SERVICE MANUAL

WE210B
Wheeled Excavator

Part number 48005315
English
April 2016

NEW HOLLAND CONSTRUCTION

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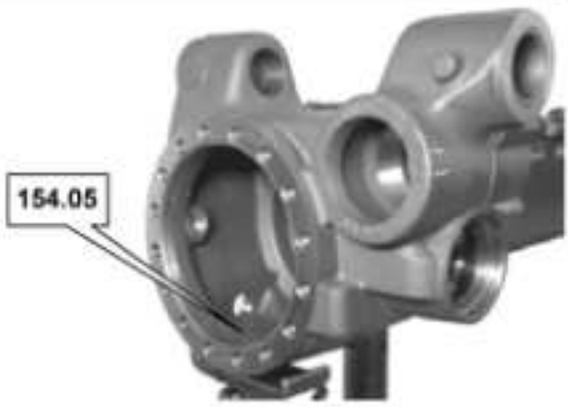
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To determine the thickness of the shim to obtain a correct pattern, read the dimension (I) from the axle drive housing.
(e.g. **154.05 mm** (**6.06 in**)).



TUPH12WE023SSAA 15

Read the dimension (II) of the pinion (e.g. **116.00 mm** (**4.57 in**). In case of a + or - deviation of the pinion dimension for production reasons, the relevant value is marked by hand on the pinion.
Pinion dimension (without + or - deviation): **116.0 mm** (**4.57 in**)
Pinion dimension with an indicated +0.1 deviation: **116.1 mm** (**4.57 in**)
Pinion dimension with an indicated -0.1 deviation: **115.9 mm** (**4.56 in**)



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Using gauge, determine dimension (III) (bearing width).

NOTICE: *The following procedures must be carried out with utmost care. Inaccurate measurement produces an incorrect contact pattern and another disassembly and reassembly of the input pinion is required.*

Since the installed roller bearing is subject to a preload in installation position, consider an experience deduction of **0.1 mm** (**0.004 in**). (e.g. dimension (III) 36.6 - 0.1 = **36.5 mm** (**1.44 in**))
Dimension (II): **116.0 mm** (**4.57 in**)
Dimension (III): **36.5 mm** (**1.4 in**)
Calculate dimension (X) = dimension (II) + dimension (III) (e.g. X = 116.0 + 36.5 = **152.5 mm** (**6.00 in**))
Calculate shim thickness = dimension (I) - dimension (X) (e.g. Shim = 154.05 - 152.5 = **1.55 mm** (**0.06 in**))



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Insert the determined shim **(18)**.



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Troubleshooting related to diagnostic code 9879

Type of error	Error caused by	Possible cause	Remedy
Mechanical	Electrovalve Y207.a	Wrong solenoid resistance	Replace electrovalve Y207.a
Electrical	Wiring 32O	Scrubbed wire	Replace wiring 32O
	Wiring 32P_2 or 32P	Scrubbed wire	Replace wiring 32P_2 or 32P
	UCM	UCM faulty	Replace the UCM

Diagnostic code: 9886

Light	Description	Condition
Yellow	Open load at solenoid bottom hood spool 8	Engine must be run
Note:	Check diagnostic code 9891 (simultaneous likely as 9886)	

Troubleshooting related to diagnostic code 9886

Type of error	Error caused by	Possible cause	Remedy
Mechanical	Electrovalve Y208.b	Electrovalve Y208.b	Check continuity between pins 1 and 2 of electrovalve and, if there is no continuity, replace electrovalve Y208.b
Electrical	Pin 2 of electrovalve Y208.b is not connected to ground	Wirings 32M_1 or 32M damaged	Check continuity of wiring 32M_1 or 32M (between electrovalve and ground) and, if continuity is not checked, replace the wiring
	No voltage signal on pin HSD_PWM_18 (pin 32, connector 3B) of UCM	Wiring 32K damaged	Check continuity of wiring 32K (between electrovalve and UCM) and, if continuity is not checked, replace the wiring
		UCM faulty	Replace the UCM

Diagnostic code: 9888

Light	Description	Condition
Red	Short circuit to supply of spool 8, bottom hood (low flow control - optional)	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 9888

Type of error	Error caused by	Possible cause	Remedy
Electrical	Electrovalve Y208.b	Short circuit on electrovalve Y208.b	Replace electrovalve Y208.b
	No signal voltage on pin 1 of electrovalve Y208.b	Wiring 32K damaged	Check continuity of wiring 32K (between UCM and electrovalve) and, if continuity is not checked, replace the wiring
	Wirings 32M_1 or 32M	Wirings 32M_1 or 32M damaged	Check continuity between pin 2 of electrovalve Y208.b and ground and, if continuity is not checked, replace the wiring
	No voltage signal on pin HSD_PWM_18 (pin 32, connector 3B) of UCM	UCM faulty	Replace the UCM

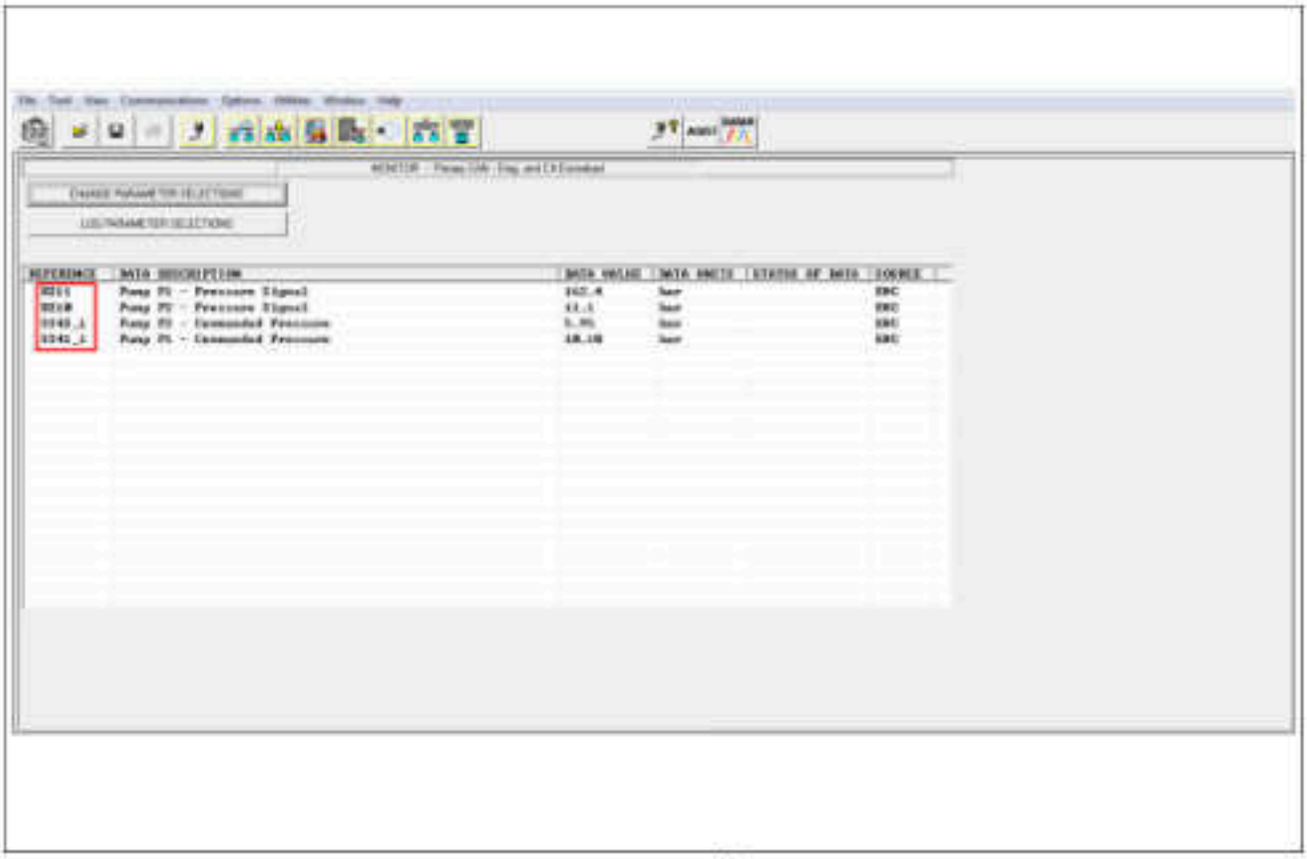
Diagnostic code: 9889

Light	Description	Condition
Red	Deviation of current at solenoid bottom hood spool 8	Key to "ON" position Difference between commanded current and feedback current > **150 mA**
Note:	Check diagnostic code 9888	

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Harnesses and connectors - Electrical schematic sheet 31 - UCM: sensors

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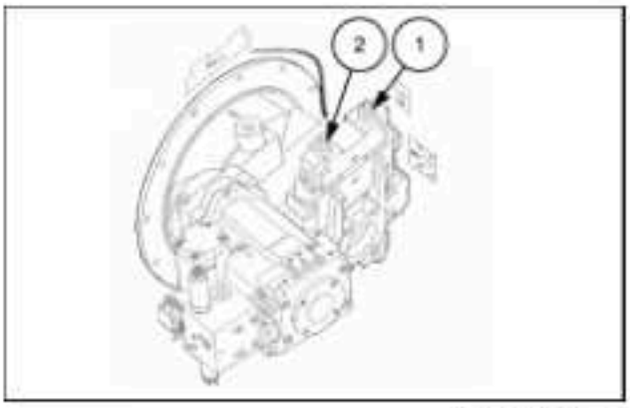
SM6.12WEX0309FA 28

- 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.

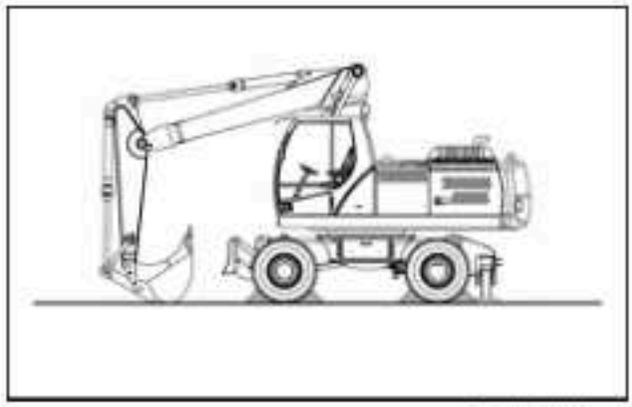


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Hydraulic swing system - Remove

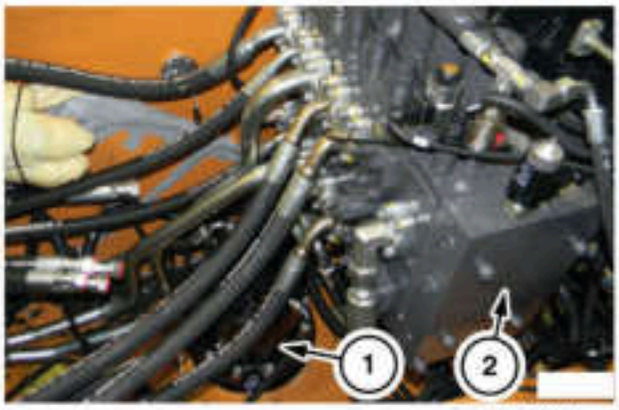
Park the machine on a level and firm surface.
Lower the attachment to the ground.
Lower the blade and the stabilizers to the ground.
Engage the parking brake.
Lock the upper structure.
Stop the engine.
Move both hydraulic control levers in all directions, to release possible residual pressure inside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



TULI12WEX2055AA 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.

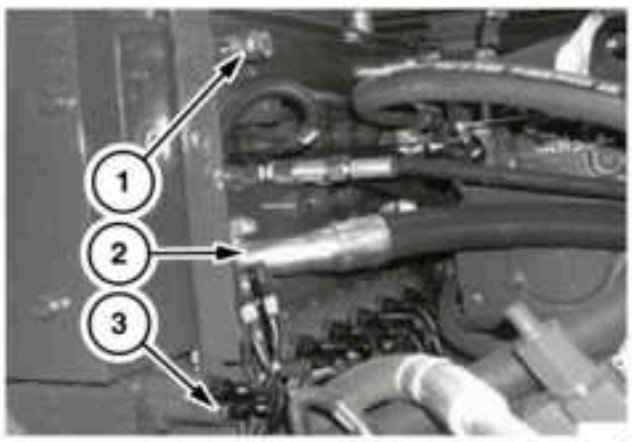
NOTICE: *The procedure provides for the disconnection of the hydraulic lines which can contain a certain amount of hydraulic oil. Adequately protect yourself from contact.*



TUPH12WEX2056AB 2

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.



TUPH12WEX2057AB 3

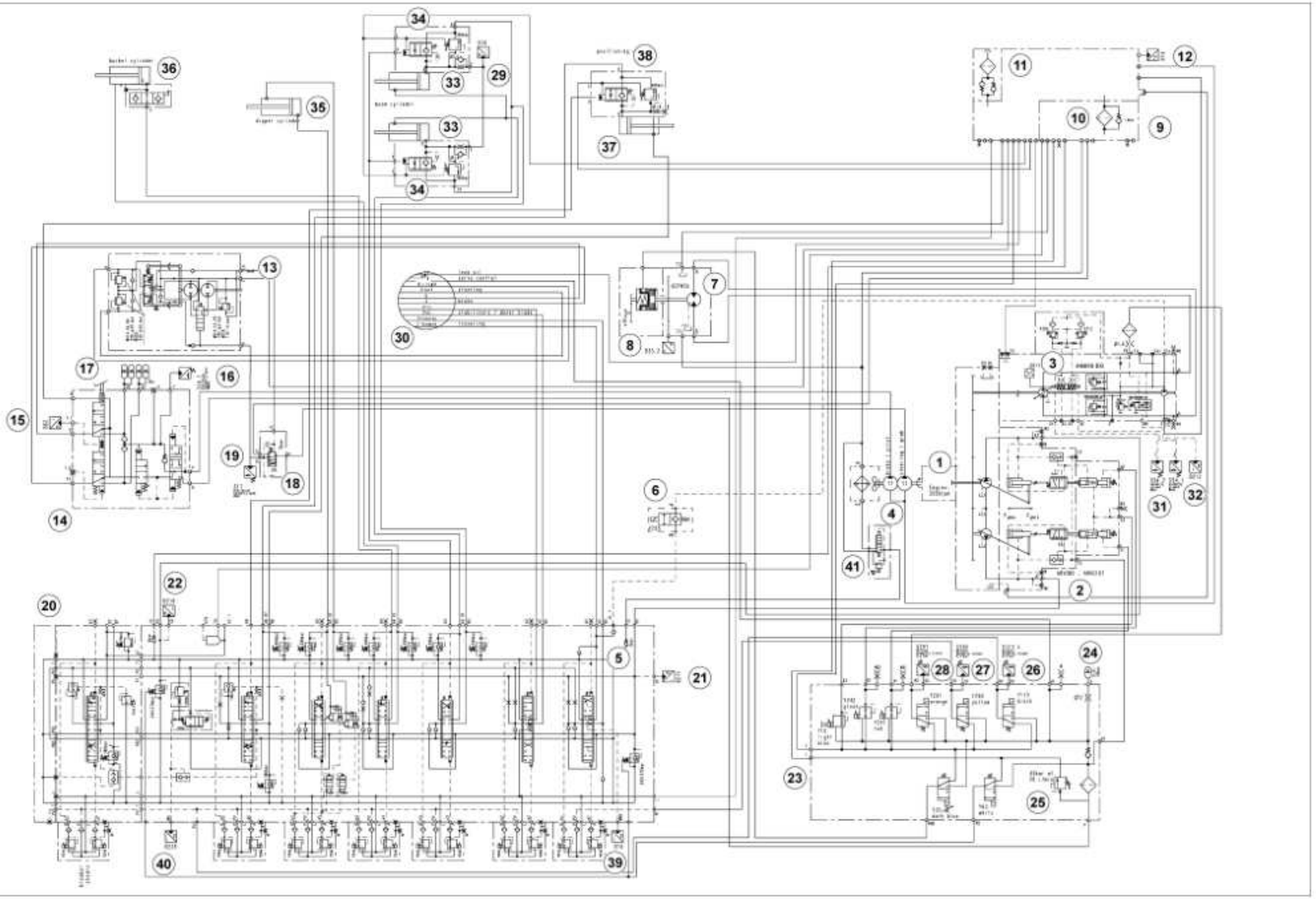
NOTICE: *Slowly lift the main valve, and avoid hitting the surrounding components.*

Drain the hydraulic oil contained in the slewing gearbox (see the Operator's Manual).

NOTICE: *To collect the liquids to be disposed, use the containers provided for these operations and do not use unsuitable containers or containers which could mislead people to drink its content.*

Use plugs to prevent the introduction of dust or dirt into the slewing gearbox and into the disconnected lines.

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