

# NEW HOLLAND
# T5040
# T5050
# T5060
# T5070
# Tractors

# REPAIR MANUAL

NEW HOLLAND AGRICULTURE

SERVICE

84195945

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# T5040, T5050, T5060, T5070
# REPAIR MANUAL
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**The following pages are the collation of the contents pages from each section and chapter of the T5040, T5050, T5060, T5070 Repair manual. Complete Repair part # 84195945.**

**The sections used through out all New Holland 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 T5040, T5050, T5060, T5070 Tractors.**


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# SECTION 00 - GENERAL

BOOK 1 - 87758575

## Chapter 1 - General

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# SECTION 10 - ENGINE

**BOOK 1 - 87758575**

## Chapter 1 - Engine

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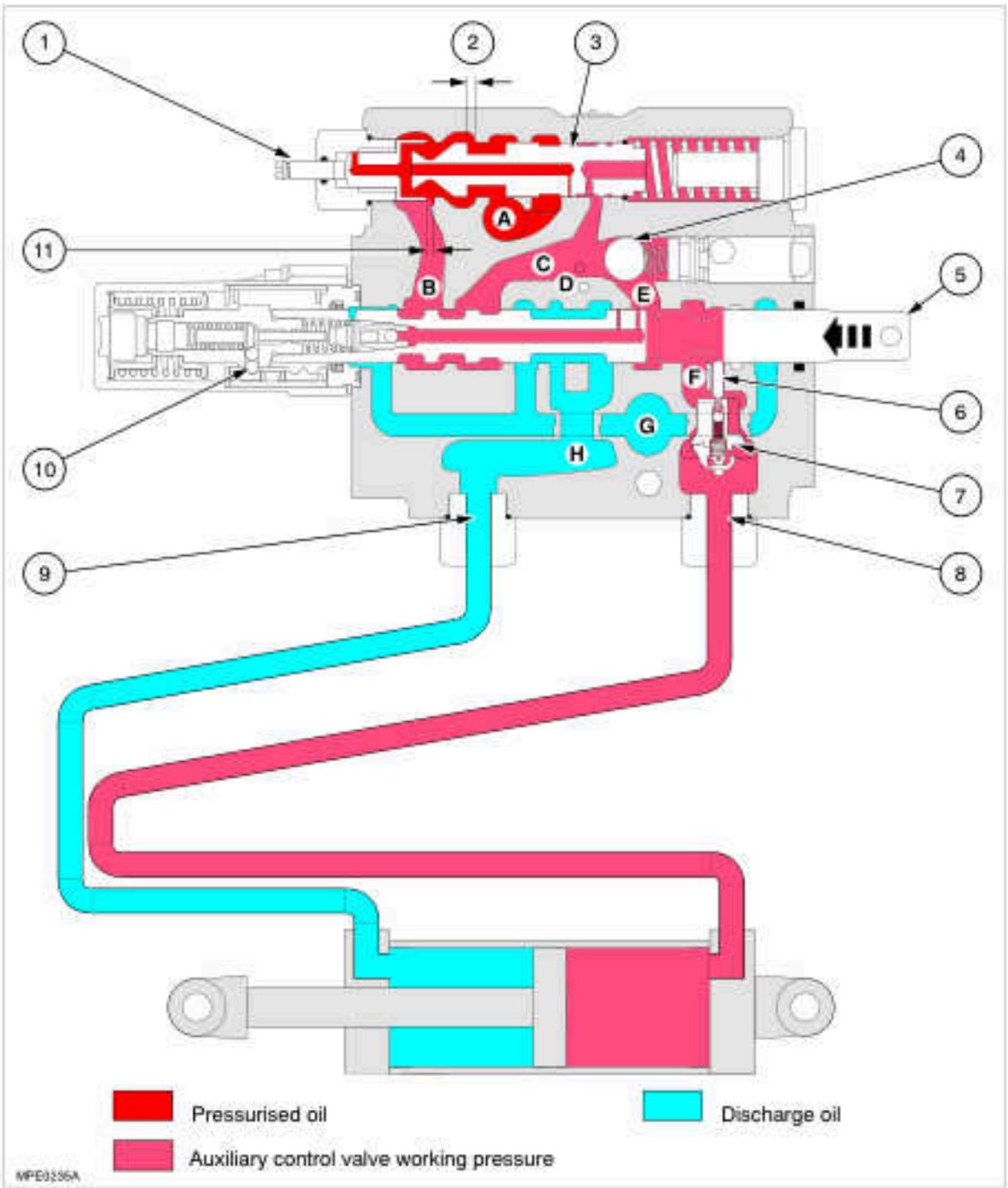



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**TROUBLESHOOTING (continued)**

| Problems | Possible Cause | Solutions |
|---|---|---|
| **The engine produces abnormal smoke: black or dark grey.** | Maximum delivery of injection pump too high. | Calibrate pump on test bench to values specified in calibration tables. |
| | Injection pump delivery excessively retarded or automatic advance regulator damaged. | Adjust injection pump timing or check automatic advance regulator. |
| | Injection pump delivery excessively advanced. | Adjust injection pump timing on the engine. |
| | Injectors partially or totally obstructed or incorrectly adjusted. | Clean, overhaul and calibrate injectors; if necessary, replace. |
| | Air filter clogged. | Clean the assembly and, if necessary, replace the filtering element. |
| | Loss of engine compression due to:<br>- piston rings sticking;<br>- cylinder liner wear;<br>- worn or incorrectly adjusted valves. | Replace damaged parts or, if necessary, overhaul the engine. |
| | High-pressure fuel lines damaged. | Inspect and replace if necessary. |
| **Blue, grey-blue or grey-white smoke.** | Injection pump delivery excessively retarded or automatic advance regulator damaged. | Adjust injection pump timing or check automatic advance regulator. |
| | Injectors obstructed or damaged. | Clean, overhaul and calibrate injectors, replace if necessary. |
| | Oil leaking past piston rings due to sticking rings or cylinder liner wear. | Replace damaged parts or, if necessary, overhaul the engine. |
| | Oil leaking through the inlet valve guides due to guide or valve stem wear. | Overhaul cylinder head. |
| | Engine does not reach correct operating temperature (thermostat faulty). | Replace thermostat. |
| **Engine runs on after switching off.** | Engine stop electromagnet damaged. | Replace electromagnet. |
| | All-speed governor damaged. | Overhaul injection pump and adjust on test bench to values specified in calibration table. |

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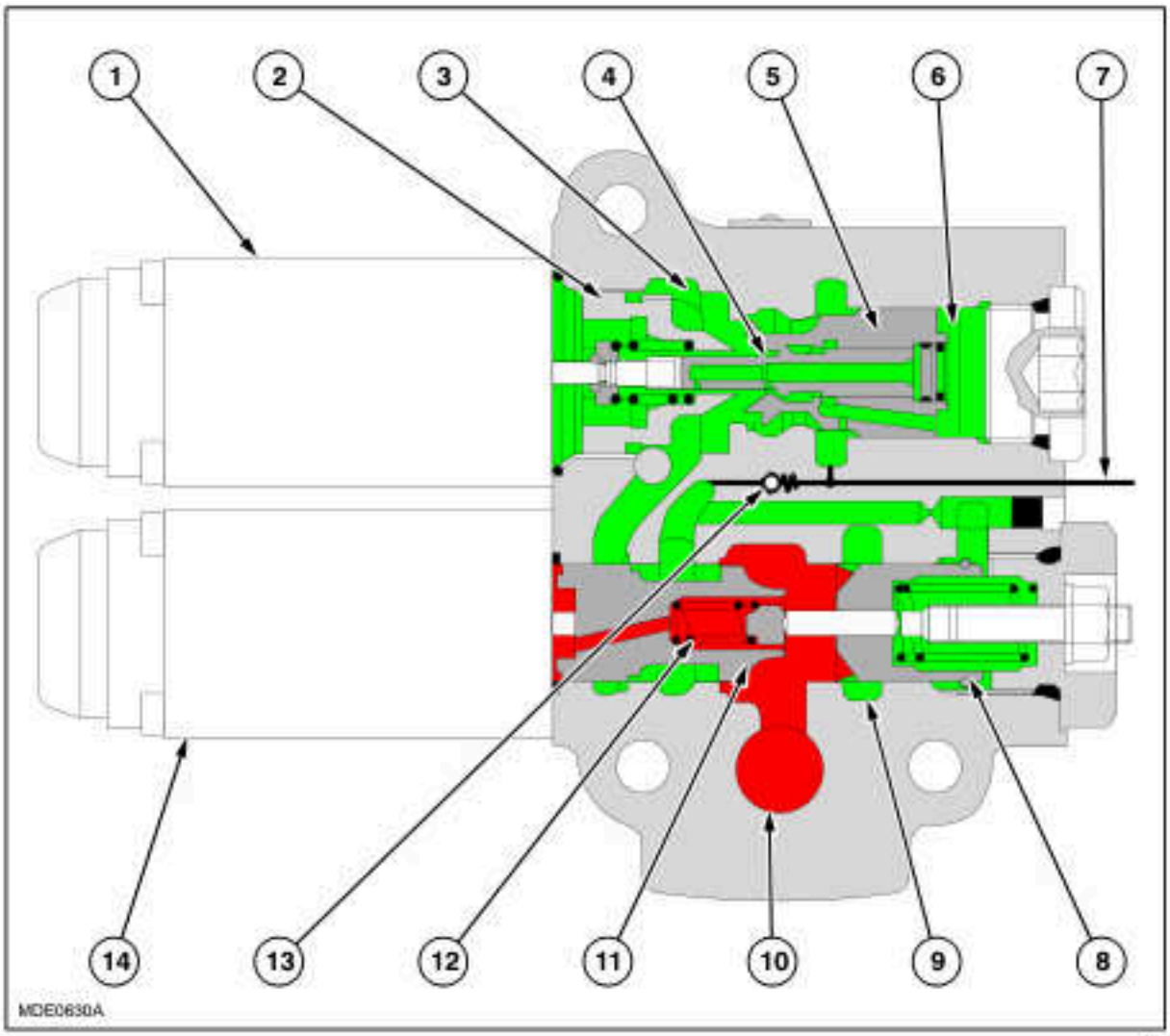



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**Auxiliary control valve operation - Lifting (cylinder extension)**

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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**Electronically controlled lift functional diagram. Lowering phase**

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

Pressurized oil.

Discharge oil.

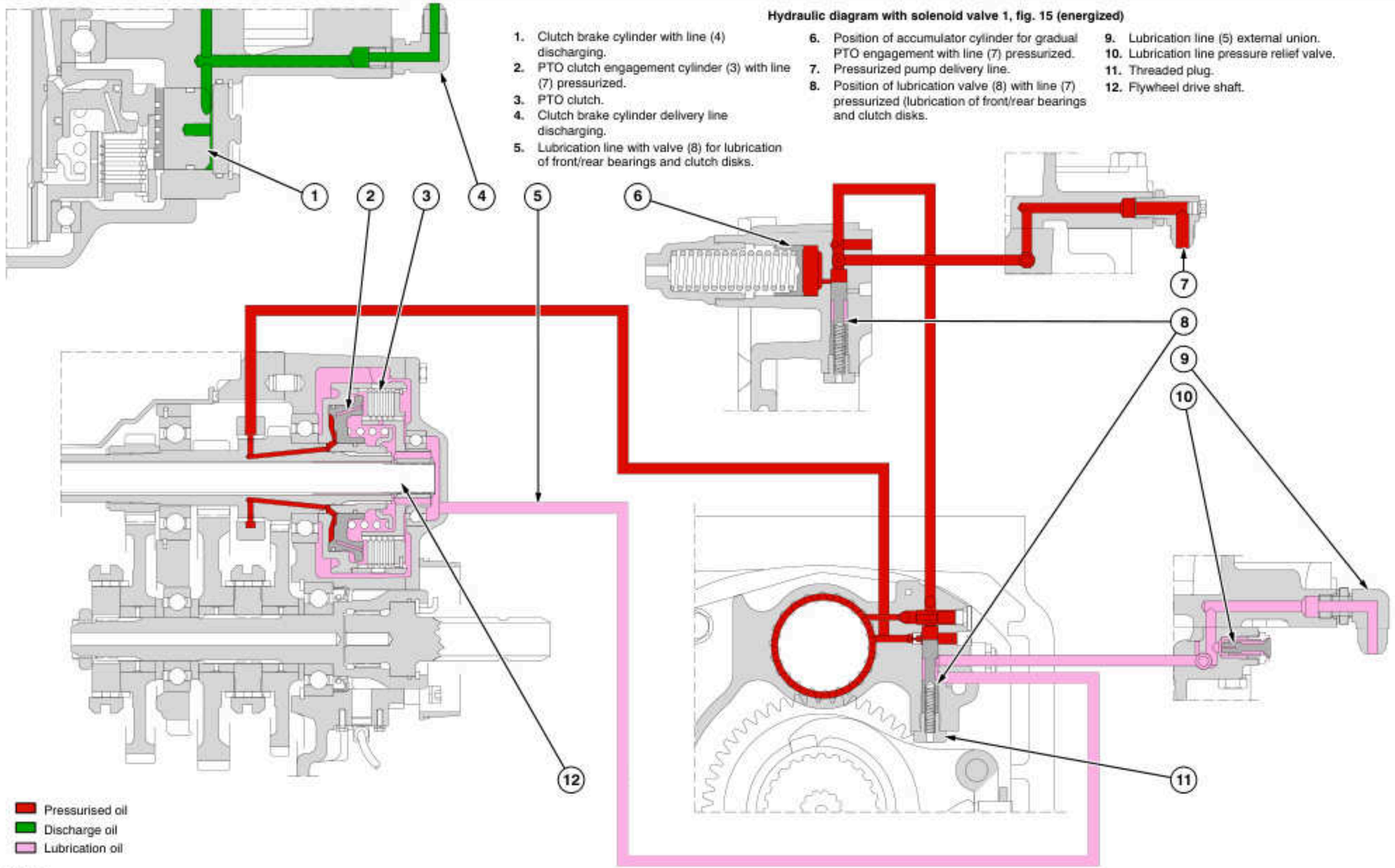
## LOWERING PHASE

The solenoid valve (1) overcomes the resistance of the relative spring and, initially, moves the actuator (4) inside the lowering valve (5). This allows the oil from chamber (6) to discharge through chamber that will open between the lowering valve (5) and the actuator (4). When the actuator reaches the limit stop of the lowering valve, this moves and the oil comes out of the cylinder and discharges through the line (3). The extent of the lowering of the lowering valve is determined by the adjustment of the descent speed potentiometer.

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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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