SERVICE MANUAL

W190D
Stage IV
Wheel Loader

Part number 51428254
English
November 2017

NEW HOLLAND CONSTRUCTION

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Hydraulic service brakes - General specification

Brake Pump Output	**42 – 45 L/min** (**11 – 12 US gpm**) at **172 bar** (**2494 psi**)
Accumulator Nitrogen Charge Pressure	**68 – 72 bar** (**986 – 1044 psi**) at **21 °C** (**69.8 °F**)
3.5 L Nitrogen Accumulator Pre-Charge Pressure	**70 bar** (**1015 psi**)
0.16 L Nitrogen Accumulator Pre-Charge Pressure	**96 bar** (**1392 psi**)
Accumulator Valve Cut-In Pressure	**157 – 167 bar** (**2276 – 2422 psi**)
Accumulator Valve Cut-Out Pressure	**190 – 196 bar** (**2755 – 2842 psi**)
Redundant Accumulator Pressure Switches – Electrical Connectors PRB1, PRB2	Rising < **91 bar** (**1319.5 psi**) Falling **70 – 84 bar** (**1015 – 1218 psi**)
Low Brake Pressure Warning Switch	Alarm OFF **138 bar** (**2001 psi**) Increasing Alarm ON **115 – 129 bar** (**1667.5 – 1870.5 psi**) Decreasing
Brake Light Switch	**4.1 bar** (**59.4 psi**) Increasing
Front Axle Brakes – Modulation Pressure	**76 – 86 bar** (**1100 – 1245 psi**)
Rear Axle Brakes – Modulation Pressure	**74 – 84 bar** (**1073 – 1218 psi**)

NOTE: *see hydraulic schematics for additional specifications.*

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Wiring harnesses - Electrical schematic sheet 31 SH31 - LIGHTING WORKING LIGHTS CAB ROOF, FRONT AND REAR

Type	Component	Connector / Link	Description
ECU	**A-SFB**	**X-X6**	SMART FUSE BOX
Ground	**GND-029**	GND-029	
Lamp	**LMP-LF0**	**X-LF2**	LEFT FRONT OPT WL
Lamp	**LMP-LF_WL**	**X-LFWL**	LEFT FRONT WORK LIGHT
Lamp	**LMP-LR_WL**	**X-LRWL**	LEFT REAR WORK LIGHT
Lamp	**LMP-RFO**	**X-RF2**	RIGHT FRONT OPT WL
Lamp	**LMP-RF_WL**	**X-RFWL**	RIGHT FRONT WORK LIGHT
Lamp	**LMP-RR_WL**	**X-RRWL**	RIGHT REAR WORK LIGHT
Connector	X-CAB_R	**X-CAB_R**	CAB TO ROOF
Connector	X-LF2	**X-LF2**	WORK LIGHT OPT
Connector	X-LFO	**X-LFO**	WORK LIGHT OPTION
Connector	X-LFWL	**X-LFWL**	LEFT FRONT WORK LIGHT
Connector	X-LRWL	**X-LRWL**	LEFT REAR WORK LIGHT
Connector	X-RF2	**X-RF2**	WORK LIGHT OPTION
Connector	X-RFO	**X-RFO**	WORK LIGHT OPTION
Connector	X-RFWL	**X-RFWL**	RIGHT FRONT WORK LIGHT
Connector	X-ROOF	**X-ROOF**	ROOF TO CAB
Connector	X-RRWL	**X-RRWL**	RIGHT REAR WORK LIGHT
Connector	X-X3	**X-X3**	SFB
Connector	X-X4	**X-X4**	SFB
Connector	X-X7	**X-X7**	SFB

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57901 - (DTC E22D)-ECU internal failure - Sensor 5 volt supply 1

NOTE: *refer to the Engine Service Manual for more details.*

NOTE: *Because this fault causes inducement, it is necessary to perform the Engine Restart Counter Reset / Unlock Inducement configuration with the Electronic Service Tool (EST) before you return the machine to service. See* ***Selective Catalytic Reduction (SCR) exhaust treatment - Configure - Engine restart counter reset (10.500)*** *if necessary.*

Context:
The Engine Control Unit (ECU) provides three independent **5.0 V** voltage supplies for sensors. These voltages are monitored by hardware within the ECU to make sure they are within a given range. This given range is defined by the ECU hardware and cannot be calibrated. If a sensor supply 1 reference voltage is out of range, this fault will occur.

Cause:
The ECU sensor supply 1 reference voltage is out of range.

Possible failure modes:

1. Faulty SCR pressure sensor B-9100 or sensor supply wire.
2. Faulty air filter clogging pressure sensor B-9102 or sensor supply wire.
3. Faulty oil pressure and temperature sensor B-9000 or sensor supply wire.
4. Faulty intake manifold pressure and temperature sensor B-9001 or sensor supply wire.
5. Faulty crankcase pressure sensor B-9009 or sensor supply wire.

Solution:

1. Verify that fault is present and active.

   Use the Electronic Service Tool (EST) to check the status of this fault.

   A. If the fault is present and active, continue with Step **2**.

   B. If the fault is no longer present or in an inactive state, the fault may be intermittent and not currently active. Continue with Step **4**.

2. Disconnect each connector one at a time, use EST to monitor the status of this fault code.

   - SCR pressure sensor B-9100 connector **X-9108**

   - Air filter clogging pressure sensor B-9102 connector **X-9102**

   - Oil pressure and temperature sensor B-9000 connector **X-9004**

   - Intake manifold pressure and temperature sensor B-9001 connector **X-9003**

   - Crankcase pressure sensor B-9009 connector **X-9023**

   A. If the fault code is eliminated after a connector disconnection, the relevant component has failed. Replace the relevant component.

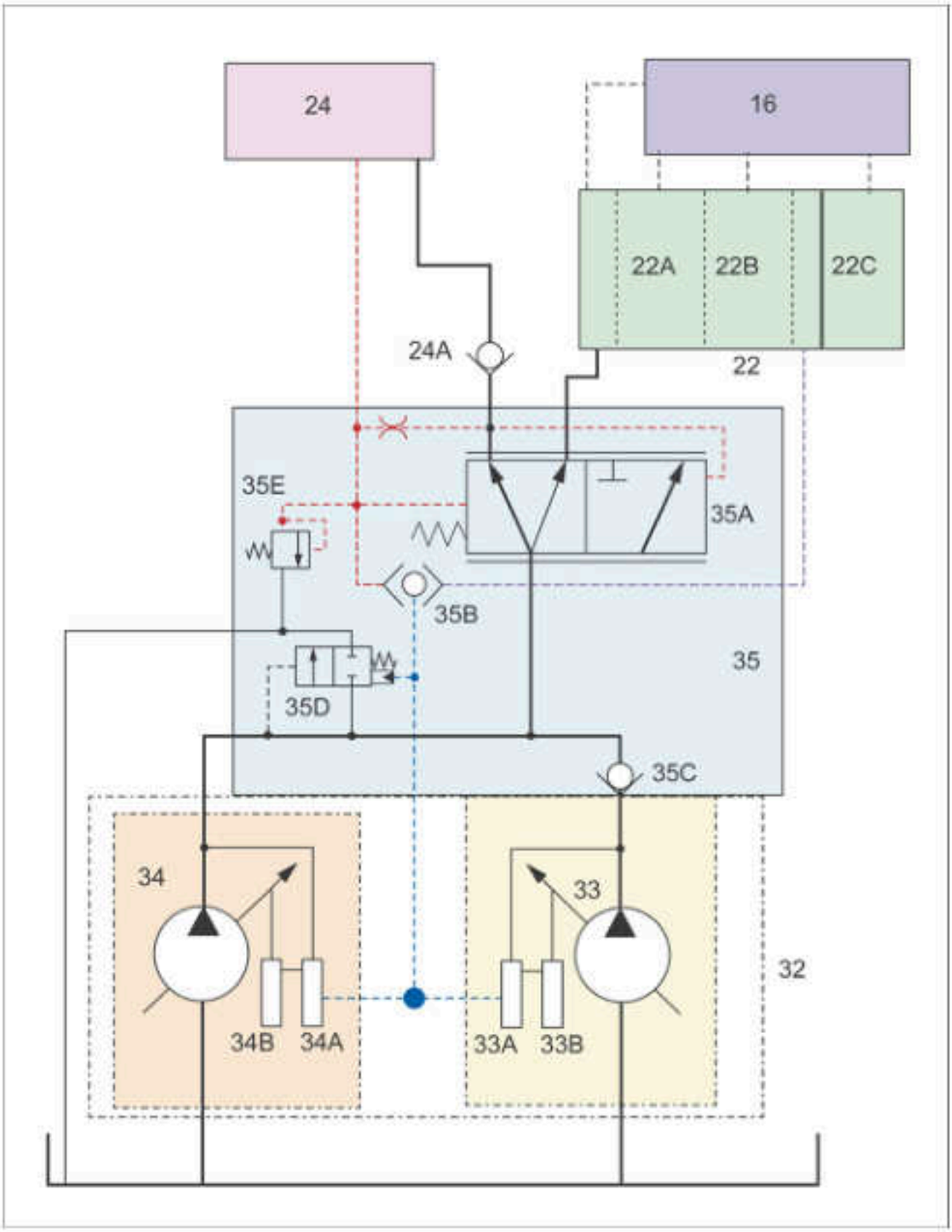
   B. If the fault code has not been eliminated after connector disconnection, leave all of the connectors disconnected and continue to Step **3**.

3. Check the all of the supply 1 circuits for a short circuit condition.

   The key must be in the ON position.

   Use a multimeter to perform the following voltage check:

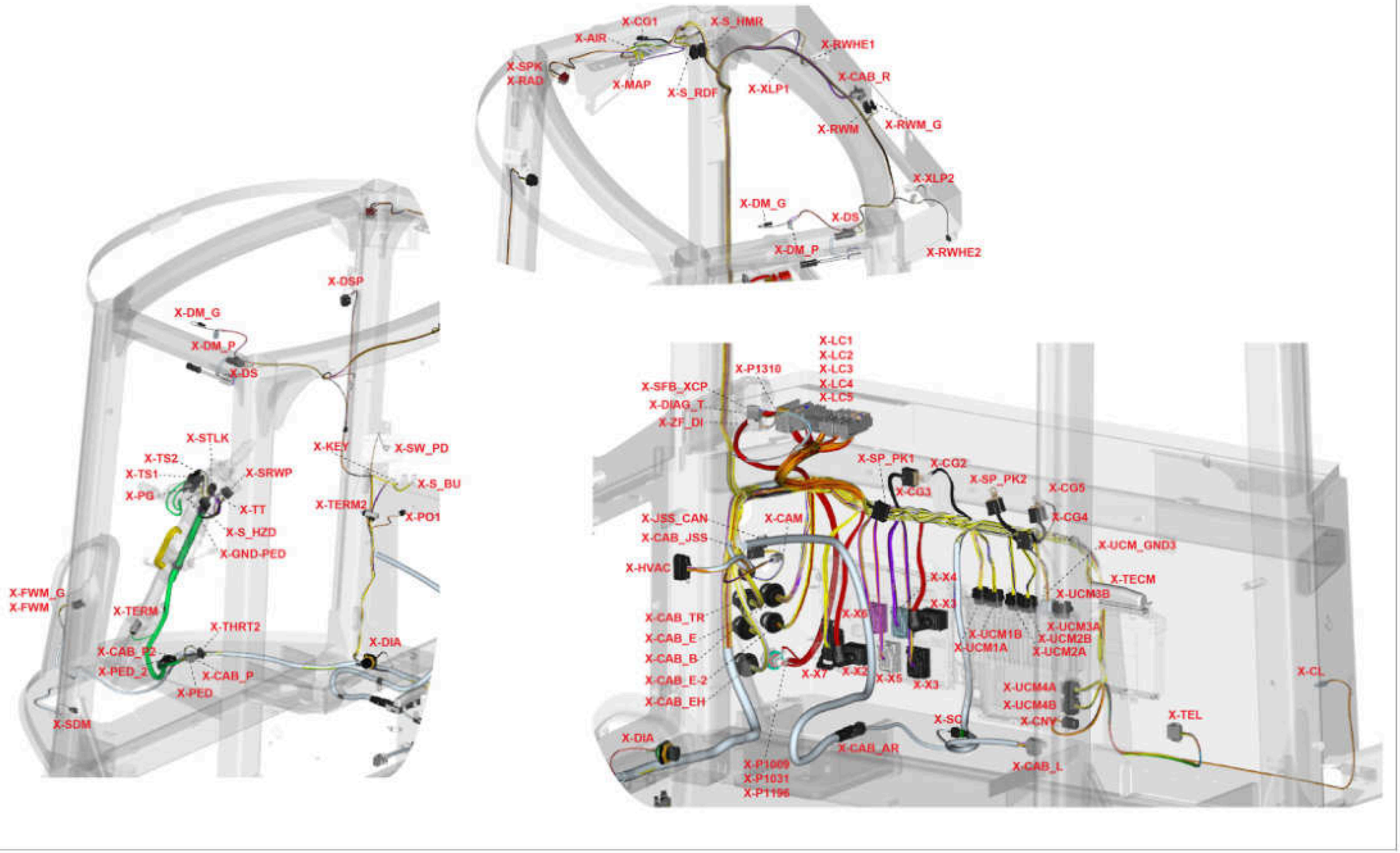
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RDPNYWHL03GHAN 1

Component Flow Chart

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LE0L179WHL1505J 1

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