SERVICE MANUAL

W50C / W60C / W70C / W80C
Tier 4A (interim)
Compact Wheel Loader

Part number 47829080C
1st edition English
April 2017

NEW HOLLAND CONSTRUCTION

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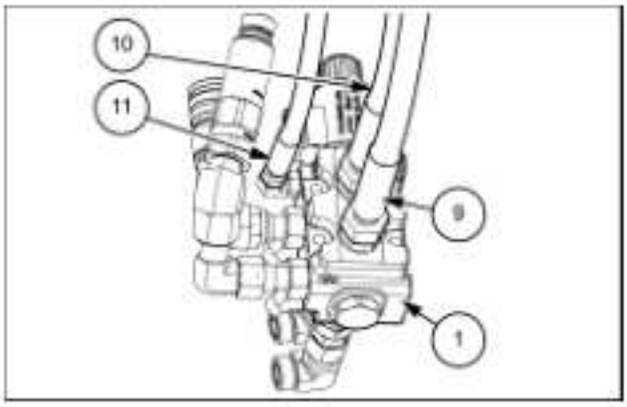
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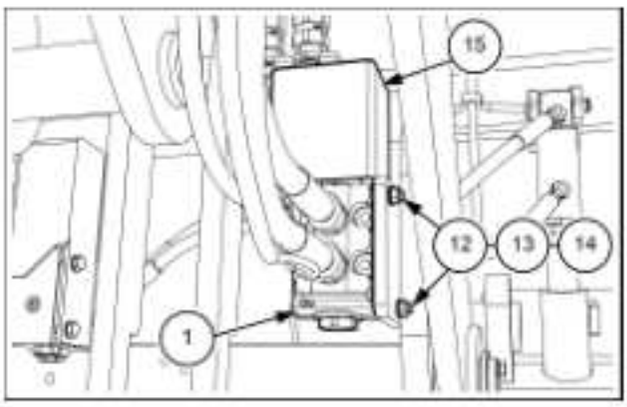
8. Connect the hoses **(9)**, **(10)** and **(11)** to the fittings mounted on the flow diverter valve **(1)**. Tighten the hoses **(9)** and **(10)** to **100 N·m** (**73.8 lb ft**).
Tighten the hose **(11)** to **27 N·m** (**19.9 lb ft**).



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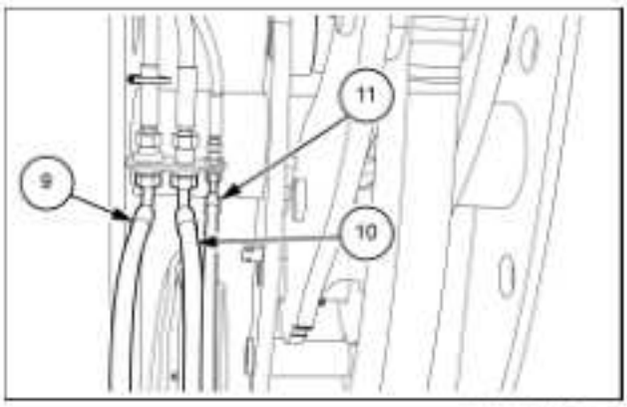
Flow diverter valve installation

9. Position the cover **(15)** and the flow diverter valve **(1)** on the Quick coupler frame. Install the screws **(12)**, the washers **(13)** and the nuts **(14)** to secure the flow diverter valve **(1)** and the cover **(15)** to the Quick coupler frame.
Tighten the nuts **(14)** to **41 N·m** (**30.2 lb ft**).



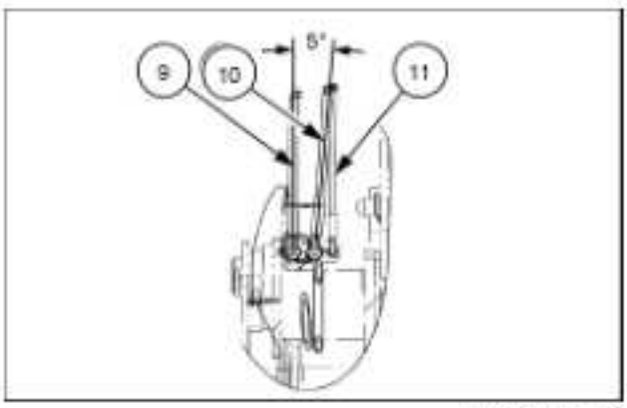
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10. Connect the hoses **(9)**, **(10)** and **(11)** to the related fittings on the loader arm.
Tighten the hoses **(9)** and **(10)** to **100 N·m** (**73.8 lb ft**).
Tighten the hose **(11)** to **27 N·m** (**19.9 lb ft**).



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NOTE: *apply to the hoses* ***(9)*** *and* ***(10)*** *the angle orientation shown in figure* ***49****.*



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Harnesses and connectors - Electrical schematic sheet 07

Power distribution, fuse module, X-003

Location	Component	Code component
8	Fuse +30 instrument cluster & diagnostic connector (**7.5 A**)	F-051
8	Fuse horn & back up alarm (**10 A**)	F-052
8	Fuse multifunction lever (light & horn) (**10 A**)	F-053
8	Fuse fan condenser (**30 A**)	F-054
8	Fuse beacon light switch (**10 A**)	F-055
8	Fuse dome lamp & radio (**5 A**)	F-056
8	Fuse cigar lighter (**15 A**)	F-057
8	Fuse A/C clutch relay (**10 A**)	F-058
8	Fuse warning switch (**15 A**)	F-059
8	Fuse crank signal (**20 A**)	F-060
8	Fuse module (Z-007)	Z-007

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3693 - Short circuit to battery error for low voltage system

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 3693 is recorded again. Go to step **2**.

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

   Inspect the ECU, GCU and glow plug connections. All connections should be secure, tight, free of corrosion, abrasion and damage.

   Inspect the harness from the GCU to the glow plugs. Verify that the harness is free of damage, corrosion, abrasion and incorrect attachment.

   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 resistance through the glow plug wire.

   Turn the ignition switch OFF.

   Disconnect GCU connector X-103. Measure the resistance between the glow plug wire on connector X-103 and chassis ground. The chassis ground connection must be clean and free of paint, oil and dirt. The resistance should be approximately **1 Ω**. Wiggle the harness during measurement to reveal an intermittent condition.

   A. The resistance is approximately **1 Ω**. Temporarily replace the GCU and retest. Return to step **1** to confirm elimination of the fault.

   B. The resistance is greater than **1.5 Ω**. Go to step **4**.

4. Measure the resistance at the glow plug.

   Turn the ignition switch OFF.

   Disconnect the glow plug connector.

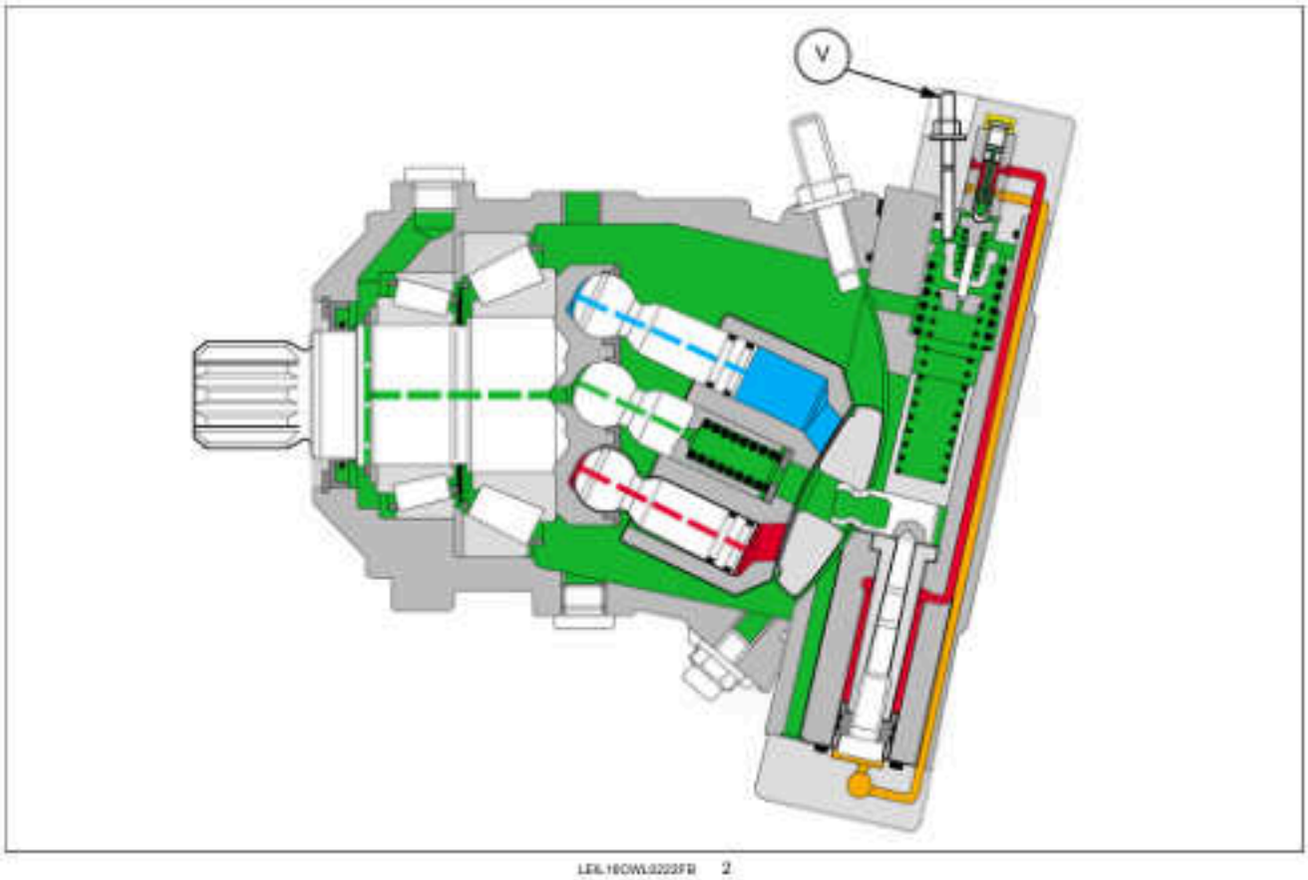
GCU connector	A-011 connector	Cylinder
X-103 pin 1	X-109 pin 58	Cyl. 3
X-103 pin 2	X-109 pin 61	Cyl. 1
X-103 pin 6	X-109 pin 57	Cyl. 4
X-103 pin 7	X-109 pin 60	Cyl. 2

   Measure the resistance between the glow plug and chassis ground. The chassis ground connection must be clean and free of paint, oil and dirt. The resistance should be approximately **1 Ω**.

   A. The resistance is approximately **1 Ω**. There is an open circuit in the wiring to the glow plug. Repair or replace as required. Return to step **1** to confirm elimination of the fault.

   B. The resistance is greater than **1.5 Ω**. Temporarily replace the glow plug and retest. Return to step **1** to confirm elimination of the fault.

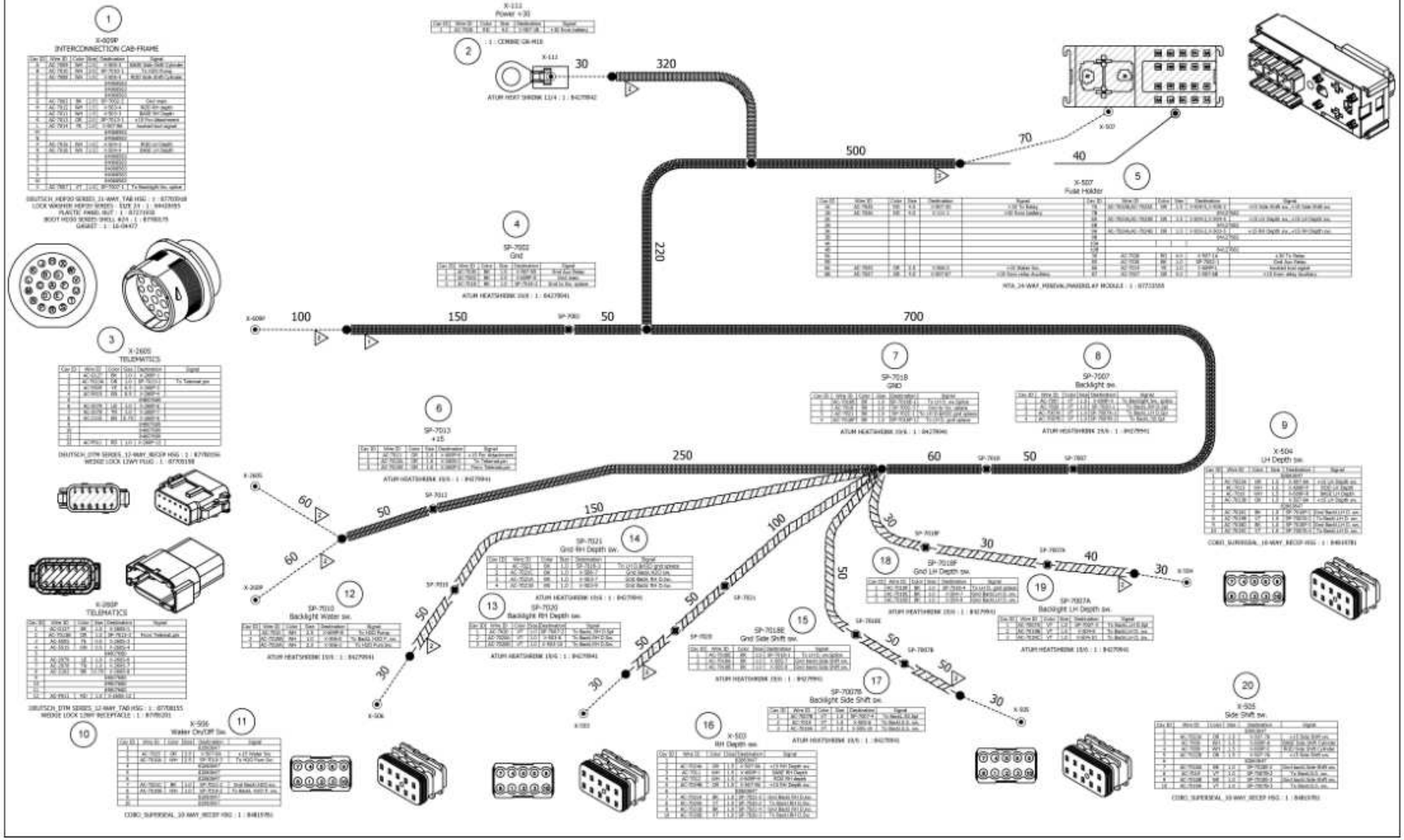
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4. With the engine on and gear engaged, push the throttle pedal at full throttle.
5. Unscrew the setting screw **(V)**.
6. Read the pressure values at the **(G)** and **(M1)** ports. Verify that the **(M1)** port pressure is half of the **(G)** pressure. The ratio between the **(G)** port pressure and **(M1)** port pressure must be 1 to 2.
7. Adjust the setting screw **(V)** until the pressure values comply with the ratio between **(G)** and **(M1)** described in step **6**.
8. At the end of the procedure, tighten the setting screw **(V)**.

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