SERVICE MANUAL

T3010 / T3020 / T3030 T3040

Tractors

Print No. 84183229B

NEW HOLLAND AGRICULTURE

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T3010 - T3020 - T3030 - T3040

SERVICE MANUAL

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ENGINE TROUBLESHOOTING

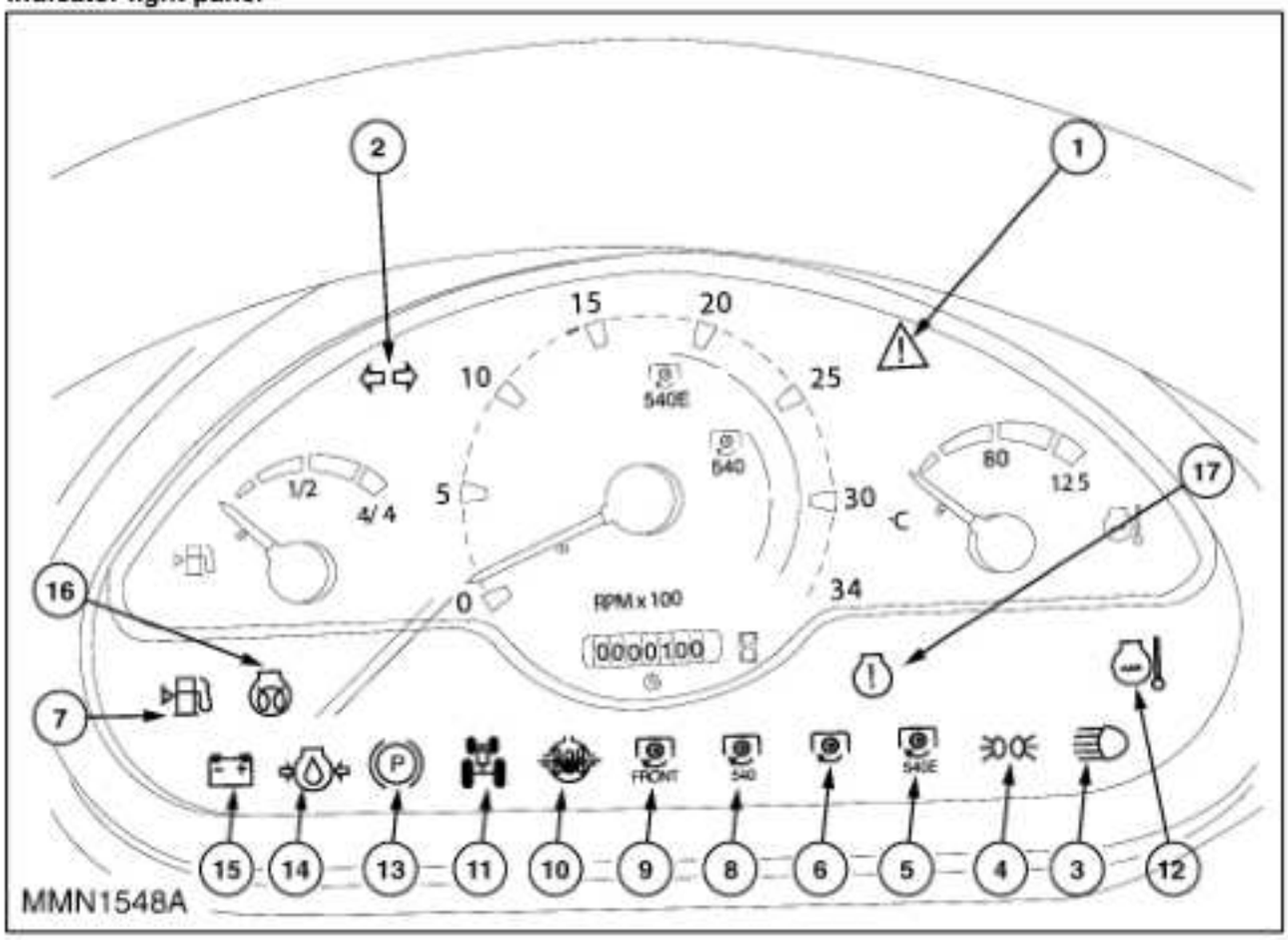
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Problems	Possible Causes	Solutions
	4. Injection pump delivery excessively advanced.	Adjust injection pump/engine timing.
	5. Oil leaking through the inlet valve guides due to guide or valve stem wear.	Overhaul cylinder head.
	6. Engine does not reach correct operating temperature (thermostat faulty).	Replace the thermostat.
	7. Incorrect snap ring assembly/position.	Assemble correctly.
	8. Incorrect timing of the inlet/exhaust valves.	Adjust valve clearance and timing.
	9. Fuel with incorrect specifications.	Use suitable diesel.
	10. Water in fuel system.	Inspect and repair.
Engine runs on after switching off.	1. Engine stop electromagnet damaged.	Replace electromagnet.
	2. All-speed governor damaged.	Overhaul injection pump and adjust on test bench to values specified in calibration table.
Oscillation and instability with rotation speed:		
- at idling speed	1. Piston rings seized or broken.	Replace the piston rings.
	2. Main journal and bearings seized.	Repair or replace.
	3. Connecting rod bearings and main bearings worn.	Measure and replace.
	4. Injection pump regulator damaged.	Repair and adjust.
	5. Water in fuel system.	Clean and repair.
- when operating	1. Inlet/exhaust valves seized.	Renew.
	2. Main journal and bearings seized.	Repair or replace.
	3. Connecting rod bearings and main bearings worn.	Measure and replace.
	4. Injection pump regulator damaged.	Repair and adjust.
	5. Water in fuel system.	Clean and repair.

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Indicator light panel



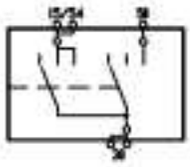
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Refer to the following list to identify the operation conditions shown by the indicator lights.

	Condition	Indicator
1.	General warning indicator (L21)	On steady (red)
2.	Direction indicators (L20)	Flashing (green)
3.	Full beam headlamps ON (L11)	On steady (blue)
4.	Side/tail lights ON (L10)	On steady (green)
5.	Power take-off at 540 rpm (Economy) (L9)	Non-flashing (amber)
6.	Rear power take-off ON (L8)	Non-flashing (amber)
7.	Fuel reserve optical indicator (L12)	Non-flashing (amber)
8.	Power take-off at 540 rpm (L7)	Non-flashing (amber)
9.	Front power take-off (L6)	Non-flashing (amber)
10.	Differential lock ON (L5)	Non-flashing (amber)
11.	Four-wheel drive ON (L4)	Non-flashing (amber)
12.	Engine coolant temperature too high (L19)	On steady (red)
13.	Parking brake ON (L3)	On steady (red)
14.	Engine oil pressure too low (L2)	On steady (red)
15.	Battery charging system malfunction (L1)	On steady (red)
16.	Pre-heater ON (L13)	Non-flashing (amber)
17.	Engine fault indicator (enabled only on models T3040) (L16)	Flashing (orange)

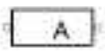
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SYMBOLS USED IN ELECTRICAL CIRCUITS


Ignition switch


Battery


Fuse



Maxi fuse

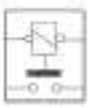


Motor


Lighting
and indicator lamp


Lighting
Instrument


Two-way switch relay


Switch relay


Pressure switch


Control switch


Diode


Connection


Rotating beacon


Thermostart


Horn


Variable resistance


Instrument

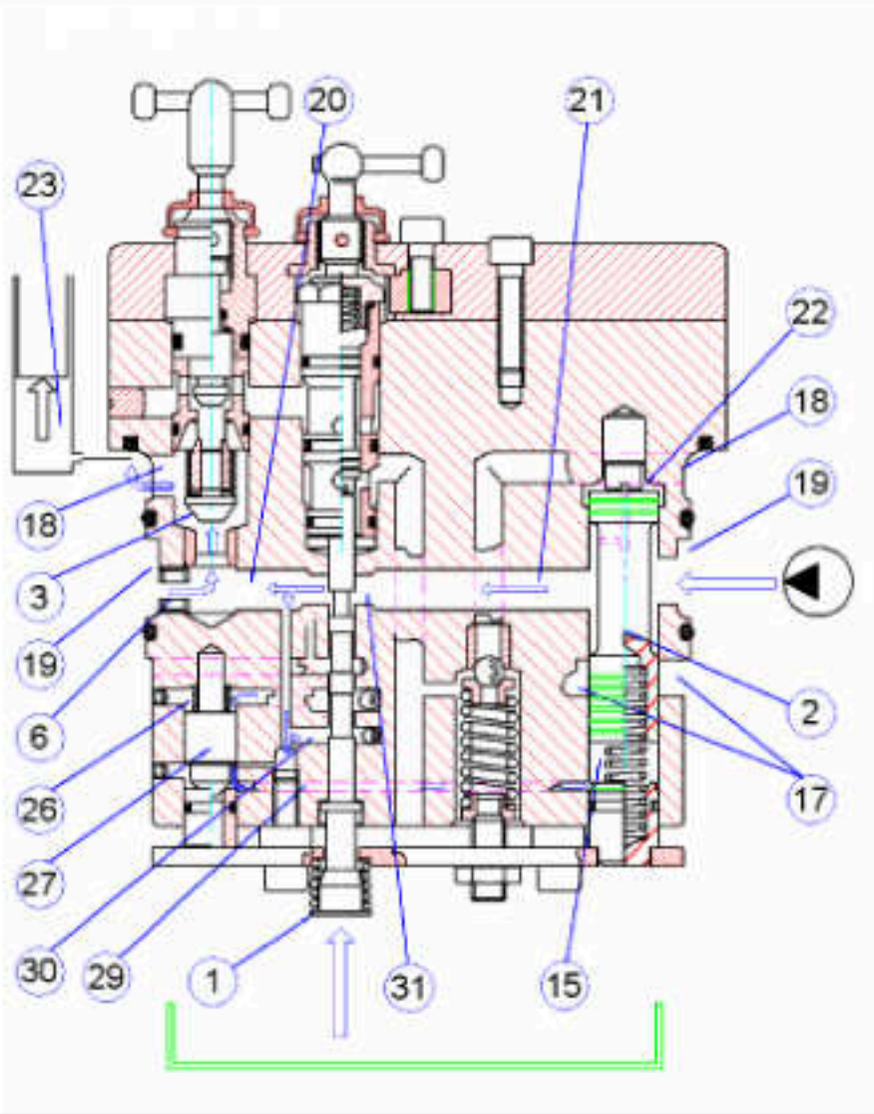

Power socket


Control switch

MPF0474A

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CROSS-SECTIONAL AND PERSPECTIVE VIEWS - LOADING PHASE



19

- B. **LOADING PHASE (lifting) (fig. 19)**

During the loading phase the control valve sends pressurized oil to the cylinder (chamber (23)) permitting the arms to raise as a result.

The position that the drive spindle (1) occupies in this phase allows the oil from the pump, via the loop (19) and the holes (21), (20) and (30), to reach the chamber (26) and lastly close the pilot valve (27).

The oil from the pump can with the same pressure feed the chamber (22) and the chamber (15) (via the pipe (29)), of the regulator plunger (2), that closes the outlet holes (17) for the pin of the return spring.

The pressurized oil goes to the cylinder from the loop (19), enters the hole (20) via the fixed constriction (6) and the variable constriction created by the drive spindle (1) with the hole (21), opens the check valve (3), enters the loop (18) and feeds the chamber (23) of the cylinder.

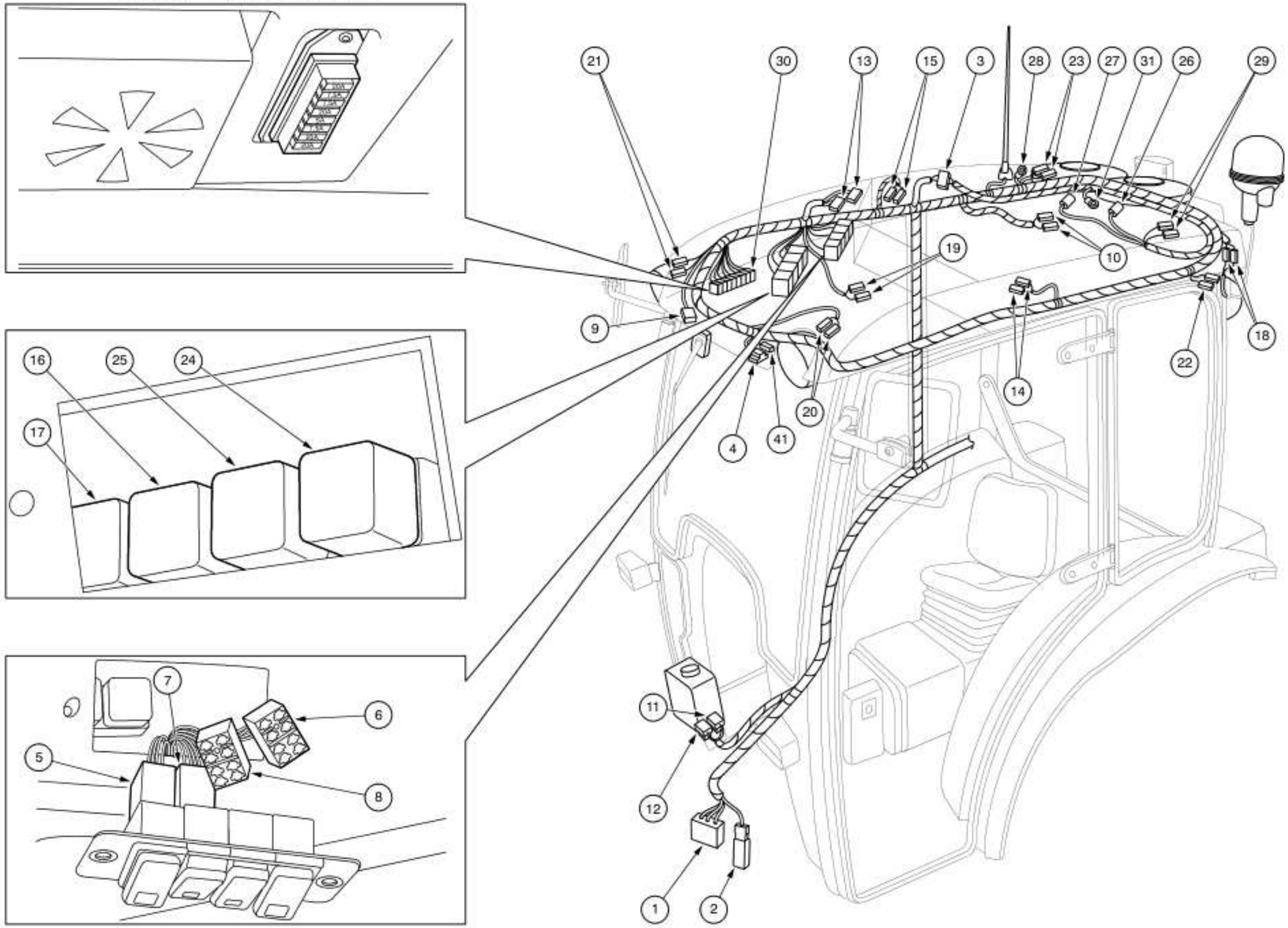
The regulator plunger (2) regulates the flow rate of oil to the cylinder since the chambers (15) and (22) suffer from the difference in pressure created by the oil in flowing through the variable constriction (31), that the drive spindle (1) opens or closes according to its movement due to its internal lever mechanisms.

The excess flow rate is discharged at the lift pressure of the lifting arms via the holes (17) thus controlling the maximum up speed and permitting dampened starting and finishing of the arms.

The maximum work pressure is controlled by a safety valve outside the lift on the tractor's hydraulic system.

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CAB - LOCATION OF COMPONENTS



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