SERVICE MANUAL

WE150B
Wheeled Excavator

Part number 48005347
English
April 2016

NEW HOLLAND CONSTRUCTION

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Contents

INTRODUCTION

Engine 10

[10.202] Air cleaners and lines 10.1

[10.206] Fuel filters 10.2

[10.216] Fuel tanks 10.3

[10.218] Fuel injection system 10.4

[10.254] Intake and exhaust manifolds and muffler 10.5

[10.310] Aftercooler 10.6

[10.400] Engine cooling system 10.7

Transmission 21

[21.105] Powershift transmission lubrication system 21.1

[21.113] Powershift transmission 21.2

[21.135] Powershift transmission external controls 21.3

[21.155] Powershift transmission internal components 21.4

Four-Wheel Drive (4WD) system 23

[23.314] Drive shaft 23.1

Front axle system 25

[25.100] Powered front axle 25.1

[25.102] Front bevel gear set and differential 25.2

[25.108] Final drive hub, steering knuckles, and shafts 25.3

[25.122] Axle suspension control 25.4

Rear axle system 27

[27.100] Powered rear axle 27.1

[27.106] Rear bevel gear set and differential 27.2

[27.120] Planetary and final drives 27.3

Brakes and controls 33

MidWestTech | New Holland WE150B Wheeled Excavator Service Manual | Publicatio... Order the manual at mid-west-tech.com >

[33.110] Parking brake or parking lock 33.1
[33.202] Hydraulic service brakes 33.2
Hydraulic systems 35
[35.000] Hydraulic systems 35.1
[35.106] Variable displacement pump 35.2
[35.300] Reservoir, cooler, and filters 35.3
[35.304] Combination pump units 35.4
[35.352] Hydraulic swing system 35.5
[35.353] Hydraulic travel system 35.6
[35.354] Hydraulic central joint 35.7
[35.357] Pilot system 35.8
[35.359] Main control valve 35.9
[35.360] Hammer and rotating bucket hydraulic system 35.10
[35.703] Stabilizer hydraulic system 35.11
[35.730] Positioning arm hydraulic system 35.12
[35.736] Boom hydraulic system 35.13
[35.737] Dipper hydraulic system 35.14
[35.738] Excavator and backhoe bucket hydraulic system 35.15
[35.741] Dozer blade cylinders 35.16
Frames and ballasting 39
[39.103] Swing ring assembly 39.1
[39.129] Stabilizers 39.2
[39.140] Ballasts and supports 39.3
Steering 41
[41.101] Steering control 41.1
[41.106] Tie rods 41.2
[41.200] Hydraulic control components 41.3
[41.216] Cylinders 41.4

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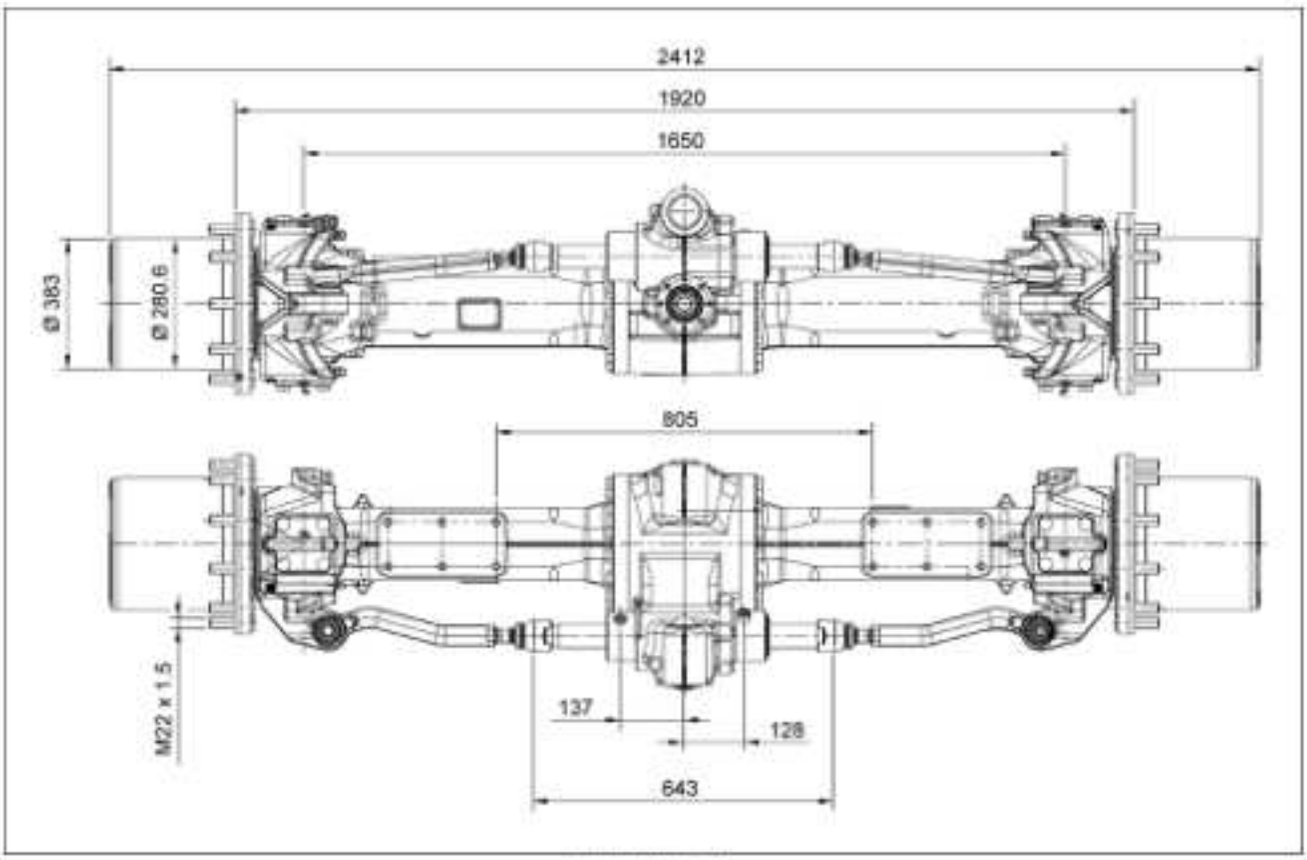
Wheels 44
[44.511] Front wheels 44.1
[44.520] Rear wheels 44.2
Cab climate control 50
[50.200] Air conditioning 50.1
Electrical systems 55
[55.000] Electrical system 55.1
[55.010] Fuel injection system 55.2
[55.011] Fuel tank system 55.3
[55.012] Engine cooling system 55.4
[55.014] Engine intake and exhaust system 55.5
[55.015] Engine control system 55.6
[55.020] Transmission speed sensors 55.7
[55.036] Hydraulic system control 55.8
[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system 55.9
[55.100] Harnesses and connectors 55.10
[55.110] Electrical rotary joint 55.11
[55.302] Battery 55.12
[55.404] External lighting 55.13
[55.416] Swing control system 55.14
[55.425] Boom, dipper, and bucket control system 55.15
[55.512] Cab controls 55.16
[55.514] Cab lighting 55.17
[55.525] Cab engine controls 55.18
[55.530] Camera 55.19
[55.640] Electronic modules 55.20
Booms, dippers, and buckets 84
[84.100] Bucket 84.1

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Four-Wheel Drive (4WD) axle - General specification

Model	4472 097 229
Axle total ratio	18.667
Max static axle load	**25500 daN (57326.295 lbf)**
Max dynamic axle load at max speed	**10000 daN (22480.900 lbf)**
Max operating torque at wheel (per axle)	**2580 N·m (1902.9 lb ft)**
Peak of input axle torque (at pinion)	**250 N·m (184.4 lb ft)**
Pinion direction of rotation in forward travel	Clockwise
Steering max pressure	**200 bar (2900 psi)**
Setting of steering angle	**25 °**
Max hydraulic pressure admitted on brakes	**85 bar (1233 psi)**
Max braking torque at operating pressure	**23570 N·m (17384.3 lb ft)** at **75 bar (1088 psi)**
Brake clearance (no wear / max wear) (check at every change of oil)	**1.3 mm (0.1 in) / 1.7 mm (0.1 in)**
Brake oil minimum volume required	**15.8 cm³ (1.0 in³)**
Weight	**550 kg (1212.5 lb)**
Max noise at max vehicle speed	**90 dB**

Four-Wheel Drive (4WD) axle - Dimension



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Troubleshooting related to diagnostic code 9771

Type of error	Error caused by	Possible cause	Remedy
Mechanical	Electrovalve Y209 a	Electrovalve Y209 a	Check continuity between pins 1 and 2 of electrovalve and, if there is no continuity, replace electrovalve Y209 a
Electrical	Pin 2 of electrovalve Y209 a is not connected to ground	Wirings 33F_2 or 33F damaged	Check continuity of wiring 33F_2 or 33F (between electrovalve and ground) and, if continuity is not checked, replace the wiring
	No voltage signal on pin HSD_PWM_26 (pin 02, connector 2B) of UCM	Wiring 33E damaged	Check continuity of wiring 33E (between electrovalve and UCM) and, if continuity is not checked, replace the wiring
		UCM faulty	Replace the UCM

Diagnostic code: 9773

Light	Description	Condition
Red	Short circuit to supply of spool 9, bottom hood (low flow)	Start key in "ON" position
Note:	When UCM detects a **24 V** short circuit, all the movements of the function are locked (eg. if short circuit is on bucket function, all the boom movements are locked)	

Troubleshooting related to diagnostic code 9773

Type of error	Error caused by	Possible cause	Remedy
Electrical	Electrovalve Y209 a	Short circuit on electrovalve Y209 a	Replace electrovalve Y209 a
	No signal voltage on pin 1 of electrovalve Y209 a	Wiring 33E damaged	Check continuity of wiring 33E (between UCM and electrovalve) and, if continuity is not checked, replace the wiring
	Wirings 33F_2 or 33F	Wirings 33F_2 or 33F damaged	Check continuity between pin 2 of electrovalve Y209 a and pin 27, connector 2B of UCM and, if continuity is not checked, replace the wiring
	No voltage signal on pin LSD_PWM_26 (pin 02, connector 2B) of UCM	UCM faulty	Replace the UCM

Diagnostic code: 9774

Light	Description	Condition
Red	Deviation of Current at Solenoid Top Hood Spool 9	Key to "ON" position Difference between commanded current and feedback current > **150 mA**
Note:	Check diagnostic code 9773	

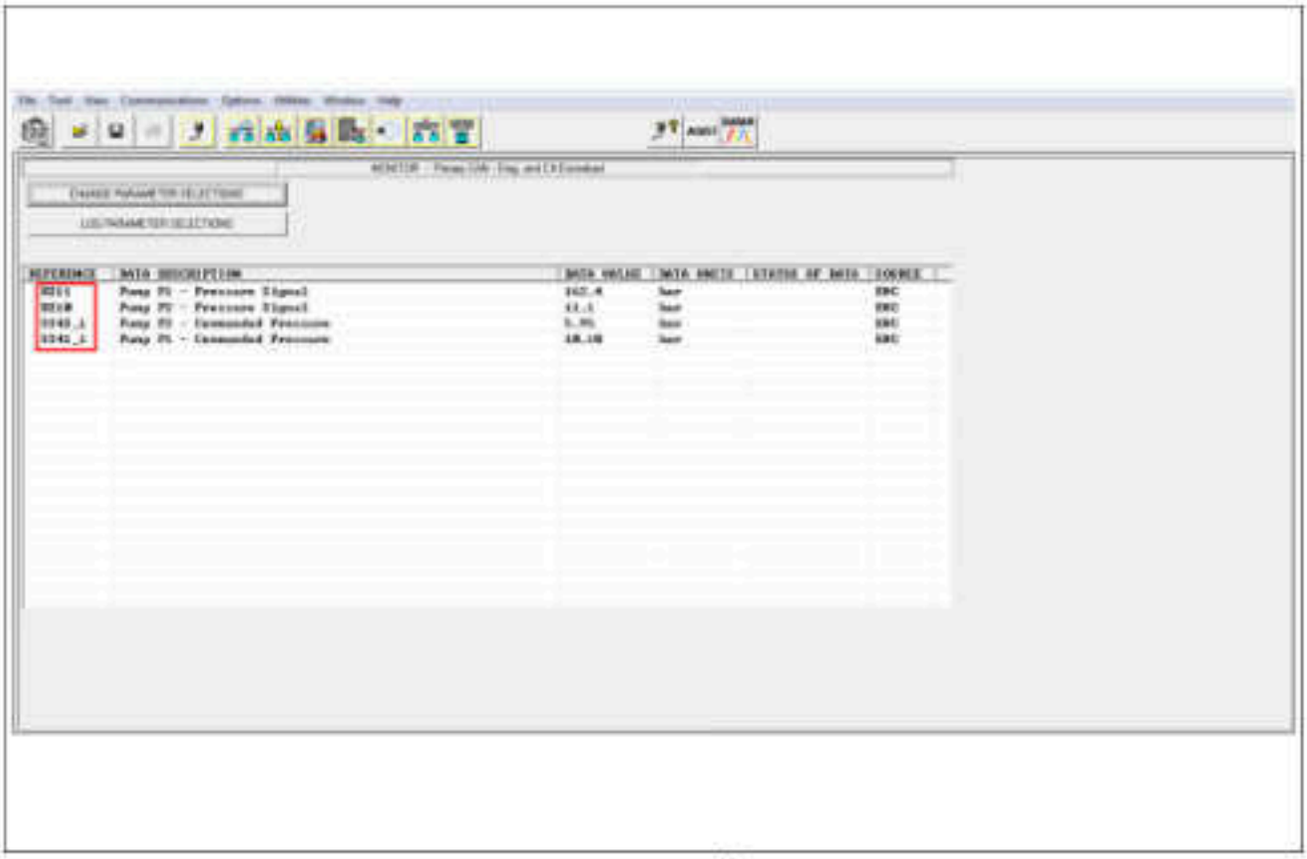
Troubleshooting related to diagnostic code 9774

Type of error	Error caused by	Possible cause	Remedy
Mechanical	Electrovalve Y209 a	Wrong solenoid resistance	Replace the electrovalve Y209 a
Electrical	Wiring 33E	Scrubbed wire	Replace wiring 33E
	Wirings 33F_2 or 33F	Scrubbed wire	Replace wiring 33F_2 or 33F
	UCM	UCM faulty	Replace the UCM

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Harnesses and connectors - Electrical schematic sheet 24 - Joystick, diagnostic plug

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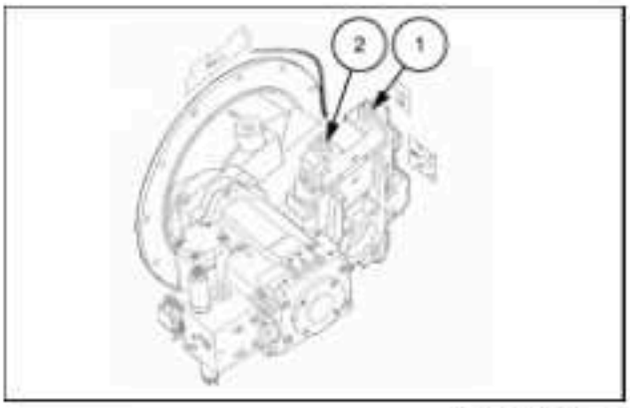
SM6.12WEX0309FA 28

- extend the boom: retract the positioning cylinder and dipper cylinder;



SM6.12WEX0310AA 29

- start the operation of boom raising. Increase right control lever angle until the pilot pressure of command pressure (Y241_1) displayed is **10 bar** (**145.0 psi**) and the value of pressure signal (B211) is between **120 bar** (**1740.0 psi**) and **200 bar** (**2900.0 psi**);
- observe the value of the first row of EST screen ("pump pressure" screen): if pump 1 pressure is less than **120 bar** (**1740.0 psi**), increase the flow acting on adjusting screw **(1)** , loosening the screw of 1/2 turn. If pump 1 pressure is greater than **200 bar** (**2900.0 psi**), reduce the flow acting on adjusting screw **(1)** , tightening the screw of 1/2 turn. If pressure is within **120 bar** (**1740.0 psi**) and **200 bar** (**2900.0 psi**), no adjusting is required.

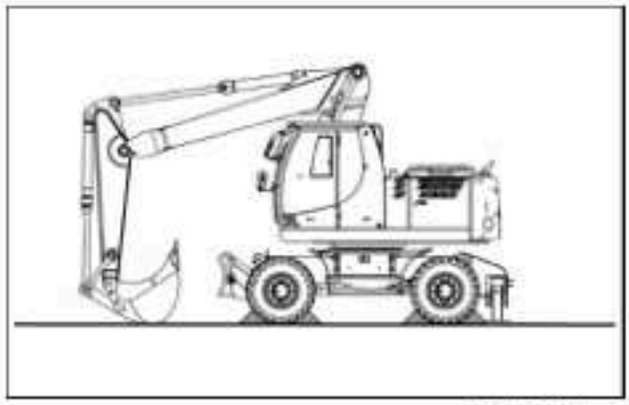


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Hydraulic swing system - Remove

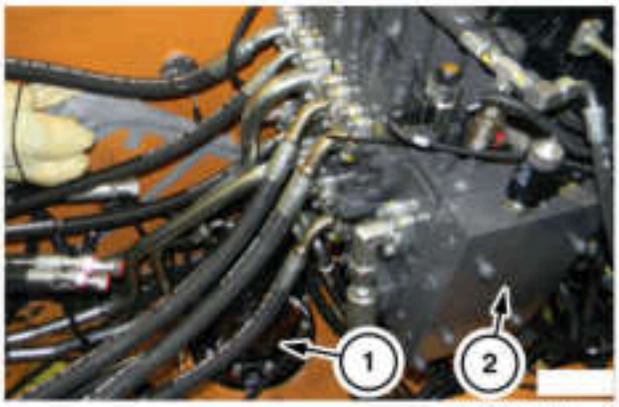
Park the machine on a level and firm surface.
Lower the attachment to the ground.
Lower the blade and the stabilizers to the ground.
Engage the parking brake.
Lock the upper structure.
Stop the engine.
Move both hydraulic control levers in all directions, to release possible residual pressure inside the hydraulic system.



SM412WE30021AA 1

In order to remove the slewing gearbox **(1)** from its seat, it is necessary to remove the main valve **(2)**.
Gain access to the main valve by climbing the relevant machine plate from the left.
Remove any residual pressure from the hydraulic tank by using the breather valve.

NOTICE: *The procedure provides for the disconnection of the hydraulic lines which can contain a certain amount of hydraulic oil. Adequately protect yourself from contact.*

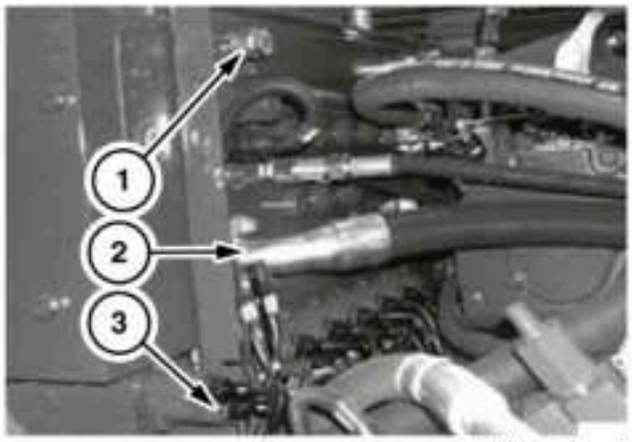


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Adequately mark the lines to be disconnected from the main valve for a subsequent reassembly.

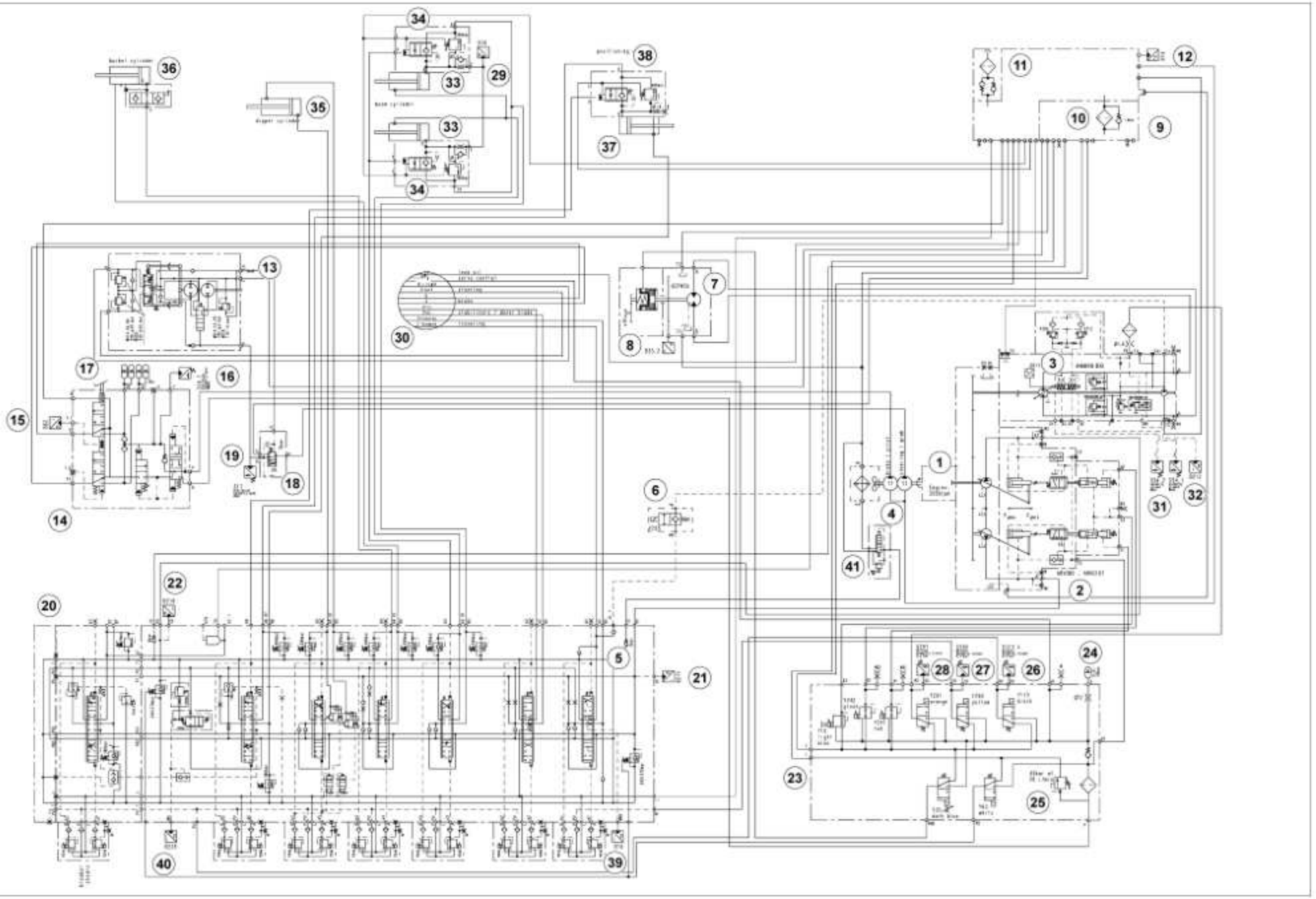
Disassemble all hydraulic lines **(2)** from the main valve installed on the upper side, on the arm's side and on the engine's side. Install plugs to prevent the escape of the oil trapped inside the main valve and a possible introduction of dust and/or dirt.
Moreover, on the engine side, disconnect all electric connections **(3)** after adequately marking them for a subsequent reassembly. Sling the main valve and loosen the 3 screws **(1)** which fasten it to the supporting bracket. After checking that no lines or electric cables interfere with the assembly to be removed, lift the assembly.

NOTICE: *Slowly lift the main valve, and avoid hitting the surrounding components.*



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