SERVICE MANUAL

W270C / W300C

Wheel Loader

Tier 4

Print No. 84547255C

NEW HOLLAND CONSTRUCTION

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Wire harnesses - Electrical schematic frame 12 - HVAC, Air seat, Radio power/converter

#	Location	Component
119	7D	Diagnostic connector
121	2H	Power converter — 24 to 12 volt
122	1G	12 volt power outlets (option)
123	3E	Radio
124	4E	Right speaker
125	4E	Left speaker
126	7G	Air seat
127	4G	Cigar lighter
128	8F	Air conditioning clutch relay
129	11F	Air conditioning high-low pressure switch
130	7F	Air conditioning compressor clutch
135	4E	Mirror heat timer relay
136	4D	Mirror heat switch
137	1D	Mirror heater right
138	1D	Mirror heater left
139	7C	Telematics
F-38	10G	Fuse ECA-F11 : Blower motor
F-39	8E	Fuse ECC-F9 : Diagnostic
F-40	6H	Fuse ECA-F16 : Seat compressor (option)
F-41	5H	Fuse ECA-F18 : Cigar lighter 24V (option)
F-42	4F	Fuse ECB-F9 : Radio 12V (option)
F-43	3G	Fuse ECB-F1 : Remote 12V (option)
F-44	3G	Fuse ECB-F2 : Remote 12V (option)
F-45	3F	Fuse ECB-F10 : Two way radio (option)
F-46	2E	Fuse ECA-F15 : Mirror heat

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(3)	CAN high	(8)	Downstream temperature sensor
(4)	CAN low	(9)	Upstream temperature sensor
(5)	Tank heater control valve		

-30 °C (-22.0 °F)	12850 Ω
-20 °C (-4.0 °F)	7500 Ω
0 °C (32.0 °F)	2800 Ω
20 °C (68.0 °F)	1215 Ω
30 °C (86.0 °F)	825 Ω
50 °C (122.0 °F)	410 Ω

A. If resistance is correct continue with step **4**.

B. If the resistance is not correct, replace the DEF/AdBlue® tank level/temperature sensor.

4. Check the DCU to DEF/AdBlue® tank level/temperature sensor wiring harness.

   Check the resistance between the DCU pin 19 and the DEF/AdBlue® tank level/temperature sensor pin 2.

   Check the resistance between the DCU pin 29 and the DEF/AdBlue® tank level/temperature sensor pin 3.

   A. If the resistance is greater than **5 Ω**, repair/replace the damaged wire.

   B. If the resistance is less than **5 Ω**, continue to step **5**.

5. Check the DCU harness connector for continuity between pin 19 and chassis ground.

   Check the DCU harness connector for continuity between pin 29 and chassis ground.

   Check the DCU harness connector for continuity between pin 19 and pin 29.

   A. If there is continuity on any of these circuits, repair/replace the wiring harness.

   B. If there is no continuity on any of these circuits, continue to step **6**.

6. Update the software in the DCU.

   A. Update the software to the current level of software. Test the system to verify proper operation. Return the machine to operation.

   B. If the fault code reoccurs, replace the DCU.

7. Visually inspect the relevant harnesses and connectors for damage, bent or dislocated pins, corroded terminals or broken wires. Verify that the connectors are fully installed. Flex the harnesses involved to reveal intermittent breaks or shorts in the wiring concerned. Operate the machine while monitoring the Display.

   A. If damage is found or other than normal display readings are indicated, repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the fault code has been resolved.

   B. If no damage or other than normal display readings are indicated, clear the fault code and continue operation.

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4243-Open circuit at backup alarm relay

NOTICE: *Check fuse ECA F14, replace as needed.*

Cause:

1. Backup alarm does not work.
2. Faulty reading from component.
3. Connectors not mated fully, pins not pushed into connector fully, bent pin or broken wire at rear of connector.
4. Wiring or circuits open.
5. Wiring or circuits shorted.

Solution:

1. Verify that the fault code is still active, refer to **0000 - Retrieving fault codes, Wheel Loaders**.
   Prior to clearing fault codes write down all fault codes, number of occurrences, and engine hours at last occurrence.

   (1) Turn ignition switch to RUN position.

   (2) Clear all fault codes.

   (3) To check for fault code: Start and operate machine.

   A. NOT OK – Fault code 4243 is recorded again. Go to Step **2**.

   B. OK – Fault is not recorded again. OK for return to service.
2. Check relay.

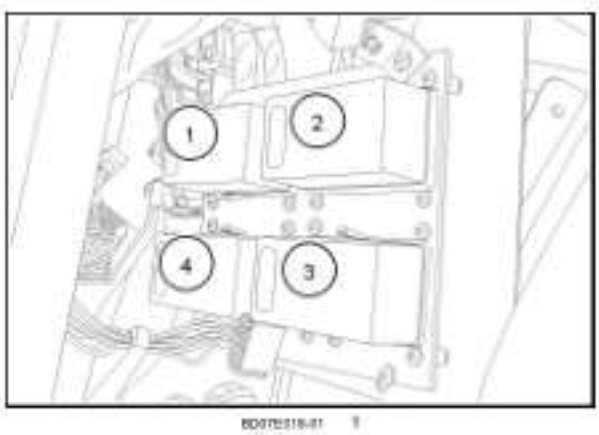
   (1) Remove backup alarm relay.

   (2) Replace relay with known good relay.

   A. Return to Step **1** to confirm elimination of fault.

   B. NOT OK – Go to Step **3**.

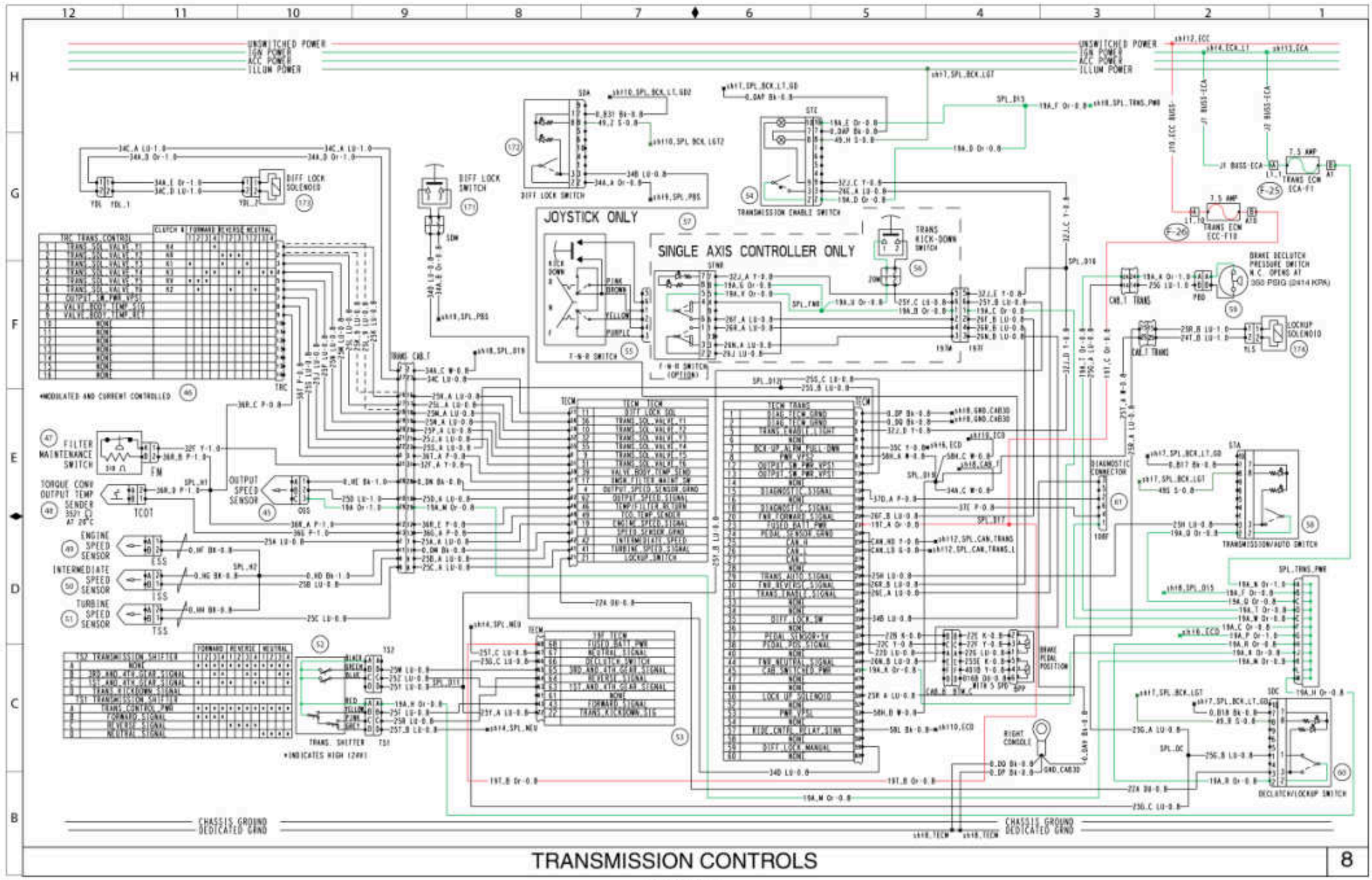
   C. OK – Replace defective relay.
3. Check power circuit.



(1)	Electrical center A
(2)	Electrical center C
(3)	Electrical center D
(4)	Electrical center B

(1) Check for voltage at pin A10 Connector ECD, a reading of **24 V** should be obtained.

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