

## SEMI / 10010161 / CDD15B-III



## Original of the OPERATING INSTRUCTIONS

Keep for later use.

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## High lift truck SEMI

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### Dear customer

This electric high lift truck is an indispensable product for daily lifting operations.

When using electric high lift trucks, some safety measures must be taken to avoid injury to persons and damage to the product.

Electric high lift trucks should only be used by instructed personnel.

Please read these instructions and keep them in a safe place so that they are always to hand.

**We accept no liability for accidents and damage caused by non-observance of these instructions!**

**Only suitable for commercial, industrial or professional applications.**

### Operating instructions

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Version:	1.0
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Model:	SEMI / 10010161 / CDD15B-III / 1,6m; 2,5m; 3,0m
Year of manufacture:	2022

### Customer entries

Inventory no:	
Location:	

### Storage

The operating instructions must be kept in the responsible specialist department. They must always be at hand.

## Content

<b>1</b>	<b>Basic safety instructions .....</b>	<b>1-1</b>
1.1	Follow the instructions in the operating manual .....	1-1
1.2	The obligation of the operator .....	1-1
1.3	Staff commitment.....	1-1
1.4	Hazards when handling forklift trucks m.....	1-2
1.5	Warranty and liability .....	1-2
1.6	Safety standards.....	1-3
1.6.1	Explanation of the symbols and notes.....	1-3
1.6.2	Organisational measures.....	1-4
1.6.3	Informal security measures.....	1-4
1.6.4	Staff training .....	1-4
1.6.5	Safety measures during normal operation .....	1-4
1.6.6	Maintenance and troubleshooting .....	1-4
1.6.7	Structural changes on the forklift truck.....	1-5
1.6.8	Cleaning and disposal .....	1-5
<b>2</b>	<b>Product description.....</b>	<b>2-1</b>
2.1	Intended use.....	2-1
2.2	Nameplate .....	2-1
2.3	Technical data .....	2-2
2.3.1	Load / Dimensions / Weight.....	2-2
2.3.2	Hydraulic oil.....	2-3
2.3.3	Environmental conditions.....	2-3
2.4	Structure.....	2-1
<b>3</b>	<b>Transport and commissioning.....</b>	<b>3-2</b>
3.1	Safety during forklift transport .....	3-2
<b>4</b>	<b>Operation .....</b>	<b>4-3</b>
4.1	Safety instructions .....	4-3
4.2	Daily check before commissioning.....	4-4
4.3	Loading the forklift truck.....	4-4
4.4	Operation.....	4-5
4.5	Charging the battery .....	4-5
4.6	Freight traffic.....	4-6
<b>5</b>	<b>Maintenance.....</b>	<b>5-7</b>

## High lift truck SEMI

---

5.1	Safety instructions .....	5-7
5.2	Maintenance plan .....	5-7
5.3	Testing and cleaning .....	5-8
5.4	Grease.....	5-8
5.5	Checking the oil level.....	5-8
5.6	Checking the battery fluid .....	5-9
<b>6</b>	<b>Troubleshooting .....</b>	<b>6-10</b>
<b>7</b>	<b>Decommissioning, storage, disposal.....</b>	<b>7-12</b>
7.1	Storage conditions .....	7-12
7.2	Deactivation.....	7-12
7.3	Disposal.....	7-12

# 1 Basic safety instructions

## 1.1 Follow the instructions in the operating manual

The basic prerequisite for safe and trouble-free handling of the forklift truck is knowledge of the basic safety instructions and safety regulations.

These operating instructions contain the most important information for the safe use of the forklift truck.

These operating instructions, in particular the safety instructions, must be observed by all persons working with the forklift truck.

In addition, the accident prevention regulations and rules applicable to the respective place of use must be observed.

## 1.2 The obligation of the operator

The operator undertakes to only allow persons to work with the forklift truck who

- are familiar with the basic regulations on occupational safety and accident prevention and have received instruction in the operation of forklift trucks,
- have read and understood the safety chapter and the warnings in these operating instructions and confirm this by their signature.

## 1.3 Staff commitment

All persons assigned to work with the forklift truck undertake to do so before starting work:

- observe the basic rules of work safety and accident prevention,
- to read the safety chapter and the warnings in these operating instructions and to confirm by their signature that they have understood them.

### 1.4 Hazards when handling forklift trucks m

The forklift truck is built according to the state of the art and the recognised safety rules. Nevertheless, its use may cause danger to life and limb of the user or third parties or impairment of the forklift truck or other material assets. The forklift truck may only be used

- For intended use, see chapter 2.1,
- in perfect safety condition.



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#### **Information.**

Faults that may affect safety must be rectified immediately.

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### 1.5 Warranty and liability

Our "General Terms and Conditions of Sale and Delivery" shall apply in principle. These are available to the operator at the latest upon conclusion of the contract. Warranty and liability claim for personal injury and property damage are excluded if they are due to one or more of the following causes:

- Unintended use of a forklift truck.
- Improper assembly, commissioning, operation and maintenance of the forklift truck.
- Failure to observe the instructions in the operating manual regarding transport, storage, assembly, commissioning, operation and maintenance of the forklift truck.
- Unauthorised structural alterations.
- Unauthorised modifications to forklift trucks.
- Poor monitoring of wear parts.
- Repairs not carried out properly.
- Disasters caused by foreign objects and force majeure.

# High lift truck SEMI

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## 1.6 Safety standards

### 1.6.1 Explanation of the symbols and notes

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#### **Danger!**

This symbol in conjunction with the signal "Danger" indicates an immediate danger to life and health.

⇒ **Failure to comply with these instructions may result in serious adverse health effects or even fatal injuries.**

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#### **Attention!**

This symbol in conjunction with the word "Caution" indicates a possible immediate danger to life and health.

⇒ **Failure to observe these instructions may result in serious damage to health or even fatal injuries.**

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#### **Attention!**

This symbol in conjunction with the word "Caution" indicates a potentially dangerous situation.

⇒ **Failure to follow these instructions may result in minor injury or property damage.**

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#### **Information.**

Under this symbol you will find application tips and particularly useful information.

⇒ **They help you to make the best use of all the functions of your forklift truck.**

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#### **Personal protective equipment!**

⇒ **To avoid injury, wear protective gloves and safety shoes when working with the forklift truck.**



## High lift truck SEMI

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### 1.6.2 Organisational measures

The operator must provide the necessary personal protective equipment.

Persons who are not involved in the operation of the forklift truck must move away from the danger zone of the forklift truck and keep a safe distance.

### 1.6.3 Informal security measures

The instructions for use should be kept for later use.

In addition to the operating instructions, the general and local regulations for accident prevention and environmental protection must be observed.

All safety and warning signs on the forklift truck must be kept in a legible condition and renewed if necessary.

### 1.6.4 Staff training

Only trained and instructed personnel may work with the forklift truck.

People Activities	trained Operating staff	Persons with mechanical training
Operation	X	X
Troubleshooting	--	X
Troubleshooting	--	X
Maintenance	--	X

Legend: X ... Allowed      -- ... not allowed

### 1.6.5 Safety measures during normal operation

Only use the forklift truck if you are sure that it is in perfect condition. Pay particular attention to the condition of the wheels, the steering mechanism, the fork and the lifting and lowering mechanism.

Check the forklift truck at least once a day for visible external damage and malfunctions.

Never transport people with a forklift truck.

When using the forklift truck outdoors, be aware of the influence of wind.

Only use the forklift truck when there is sufficient ambient lighting.

### 1.6.6 Maintenance and troubleshooting

Carry out the prescribed maintenance and inspection work in due time.



## High lift truck SEMI

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Maintenance and troubleshooting should only be carried out by qualified personnel.

Check loose screw connections for tightness.

Replace defective seals.

### 1.6.7 Structural changes on the forklift truck

**Do not** make any modifications, additions or conversions to the forklift truck without the approval of the manufacturer. Unauthorised modifications to the forklift truck are prohibited.

This also applies to welds on the load-bearing parts.

All conversion measures require the written consent of Trading EU e. K.

Replace parts that are not in perfect condition immediately. Only use original spare and wear parts. In the case of externally sourced components, there is no guarantee that they have been designed and manufactured to withstand the loads and meet the safety requirements.

### 1.6.8 Cleaning and disposal

handle used substances and materials appropriately and dispose of them in an environmentally sound manner, in particular

- when working on lubrication systems and equipment,
- when cleaning with solvents.

## 2 Product description

### 2.1 Intended use

The forklift truck is only intended for lifting and transporting loads on pallets or in mesh boxes up to the maximum load specified. The forklift truck may only be used on smooth, level and hard surfaces.

#### Maximum loads:

Type	SEMI 1,6	SEMI 2,5	SEMI 3,0
Maximum load	1500 kg	1500 kg	1500 kg
Maximum lifting height	1600 mm	2500 mm	3000 mm

Any other use or use beyond this is considered improper and constitutes misuse of the forklift truck. Trading EU GmbH is not liable for any damage resulting from this.

### 2.2 Nameplate



Figure 2-1 (exemplary representation)

## High lift truck SEMI

### 2.3 Technical data

#### 2.3.1 Load / Dimensions / Weight

Model		SEMI 1,6	SEMI 2,5	SEMI 3,0
Capacity	Q(kg)	1500	1500	1500
Operating mode		Semi-electric	Semi-electric	Semi-electric
Design		Single shaft	Double shaft	Double shaft
Load distances	c(mm)	500	500	500
Total weight	kg	455	520	535
Height with lowered fork	h <sub>1</sub> (mm)	2090	1840	2090
Max. Lifting height fork	h <sub>3</sub> (mm)	1600	2500	3000
Mast height at maximum fork height	h <sub>4</sub> (mm)	2090	3060	3560
Minimum fork height	h <sub>13</sub> (mm)	60		
Total length	l <sub>1</sub> (mm)	1740		
Total width	b <sub>1</sub> (mm)	800	800	800
Fork size	s/e/l(mm)	60x170x1070		
Distance between the forks (outside)	b <sub>5</sub> (mm)	695	695	695
Turning circle	Wa (mm)	1505		
Lifting height per stroke	mm/stroke	25		
Rollers for materials		Polyurethane (PU)		
Wheel diameter	Ø (mm)	180		
Roll diameter	Ø (mm)	80		
Shelf width f. Euro pallet	mm	2305		
Width of the rack f. unidirectional pallets	mm	2258		
Lifting speed (uploaded/downloaded)	m/s	0,08 / 0,1		
Discharge speed (uploaded/downloaded)	m/s	0,15 / 0,12		
Brake type		Manual		
Battery voltage / Cap. nominal.	V / Ah	12 / 200		
Battery weight	kg	60		
Battery size	mm	250x190x295		
Noise level	dB(A)	< 70		

## High lift truck SEMI

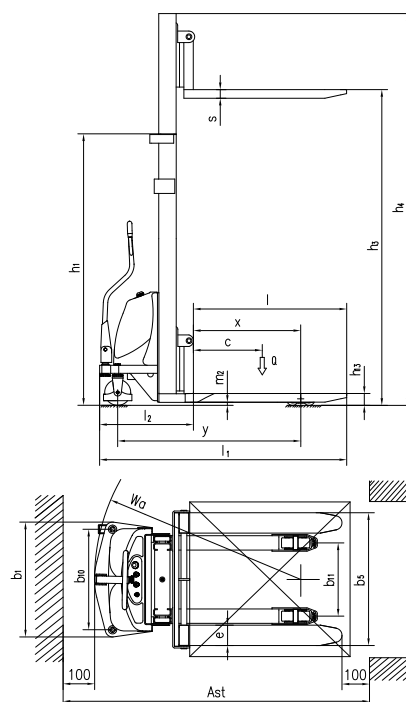


Figure 2-2 Dimensions (schematic representation)

### 2.3.2 Hydraulic oil

Type	SEMI 1,6	SEMI 2,5	SEMI 3,0
Lifting height	1,6m	2,5m	3,0m
Tank volume	6,0 l	6,0 l	6,0 l
Quality of the oil	According to ISO VG 32		

### 2.3.3 Environmental conditions

	Transport and storage	Operation
Temperature	-25 °C to + 55 °C	From + 5 °C to + 40 °C
Humidity	dry, covered	Without condensation
Storage/installation site	Observe the transport instructions on the packaging	<ul style="list-style-type: none"> <li>dust-free,</li> <li>horizontal,</li> <li>solid ground.</li> </ul>

## 2.4 Structure

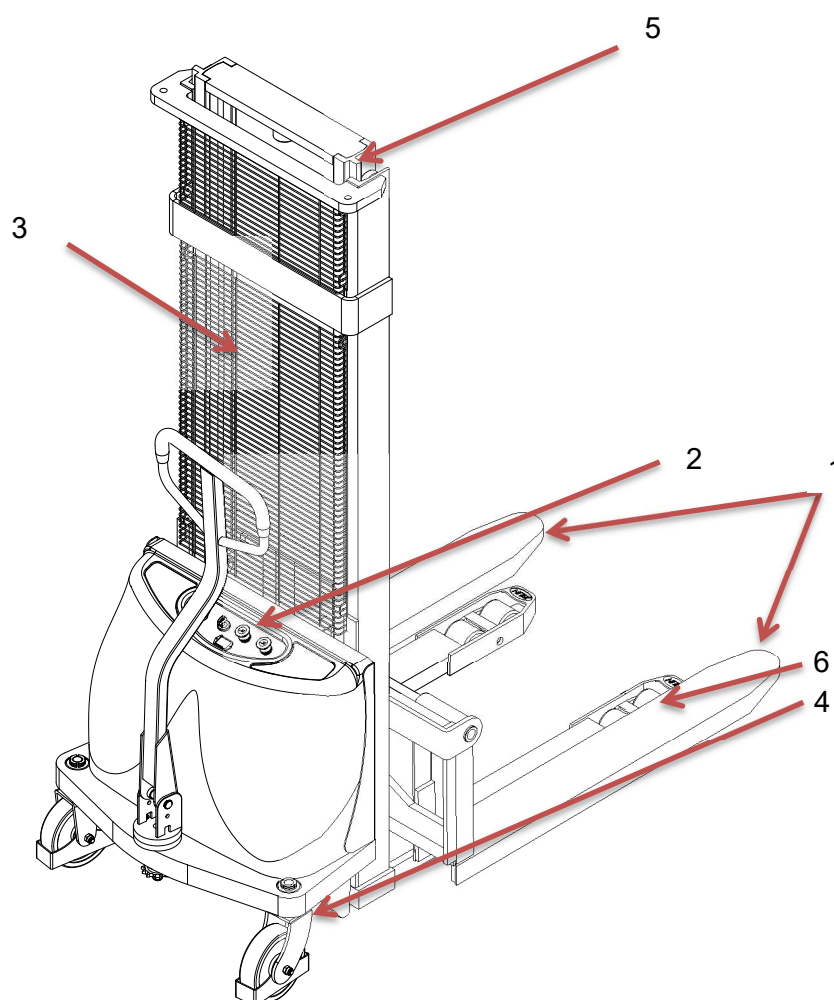


Figure 2-3 Structure

Pos.	Designation	Pos.	Designation
1	Lifting forks	4	Rear wheels/wheels
2	Operational elements	5	Stackable frame
3	Lifting chain	6	Front wheels

### 3 Transport and commissioning

#### 3.1 Safety during forklift transport

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**Attention!**

Transport of the forklift truck to the construction site.

The forklift truck may fall from the transport vehicle or tip over.

Crushing of limbs is possible.

⇒ **Only use suitable means of transport with sufficient carrying capacity.**

⇒ **Adhere to the weight specifications in the technical data.**

⇒ **Do not drive on ramps or inclines.**

⇒ **Observe the relevant standards, e.g., UVV.**

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## 4 Operation

### 4.1 Safety instructions

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#### **Danger!**

Improper handling of the forklift truck. Serious or life-threatening injuries are the result.

- ⇒ **Never transport people with a forklift truck.**
  - ⇒ **Only use the forklift truck on smooth, level and hard surfaces.**
  - ⇒ **Only use the forklift truck if you are sure that it is in perfect condition.**
  - ⇒ **Never transport unstable or loosely stacked objects.**
  - ⇒ **Pay attention to the maximum load capacity of the forklift truck.**
  - ⇒ **The forklift truck may only be used by trained and instructed personnel.**
  - ⇒ **When not in use, secure the forklift truck against unintentional movement by applying the foot brake on one of the swivel wheels.**
- 



#### **Attention!**

Crushing of limbs is possible.

- ⇒ **Make sure that no part of the body gets into the area of the lifting mechanism.**
  - ⇒ **Take care that your feet do not get under the forks or the load.**
- 



#### **Attention!**

Heavy loads!

Incorrect lifting and posture can lead to serious injuries.

- ⇒ **Only trained and instructed personnel may work with the forklift truck.**
  - ⇒ **Only use the forklift truck if you are physically able to move heavy loads.**
- 



#### **Attention!**

Damage to the forklift truck due to improper use.

- ⇒ **Do not leave loads on the forks when the forklift truck has finished its work.**
  - ⇒ **Always lower the forks as far as possible at the end of the work.**
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## High lift truck SEMI

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### Personal protective equipment!

⇒ To avoid injury, wear protective gloves and safety shoes when working with the forklift truck.



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## 4.2 Daily check before commissioning

Check all moving parts **daily** for wear.

Check whether wheels and axles are blocked by foreign bodies.

Check the forklift for loose bolts and nuts and tighten them if necessary.

## 4.3 Loading the forklift truck

- Load the forklift truck evenly.
- Make sure that the load does not protrude beyond the forklift truck. The length of the forks must be sufficient, i.e. the length of the pallet must be  $\leq$  the length of the forks.
- The centre of gravity of the load must be at the front, above the centre of the forks.
- **Load capacity:** see 2.3.1.



## 4.4 Operation



### **Danger of loads tipping over!**

Improper handling of the forklift truck. Serious or life-threatening injuries are the result.

- ⇒ **During transport, the forks must not be lifted more than 30 cm.**
- ⇒ **When stacking the forks, drive only slowly and over short distances because of the required stability.**

## 4.5 Charging the battery

The environment in which the battery is charged must be well ventilated. Also, there must be no open flames and nothing that could cause an explosion.

Each new battery must be fully charged before use. This takes about 15 hours. Also check that all the screws on the battery are tight. If not, tighten them. When replacing the battery, also make sure that the terminals are connected correctly (minus to minus and plus to plus).

To determine the battery's state of charge, the forklift must be switched on (turn the key). If only the left bar of the display lights up, the battery must be charged (see fig. 4.5).

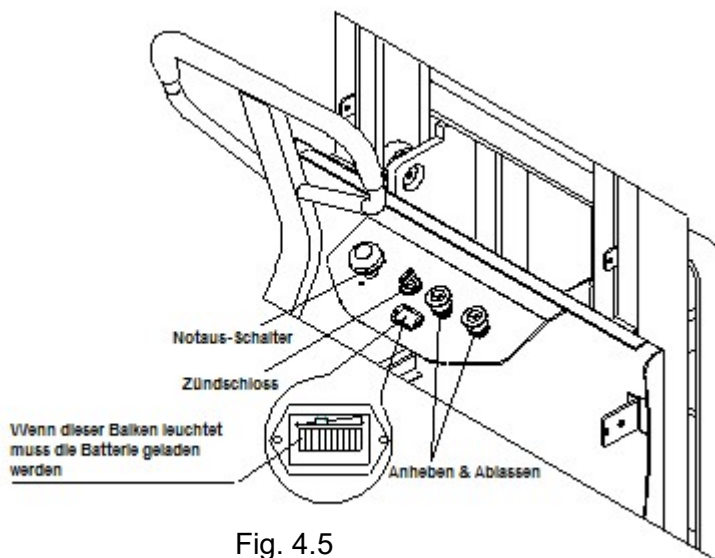


Fig. 4.5

In addition, check that the lifting and lowering function of the forklift truck works smoothly.

### 4.6 Freight traffic

1. Switch on the forklift truck (turn the key)
2. Drive the forklift truck to the load you want to transport.
3. Adjust the forks to the correct height with the knobs (see fig. 4.5).
4. Then insert the pallet.
5. Lift the load about 20-30 cm above the ground.
6. Move the load to its destination and lower the forks with the buttons (see Fig. 4.5).
7. Then drive off the pallet with the forklift truck.



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#### **Attention!**

#### **Danger due to lack of control of the forklift truck**

As soon as the forklift is no longer under control, immediately press the emergency switch to cut off the power supply.

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#### **Attention!**

**Do not move the forklift truck when lifting and lowering the load.**

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#### **Attention!**

**Do not raise or lower the forks when moving the forklift truck.**

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## 5 Maintenance

### 5.1 Safety instructions



#### Attention!

Improper handling of forklift trucks. They can be run over or crushed by the forklift truck driving away.

- ⇒ **The forklift should only be serviced by mechanically trained personnel.**
- ⇒ **When not in use, secure the forklift truck against unintentional movement by applying the foot brake on one of the swivel wheels.**



#### Attention!

Danger of falling during maintenance work at great heights!

- ⇒ **Use suitable ladders when carrying out maintenance or repair work at great heights.**
- ⇒ **Wear non-slip safety shoes.**



#### Attention!

Improper use may cause damage to the forklift truck.

- ⇒ **The forklift should only be serviced by mechanically trained personnel.**

### 5.2 Maintenance plan

The maintenance plan lists the work to be carried out regularly.

Maintenance point	Clean	Grease	Check	Extra work	Frequency	Reference see chapter/page
Testing and cleaning	X	--	X	X	daily	5.3/5-8
Moving parts	--	X	X	--	At least every 3 months	5.4/5-8
Lifting chain	--	X	X	--	as requested	
Hydraulic oil	--	--	X	X	every 6 months	5.5/5-8
Battery	--	--	X	X	every 3 months	5.6/5-9

Legend: **X** ... There is something to do here ... not applicable

### 5.3 Testing and cleaning

Check the following parts daily for wear:

- Wheels,
- Axles,
- Lever,
- Up/down control

and clean these parts. Also check whether the wheels and axles are blocked by foreign bodies.

If the forklift truck is used in a dusty environment, it should be regularly impregnated with an oily cloth.

Check the forklift for loose bolts and nuts and tighten them if necessary.

Check the presence and legibility of all signs on the forklift truck, e.g. warning signs.

### 5.4 Grease

#### Moving parts:

Lubricate all moving parts of the forklift truck at least **every 3 months**. Depending on the duration and frequency of application, a shorter interval may also be required.

#### Lifting chain:

Grease the lifting chain regularly. The interval depends on the duration and frequency of use of the forklift truck.

### 5.5 Checking the oil level

The oil level of the hand pallet truck must be checked **every 6 months**.

1. Unscrew the fuel filler cap.
2. If necessary, fill the oil to the edge of the opening.
3. Screw the fuel filler cap back on.

Type	SEMI 1,6	SEMI 2,5	SEMI 3,0
Lifting height	1,6m	2,5m	3,0m
Tank volume	6,0 l	6,0 l	6,0 l

### 5.6 Checking the battery fluid

The battery fluid level must be checked every **3 months**.

1. Unscrew the battery cover.
2. Top up the battery fluid if necessary.
3. Screw the battery compartment cover back on.

Also ensure that the battery is clean, dry and stored at room temperature. Also, do not expose the battery to direct sunlight and do not store it within 2 m of heat sources.

## 6 Troubleshooting



### Attention!

Improper use may cause damage to the forklift truck.

⇒ **Troubleshooting and repairs may only be carried out by mechanically trained personnel.**

Error	Cause	Remedy
The forks cannot be lifted.	The unit is overloaded.	Reduction of the fee
	The pressure at the valve is too low.	Increasing pressure
	The oil viscosity is too high or not enough oil has been injected.	Change the oil (see chapter 5.5).
	Insufficient battery voltage.	Replacing the battery
	Defective motor(s), oil pump, lift button	Repair or replacement
	The oil is contaminated.	Remove the impurities and replace the oil. Set the arrester correctly.
Forks cannot be lowered	A malfunction of the arrester has occurred.	
Forks cannot be lowered	Deformed and/or damaged parts of the forklift truck.	Replace deformed and damaged parts.
	The oil return valve is clogged.	Clean the return valve.
The system loses	The seals are worn or damaged.	Replace the seals.

## High lift truck SEMI

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Error	Cause	Remedy
Reduced voltage after charging the battery	The battery is damaged.	Repair or replacement.
	The battery fluid level is low.	Filling up the battery fluid.
	More problems with battery fluid.	Replace the battery fluid.

# 7 Decommissioning, storage, disposal

Decommissioning, storage and disposal are among the least frequently performed activities.

## 7.1 Storage conditions

When taking the forklift truck out of service for an extended period of time, maintain the environmental conditions as described in chap. 2.3.3 Chapter.

## 7.2 Deactivation

Clean the forklift truck and cover it with a cloth to protect it from dust.

## 7.3 Disposal

Pay attention to environmental compatibility, health risks, disposal regulations and local disposal options according to the regulations. For further information, please contact your local waste management office.

Separate metals, non-metals, composites and auxiliary materials by type and dispose of them in an environmentally sound manner.

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