SERVICE MANUAL

D125C
Stage IIIB
Crawler Dozer

PIN NDDC12500 and above; PIN NEDC12500 and above; PIN NFDC12500 and above

Part number 47907874
2nd edition English
October 2015
Replaces part number 47619935

NEW HOLLAND CONSTRUCTION

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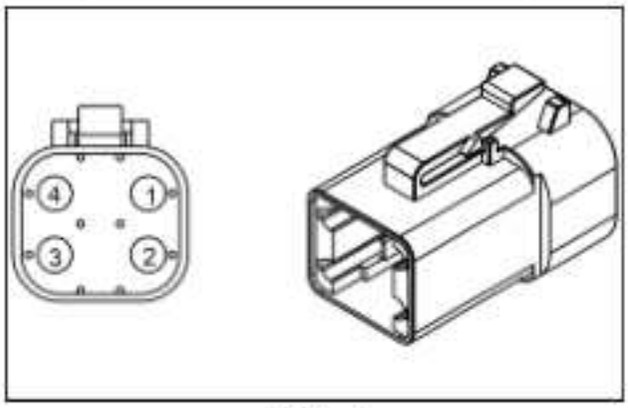
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CONNECTOR X-061 - TO MAIN HARNESS

CONNECTOR X-061 - TO MAIN HARNESS			
PIN NUMBER	**WIRE NUMBER**	**CIRCUIT REFERENCE**	**ELECTRICAL SCHEMATIC FRAME**
1	3014 (VT)	REAR LIGHTS SWITCHED +24V	
2	3006 (VT)	FRONT LIGHTS SWITCHED +24V	
3	4006 (BL)	HIGH SPEED SWITCHED +24V	
4	4001 (BL)	CONDENSER SWITCHED +24V	



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3502-Plausibility check of catalyst system

D125C	WE

Context:
The engine control unit (ECU) has detected a fault in the catalyst system. The temperature sensors downstream and upstream of the SCR Muffler together with the ambient temperature signal are checked for plausibility against each other. This is done once for each driving cycle and only during cold start when all temperatures should still be the same. Monitoring for static plausibility is only released if certain urea-injection conditions (e.g. downstream catalyst temperature sensor not defective) are satisfied: the time since engine start has not exceeded **1 s**, the vehicle stand still time is greater than **600 min** and the difference between current engine temperature and the temperature during the last afterrun exceeds **50 °C (122 °F)**.

Cause:
The Downstream temperature sensor is not plausible.

Possible failure modes:

1. Defective Downstream temperature sensor.
2. Defective Upstream temperature sensor.
3. Faulty ECU.

Solution:

1. Verify this error code is still present and in an active state.

   A. If the error is still present and active, continue with step **2**.

   B. If the error is no longer present or is in an inactive state, continue with step **5**.

2. Ensure engine has been allowed to cool down for over **600 min**. Disconnect the wiring harness from the ambient temperature sensor. Use a multi-meter to measure the resistance from ambient temperature sensor connector pin 3 to pin 4. There should be approximately

Temperature	Resistance (Approximately)
-40 °C (-40.0 °F)	42172 Ω
-30 °C (-22.0 °F)	24760 Ω
-20 °C (-4.0 °F)	14995 Ω
-10 °C (14.0 °F)	9348 Ω
0 °C (32.0 °F)	5988 Ω
10 °C (50.0 °F)	3933 Ω
20 °C (68.0 °F)	2644 Ω
30 °C (86.0 °F)	1817 Ω
40 °C (104.0 °F)	1274 Ω
50 °C (122.0 °F)	910 Ω
60 °C (140.0 °F)	662 Ω
70 °C (158.0 °F)	489 Ω
80 °C (176.0 °F)	367 Ω
90 °C (194.0 °F)	279 Ω

   A. If ambient temperature sensor test is good, continue with step **3**.

   B. If the ambient temperature sensor test fails, replace the sensor.

3. Check upstream and downstream temperature sensors. Disconnect the wiring harness from the upstream temperature sensor. Use a multi-meter to measure the resistance on the upstream temperature sensor connector from pin 1 to pin 2. Use the chart below for specifications. Then disconnect the wiring harness from the downstream temperature sensor. Use a multi-meter to measure the resistance on the upstream temperature sensor connector from pin 1 to pin 2. Use the chart below for specifications.

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5102-Blade Lift Solenoid High Side Shorted to Ground

D125C	WE

Context:
The UCM detects a short circuit in the blade lift solenoid circuit, X-021 pin 7. Blade lift and lower will be disabled while fault code 5102 is active.

Cause:
There is a short circuit to chassis ground in the Blade lift solenoid circuit, X-021 pin 7.

Possible failure modes:

1. Short circuit in the blade lift solenoid circuit.
2. Faulty blade lift solenoid.
3. Faulty UCM.

Solution:

1. Verify that the fault code is active.

   Connect the Electronic Service Tool to the service tool connector.

   To check for fault codes: Start and operate the machine.

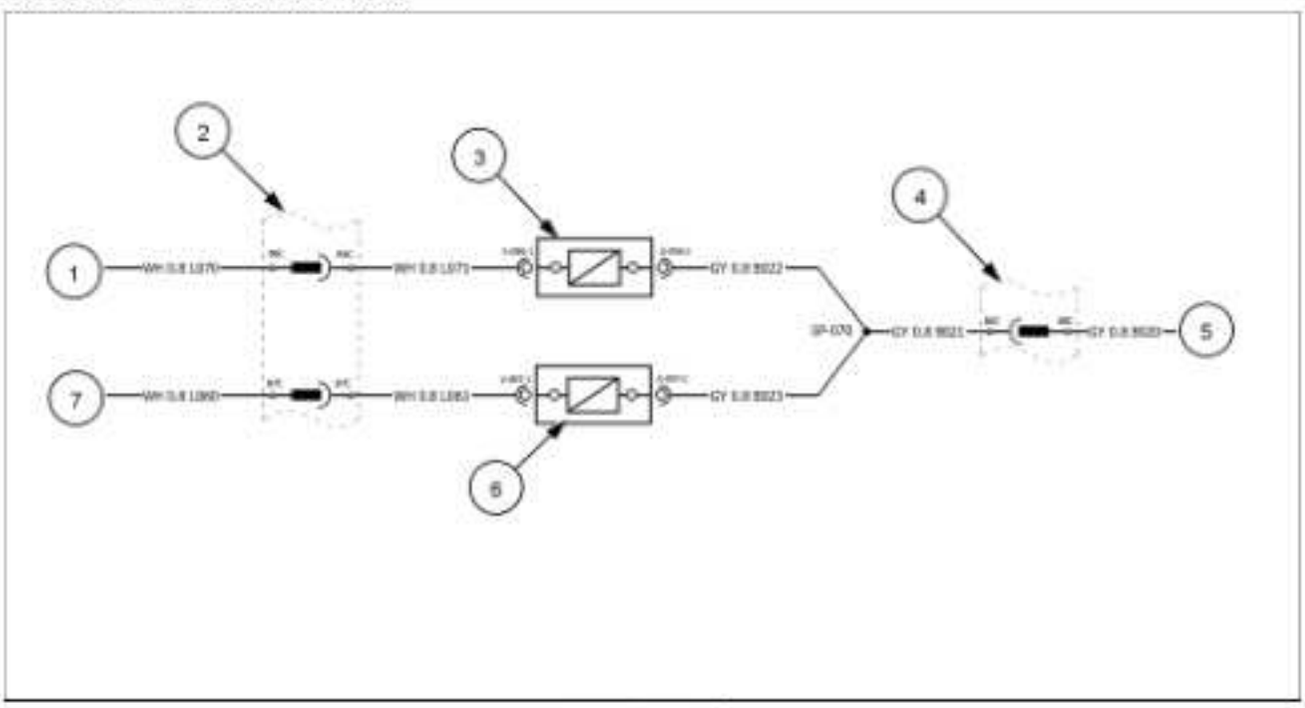
   A. The fault code is not recorded again. OK to return the machine to service.

   B. Fault code 5102 is recorded again. Go to step **2**.

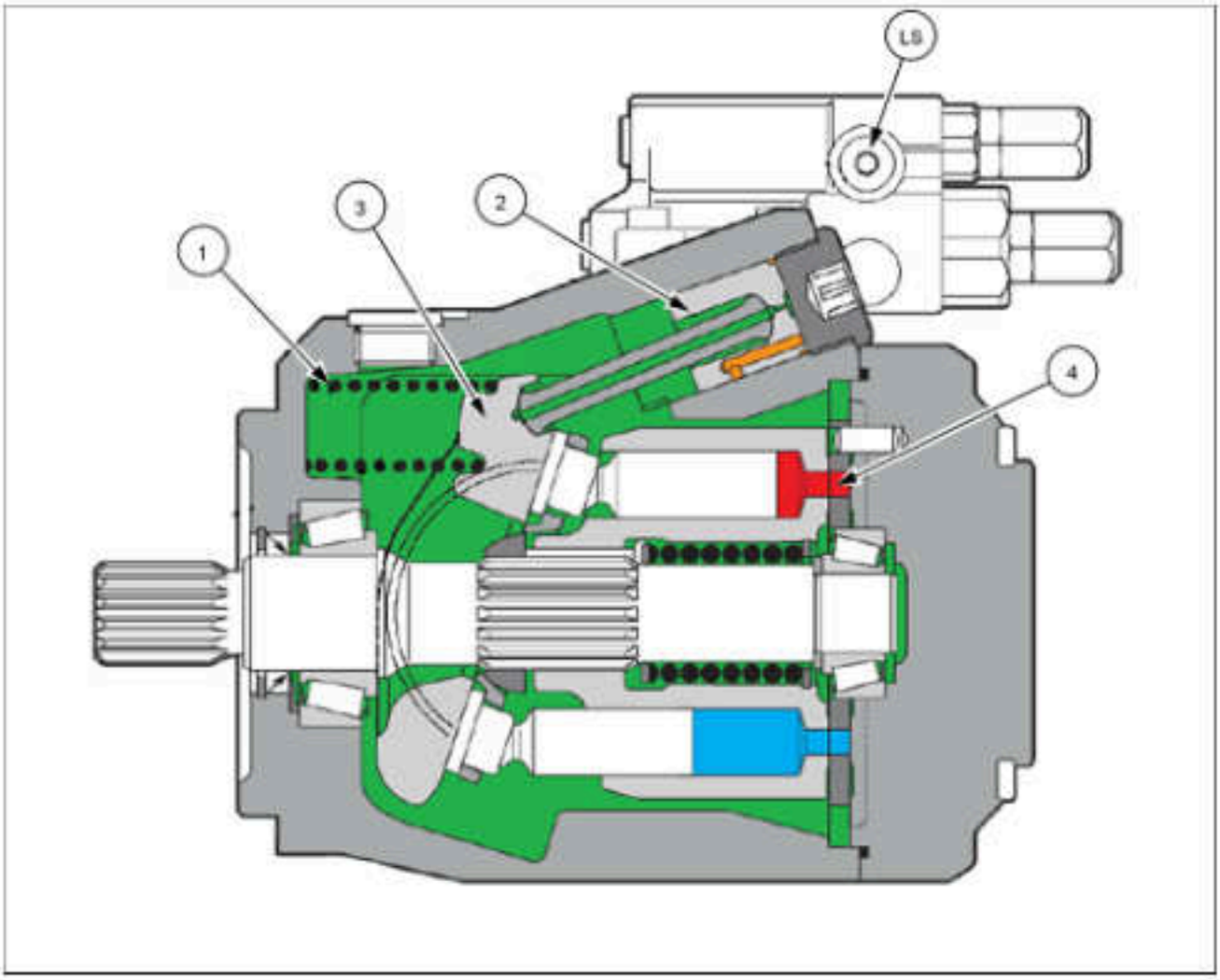
2. Verify that the wiring and connectors are free of damage.

   Inspect the UCM and the blade lift solenoid connections. All connections should be secure, tight, free of corrosion, abrasion and damage.

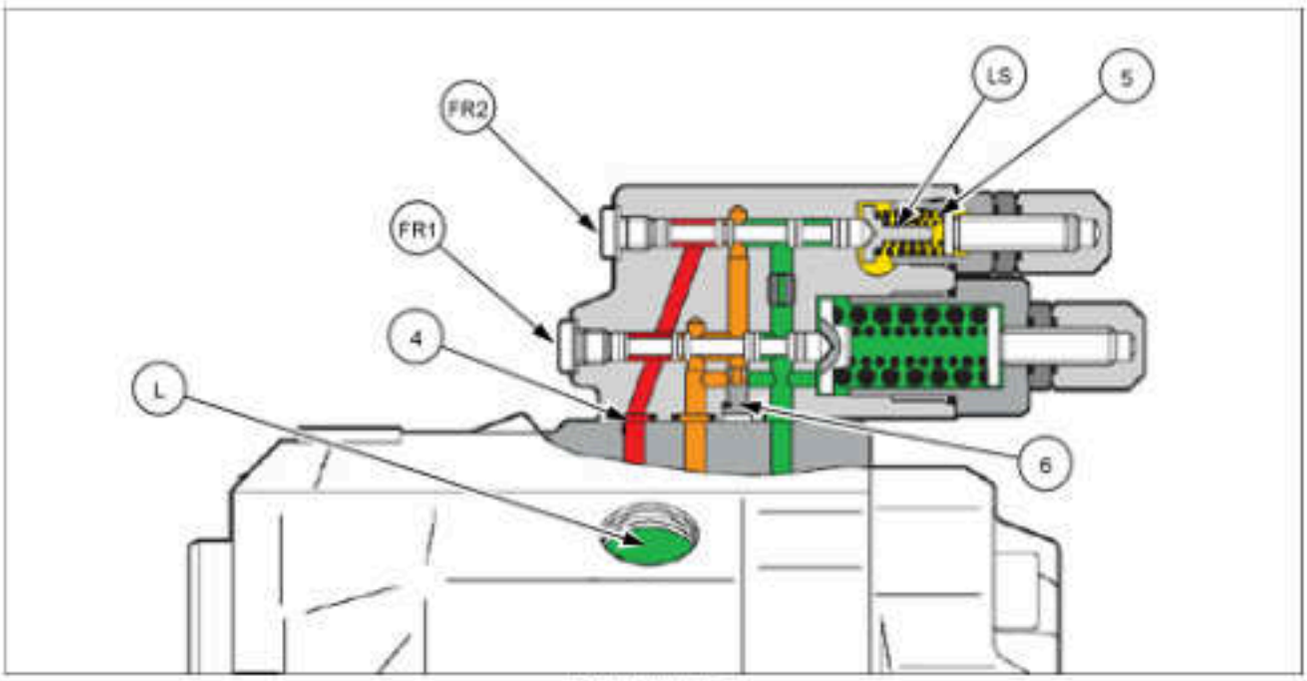
   Inspect the harness from the UCM to the blade lift solenoid. Verify that the harness is free of damage, corrosion, abrasion and incorrect attachment.



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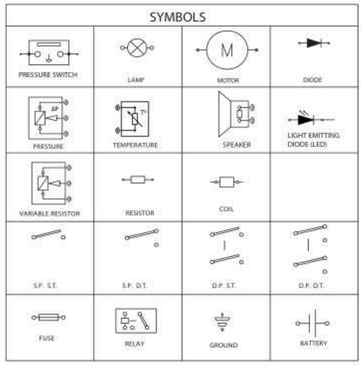
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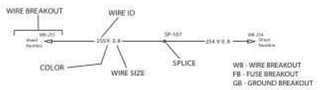
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SYMBOLS



CIRCUIT DIAGRAM LEGENDS

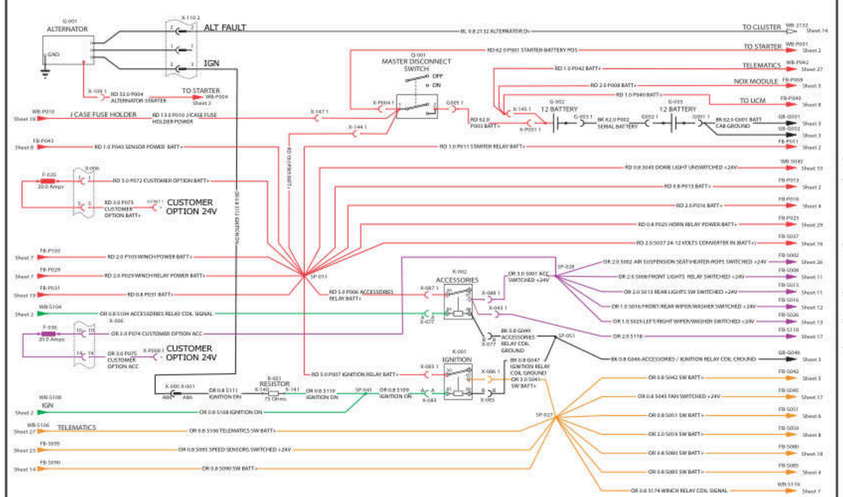


COLOR	ABBREVIATION
BLACK	BK
BLUE	BL
LIGHT BLUE	LB
BLACK/WHITE	BK/WH
GREEN	GN
LIGHT GREEN	LG
ORANGE	OR
PINK	PK
VIOLET	VT
RED	RD
GREY	GY
TAN	TN
WHITE	WH
YELLOW	YE

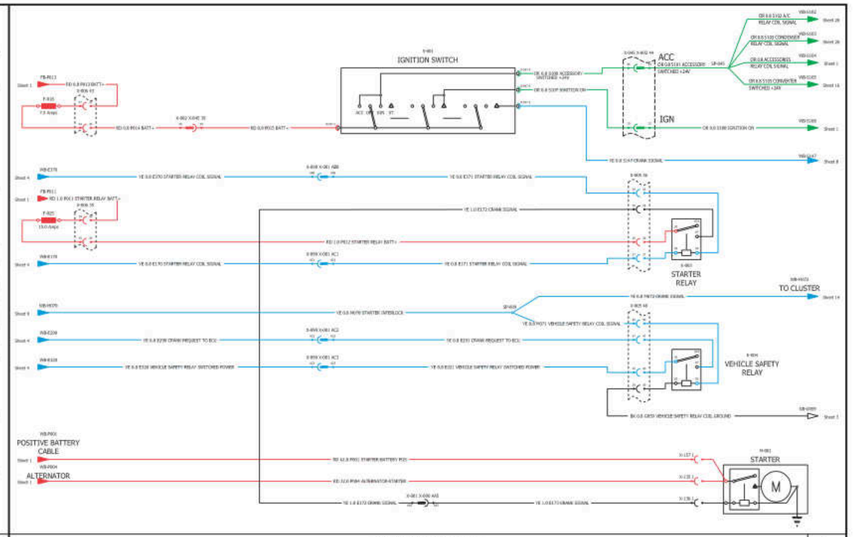
WIRE SIZE CHART	
Sq. mm	AWG
0.5	20
0.8	18
1.0	16
2.0	14
3.0	12
5.0	10
8.0	8

SUB SYSTEM DESCRIPTION	
POWER DIST/ CHARGING SYSTEM	1
STARTING SYSTEM	2
GROUNDING	3
ENGINE CONTROL	4
EXHAUST CONTROL	5
PARK BRAKE	6
WINCH CONTROL	7
UCM	8
UCM	9
INTERIOR LIGHT	10
EXTERIOR LIGHT	11
FRONT/ REAR WINDSHIELD WIPERS	12
LEFT/ RIGHT WINDSHIELD WIPERS	13
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STANDARD SYMBOL/ LEGEND



POWER DISTRIBUTION/ CHARGING SYSTEM 1



STARTING SYSTEM 2

GROUNDING 3

ENGINE CONTROL 4

EXHAUST CONTROL 5

PARK BRAKE 6

WINCH CONTROL 7

ELECTRICAL SCHEMATIC
D125C\D150C STAGE IIIB
CRAWLER DOZER

Additional copies of this schematic can be ordered through the Technical Publications Distribution System.
Part # RAC 47907894 (replaces RAC 47619963)

LEGEND

- UNSWITCHED BATTERY POWER
- SWITCHED BATTERY POWER
- STARTING CIRCUIT
- IGNITION RELAY CIRCUIT
- ACCESSORIES RELAY CIRCUIT
- 12 VOLT CIRCUIT

DESCRIPTION

RAC47907894S1S1

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