SERVICE MANUAL

T3.50F / T3.55F / T3.65F / T3.75F

Tractor

Part number 47763567

English

August 2014

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NEW HOLLAND
AGRICULTURE



T3000F TRACTORS
T3.50F - T3.55F - T3.65F - T3.75F
SERVICE MANUAL

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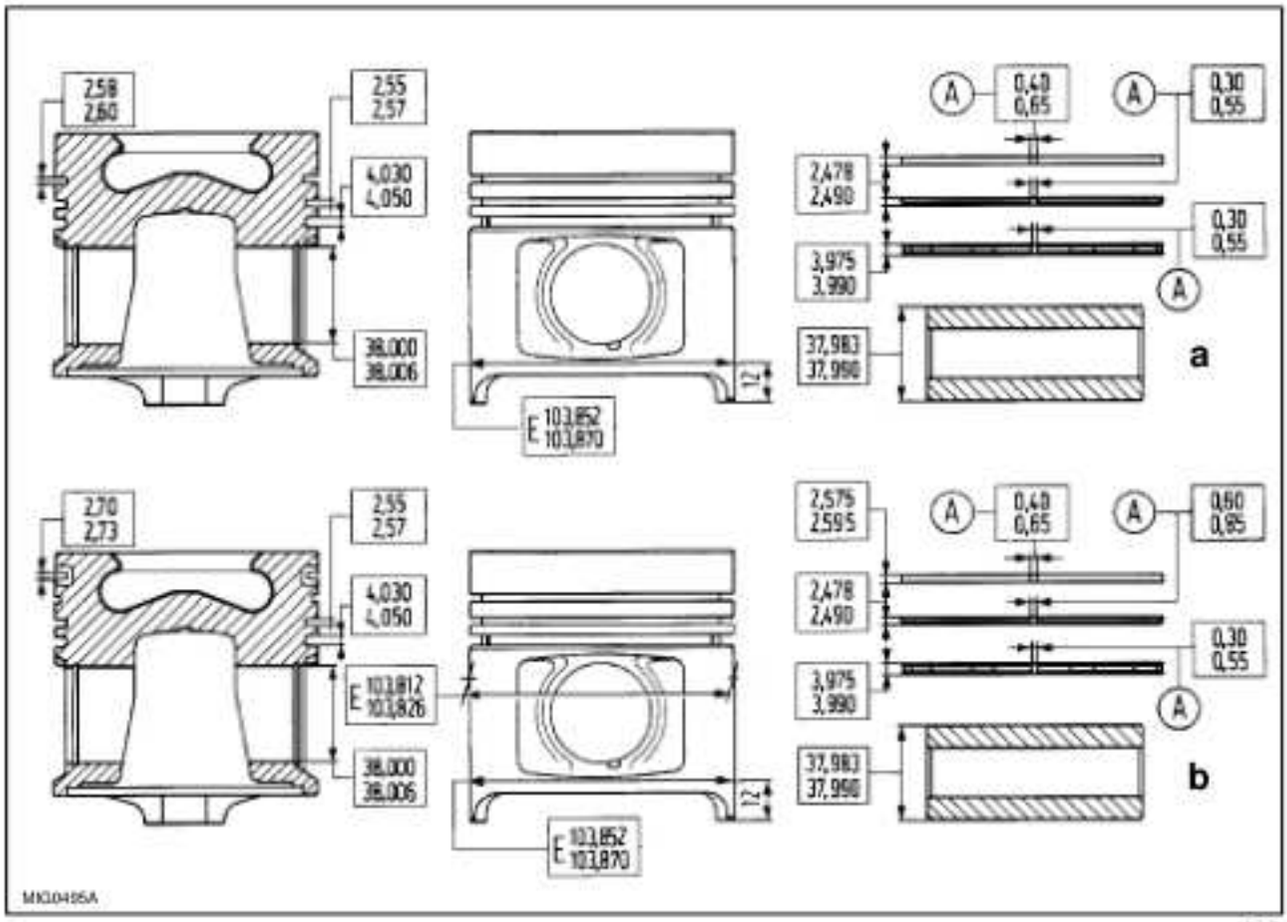
ENGINE TROUBLESHOOTING

(continued)

Faults	Possible Cause	Correction
Engine overheats.	**18.** Coolant pump malfunction.	Overhaul or replace pump.
	19. Faulty thermostat.	Replace the thermostat.
	20. Radiator inefficient.	Remove internal deposits by flushing. Check for leaks and rectify.
	21. Deposits in cylinder head and crankcase coolant passages.	Flush cooling system.
	22. Coolant pump and fan drive belt slack.	Check and adjust belt tension.
	23. Coolant level low.	Top up expansion tank with specified coolant mixture.
	24. Incorrect timing.	Check and adjust.
	25. Injection pump calibration incorrect - delivering too much or too little fuel.	Calibrate pump on test bench to values specified in calibration tables.
	26. Air cleaner restricted.	Clean filter unit and replace filter element if necessary.
Engine lacks power and runs unevenly.	**27.** Incorrect injection pump timing.	Adjust pump timing.
	28. Auto advance regulator in injection pump damaged.	Overhaul injection pump and adjust on test bench to the values specified in calibration table.
	29. Control valve journal worn.	Overhaul injection pump and adjust on test bench to the values specified in calibration table.
	30. Irregular delivery from injection pump.	Overhaul injection pump and adjust on test bench to the values specified in calibration table.
	31. All-speed governor damaged.	Overhaul injection pump and adjust on test bench to the values specified in calibration table.
	32. Injectors partially obstructed or damaged.	Clean and overhaul injectors and adjust pressure setting.
	33. Impurities or water in fuel lines.	Disconnect fuel lines from injection pump and clean thoroughly. If necessary clean and dry the fuel tank.

(continued)

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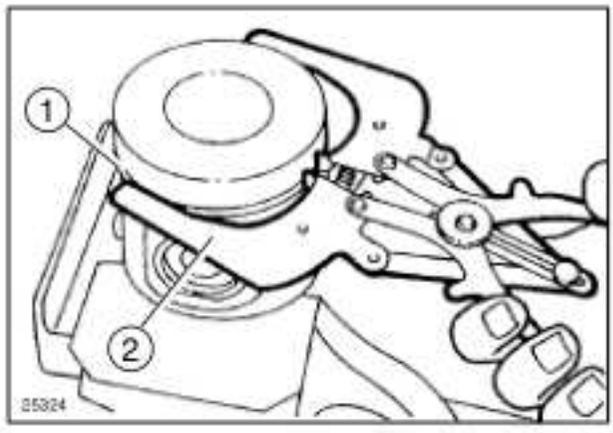
Dimensions (mm) of standard pistons, gudgeon pins and rings.

a. T3.50 F and T3.55 F, T3.65 F models,
b. T3.75 F model
A. Measurement to be obtained with rings inserted in cylinder liners.
E Piston diameter measured at 12 mm from the base of the skirt.

To remove or fit piston rings (1), use pliers **291160** (2).

Fit rings in grooves in the order indicated in fig. 118.

When fitting pistons on connecting rods, check that the clearance between the gudgeon pin and its bore in the piston is within the tolerance specified on page 9.



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REAR HOOD CONTROLS

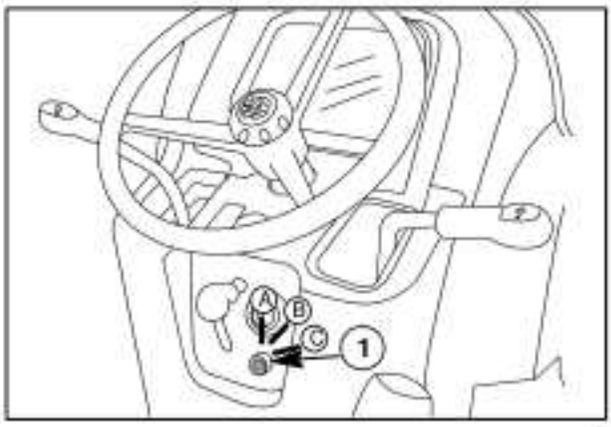
IGNITION KEY

To operate the four switch functions, turn the key (1) through the following positions:

A. No power to circuits (key can be removed). Engine stopped: automatic activation of fuel injection cut--off.

B. Control instrument and indicator power supply. Power supplied to various circuits.

C. Starting the engine: when released, the key returns automatically to position (B).



3

HEADLIGHT CONTROL KEY

A- Close

B- Parking lights

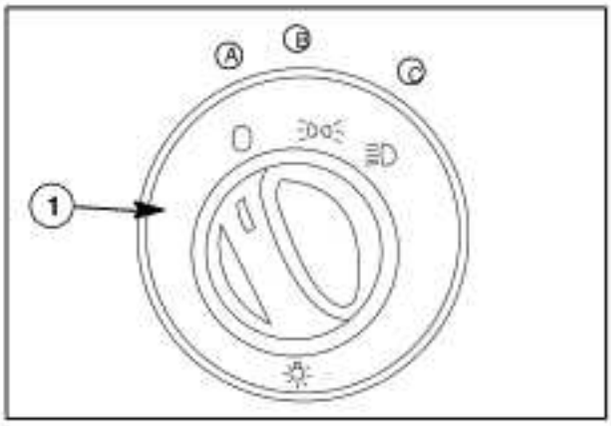
C- Dipped headlights

Parking lights

Turn the headlight control key (1) to position **B** to open parking lights.

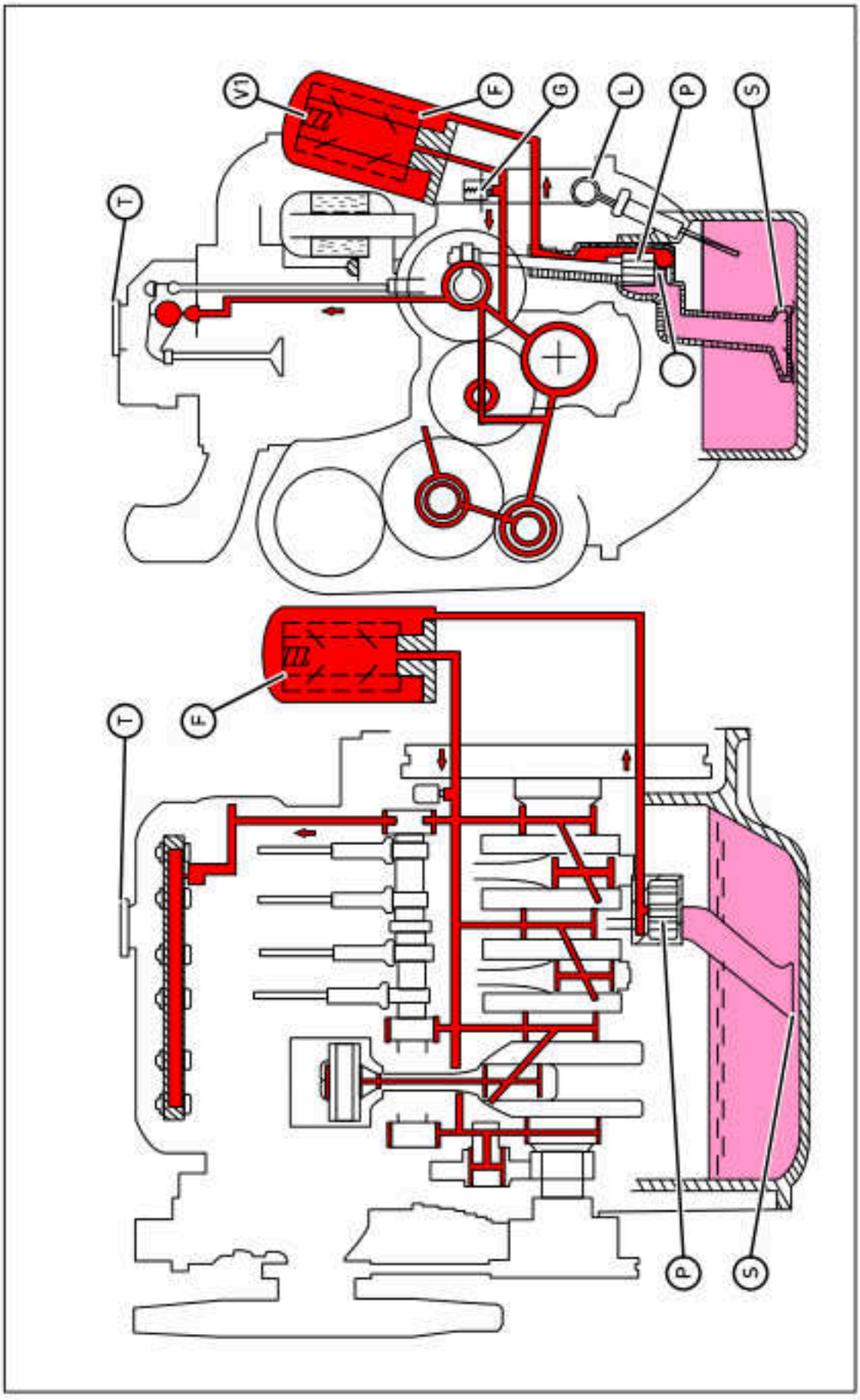
Dipped headlights

Turn the headlight control key (1) to position **C** to open parking lights.



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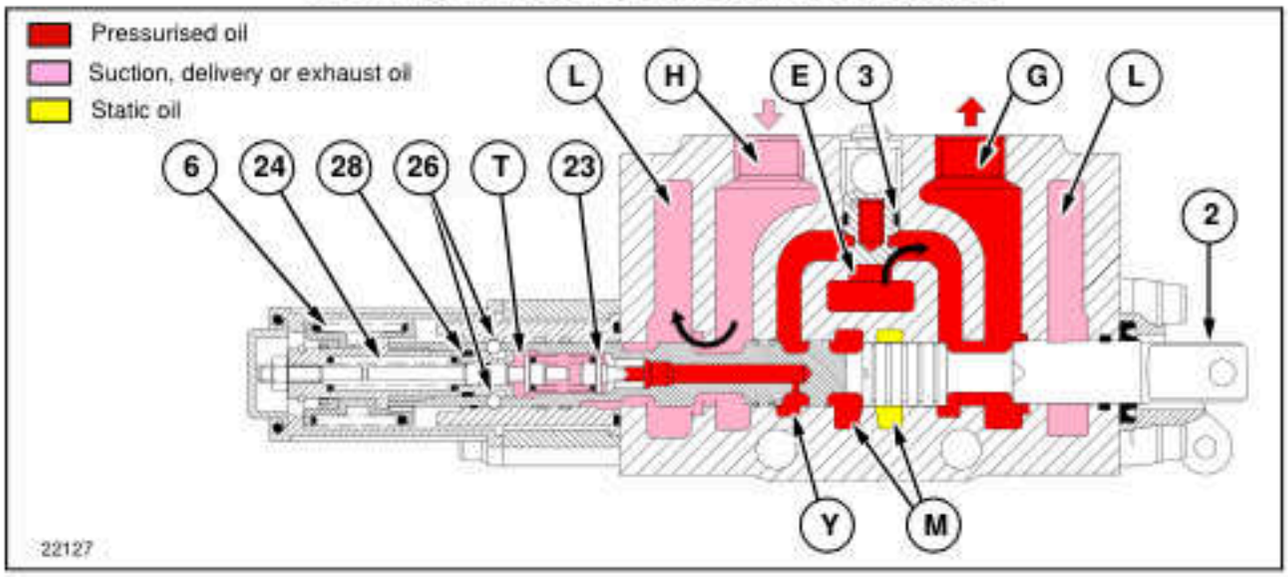
5

LUBRICATION SYSTEM OF 3 CYLINDER ENGINES

F. Filter G. Switch for low engine oil pressure warning (on dashboard) L. Dipstick P. Pump S.Screen filter on pick-up pipe T. Oil filler cap
V. Oil pressure limiting valve V1. Filter safety valve

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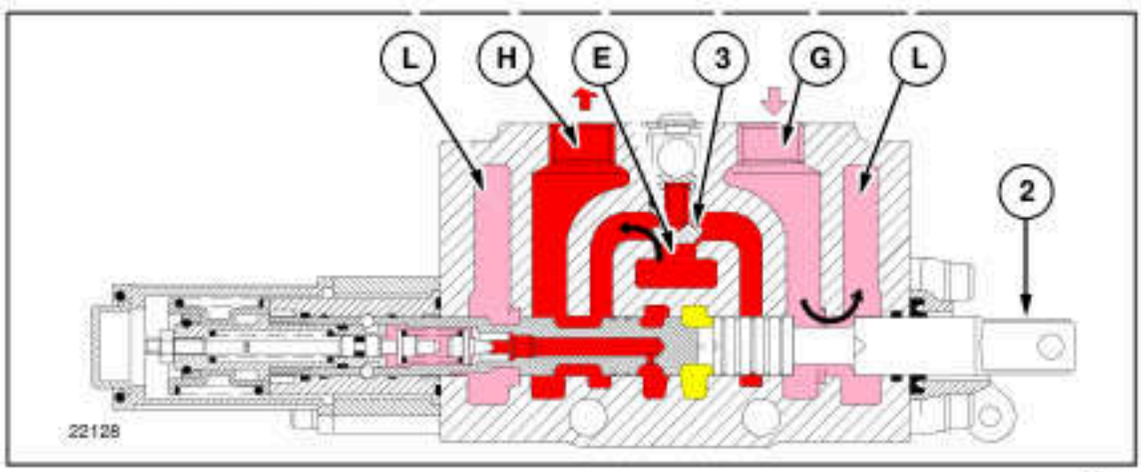
OPERATING STAGES OF AUXILIARY CONTROL VALVE OPERATING A SINGLE--ACTING CYLINDER WITH AUTOMATIC DETENT RELEASE



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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 ÷ 175 bar (173 ÷ 178 kg/cm2), acting through the port (V), it overcomes the resistance of the spring of the needle valve (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).



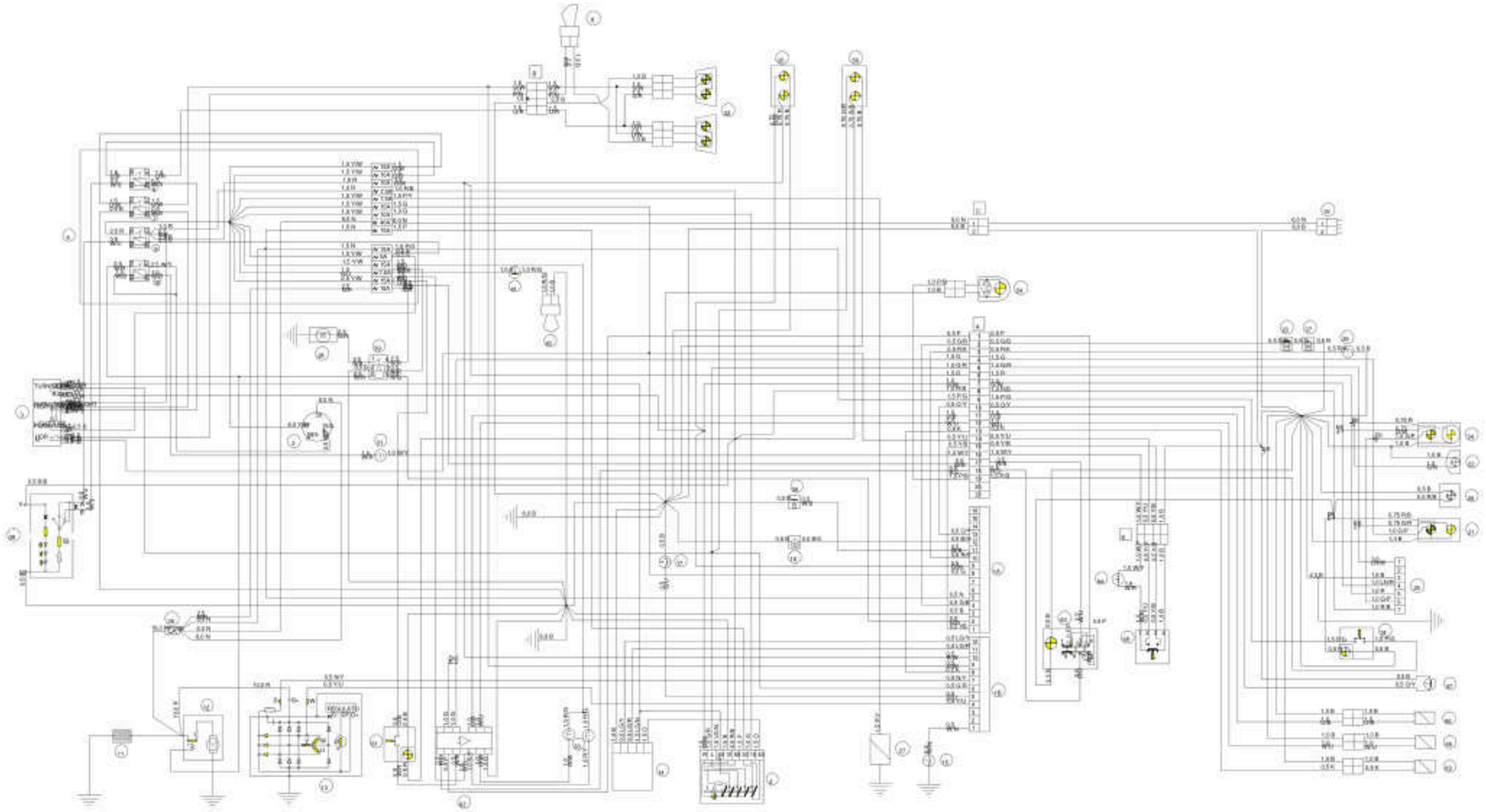
9

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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GENERAL DIAGRAM



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