SERVICE MANUAL

TK4020F / TK4020V / TK4030
TK4030F / TK4030V / TK4040
TK4040M / TK4050 / TK4050M / TK4060

Tractor

Part number 47830952
English
February 2015

NEW HOLLAND AGRICULTURE

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Components of the pump units

I Lift pump: draws oil from the transmission
Mod. TK4020 and TK4030 For F5A engine
Mod. TK4040 For F5A engine
Mod. TK4050 and TK4060 For NEF engine
Ia Cooler pump for cooling the transmission oil: draws oil in conjunction with oil for the lift
Mod. TK4040 For F5A engine
II Steering-O-Matic Full Drive pump: draws oil from the tank under the hood
Mod. TK4020 and TK4030 For F5A engine
Mod. TK4040 For F5A engine
Mod. TK4050 and TK4060 For NEF engine

Pump inlet – delivery

A1 Lift pump suction
Mod. TK4020 and TK4030 For F5A engine
Mod. TK4040 For F5A engine
Mod. TK4050 and TK4060 For NEF engine
A2 Steering-O-Matic Full Drive pump suction
Mod. TK4020 and TK4030 For F5A engine
Mod. TK4040 For F5A engine
Mod. TK4050 and TK4060 For NEF engine

M_1 Delivery to the lift control valves and supplementary control valves
Mod. TK4020 and TK4030 For F5A engine
Mod. TK4040 For F5A engine
Mod. TK4050 and TK4060 For NEF engine
M_1 Delivery to the cooler with hot oil and bypass valve closed, to the transmission directly with the by-pass valve open
Mod. TK4040 For F5A engine
M_2 Delivery to the Steering-O-Matic Full Drive control valve
Mod. TK4020 and TK4030 For F5A engine
Mod. TK4040 For F5A engine
Mod. TK4050 and TK4060 For NEF engine

C_1 Mounting bolt for the cooler pump with lift pump
47 - 55 N·m (34.67 - 40.57 lb ft)
C_2 Mounting bolt for the pump unit
47 - 55 N·m (34.67 - 40.57 lb ft)
C_1 Mounting bolt for the lift pump
47 - 55 N·m (34.67 - 40.57 lb ft)

1. Lift pump base
2. Centering dowels
3. O-ring seal
4. Seal
5. Back-Up Ring
6. Pump body
7. Driven gear
8. Driving gear
9. Centering pin and gear bushings
10. Seal
11. Snap ring
12. O-ring seal
13. Pump base
14. Lacing cable shafts **(8)** and **(15)**
15. Drive shaft of the cooler pump
16. Driven shaft of the Steering-O-Matic Full Drive pump
17. Steering-O-Matic Full Drive pump base

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SEN-229	Front tank fuel level transmitter	11	11	11	11
C-1001	Beacon socket	11	11		

NOTE:
a – See schematic index, ***Wiring harnesses - Electrical schema index (55.100).***
a – See schematic index,* ***Wiring harnesses - Electrical schema index (55.100).***
b – See schematic index, ***Wiring harnesses - Electrical schema index (55.100).***
b – See schematic index,* ***Wiring harnesses - Electrical schema index (55.100).***

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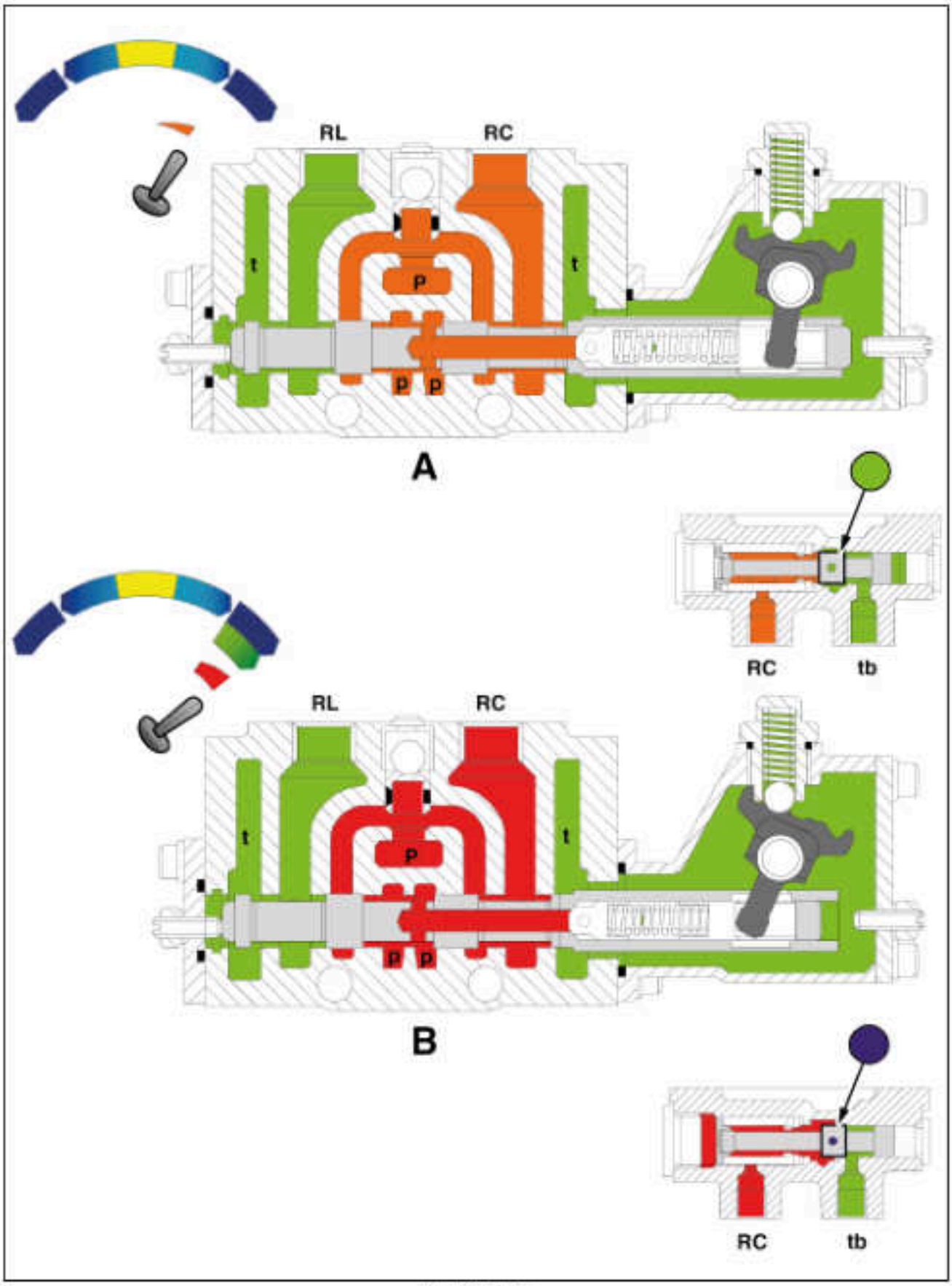
5. Search for a short to ground.

   A. Reconnect the switch **SW−19** and the switch **SEN−96**. Measure the resistance between:
   SOL−95 pin 1 and ground
   If there is continuity, repair the circuit.

   B. Reconnect the wire harness. Try to restart the machine. If the problem persists, try to change the electromagnet.

Wiring harnesses - Electrical schematic sheet 01 – Starting, recharging and grid heater circuit (55.100.DP-C.20.E.01)

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Remote control valve - Dynamic description Single/double-acting control valve

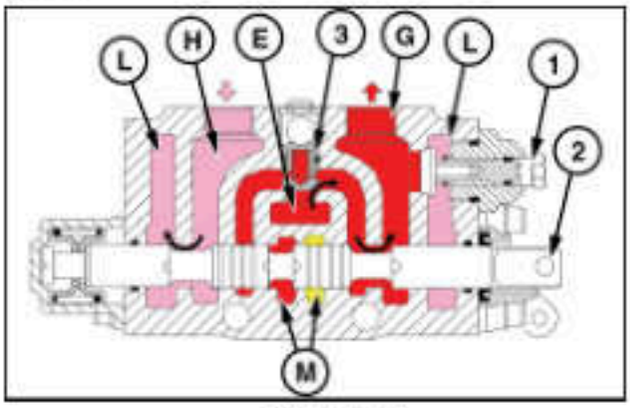
Operating stages of the auxiliary control valve

For the operation of the double-acting cylinder (Fig. **1** and Fig. **2**).

For the operation of the single-acting cylinder (Fig. **3** and Fig. **4**).

Raising

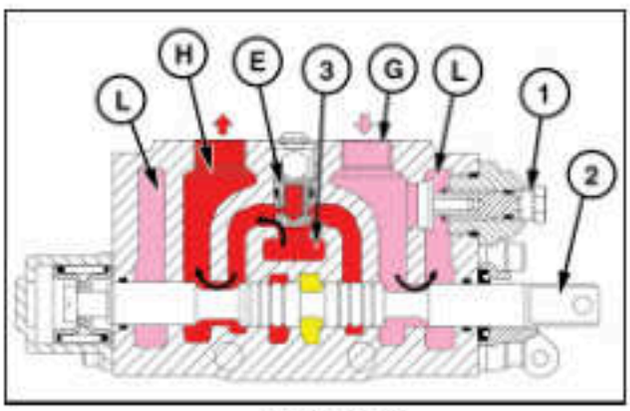
On pulling back the control lever (located in the cab) the control valve pin (**(2)**, **1**) moves to connect: the pressure line **(E)** with the lower chamber of the cylinder by way of the check valve **(3)** and the line **(G)**, and also the exhaust line **(L)**, by way of the line **(H)**, intercepting the supply of oil to the lift control valve. Keeping the lever pulled lifts until the limit stop of the controlled cylinder is reached. When the lever is released, the lever will automatically return to the neutral position under the action of the return spring. The entire flow from the pump will be conveyed to the lift control valve by way of the lines **(M)**.



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Lower

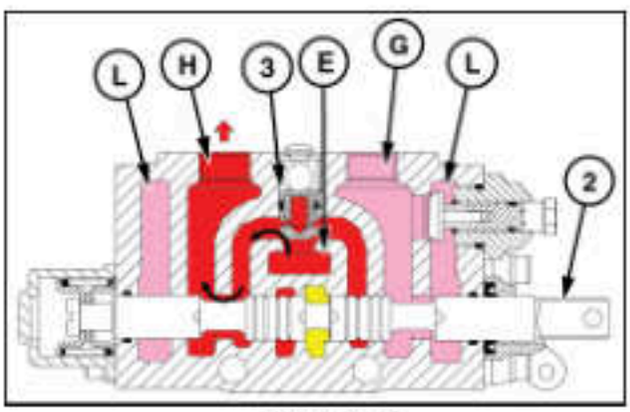
To lower the implement, push the control lever (in the cab). The control valve stem **(2)** will move to the position indicated in Fig. **2**. This will allow the oil in the lower cylinder chamber to flow to the exhaust **(L)** through the duct **(G)**, while the upper chamber is connected to the pressure line **(E)** through the line **(H)** and the check valve **(3)**.



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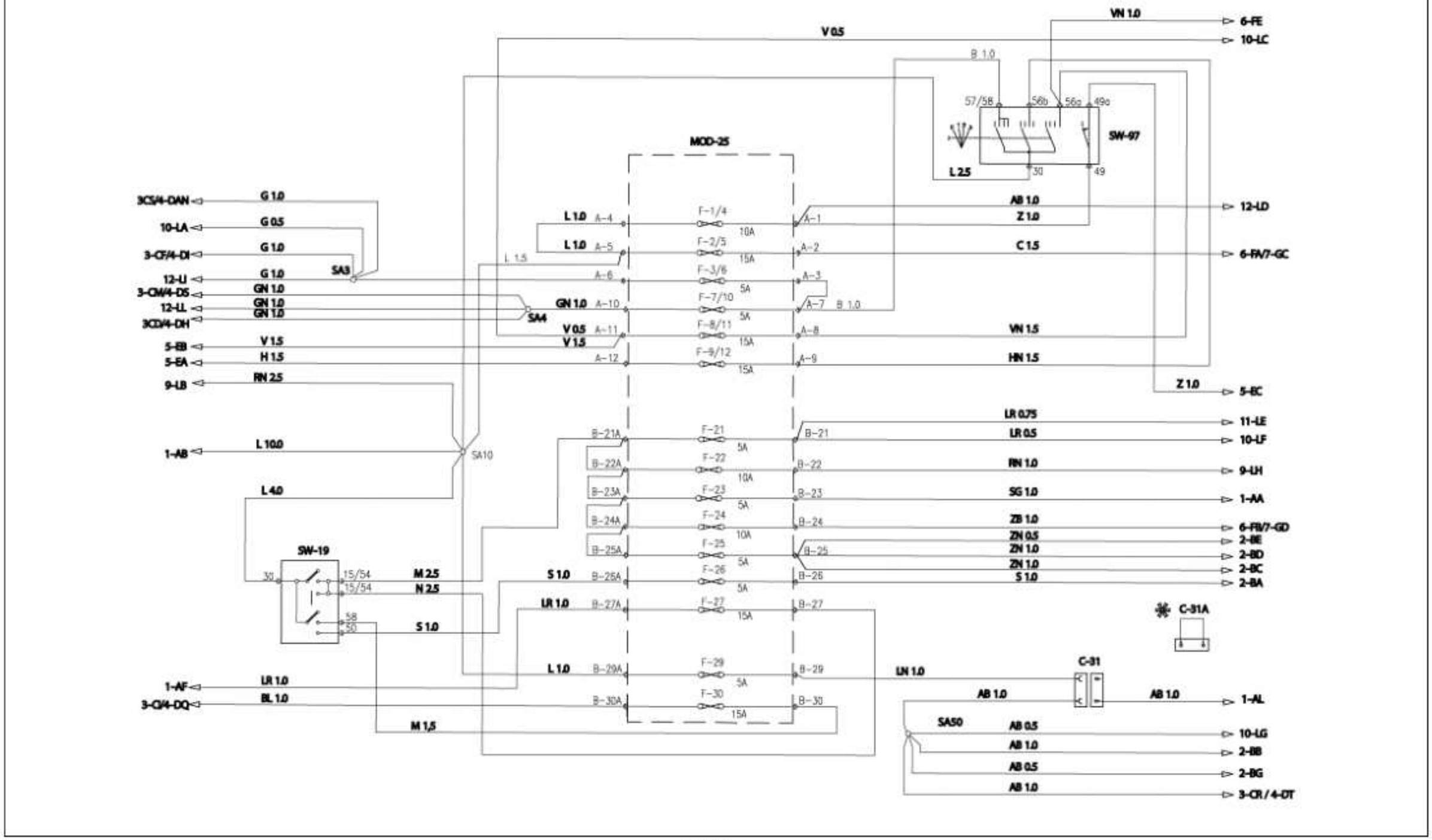
Raising

On pulling back the control lever (located in the cab) the control valve stem **(2)** (Fig. **3**) moves to connect the cylinder with the pressure line **(E)** by way of the check valve **(3)** and line **(H)**. Line **(G)**, for the control of double-acting cylinders, is not used at this stage as it is permanently connected to the exhaust **(L)** by the open position of the switching valve **(1)** (Fig. **1**).



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