SERVICE MANUAL

W110D
Tier2
Wheel Loader

Part number 48083743
English
July 2018

NEW HOLLAND
CONSTRUCTION

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15. Install bolt **(14)** into piston rod **(13)**. Tighten bolt to a torque of **1600 – 1830 N·m** (**1180 – 1350 lb ft**). A torque multiplier can be used to help torque the bolt.
16. Install a new wear ring **(18)** in wide groove on outside of piston **(15)**.
17. Install a new ring **(17)** in the other groove on the outside of the piston **(15)**.
18. Install a new seal **(16)** on top of ring **(17)**.
19. Fasten tube **(1)** in an acceptable repair stand or other holding equipment. Be careful to prevent damage to tube.
20. Lubricate inside of the tube **(1)** and piston **(15)** with clean oil.
21. Push piston **(15)** straight into tube **(1)**.
22. When the piston **(15)** is in smooth part of tube **(1)**, start gland **(4)** into tube.
23. Lubricate O-rings **(10)** and **(11)** on gland **(4)** with clean oil.
24. Turn gland **(4)** into tube **(1)**. Tighten gland to a torque of **135 – 542 N·m** (**100 – 400 lb ft**).
25. If the original parts are being assembled:
    A. Tighten gland to a torque of **135 – 542 N·m** (**100 – 400 lb ft**).
    B. Install and tighten self-tapping screw **(12)** to a torque of **2.3 N·m** (**1.7 lb ft**)
    C. If, after tightening gland, the self-tapping screw **(12)** holes are not aligned, a new hole for self-tapping screw must be drilled. See Step 26.
26. If a new gland **(4)** or a new tube **(1)** are being assembled:
    A. Tighten gland **(4)** to **135 – 542 N·m** (**100 – 400 lb ft**).
    B. Use a No. 27 drill bit and drill a hole half in gland **(4)** and half in tube **(1)**. Drill to a depth of **11 mm** (**0.43 in**). Do not drill within **13 mm** (**0.51 in**) of a hole for gland wrench.
    C. Install and tighten self-tapping screw **(12)** to a torque of **2.3 N·m** (**1.7 lb ft**).
27. If hoses were removed with cylinder, install new O-rings, if equipped, on hose fittings. Lubricate O-rings with clean oil. Install hoses.

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65694-04 - Torque Reduction due to Smoke Limitation

Context:
This fault path indicates that a power reduction due to smoke limitation is currently active which limits the engine torque. In other words, this fault path is not used as an actual error status indicating a real defect but is used more for information purposes for service personnel to determine the exact cause of the power limitation (in case a real defect evokes a power reduction the triggering failure also has to be present in the failure memory).
Monitoring is only active if engine speed is above **500 RPM**.

Cause:
A power reduction due to smoke limitation (via limiting torque) is active causing a torque limitation greater than **25%**, of the momentarily allowed maximum torque, or a high idle torque limitation greater than **5%**.

Possible failure modes:

1. Active power reduction due to smoke limitation.

Solution:

1. No actions necessary due to this failure alone. If power reduction occurred due to actual defect, the failure triggering the torque limitation should also be in the failure memory. Follow troubleshooting of this root error.

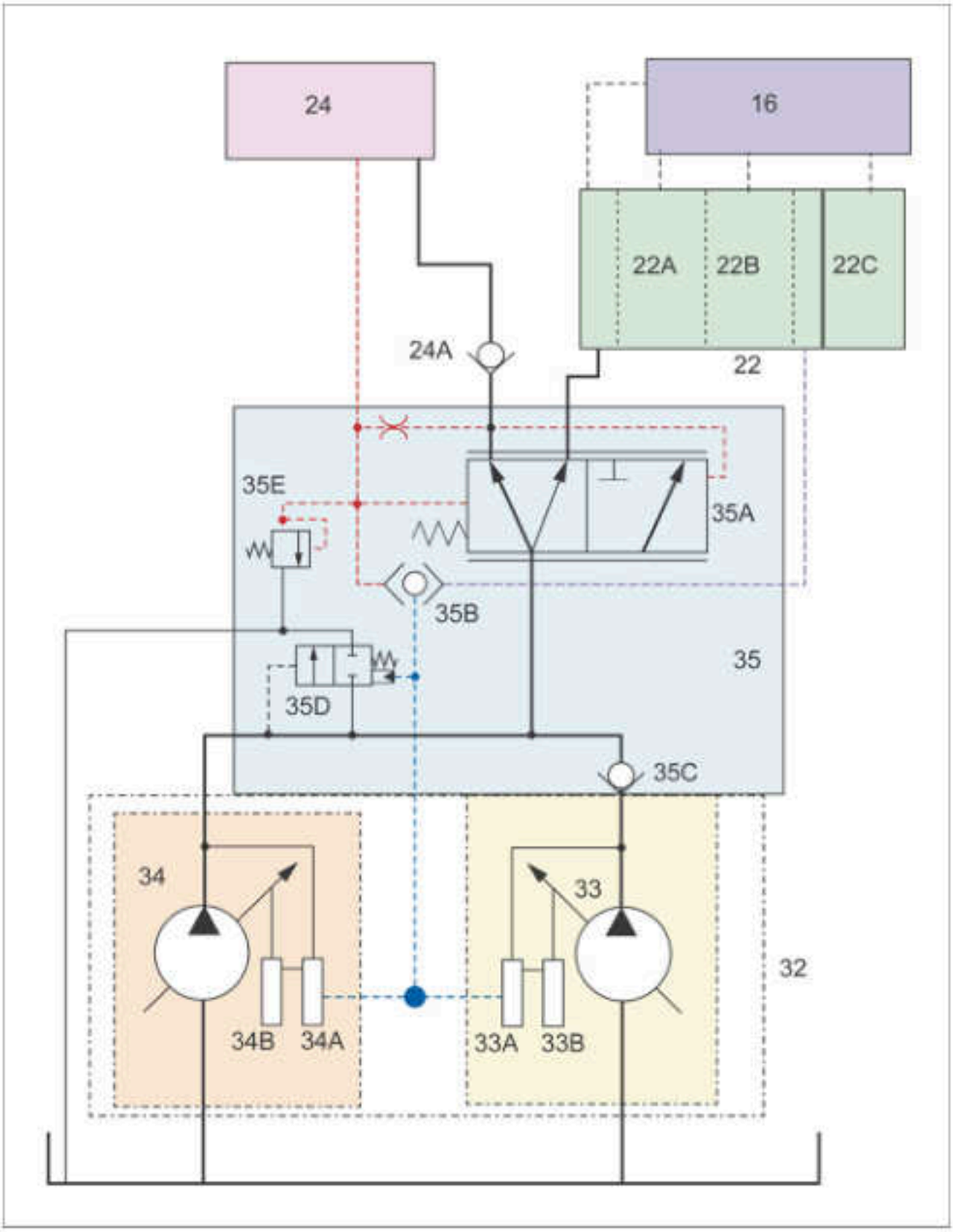
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A. If the functionality is restored, the procedure ends.

B. If the functionality is not restored, replace the **A-UCM**.

Wiring harnesses - Electrical schematic sheet 10 (55.100)
Wiring harnesses - Electrical schematic sheet 21 (55.100)

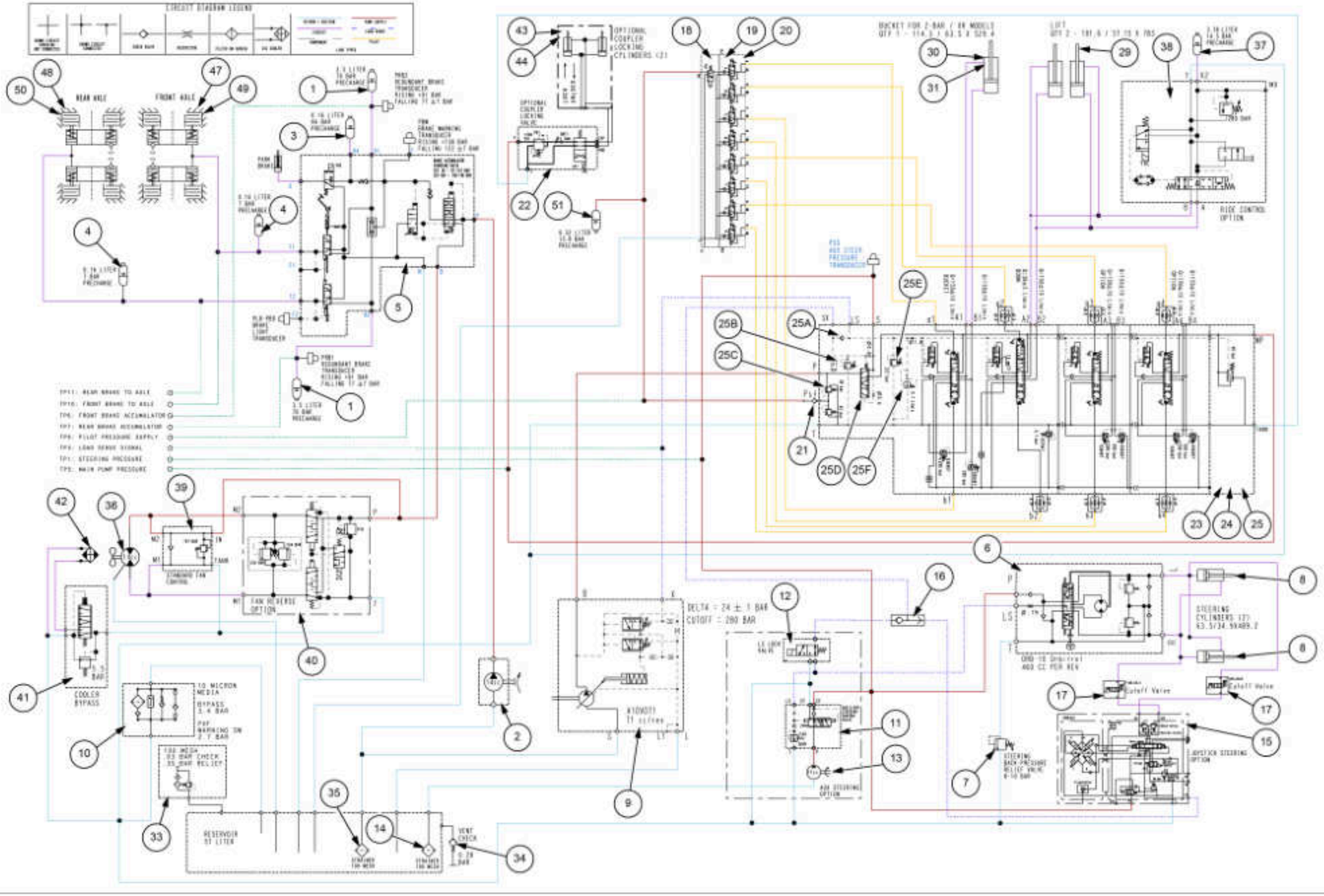
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Component Flow Chart

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