JX80U
JX90U
JX70U
JX100U
Tractors

SERVICE MANUAL

87020289

CASE IH AGRICULTURE

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JXU SERIES REPAIR MANUAL
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The following pages are the collation of the contents pages from each section and chapter of the JXU Series Repair manual. Complete Repair part # 87020289.

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 JXU Series Tractors.

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SECTION 00 - GENERAL INFORMATION

BOOK 1 - 87020290

Chapter 1 - General Information

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SECTION 10 - ENGINE

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Chapter 1 - Clutch

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CHECKS, DIMENSIONS AND REPAIRS - LUBRICATION SYSTEM

WARNING

Handle all parts carefully. Do not put your hands or fingers between parts. Wear suitable safety clothing - safety goggles, gloves and shoes.

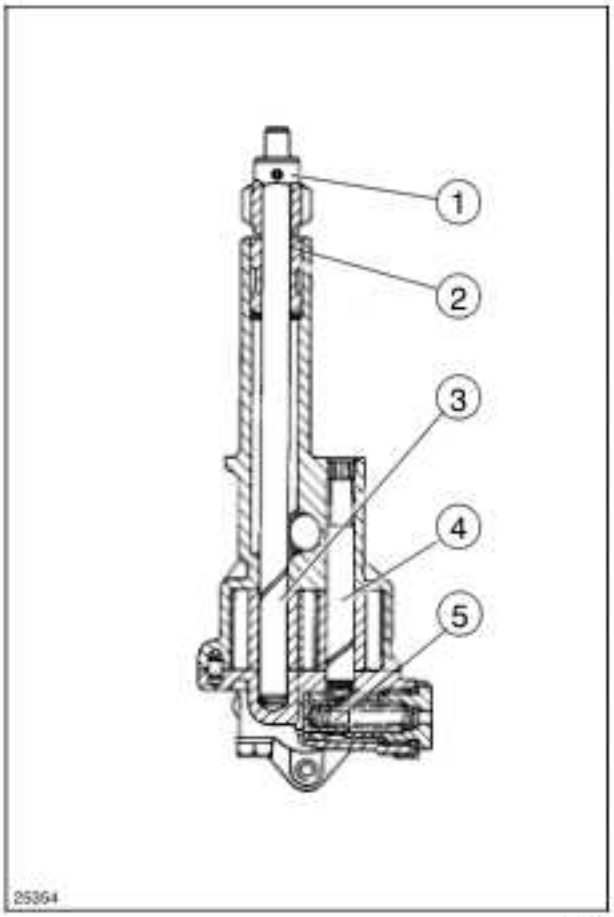
Clean all parts carefully before proceeding with the operations described below.

OIL PUMP - Overhaul

To access the oil pump, remove the sump pan.

When servicing the pump, check component wear against the dimensions specified in the table on page 12.

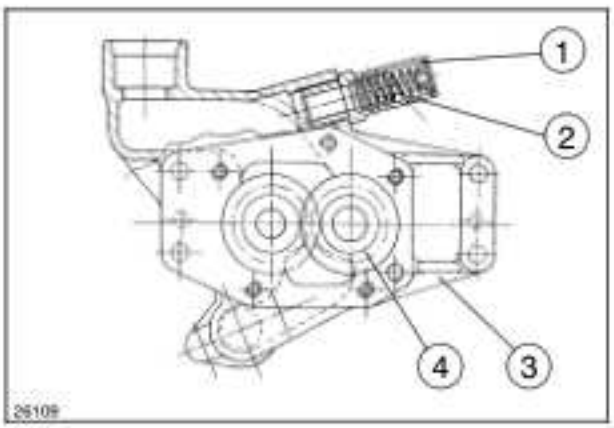
In case of replacement, note that the drive shaft (3) and drive gear are supplied ready assembled, with the gear hot force-filled on the shaft.



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Cross-sectional view of engine lubricating oil pump Models JX70U and JX80U.

1. External drive gear.
2. Bush.
3. Drive shaft and gear.
4. Driven shaft and gear.
5. Pressure relief valve.



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Cross-sectional view of engine lubricating oil pump Models JX90U and JX100U.

1. Pressure relief valve.
2. Spring.
3. Pump body.
4. Internal gears.

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2 SPEED POWER SHIFT TROUBLESHOOTING (REAR CLUTCH)

(continued)

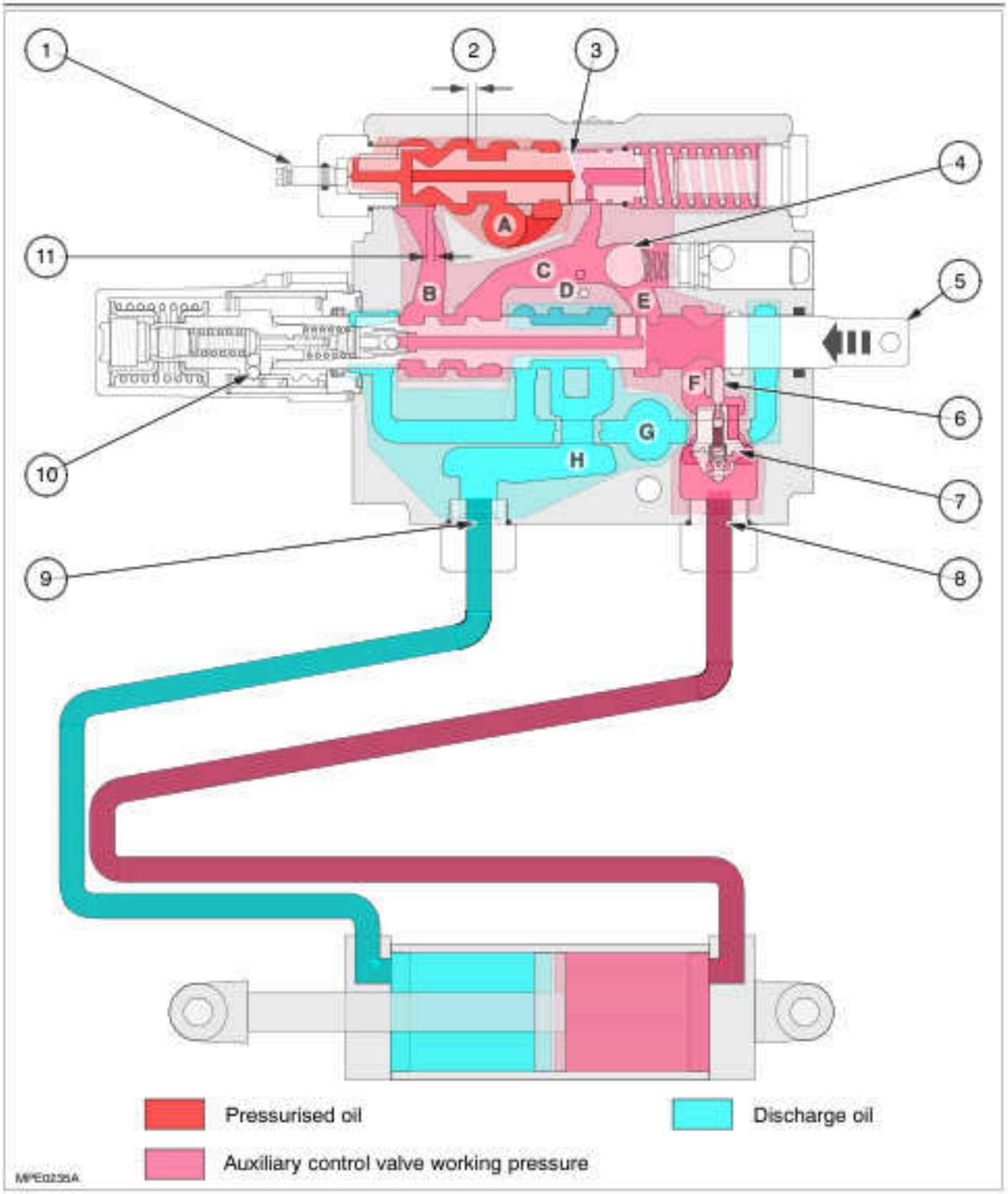
Problems	Possible causes	Solutions
Front clutch does not engage: the low gears do not work on the 18.64 mph (30 km/h) version the high gears do not work on the 24.85 mph (40 km/h) version.	**1.** Transmission oil level insufficient.	Top up oil level.
	2. Oil filter clogged.	Replace filter.
	3. Hydraulic pump faulty.	Overhaul or replace pump.
	4. Switch faulty.	Replace switch.
	5. No power at electro-magnet: connections disconnected, damaged or contactor faulty.	Check electrical connections or replace defective parts.
	6. 2 Speed Power Shift with reverse gear engaged safety switch faulty.	Adjust correctly or replace switch.
	7. Solenoid valve (12, fig. 4) jammed.	Overhaul or replace the solenoid valve.
	8. Oil leakage through seals, leading to drop in pressure: O-ring on piping, O-ring on pistons and seal segments.	Replace all defective seals.
Engagement delay because of rear clutch slipping.	**1.** Rear clutch disks worn.	Replace the disks.
	2. Oil leakage through seals, leading to drop in pressure: O-ring on piping, O-ring on pistons and seal segments.	Replace all defective seals.
Rear clutch remains engaged.	**1.** Switch faulty.	Replace switch.
	2. No power at electro-magnet: connections disconnected, damaged or contactor faulty.	Check electrical connections or replace defective parts.
	3. Solenoid valve (12, fig.4) jammed.	Overhaul or replace the solenoid valve.

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POWER SHUTTLE (24 + 24) ELECTRONIC CONTROL UNIT INPUT/OUTPUT CIRCUIT (Diagram W)

1 Starter switch. 1a: starter function - 1b. gear function
2 Starter relay
3 Shuttle control lever
4 Clutch control pedal switch
5 Clutch control pedal switch
6 HIGH speed ON indicator signal
7 LOW speed ON indicator signal
8 Transmission alarm indicator light
9 Clutch A (forward gears) solenoid valve
10 Clutch B (forward gears) solenoid valve (reverse gears
11 Clutch C control solenoid valve
12 Clutch D control solenoid valve
13 Speed sensor amplified signal
14 Bodywork ground
15 Sensors ground
16 Power ground
17 Connection for Troubleshooting unit **294084**
18 Pushbutton ▲
19 Pushbutton ▼
20 HMENU selection pushbutton
21 Troubleshooting unit **294084**
22 Speed sensor
23 Engine revs counter (alternator)
24 Transmission oil temperature sensor
25 Driving seat safety switch
26 Safety pressure switch B
27 Safety pressure switch A
28 Range status sensor switch (R2)
29 Range status sensor switch (R1)
30 Gear status sensor switch
31 Parking brake ON switch
32 LOW speed control pushbutton
33 HIGH speed control pushbutton
34 Shuttle lever in reverse gears selection position
35 Shuttle lever in forward gears selection position
36 Clutch pedal potentiometer signal
37 Sensors power supply (+5V)
38 Emergency cable for "limp home" after electrics breakdown
39 Battery

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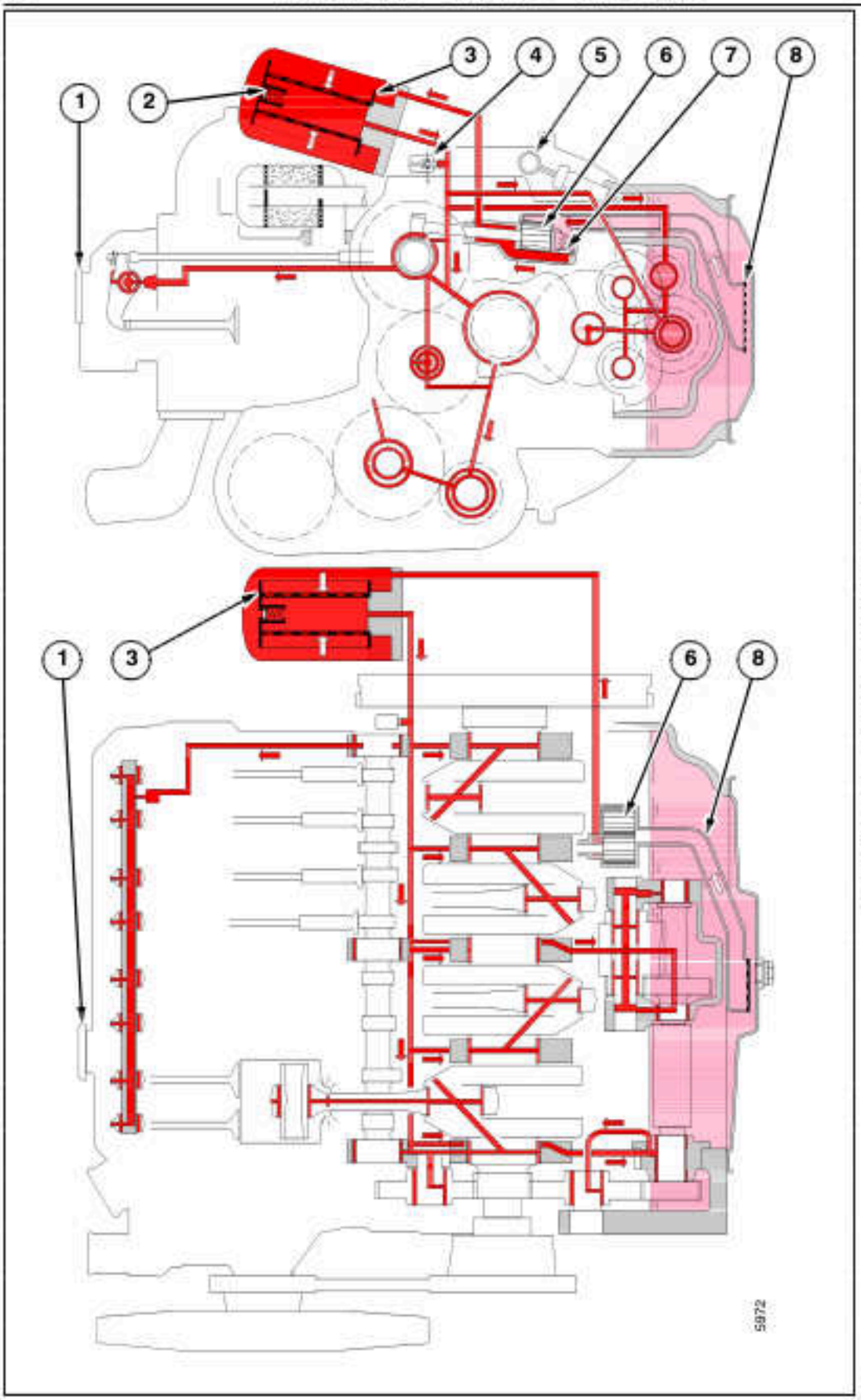


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Auxiliary control valve operation - Lifting (cylinder extension)

1. Flow control valve adjuster
2. Groove
3. Flow Control
4. Check valve
5. Control pin
6. Pin
7. Lockout 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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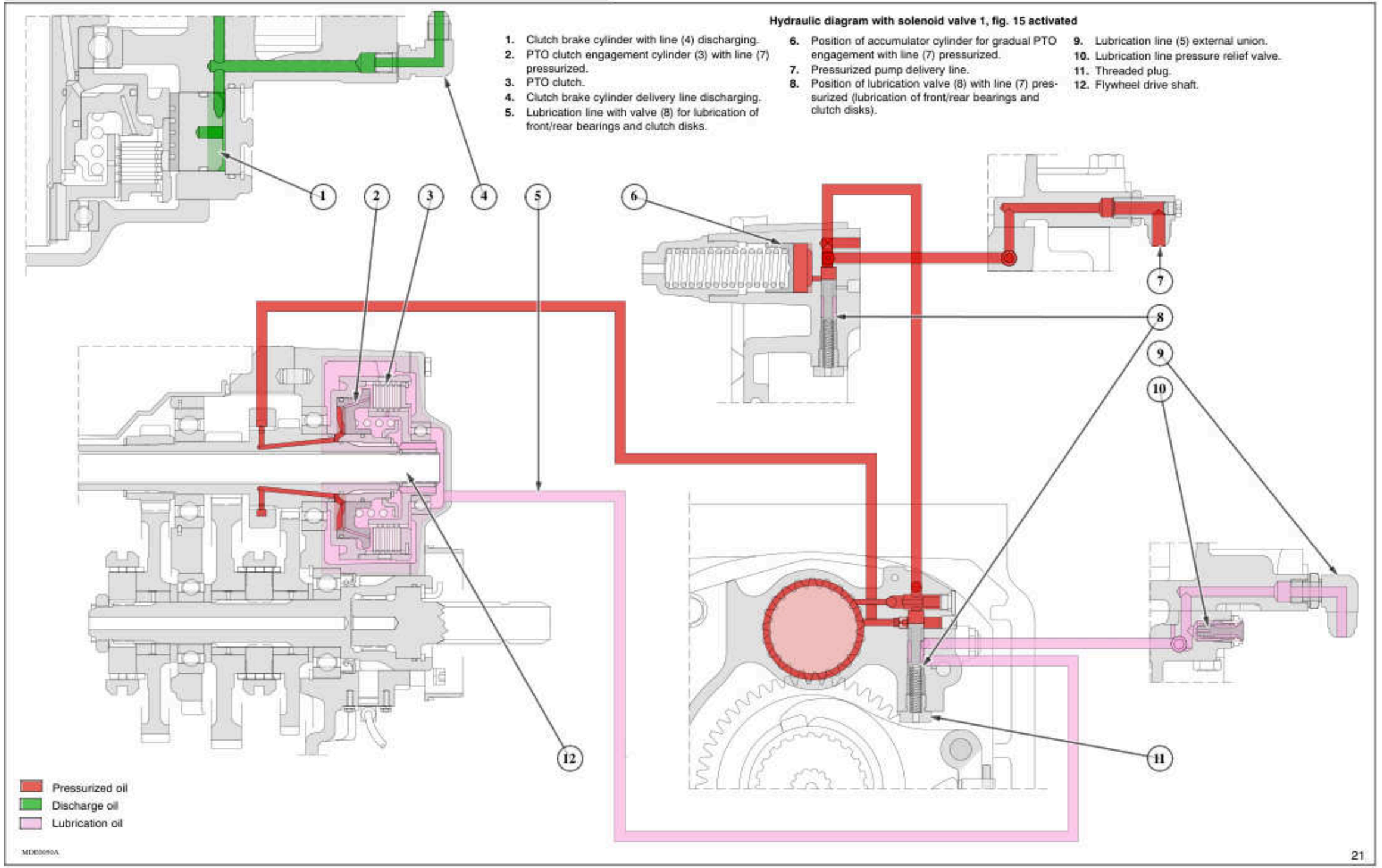
4-cylinder engine lubrication system diagram

1. Oil filler cap - 2. Filter safety valve (intervenes when the oil pressure at the filter infeed exceeds the outfeed pressure by 21.75-24.66 psi (1.5-1.7 bar) - 3. Filter - 4. Engine lubrication oil low pressure indicator light switch (on dashboard) - 5. Dipstick - 6. Pump - 7. Oil pressure limiting valve - 8. Mesh filter on intake

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Hydraulic diagram with solenoid valve 1, fig. 15 activated

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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