

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Engine Service Manual form number 6-49731

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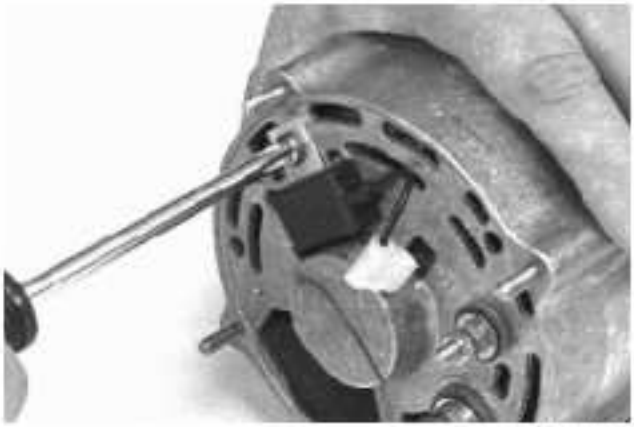
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DC75, DC85, DC95

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8. Loosen and remove the capacitor screw. Remove the capacitor.



9. Loosen and remove the nut, flat washer, and fiber washers from the D+ terminal.



10. Loosen and remove the nut, flat washer, and fiber washers from the B+ terminal.



11. Make an alignment mark on the cover, the stator, and the housing.



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Sensing system Oil pressure - Testing (B.60.A.95.91 - G.40.A.20)

DC75, DC85, DC95

NOTE: *For wiring diagrams refer to* ***Wiring harness - Electrical schematic frame 07 (A.30.A.88 - C.20.E.07)*** *and* ***Wiring harness - Electrical schematic frame 08 (A.30.A.88 - C.20.E.08)****.*

N°	Test Point	Expected Result	Other Result (Possible Cause)
1	Check between the engine oil pressure switch housing and ground.	Continuity	Bad ground circuit.
2	Disconnect wire 503 from the engine oil pressure switch terminal. Engine oil pressure switch terminal to ground.	Continuity	Bad engine oil pressure switch.
3	Put the master disconnect switch in the ON position. Put the ignition switch in the RUN position. Wire 503 to ground.	12 volts	Bad wire 503 between engine oil pressure switch and connector **X26** pin U. Bad wire V-B between connector X26/U and cavity 2 of connector **X5**, instrument cluster connector. Bad connectors. Check instrument cluster engine oil pressure bulb; check instrument cluster.
4	Turn the ignition switch OFF, disconnect the X26 connector and the instrument cluster connector. Connector **X26** cab harness from pin U to cavity 2 of connector **X5** instrument cluster connector.	Continuity	Bad wire V-B, bad connector.
5	Connector **X26** main harness from pin U for wire 503 at engine oil pressure switch.	Continuity	Bad wire 503, bad connector.
6	Start and run the engine at approximately 1500 rpm (r/min). Terminal of engine oil pressure switch to ground.	Open	Bad engine oil pressure switch.

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Back up alarm Relay - Overvoltage (E.50.B.82.82 - G.30.B.30)

DC75, DC85, DC95

4421 - Backup alarm relay circuit over current or open circuit

Cause:

1. Connectors not mated fully, pins not pushed into connector fully, bent pin or broken wire at rear of connector.
2. Wiring or relay circuits open.
3. Wiring or relay circuits shorted.
4. Failed Drivetrain Control Module.

Possible failure modes:

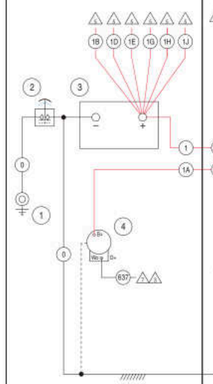
1. When in reverse, Backup Alarm will not sound.

Solution:

1. Find out if the fault code is still active, refer to **Command Display/service switch - Dynamic description (C.20.F.05.11 - C.30.A.10)**.
   Prior to clearing fault codes write down all fault codes, number of occurrences, and engine hours at last occurrence.
   A. Turn ignition switch to RUN position to power drivetrain controller.
   B. Clear all fault codes from the controller.
   C. To check for fault code: Move directional control to neutral, ignition switch to run (engine does not need to be running), move both parking levers to down position, move hand throttle to high idle position, and push directional control to reverse position.
   D. NOT OK – Fault code 4421 is recorded again. Go to step **2**.
   E. OK for return to service.
2. Inspect the Backup Alarm Relay Connection.
   A. Turn ignition switch and master disconnect off.
   B. Disconnect the Backup Alarm Relay from the Relay Panel.
   C. Inspect pins 85, 86, 30, 87 and 87a. Clean connections.
   D. Check for water in connectors.
   E. Clean female pins by installing and removing.
   F. NOT OK – Replace Relay. Return to Step **1** to confirm elimination of fault.
   G. OK – Go to Step **3**.
3. Check for open circuit in the Backup Alarm Relay.
   A. Disconnect the Backup Alarm Relay, Relay Panel.
   B. Check for open circuit between pin 85 and 86 of the Backup Alarm Relay, Relay Panel.
   C. Check for open circuit between pin 30 and 87a of the Backup Alarm Relay, Relay Panel.
   D. Measure the resistance of the coil at the Backup Alarm Relay, Relay Panel pins 85 and 86. The resistance should be 78 Ohms.
   E. NOT OK – Replace Relay and return to Step **1** to confirm elimination of fault.

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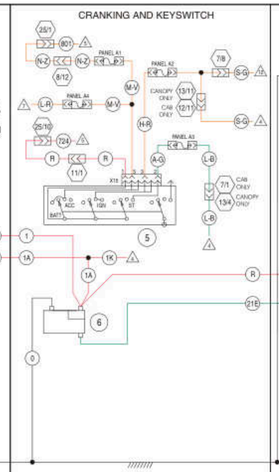
CHARGING



FRAME 1

BC04C104-01

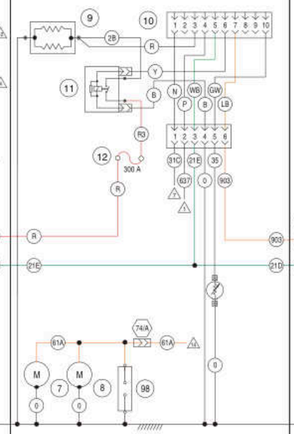
CRANKING AND KEYSWITCH



FRAME 2

BC04C104-02

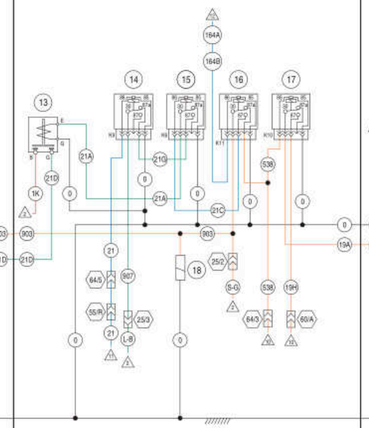
GRID HEATER, ROPS HEATER, AND AIR SUSPENSION SEAT (OPTIONAL)



FRAME 3

BC04C104-03

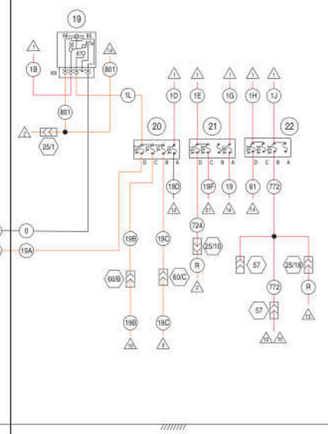
START RELAYS AND FUEL SHUTOFF SOLENOID



FRAME 4

BC04C104-04

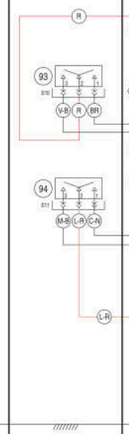
FUSE BLOCKS AND MICRO CONTROLLER RELAY



FRAME 5

BC04C104-05

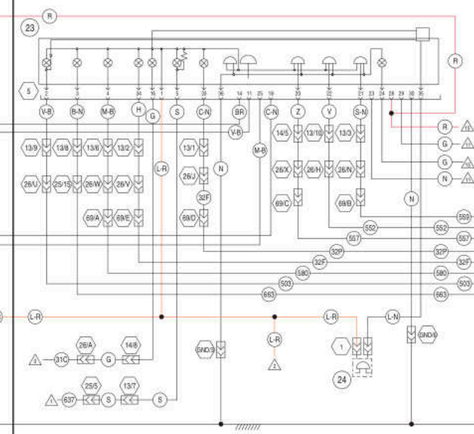
MENU/SERVICE UP/ DOWN SWITCHES



FRAME 6

BC04C104-06

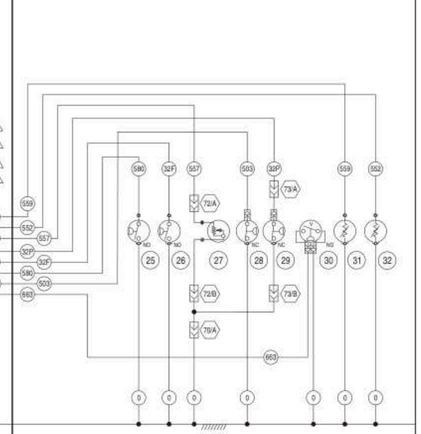
INSTRUMENT CLUSTER



FRAME 7

BC04C104-07

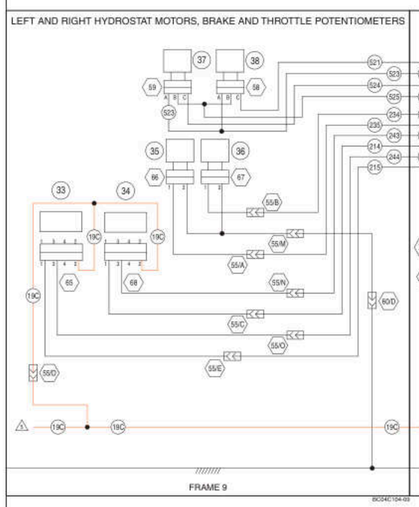
INSTRUMENT CLUSTER SENDERS AND SWITCHES



FRAME 8

BC04C104-08

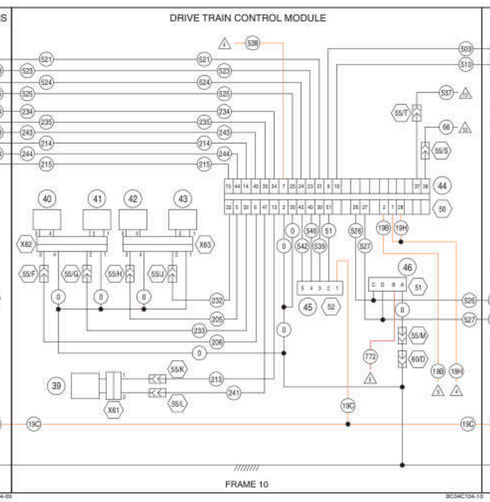
LEFT AND RIGHT HYDROSTAT MOTORS, BRAKE AND THROTTLE POTENTIOMETERS



FRAME 9

BC04C104-09

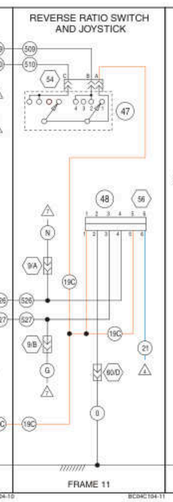
DRIVE TRAIN CONTROL MODULE



FRAME 10

BC04C104-10

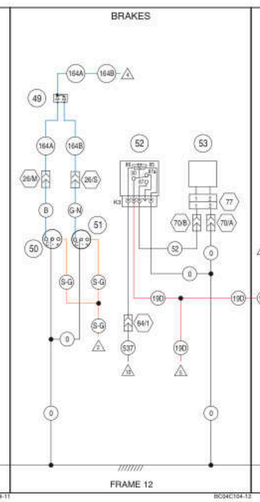
REVERSE RATIO SWITCH AND JOYSTICK



FRAME 11

BC04C104-11

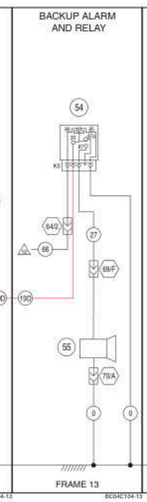
BRAKES



FRAME 12

BC04C104-12

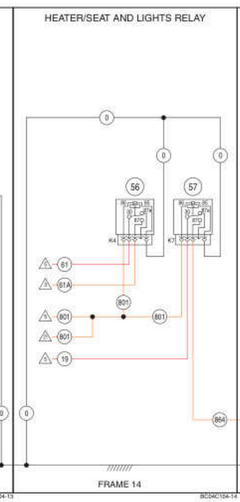
BACKUP ALARM AND RELAY



FRAME 13

BC04C104-13

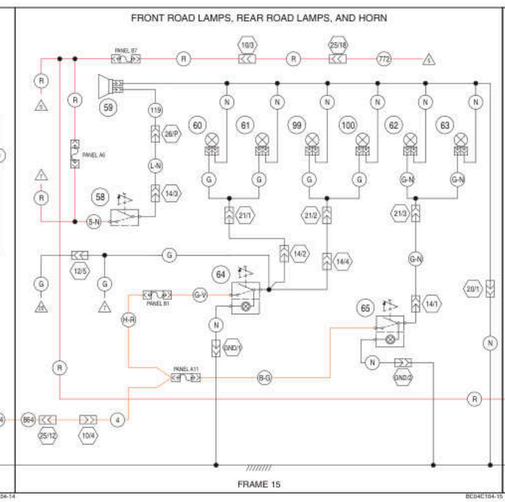
HEATER/SEAT AND LIGHTS RELAY



FRAME 14

BC04C104-14

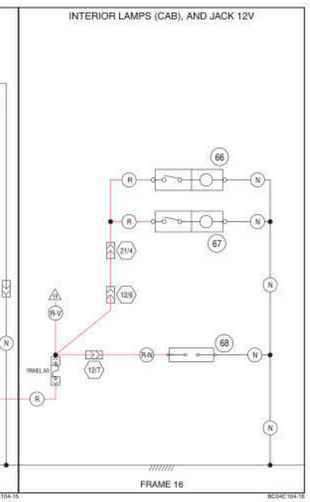
FRONT ROAD LAMPS, REAR ROAD LAMPS, AND HORN



FRAME 15

BC04C104-15

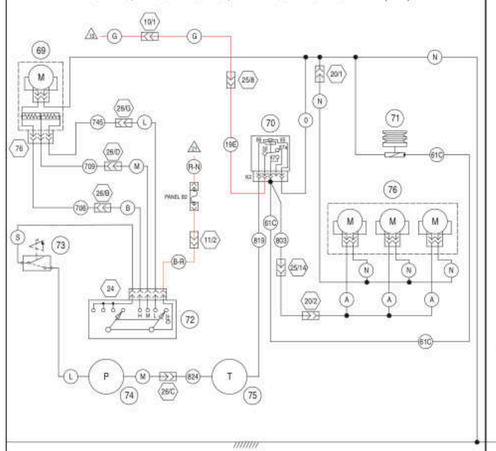
INTERIOR LAMPS (CAB), AND JACK 12V



FRAME 16

BC04C104-16

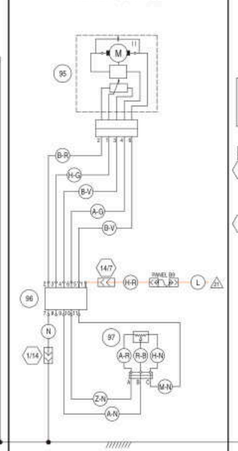
BLOWERS, AIR CONDITIONING, AND AIR CONDITIONING RELAY (CAB)



FRAME 17

BC04C104-17

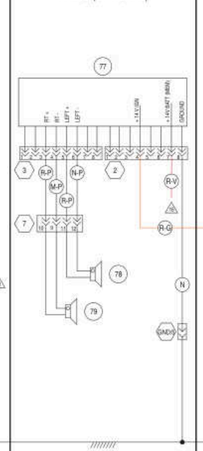
HEATER CONTROL



FRAME 18

BC04C104-18

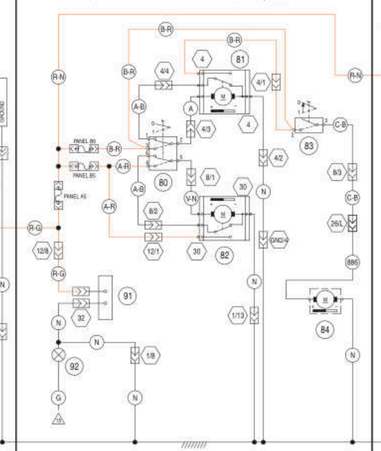
RADIO (OPTIONAL)



FRAME 19

BC04C104-19

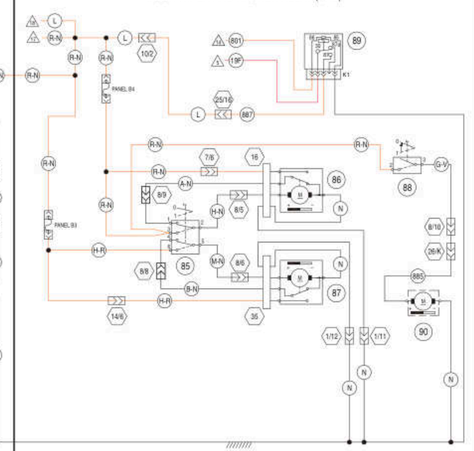
FRONT AND REAR WIPER AND WASHER, LIGHTER



FRAME 20

BC04C104-20

DOOR WIPER AND WASHER RELAY (CAB)



FRAME 21

BC04C104-21

1. GROUND
2. MASTER DISCONNECT SWITCH
3. BATTERY
4. ALTERNATOR
5. IGNITION SWITCH
6. STARTER
7. ROPS HEATER
8. AIR SUSPENSION SEAT
9. GRID HEATER
10. GRID HEATER CONTROLLER
11. GRID HEATER RELAY
12. GRID HEATER FUSE 300 AMP
13. STARTER RELAY 100 AMP
14. START IGNITION RELAY
15. HANDLE NEUTRAL OK RELAY
16. NEUTRAL OK RELAY
17. SAFETY RELAY
18. FUEL SHUTOFF SOLENOID
19. MICROCONTROLLER RELAY
20. MICROCONTROLLER FUSE BLOCK
21. MAIN FUSE BLOCK
22. ACCESSORY FUSE BLOCK
23. INSTRUMENT CLUSTER
24. ENGINE OIL AND COOLANT TEMP ALARM
25. HYDRAULIC FILTER RESTRICTION SWITCH
26. HYDROSTAT FILTER RESTRICTION SWITCH
27. FUEL LEVEL SENDER
28. OIL PRESSURE SWITCH
29. TRANSMISSION CHARGE PRESSURE
30. AIR FILTER RESTRICTION SWITCH
31. TRANSMISSION TEMP SENDER
32. ENGINE COOLANT TEMP SENDER
33. SPEED SENSOR RIGHT MOTOR
34. SPEED SENSOR LEFT MOTOR
35. RIGHT MOTOR SOLENOID
36. LEFT MOTOR SOLENOID
37. THROTTLE POTENTIOMETER
38. BRAKE POTENTIOMETER
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43. RIGHT SOLENOID FRONT PUMP
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51. PROXIMITY SWITCH
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87. RIGHT HAND DOOR WIPER MOTOR
88. DOOR WINDSHIELD WASHER PUMP SWITCH
89. CAB RELAY
90. DOOR WINDSHIELD WASHER PUMP
91. LIGHTER
92. LAMP
93. DISPLAY/SERVICE SWITCH
94. UP/DOWN SWITCH
95. HEATER CONTROL VALVE
96. HEATER CONTROL MODULE
97. TEMPERATURE CONTROL
98. ROPS POWER PLUG
99. OPT FRONT LIGHTS
100. OPT FRONT LIGHTS

CIRCUIT DIAGRAM LEGEND

SHOWS CIRCUIT CROSSING NOT CONNECTED

SHOWS CIRCUIT CONNECTED

54 COMPONENT NUMBER

30 WIRE TAG NUMBER

8 CONNECTOR NUMBER

NUMBERS REFER TO THE FRAME NUMBER AT THE BOTTOM CENTER OF EACH FRAME.

MALE TERMINAL FEMALE TERMINAL

INDICATES EXTERNAL GROUND

GROUND

INDICATES INTERNALLY GROUNDED COMPONENT

WIRE IDENTIFICATION COLORS

A . . LIGHT BLUE	G . . YELLOW	M . . BROWN	S . . PINK
B . . WHITE	H . . GREY	N . . BLACK	V . . GREEN
C . . ORANGE	L . . . BLUE	R . . RED	Z . . PURPLE

COMPONENT IDENTIFICATION

F . . FUSES	M . . MOTOR	X . . HARNESS CONNECTOR/ CAVITY IDENTIFICATION	
K . . RELAY	S . . SWITCH		

NOTES

1. NUMBERS REFER TO THE FRAME NUMBER AT THE BOTTOM CENTER OF EACH BLOCK.
2. FUSES DRAWN AS INLINE ARE LOCATED IN FUSE PANEL A OR FUSE PANEL B. THESE PANELS ARE LOCATED ON THE LEFT SIDE OF THE DASH.
3. (XY) IDENTIFIES THE CONNECTOR (X) AND PIN (Y).

LEGEND

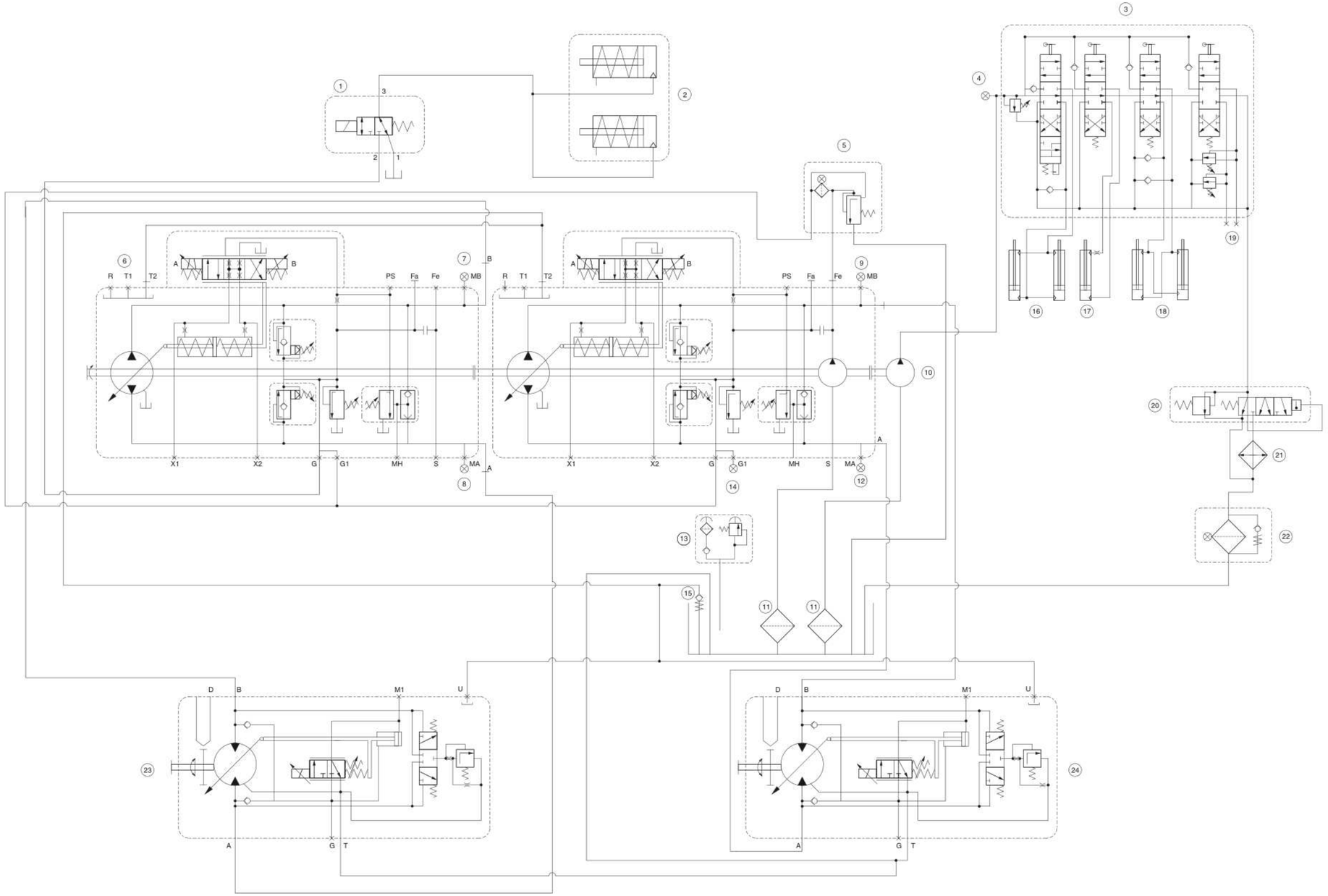
- INDICATES CONSTANT POWER WITH MASTER SWITCH ON
- INDICATES POWER WHEN KEY SWITCH IS IN ON POSITION
- INDICATES MOMENTARY POWER WHEN KEY SWITCH IS IN START POSITION
- FNR JOYSTICK IN NEUTRAL, PARKING BRAKES APPLIED

ELECTRICAL SCHEMATIC
DC 75, 85, AND 95 SERIES DOZER

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BC04C104

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COMPONENTS

1. BRAKE SOLENOID VALVE ASSEMBLY
2. FINAL DRIVE BRAKE ASSEMBLIES
3. FOUR-SPOOL MECH.
4. DIAGNOSTIC PANEL EQUIPMENT VALVE
5. HYDROSTATIC FILTER ASSEMBLY
6. HYDROSTATIC PUMP ASSEMBLY
7. DIAGNOSTIC PANEL LEFT REVERSE
8. DIAGNOSTIC PANEL LEFT FORWARD
9. DIAGNOSTIC PANEL RIGHT FORWARD
10. EQUIPMENT PUMP
11. STRAINER 100 MESH
12. DIAGNOSTIC PANEL RIGHT REVERSE
13. BREATHER
14. DIAGNOSTIC PANEL CHARGE PRESSURE
15. CHECK VALVE
16. LIFT CYLINDERS
17. TILT CYLINDER
18. ANGLE CYLINDERS
19. OPTIONAL RIPPER SECTION
20. COOLER BYPASS VALVE
21. OIL COOLER ASSEMBLY
22. RETURN FILTER ASSEMBLY
23. RIGHT HYDROSTATIC MOTOR
24. LEFT HYDROSTATIC MOTOR

NOTES

1. HYDRAULIC AND HYDROSTATIC SYSTEMS USE ONE COMMON RESERVOIR.

HYDRAULIC SYMBOLS

COMPONENT · CROSSING LINES · CHECK VALVE · FILTER OR SCREEN · LINE CONNECTION · RESTRICTOR · OIL COOLER

HYDRAULIC SCHEMATIC
DC 75, 85, AND 95 SERIES DOZER

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