SERVICE MANUAL

D180C
TIER2 / TIER3
Crawler Dozer

Part number 48037327
English
February 2017

NEW HOLLAND CONSTRUCTION

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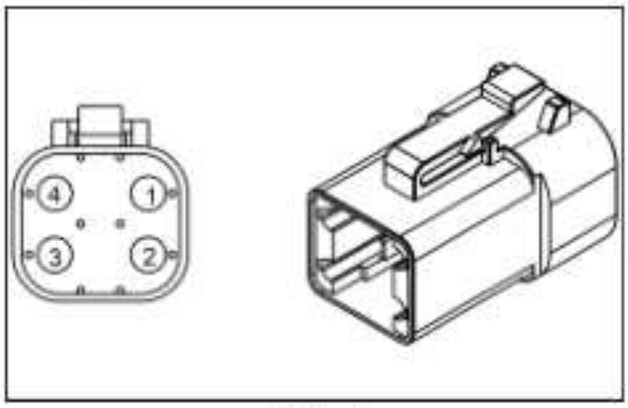
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CONNECTOR X-061 - TO MAIN HARNESS

CONNECTOR X-061 - TO MAIN HARNESS			
PIN NUMBER	**WIRE NUMBER**	**CIRCUIT REFERENCE**	**ELECTRICAL SCHEMATIC FRAME**
1	3014 (VT)	REAR LIGHTS SWITCHED +24V	11
2	3006 (VT)	FRONT LIGHTS SWITCHED +24V	11
3	4006 (BL)	HIGH SPEED SWITCHED +24V	20
4	4001 (BL)	CONDENSER SWITCHED +24V	20



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Schematic legend			
(1)	ECU engine sensor connector	(3)	Air temperature sensor Connector LDFT
(2)	ECU		

A. The connectors are secure and the harness is free of damage. Go to step **3**.

B. The connectors or the harness has damage. Repair or replace the harness or connectors as required. Return to step **1** to confirm elimination of fault.

3. Measure the sensor resistance.

Turn the ignition switch OFF.

Disconnect the air intake temperature sensor.

Use a multimeter to measure the resistance of the sensor. The proper resistance range is between **80 Ω** and **51k Ω**.

Temperature	Resistance Nominal Value	Resistance Min/Max. Range
-40 °C (-40 °F)	48153 ohms	45301 – 51006 ohms
-35 °C (-31 °F)	35763 ohms	33703 – 37823 ohms
-30 °C (-22 °F)	26854 ohms	25350 – 28359 ohms
-25 °C (-13 °F)	20376 ohms	19265 – 21487 ohms
-20 °C (-4 °F)	15614 ohms	14785 – 16443 ohms
-15 °C (5 °F)	12078 ohms	11453 – 12702 ohms
-10 °C (14 °F)	9426 ohms	8951 – 9901 ohms
-5 °C (23 °F)	7419 ohms	7055 – 7783 ohms
0 °C (32 °F)	5887 ohms	5605 – 6168 ohms
5 °C (41 °F)	4707 ohms	4487 – 4926 ohms
10 °C (50 °F)	3791 ohms	3618 – 3964 ohms
15 °C (59 °F)	3075 ohms	2939 – 3211 ohms
20 °C (68 °F)	2511 ohms	2402 – 2619 ohms
25 °C (77 °F)	2063 ohms	1976 – 2150 ohms
30 °C (86 °F)	1715 ohms	1645 – 1786 ohms
35 °C (95 °F)	1432 ohms	1374 – 1490 ohms
40 °C (104 °F)	1199 ohms	1152 – 1247 ohms
45 °C (113 °F)	1009 ohms	970 – 1047 ohms
50 °C (122 °F)	851 ohms	819 – 883 ohms
55 °C (131 °F)	721 ohms	694 – 747 ohms
60 °C (140 °F)	612 ohms	590 – 634 ohms
65 °C (149 °F)	522 ohms	503 – 540 ohms
70 °C (158 °F)	446 ohms	431 – 462 ohms
75 °C (167 °F)	383 ohms	370 – 396 ohms
80 °C (176 °F)	329 ohms	319 – 340 ohms
85 °C (185 °F)	284 ohms	275 – 293 ohms
90 °C (194 °F)	246 ohms	238 – 254 ohms
95 °C (203 °F)	214 ohms	207 – 220 ohms
100 °C (212 °F)	186 ohms	180 – 192 ohms
105 °C (221 °F)	162 ohms	157 – 167 ohms
110 °C (230 °F)	142 ohms	138 – 147 ohms
115 °C (239 °F)	125 ohms	121 – 129 ohms
120 °C (248 °F)	110 ohms	106 – 113 ohms
125 °C (257 °F)	97 ohms	93 – 100 ohms
130 °C (266 °F)	85 ohms	83 – 88 ohms

A. The resistance measurement is greater than **80 Ω** but less than **51k Ω**. The air intake temperature sensor appears to be operating properly. Go to step **4**.

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Reconnect ECU connector X-120.

Turn the ignition switch ON.

Access the fault code screen on the EST. Fault code 3557 should no longer be active. Fault code 3558 is now present and active.

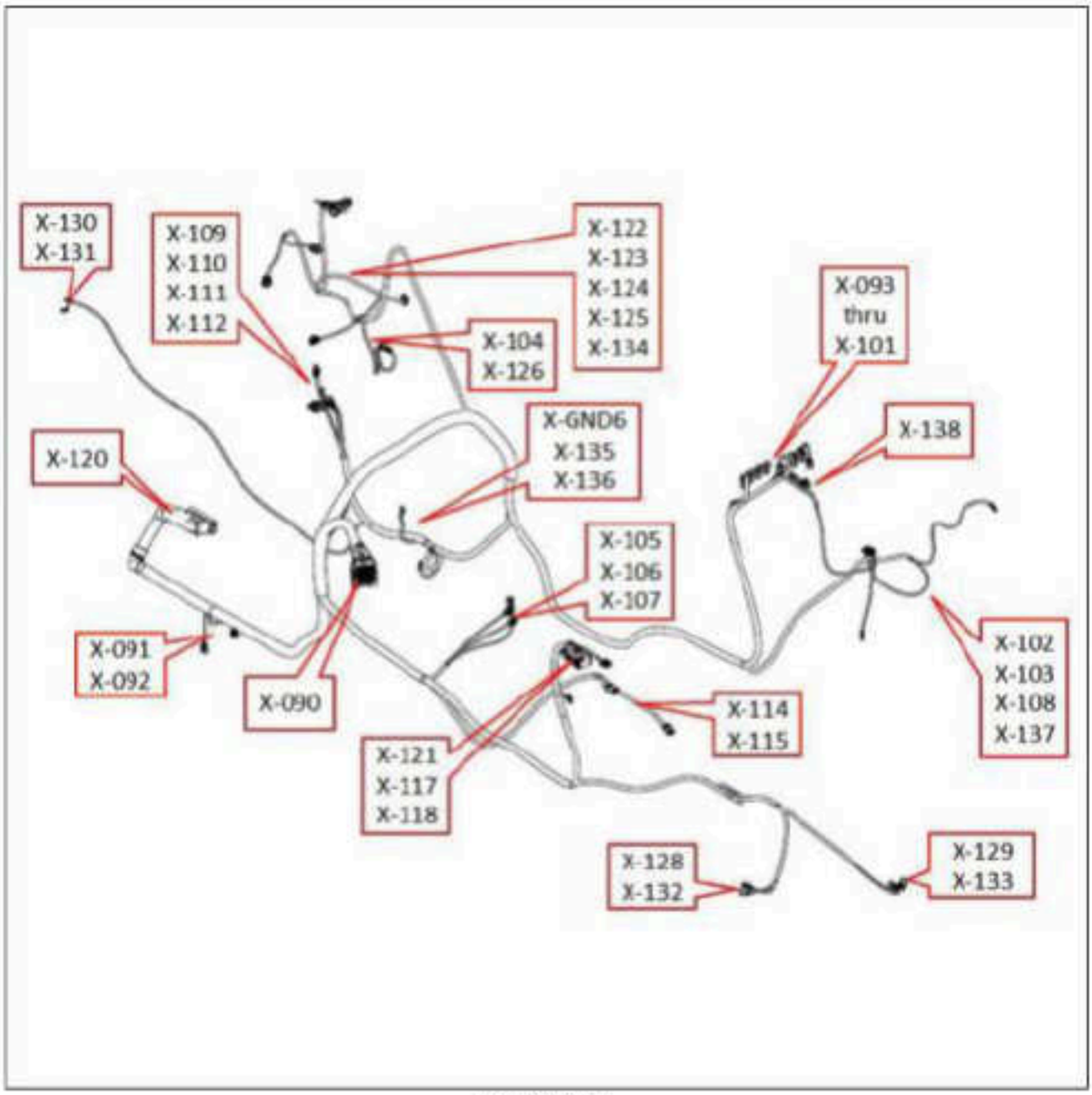
A. Fault code 3557 is no longer active. Fault code 3558 is now active. There is a problem in the wiring between the humidity sensor and the ECU. Repair or replace the harness as required. Return to Step **1** to confirm elimination of the fault.

B. Fault code 3557 is still active. Fault code 3558 did not become active. There is a problem in the ECU. Temporarily replace the ECU and retest. Return to Step **1** to confirm elimination of the fault.

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Harnesses and connectors - Wiring schema - Wiring harnesses with connector locations

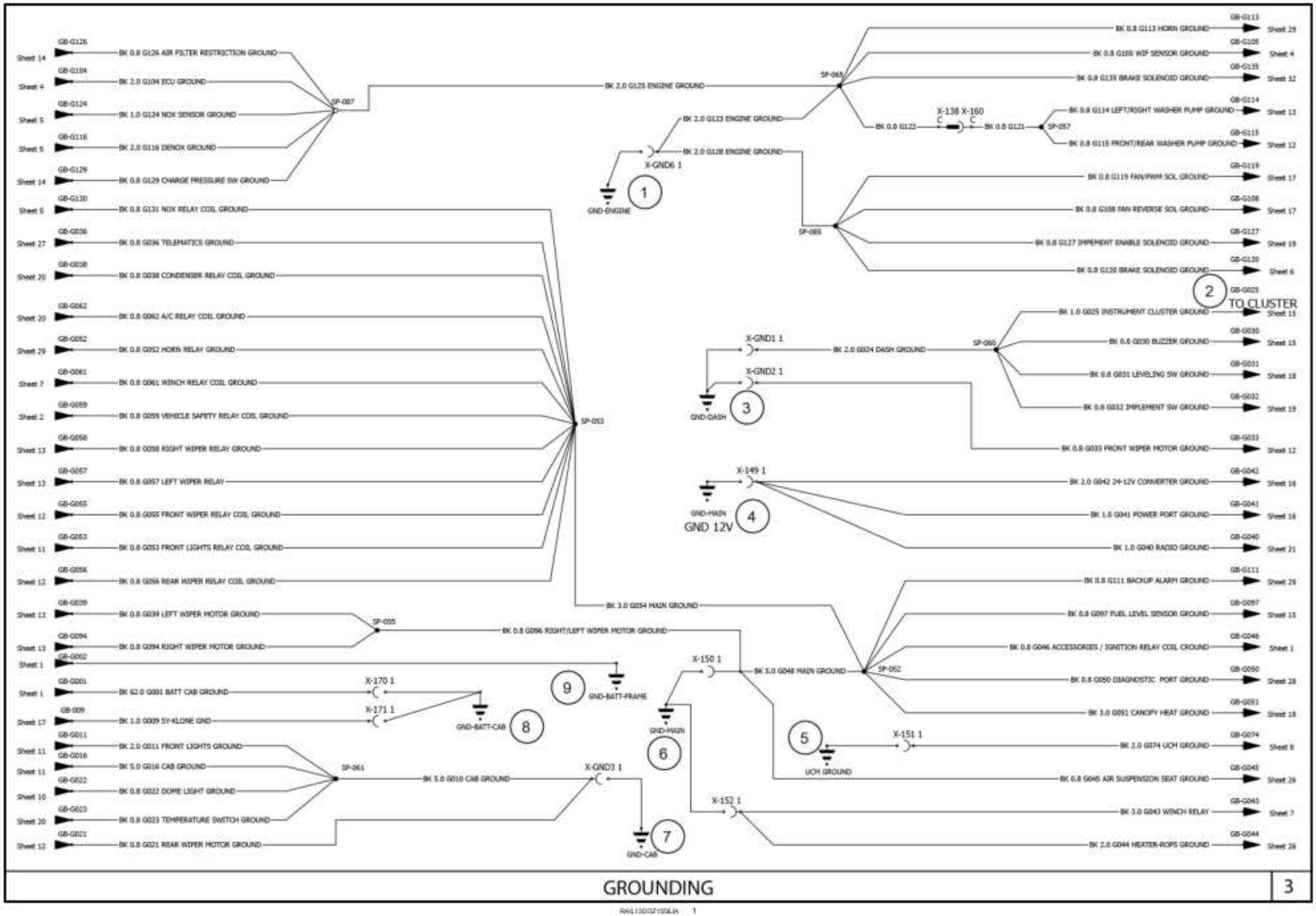
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Chassis harness

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