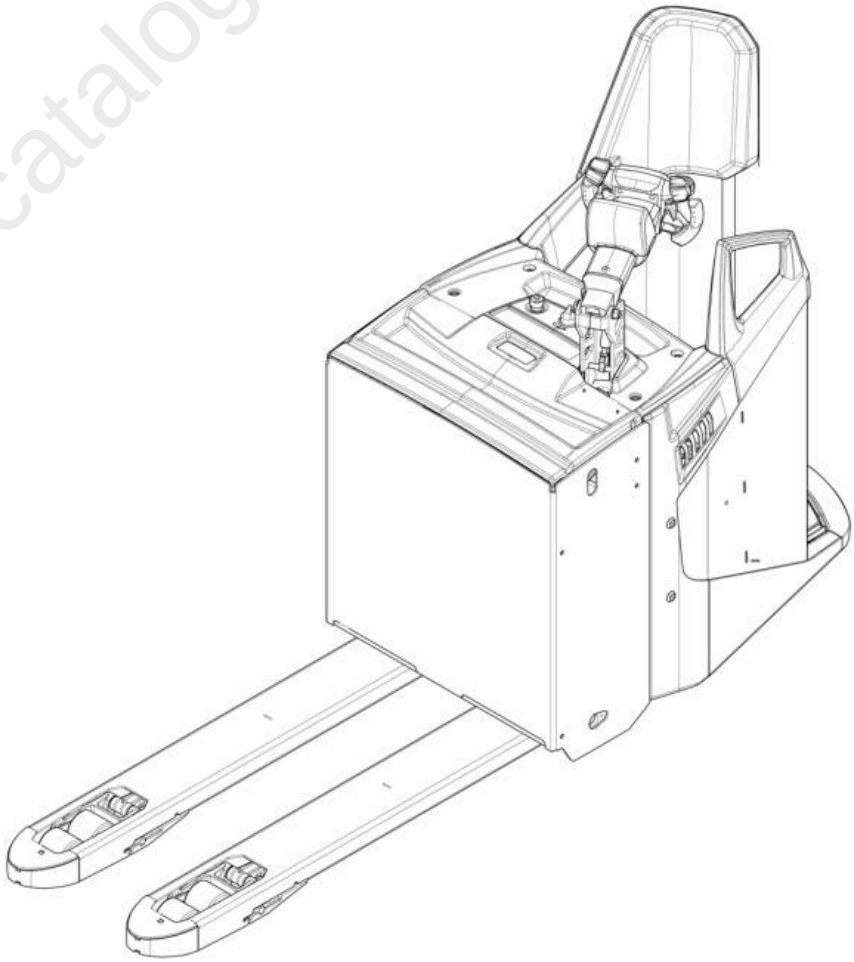
SERVICE MANUAL

NPF25N2



English 2013
618014

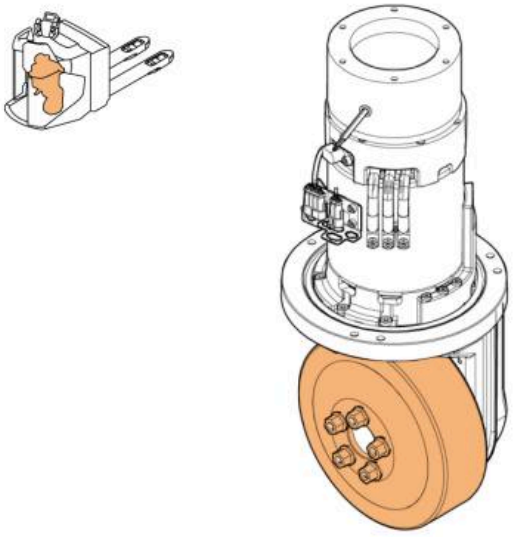


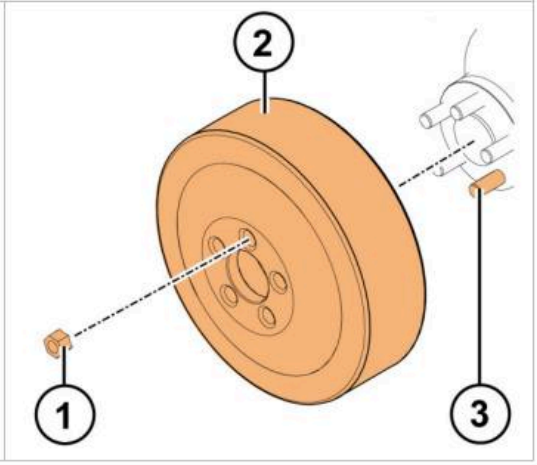
Figure 48. Traction wheel overview

Check the wear of the traction wheel:

- When the traction wheel's diameter reaches 220 mm, adjust the castor wheels as instructed in section 5.13.2.
- When the traction wheel's diameter reaches 214 mm, replace the traction wheel and adjust the castor wheels as instructed in section 5.13.2.

5.10.1 Disassembly of the traction wheel

1. Remove the five rounded cone nuts holding the traction wheel in place.
2. Remove the traction wheel.
3. Check the condition of the wheel shaft bolts. Replace the bolts, if needed. For instructions, see section 5.10.1.1 below.



10.4 Hydraulic aggregate

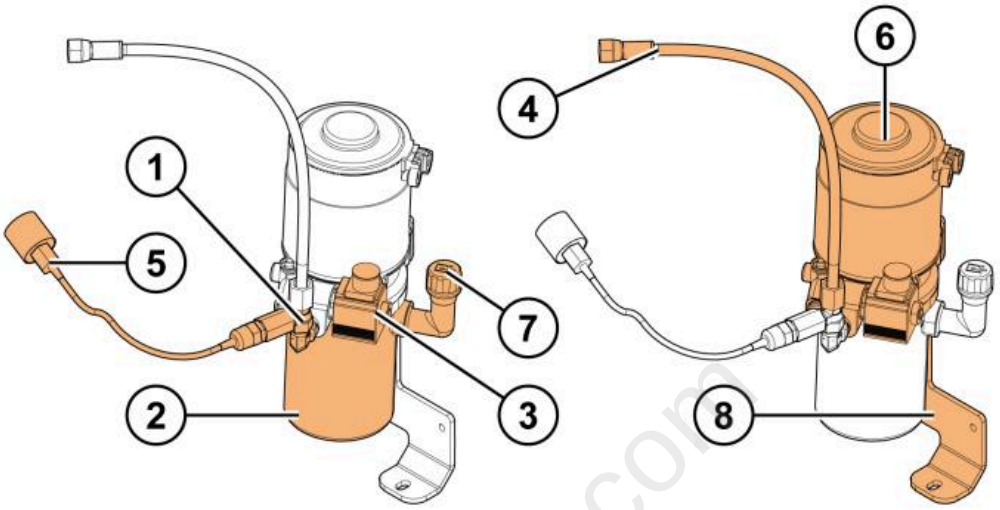


Figure 98. Hydraulic aggregate overview

1. *Hydraulic connector*
2. *Oil tank*
3. *Solenoid valve*
4. *Hydraulic hose*
5. *Pressure sensor*
6. *Pump motor*
7. *Filling hole for hydraulic oil*

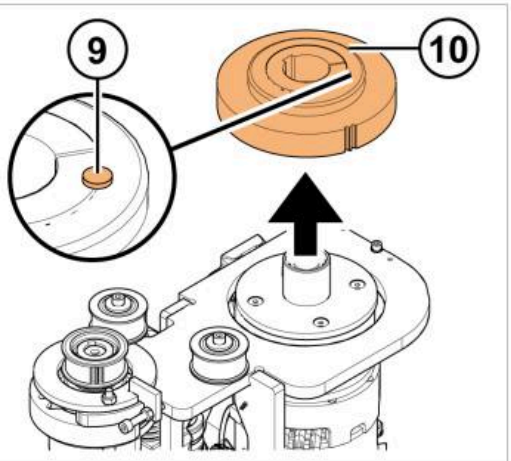
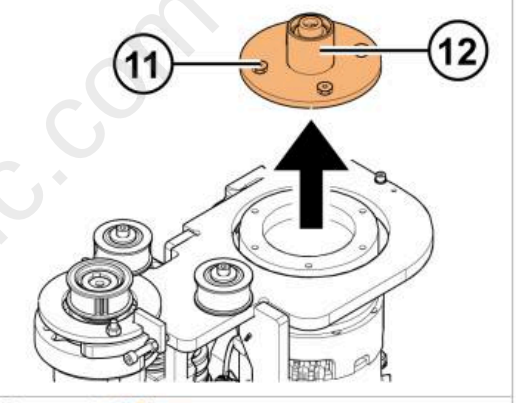
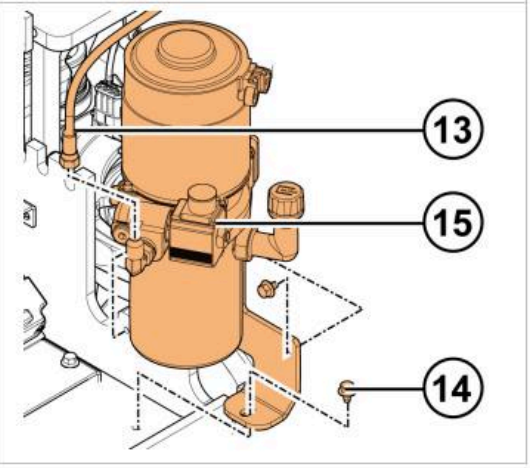
The hydraulic aggregate consists of the electric pump motor, the hydraulic gear pump unit, the oil tank, the suction filter, the pressure relief valve, the solenoid valve, hydraulic hoses and connections for various hydraulic equipment.

The hydraulic aggregate is used to control the load handling device.

14.3 Maintenance check list

Legend: C = Check, R = Repair, Clean or Change, G = Grease

	BEFORE DAILY USE (USER)	MONTHLY (OWNER)	600 h OR ONCE A YEAR (SERVICE)	1,200 h OR EVERY SECOND YEAR (SERVICE)
Drive unit				
Transmission leakage check	C	C	C	C
Steering bearing			C	C
Fastening of the gearbox			C	C
Hydraulics				
Leakage checking		C	C	C
Cleaning the oil filter				R
Hydraulic oil change				R
Oil level			C	C
Hose and cylinder		C	C	C
Operation of the hydraulics	C	C	C	C
Pressure relief valves			C	C
Linkage				
Bearings			C	C
Linkage			C	C
Wheels				
Traction wheel	C	C	C	C
Traction wheel has to be replaced when its diameter reaches 218 mm			C	C
Load wheels	C	C	C	C
Castor wheels and their suspension			C	C
Battery				
Battery water level	C	C	C	C
Battery cable and connector	C	C	C	C
Battery automatic watering system		C	C	C

9. Loosen the belt roller's tightening screws. **10.** Remove the belt roller.	
11. Loosen the belt roller flange's tightening screws. **12.** Remove the belt roller flange.	
13. Remove the hydraulic oil hose. **14.** Remove the three screws from the hydraulic aggregate's mounting bracket. **15.** Remove the hydraulic aggregate and its mounting bracket.	

PARAMETER	DESCRIPTION
Steering cutback CURVE CUTBACK	This parameter controls the maximum speed when steering is at a 90-degree angle. Value range: • 10%: Slowest • 100%: Fastest
Turtle cutback speed reduction CUTBACK SPEED 1	This parameter controls the speed reduction when the low speed mode is activated. Value range: • 10%: Enabled • 100%: Disabled
Tiller braking ramp TILLER BRAKING	This parameter controls the deceleration rate when the foot switch is opened. Value range: • 0.1: Fastest • 10: Slowest
Tiller braking ramp with load LOAD TIL BRAKING	This parameter controls the deceleration rate when the foot switch is opened with maximum load. Value range: • 0.1: Fastest • 10: Slowest

Table 12. Submenu: adjustments

PARAMETER	DESCRIPTION
Adjust battery voltage ADJUST BATTERY	Because the traction motor controller monitors the battery discharge level, this parameter must be set to match the actual battery voltage. The difference between the ADJUST BATTERY VALUE parameter value and the voltmeter reading should be ±0.2 V. Connect the voltmeter between –Batt and key input K1/1. Use a high-quality voltmeter to check the battery voltage and set this parameter as close to the meter reading as possible. This measurement can be carried out at any time (i.e. regardless whether the battery is full or empty). This parameter should be set after the controller has been changed or if there are problems with battery charge level monitoring.
Battery maximum value adjust BAT MAX ADJ.	This parameter controls the maximum level for charged battery. Value range: • 0: Minimum • 9: Maximum

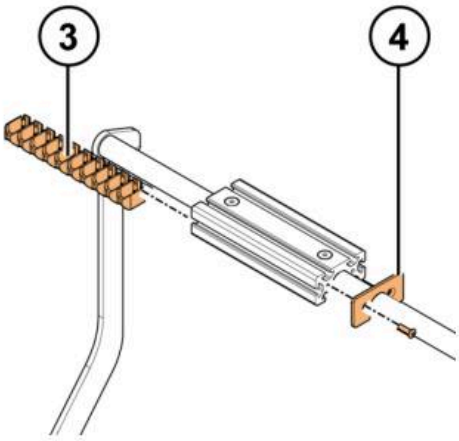
Table 5. General Settings contents

DISPLAY ITEM	DESCRIPTION
Language	The following languages can be used in the truck display: • English • Finnish • French • German • Italian • Portuguese • Spanish • Swedish
Sound Effects	Sound effects can be set to OFF or ON.
Contrast	Display contrast can be adjusted in the range of 0-14. The default value for display contrast is 13.
Steering Centering	Steering centering can be set to OFF or ON. If steering centering is set to ON, the steering wheel is automatically centered when the truck is started.

Figure 12. Alarm Log

Table 6. Alarm Log contents

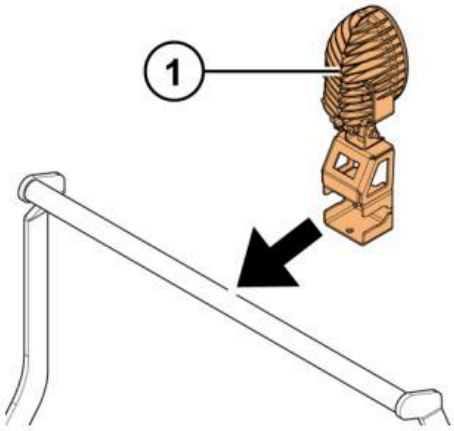
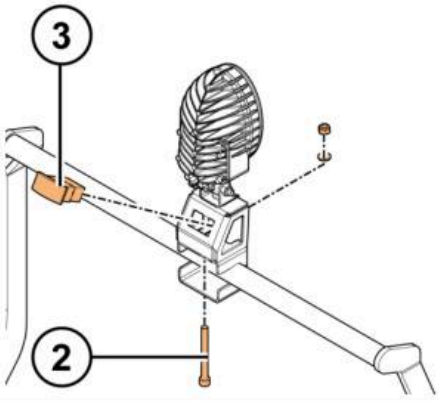
DISPLAY ITEM	DESCRIPTION
Traction	Shows a log for traction system related alarms.
Pump	Shows a log for hydraulic system related alarms.
Steering	Shows a log for steering system related alarms.

3. Slide the tool holder into the operator-side groove in the mounting bracket. 4. Screw the cover plates to the sides of the mounting bracket.	

15.3.1.5 Installation of the working lights

⚠ CAUTION

Always use the correct schematic diagram for the specific model you are servicing. The latest schematic diagrams are available from the manufacturer's Web site.

1. Attach the working lights' mounting bracket to the accessory rack.	
2. Install and tighten the screws and nuts attaching the mounting bracket to the accessory rack. 3. Install the working light power button.	

Full Version Available

Caterpillar NPF25N2 Pallet Truck Service and Operator Manual (618014)

Caterpillar NPF25N2 Pallet Truck service manual, covers hydraulics, drive unit, wiring, and service data. Instant PDF download.