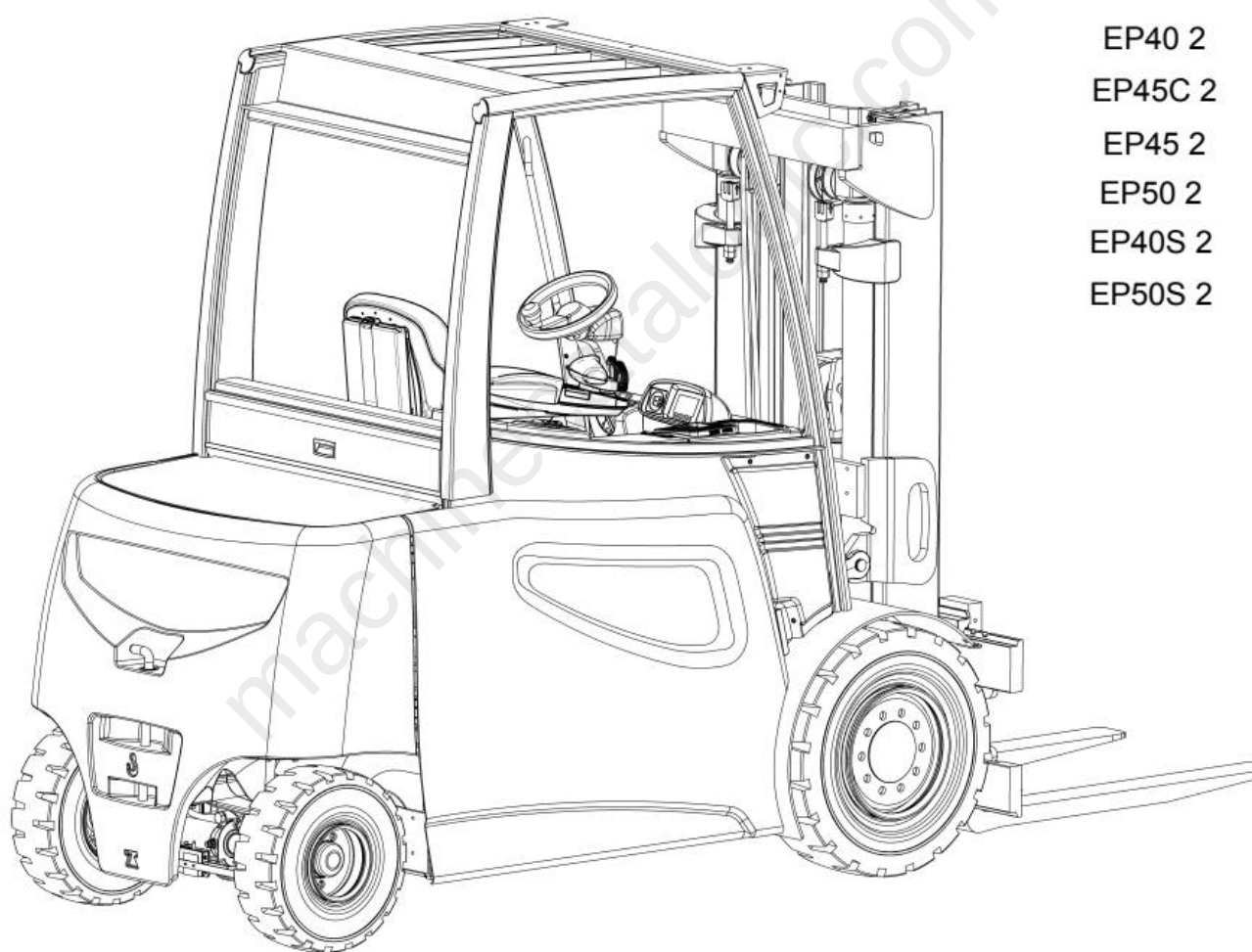


Operating and maintenance instructions



EP40C 2

EP40 2

EP45C 2

EP45 2

EP50 2

EP40S 2

EP50S 2

3 Approved application conditions

- Operation in industrial and commercial environments.
- Permissible temperature range -20°C to +40°C.
- Operation only on secure, level surfaces with sufficient capacity.
- Do not exceed the permissible surface and spot load limits on the travel routes.
- Operation only on routes that are visible and approved by the operating company.
- Negotiating inclines up to a maximum of 15 %.
- Do not travel across or at an angle on inclines. Travel with the load facing uphill.
- Operation in partially public traffic.



WARNING!

Use under extreme conditions

Using the truck under extreme conditions can result in malfunctions and accidents.

- Special equipment and authorisation are required if the truck is to be constantly used in extreme conditions, especially in dusty or corrosive atmospheres.
 - The truck cannot be used in areas at risk of explosion.
 - In adverse weather conditions (thunder, lightning) the industrial truck must not be operated outside or in endangered areas.
-

2.3 Loading with another industrial truck

WARNING!

The truck can be damaged

The truck to be loaded can be damaged when loading with another industrial truck.

- ▶ Only trained specialist personnel should load the truck.
 - ▶ Use only trucks with sufficient capacity for loading.
 - ▶ Only for loading and unloading.
 - ▶ The forks of the second industrial truck must be sufficiently long
 - ▶ Transporting over long distances prohibited.
-

Loading the truck with a second industrial truck

Requirements

- Truck parked securely, see "Parking the truck securely" on page 99.

Procedure

- Open the battery door.
- Raise the truck with the forks at the side between the axles. To achieve safe lifting, position the forks below the front jacking point and rear end of the floor plate close to the wheels.
- Raise the truck slightly and make sure it is securely positioned on the forks. If necessary adjust the forks or secure them with lifting equipment.
- Carefully load/unload the truck, see "Lifting, transporting and depositing loads" on page 111.
- Lower the truck slowly onto the ground and prevent it from rolling away.

The truck is now loaded.

Mast chart				
Component	Lift height h_3	Free lift h_2	Overall height Mast retracted h_1	Overall height Mast extended h_4
ZT	2750	150	2125	3575
	3000		2250	3825
	3500		2500	4325
	4000		2750	4825
	4500		3000	5325
	5000		3250	5825
	5500		3500	6325
	6000		3750	6825
	6500		4000	7325
ZZ	2725	1225	2100	3600
	2975	1350	2225	3845
	3475	1600	2475	4345
	3975	1850	2725	4845
	4475	2100	2975	5345
	4975	2350	3225	5845
	5745	2600	3475	6345
DZ	3930	1185	2060	4805
	4050	1225	2100	4925
	4425	1350	2225	5295
	5175	1600	2475	6045
	5550	1725	2600	6425
	5925	1850	2725	6795
	6200	1940	2815	7075
	6675	2100	2975	7545

Special trucks are not included in this overview.

5.1 Removal and installation using an EJE pallet truck with Snapfit battery holder (○)

CAUTION!

Trapping hazard

Trapping hazard when replacing the battery.

- ▶ When replacing the battery do not reach between the battery and the chassis.
- ▶ Wear safety shoes.

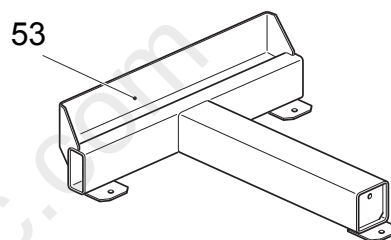
Removing the Battery

Requirements

- Truck parked securely, see "Parking the truck securely" on page 99.
- Battery exposed, see "Exposing the battery" on page 53.

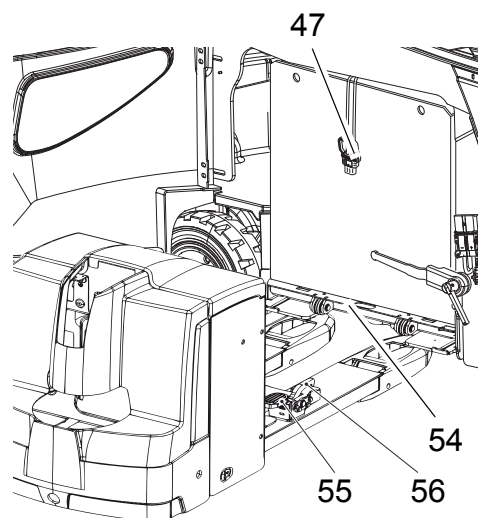
Tools and Material Required

- Battery trolley with six rollers
- EJE pallet truck with Snapfit battery holder
- Charging station intended for the battery type (53) (○)

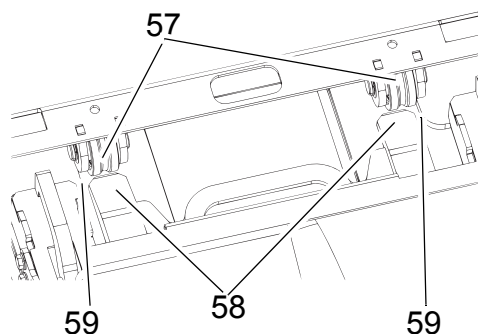


Procedure

- Close the safety catch (56).
 - To do this press the pedals (55).
- Move the EJE pallet truck approx. 7,9 in (200 mm) underneath the truck base so that it is central with the battery.
- Raise the fork tines of the EJE pallet truck until they are just under the truck base.
- Insert the battery connector (47) in the bracket (54).



- Push the ramps (58) underneath the rollers (57) of the battery trolley and align them with the chassis (59).
- Bring the pallet truck right up to the battery at slow speed.



Safety instructions for sideshifter and fork positioner attachments

WARNING!

Restricted visibility and reduced tilt resistance can cause accidents

When using sideshifters and fork positioners, the change in centre of gravity can result in reduced lateral tilt resistance and accidents. Note that this affects visibility as well.

- ▶ Adapt the travel speeds to the visibility and load.
 - ▶ Make sure you have sufficient visibility when reversing.
-

Safety instructions for clamping attachments (e.g. baling clamps, barrel clamps, grabs etc.)

WARNING!

Falling loads can cause accidents

This can result in malfunctions and the load can fall accidentally.

- ▶ Clamping attachments may only be added to trucks which have a button to enable additional hydraulic functions.
 - ▶ Clamping attachments must only be operated on trucks with auxiliary hydraulics ZH1, ZH2 or ZH3.
 - ▶ When connecting the attachment make sure that the hydraulic lines of the attachment are connected to the right ports, see "Fitting additional attachments" on page 133.
-



The highest auxiliary hydraulics after ZH2 must be released by the acknowledgement key.

Safety instructions for rotary attachments

WARNING!

A non-centred load centre of gravity can result in accidents

When using rotary devices and non-centred loads, the centre of gravity can be displaced from the centre with a high risk of accidents.

- ▶ Adapt the travel speed to the load.
 - ▶ Lift the load from the centre.
-

4.8 Heating

Replacing the air conditioning filter

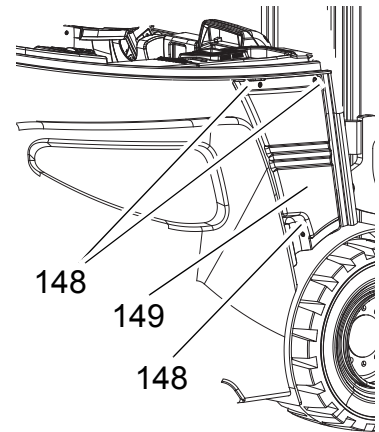
Requirements

- Filter contaminated

Procedure

- Loosen the screws (148).
- Remove the panel (149).
- Replace the filter (150).
- Attach the panel (149).
- Tighten the screws (148).

The filter cassette is now replaced.

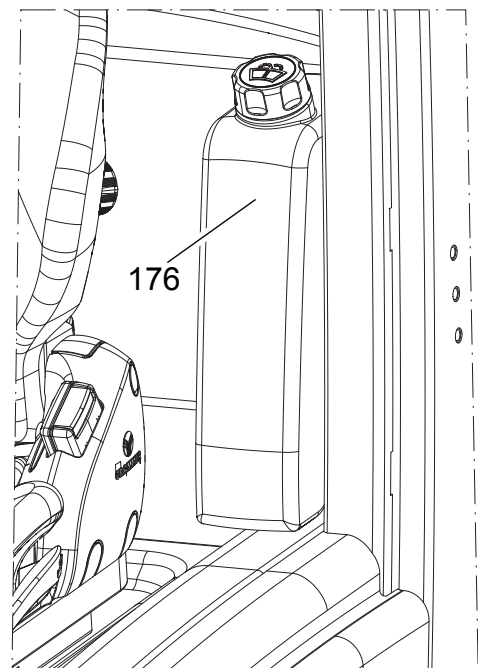
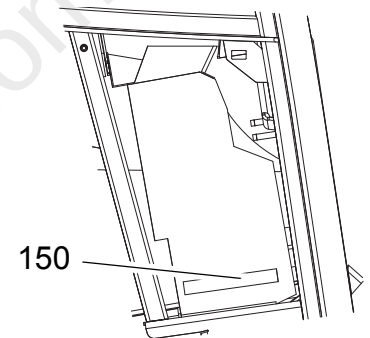


Regular servicing is required to ensure the heating can work at a consistently high level, see "Servicing and Inspection" on page 234 or see "Maintenance checklist" on page 235.

4.9 Adding window washer system fluid

Procedure

- Make sure there is sufficient window fluid in the container (176).
- If necessary top up with anti-freeze.



CAT				Event Messages			10.14	40	G
F	E	XX	S	Operational Status	Description	Cause / Triggering Event	Action		
—	1	43	2	Operation	Switch valve active switch condition without activation	Valve actual condition (switch condition) of a blocked hydraulic function is not zero	- Check valve coil cable connection; - Check valve coil (resistance measurement) and replace if necessary; - Check outputs for short circuits and rectify if necessary; - Replace signal-issuing controller;		
—	1	44	1	Operation	Membrane key test contact implausible	Keypad test contact (loop over connector 1-n) interrupted for > 100 msec.	- Replace keypad; - Replace control unit;		
—	1	44	2	Self test	"Membrane redundant inputs" logic implausible during self test	During the self test a short was detected between the two contacts of at least one key.	- Replace keypad; - Replace control unit;		
—	1	44	3	Operation	"Membrane key redundant inputs" logic implausible during operation	During operation an invalid condition was detected on at least one key for >100 msec.	- Replace keypad; - Replace control unit;		
—	1	45	1	Operation	Brake fluid switch reports lack of fluid	Brake fluid switch indicates a lack of brake fluid for >2s.	- Check brake fluid level; - Check the brake system for leaks; - Check switch, wires to MFC brakes		
—	1	46	1		"Wire guidance sensor redundant values (8U7.1), load direction system" logic improbable	Deviation recorded from guide wire by systems A and B differs by more than 50 mm for distances longer than 0.5 m.	- Check distance signals of both sub-systems over several points along the guide wire; - If the wire guidance sensor (8U7.1) sub-systems deviate, calibrate and teach the guide wire sensors;		
—	1	46	2		"Wire guidance sensor redundant values (8U7.2), curve drive direction system" logic improbable (cornering)	Deviation recorded from guide wire by systems A and B differs by more than 50 mm for distances longer than 0.5 m.	- Check distance signals of both sub-systems over several points along the guide wire; - If the wire guidance sensor (8U7.2) sub-systems deviate, calibrate and teach the guide wire sensors;		

CAT					Event Messages			08.13	25	G
F	E	XX	S	Operational Status	Description	Cause / Triggering Event	Action			
—	1	26	9	Operation	No feedback from relay K2 despite Safe computer activation	No feedback from relay K2 although the Safe computer has been activated. The event message can only be reset by resetting the truck. The activation limit is 200 msec.	- Check wiring with multimeter; - Check computer component inputs; - Repair faulty components and replace if necessary;			
—	1	26	10	Operation	No feedback from relay K3 despite Safe computer activation	No feedback from relay K3 although the Safe computer has been activated. The event message can only be reset by resetting the truck. The activation limit is 200 msec.	- Check wiring with multimeter; - Check computer component inputs; - Repair faulty components and replace if necessary;			
—	1	26	11	Operation	No feedback from relay K4 despite Safe computer activation	No feedback from relay K4 although the Safe computer has been activated. The event message can only be reset by resetting the truck. The activation limit is 200 msec.	- Check wiring with multimeter; - Check computer component inputs; - Repair faulty components and replace if necessary;			
—	1	26	12	Operation	No feedback from main contactor 1 despite "main contactor 1" signal activation	No feedback from main contactor 1 although the Safe computer has been activated. The event message can only be reset by resetting the truck. The activation limit is 200 msec.	- Check wiring with multimeter; - Check computer component inputs; - Repair faulty components and replace if necessary;			
—	1	26	13	Operation	No feedback from main contactor 2 despite "main contactor 2" signal activation	No feedback from main contactor 2 although the Safe computer has been activated. The event message can only be reset by resetting the truck. The activation limit is 200 msec.	- Check wiring with multimeter; - Check computer component inputs; - Repair faulty components and replace if necessary;			
—	1	26	14	System start	Test routine for emergency stop circuit by the Safe computer has failed	Power up test for emergency stop circuit by the Safe computer has failed The event message can only be reset by resetting the truck. The activation limit is 20 msec.	- Check wiring with multimeter; - Check computer component inputs; - Repair faulty components and replace if necessary;			
—	1	26	15	Operation	Different input statuses between the two Safe computers	Redundant controllers of the Safe computer have detected different input statuses. The event message can only be reset by resetting the truck. The activation limit is 100 msec.	- Check wiring with multimeter; - Check computer component inputs; - Repair faulty components and replace if necessary;			

Full Version Available

Caterpillar 2EPC 40 - 2EP 55 Forklift Service, Operator and Schematic Manual (51361646)

Caterpillar 2EPC 40 - 2EP 55 Forklift service manual, covers electric drive, hydraulics, wiring and sche

[VIEW THE FULL MANUAL](#)