SERVICE MANUAL

D180C
Crawler Dozer

Part number 48037327A
2nd edition English
June 2018

NEW HOLLAND CONSTRUCTION

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3813 (DTC 235D) - ECU temperature sensor 1 is too low

D180C With cab, Tier 2, Bulldozer (BD) Blade, Made in Brazil	LA
D180C With cab, Tier 2, Power Angle Tilt (PAT) Blade, Made in Brazil	LA
D180C With cab, Tier 3, Bulldozer (BD) Blade, Made in Brazil	
D180C With cab, Tier 3, Power Angle Tilt (PAT) Blade, Made in Brazil	

Control Module: ECU

Context:
The Engine Control Unit (ECU) A-095 monitors internal temperature by the use of two internal temperature sensors. If temperature sensor 1 monitors a temperature less than **-60 °C** (**-76 °F**), this fault will occur.

Cause:
The internal ECU A-095 temperature is below the minimum acceptable level.

Solution:

1. Check the ECU A-095 for the appropriate software and re-flash, if necessary.
   A. If the fault has been resolved, return the machine to service.
   B. If the fault has not been resolved, escalate an ASIST concern.

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Schematic legend			
(1)	UCM connector X-018 Pin 6 Right motor solenoid signal Fault Codes 4141, 4142, 4143, 4144, and 4322	(4)	Connector X-001/ X-090
(2)	UCM connector X-016 Pin 21 Right/ left motor solenoid return Fault Codes 4321, 4323, and 4322	(5)	Right motor solenoid Connector X-131
(3)	UCM connector X-018 Pin 19 Left motor solenoid signal Fault Codes 4151, 4152, 4153, 4154, and 4322	(6)	Left motor solenoid Connector X-132

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. Test the circuit.

   Turn the ignition switch OFF.

   Disconnect the right motor solenoid and left motor solenoid.

   Turn the ignition switch ON.

   Access the fault code screen on the EST.

   Fault code 4322 should no longer be active. Fault code 4321 is now active.

   A. Fault code 4322 is no longer active. Fault code 4321 is now active. Temporarily replace both solenoids and retest. Return to step **1** to confirm elimination of the fault.

   B. Fault code 4322 is still present and active. Fault code 4321 did not become active. Go to step **4**.

4. Measure the resistance through the signal wires.

   Turn the ignition switch OFF.

   Disconnect UCM connectors X-018 and X-016.

   Measure the resistance between X-018 pin 6 and chassis ground. The chassis ground connection must be clean and free of paint, oil, and dirt. The resistance should be greater than **20,000 Ω**. Wiggle the harness during measurement to reveal an intermittent condition.

   Measure the resistance between X-018 pin 19 and chassis ground. The chassis ground connection must be clean and free of paint, oil, and dirt. The resistance should be greater than **20,000 Ω**. Wiggle the harness during measurement to reveal an intermittent condition.

   Measure the resistance between X-016 pin 21 and chassis ground. The chassis ground connection must be clean and free of paint, oil, and dirt. The resistance should be greater than **20,000 Ω**. Wiggle the harness during measurement to reveal an intermittent condition.

   A. All resistance measurements are greater than **20,000 Ω**. Temporarily replace the UCM and retest. Return to step **1** to confirm elimination of the fault.

   B. One or more resistance measurements are less than **20,000 Ω**, there is a short circuit to chassis ground in the UCM wiring. Repair or replace the harness as required. Return to step **1** to confirm elimination of fault.

Harnesses and connectors - Electrical schematic sheet 09 - UCM (55.100-C.20.E.09)
Harnesses and connectors - Electrical schematic sheet 23 - Drive train/pumps (55.100-C.20.E.23)

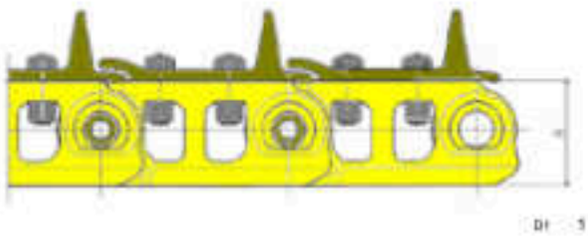
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Harnesses and connectors - Electrical schematic sheet 09 - UCM (55.100-C.20.E.09)
Harnesses and connectors - Electrical schematic sheet 24 - Blade control (55.100-C.20.E.24)

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Track roller support - Measure

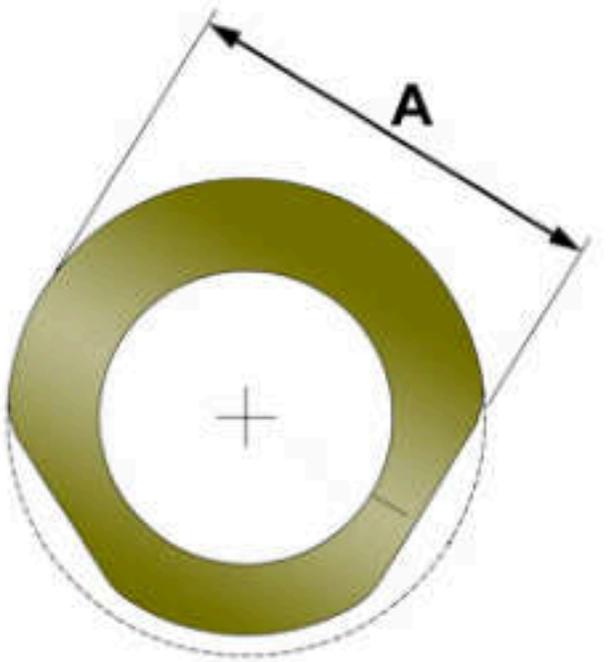
D180C With cab, Tier 2, Bulldozer (BD) Blade, Made in Brazil	LA
D180C With cab, Tier 2, Power Angle Tilt (PAT) Blade, Made in Brazil	LA
D180C With cab, Tier 3, Bulldozer (BD) Blade, Made in Brazil	
D180C With cab, Tier 3, Power Angle Tilt (PAT) Blade, Made in Brazil	



DI 1

LINK WEAR

MEASUREMENT	%
128,0	0
126,5	10
125,4	20
123,5	30
122,5	40
121,0	50
120,0	60
118,5	70
117,5	80
116,0	90
115,0	100



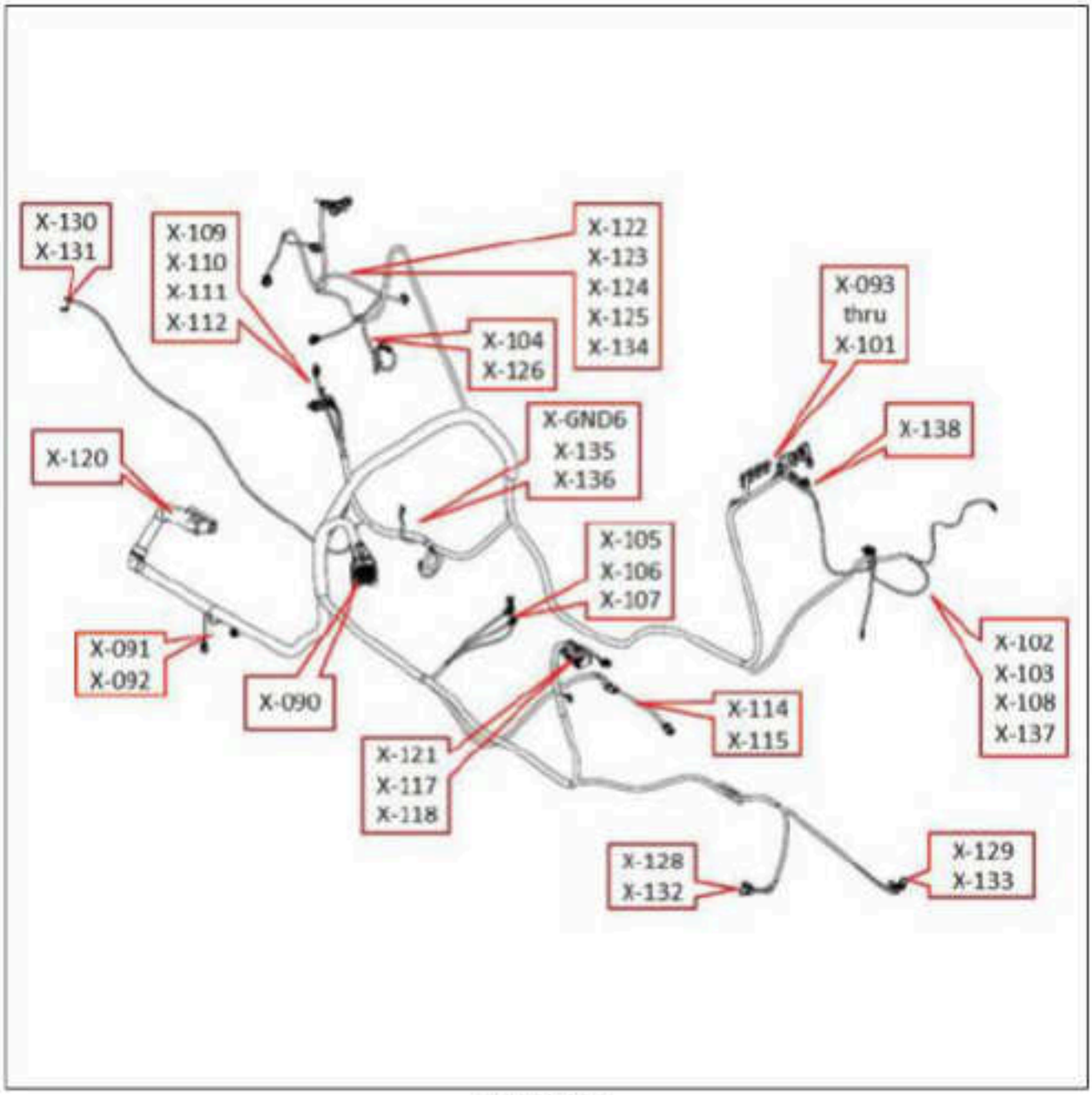
DI 2

TRACK BUSHING WEAR

COMPASS MEASUREMENT	ULTRASOUND MEASUREMENT	%
72,7	13,7	0
72,1	13,1	10
71,6	12,6	20
71,2	12,2	25
70,9	11,9	30

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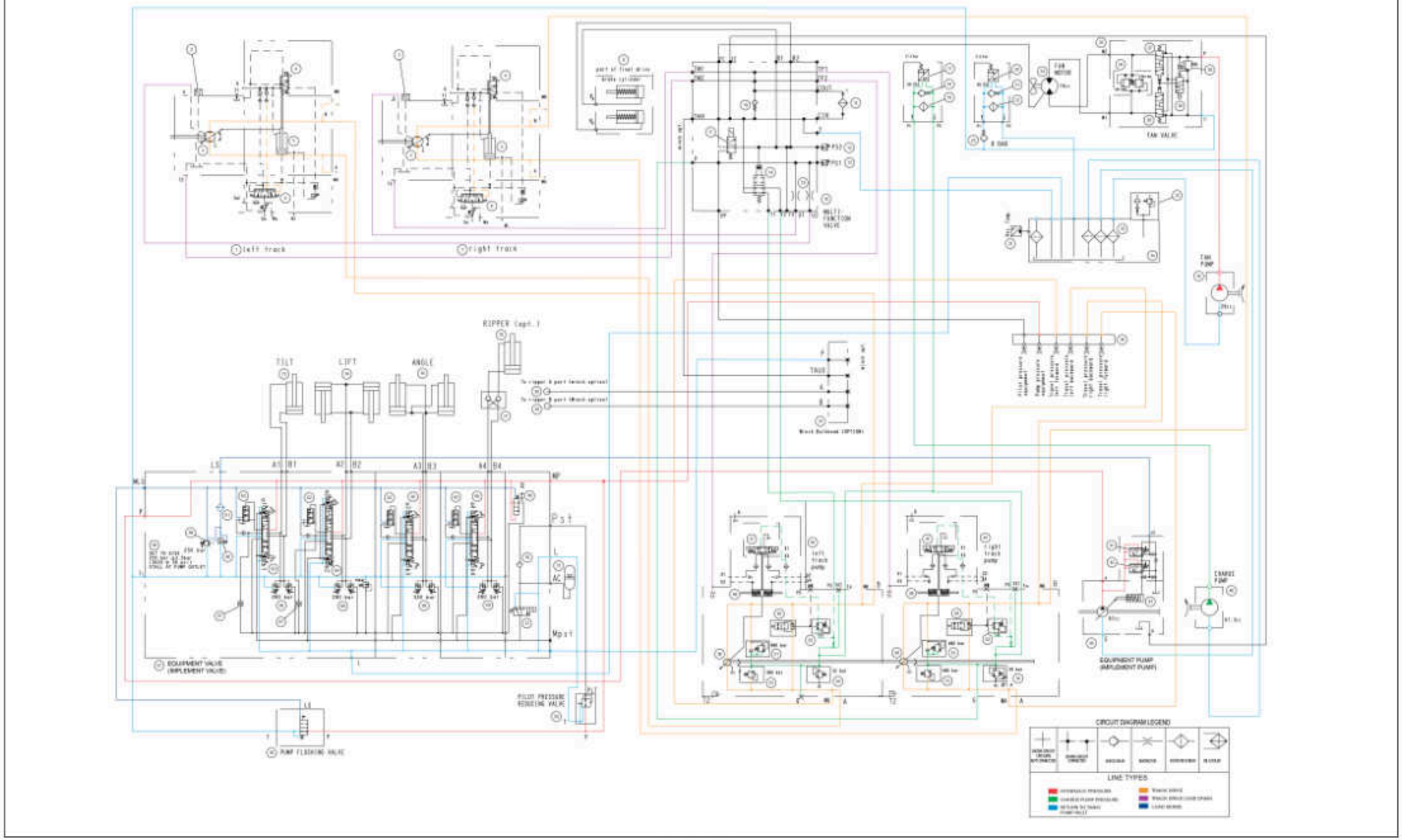
Harnesses and connectors - Wiring schema - Wiring harnesses with connector locations



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Chassis harness

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