FARMALL® 85U
FARMALL® 95U
FARMALL® 105U

Tractors

SERVICE MANUAL

87758608

CASE IH AGRICULTURE

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The following pages are the collation of the contents pages from each section and chapter of the Farmall 85U, Farmall 95U, Farmall 105U Repair manual. Complete Repair part # 87758608.

The sections used through out all Case IH product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Repair manual and which sections are in each book.

The sections listed above are the sections utilized for the Farmall 85U, Farmall 95U, Farmall 105U Tractors.

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SECTION 00 - GENERAL

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Chapter 1 - General

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SECTION 10 - ENGINE

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Chapter 1 - Engine

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SECTION 10 - ENGINE

BOOK 1 - 87758609

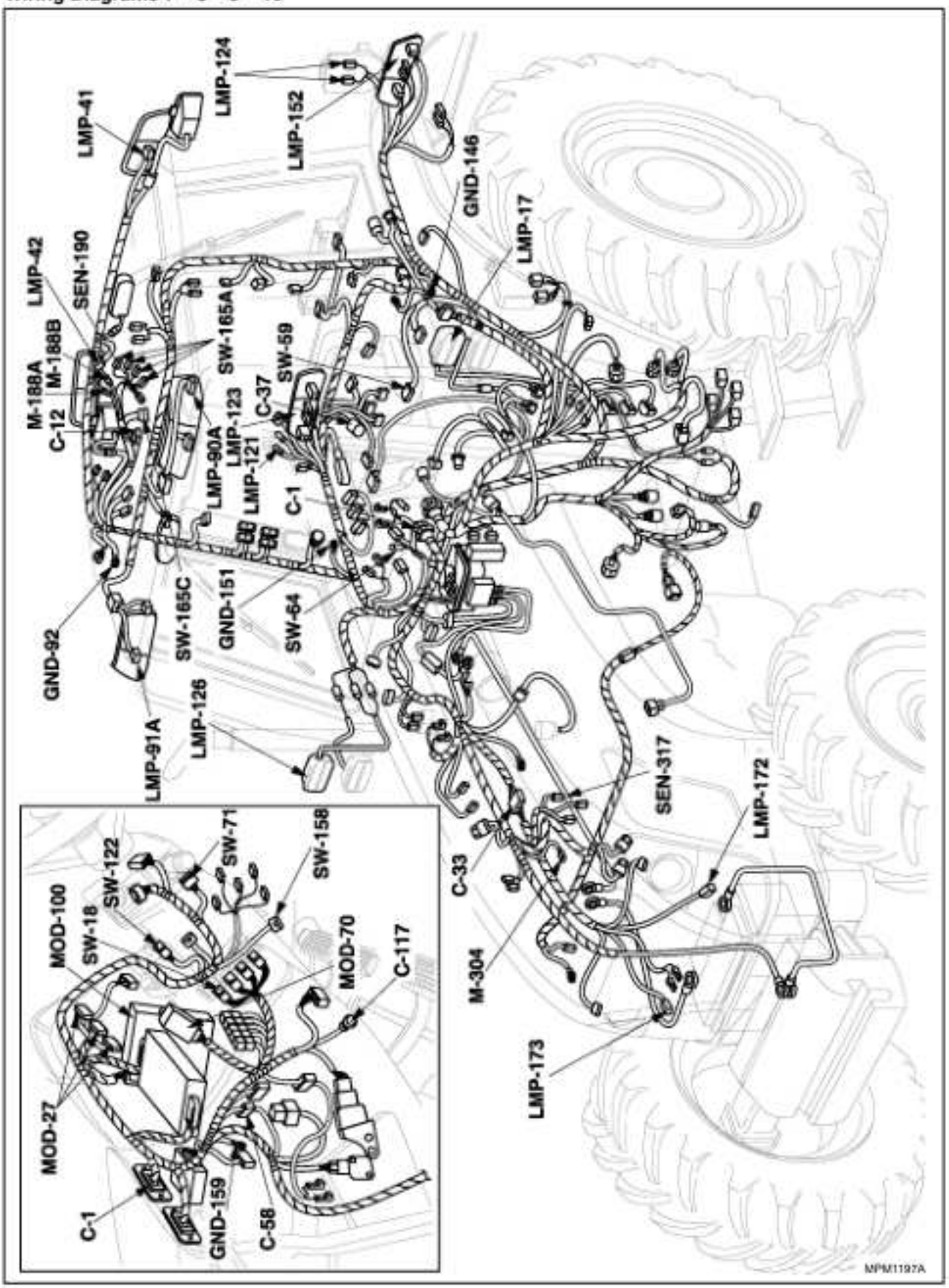
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Error Code 2040 – Inconsistent Range Lever Status Switches (R1 And R2)

Cause:

With the machine running, switches R1 and R2 both off for longer than 3sec.

Effects:

The control unit detects the lever is in neutral even if this has a range engaged, displays the code 2040 and does not disable the transmission.

Possible fault modes:

6. Switches faulty
7. Controller (XCM) trouble

Remedies:

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

1. Ensure that the switches are connected, not damaged, the pins are in the correct position and that the connection to the connector is tight. Repair or replace as necessary.

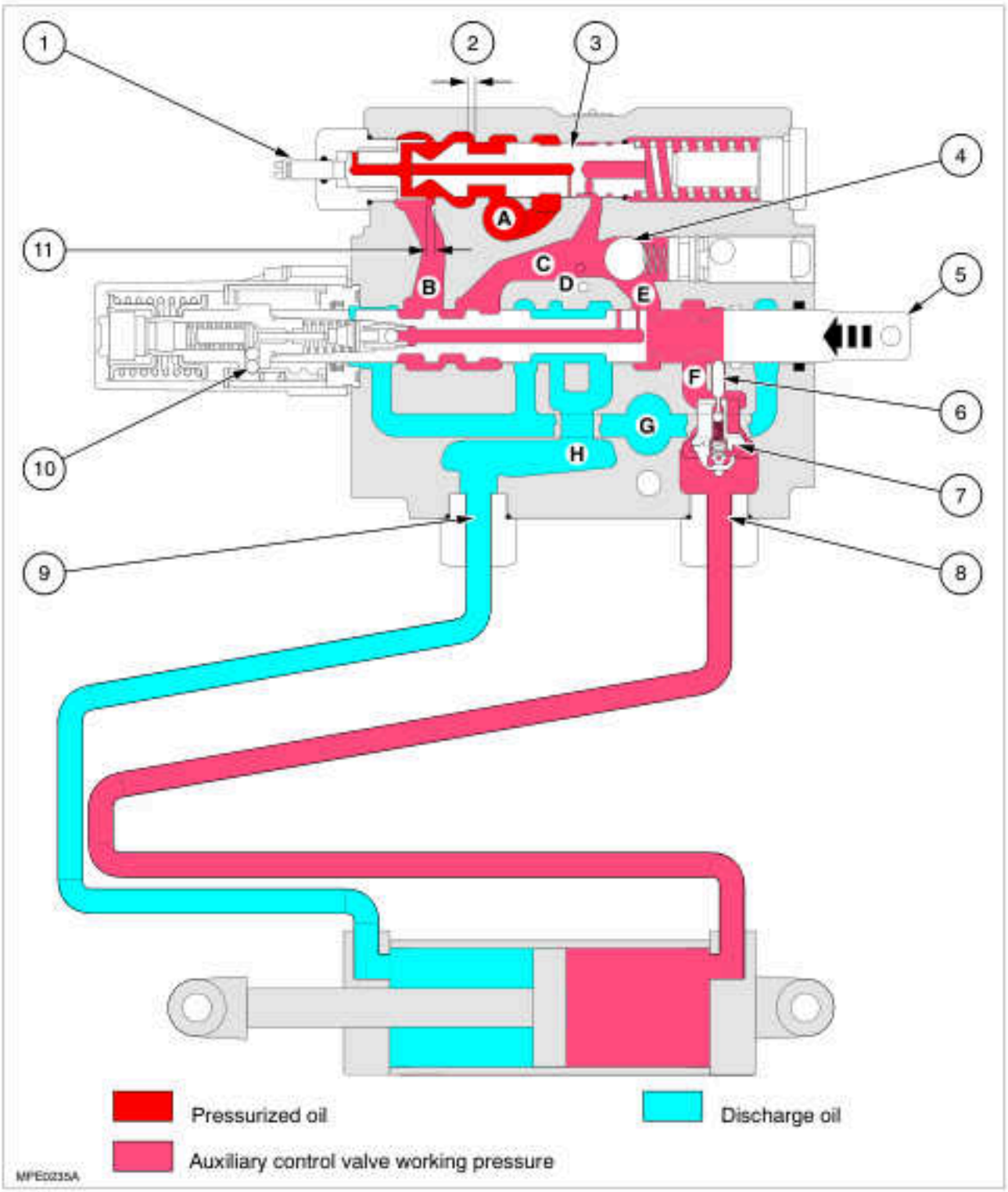
   A. Check the switches:
   (R1) **SW-210**
   Pin **1** wire 1.0 **(S)** → **C-2** pin **36** wire 1.0 **(S)** → **MOD-1/3 (1B)** pin **17** wire 0.5 **(S)**
   5 volt supply switch
   Pin **2** wire 1.0 **(MB)** → **C-2** pin **31** wire 0.5 **(MB)** → **MOD-1/3 (3A)** pin **5** wire 0.5 **(MB)**
   signal to the control unit.
   (R2) **SW-211**
   Pin **1** wire 1.0 **(S)** → **C-2** pin **36** wire 1.0 **(S)** → **MOD-1/3 (1B)** pin **17** wire 0.5 **(S)**
   5 volt supply switch.
   Pin **2** wire 1.0 **(MN)** → **C-2** pin **30** wire 0.5 **(MN)** → **MOD-1/3 (3A)** pin **26** wire 0.5 **(MN)**
   signal to the control unit.
   Repeat the adjustment, described in sect. 21 Chap. 3 (for the "Power shuttle 12X12" transmission) and 4 (for the "Power shuttle transmission with Dual Command (2 Speed Power Shift) functions"), or with the diagnostics program:
   H5 → code **d34** for **R1** and code **d50** for **R2**
   H7 → option transmission channel **ch1**
   H9 → channel **17** for **R1** and channel **18** for **R2**.

NOTE: *With some diagnostics programs it is possible to move the tractor. It is wise to test in motion and on ground that is not level but rather broken. The jolting produced and the vibration of the gear levers must not be enough to accidentally switch over the switches, even for a short time, thus causing this fault code.*

   B. If the switches are okay, download the correct level of software.

NOTE: *Before replacing the control unit (XCM) with this error code, which moreover does not disable the transmission, repeat the adjustment in sect. 21 Chap. 3 or 4, certainly the fact that the switches change status during the movement is eliminated. Physical breakage of the switches will display codes 2016 and 2017 for R1, 2017 and 2018 for R2 at the next start, when they will be replaced (especially if the transmission is disabled) or, if they are okay, the control unit replaced.*

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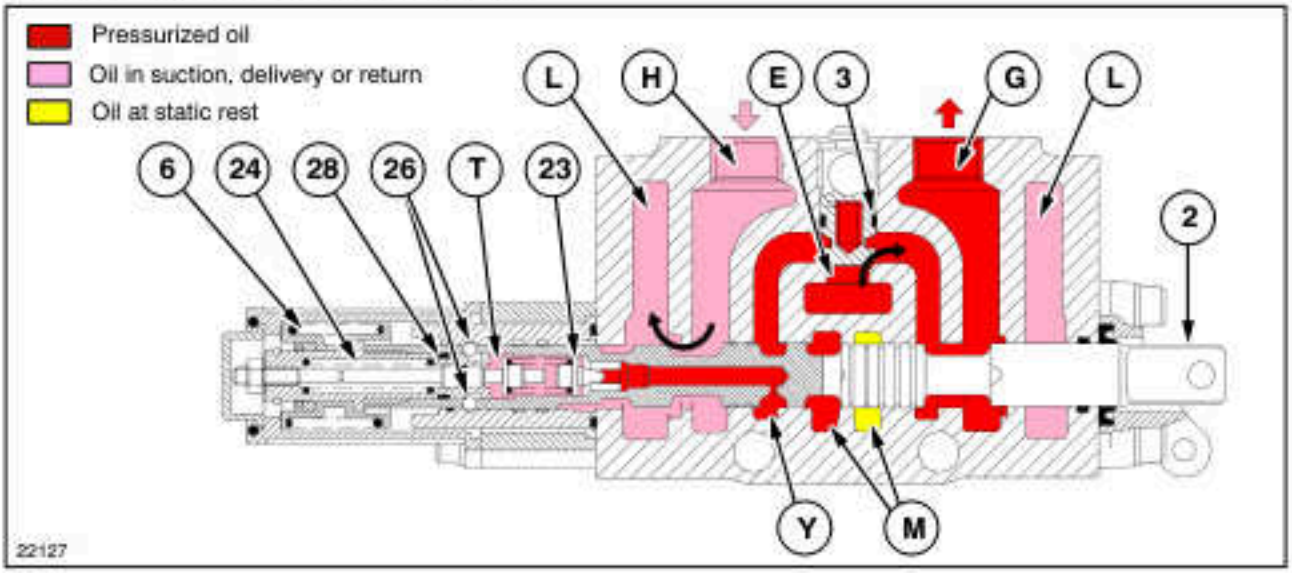
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Auxiliary control valve operation - Lifting (cylinder extension)

1. Flow control valve adjuster
2. Metering Land
3. Flow regulator
4. Load check valve
5. Control pin
6. Roll Pin
7. Lock Valve
8. Lifting duct (cylinder extension)
9. Lowering duct (cylinder retraction)
10. Centering pin and release mechanism
11. Manually adjusted flow rate throttle

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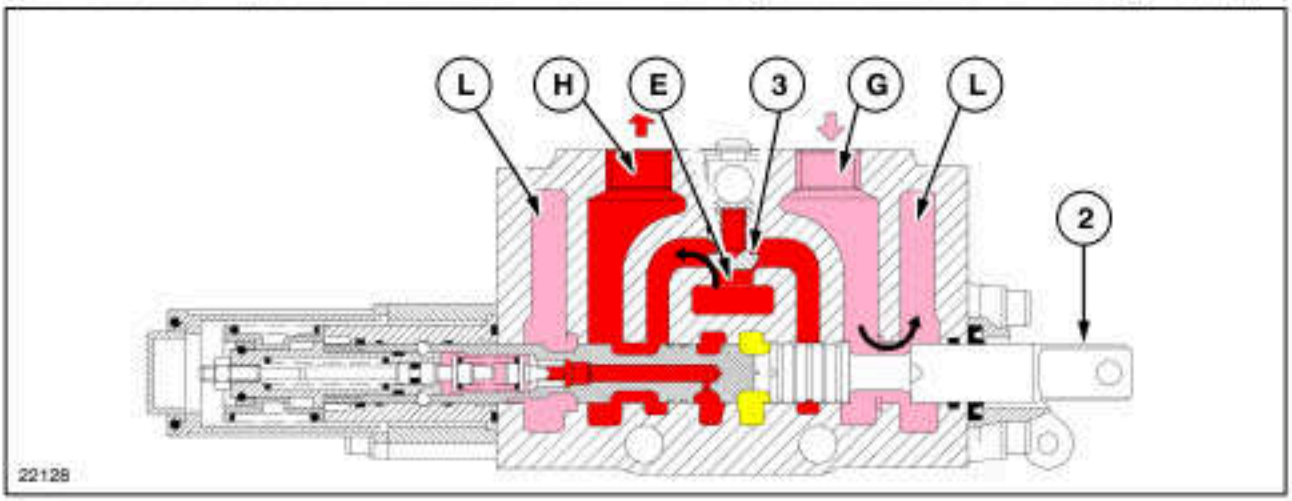
Operating Stages of Auxiliary Control Valve for the Operation of a Single/Double-acting Cylinder With Automatic Detent Release and Float



8

Lifting

On pulling back the control lever (located in the cab), the control valve stem (2) shifts and the detent balls (26) engage the left hand groove, where they are held in place by the support (28) and spring (24) The movement of the spool (2) connects: delivery line (E) with the lower chamber of the cylinder, by way of the check valve (3) and the line (G), and also the upper cylinder chamber with the exhaust line (L) by way of line (H), intercepting the supply of oil to the hydraulic lift control valve. On completion of the lifting movement, the oil pressure increases to 170 to 175 bar (2465.642 to 2538.16 psi), acting through the port (Y), it overcomes the resistance of the spring of the tapered cap (23). Inside chamber (T) the oil pressure increases and, acting on the support (28), it overcomes the resistance of the spring, thus moving the support (28). In this condition the two detent balls (26) drop onto the support (28), releasing the stem (2) which, under the action of the spring (6), returns to the neutral position, and consequently the entire flow from the pump is conveyed to the lift control valve through lines (M).



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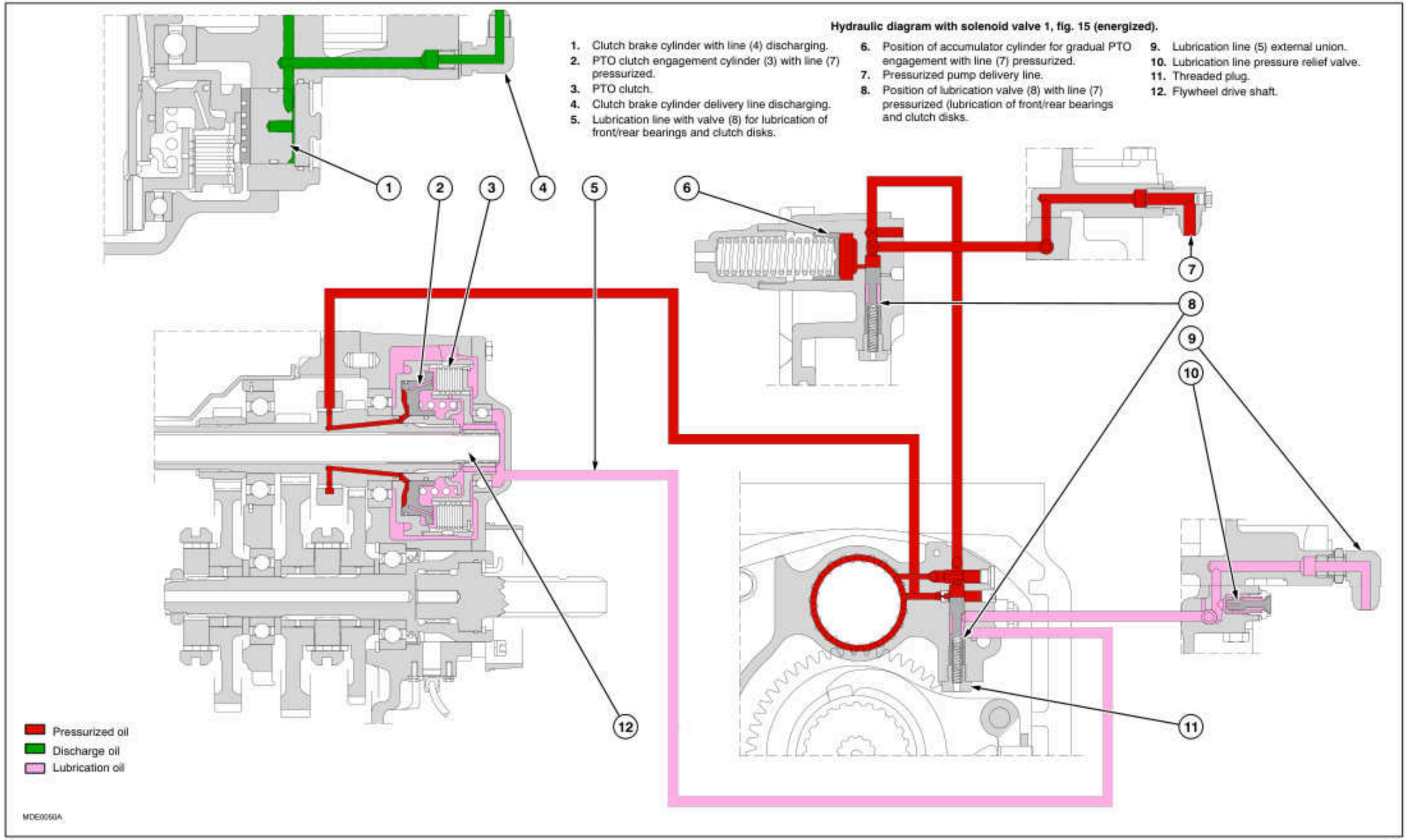
Lowering

To lower the implement, push forward the control lever (in the cab). The control valve stem (2) shifts and the detent balls (26) engage in the central groove where they are held in position by the support (28) and the spring (24). In this condition the oil contained in the lower chamber of the cylinder can flow to the exhaust (L) by way of line (G), while the upper chamber is connected with the delivery (E) by way of line (H) and check valve (3). On completion of the lowering operation, the detent will be automatically released in the manner described previously.

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Hydraulic diagram with solenoid valve 1, fig. 15 (energized).

1. Clutch brake cylinder with line (4) discharging.
2. PTO clutch engagement cylinder (3) with line (7) pressurized.
3. PTO clutch.
4. Clutch brake cylinder delivery line discharging.
5. Lubrication line with valve (8) for lubrication of front/rear bearings and clutch disks.
6. Position of accumulator cylinder for gradual PTO engagement with line (7) pressurized.
7. Pressurized pump delivery line.
8. Position of lubrication valve (8) with line (7) pressurized (lubrication of front/rear bearings and clutch disks.
9. Lubrication line (5) external union.
10. Lubrication line pressure relief valve.
11. Threaded plug.
12. Flywheel drive shaft.



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