CASE

REPAIR MANUAL

LOADER LANDSCAPER

570MXT
SERIES 3
TIER 3

87728463 NA

Issued 01April 08

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570MXT SERIES 3 TIER 3 LOADER LANDSCAPER
Repair Manual
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Table of Contents

Description	Section Number	Publication Form Number
General	**Tab 1**	
Section Index - General		5-13230
Standard Torque Specifications	1001	8-71603
Fluids and Lubricants	1002	5-13240
Metric Conversion Chart	1003	7-52950
Engine	**Tab 2**	
Section Index - Engine		5-13250
Engine and Radiator Removal and Installation	2000	5-13260
Stall Test	2002	5-13270
Diagnosing Engine Oil Consumption	2445	5-13620
Counter Balance Removal and Installation	2447	5-13280
Turbocharger Diagnosis Procedure Family 3 Engines	2465	5-13630
NOTE: For Engine Repair See Engine Repair Manual 87630273.		
Fuel System	**Tab 3**	
Section Index - Fuel System		5-13290
In Vehicle Injector Pump Removal, Installation and Static Timing	3416	5-13300
NOTE: For Fuel System Repair See Engine Repair Manual 87630273.		
Electrical	**Tab 4**	
Section Index - Electrical		5-13310
Removal and Installation of Electrical Components	4000	5-13320
Electrical Specifications and Troubleshooting	4001	5-13330
Batteries	4003	6-42331
Starter and Starter Solenoid	4004	6-74560
Instrument Cluster	4005	6-74570
Steering	**Tab 5**	
Section Index - Steering		5-13340
Removal and Installation of Steering Components	5000	5-13350
Steering Specification, Pressure Checks and Troubleshooting	5001	5-13360
Steering Control Valve	5002	6-74621
Steering Cylinders	5003	5-13610
Front Axle - Two Wheel Drive	5005	6-74640
Front Axle - Four Wheel Drive	5006	5-13370

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570MXT SERIES 3 TIER 3 LOADER LANDSCAPER
Repair Manual
Bur 87728463

Table of Contents (Continued)

Description	Section Number	Publication Form Number
Power Train	**Tab 6**	
Section Index - Power Train		5-13380
Removal and Installation of Power Train Components	6000	5-13390
Standard Transmission Specifications, Pressure Checks, and Troubleshooting	6002	5-13640
Wheels and Tires	6003	5-13400
Rear Axle and Planetaries	6004	5-13410
Standard Transmission	6007	6-74782
Brakes	**Tab 7**	
Section Index - Brakes		5-13420
Removal and Installation of Brake Components	7000	5-13600
Hydraulic Brake Troubleshooting	7002	5-13080
Master Cylinder	7003	6-74830
Hydraulics	**Tab 8**	
Section Index - Hydraulics		5-13430
Removal and Installation of Hydraulic Components	8001	5-13440
Hydraulic System Specifications and Troubleshooting	8002	5-13450
Cleaning the Hydraulic System and Hydrostatic System	8003	7-49641
Hydraulic Pump	8004	5-13460
Loader Control Valve	8005	5-13470
Cylinders	8006	5-13480
Three Point Hitch Control Valve	8007	5-13490
Accumulator for Machines With Ride Control and Pilot Control Accumulator	8009	6-74960
Solenoid Valve for Machines with Optional Ride Control	8010	6-74970
Flow Control Valve	8011	5-13500
Lock Valve	8012	5-13510
Mounted Equipment	**Tab 9**	
Section Index - Mounted Equipment		5-13520
Pedals and Levers	9001	5-13530
Air Conditioning Troubleshooting	9002	5-13580
Air Conditioning System Service	9004	6-75051
Air Conditioning Components Service	9005	5-13590
Loader	9006	5-12350
ROPS Cab and Canopy	9007	5-13540
Standard and Mechanical Suspension Seat	9009	5-13550
Plug-in Weight	9010	5-13560

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72 – Rear Work Lamps

The rear work lamps are located between the rear road lamps at the rear of the machine.

Check Points	Reading	Possible Cause of Bad Reading
Terminal for wire 40D to ground	Continuity	Bad ground circuit.
Bulb	Good	Bad bulb.
NOTE: *Turn the key switch to ON. Turn the rear work lamp switch to ON.*		
Terminal for wire 42C to ground	12 volts	Check the circuit between the rear work lamps and the rear work lamp switch (71). Also check the rear work lamp switch (71).

73 – 4WD Engage Switch (If Equipped)

The 4wd engage switch is located in the console.

Check Points	Reading	Possible Cause of Bad Reading
NOTE: *Turn the key switch to ON. Put the 4WD engage switch in the ON position.*		
Terminal for wire 25C to ground	12 volts	Check the circuit between the 4WD engage switch and power relay #1 (5). Also check the 10 ampere fuse in the fuse block (15) and power relay #1 (5).
Terminal for wire 25E to ground	0 volts	Bad 4WD engage switch.
NOTE: *Put the 4WD engage switch in the OFF position.*		
Terminal for wire 25E to ground	12 volts	Bad 4WD engage switch.
NOTE: *If the readings are correct and the indicator lamp on the 4WD engage switch does not illuminate, do the following check.*		
Terminal for wire 10 to ground	Continuity	Bad ground circuit for 4WD engage switch indicator lamp.
NOTE: *If the reading was correct and the indicator lamp on the 4WD engage switch does not illuminate, replace the 4WD engage switch.*		

74 – 4WD Solenoid (Disengages 4WD When Energized)

The 4wd solenoid is located in the on top of the transmission.

Check Points	Reading	Possible Cause of Bad Reading
Terminal for wire 30 to ground	Continuity	Bad ground circuit.
NOTE: *Turn the key switch to ON. Put the 4WD engage switch in the ON position.*		
Terminal for wire 25E to ground	0 volts	Check the circuit between the 4WD solenoid and the 4WD engage switch (73). Also check the 4WD engage switch (73).
NOTE: *Put the 4WD engage switch in the OFF position.*		
Terminal for wire 25E to ground	12 volts	Check the circuit between the 4WD solenoid and the 4WD engage switch (73). Also check the 4WD engage switch (73).
NOTE: *If the readings are correct, replace the 4WD solenoid.*		

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BATTERY TEST

NOTE: *To correctly test a battery, do each part of the battery test until you know the condition of the battery.*

Visual Checks

1. Make sure the cable connections are clean and tight. Clean foreign material from the top of the battery.
2. Inspect the battery case, battery posts, and cables for damage.
3. Check the electrolyte level. See Page 4.
4. If you added water to the battery, the battery must be charged for 15 minutes at 15 to 25 amperes to mix the water with the electrolyte.

Specific Gravity Check

A hydrometer is used to check the specific gravity (weight) of the electrolyte. The specific gravity is an indication of the level of charge for each cell.

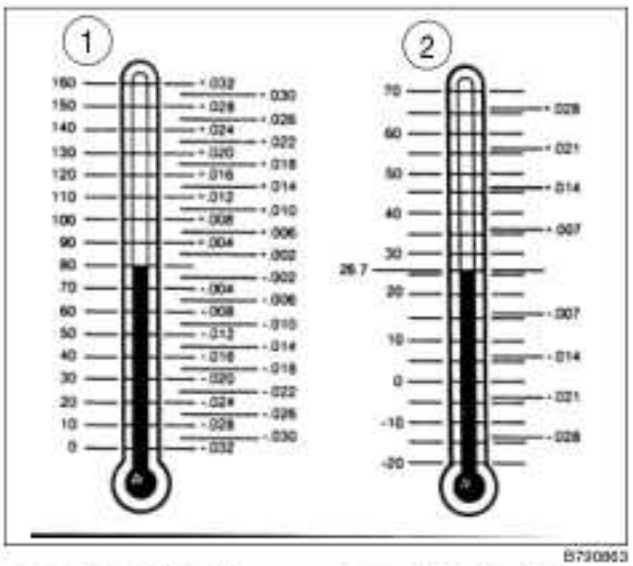
Hydrometers are made to show the correct specific gravity when the temperature of the electrolyte is 26.7°C (80°F).

When you check the specific gravity, you must know the temperature of the electrolyte. If your hydrometer does not have a thermometer, get a thermometer to check the temperature of the electrolyte. The thermometer must indicate a high temperature of at least 52°C (120°F).

1. Remove enough electrolyte from a cell so that the float is free in the tube.

NOTE: *If the specific gravity cannot be checked without first adding water to the cell, the battery must be charged for 15 minutes at 15 to 25 amperes to mix the water with the electrolyte. Then check the specific gravity.*

2. Read the float.
3. Read the thermometer. If the reading is above 26.7°C (80°F) add specific gravity points to the reading for specific gravity. If the reading is below 26.5°C (80°F) subtract specific gravity points from the reading for specific gravity. See the following illustration and add or subtract specific gravity points as needed.



B730863

1. TEMPERATURE IN F 2. TEMPERATURE IN C

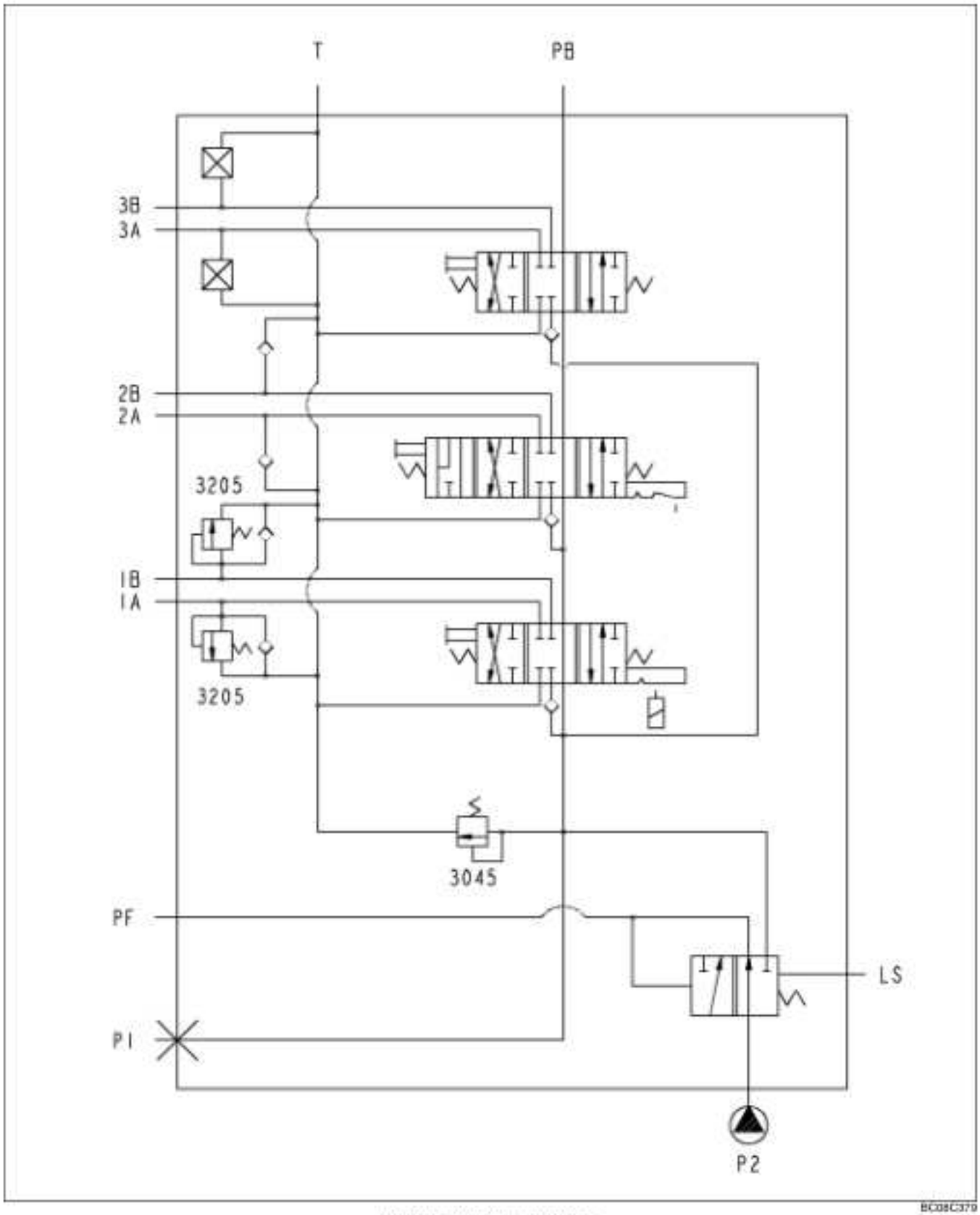
SPECIFIC GRAVITY CHART

4. Make a record of the corrected specific gravity reading for each cell.
5. If the difference between the high reading and the low reading is 0.050 or more, charge the battery and check the specific gravity again. If after charging, the difference is still 0.050 or more, install a new battery.
6. The corrected specific gravity reading shows the level of charge for the cell. The level of charge must be at least 75% in each of the cells. In maintenance free batteries the level of charge is at least 75% if the corrected specific gravity reading is 1.240 or higher. In all other batteries the level of charge is at least 75% if the corrected specific gravity reading is 1.230 or higher.
7. If the difference between the high reading and the low reading is less than 0.050, and the level of charge is at least 75% in all of the cells, do the Capacity (Load) Test.
8. If the difference between the high reading and the low reading is less than 0.050, but the level of charge is less than 75% in any of the cells, charge the battery and check the specific gravity again. If after charging:

   A. The level of charge is less than 75% in any of the cells, discard the battery.

   B. The level of charge is at least 75% in all of the cells, do the Capacity (Load) Test.

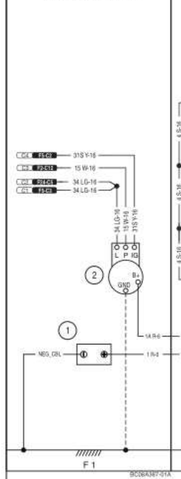
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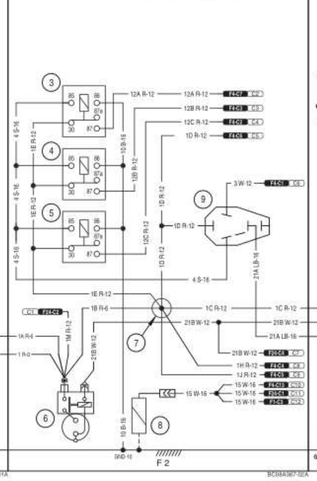
LOADER VALVE SCHEMATIC

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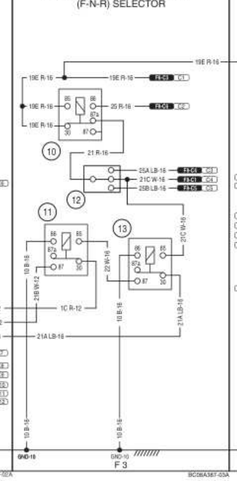
CHARGING SYSTEM



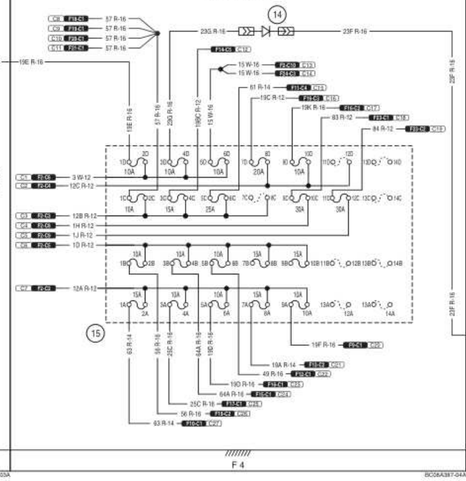
POWER RELAY, CRANKING, AND KEYSWITCH



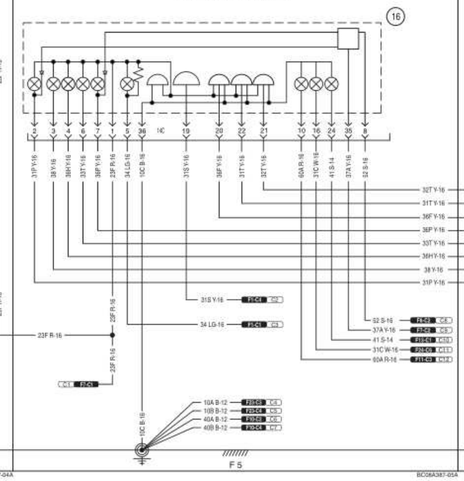
FORWARD-NEUTRAL-REVERSE (F-N-R) SELECTOR



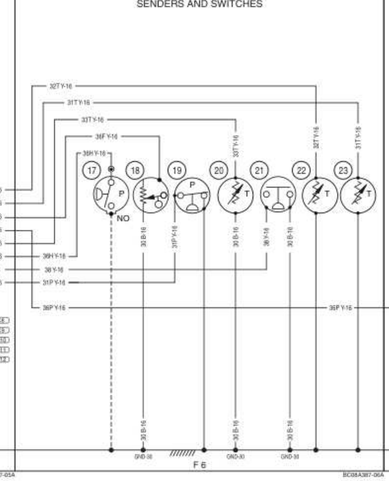
FUSE BLOCK



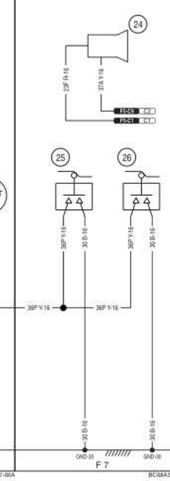
INSTRUMENT CLUSTER



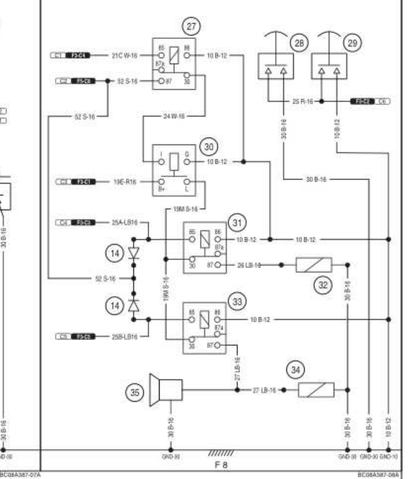
INSTRUMENT CLUSTER SENDERS AND SWITCHES



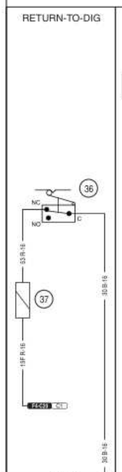
WARNING ALARM



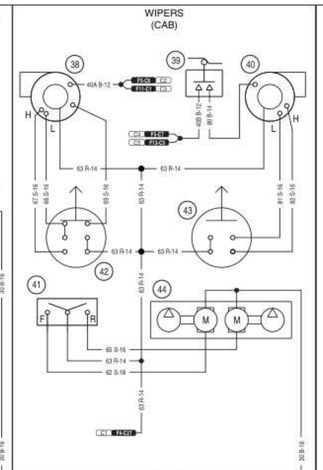
TRANSMISSION CONTROLS



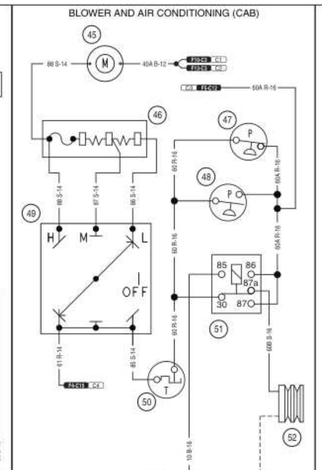
RETURN-TO-DIG



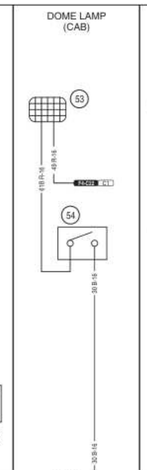
WIPERS (CAB)



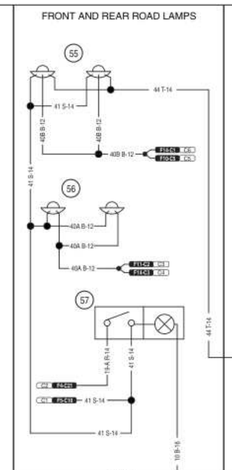
BLOWER AND AIR CONDITIONING (CAB)



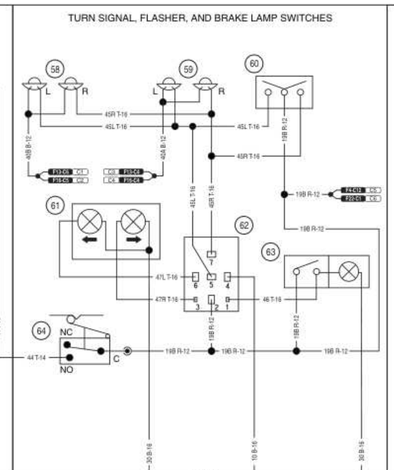
DOME LAMP (CAB)



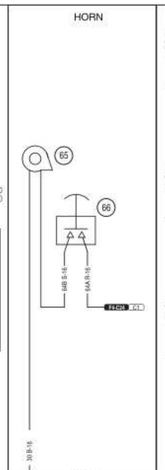
FRONT AND REAR ROAD LAMPS



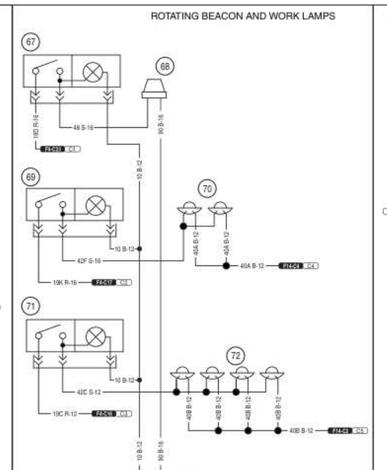
TURN SIGNAL, FLASHER, AND BRAKE LAMP SWITCHES



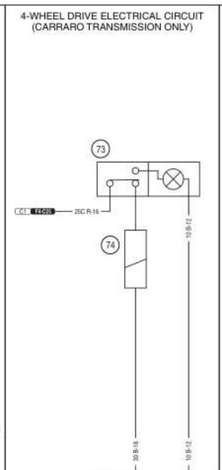
HORN



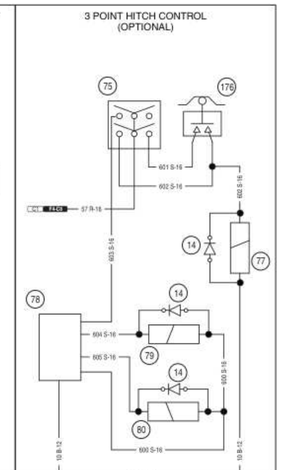
ROTATING BEACON AND WORK LAMPS



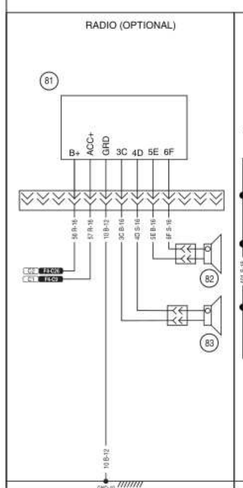
4-WHEEL DRIVE ELECTRICAL CIRCUIT (CARRARO TRANSMISSION ONLY)



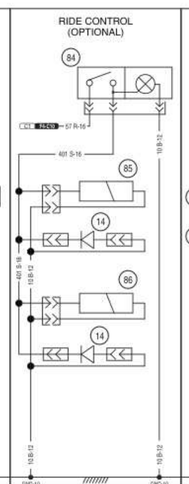
3 POINT HITCH CONTROL (OPTIONAL)



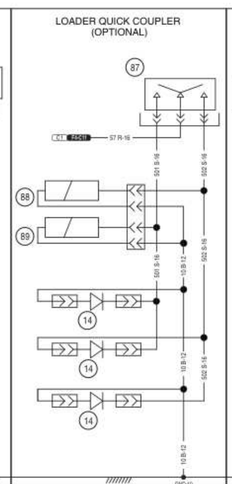
RADIO (OPTIONAL)



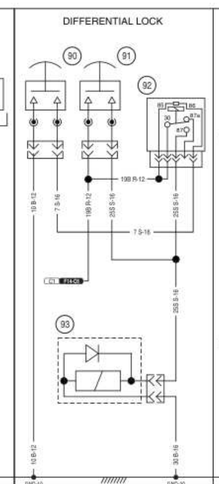
RIDE CONTROL (OPTIONAL)



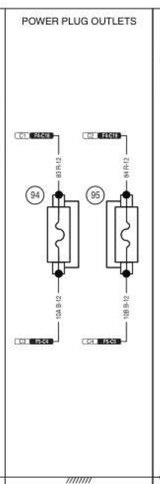
LOADER QUICK COUPLER (OPTIONAL)



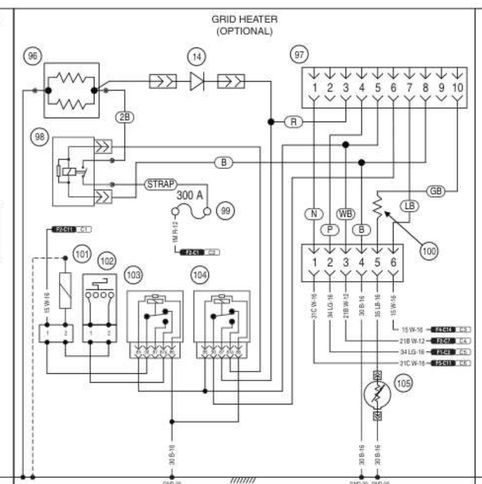
DIFFERENTIAL LOCK

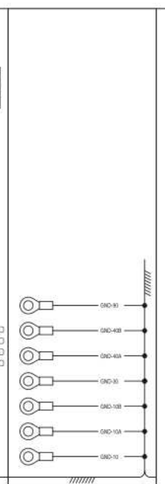


POWER PLUG OUTLETS



GRID HEATER (OPTIONAL)





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	FRAME 8 COMPONENTS 8 - 14. Diode 8 - 27. Shuttle Interlock Relay 8 - 28. Shift Handle - Clutch Cutout Switch 8 - 29. Loader Handle - Clutch Cutout Switch 8 - 30. Shuttle Interlock Timing Relay 8 - 31. Forward Relay 8 - 32. Forward Solenoid 8 - 33. Reverse Relay 8 - 34. Reverse Solenoid 8 - 35. Backup Alarm	FRAME 13 COMPONENTS 13 - 55. Tail Lamps 13 - 56. Front Driving Lamps 13 - 57. Driving Lamp Switch	FRAME 18 COMPONENTS 18 - 14. Diode (Optional) 18 - 75. 3-Point Hitch Mode Control Switch (Optional) 18 - 76. 3-Point Hitch Control Valve Switch (Optional) 18 - 77. Lock Valve Solenoid (Optional) 18 - 78. Laser Control Box (Optional) 18 - 79. Laser Solenoid (Optional) 18 - 80. Laser Solenoid (Optional)	FRAME 24 COMPONENTS 24 - 14. Diode (Optional) 24 - 96. Grid Heater (Optional) 24 - 97. Cold Start Controller (Optional) 24 - 98. Cold Start Relay (Optional) 24 - 99. 300 Ampere Fuse (Optional) 24 - 100. Resistor 3.01K ±1 Percent (Optional) 24 - 101. KKSB Solenoid (Optional) 24 - 102. KKSB Thermo Switch (Optional) 24 - 103. KKSB Cutout Relay (Optional) 24 - 104. Grid Heater Relay (Optional) 24 - 105. Cold Start Temperature Sender (Optional)
FRAME 2 COMPONENTS 2 - 3. Power Relay - #1 2 - 4. Power Relay - #2 2 - 5. Power Relay - #3 2 - 6. Starter 2 - 7. Power Junction Stud 2 - 8. Fuel Shutoff Solenoid 2 - 9. Ignition Switch	FRAME 9 COMPONENTS 9 - 36. Return-to-Dig Limit Switch 9 - 37. Return-to-Dig Solenoid	FRAME 14 COMPONENTS 14 - 58. Rear Turn Lamps 14 - 59. Front Turn Lamps 14 - 60. Turn Signal Switch 14 - 61. Turn Signal Indicator 14 - 62. Flasher Relay 14 - 63. Flasher Switch 14 - 64. Brake Lamp Switch		
FRAME 3 COMPONENTS 3 - 10. Clutch Relay 3 - 11. Starter Relay 3 - 12. F-N-R Switch 3 - 13. Neutral Relay	FRAME 10 COMPONENTS 10 - 38. Front Wiper Motor 10 - 39. Rear Wiper Disconnect Switch 10 - 40. Rear Wiper Motor 10 - 41. Windshield Washer Switch 10 - 42. Front Wiper Switch 10 - 43. Rear Wiper Switch 10 - 44. Windshield Washer Pump	FRAME 15 COMPONENTS 15 - 65. Horn 15 - 66. Horn Switch		
FRAME 4 COMPONENTS 4 - 14. Diode 4 - 15. Fuse Block	FRAME 11 COMPONENTS 11 - 45. Blower Motor 11 - 46. Resistor Board and Thermal Fuse 11 - 47. Air Conditioner Low Pressure Switch 11 - 48. Air Conditioner High Pressure Switch 11 - 49. Blower Switch 11 - 50. Air Conditioner Thermostat 11 - 51. Air Conditioner Relay 11 - 52. Air Conditioner Compressor Clutch	FRAME 16 COMPONENTS 16 - 67. Beacon Switch 16 - 68. Rotating Beacon (Optional) 16 - 69. Front Work Lamp Switch 16 - 70. Front Work Lamps 16 - 71. Rear Work Lamp Switch 16 - 72. Rear Work Lamps		
FRAME 5 COMPONENTS 5 - 16. Instrument Cluster	FRAME 12 COMPONENTS 12 - 53. Dome Lamp 12 - 53. Dome Lamp Switch	FRAME 17 COMPONENTS 17 - 73. 4 Wheel Drive Engage Switch 17 - 74. 4 Wheel Drive Solenoid		
FRAME 6 COMPONENTS 6 - 17. Hydraulic Filter Restriction Switch 6 - 18. Fuel Level Sender 6 - 19. Oil Pressure Switch 6 - 20. Rear Axle Temperature Sender 6 - 21. Air Filter Restriction Switch 6 - 22. Transmission Temperature Sender 6 - 23. Coolant Temperature Sender				
FRAME 7 COMPONENTS 7 - 24. Warning Buzzer 7 - 25. Parking Brake Switch #1 7 - 26. Parking Brake Switch #2				

ACTUATORS: LEVER, HAND, FOOT, COIL, TEMP, DIODE, PRESSURE, FLOAT LIQUID LEVEL

CONTACT CONFIGURATIONS: S.P.S.T., S.P.D.T., D.P.S.T., D.P.D.T.

HOUSINGS: VACUUM SWITCH, PRESSURE SWITCH, LAMP, MOTOR, TEMPERATURE SWITCH

MISCELLANEOUS SYMBOLS: MOMENTARY CONTACTS, MAINTAINED CONTACTS, VARIABLE RESISTOR, RESISTOR, FUSE, CIRCUIT BREAKER, MALE TERMINAL, FEMALE TERMINAL, COMPONENT NUMBER

SHOWS CIRCUIT SPLICE CONNECTION (SPL-90) — SHOWS CIRCUIT CROSSING NOT CONNECTED

INDICATES EXTERNAL GROUND — INDICATES INTERNALLY GROUNDED COMPONENT

FEMALE CONNECTOR, MALE CONNECTOR, CONNECTOR NUMBER, CONNECTOR IDENTIFICATION, CONNECTOR NUMBER, INDICATES PARTIAL CONNECTOR, NOT ALL CONNECTIONS ARE SHOWN

WIRE IDENTIFICATION

B . . . BLACK	O . . . ORANGE
DB . . DARK BLUE	P . . . PURPLE
G . . . GREEN	R . . . RED
K . . . PINK	S . . . GRAY
LG . . LIGHT GREEN	T . . . TAN
LB . . LIGHT BLUE	W . . . WHITE
DG . . DARK GREEN	Y . . . YELLOW

WIRE NUMBER — WIRE SIZE — WIRE COLOR (e.g. 502 — 702A G-1.0)

CIRCUIT CONTINUATION: Frame Number and Circuit Number where Circuit continues. CIRCUIT TAGS. FRAME - CIRCUIT — CIRCUIT. Circuit Number assigned to Circuit in Frame.

NOTES

NOTE 1: See the Repair Manual for the Troubleshooting Procedures of the Electrical Components.

ELECTRICAL SCHEMATIC
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