Farmall 95U Efficient Power
Farmall 105U Efficient Power
Farmall 115U Efficient Power
Tractor

SERVICE MANUAL

Part number 84568025
English
March 2013
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CASE IH AGRICULTURE

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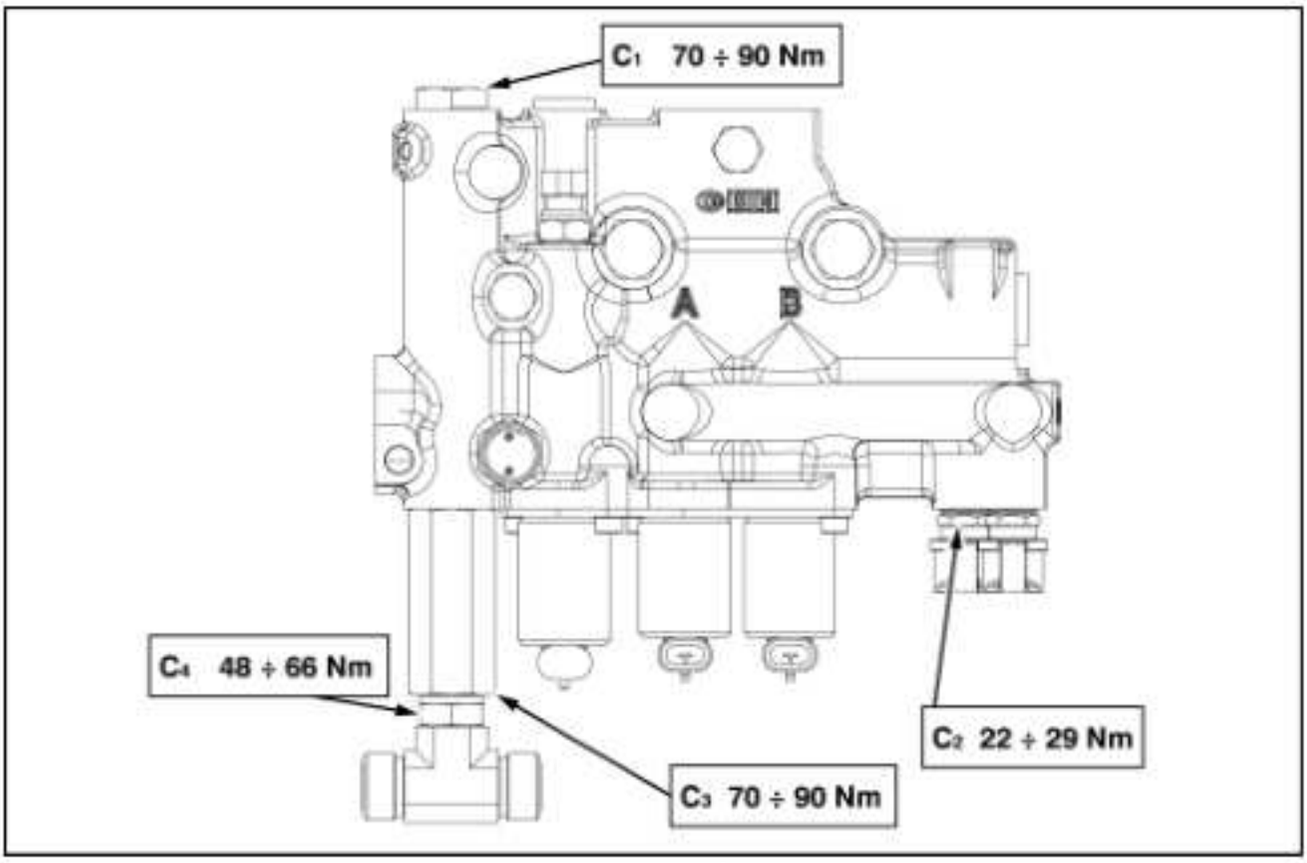
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PARTS TO BE TIGHTENED	Tightening torque	
	Nm (lbft)	kgm
Driven shaft manifold cover retaining nut **(C1)**	22 - 25 N·m (16.23 - 18.44 lb ft)	2,24 ÷ 2,55
Lubrication manifold retaining screw **(C2)**	22 - 25 N·m (16.23 - 18.44 lb ft)	2,24 ÷ 2,55
Clutch A bell housing retaining nut **(C3)**	22 - 25 N·m (16.23 - 18.44 lb ft)	2,24 ÷ 2,55
Flexible coupling retaining nut **(C4)** (•)	30 - 34 N·m (22.13 - 25.08 lb ft)	3,06 ÷ 3,46
Spacer retaining screw **(C5)**	105 - 115 N·m (77.44 - 84.82 lb ft)	10,7 ÷ 11,7
Spool valve cap (**(C1)**, 2)	70 - 90 N·m (51.63 - 66.38 lb ft)	7,1 ÷ 9,2
Clutch pressure control union (**(C2)**, 2)	22 - 29 N·m (16.23 - 21.39 lb ft)	2,24 ÷ 3
Oil fitting (**(C3)**, 2)	70 - 90 N·m (51.63 - 66.38 lb ft)	7,1 ÷ 9,2
Oil T fitting (**(C4)**, 2)	48 - 66 N·m (35.40 - 48.68 lb ft)	4,9 ÷ 6,7

(•) Apply one or two drops of **LOCTITE® 270** before tightening.

Power shuttle transmission - Special tools

Farmall 95U EP 20 x 20 (PS and Creeper), Farmall 105U EP 20 x 20 (PS and Creeper), Farmall 115U EP 20 x 20 (PS and Creeper)

Power Shuttle transmission with creeper unit - 20X20 version

380000301: Rotating stand for overhaul operations.

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3339-Timeout of CAN message TSC1-VE speed (when active)

Control Module : ECU

NOTE: *When the cause of the error code has been rectified, clear the error code and test the system for normal operation.*

Cause:
The CAN message TSC1VE contains the information for torque/speed demand from the vehicle controller (XCM) to the engine control unit (ECU). The ECU has detected a timeout of TSC1_VE message.

Possible failure modes:

1. Faulty harness
2. CAN BUS interference
3. Faulty ECU
4. Faulty XCM

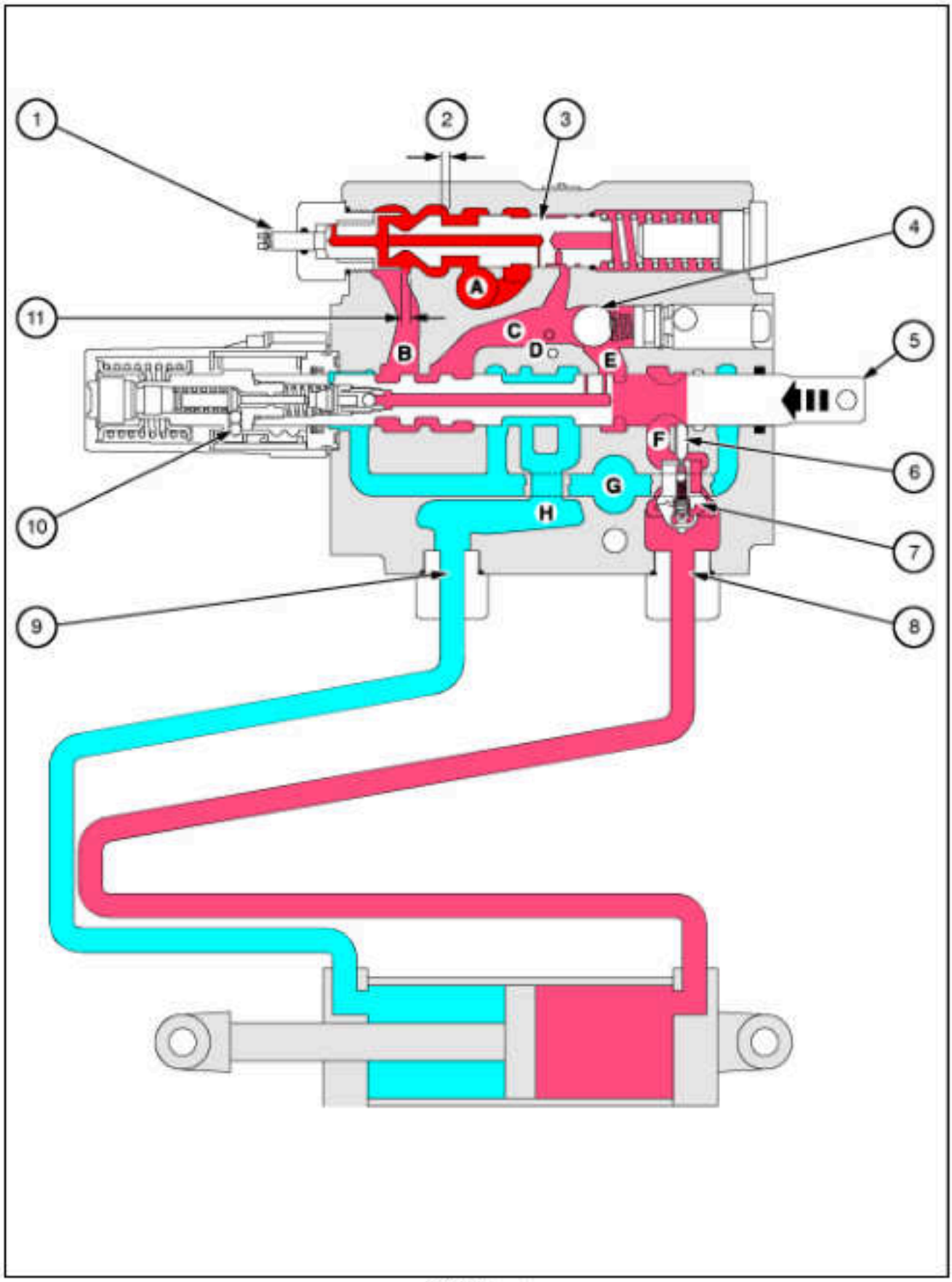
Solution:

1. Before proceeding clear the error code with the approved diagnostic equipment. Run the tractor under normal conditions and retest.
   A. If the error code is not indicated, check that the system is operating correctly.
   B. If the error code is indicated, continue to step **2**
2. Check for other CAN related error codes displayed.
   A. If other error codes are displayed, continue to these tests.
   B. If no other error codes are displayed, continue to step **3**
3. Check all power supplies and grounds to the controllers on the CAN BUS network.
   A. If a fault is indicated, repair or replace the harness as required.
   B. If the power supplies and grounds are okay, download the correct levels of controller software. If the fault is still present, remove and replace the ECU.

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Wire harnesses - Electrical schematic frame 03 (55.100.DP-C.20.E.03)
Wire harnesses - Electrical schematic frame 13 (55.100.DP-C.20.E.13)
Wire harnesses - Electrical schematic frame 14 (55.100.DP-C.20.E.14)

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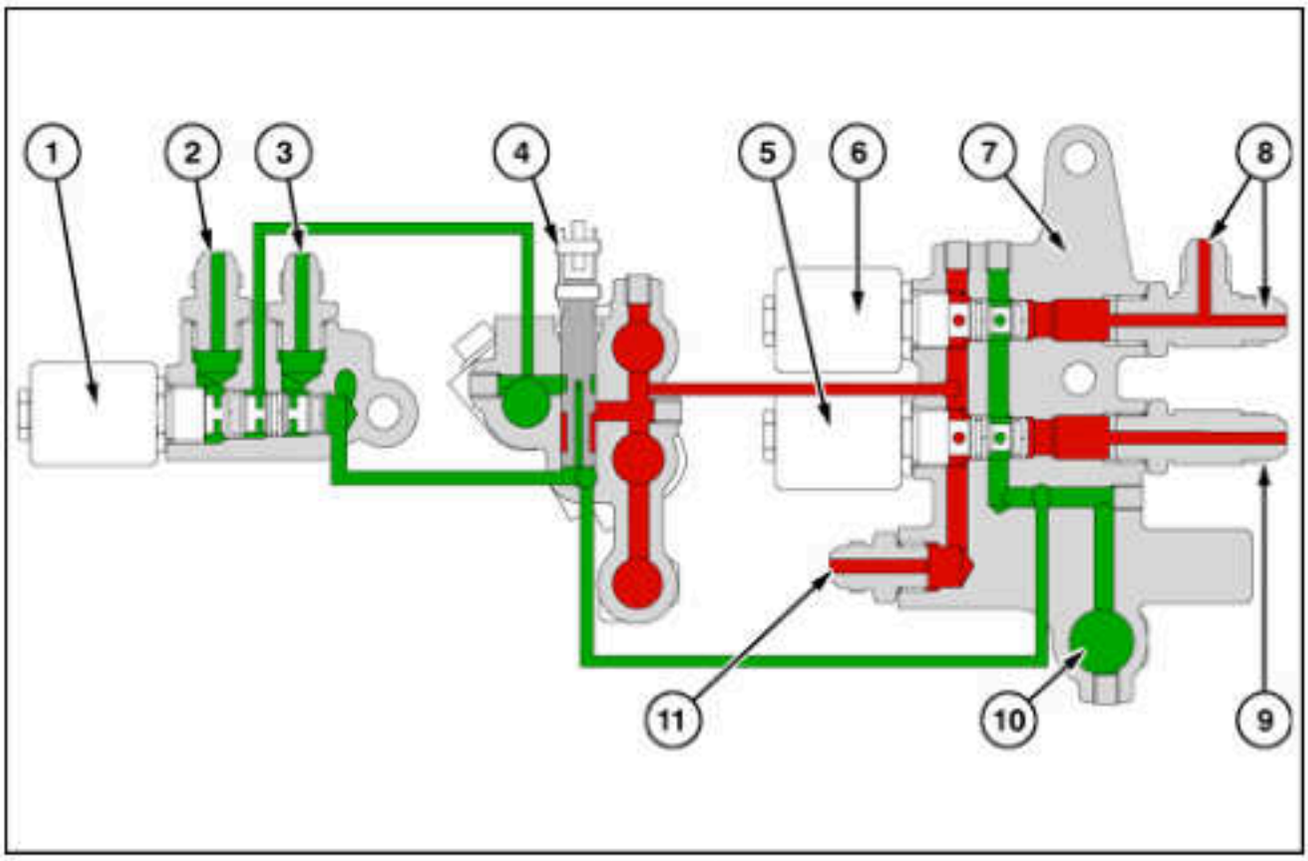
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LIFTING OIL FLOW: Auxiliary control valve operation - Lifting (cylinder extension)

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Power Take-Off (PTO) control valve - Dynamic description and services spool valve with rod (4) in PTO synchronized with gearbox position hydraulic diagram

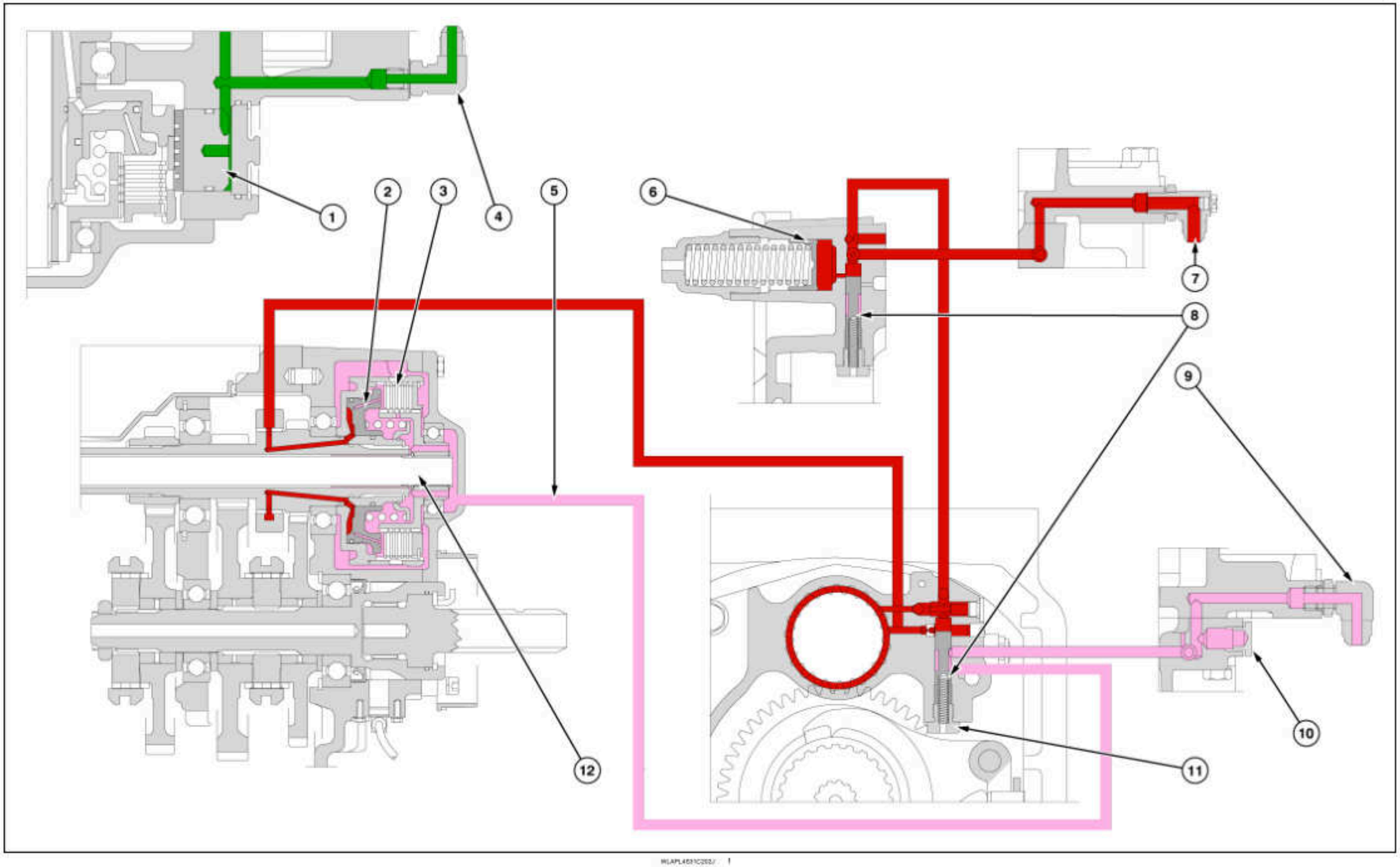
Moving the synchronized PTO engagement lever fully upwards, engaged, the rod of the spool valve **(4)** is in the position shown in the figure.
The line **(11)** receives pressurized oil from the pump, but the spool valve **(4)** closes the oil flow to the PTO clutch engagement cylinder delivery lines **(2)** and to the PTO clutch brake **(3)**, connecting them with the discharge line **(10)** to the transmission casing, as shown in the drawing.
The oil under pressure from line **(11)** can moreover be used for the services of lines **(8)** and **(9)** .
The figure shows solenoid valve **(5)** and **(6)** excited.
With the solenoid valve **(5)** excited, the delivery line **(9)** is pressurized and the four−wheel drive is disengaged.
With the solenoid valve **(6)** excited, the delivery line **(8)** is pressurized and the front and rear differential lock is engaged.



: Pressurised oil
: Discharge oil

(1). Oil delivery solenoid valve to PTO clutch or clutch brake (deactivated).	**(6)**. Front or rear differential engagement command solenoid valve activated.
(2). Delivery line (discharging) to the PTO clutch engagement cylinder.	**(7)**. Control valve support.
(3). Delivery line (discharging) to the clutch brake.	**(8)**. Pressurized delivery lines (front and rear differential engaged).
(4). Control valve rod oil delivery to solenoid valve **(1)** in PTO synchronized with gearbox position.	**(9)**. Delivery line pressurized (**4WD** disengaged).
(5). **4WD** disengagement command solenoid valve activated.	**(10)**. Outlet line to transmission casing.
	(11). Delivery line from the pump to the services control valve **(7)**.

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