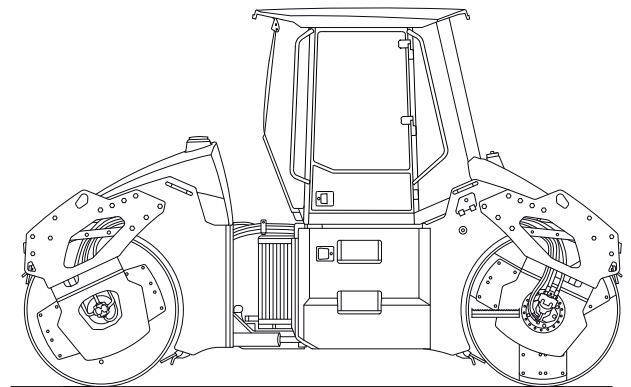


Workshop manual

ARX 90 Deutz



CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

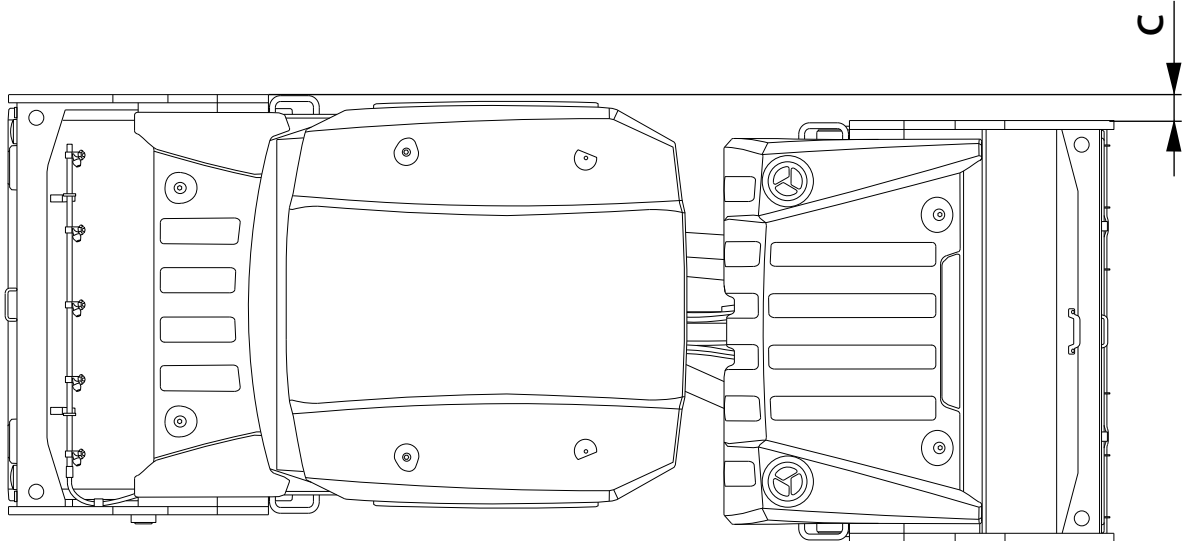
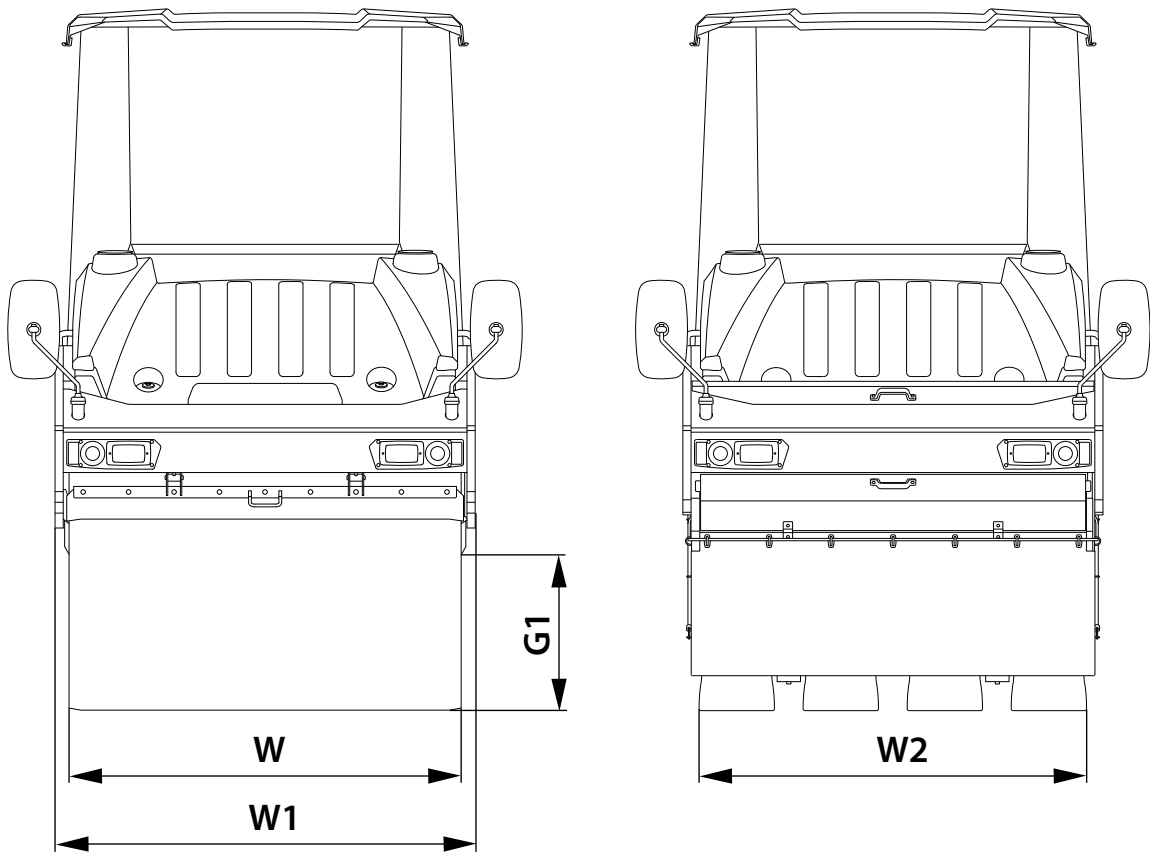
- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



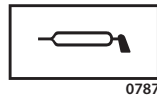
- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

3. Machine Description



5.6. Lube grease



Use plastic lubricant with lithium content to lubricate the Machine under the following standards:

- ISO 6743/9 CCEB 2
- DIN 51 502 KP2K-30

5.7. Glass washer fluid



Use water (up to 0 °C temperature) and agent for motor vehicle glass washers when filling the glass washer tank.



Replace water with antifreeze agent at the temperatures below 0 °C (32 °F).

5.8. Drum cooling liquid



Mixture:

- 23 l (6,1 Gal US) of water
- 51 kg (112 lb) of calcium chloride - CaCl₂

5.9. Air Conditioning filling



Mixture:

- 1,2 kg (2,65 lb) coolant Halocarbon 134a
- 0,3 l (0,08 gal US) oil PAG 150
- 0,005 l (0,0013 gal US) contrast medium

5.10. Vibratory oil



For lubrication of vibrator use oil by:
SAE 40, API SC/CB

5.11. Emulsion



For sprinkling the tyres, use the anti-adhesive emulsion of the agent RHODOSIL EMULSION E1P with water in the mixing ratio 1.5:100.

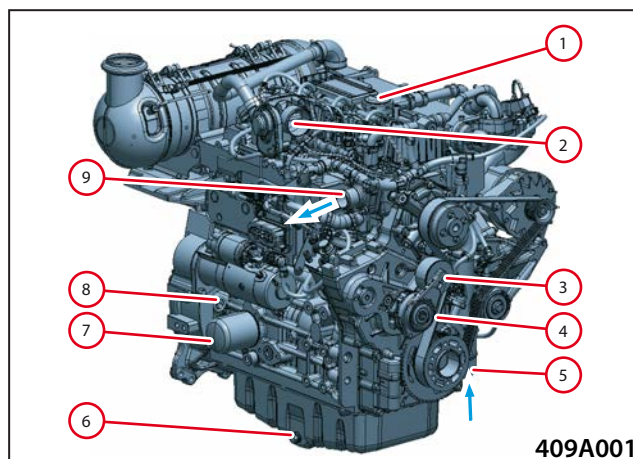
7.1. Description of the engine and basic components

Engine name plate



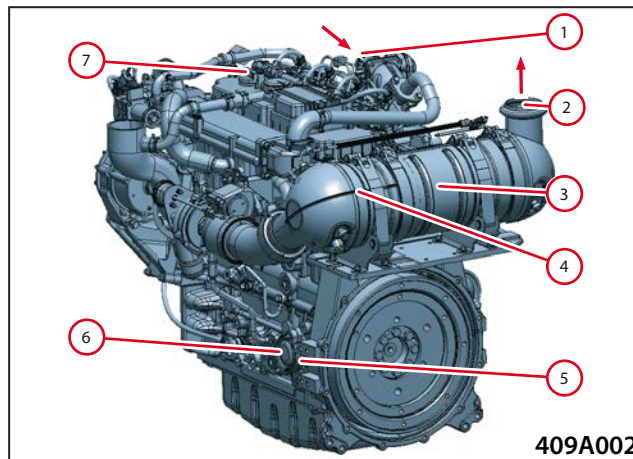
View from right (example)

- 1 - Crankcase breather
- 2 - Throttle valve
- 3 - Tension pulley
- 4 - V-rib belt
- 5 - Coolant inlet
- 6 - Lubricating oil drain plug
- 7 - Lube oil replacement filter
- 8 - Lubricating oil dipstick
- 9 - Coolant outlet

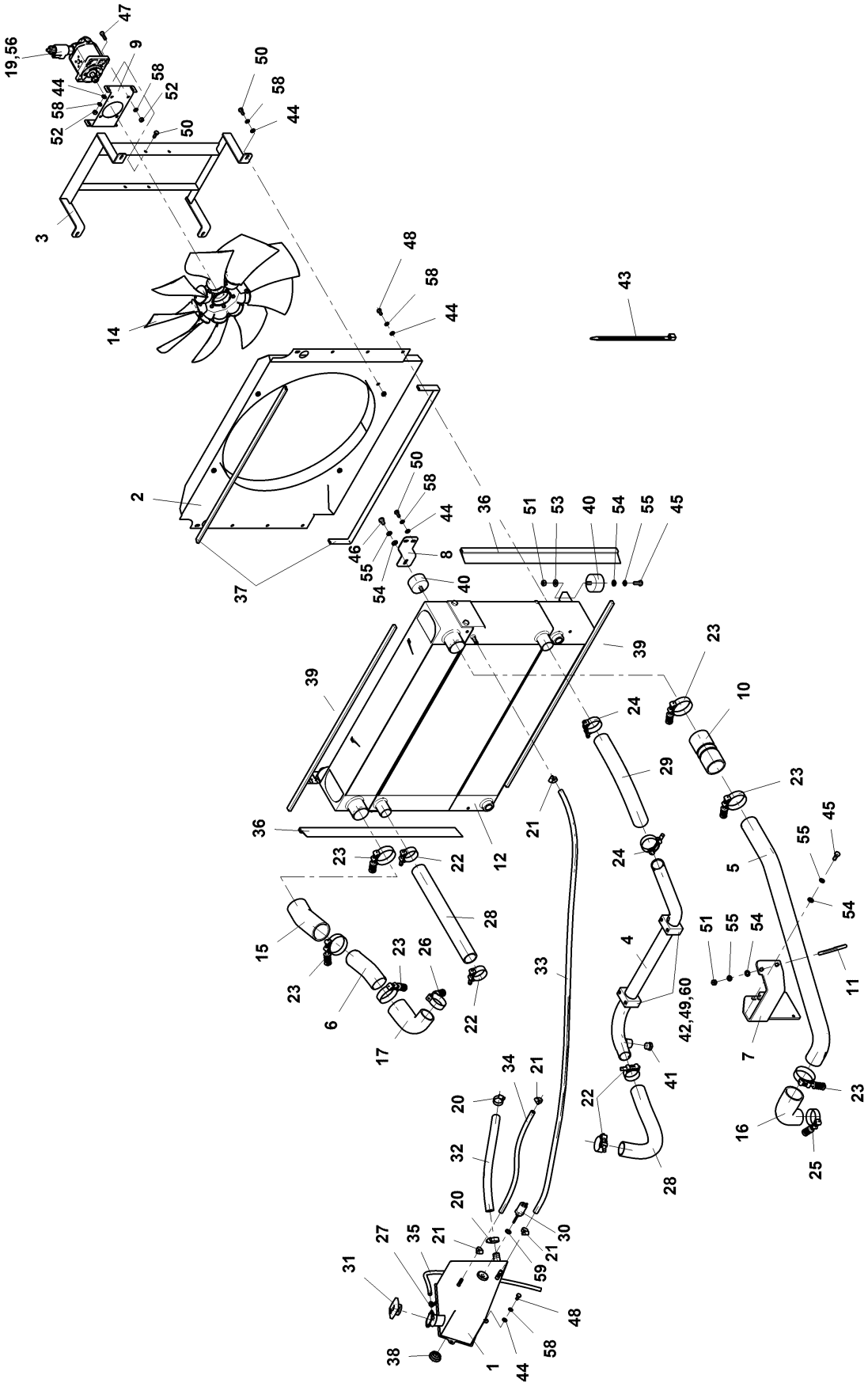


View from left (example)

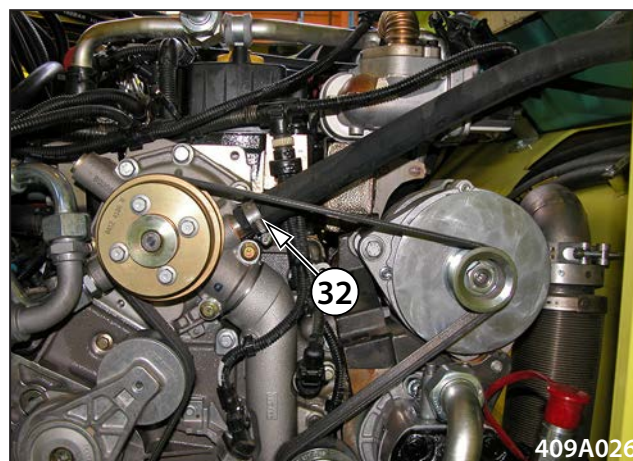
- 1 - Combustion air inlet
- 2 - Exhaust outlet
- 3 - Diesel particle filter
- 4 - Diesel oxidation catalytic converter
- 5 - Lubricating oil dipstick - Optional
- 6 - Lube oil replacement filter - Optional
- 7 - Lubricating oil filling



001-126



Remove the hose (001-126-32).



Remove the holder with the hydraulic cube.



Lift the holder and secure it using the girt band.



Disconnect the wire 111 from the alternator.



8.3. Steering pump removal

Personal protective equipment



Service tools

Wrench set standard

Vessel for capturing any leaking fluids

Vessel for hydraulic oil 60 l (15,9 gal US)

End caps for hydraulic components and hoses

Torque wrench



Service tools

Hydraulic oil as defined in the Media specification



Service instructions

Proceed in reverse order when reassembling.

Blind the hose ends and pump outlets.

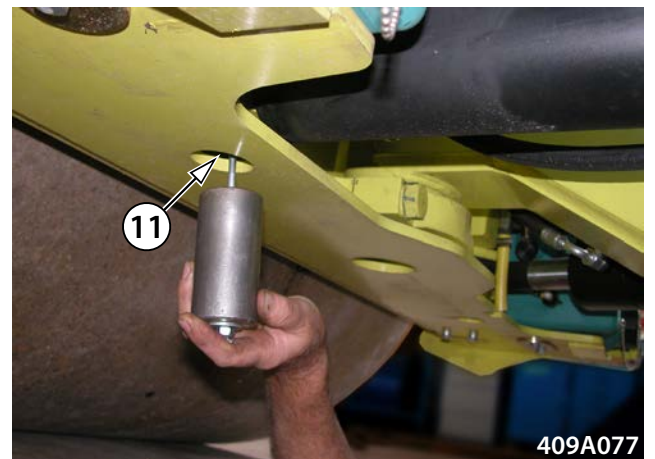
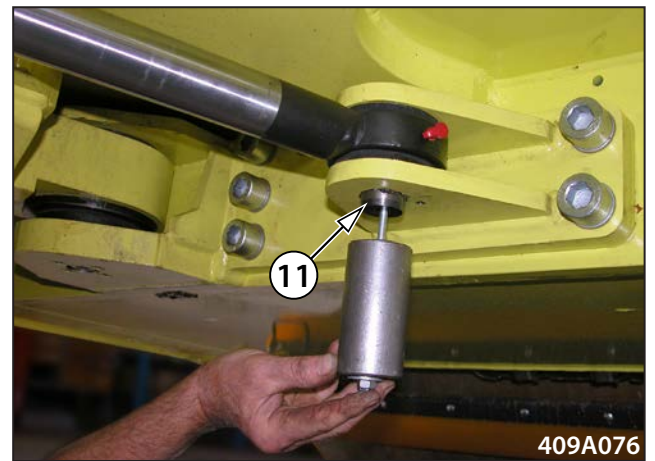
After the pump installation, refill the hydraulic oil to the specified limit.

Tighten the screws to specified torque defined in chapter 16.4. Tightening Torque Values

Remove the pins (003-065-11).

Note

Apply grease on the surfaces to install the piston rod in the bracket.

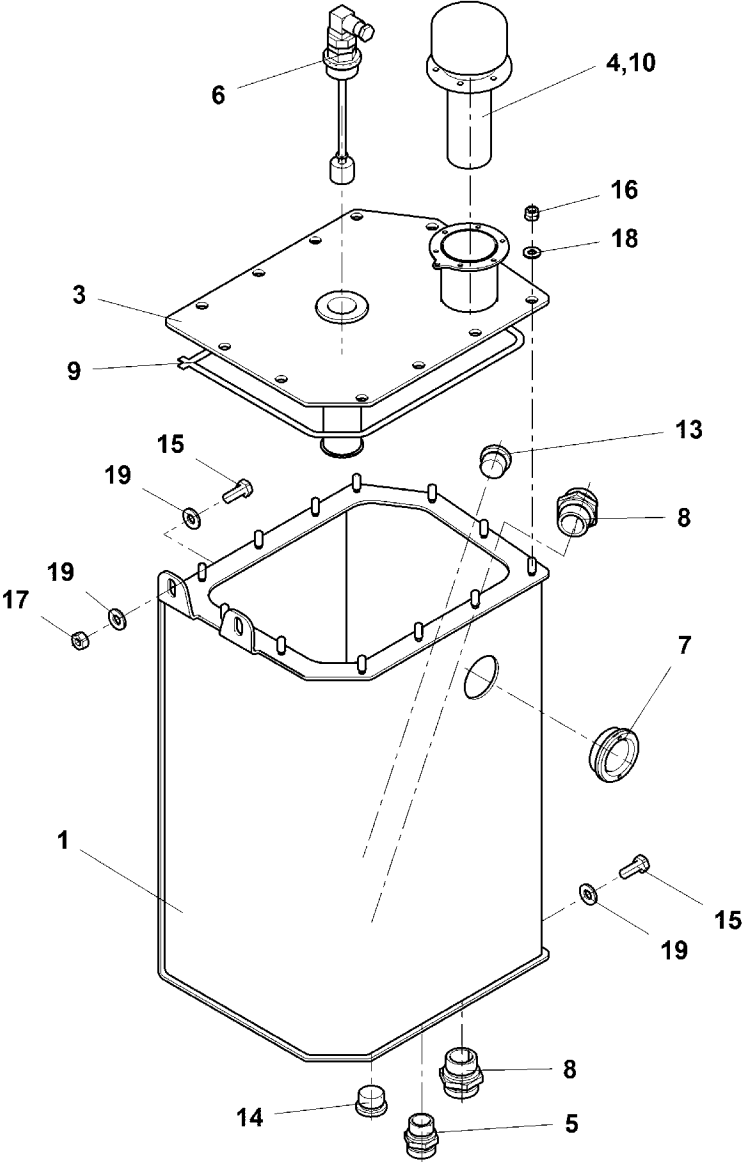


Take out.

After the installation, refill the hydraulic oil to the specified limit.



005-360



8.9. Removal of the steering joint from the machine

Personal protective equipment



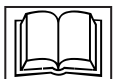
Service tools

Crane with a sufficient lifting capacity
 Slings with a sufficient lifting capacity
 Wrench set standard
 Torque spanner
 Wrench set inbus
 Hydraulic jack with capacity of 6t
 Air driver
 End caps for hydraulic components and hoses
 Press
 Torque wrench



Service material

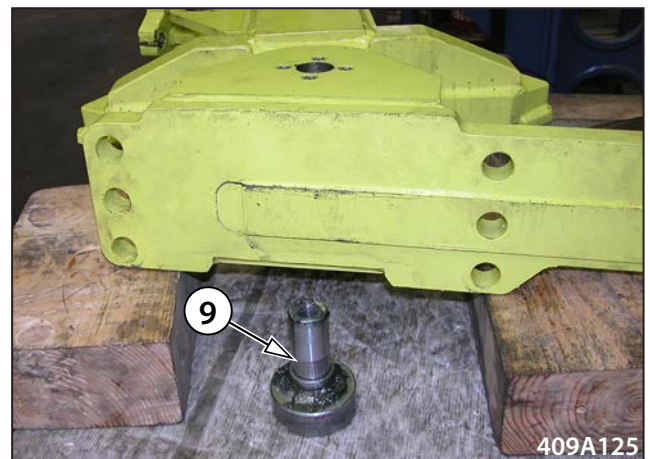
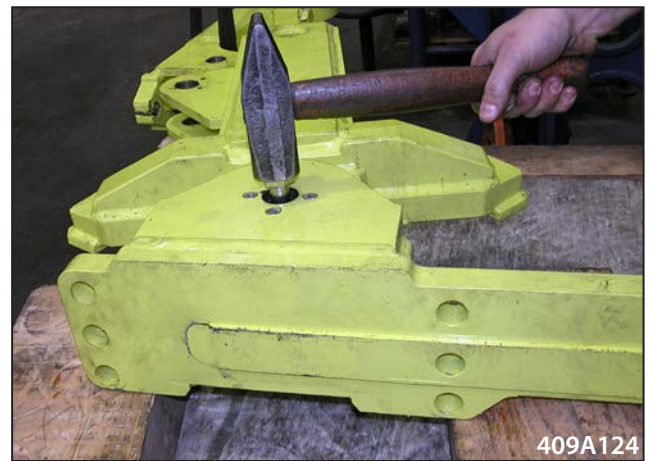
Grease as defined in the Media specification
 Molyka G (ISO 6743/9 CCEB 2/3, DIN 51 502 KF2/3K-30)



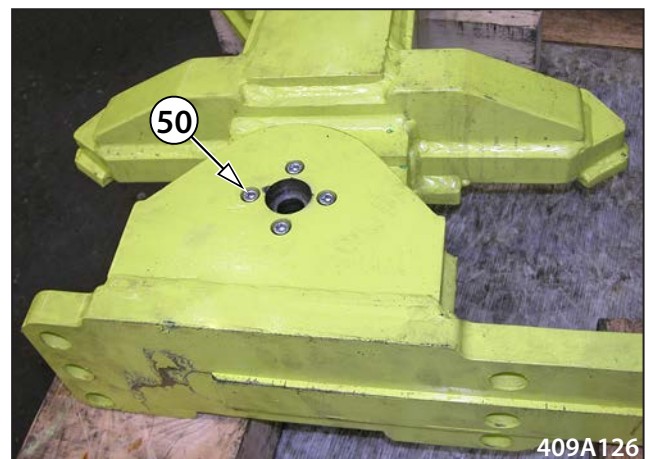
Service instructions

Blind the hose ends and hydraulic motor outlets.
 Proceed in reverse order when reassembling.
 Tighten the screws (003-065-56) with the torque 725 Nm (535 lbft).
 When assembling, glue the sleeve (003-065-26).
 Set the bush (003-065-12) opposite holes in the bracket (003-065-1).
 Tighten the nut (003-065-41) with the torque 50 Nm (37 lbft).
 Apply the grease Molyka G (ISO 6743/9 CCEB 2/3, DIN 51 502 KF2/3K-30) on the bearings (003-065-32) and bushes (003-065-13).
 Apply grease on the surfaces to install the arm (003-065-4) in the bracket.
 Glue the seal rings (003-065-025) when reassembling.
 Tighten the screws to specified torque defined in chapter 16.4. Tightening Torque Values

Mount the screw M20x150. Force out the screw (003-065-9).

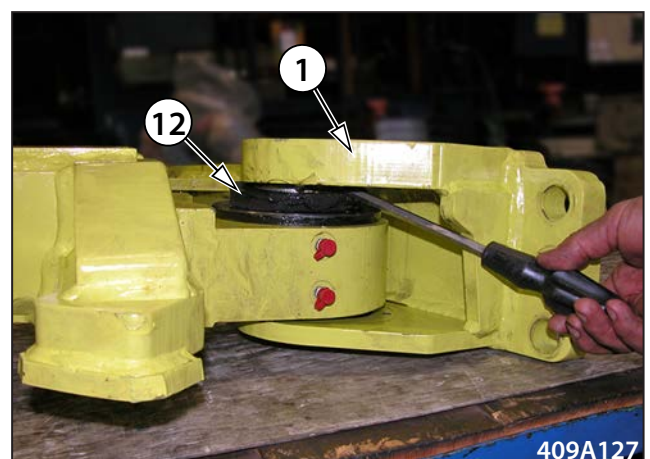


Remove the screws (003-065-50).

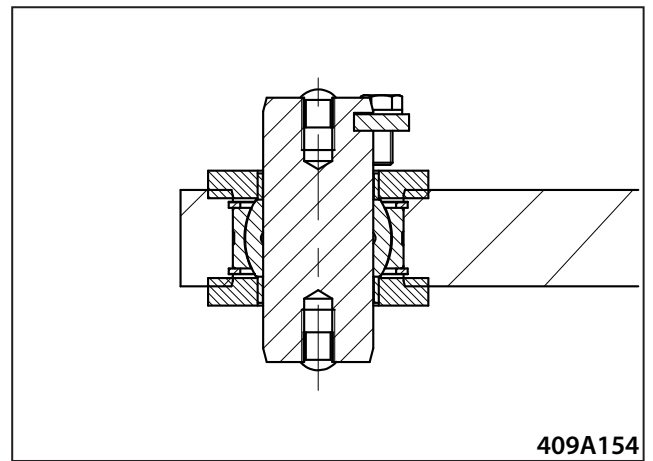


Push out the bush (003-065-12) from the bracket shoulder (003-065-1).

Remove the brackets.



Front bearing



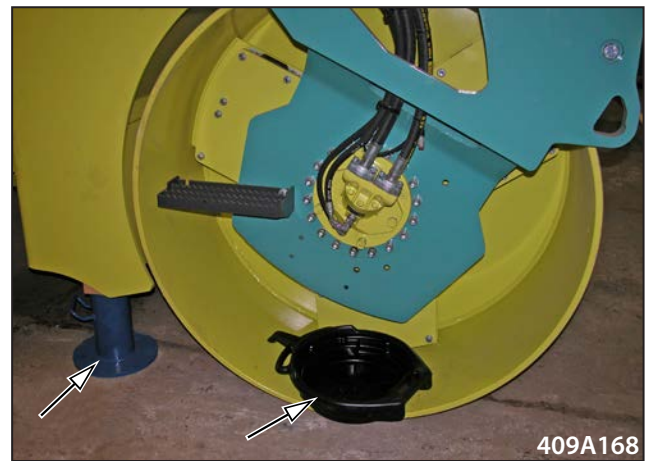
Drain the coolant. Drained volume 23 l (6,1 gal US).



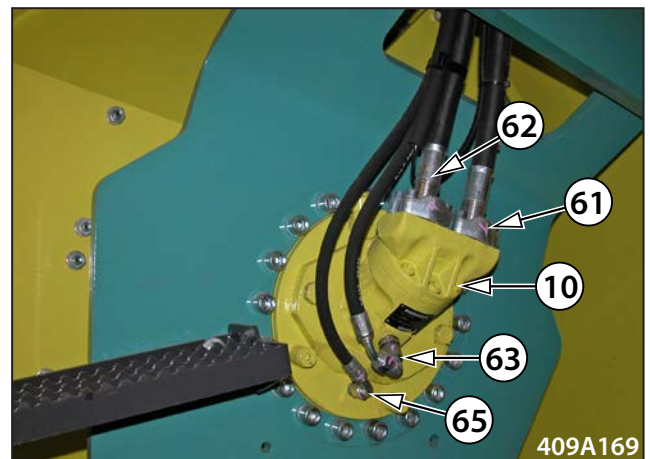
Dismount the covers.



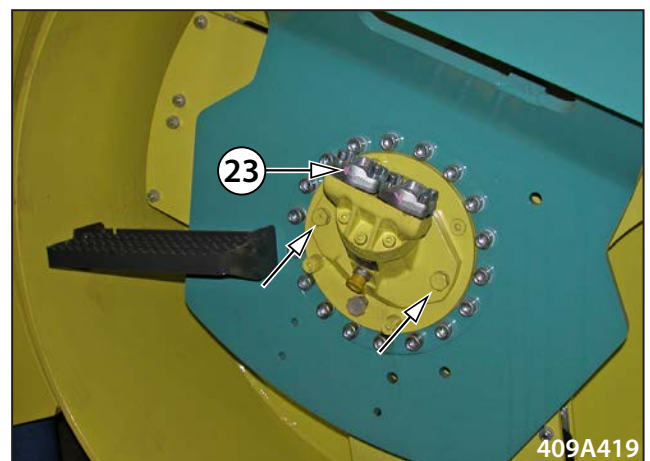
Put the vessel for capturing any leaking fluids under the travel hydraulic motor.



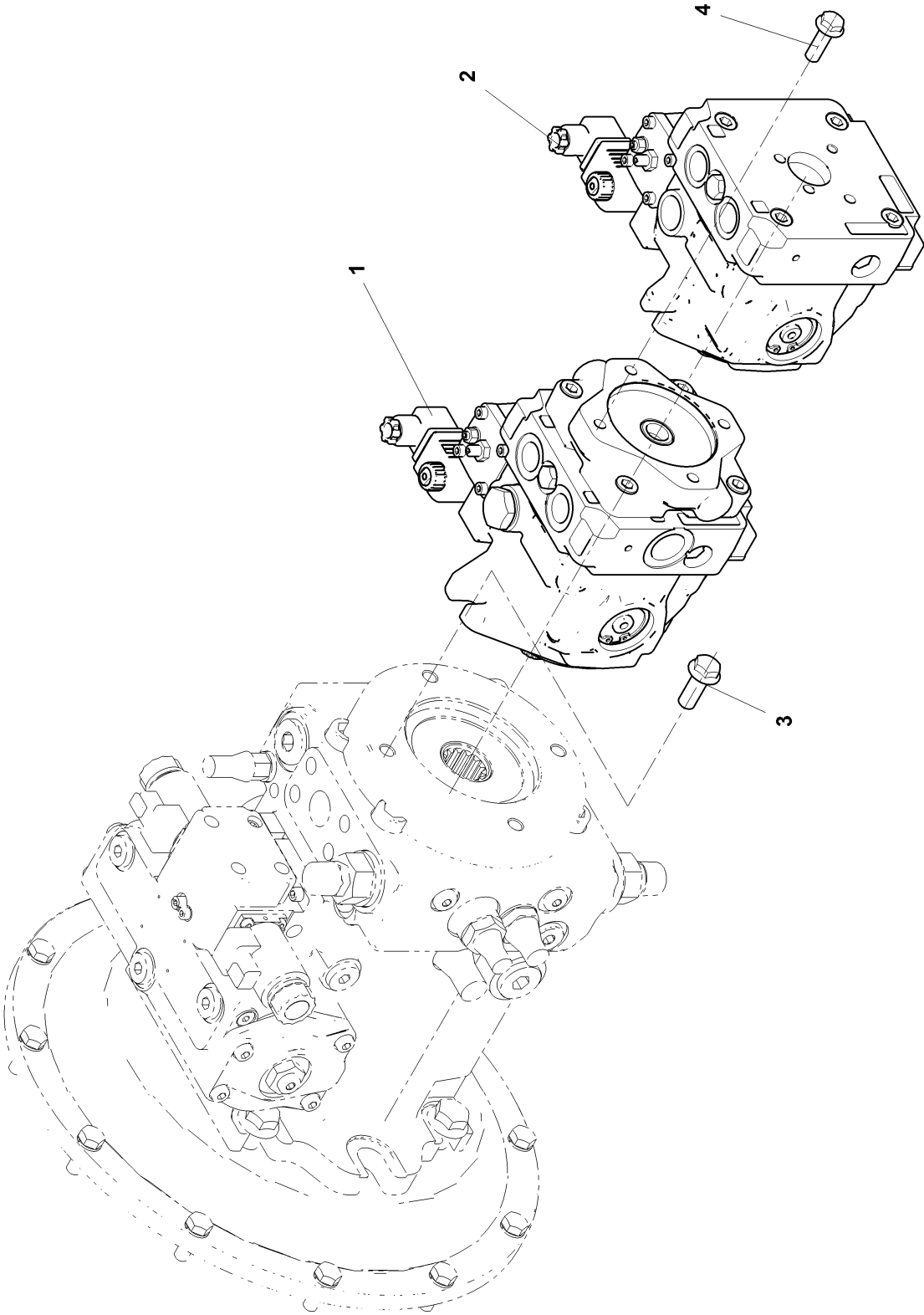
Remove the hydraulic hoses (005-311-61), (005-311-62), (005-311-63), (005-311-65) from the hydraulic motor (005-311-10). Mount the plugs.



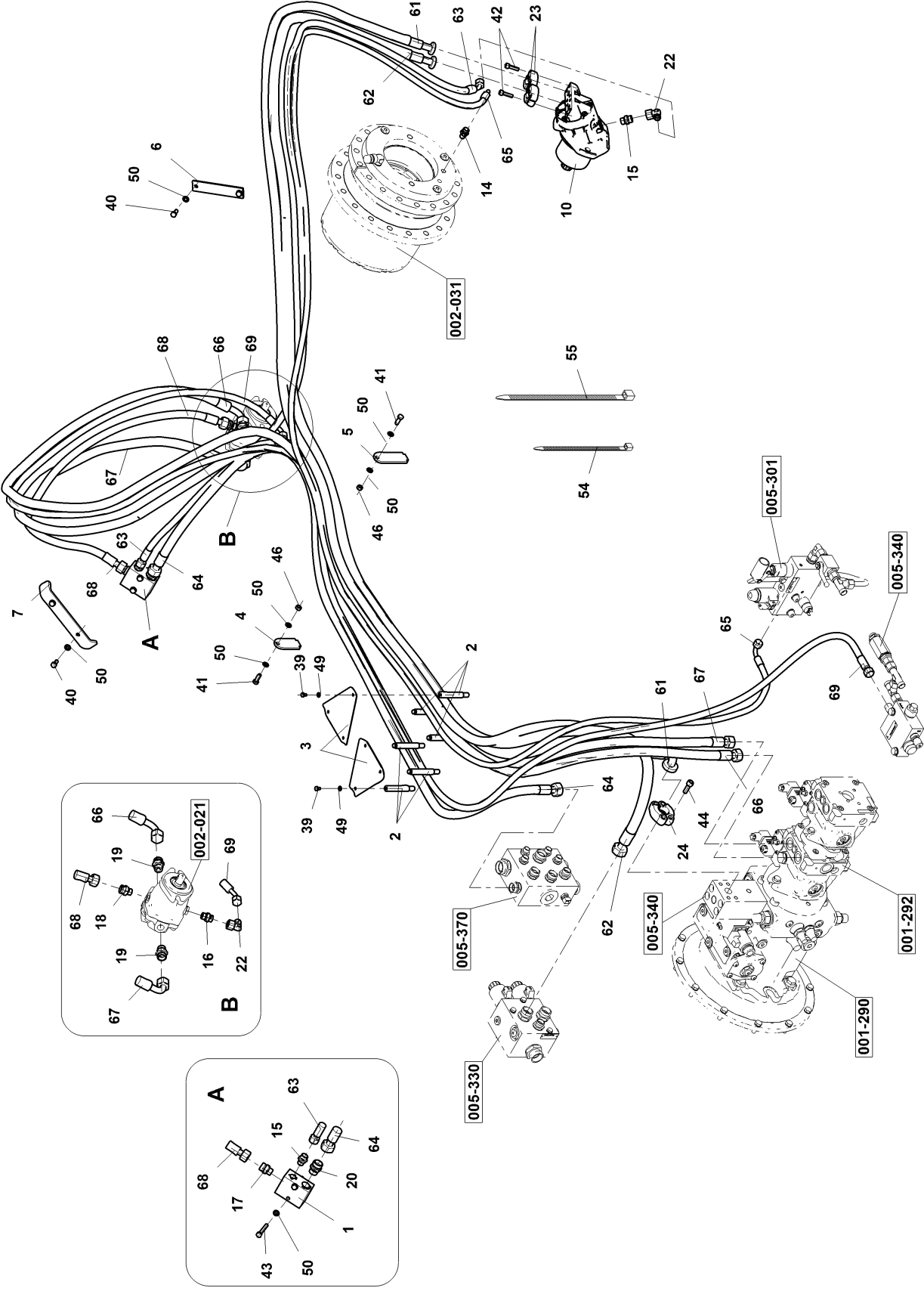
Remove the screws.
Check the seal ring.
Remove the yokes (005-311-23) and mount on the new hydraulic motor.



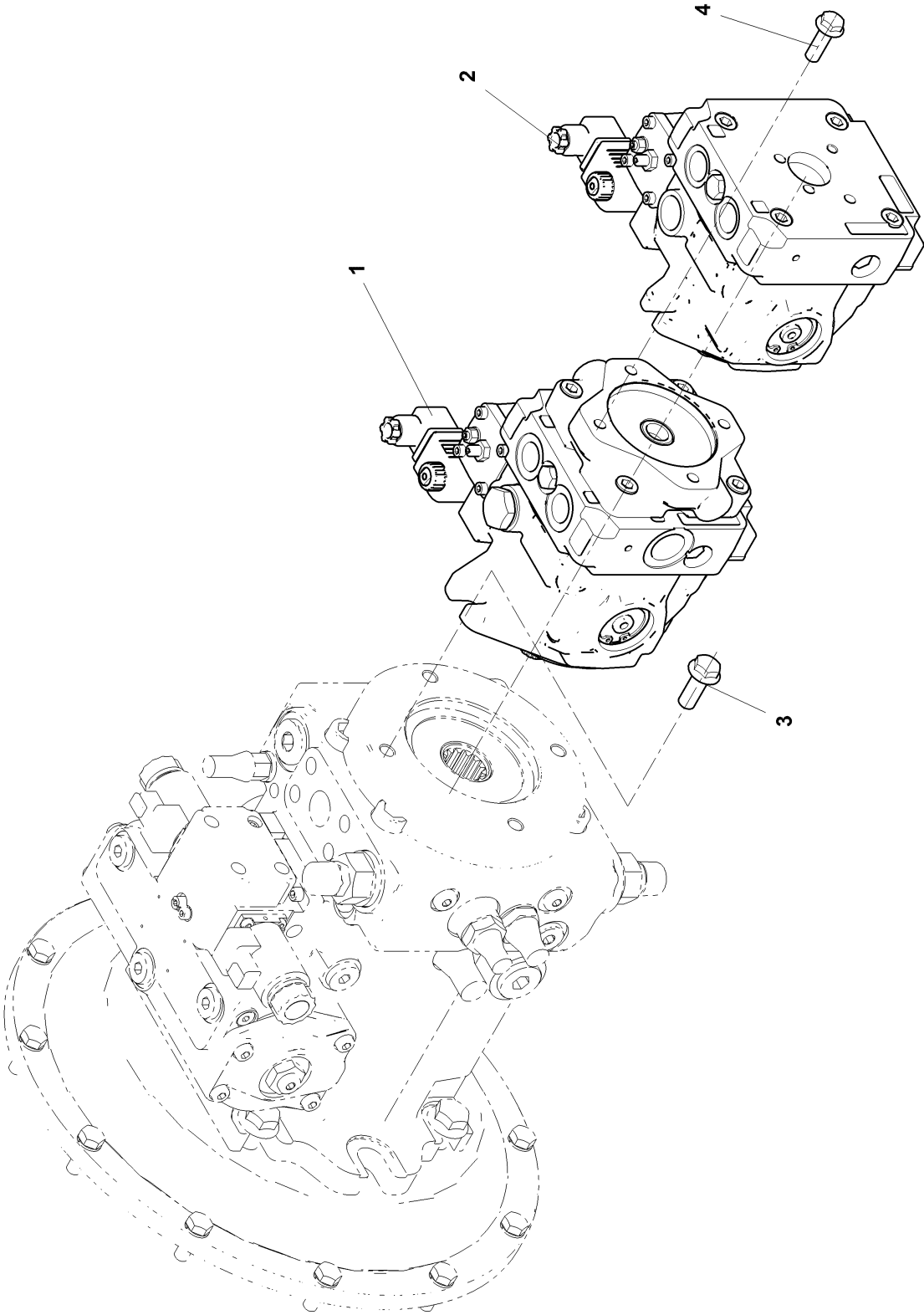
001-292



005-311



001-292

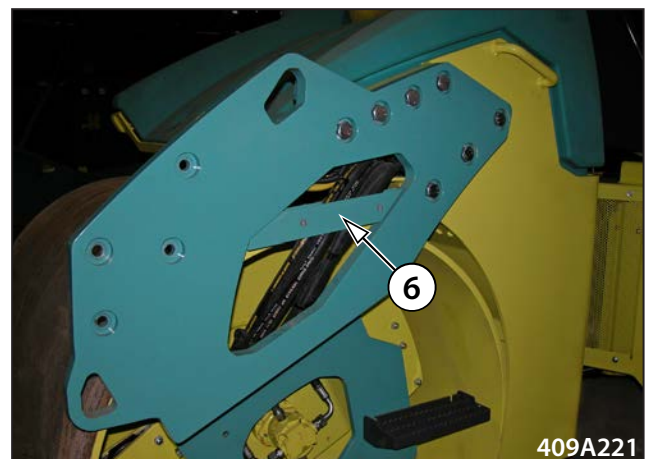


Lay it aside.

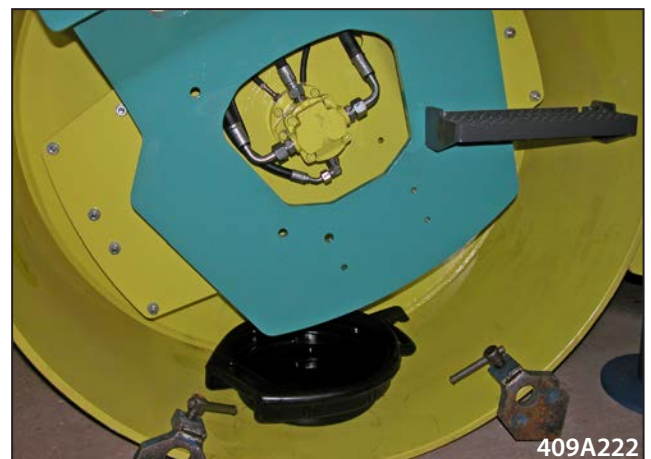


Rear drum - right side

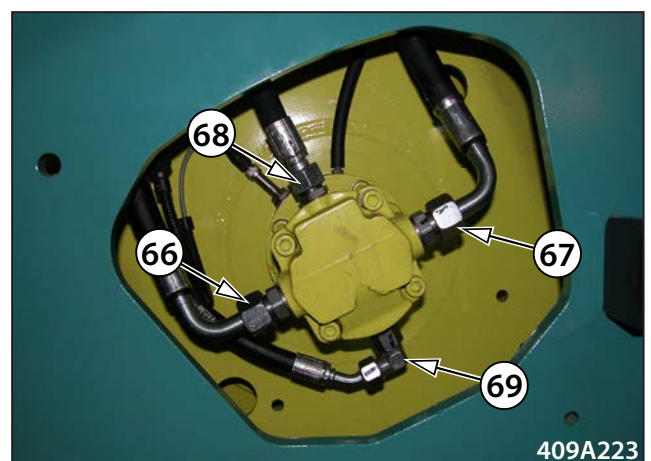
Remove the holder (003-081-6).



Put the vessel for capturing any leaking fluids under the vibration hydraulic motor.



Remove the hydraulic hoses (005-311-66), (005-311-67), (005-311-68), (005-311-69) from the hydraulic motor (002-021-12). Mount the plugs.



CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

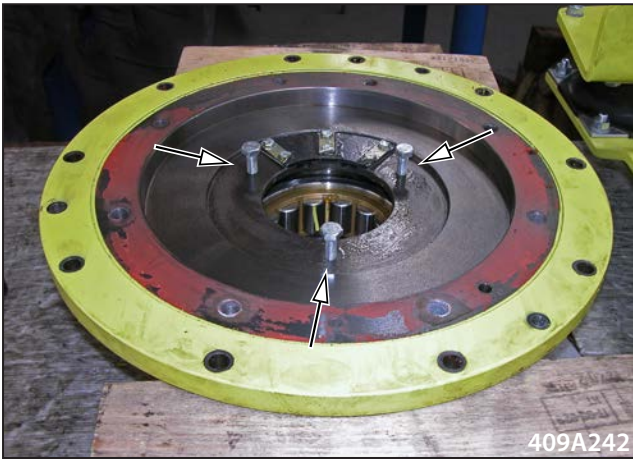
- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

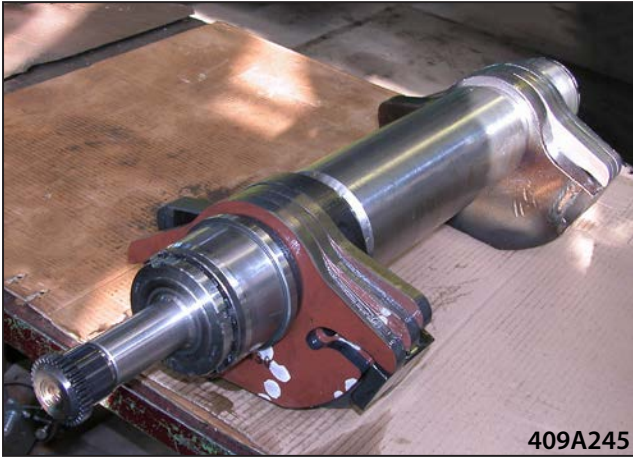
Using the screws M10x100 force the bearing (002-021-15) away evenly.



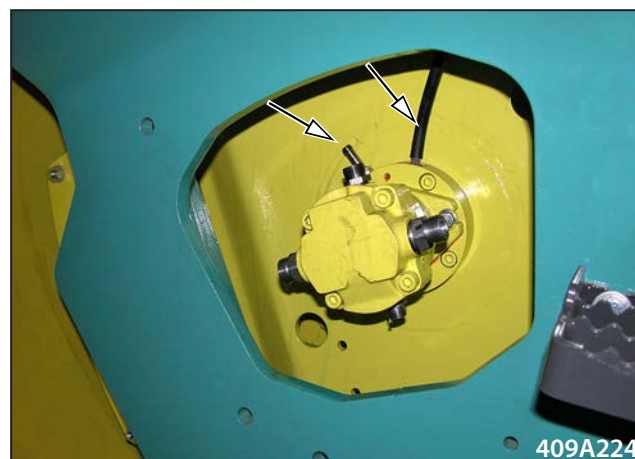
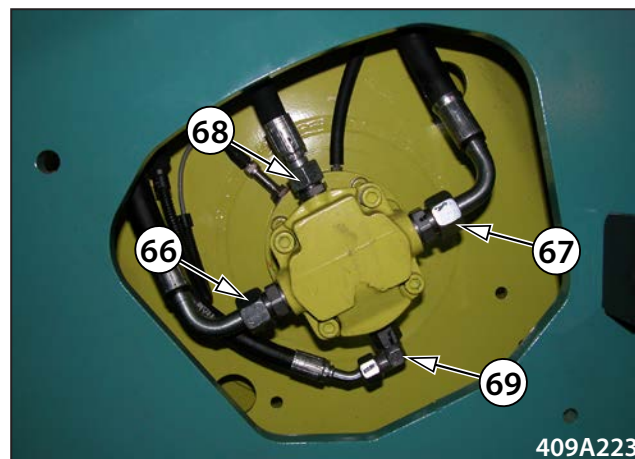
Mount the lifting lug M10. Hang the vibrator on a crane with sufficient load capacity. The vibrator weight is 90 kg (176 lb).



Remove the vibrator and lay it aside.



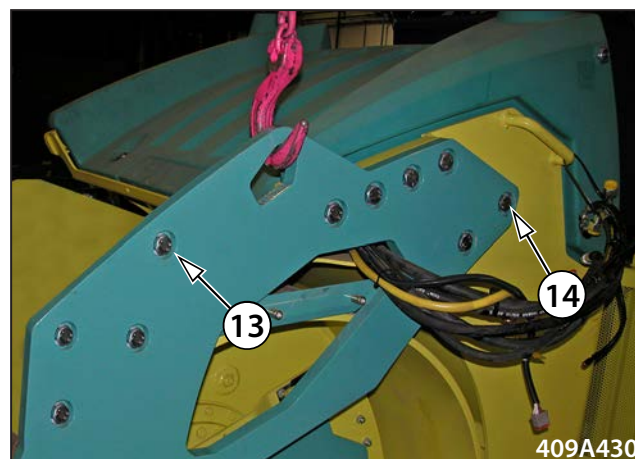
Remove the hydraulic hoses (005-311-66), (005-311-67), (005-311-68), (005-311-69) from the hydraulic motor (002-021-12). Mount the plugs. Disconnect the sensor and bleeding hose.



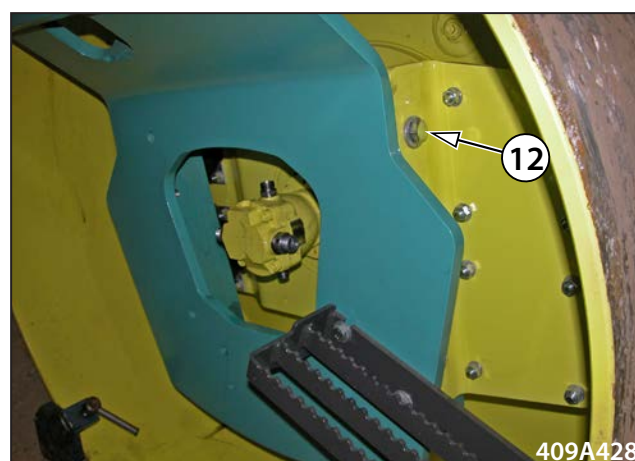
Hang the sidewall (003-081-1) on the crane with a sufficient capacity. The sidewall weight is 200 kg (441 lb). Remove the screws (003-081-13), (003-081-14).

Note

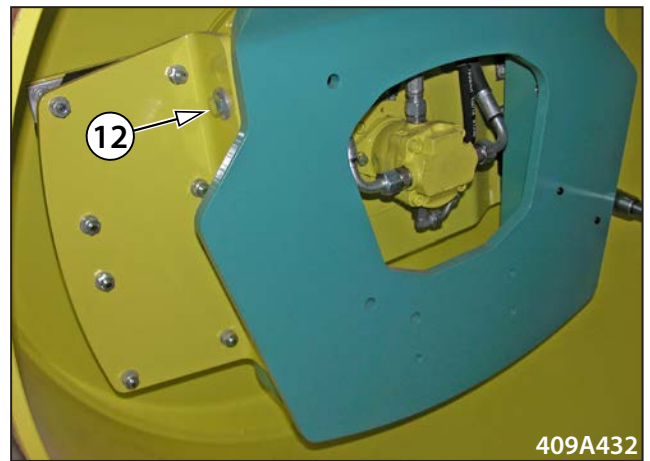
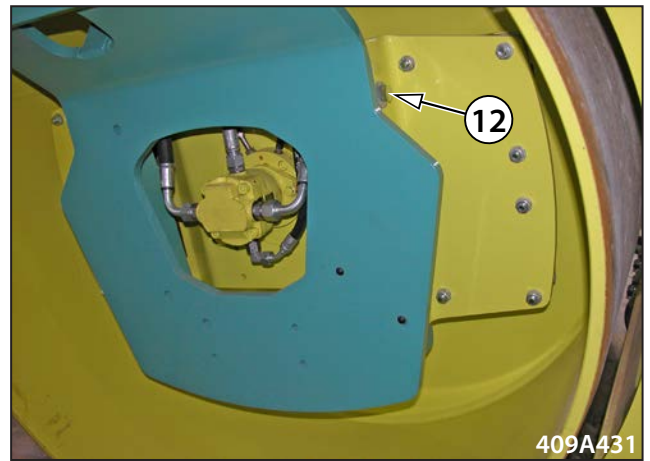
Secure the screws (003-081-14) with the adhesive Novadurit ZV 115.



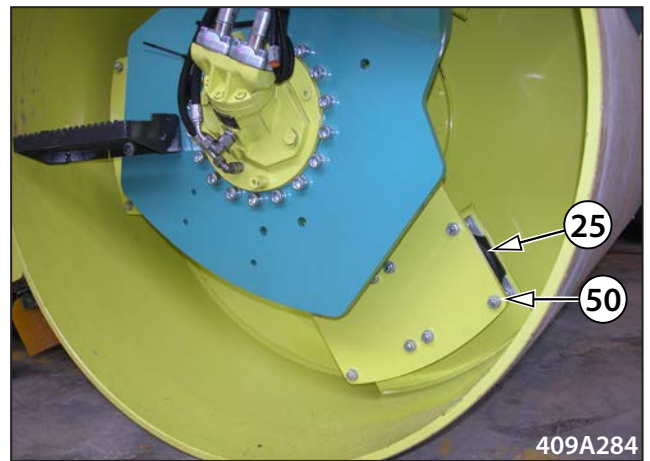
Remove the screws (003-081-12).



Loosen the screws (003-081-12).



Remove the screws (002-031-50) of the rubber-metal (002-031-25).

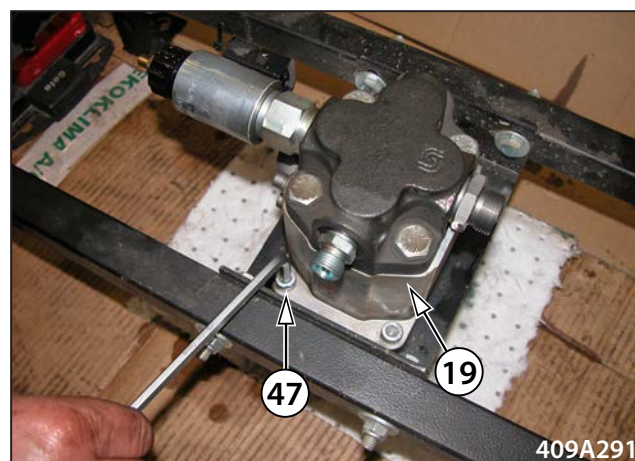




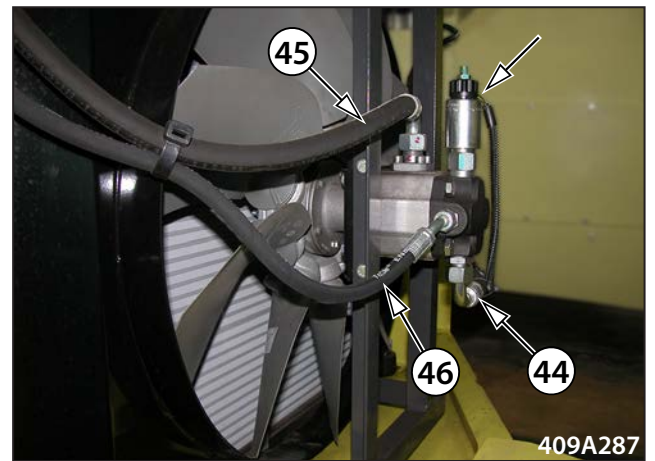
Remove the flange using a puller.



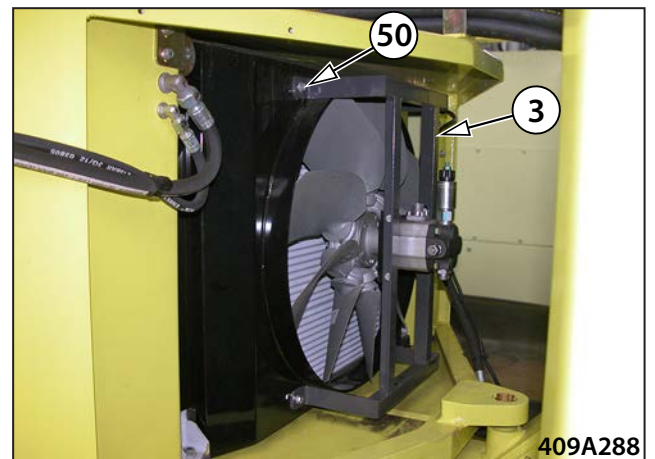
Remove the screws (001-126-47) of the hydraulic motor (001-126-19).



Disconnect the valve connector. Remove the hydraulic hoses (005-370-44), (005-370-45), (005-370-46). Mount the end caps.



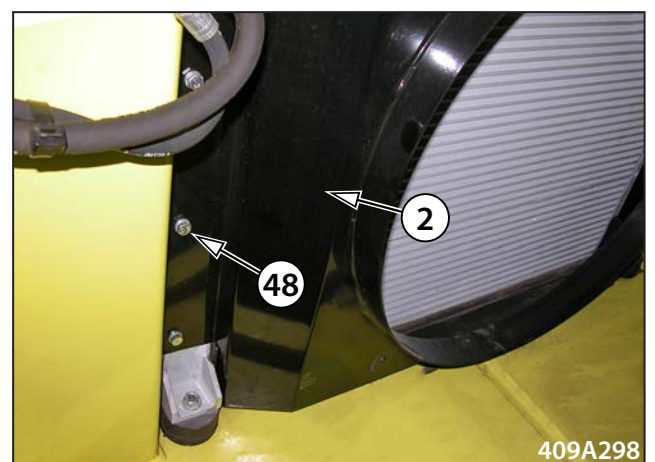
Remove the screws (001-126-50) of the holder (001-126-3).



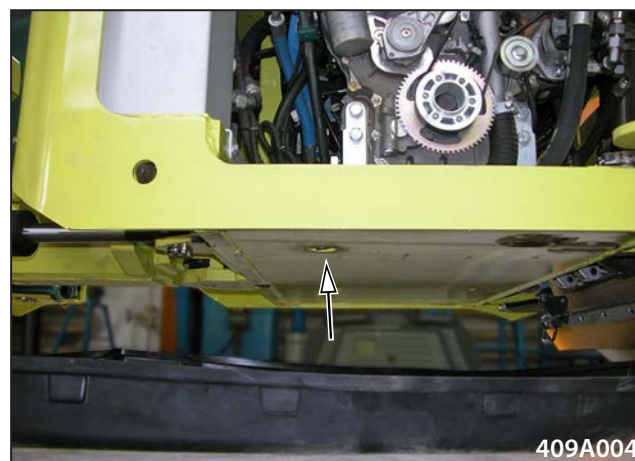
Take out the holder (001-126-3) with the hydraulic motor (001-126-19) and the propeller (001-126-14).



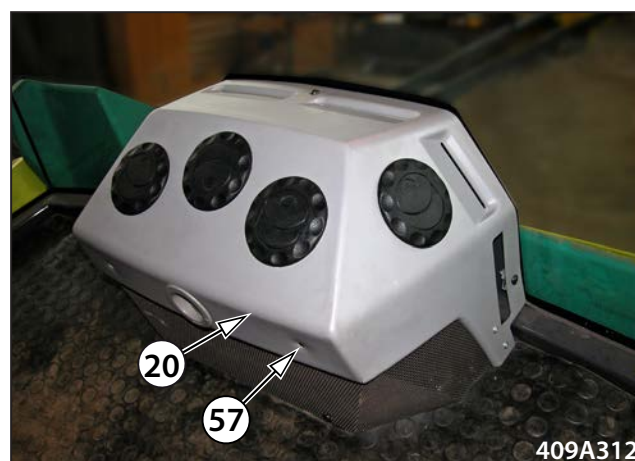
Remove the screws (001-126-48) of the cover (001-126-2).



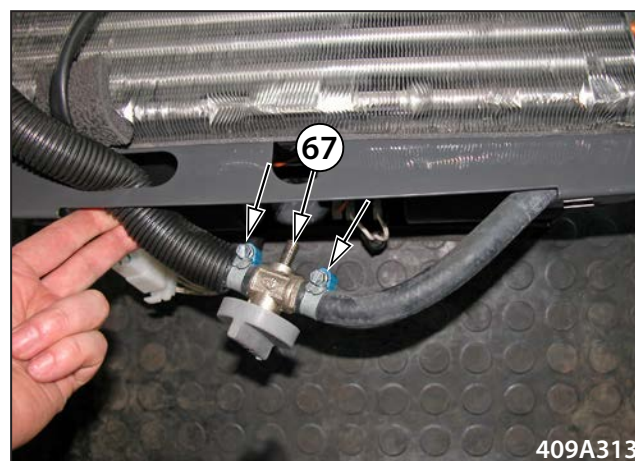
Drain the coolant. Drained volume 23 l (6.1 gal US).



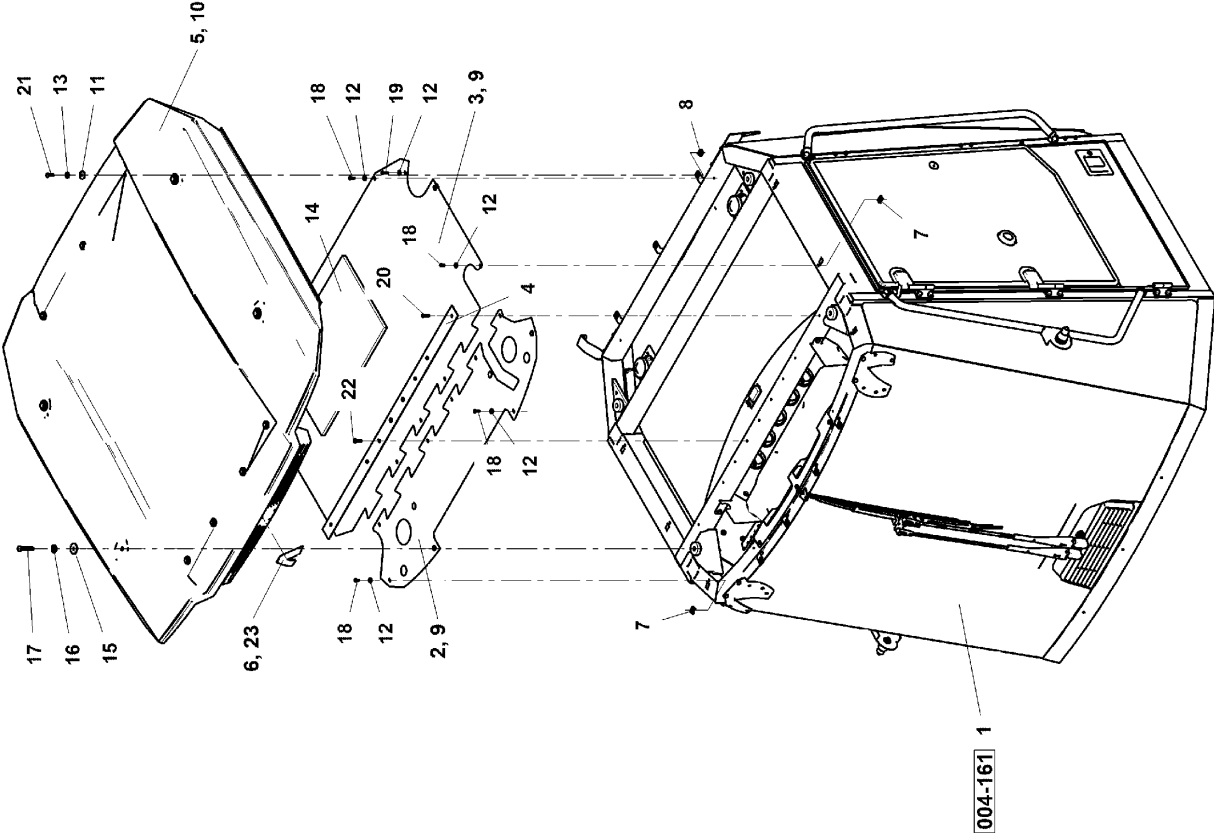
Remove the screws (004-160-002-57). Take out the cover (004-160-002-20).



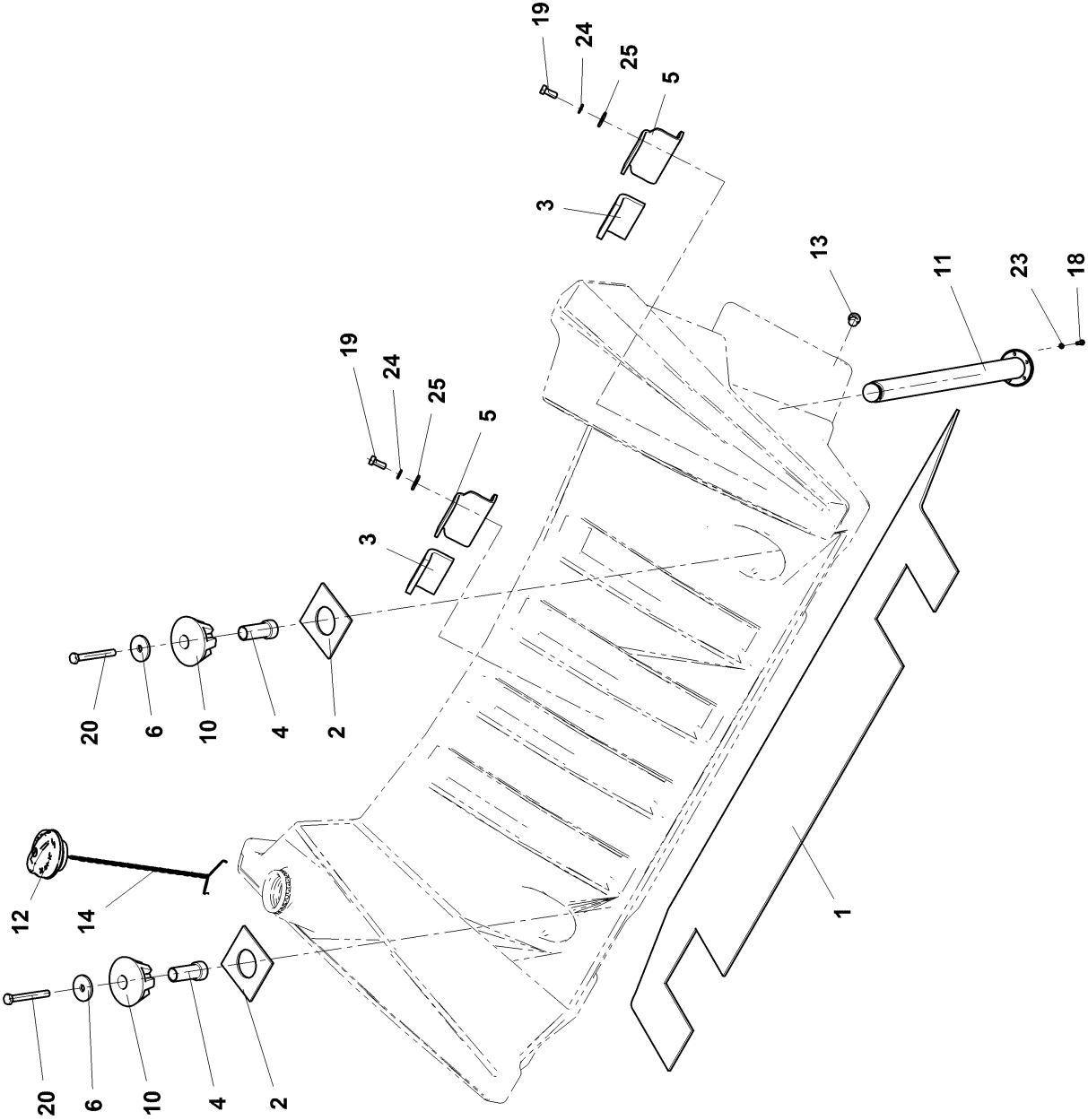
Remove the clips and take out the ball valve (004-160-002-67).



004-160



003-251



Remove the screws of the pump (003-095-14).

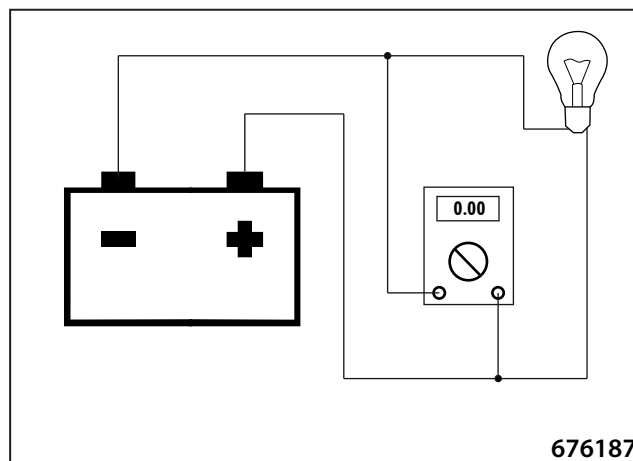
Follow the same procedure to remove the second pump.



15.1. Measurement technique

Voltage measurement

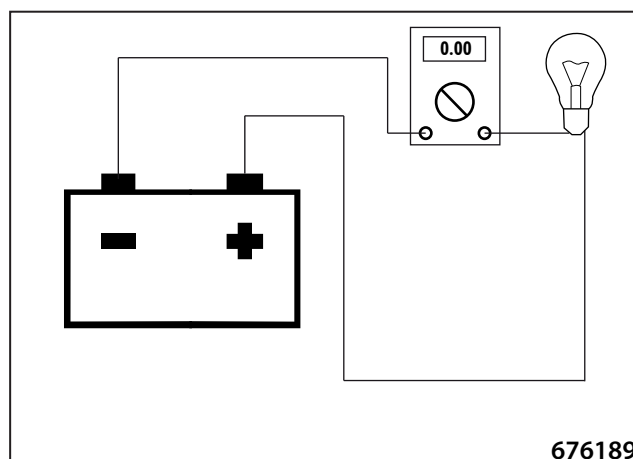
To measure the voltage, use a voltmeter. If you measure the voltage using a multimeter, always first set the DC voltage (DCV) and select the correct range (20 V in most cases). The voltmeter shall be connected into the circuit parallelly to the measured consumer.



676187

Current measurement

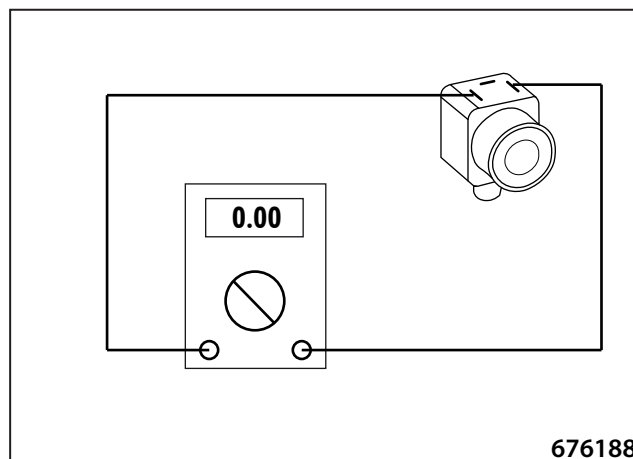
To measure the current, use an ammeter. Do not use the ammeter for measuring the current in the line to the starter or alternator. High currents could destroy the instrument. To measure the current, use the special tester (see Chapter measuring instruments). To measure the current, connect the measuring instrument into the electric circuit.



676189

Resistance measurement

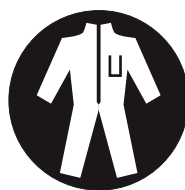
To measure the resistance, use an ohmmeter. By measuring, you can determine the electric line throughput. If the measure value is 0 Ohms, the circuit is through. If the circuit is open, the measuring instruments shows infinite value. You can use the multimeter to diagnose an individual component, which is connected into a separate circuit with the multimeter powered by a battery.



676188

15.6. Removal of the travel lever and switches

Personal protective equipment



Service tools

Wrench set standard

Wrench set inbus



Service instructions

Proceed in reverse order when reassembling.

Tighten the screws to specified torque defined in chapter 16.4. Tightening Torque Values

The two accumulators connected in series.

Technical data

Accumulator	
Voltage	12 V
Capacity	55 Ah



Handle the battery like dangerous cargo. Do not tilt the battery by more than 50°, there is a risk of acid leakage.

Charge the battery in well-ventilated areas



Avoid connecting the plus battery pole (red cable) to the machine frame. There is a risk of short-circuit.



Battery disconnection on the machine

First disconnect the terminal from the battery minus pole (black cable), then the terminal from the plus pole (red cable).

Charging

Check that the charger is set at the correct nominal charging voltage (12 V).

Connect the charger to the correct battery poles - plus to the plus pole and minus to the minus pole.

Connect the terminal from positive battery pole (red cable), followed by the negative pole terminal (black cable) and switch the charger on.

Start by switching the charger off, disconnecting the terminal from negative pole of the battery (black cable), followed by the terminal from positive pole of the battery (red cable).

Check that the vent holes of the battery are not blinded. When the holes are blinded, the battery could get damaged (gas accumulation).

The most suitable is to charge the battery using the current equalling 1/10 battery capacity (12 A).

Orientation table to check the battery charge:

charging condition	measured voltage
100 %	12,8 V
75 %	12,5 V
50 %	12,4 V
25 %	12,1 V
0 %	11,9 V

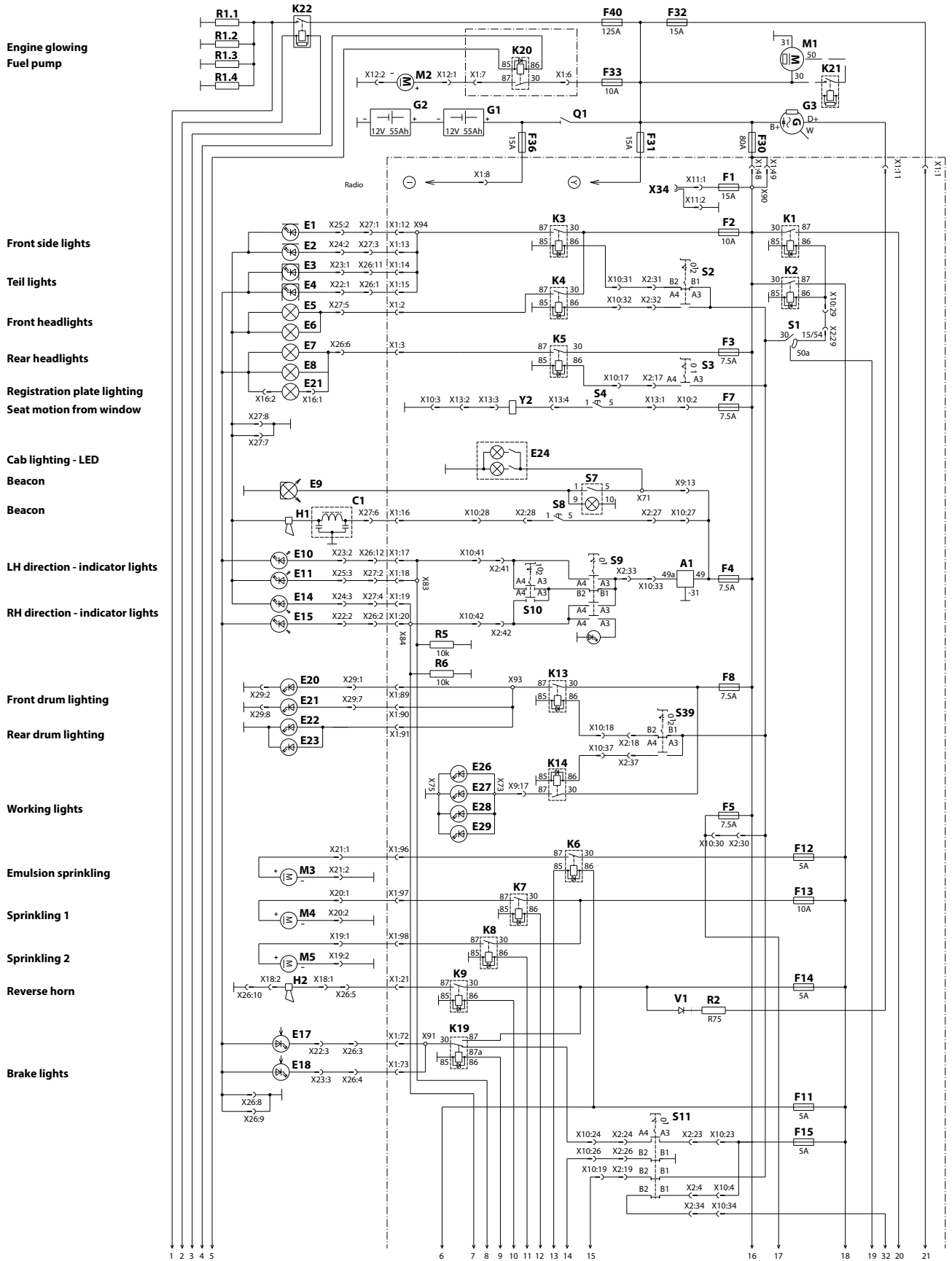
Deep discharging

The deep discharging occurs when the no-load voltage drops below 10 V. Due to irreversible chemical processes, such a battery cannot be fully recharged.

Battery connection on the machine

First connect the terminal from the battery plus pole (red cable), then the terminal from the minus pole (black cable).

Apply Vaseline on the battery contacts and terminals to protect them against corrosion.



107930_1en

**ARX90 Tier 3
CABLE HARNESS #1 - Wiring system
Part Number 4-107928 (version C)**

1.2

CABLE HARNESS LEGEND:

Wire:
R - 1 - 1200 (100)
Wire color Square mm Length Wire number

Cable:
H03VV-F2X0.75 - 2500
Type Length

Corrugated tube:
NW13 - 700
Type Length

TABLE OF COLOR SYMBOLS:

WH	B	White
BK	C	Black
BN	H	Brown
BU	M	Blue
RD	R	Red
GY	S	Grey
YE	Y	Yellow
GN	Z	Green

X1/1	(101)	F32/out	X1/92	(192)	X44/3
X1/6	(106)	F33/out	X1/94	(194)	Y23
X1/8	(108)	F34/out	X1/95	(195)	S48/1
X1/11	(111)	G3/D+	S37/1	(131)	X5/18
X1/39	(139)	Y5/1	S37/2	(132)	X5/19
X1/40	(140)	Y6/1	Y14/2	(K01)	GND
X1/41	(141)	Y8/1	Y16/2	(K02)	GND
X1/42	(142)	Y7/2	Y18/2	(K03)	GND
X1/44	(144)	Y7/1	Y20/2	(K04)	GND
X1/45	(145)	Y8/2	Y19/2	(K05)	GND
X1/46	(146)	Y9/1	S14/2	(K07)	GND
X1/47	(147)	Y9/2	Y13/2	(K08)	GND
X1/48	(148)	F31/out	Y5/2	(K09)	GND
X1/49	(149)	F31/out	Y6/2	(K10)	GND
X1/50	(150)	Y10/1	Y23	(100)	S48/2
X1/51	(151)	Y10/2			
X1/52	(152)	Y12/1			
X1/53	(153)	Y11/1			
X1/54	(154)	GND			
X1/55	(155)	GND			
X1/56	(156)	Y11/2			
X1/57	(157)	Y12/2			
X1/58	(158)	Y13/1			
X1/59	(159)	Y14/1			
X1/62	(162)	Y16/1			
X1/64	(164)	Y18/1			
X1/65	(165)	Y19/1			
X1/66	(166)	Y20/1			
X1/67	(167)	Y22/1			
X1/68	(168)	Y21/1			
X1/69	(169)	Y21/2			
X1/70	(170)	Y22/2			
X1/71	(171)	X44/1			
X1/75	(175)	S14/1			
X1/76	(176)	S15/1			
X1/77	(177)	S15/2			
X1/80	(180)	S17			

ARX 90

X1/44	(141)	Y7/1
X1/41	(144)	Y8/1

**ARX90 Tier 3
CABLE HARNESS #6 - Wiring system
Part Number 4-325382 (revision C)**

CABLE HARNESS LEGEND:

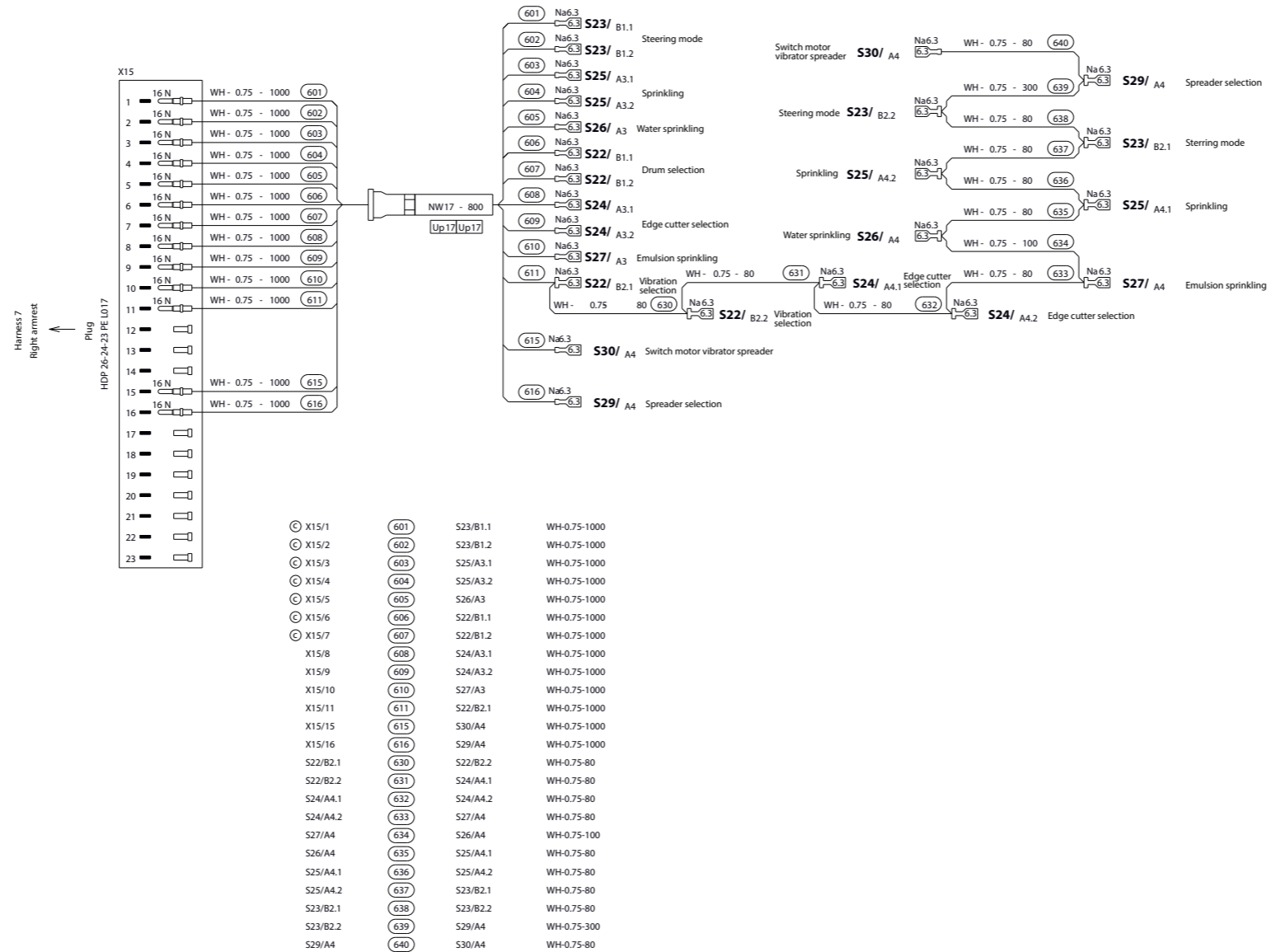
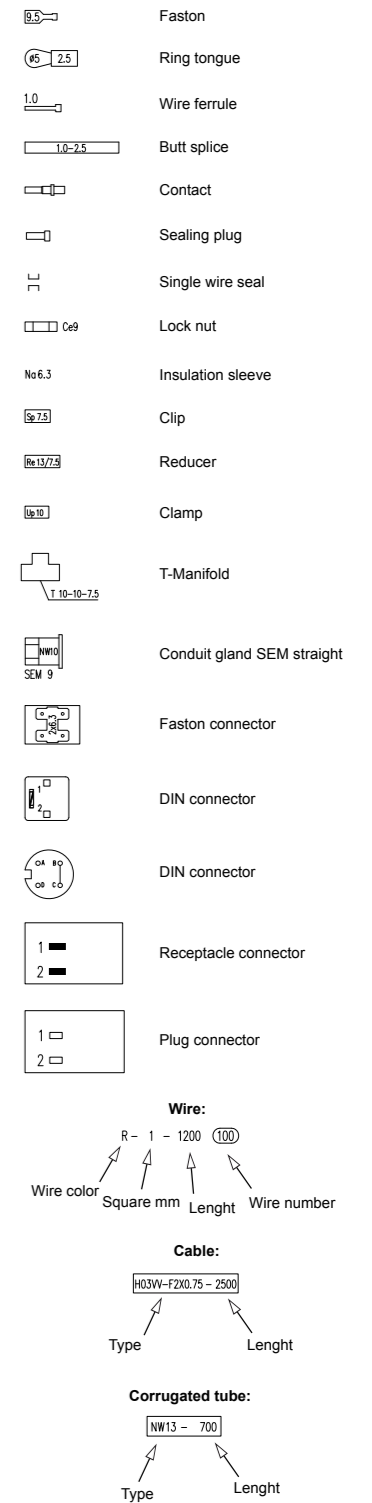
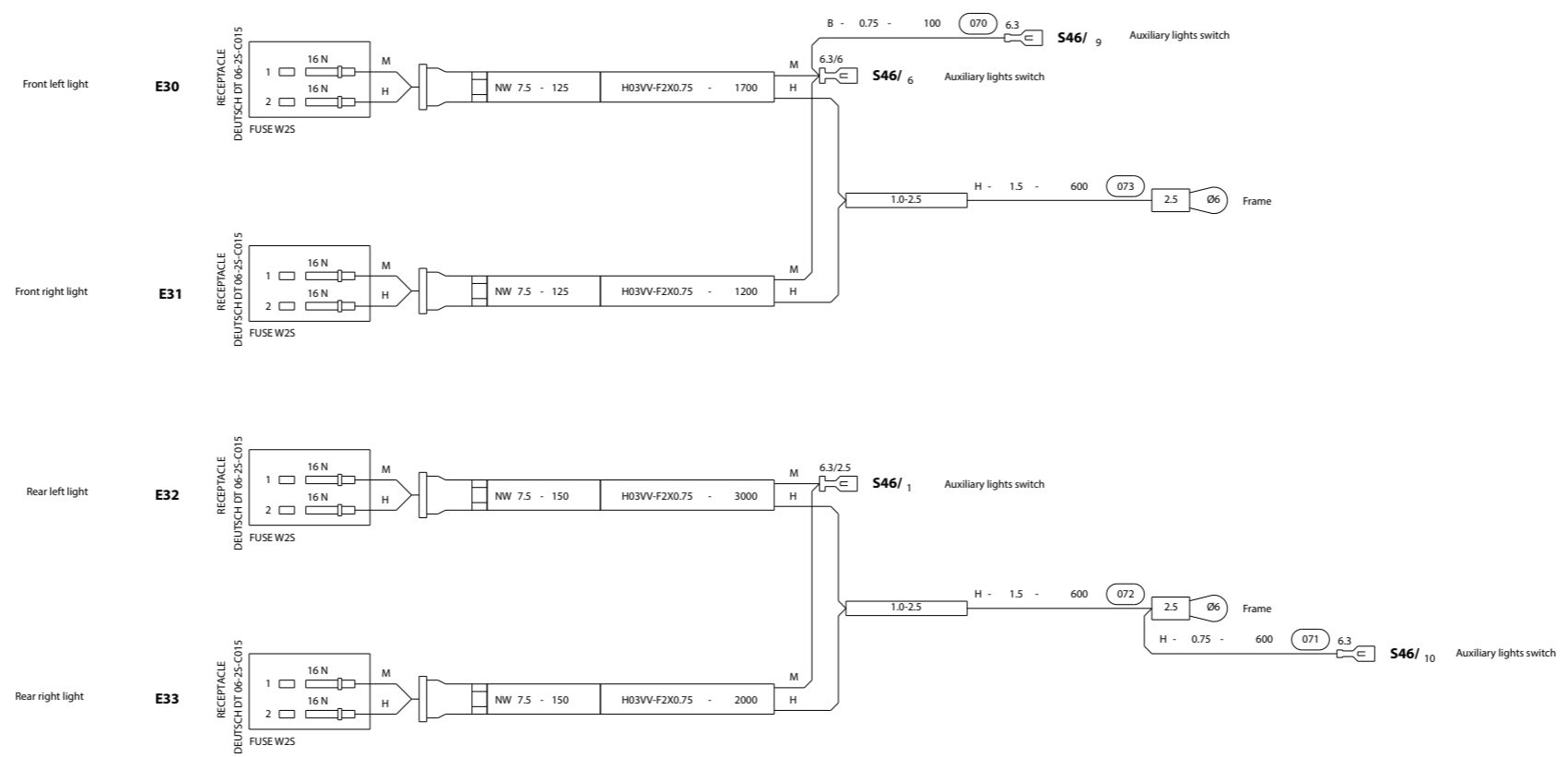


TABLE OF COLOR SYMBOLS:

WH	B	White
BK	C	Black
BN	H	Brown
BU	M	Blue
RD	R	Red
GY	S	Grey
YE	Y	Yellow
GN	Z	Green

**ARX90 Tier 3
CABLE HARNESS - Cabin lights
Part Number 4-325417 (version B)**



S46/9	(070)	S46/6	WH-0.75-100
S46/10	(071)	GND	BN-0.75-800
COUPLER	(072)	GND	BN-1.5-600
COUPLER	(073)	GND	BN-1.5-600

CABLE HARNESS LEGEND:

	Faston
	Ring tongue
	Wire ferrule
	Butt splice
	Contact
	Sealing plug
	Single wire seal
	Lock nut
	Insulation sleeve
	Clip
	Reducer
	Clamp
	T-Manifold
	Conduit gland SEM straight
	Faston connector
	DIN connector
	DIN connector
	Receptacle connector
	Plug connector

Wire:

Wire color R - 1 - 1200 (100) Square mm Length Wire number

Cable:

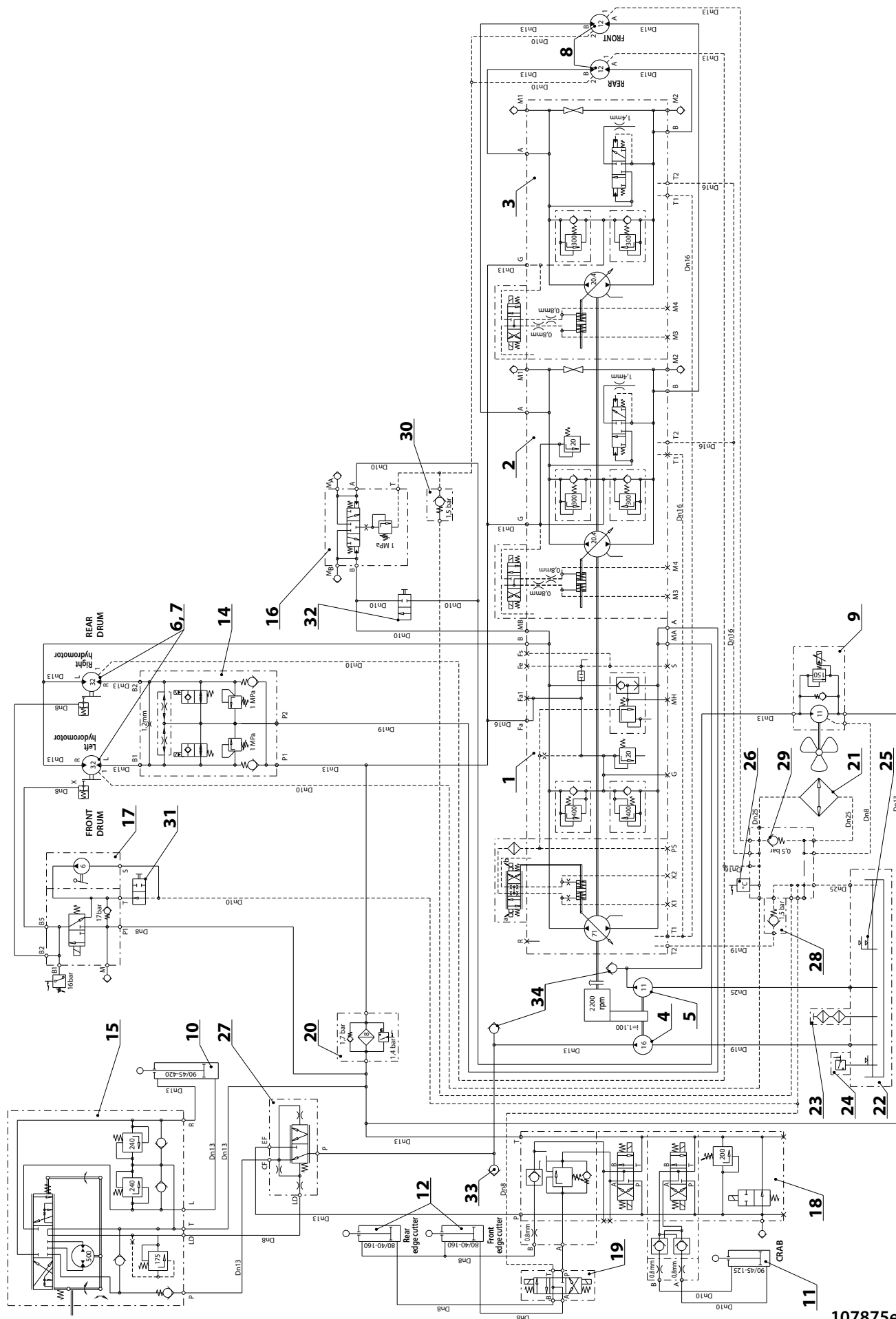
H03VV-F2X0.75 - 2500 Type Length

Corrugated tube:

NW13 - 700 Type Length

TABLE OF COLOR SYMBOLS:

WH	B	White
BK	C	Black
BN	H	Brown
BU	M	Blue
RD	R	Red
GY	S	Grey
YE	Y	Yellow
GN	Z	Green



107875en

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL