

**DV207**  
**DV207HF**  
Vibratory Roller

**SERVICE MANUAL**

**Part number 47508259**  
1<sup>st</sup> edition English  
February 2013



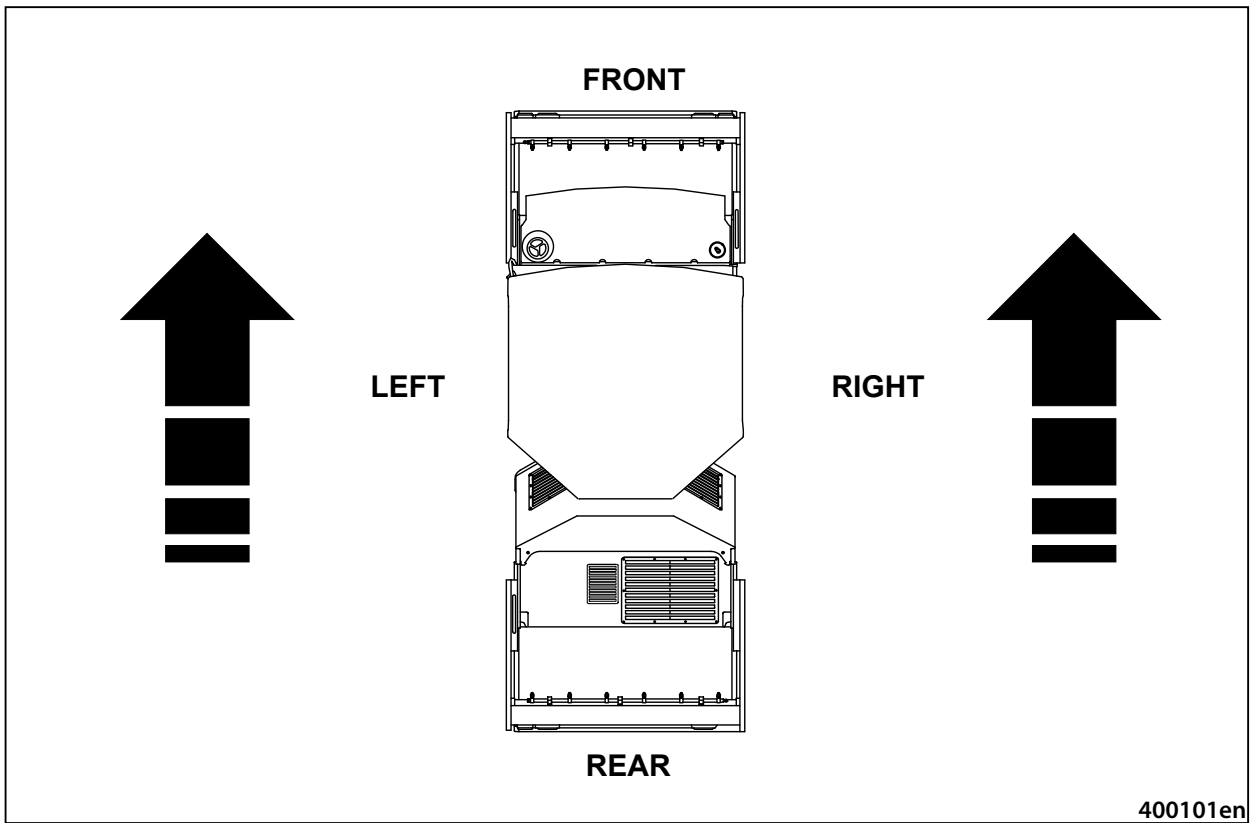
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20. Machine's max height



Caution when passing locations with height limit. (Symbol located on the left beneath the cabin, on the Machine frame)

Part no.: ND128599

Quantity: 1

21. Jacking point



Place to install hand jack or fixed support of the machine. (Symbol located on both sides of the machine)

Part No.: ND128663

Quantity: 4

22. Read Operator's Manual

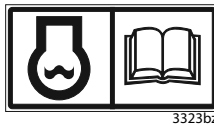


The Operation Manual stowage box. (Symbol located on the box at the rear of the seat)

Part no.: ND081612

Quantity: 1

23. Coolant

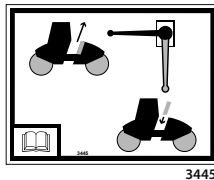


Coolant is hazardous to health. Read the Operator's Manual before filling up or changing coolant. (Symbol located on the coolant tank)

Part no.: ND140501

Quantity: 1

24. Hood lifting



Pump to lift the hood. (Symbol located on the inner side of the disconnecter door)

Part no.: 4-6531013445

Quantity: 1

25. Hearing protection required



Wear hearing protection with the machine if it does not have a cab. (Symbol located on the dashboard)

Part no.: ND081592

Quantity: 1

26. No washing



Cover electrical devices when washing the machine. (Symbol located on the dashboard)

Part no.: ND081530

Quantity: 1

## **Safety precautions during work on hydraulic circuits**

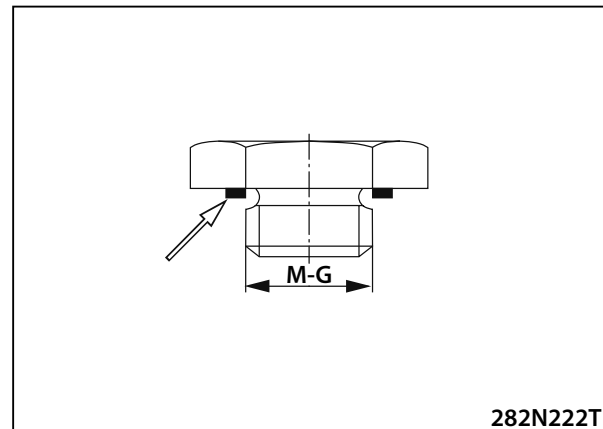
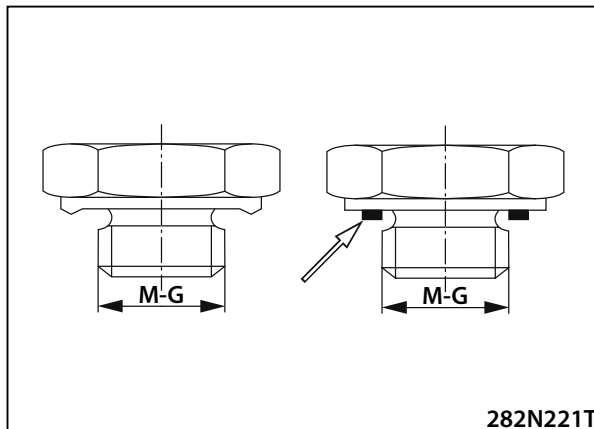
- Check that hydraulic circuits have been depressurized before removing them. Hydraulic oil that leaks under pressure could cause serious skin injury.
- Mark parts, hoses and pipes before removing them.
- Do NOT operate hydroelectric generators or hydromotors with no oil.
- There is a scalding hazard when handling hot oil.
- Do NOT heat oil over 160°C (320°F) – oil or its vapors could flame up.
- Use lint-free cloth when wiping and cleaning hydraulic parts.
- Use hydraulic oil – not lube grease – as lubricating agent during parts installation work.
- Thoroughly clean the bolting before installation work; flush and blow out the hoses and pipes with air.
- It is important to ALWAYS use new gaskets.
- After hydraulic set replacement, flush the hydraulic circuit and clean the hydraulic tank.
- Replace the oil filter element.
- Fill the hydraulic circuit with clean oil of the specified viscosity – only with the engine switched off!
- Wipe up any spilled oil.
- Confirm that connections are tight with no oil leaks before pressurizing the system.
- Upon completion of all of the work, check all connections.
- Do NOT adjust the relief valves.
- Reinstall all protective elements after the work is completed.

## **Check the following once the machine is in operation**

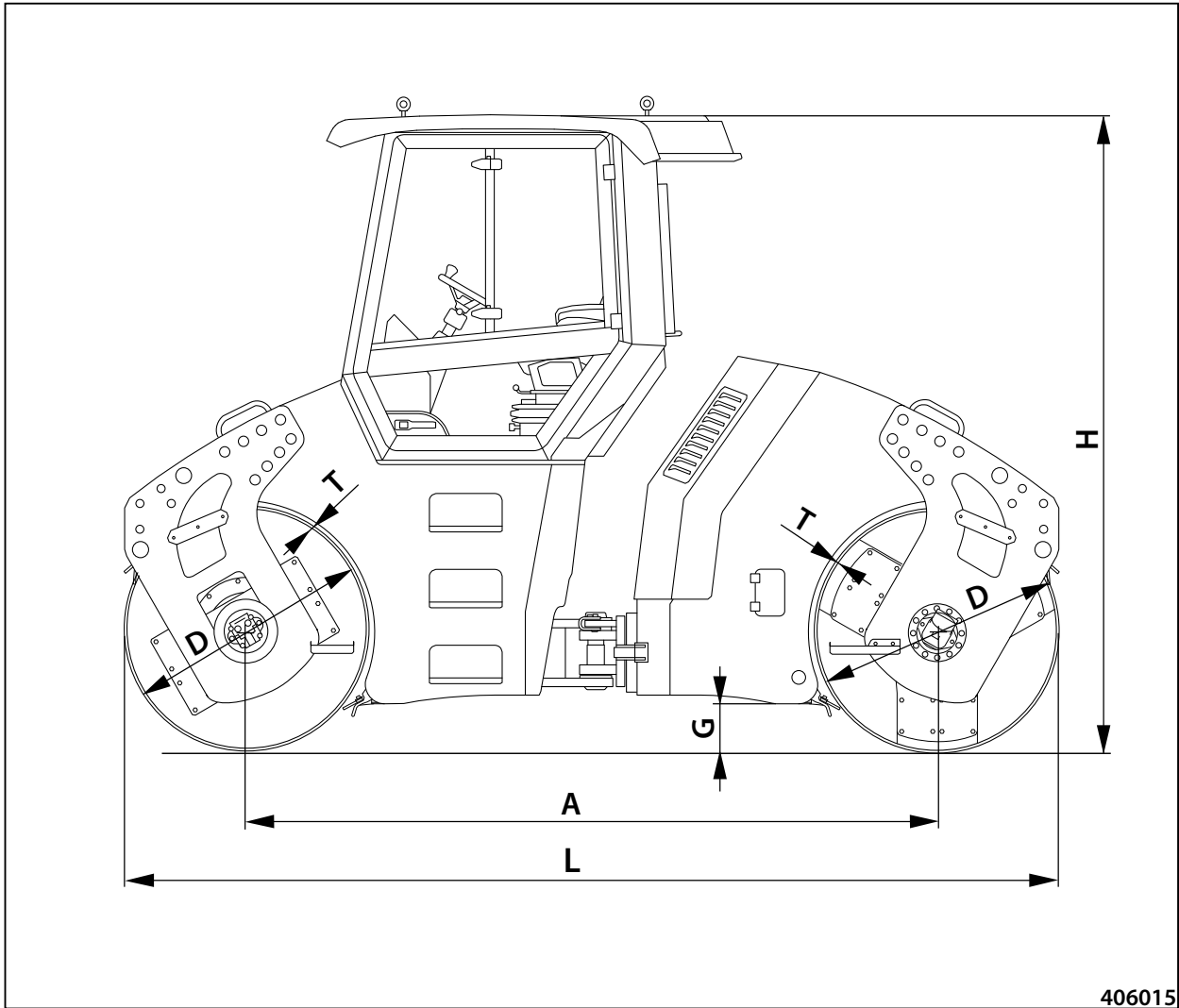
- Oil level in the hydraulic tank.
- Check the boost pressure of hydroelectric generators when these are replaced and check relief valve pressure.
- Always measure at 40°C (104°F).

G -M	Tightening torques for flanges	
	Nm	lb-ft
G 1/8	25	18
G 1/4	40	30
G 3/8	95	70
G 1/2	130	96
G 3/4	250	184
G 1	400	295
G 1 1/4	600	443
G 1 1/2	800	590
10 x 1	25	18
12 x 1.5	30	22
14 x 1.5	50	37
16 x 1.5	60	44
18 x 1.5	60	44
20 x 1.5	140	103
22 x 1.5	140	103
26 x 1.5	220	162
27 x 1.5	250	184
33 x 1.5	400	295
42 x 1.5	600	443
48 x 1.5	800	590

G -M	Tightening torques for plugs	
	Nm	lb-ft
G 1/8	15	11
G 1/4	33	24
G 3/8	70	52
G 1/2	90	66
G 3/4	150	111
G 1	220	162
G 1 1/4	600	443
G 1 1/2	800	590
10 x 1	13	10
12 x 1.5	30	22
14 x 1.5	40	30
16 x 1.5	60	44
18 x 1.5	70	52
20 x 1.5	90	66
22 x 1.5	100	74
26 x 1.5	120	89
27 x 1.5	150	111
33 x 1.5	250	184
42 x 1.5	400	295
48 x 1.5	500	369



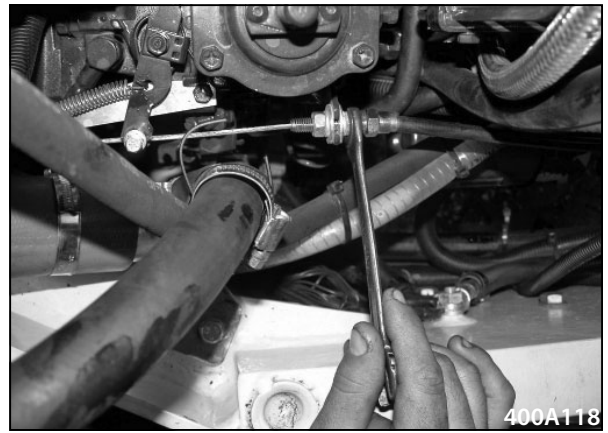
6.4. Dimensional diagram DV207 / DV207HF



406015

	<b>A</b>	<b>C</b>	<b>D</b>	<b>G1</b>	<b>G</b>	<b>H</b>
<b>mm</b>	3260	180	1150	965	240	3005
<b>in</b>	128,4	7,1	45,3	38	9,4	118,3
	<b>H1</b>	<b>L</b>	<b>T</b>	<b>W</b>	<b>W1</b>	
<b>mm</b>	2300	4410	15	1450	1550	
<b>in</b>	90,6	173,6	0,6	57,1	61	

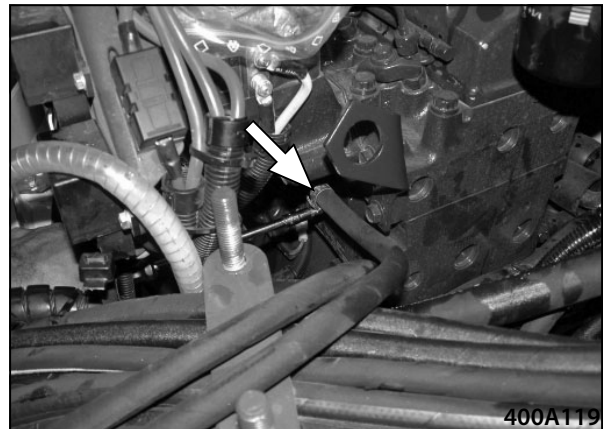
Remove accelerator control cable.



Remove the hoses from their holder. Remove the hose clamp.



Detach the fuel overflow hose from the engine; collect any fuel spill.



Detach the fuel supply pipe from the filter.



- 1) Box
- 3) Holder
- 4) Exhaust manifold
- 5) End fitting
- 8) Pipe
- 9) Yoke
- 10) Connector
- 15) Filter
- 16) Holder
- 17) Indicator
- 18) Exhaust
- 19) Manifold
- 23) Hose
- 24) Hose
- 27) Clip
- 28) Clip
- 29) Hose clamp
- 30) Clip
- 31) Hose clamp
- 33) Insulating tape
- 37) Hexagon head screw
- 38) Hexagon head screw
- 42) Hexagon nut
- 43) Hexagon nut
- 47) Washer
- 48) Washer

## 10.1. Hydraulic diagram

### Legend:

1. Travel pump
2. Vibration pump
3. Steering and cooling pump
5. Vibration and purging block
6. Travel hydraulic motor
7. Vibration hydraulic motor
8. Cooling hydraulic motor
9. Steering hydraulic motor
10. Crab hydraulic motor
11. Lifting hydraulic motor
12. Edge cutter hydraulic motor (option)
14. Power-assisted steering
15. Flow divider
16. Filter
17. Steering block
18. Flushing (purging) block
19. Cooler (combination type)
20. Hydraulic tank
21. Hand pump
22. Thermoregulator
23. Intake strainer
24. Filler neck
25. Level indicator
26. Oil gauge
27. Check valve
28. Check valve
29. Temperature switch  $85\pm 3^{\circ}\text{C}$  ( $181.4\pm 5.4^{\circ}\text{F}$ )
30. Ball valve
31. Ball valve
32. Quick coupling, filling type
35. Quick coupling, measuring type



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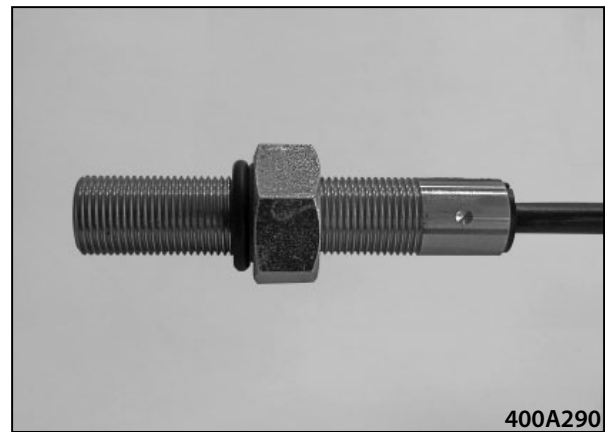


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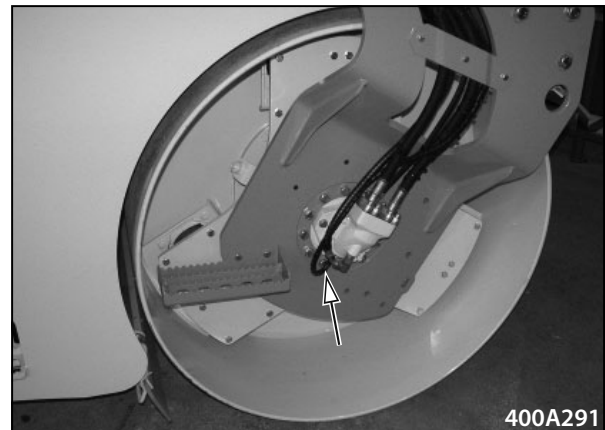
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### 11.5. Adjusting pulse sensors

The pulse sensor must be adjusted any time the travel hydromotor sensor is replaced.

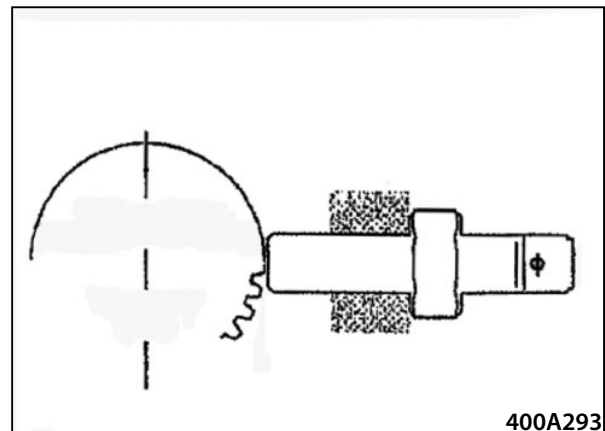


Location of pulse sensor on the machine (front drum).



**Proceed as follows when to adjust sensors:**

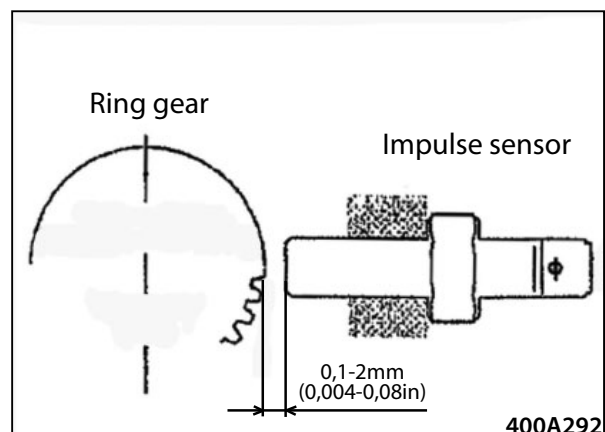
Install pulse sensor to the stop in the travel hydromotor so it touches the ring gear.



Turn the pulse back one turn so that the distance between the pulse sensor and the ring gear is 0.1-2 mm (0.004 to 0.08 in). See Figure.

Sensor – ensure the nuts and gaskets are tightened to torque.

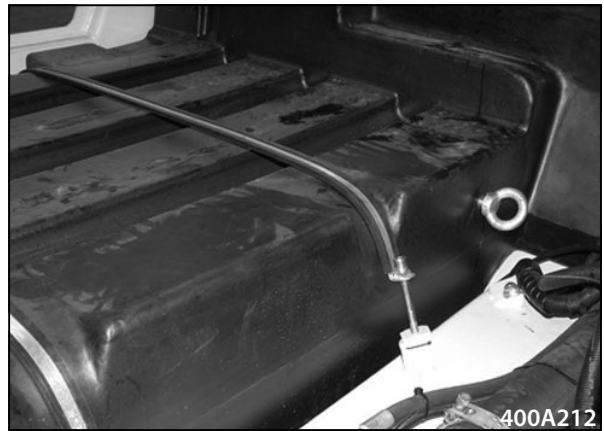
Tighten the nut to maximum 12 Nm (9 lb-ft).



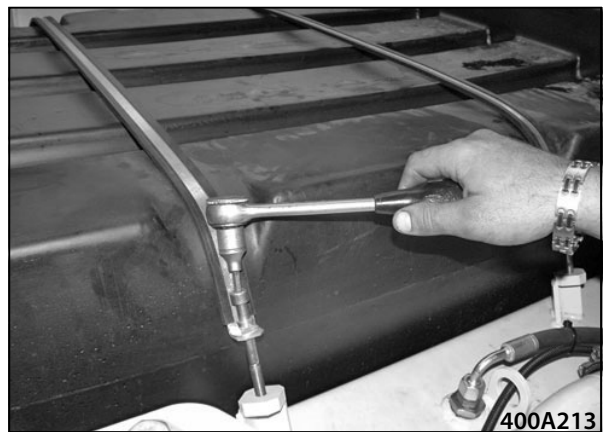
Detach the supply hose from the water tank.



Fit lifting lugs on both sides.

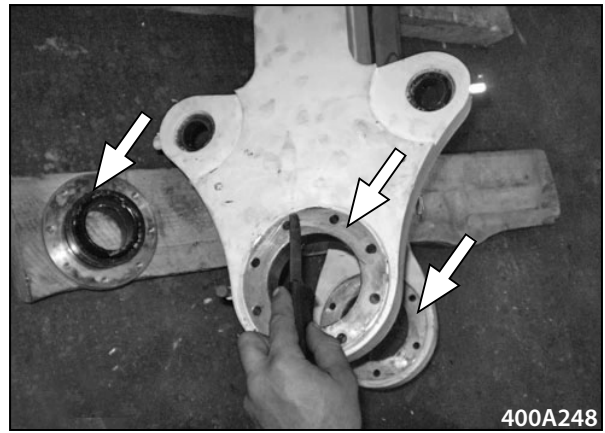


Remove the water tank mounting.



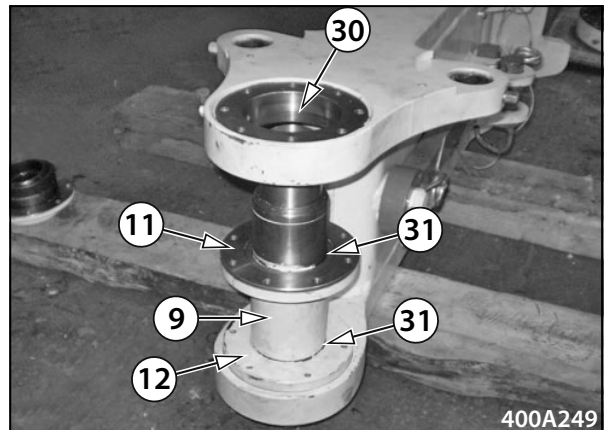
## 12.5. Installing the steering joint bearing

Clean contact surfaces of the arm (2) and covers (10, 11, 12, 13).



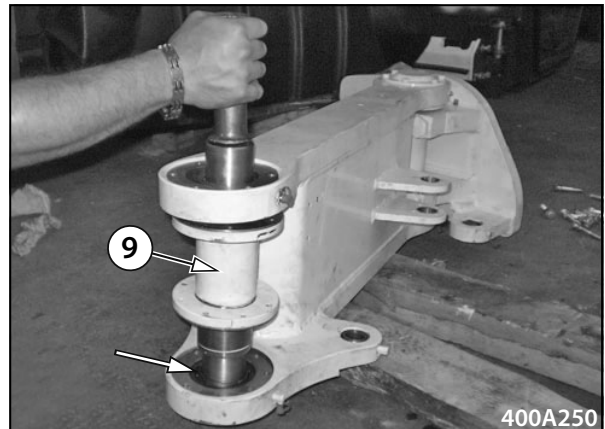
400A248

Insert the pin (9) and covers (11, 12) complete with scraper rings (31). Tap the bearing (30) into the arm.



400A249

Turn the arm and tap the pin (9) farther into the bearing.



400A250

Tap the bearing into place.



400A251

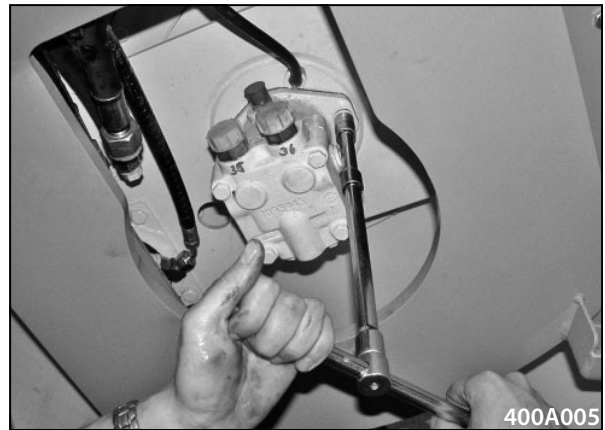
## **SECTION 41 - STEERING**

### **14. Steering cylinder**

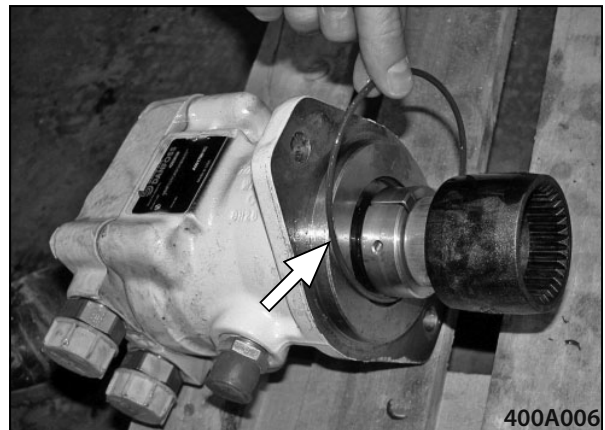
- 1) Yoke
- 2) Yoke
- 3) Transverse beam
- 4) Plate
- 6) Cover
- 7) Spacer washer
- 8) Spacer washer
- 9) Venting valve
- 10) Connector
- 11) Hose
- 12) Rubber mounting
- 15) Hexagon head screw
- 16) Hexagon head screw
- 17) Hexagon head screw
- 18) Hexagon head screw
- 19) Hexagon head screw
- 22) Hexagon head screw
- 28) Hexagon nut
- 30) Nut
- 35) Spring washer
- 36) Washer
- 37) Spring washer
- 39) Washer
- 40) Washer
- 50) Plug

Remove the hydromotor mounting bolts.

**NOTE:** When reinstalling, clean the contact surfaces, use Loctite 262 to cement the bolts and torque tighten to 117 Nm (86 lb-ft).

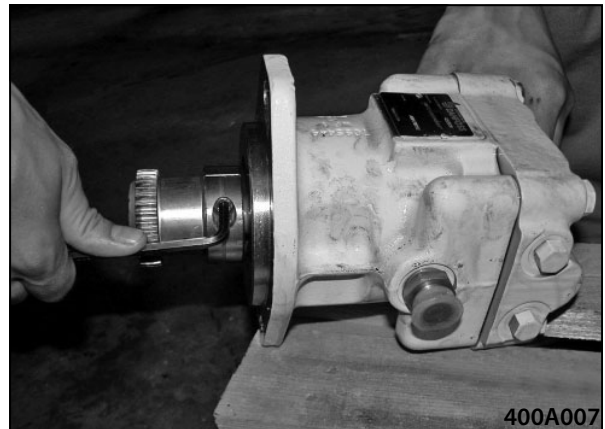


We recommend replacement of the sealing ring.



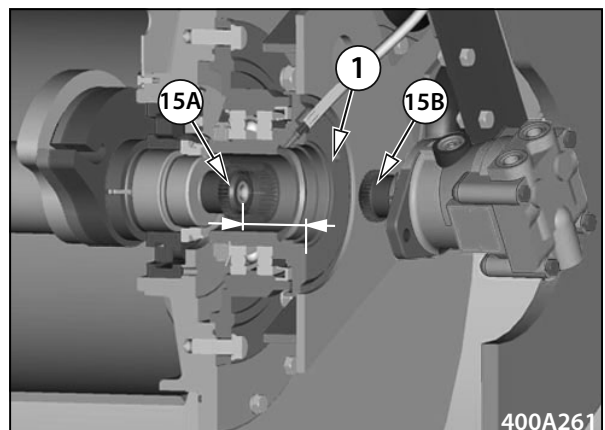
Remove the plastic segment of the coupling.  
Remove the coupling complete with locking ring.

**NOTE:** When reinstalling the locking ring, cement it with Loctite 577 and torque tighten to 10 Nm (7 lb-ft).

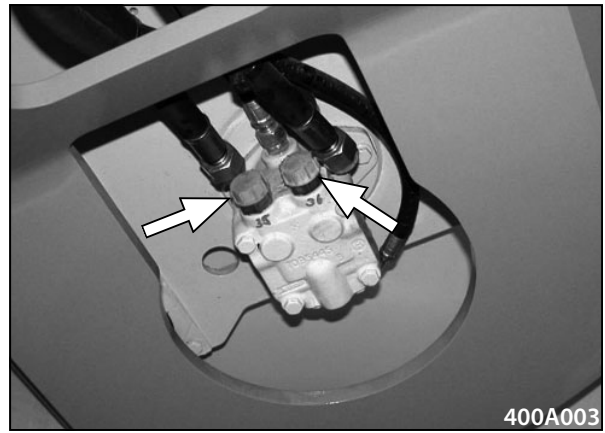


**NOTE:** Before performing any measurement, tap the vibrator into the bearing (13) in the hood on the opposite side.

Before installing the vibration hydromotor, measure the distance from the hub face (1) to the coupling (15A).



Blind the hydromotor hoses and outlets.



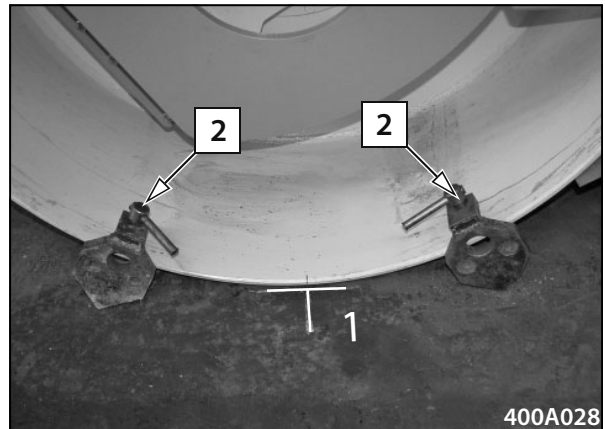
400A003

Attach the hoses to the machine frame.



400A027

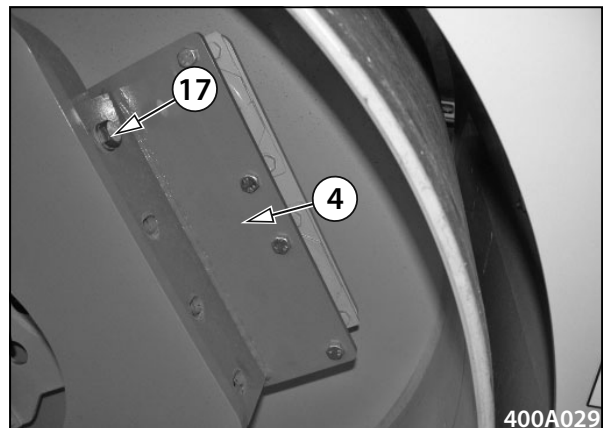
Secure the drum against any movement (fixture no. [2]). Mark the position of the drum (1) on both sides.



400A028

Remove the bolts (17) of the steel sheet (4).

**NOTE:** When reinstalling, clean the contact surfaces and torque tighten the bolts (17) to 200 Nm (148 lb-ft).



400A029

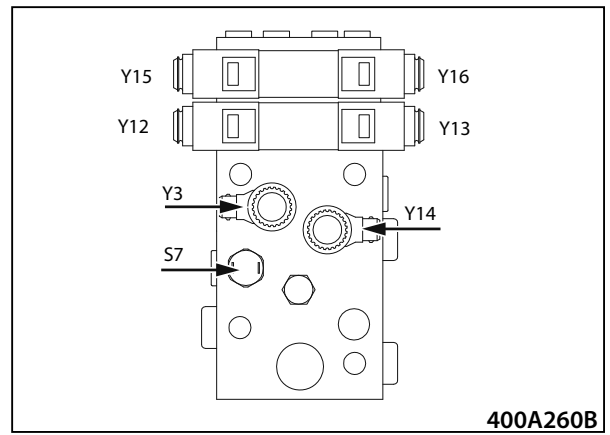
## **SECTION 50 – CAB CLIMATE CONTROL**

### **16. Removing the heater/cooling air fans**

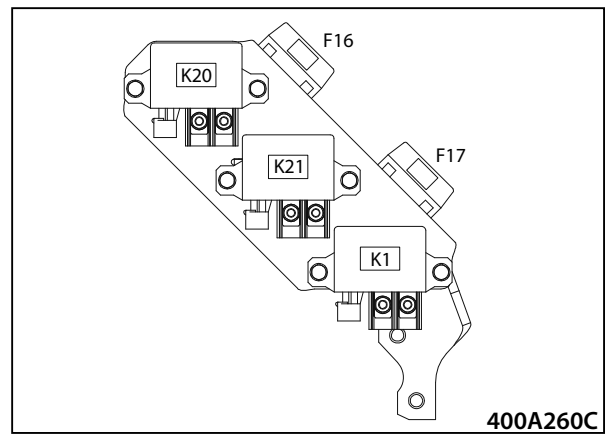
## **SECTION 55 - ELECTRICAL SYSTEM**

### **17. Electrical installation**

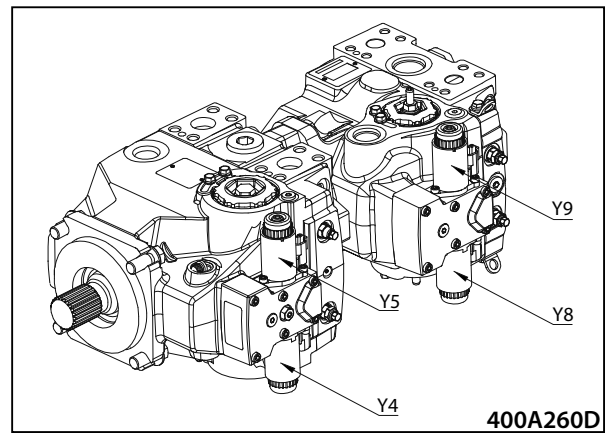
View B



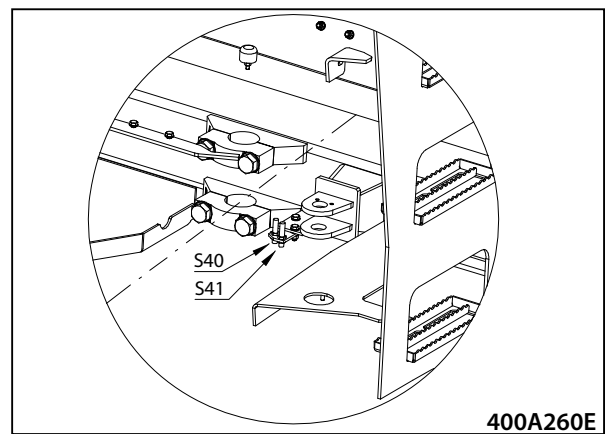
View C



View D



View E



- 1) Housing
- 2) Lever
- 3) Lever
- 4) Connecting rod
- 5) Arm
- 6) Lever
- 7) Rocker
- 8) Pull rod
- 9) Ring
- 10) Pin
- 11) Bolt
- 12) Brake
- 13) Cover
- 14) Cover
- 15) Plate
- 16) Pipe
- 17) Lever
- 20) Head piece
- 21) Joint
- 22) Angle transmitter
- 23) Sensor
- 24) Tension spring
- 25) Hexagon head screw
- 26) Hexagon head screw
- 27) Hexagon head screw
- 28) Socket head cap screw
- 29) Hexagon head screw
- 30) Set screw
- 31) Socket head cap screw
- 32) Oval head screw
- 33) Hexagon nut
- 34) Nut
- 35) Nut
- 36) Washer
- 37) Washer
- 38) Lock washer
- 39) Lock washer
- 40) Lock washer
- 42) Circlip
- 43) Hexagon nut
- 44) Washer
- 45) Washer
- 50) Oval head screw
- 51) Bush
- 52) Spring pin

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