# JX1080U
# JX1090U
# JX1100U
## Tractors

# SERVICE MANUAL

**87054727**

CASE IH AGRICULTURE

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# JX1080U, JX1090U, JX1100U
# REPAIR MANUAL
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**The following pages are the collation of the contents pages from each section and chapter of the JX1080U, JX1090U, JX1100U Repair manual. Complete Repair part # 87054727.**

**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 JX1080U, JX1090U, JX1100U Tractors.**


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# SECTION 00 - GENERAL

**BOOK 1 - 87054728**

## Chapter 1 - General

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# SECTION 10 - ENGINE

**BOOK 1 - 87054728**

## Chapter 1 - Engine

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# SECTION 10 - ENGINE

**BOOK 1 - 87054728**

## Chapter 1 - Engine (Continued)

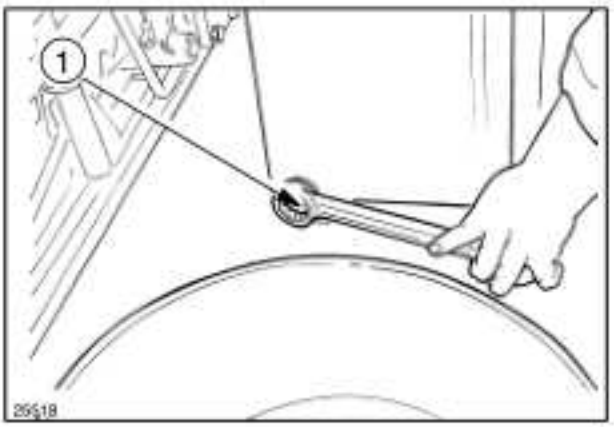
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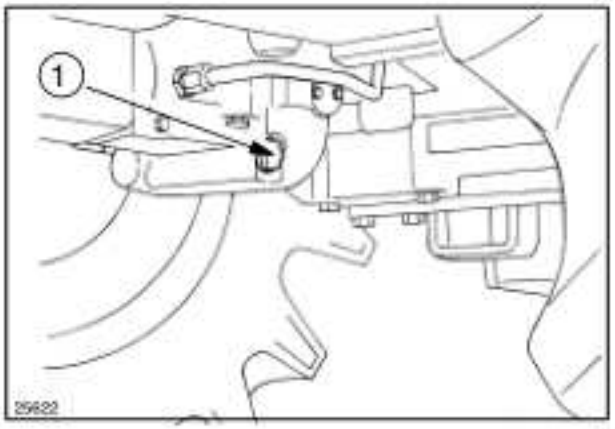

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4. Remove the plug (1) and drain the tank; recover the fuel in a container positioned under the tank. (tank capacity is 29 gallons).



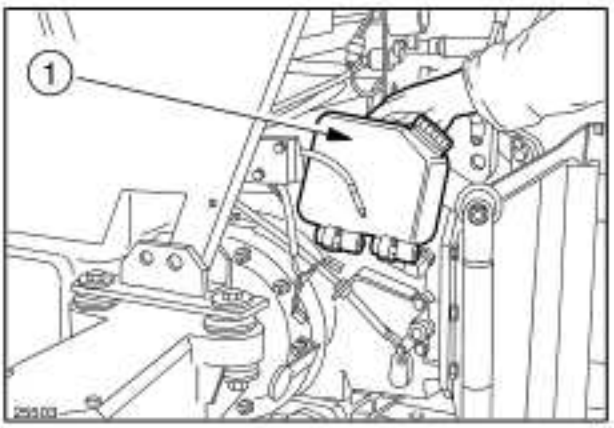

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5. Remove the plug (1) and drain the oil from the gearbox/transmission casing.



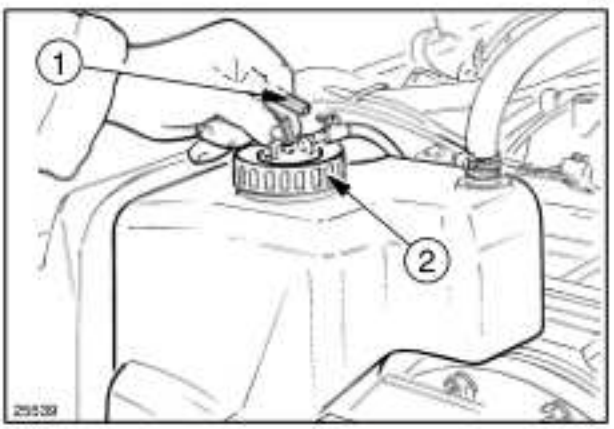

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6. Detach the window washer tank (1) together with the relative electrical connections.




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7. Disconnect the electrical connections (1) on the floating cap (2).




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**HORN, SENSORS AND TRANSMITTERS CIRCUIT**
**(Diagram S)**

2 Engine coolant temperature sensor
4 Sediment unit filter sensor
8 Horn
12 Air filter clogged sensor
15 Fuses and relay control unit
F11
F14
F13
F15
F17
18 Brake fluid level sensor
22 Instrument panel (ADIC)
62 PTO speed sensor
67 Fuel level transmitter
82 Engine oil pressure sensor
86 Gearbox oil indicator lamp pressure switch
87 Alternator
89 External lights control switch
90 Electronic instrument CAL/SEL control switch
111 Electronic lift connection
127 Lift status switch
142 Engine speed sensor
155 Front main connection (51 PIN - PURPLE)
156 Transmission system connection (51 PIN - GREEN)
160 Starting advance thermometric cut-out switch

▲ See diagram T.

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## ERROR CODE 2029 - CLUTCH A NOT CALIBRATED

**Effects:**

Poor clutch performance of the uncalibrated clutch.

**Possible failure modes:**

1. Transmission not calibrated
2. Faulty clutch A solenoid
3. Faulty hydraulic circuit
4. Mechanical fault

**Solution:**

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

1. Check if the transmission was calibrated.

   A. If the transmission was not calibrated after a replacement of the controller, or after using H8, clear the Electrical Erasable Programmable Read Only Memory (EEPROM), and perform the transmission calibration procedure.

   B. If the transmission was calibrated, download the correct level of software and re-perform the calibration procedure. If the fault re-occurs again, continue to step 2.

2. Check for other error codes being displayed.

   A. If any other error codes are being displayed, continue to these tests.

   B. If no other error codes are displayed, continue to step 3.

3. Check the solenoid of the faulty clutch.

   A. Remove the solenoid, clean or replace as required.

   B. If the error code is still displayed, continue to step 4.

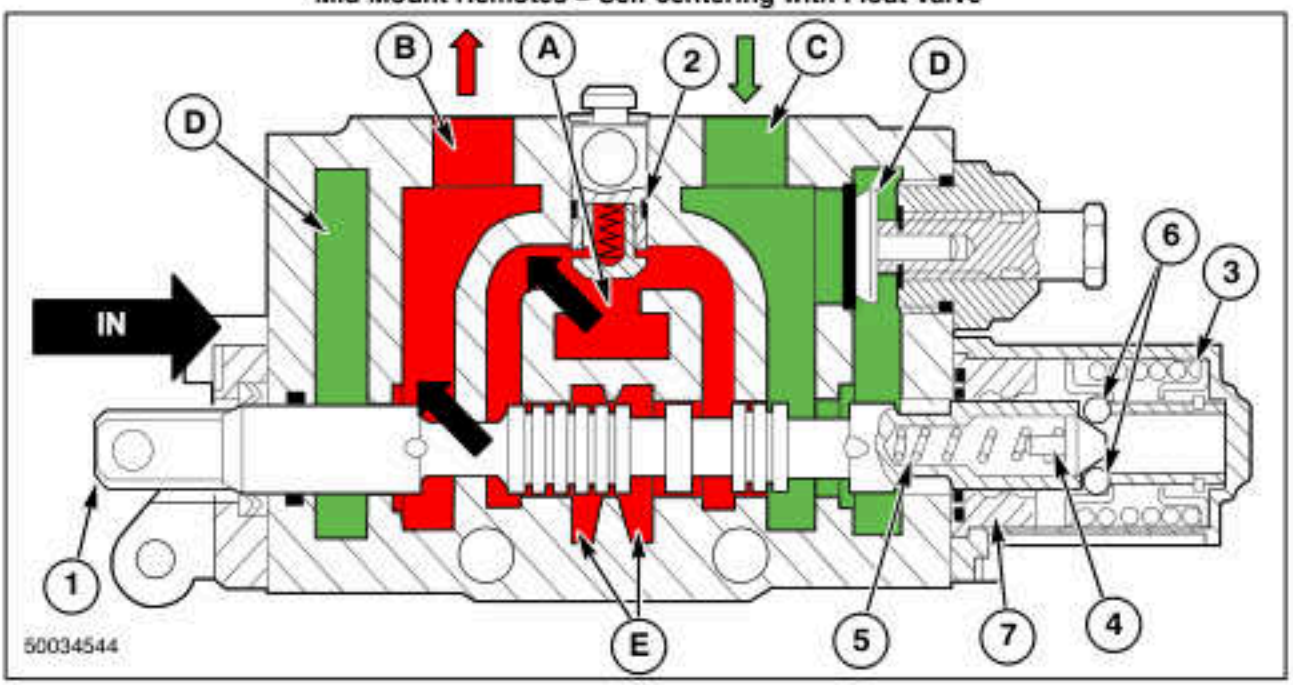
4. Check the clutch pack pressures.

   A. If the pressures indicated are approximately 16 bar (232 psi), possible mechanical fault within the transmission. If the pressures are low on all of the clutches, continue to hydraulic troubleshooting procedures.

   B. If the pressures indicated are not approximately 16 bar (232 psi) on one or more of the clutches. Suspect possible transmission internal leakage.

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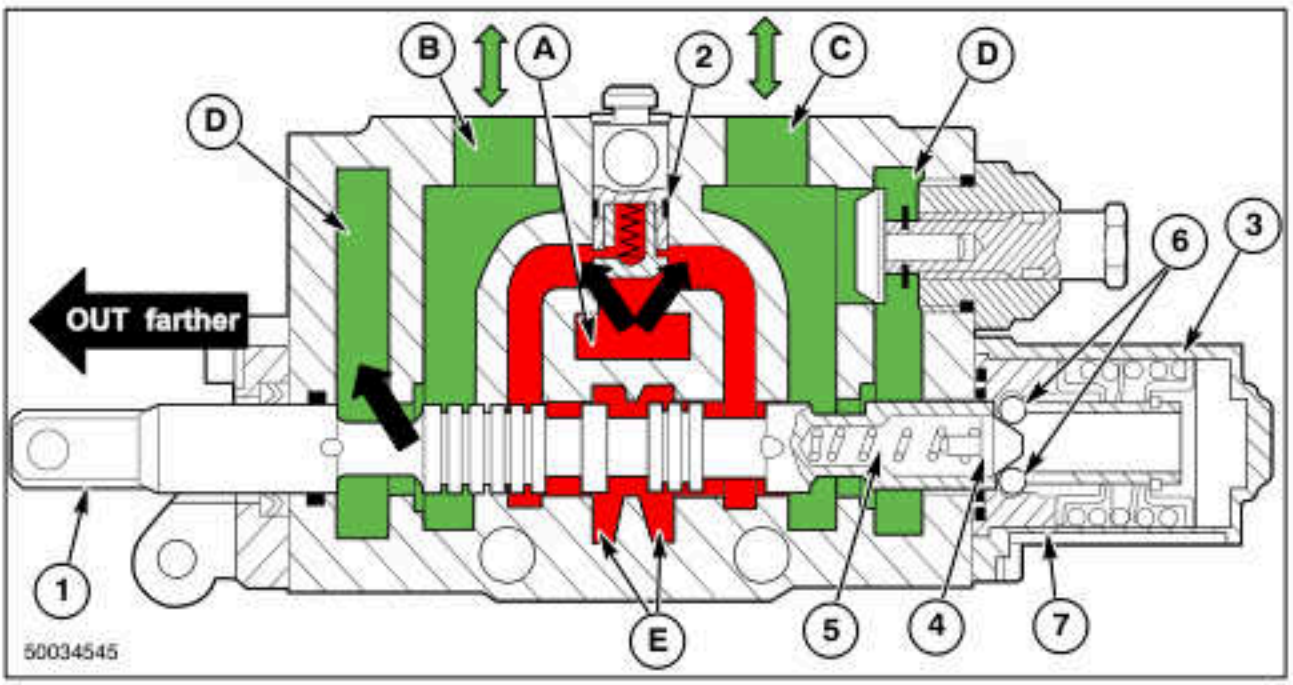
**Mid Mount Remotes = Self-centering with Float Valve**




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**Double-Acting RAISING Operation**

1. Spool
5. Float Spring
B. Raising Port
E. To Rear Remotes or Lift (open center passage)
2. One Way Check Valve
6. Detent Balls
C. Lowering Port
3. Return Spring
7. Support
D. Discharge Port
4. Float Poppet
A. Inlet Port

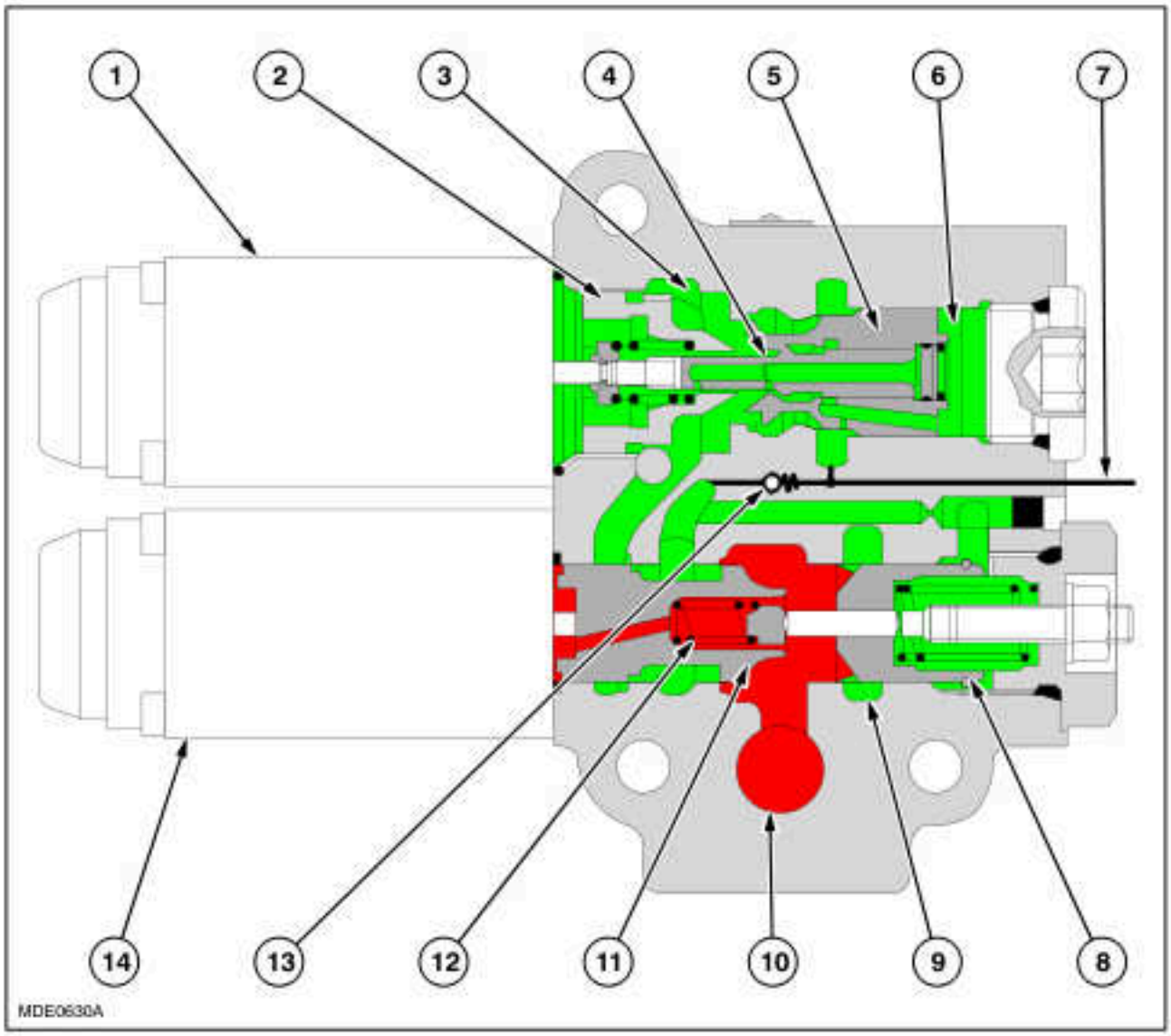



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**Double-Acting FLOATING Operation**

1. Spool
5. Float Spring
B. Raising Port
E. To Rear Remotes or Lift (open center passage)
2. One Way Check Valve
6. Detent Balls
C. Lowering Port
3. Return Spring
7. Support
D. Discharge Port
4. Float Poppet
A. Inlet Port

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**Electronic draft control functional diagram. Lowering phase**

1. Lowering solenoid valve.
2. Lowering valve fixed seat.
3. Discharge chamber.
4. Lowering valve actuator.
5. Lowering valve.
6. Lowering valve chamber.
7. To lifting cylinder.
8. Pressure compensating valve.
9. Excess pressure discharge chamber.
10. Oil from pump.
11. Lifting valve.
12. Valve calibration spring (11).
13. Non-return valve.
14. Lifting solenoid valve.

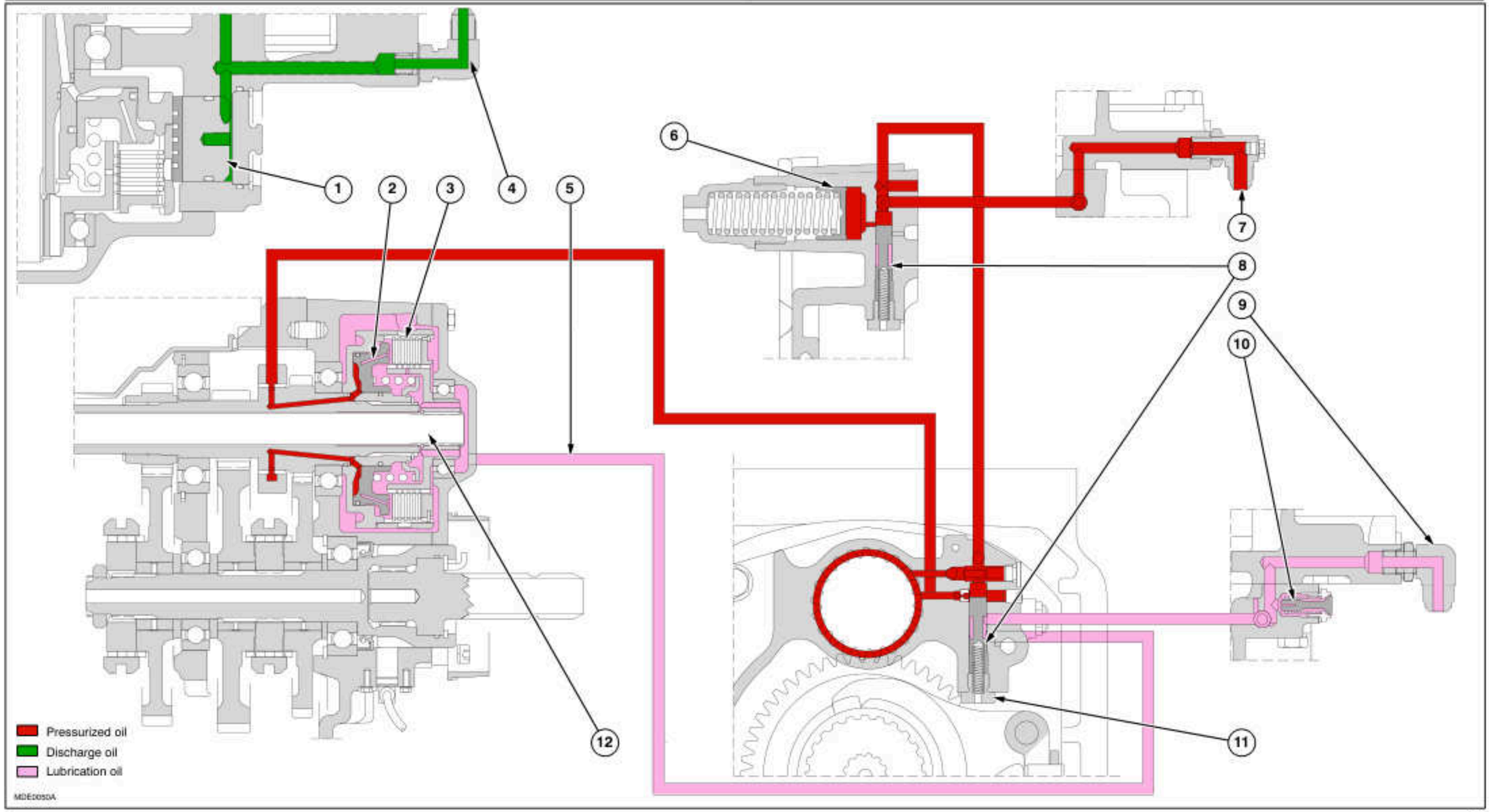
Pressurized oil.

Discharge oil.

### Lowering Phase

The solenoid valve (1) overcomes the resistance of the relative spring and moves the actuator (4) inside the lowering valve (5). This allows the oil from chamber (6) to discharge through chamber (3), thereby decreasing the pressure inside chamber (5). In these conditions the oil pressure generated by the implement on the lifting cylinder, through the duct (7), will move the lowering valve (5) permitting the oil from the lifting cylinder to discharge through the chamber (3). The oil from pump (10) meets the closed lifting valve (11), therefore the full pump delivery will be discharged in chamber (9).

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**PTO (ON) / PTO BRAKE (OFF)**

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. Lubrication Valve
12. Accumulator Spring


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