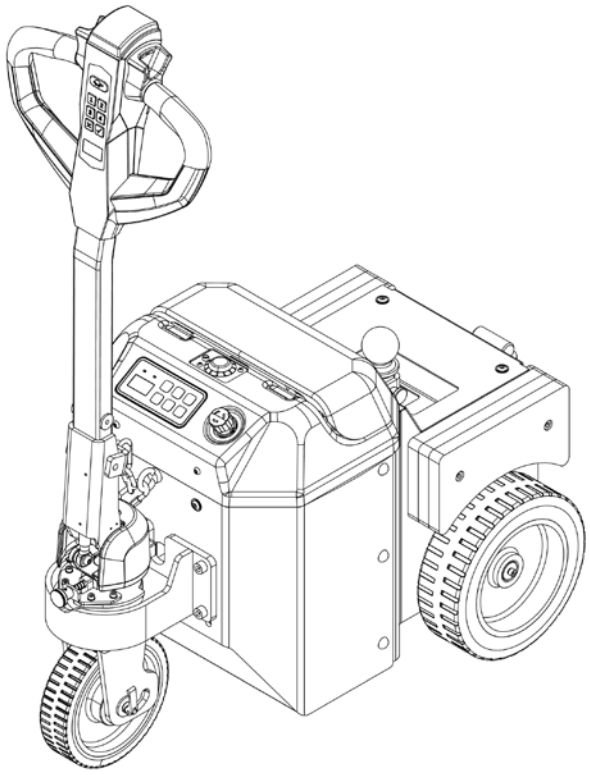
INSTRUCTION MANUAL

Towing Tractor

TWS-200i



WARNING

Do not use the towing tractor before reading and understanding these operating instructions.

NOTE:

- **Please check the designation of your present type at the last page of this document as well as on the ID-plate.**
- **Keep this manual for future reference.**

Version 05/2025

TWS-200i-SMS-001-EN

FOREWORD

Before operating this towing tractor, read this ORIGINAL INSTRUCTION MANUAL carefully and understand the usage of the tractor completely. Improper operation could create danger.
This manual describes the usage of different electric towing tractors. When operating and servicing the truck, make sure, that it applies to your type.

Keep this manual for future reference. If warning/caution labels are damaged or get lost, please contact your local dealer for replacement.
This towing tractor complies with the requirements according to EN 3691-1; -5 (Industrial trucks- safety requirements and verification, part 1; part 5), EN 12895 (Industrial trucks- electromagnetic compatibility), EN 12053 (Safety of industrial trucks- test methods for measuring noise emissions), EN 1175: 2020 (Safety of industrial trucks - Electrical/electronic requirements), assumed the truck is used according to the described purpose.
The noise level for this machine is below 70 dB(A) according to EN 12053.

ATTENTION:

- Environmentally hazardous waste, such as batteries, oil and electronics, will negatively affect the environment or human health, if handled incorrectly.

- The waste packages should be sorted and put into solid dustbins according to the materials and be collected disposal by local special environment protection bureau. To avoid pollution, it's forbidden to throw away the wastes randomly.

- To avoid leaking during the use of the products, the user should prepare some absorbable materials (scraps of wooden or dry duster cloth) to absorb the leaking oil in time. To avoid second pollution to the environment, the used absorbable materials should be handed in to special departments in terms of local authorities.

- Our products are subject to ongoing developments. Because this manual is only for the purpose of operating /maintaining the towing tractor, therefore please have an understanding that there is no guarantee out of particular features out of this manual.

NOTE: In this manual, the left sign indicates warning and hazard. Failure to comply with this instruction may result in death or serious injury.

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1. CORRECT APPLICATION

It is only allowed to use this electric towing tractor according to this instruction manual.

Improper use can lead do human injuries or equipment damage. The operator/ the operating company has to ensure the correct usage and has to ensure that this towing tractor is used only by trained and authorized staff.

The towing tractor has to be used on substantially firm, smooth, prepared, level and adequate surfaces. The truck is intended to be used for indoor applications with ambient temperatures between +5°C and + 40°C and for medium load applications without crossing permanent obstacles or potholes.

The capacity is marked on capacity sticker as well on the Identification plate. The operator has to pay attention to these warnings and safety instructions.
Operating lighting must be minimum 50 Lux.

Modification

No modifications or alterations to this towing tractor which may affect, for example, capacity, stability or safety requirements of the truck, shall be made without the prior written approval of the original truck manufacturer, its authorized representative, or a successor thereof. This includes changes affecting, for example braking, steering, visibility and the addition of removable attachments. When the manufacturer or its successor approve a modification or alteration, they shall also make and approve appropriate changes to capacity sticker, decals, labels and operation and maintenance manuals.

Only in the event that the truck manufacturer is no longer in business and there is no successor in the interest to the business, may the user arrange for a modification or alteration to a powered industrial truck, provided, however, that the user:

a) arranges for the modification or alteration to be designed, tested and implemented by an engineer(s) expert in industrial trucks and their safety,

b) maintains a permanent record of the design, test(s) and implementation of the modification or alteration,

c) approves and makes appropriate changes to the capacity plate(s), decals, tags and instruction handbook, and

d) affixes a permanent and readily visible label to the truck stating the manner in which the truck has been modified or altered, together with the date of the modification or alteration and the name and address of the organization that accomplished those tasks.

By not observing these instructions, the warranty becomes void.

2. TRUCK DESCRIPTION

a. Assembly Overview

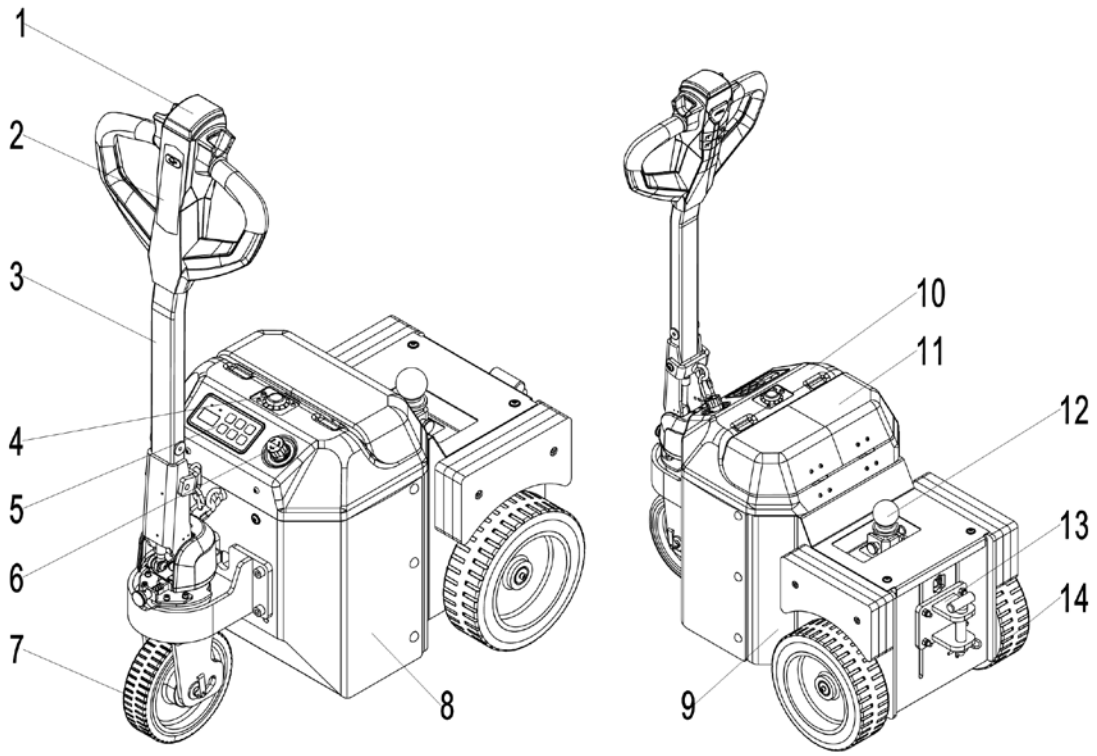


Fig. 1: Assembly overview

1. Safety (belly) button
2. Control handle
3. Tiller rod
4. Warning light
5. Display unit
6. Emergency disconnect button
7. Chassis
8. Chassis
9. Steering wheel
10. Cover
11. Cover
12. Traction Ball
13. Towing pin
14. Drive wheel

b. Main technical data

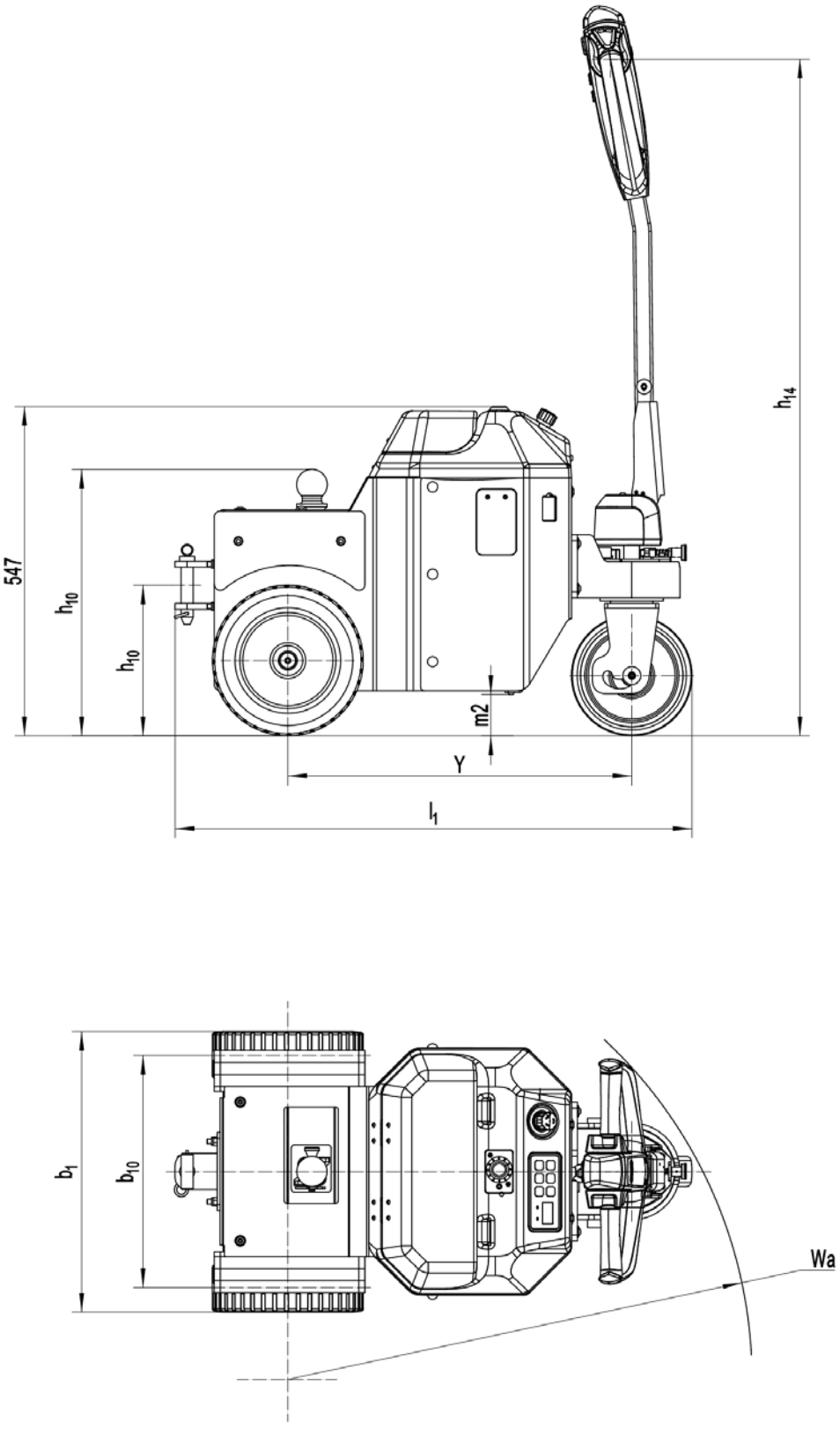


Fig. 2: Technical data

Table 1: Main technical data for standard version

Type sheet for industrial truck acc. to VDI 2198				
Distinguishing mark	1.2	Manufacturer's type designation		TWS-200i
	1.3	Power(battery, diesel, petrolgas, manual)		Battery
	1.4	Operator type		pedestrian
	1.5	Load Capacity / rated load	Q(t)	2.0
	1.7	Rated drawbar pull	F(N)	500
	1.9	Wheelbase	Y(mm)	570
Weight	2.1	Service weight(without battery)	kg	190
	2.3	Axle loading, unladen front/rear	kg	125/65
Tyres / chassis	3.1	Tires		Rubber
	3.2	Tire size, front	∅ x w (mm)	∅250x80
	3.3	Tire size, rear	∅ x w (mm)	∅200x50
	3.5	Wheels, number front/rear(x=driven wheels)		2X+1
	3.6	Tread, front	b10(mm)	386
Dimensions	4.9	Height of tiller in drive position min./ max.	h14 (mm)	810/1120
	4.12	Coupling height Towing pin Towing ball	 h10 (mm) h10 (mm)	 160-300 440/465
	4.19	Overall length	l1 (mm)	880
	4.21	Overall width	b1 (mm)	466
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	72
	4.35	Turning radius	Wa (mm)	770
Performance	5.1	Travel speed, laden/ unladen	km/h	4.0/4.8
	5.5	Drawbar pull, laden/unladen	N	500 /–
	5.6	Max. drawbar pull, laden/unladen	N	800/–
	5.10	Service brake		Electromagnetic
Electric-engine	6.1	Drive motor rating	kW	0.5
	6.3	Battery acc. to DIN 43531/ 35/ 36 A, B, C, no		No
	6.4	Battery voltage, nominal capacity K5	V/Ah	48/20(48/36)
	6.5	Battery weight	kg	7.7(18)
Addition data	8.1	Type of drive control		DC-Speed Control
	8.4	sound level at driver`s ear acc. to EN 12053	dB(A)	< 70

c. Description of the safety and warning labels (for Europe and other market excepting USA)

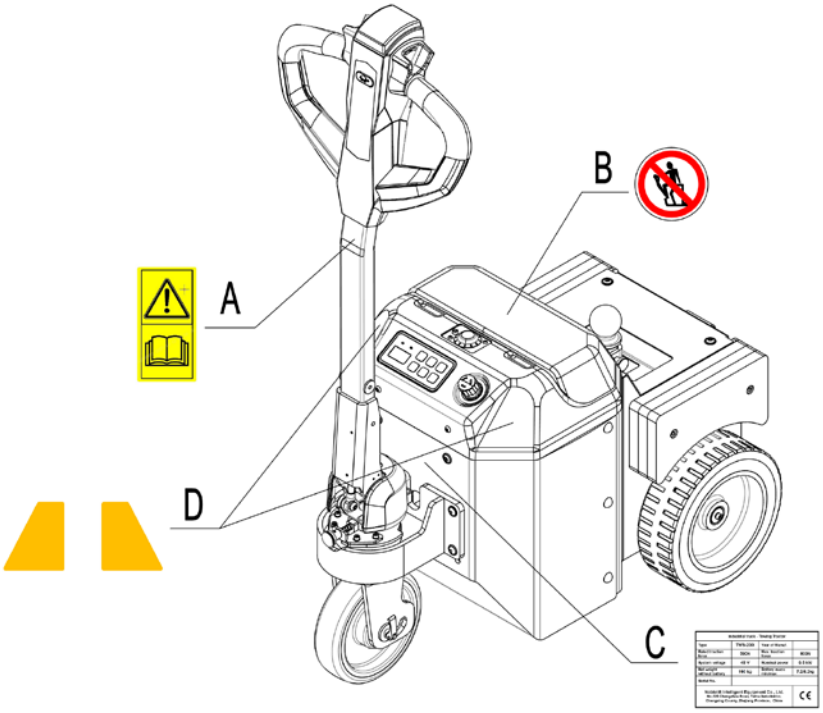


Fig. 3: Safety and warning labels

A Information notice: “Observe operating instructions”
B Warning decal: “No passengers” decal
C Identification plate (ID-plate)
D Warning decals

This towing tractor is equipped with an emergency disconnect switch (6) which stops driving functions and engages the fail-safe electromagnetic brake when it is activated. By turning this button clockwise, the truck can be operated after entering the access code on pin-code panel.

To prevent unauthorized access, press emergency switch (6) or press “X” button of pin-code panel.
This truck is equipped with a red collision safety (belly) button (1) which changes the travel direction if the truck comes into contact with a person. The truck brakes, travels away from the operator and stops. This prevents the truck driving into the operator.

Follow the instructions given on the labels and decals, replace them if they are damaged or missing.

d. Identification plate

Towing Tractor			
Type	xxxx	Rated capacity	xxxxxxxxxx
Rated voltage	xx V	Drive motor system	xxxx
Battery mass, max.	xxx kg	Battery mass, min.	xxx kg
Net weight w/o. battery	xxx kg	Rated coupling pull	xxxx N
Rated power	xxx kW	Max. coupling pull	xxxx N
Serial No.	XXXXXXXXXX	Manufacture Date	XXXXXXXXXX
Manufacturer XXXXXXXXXXXXXX Address XXXXXXXXXXXXXX			

Fig. 4: Identification plate

The identification plate layout is subject to the label that posted on the truck.

3. WARNINGS, RESIDUAL RISK AND SAFETY INSTRUCTIONS

DO NOT

- Allow other person than the operator to stand in front of or behind the truck.
- Overload the truck.
- Put foot in front of the wheels, which may cause injury.
- Push or pull loads.
- Operate the truck without manufacturer's written consent.

Practice maintenance work according to regular inspection. This truck is not designed to be water resistant, please operate the truck in dry condition. Prolonged continuous operation might cause damage to the power pack.

- When operating this electric towing tractor, the operator has to wear safety shoes.
- This truck is intended to be used for indoor applications with ambient temperature range between +5°C and + 40°C.
- The operating lighting must be 50 Lux at least.
- To prevent unintended sudden movements when the truck is not in use (i.e. from another person, etc.), press emergency disconnect switch (6) or press “X” button of pin-code panel.

4. COMMISSIONING, TRANSPORT, DECOMMISSIONING

a. Commissioning

Table 2: Commissioning data

Type	TWS-200i
Service weight (without battery)	215kg
Dimensions [mm]	985x520x1330

After receiving the new towing tractor or for re-commissioning, please perform the following steps before (firstly) operating the truck:

- Check if all parts are included and without damage.
- Check the tiller and verify the assembly.
- Check the battery charge status (see chapter 8).
- Carry out the daily inspections as well as functional checks.

b. Lifting by crane and transport

Lifting by crane

USE DEDICATED CRANE AND LIFTING EQUIPMENT.
DO NOT STAND UNDER LIFTED LOADS.
DO NOT WALK INTO OR STAND IN A HAZARDOUS AREA DURING LIFTING.

Park the truck securely and use the lifting equipment to hoist the truck according to Fig. 5.

Transport

THE TRUCK MUST BE SECURELY FASTENED WHEN TRANSPORTED ON A LORRY OR A TRAILER.

Attach lashing straps to the truck and the transport vehicle and tension sufficiently according to Fig. 6.

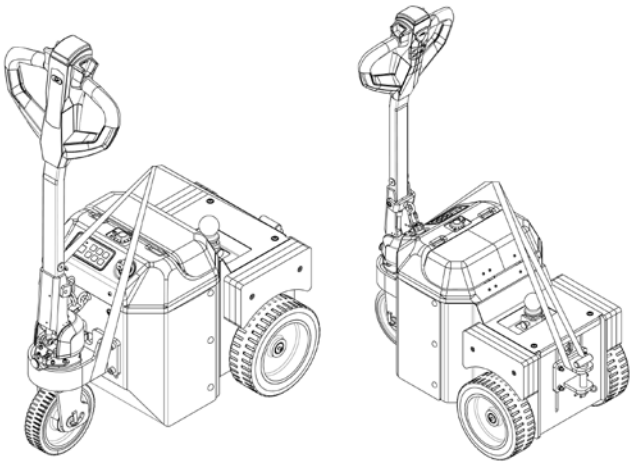


Fig. 5: Lifting by crane

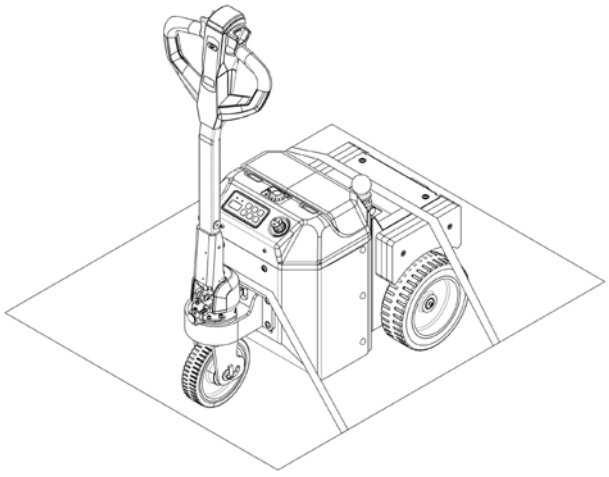


Fig. 6: Fixing points

c. Decommissioning

Prior to decommissioning storage, remove the load, lubricate the truck according to the lubrication diagram/ grease points mentioned in this manual (regular inspection), and eventually protect the truck against corrosion and dust. Remove the battery and jack up the truck securely, so that all the wheels are clear of the ground. This is the only way of ensuring that the wheels and wheel bearings are not damaged during storage.

Final decommissioning or disposal of the truck must be performed in accordance with the regulations of the country of use. In particular, regulations governing the disposal of oil, batteries and electronic and electrical systems must be observed. Hand the truck to a designated recycling company.

5. DAILY INSPECTION

This chapter describes the checks and operations to be performed before starting daily operation.
Daily inspection is effective to discover the malfunction or defects of this truck. Carry out the following checks to the truck before operation.
Remove the load from the truck.

IF ANY DEFECTIS FOUND ON THIS TRUCK, IT MUST BE TAKEN OUT OF SERVICE.

- Check for scratches, deformation or cracks.
- Check the smooth movement of the wheels.
- Check the function of driving in both directions.
- Check the function of driving with tiller in its vertical position.
- Check the function of the emergency brake by activating the emergency switch.
- Check if all bolts and nuts are tightened firmly.
- Visual check if there are any broken electric wires.
- Check the presence of warning stickers and signs.

6. TRUCK OPERATION

BEFORE OPERATING THIS TRUCK, PLEASE FOLLOW THE WARNINGS AND SAFETY INSTRUCTIONS (SEE CHAPTER 3).

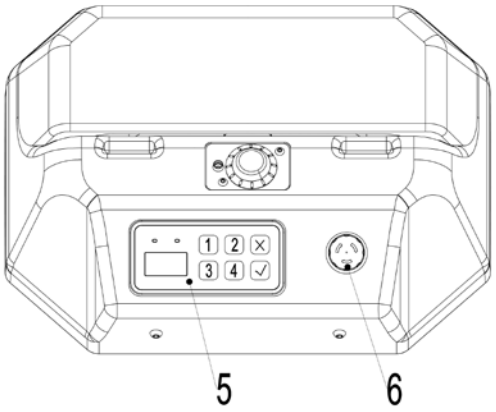


Fig. 7: Start the Truck

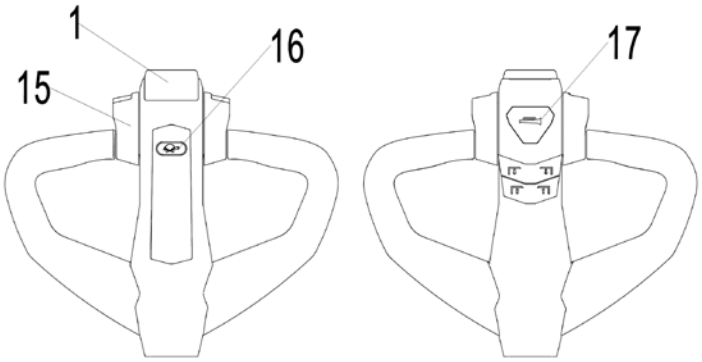


Fig. 8: Control handle

Rotate the emergency stop switch (6) clockwise to release the emergency stop.
There two ways to start this towing tractor:
The first way is entering the correct access code and pressing "√" key from pin-code panel (5).
The second way is activating the truck with RFID access card.

Press the horn button (Fig.8,17) to activate the audible warning signal.

a. Parking

PARKING THE TRUCK ON A SLOPE IS STRICTLY PROHIBITED.

This truck is equipped with an electromagnetic fail-safe stopping and parking brake.
Press the emergency disconnect switch(6) when parking.

b. Traveling

Switch on the truck by activation from pin-code panel, control the travel direction with the accelerator to drive direction (Fw) or load direction (Bw), as shown in Fig. 9.

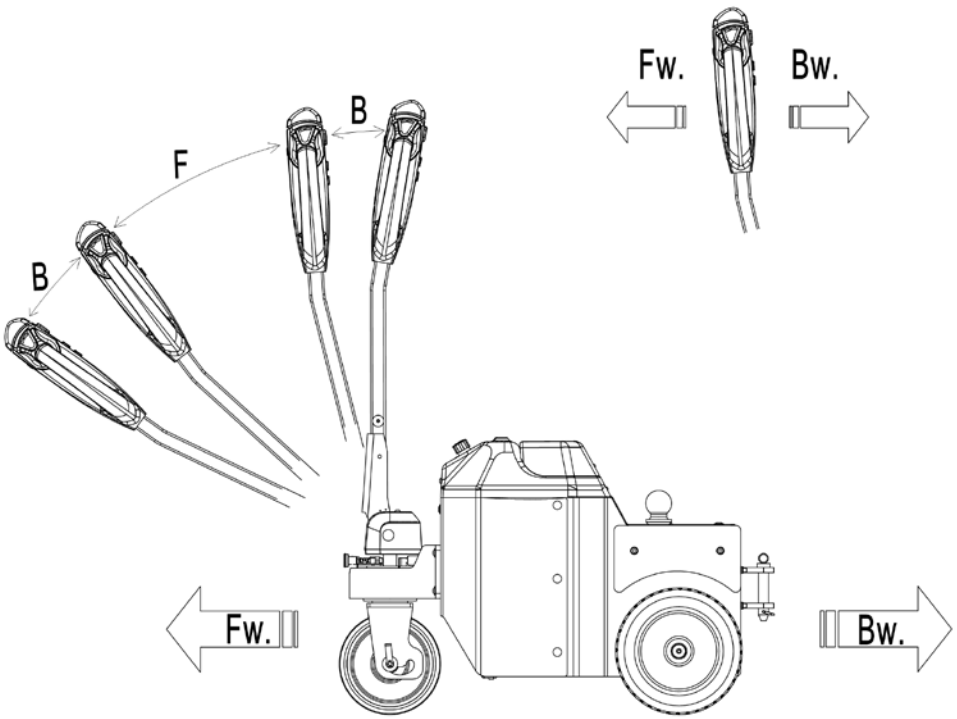


Fig. 9: Travel direction

Control the travel direction by turning the accelerator in your desired direction: drive direction (Fw) or load direction (Bw), as shown in Fig. 9.

Control the travel speed by turning the accelerator (Fig.8,15) carefully until the truck reaches your desired speed.

If you move the accelerator to the neutral “0” position, the controller decelerates the truck until the truck stops. If the truck stops, the parking brake is activated.

Carefully drive the truck to the destination. Observe the floor conditions and control the travel speed with the accelerator.

Press the turtle button (Fig.8,16) to enter into slow travel mode, travel slowly by turning the accelerator in the desired direction. Press the turtle button again to resume travelling at normal speed.

Press turtle button (Fig.8,16) and hold for 2 seconds to activate driving function with tiller in its vertical position when operating in confined areas. The driving function is active only when turtle button is pressed (the speed is reduced); the release of turtle button will cause immediate stop. The activation of accelerator button in time gap shorter than two seconds after the turtle button is pressed will not activate the driving function, the activation cycle has to be repeated from the beginning. Accelerator button should remain in neutral position till two seconds passed.

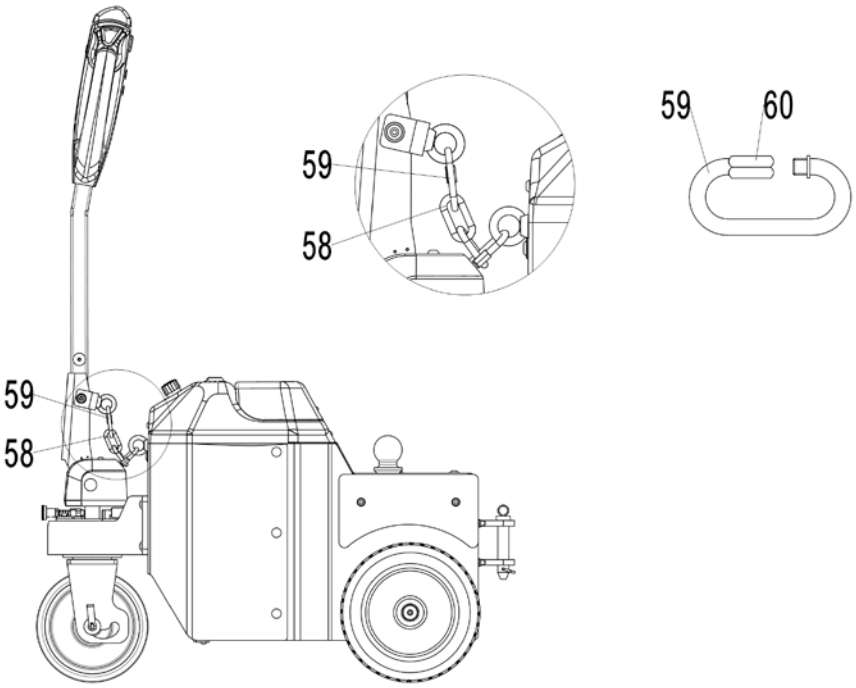


Fig. 10: Chain assembly

As illustrated in Figure 10, the truck is fitted with a chain assembly (58) that can be disassembled via a connecting ring (59). The connecting ring (59) serves as a split joint, for disengagement use the nut (60).

When the chain assembly is connected to the tiller and the frame, operator is able to generate additional down force by pressing the tiller head down. This may be required in some application scenarios where the Ball post is used with a heavy loads and truck shows the tendency of front wheel lifting off ground. However, in this configuration, braking of the truck through pressing tiller to its bottom position becomes inoperative. In normal operation, the connecting ring (59) must be disconnected from the tiller. This application scenario requires special attention and training and may be not allowed in some countries, check the local regulations.

c. Steering

The truck is steered in the required direction by moving the tiller to the left or right.

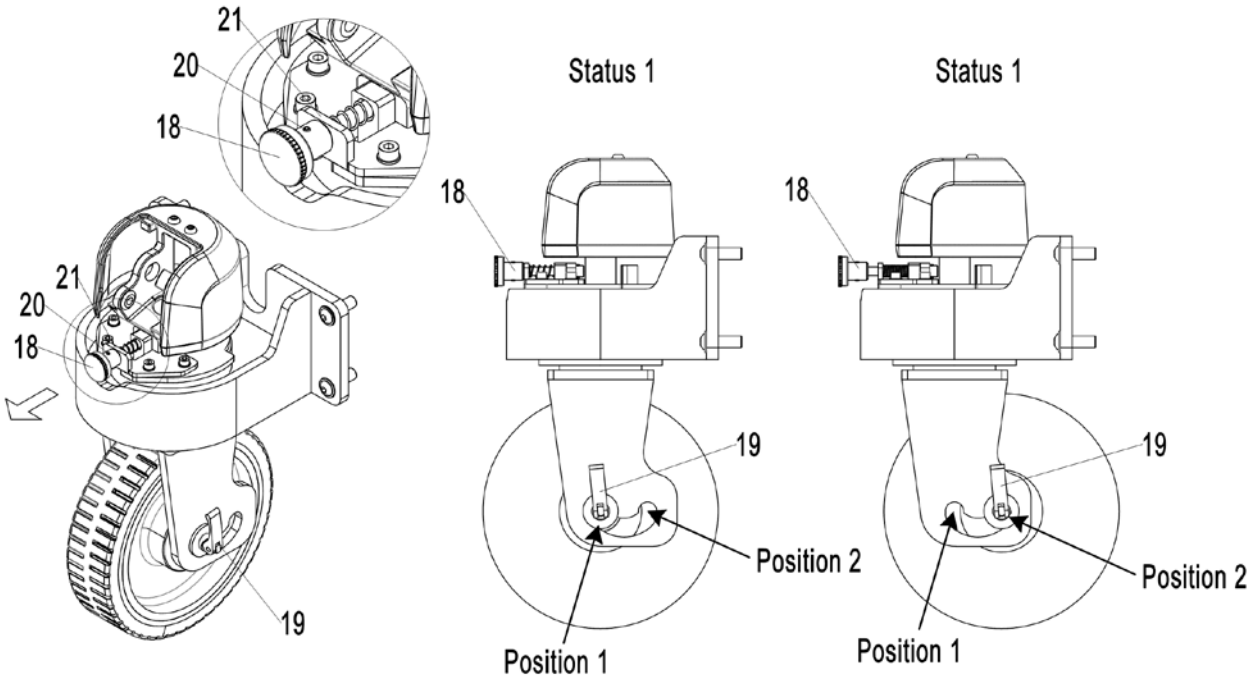


Fig. 11: Steering wheel condition

The steering mechanism of this truck features two operational modes:
Tiller-driven Mode: The steering wheel rotates in tandem with the tiller. The axle of the wheel should be in Position 1.
Free-rotation Mode: The tiller is locked in the truck's centerline position, allowing the steering wheel to pivot freely according to the truck's directional momentum. The axle of the wheel should be in Position 2. A locking pin (18) is incorporated to switch between these steering modes; however, the movement of wheel's axle should be performed by the user manually.

Steering Wheel in Tiller-driven mode (Factory Setting): The steering wheel rotates in tandem with the tiller. As shown in the illustration, the locking pin (18) is positioned close to the mounting bracket (21), the steering wheel is secured in Position 1.

Switching from Tiller-driven mode to Free-rotation mode:

- Align the steering wheel with the center line of the truck as shown in Figure 11.
- Rotate the locking pin (18) until the spring-loaded pin (20) is horizontal (parallel to the ground).
- Pull the locking pin (18) to its maximum extent while maintaining its horizontal position. Rotate the pin 90° and release it. It will engage the steering lock.
- Release the locking mechanism (19), adjust the steering wheel to Position 2, then re-engage the locking mechanism (19).

Status change is completed.

Switching from Free-rotation mode to Tiller-driven mode:

- Align the steering wheel with center line of the truck as shown in Figure 11.
- Rotate the locking pin (18) until the spring-loaded pin (20) is horizontal.
- The locking pin (18) will retract under spring force.
- Verify tiller functionality: If the tiller fails to turn the steering wheel, rotate the tiller left/right to reset the locking pin (18) to its initial (deepest) position.
- Release the locking mechanism (19), adjust the steering wheel to Position 1, then re-engage the locking mechanism (19).

Status change is complete.

VERIFY THE SUCCESSFUL RESULT OF STEERING MODE CHANGE WITHOUT LOAD BEFORE USING THE TRUCK. DO NOT OPERATE THE TRUCK IF SWITCH BETWEEN TWO STEERING MODES FAILED.

d. Braking

PLEASE CHECK THE BRAKING DISTANCE BEFORE OPERATION.
THE BRAKING PERFORMANCE DEPENDS ON THE TRACK CONDITIONS AND THE LOAD CONDITIONS OF THE TRUCK.

The braking function can be activated in different ways:

- By setting the accelerator (Fig. 8, 15) to the neutral “0” position or by releasing the accelerator, the regenerative brake is activated. The truck brakes to a halt.
- By turning the accelerator (Fig. 8, 15) in the opposite direction, the regenerative brake is activated. The truck brakes and begins traveling in the opposite direction.
- Operate the collision safety switch (belly button) (Fig. 8, 1) to protect the operator from being crushed. If this switch is activated, the truck brakes and travels a short distance in the opposite direction.

e. Malfunctions

If there are any malfunctions or the truck is inoperative, please stop using the truck and activate the emergency disconnect switch (6) by pressing it. Immediately inform the supervisor and/or call your service support. If necessary, move the truck out of the operating area by using dedicated towing/ lifting equipment.

f. Emergency

In emergencies or in the event of tip over (or fall off a dock), keep safe distance immediately. If possible, activate the emergency disconnect switch (6) by pressing it. All electrical functions will be deactivated.

7. DISPLAY UNIT

This towing tractor is equipped with an LCD screen, pin-code panel and RFID access card.

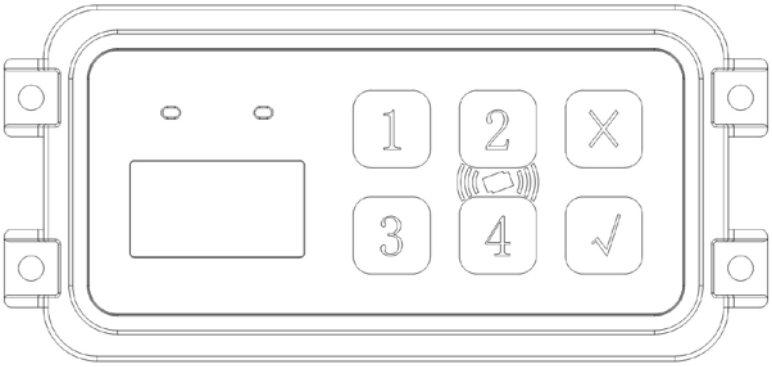


Fig. 12: Display unit

a. Introduction

Pin-code panel is an electronic system which is similar with an electronic access system. Truck is not able to be operated before entering the correct access code, the main purpose is to prevent unauthorized operation. In order to facilitate the operation, in addition to the pin-code access, the RFID access card is also available.

The display with LCD screen displays various truck data, such as the state of charge of the battery, working hour, slow travel mode, fault code, etc.

b. Main parameters of display unit

Rated working voltage: 12V-48V
Standby current: ≤25mA/24VDC
Communication: CAN communication, with fault code display, battery display, working hour display, RFID card and pin-code panel.
Default configuration: 1 set of access code (default 1234) and two round RFID cards.

c. Function description

Pin-code panel

The truck is equipped with a pin-code panel and RFID cards (maximum 5 RFID cards). The access code consists of 4 numbers (1~4).

RFID card

Put the RFID card close to the pin-code panel, if the RFID card is valid, the pin-code panel will emit a short beep, and then the blue indicator light is on, indicating that the pin-code panel is working normally.

Pin-code access

The truck is delivered with the access code “1234”, which can be used for immediate start.

After turning on the power, the green indicator light is on, and the display screen is off; enter the original access code "1234", confirm with “√” key - the green and blue indicator lights are on, the display screen is on, and the truck is ready for operation.

A new access code can be generated using the administrator password “3232”. Follow the steps below to change the access code with the administrator password:

- Enter administrator password “3232” and press “√” key.
- Enter the original access code and press “√” key.
- Enter the new access code and press “√” key, the access code has been changed.

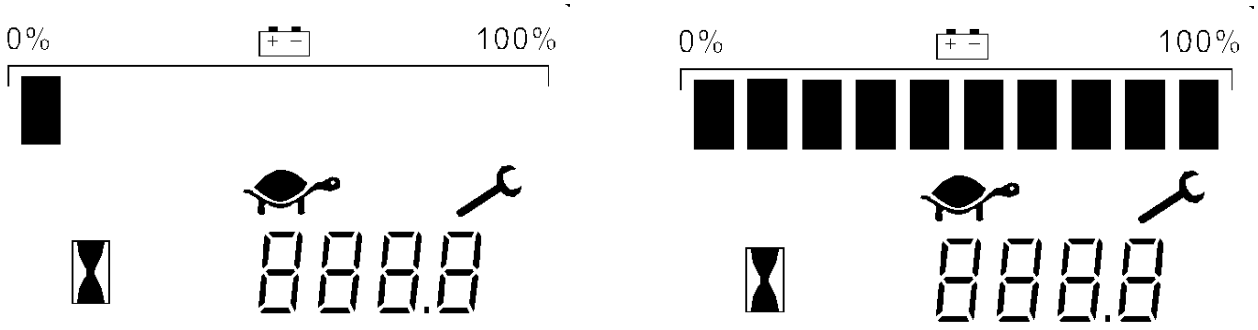
Follow the steps below to reset the access code:

- Enter access code “123” and press “√” key.
- Enter access code “123” once more and press “√” key, the access code has been reset to “1234”.

Follow the procedure below to add additional RFID card:

- Enter access code “3434” and press “√” key.
- If the access code is correct, the display will remain lit, and the hour meter will show 000000. If the administrator password is incorrect, the system will revert to the initialization mode.
- Place an ID card in the card reader zone. The display will flash twice to indicate successful registration. Repeat this process with additional cards. The system will exit registration mode and return to initialization when the display turns off, indicating the process is complete.
- The system supports a maximum of 5 registered ID cards. Subsequent registration will overwrite the oldest card in a first-in-first-out (FIFO) manner.

d. Display unit indication



Battery discharged

Battery is fully charged

Fig. 13: Display unit indication

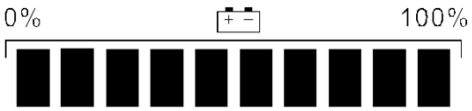
Working hour indicator

An alpha-numeric liquid crystal display is fitted in the center of the display unit, which indicates the working hour of the truck.

Error code alarm

Special statuses appear in the display unit as error codes, which indicates the alarm state by the fault code corresponding to the type of alarm.

Charge status indicator of battery



The charge status indicator of the battery is integrated in the LCD display unit on the control handle. The charge status is displayed in ten increments. Each is represented by a rectangle that corresponds to 10% of the battery charge. The rectangles gradually disappear as the battery discharges.

Turtle Symbol:

It is normally off, when it displays on the LCD screen, it indicates that the slow travel mode is activated, in which maximum speed and acceleration are reduced.

Monkey Wrench Symbol:

It is normally off, when it displays on the LCD screen, it indicates that there is request of programmed maintenance or the alarm state.

Hourglass Symbol:

It is normally off, when the hourglass symbol flashes, it indicates that the hour meter starts to count.

8. BATTERY SERVICING, RECHARGING, REPLACEMENT

a. Description of the lithium-ion battery

The lithium-ion battery is a battery with rechargeable cells, the battery is designed for industrial trucks and can withstand related vibrations during operation. The battery is equipped with special connections for charging and discharging operations. Do not try to install or connected improper connectors to the battery.

The battery is equipped with BMS – battery management system, which performs the control of battery condition and implements related safety protocols to protect the battery and cells from damages caused by operation or environmental conditions. The BMS controls the following safety functions and conditions: voltage, temperature, undervoltage, rvoltage, overtemperature, overcurrent, short circuit, etc. The internal resistance of lithium battery is generally low, which minimizes heat generation and maximizes the available power of the truck.

Temperature range for using the battery is from +5°C to +40°C. Low temperatures reduce the effective battery capacity, high temperatures reduce the battery's life time. The temperature difference between the two sides of the battery shall not exceed 5°C.

Only approved battery chargers must be used to charge the lithium battery.

b. Safety Instructions, Warning Indications and other Notes

Safety regulations for handling lithium-ion batteries

Do not try to make any repairs or servicing of lithium batteries. Replacement of parts is not assumed.

Risk of electric shock and burning

The battery's charging and discharging connectors have open terminals, avoid any body contacts, contamination or direct contacts with objects which can cause short circuit connection of terminals. Use necessary pre-cautions and protective caps to secure the open terminals. The connectors should be maintained in clean and dry conditions.

Use only batteries designed and approved by the manufacturer for the truck.

Do not try to modify or alter the battery.

Any damage or defects to the charger can result in accidents. Use only charger approved by the manufacturer of the truck, which is suitable for used battery

In case charger has any damages or defects, exclude the charger from operation and contact your service provider. Do not modify or try to repair the charger.

Improper use of charger or use of wrong charger can cause damages to a battery or charger. Follow the required charger specifications; If the operation voltage of the charger is out of the applicable voltage range, the charger or battery will be damaged, which may cause serious safety accidents. The charger must only be used for batteries supplied by the battery (truck) manufacturer.

Reversed connection of charging plug is prohibited. Follow the instruction for correct connection. For disconnection of charging plug use dedicated grip and never pull out the plug by means of cable.

Stop charging immediately if any abnormalities are detected, e.g. severe temperature increase, deformation of battery case, smoke, noise etc.

Intermediate charging

Lithium batteries support so called opportunity charging. The lithium battery, which is not fully discharged can be charged in any time. However, frequent opportunity charging not to the full charging state and stop of charging process before the appearance of corresponding indication of charger may result in dis-balance voltage of cells which increases the battery BMS calculation error. In order to effectively deal with this phenomenon, charge the battery in full allowing the automotive balancing process to be completed at least once a week.

Do not charge a fully charged battery

Note that in order to prevent the battery from continuing restart of charging under fully charged condition causing reduction of battery lifetime, the BMS has a protection function that prohibits recharging of fully charged battery. The charger will not work while battery is fully charged.

Potential hazards

If equipment is used according to its design purpose, following the correct operations procedures, there are no hazards anticipated.

The following hazards can arise in the event of improper use:

- Physical damage to the battery in case a battery falls or is deformed through impacts. Mechanical damages can cause leakages of harmful materials, fire or battery explosion.
- Short circuits may be caused by connecting the two battery terminals, for instance caused by water or intentional/unintentional connections.
- Temperature damages caused by location of batteries in overheated locations or being exposed to impact of fire, open sunlight etc. can cause leakages of harmful materials, fire or battery explosion.

In order to avoid fire, explosion and leakage of harmful materials, a safe place for storing batteries until the service arrives on site must satisfy the following criteria:

- Do not store in places where personnel is located.
- Do not store in places with valuable objects and close to valuable objects.
- A Class D fire extinguisher must be available on demand.
- There should not be any fire or smoke detectors in the storage area in order to ensure that an automatic fire detection system is only activated in the event of actual danger (e.g. flames).
- No ventilation intake pipes should be in the facility to exclude spreading of discharged content within a building.

Examples of where to store a non-functional battery:

- Roofed outdoor position.
- Ventilated container.
- Covered fire resistant box with pressure and smoke discharge option.

Symbols - Safety and Warnings

Table 3: Symbols - Safety and Warnings

	Used lithium-ion batteries must be treated as hazardous waste. Lithium-ion batteries marked with the recycling symbol and the sign showing a crossed-out waste bin must not be disposed of with ordinary household waste.
	Avoid fire and short circuits due to overheating. Do not ignite or position an open flame, glowing embers, or sparks near the lithium-ion battery. Keep lithium-ion batteries away from strong heat sources.
	Caution! Battery short-circuit is prohibited.
	Protect the lithium-ion battery from solar radiation or other forms of heat radiation. Do not expose the lithium-ion battery to heat sources.

Explosion and fire hazard

Physical damage, thermal effects or incorrect storage in the event of a defect can result in explosions or fire. The battery materials can be flammable.

Particular hazard from combustion products

The lithium batteries may be damaged by a fire. When extinguishing a lithium battery fire, the following information must be taken into consideration.

Contact with combustion products can be hazardous

Fire produces combustion products, which can occur in the form of smoke, through leaking fluids, escaping gases, debris as well decomposition products of certain chemicals. These combustion products are substances that enter the body through the respiratory tract and/or the skin can produce and adverse effects such as choking.

- **Avoid contact with combustion products.**
- **Use protective equipment.**

Special firefighting protective equipment

Use self-contained breathing apparatus.
Wear protective equipment.

Additional firefighting instructions

To prevent secondary fires, the lithium-ion battery must be cooled from the outside. Fluids or solids must never be directed into the lithium battery.

Suitable extinguishing agents

- Carbon dioxide extinguisher (CO2)
- Water (not on mechanically opened or damaged batteries)

Unsuitable extinguishing agents

- Foam
- Grease fire extinguishing agents
- Powder extinguishers
- Metal fire extinguishers (PM 12i extinguishers)
- Metal fire powder PL-9/78 (DIN EN 3SP-44/95)
- Dry sand

Instructions for cooling an overheated, non-physically damaged battery

This type of damage may be caused by a short circuit inside the battery, which may result in leakage of harmful materials, fire or battery explosion.

Material discharge

Battery electrolyte fluid can be hazardous

Electrolyte fluid can be discharged if the battery is physically damaged. Avoid its contact with skin or eyes. If the contact happened:

- Rinse the affected parts with big amount of water and request for medical assistance immediately.
- In case of skin irritation or if any substances are breathed in request the medical assistance immediately.

Precautionary measures for personnel

- Keep personnel away, avoid any contact with smoke or discharged materials.
- Block off the affected area and ensure its reasonable ventilation.
- Wear personal protective equipment. If vapors, dust or aerosols are presented use self-contained breathing apparatus.

Precautionary measures for the environment

Do not allow spilled fluids to enter the water system, drainage system or the underground water.

Cleaning measures

The leaked fluid must be removed professionally following the related protocols.

Battery lifetime and maintenance

The lithium-ion batteries are maintenance-free.

Full discharge can damage the battery

Self-discharge can cause the battery to fully discharged state. Full discharge shortens the service life of the battery and can cause deep discharge and activation of related safety protocols when battery will not be able to be charged anymore.

Before a long period of inactivity, the battery must be charged to 40%~60%.
Control the level of battery charge at least every 12 weeks and re-charge if necessary.
The temperature range for storing of the battery should be within the range of 0°C to 30°C.

If the battery is deeply discharged or if the battery temperature is below the permissible level, the battery will not charge. Deep discharged batteries can never be charged. Due to the risk of condensate formation, batteries that have been stored at 0°C or below must only be charged after natural warming up to at least +5°C, forced heating is forbidden.

Instructions for safe handling

- Do not modify the battery.
- Do not open, damage, drop, penetrate or deform the battery.
- Do not throw the battery into a fire.
- Protect the battery from overheating.
- Protect the battery from direct sun light.
- Follow storage and charging procedures.
- Protect the battery from water damages and other impact.

Failure to comply with these safety instructions can result in fire and explosion or the leakage of harmful materials.

Pre-shift checks before the system is put into operation

Check that the battery is in its normal condition, has no evidence of damages, leakages, abnormal findings, e.g. high temperature, smell, smoke etc. The surface of the battery should be clean and dry, without evidence of water damages, marks of rust on terminals and housing (if applicable). Connecting cables and plugs are in good condition.

Faults

If any damage is found to the battery or battery charger contact the service provider immediately. Do not open the battery or attempt to repair it.

Disposal and transport of a lithium-ion battery

Instructions for disposal

Lithium-ion batteries must be disposed in accordance with the relevant national environmental protection regulations. Batteries must be treated as hazardous waste. Batteries must not be disposed with ordinary waste.

Shipping information

The lithium-ion battery is a hazardous material. The applicable regulations must be fulfilled during transportation.

Shipping functional batteries

Functioning batteries can be shipped in accordance with the related regulations

Shipping faulty batteries

To transport faulty lithium-ion batteries, contact the service provider. Faulty lithium batteries require following of special transporting procedures.

c. Charging the battery

Charge Status Indicator

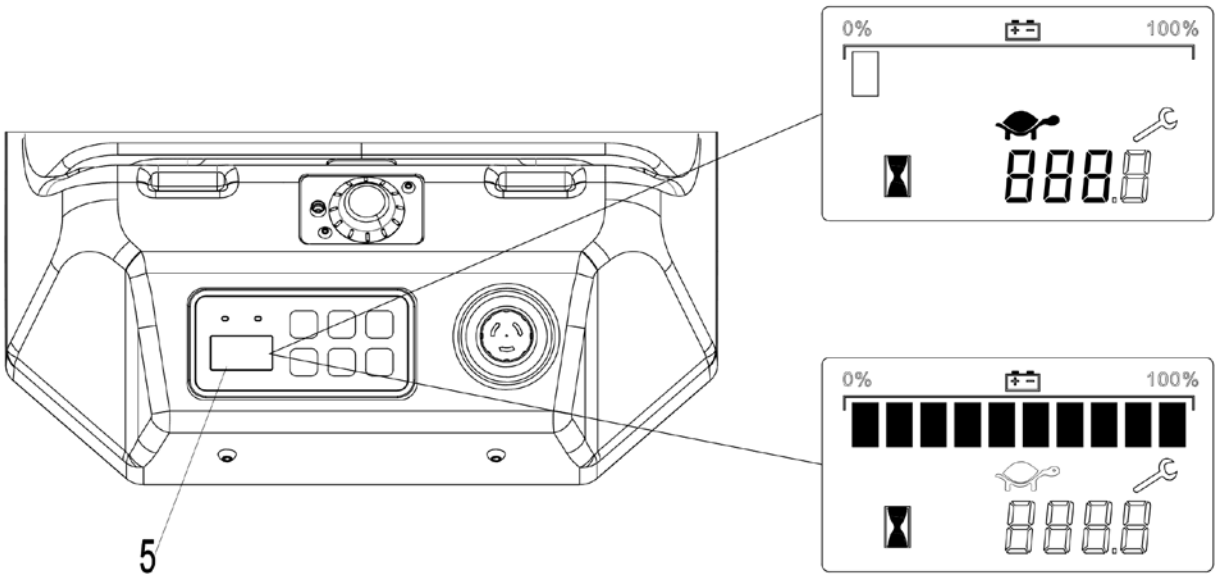


Fig. 14: Charge Status Indicator

The charge status indicator of the battery is integrated in the display unit (5).

The charge status is displayed in ten increments. Each is represented by a rectangle that corresponds to 10% of the battery charge.

The rectangles gradually disappear as the battery discharges. Special statuses appear in the display unit as error codes.

Table 4: Error codes

Code	The error code appears if ...	Effect
47	The battery charge is too low.	Travel speed is reduced.
91	Operation of the truck continues without first charging the battery.	Travel speed is reduced.

Table 5: Main symbol specification

	**Turtle Symbol:** It is normally off, when it appears (fixed) it shows activation of the “soft” mode of the truck, in which maximum speed and acceleration are reduced.
	**Monkey Wrench Symbol:** It is normally off, when it appears (fixed) it shows the request of programmed maintenance or the alarm state. In this case the relative code will be displayed. The information supplied by the MDI-CAN can be extremely useful. Failures can be quickly identified by the operator or service technician thereby finding the fastest solution to the problem.
	**Hourglass Symbol:** It blinks when the hour meter is working.

Charging the Battery with External Charger or Build-in Charger

Maintenance personnel

Batteries may only be charged, serviced or replaced by trained personnel. These operating instructions and the battery manufacturer's instructions must be observed when performing these operations.

Park the truck securely before carrying out any work on the batteries.

General information

- When using an external charger to charge, the charge status of the battery is indicated by LEDs on the charger; When charging with the built-in charger, the battery's charging status is indicated by an LED light on the dashboard.
- The charging time depends on the battery charge status. The time it takes to charge an almost fully depleted battery depends both on the battery capacity and the charge current. The approximate duration can be calculated as follows:
  Charging time = capacity of battery / charge current of battery charger.
- The lithium-ion battery can also be used when not fully charged. In this case, the remaining operating time is reduced.
- Charging continues automatically after a mains failure. Charging can be interrupted by pulling out the mains connector and continued as a partial charge.

The battery temperature rises by approx. 13°C during charging. Battery charging should only start when the battery temperature is below 40°C. The battery temperature before charging should be at least 5°C as otherwise it will affect the charge.

Meaning of the LEDs on the battery charger

When the battery charger is connected to the battery and to the power supply, the LEDs on the charger indicate the following:

Table 6: LEDs

LED lit	Meaning
Green	The battery is fully charged
Red	Battery is charging

If the green LED does not light up or if the red LED lights up permanently or not at all, this indicates a fault.

Charging the battery

Requirements

– Park the truck securely and turn off the power.

– The battery charger is approved for the battery type.

Tools and Material Required

– Battery charger

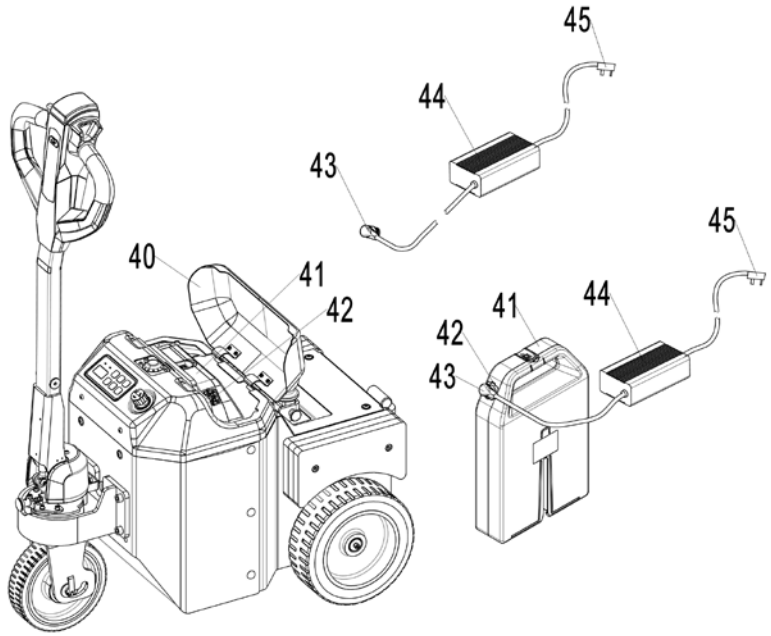


Fig. 15: Charging the battery with external charger

Procedure

Charging the battery with external charger

- Open the battery cover (40) to its maximum angle.
- Connect the charging plug (43) of the charger (44) to the battery charging socket (42)
- Plug the power cord (45) of the battery charger (44) into a power outlet.
- ➢ The red LED indicator illuminates, indicating the start of charging.
- Monitor the charging status (refer to the instructions for battery charger (44) for details).
- ➢ The green LED indicator illuminates, indicating a full charge.
- Upon completion, unplug the charger plug (45) from the power outlet first, then disconnect its connector (43) from the battery (41).
- Close the cover of the charging socket (42).
- Close the cover (40)

Charging procedure is completed. Alternatively, the battery can also be charged outside the truck. The process for charging the battery remains the same.

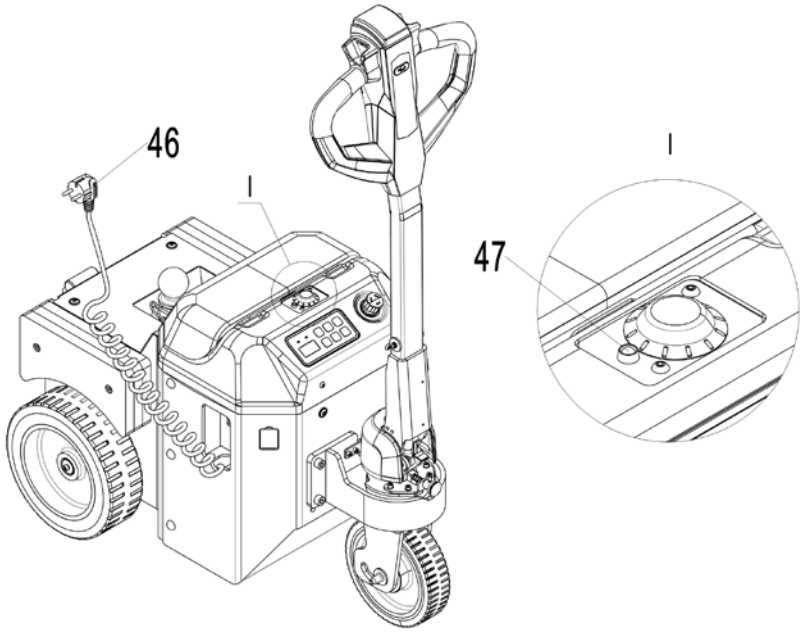


Fig. 16: Charging the battery with built-in charger (if equipped)

Procedure

Charging the battery with built-in charger (if equipped)

- Unplug the charging plug (46) from the safety socket, then connect it to a power outlet.
  - ➢ The charging indicator (47) turns red, indicating the start of charging.
  - ➢ The indicator turns green upon charge completion.
- After charging, place the charging cable in its stowed position and securely reconnect the plug (46) to the safety socket.

Charging procedure is completed.

Note: if the plug (46) is not inserted to the safety socket correctly to its designated storage position, which should activate the related safety switch, the truck will be not operable.

d. Battery removal and installation

Removing the 48V20Ah battery

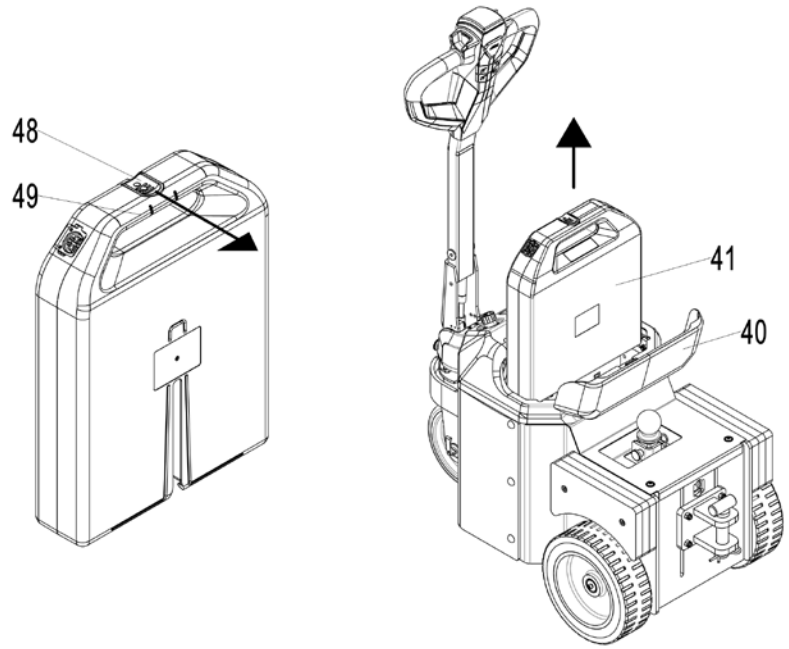


Fig. 17: Removing the 48V20Ah battery

Removing the battery

Requirements

– The truck is parked securely.

– The emergency disconnect switch is pressed.

Procedure

- Open the battery cover (40) to its maximum position.
- Move out and hold the battery latch (48).
- Lift the battery (41) upward using the battery handle (49).

The battery has been removed.

Battery installation

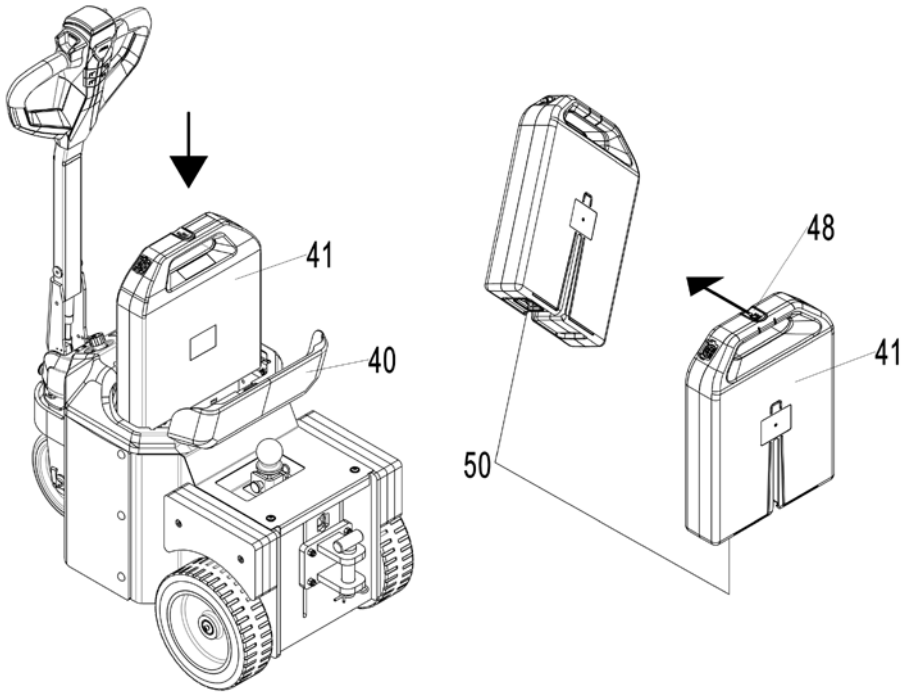


Fig. 18: 48V20Ah Battery installation

Installing the battery

Requirements

– The truck is parked securely.

– The emergency disconnect switch is pressed.

Procedure

- Open the battery cover (40) to its maximum position. Visually verify that there are no any foreign objects on top of the battery's standing post.
- Insert the battery (41) into the battery compartment.
- ➢ The connector (50) at the bottom of the battery must be fully engaged with the socket on the truck.
- Verify that the battery latch (48) is locked.
- Close the battery cover (40).

The battery is now installed.

Removing the 48V36Ah battery

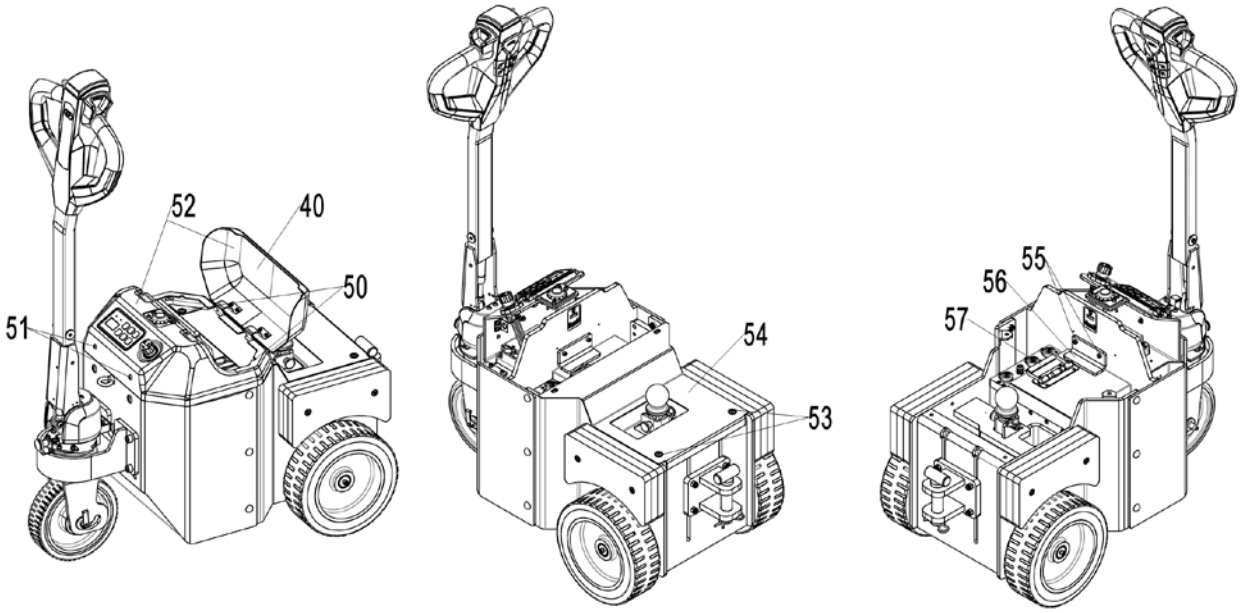


Fig. 19: Removing the 48V36Ah battery

Removing the battery

Requirements

– The truck is parked securely.

– The emergency disconnect switch is pressed.

Procedure

- Open the battery cover (40) to its maximum position.
- Remove fixing screws (50) and (51), then remove the cover assembly (52).
- Remove fixing screw (53), then take out the plate (54).
- Remove fixing screw (55), then remove the battery clamping plate (56).
- Disconnect the battery cables, lift the battery by handle (56) and remove it out of the truck.

The battery has been removed.

➢ Install the battery by reversing the removal steps.

9. REGULAR MAINTENANCE

- Truck maintenance must only be carried out by qualified and trained personnel.
- To lift the truck, follow chapter 4 by using designated lashing straps or jacking equipment. Before that, put safety devices (for instance, designated lift jacks, wedges or wooden blocks) under the truck to protect against accidental lowering, movement or slipping.
- Only use the original spare parts approved and released from your dealer.

Check out the priority items in the maintenance checklist.

a. Maintenance checklist

1 Owner

Can be performed by end-user. It is recommended to perform the maintenance every 50 service hours, but at least once a week.

Mechanical system	
1	Check the wheels for deformation and damages
Electrical system	
2	Check the Emergency switch function
3	Check the display
Braking system	
4	Check the work of electromagnetic brake
Battery	
5	Check the battery and battery components for damage
6	Check battery connector for secure fit, functionality and damage
Function	
7	Check the horn function
8	Check the emergency braking
9	Check the reverse and regenerative braking
10	Check the safety (belly) button function
11	Check the steering function
12	Check the lifting and lowering function
13	Check the tiller arm switch function
General	
14	Check if all decals are legible and complete

2 Customer Service

Be performed by professional service technician. It is recommended to perform the maintenance every 1000 service hours, but at least once a year.

Mechanical system	
1	Check if all screws are fixed
2	Check the gearbox for abnormal sound and noise
3	Check the steering bearing

4	Check and lubricate the pivot points if necessary
Electrical system	
5	Check the Emergency switch function
6	Check the display
7	Check the electric wiring for damage
8	Check the electric connections and terminals
9	Check the electric drive motor for noise and damages
10	Check if correct fuses are used
11	Check the frame leakage (insulation test)
12	Check function and mechanical wear of the accelerator
13	Check the electrical system of the drive motor
Braking system	
14	Check brake performance
15	Measure the air gap of the electromagnetic brake, replace brake if needed
Battery	
16	Check the battery and battery components for damage
17	Check battery connector for secure fit, functionality and damage
18	Check the battery voltage
19	Check the terminals for corrosion and damages
Charger	
20	Check the main power cable for damages
21	Check the start-up protection during charging
Function	
22	Check the horn function
23	Check the emergency braking
24	Check the reverse and regenerative braking
25	Check the safety (belly) button function
26	Check the steering function
27	Check the tiller arm switch function
General	
28	Check if all decals are legible and complete
29	Check wheels for wear, damage and secure mounting
30	Carry out a test run

b. Lubricating points

Lubricate the marked points (bearings, moving parts, etc.) in accordance with the instructions of the maintenance checklist. The specification of the required grease is DIN 51825 standard grease.

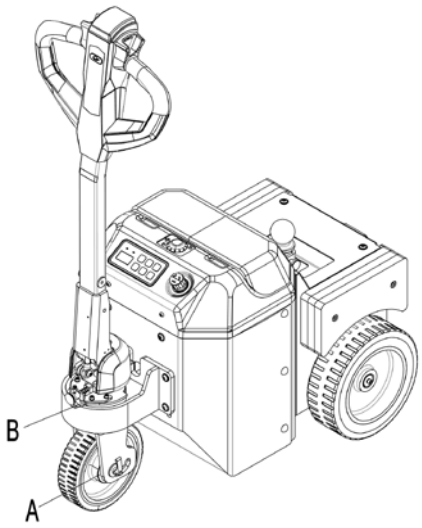


Fig. 20: Lubricating points

c. Checking electrical fuses

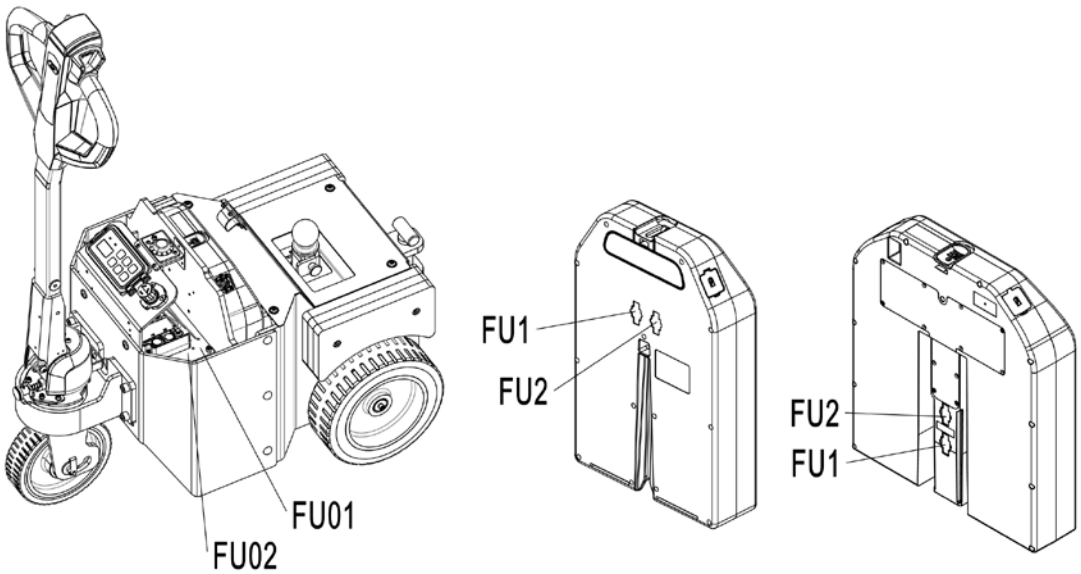


Fig. 21: Locations of fuses

Table 7: Fuse rating

Fuse	Function Description	Rating
FU01	Control Circuit Fuse	10A
FU02	Converter Fuse	10A
FU 1	Battery Discharge Fuse	70A
FU 2	Battery Charge Fuse	20A

10. TROUBLE SHOOTING

- If the truck has malfunctions, follow the instructions mentioned in chapter 6.

Table 8: Trouble shooting

TROUBLE	CAUSE	REMEDY
Truck does not start	Battery is still connected to the battery charger.	Fully charge the battery and disconnect the charger form the battery.
	Battery is not connected correctly.	Check that the battery is correctly attached and locked in place and adjust if necessary.
	Fuses faulty	Check the fuses and replace if necessary.
	Battery charge status is too low	Charge the battery
	Emergency disconnect switch is activated	Release the emergency disconnect switch

If the truck has malfunctions and can't be operated out of the working zone, jack the truck up and place a load handler under the truck to secure the truck. Then move the truck to designated area.

11. WIRING/ CIRCUIT DIAGRAM

Electrical diagram

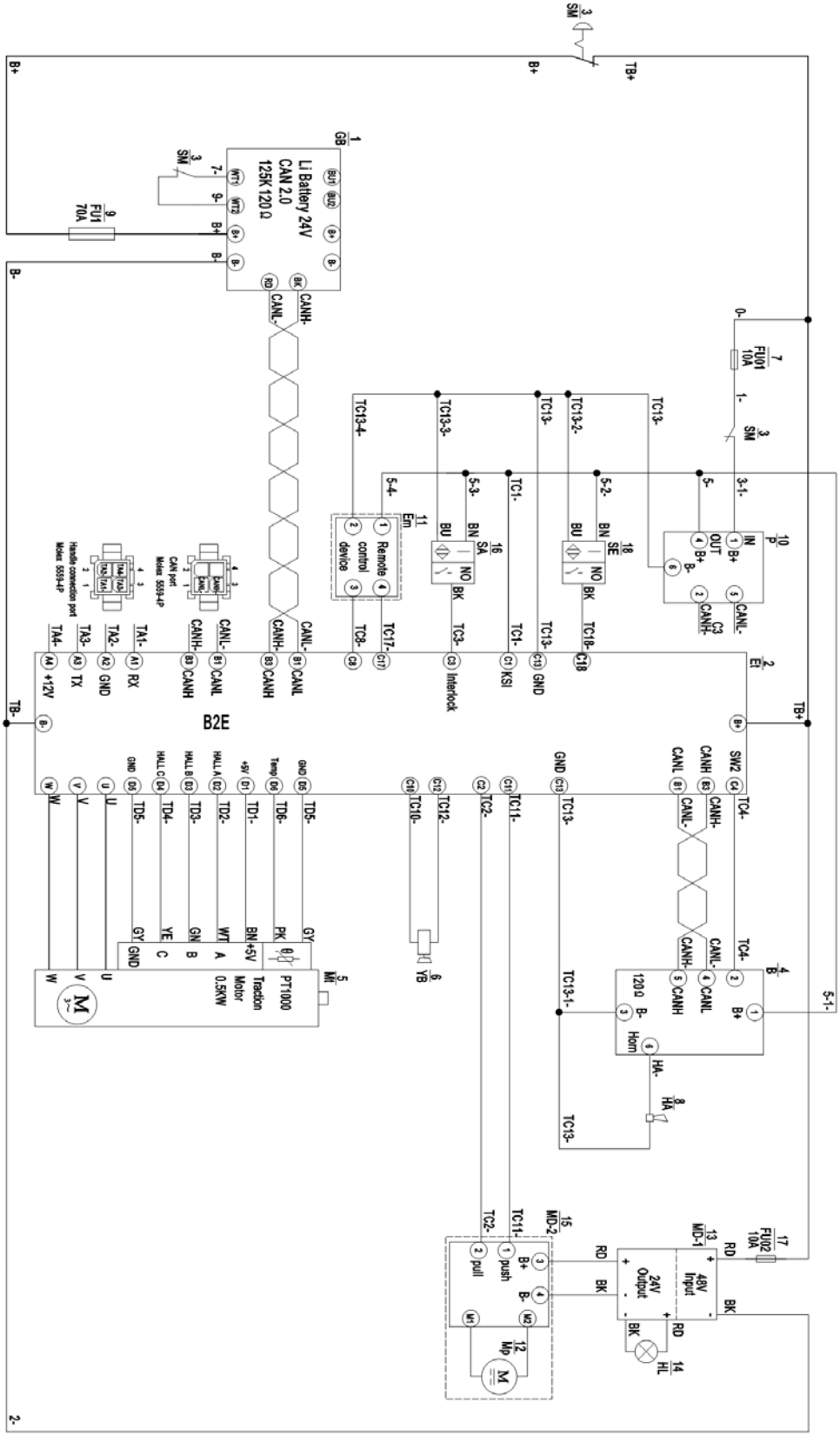


Fig. 22: Electric diagram (External charger)

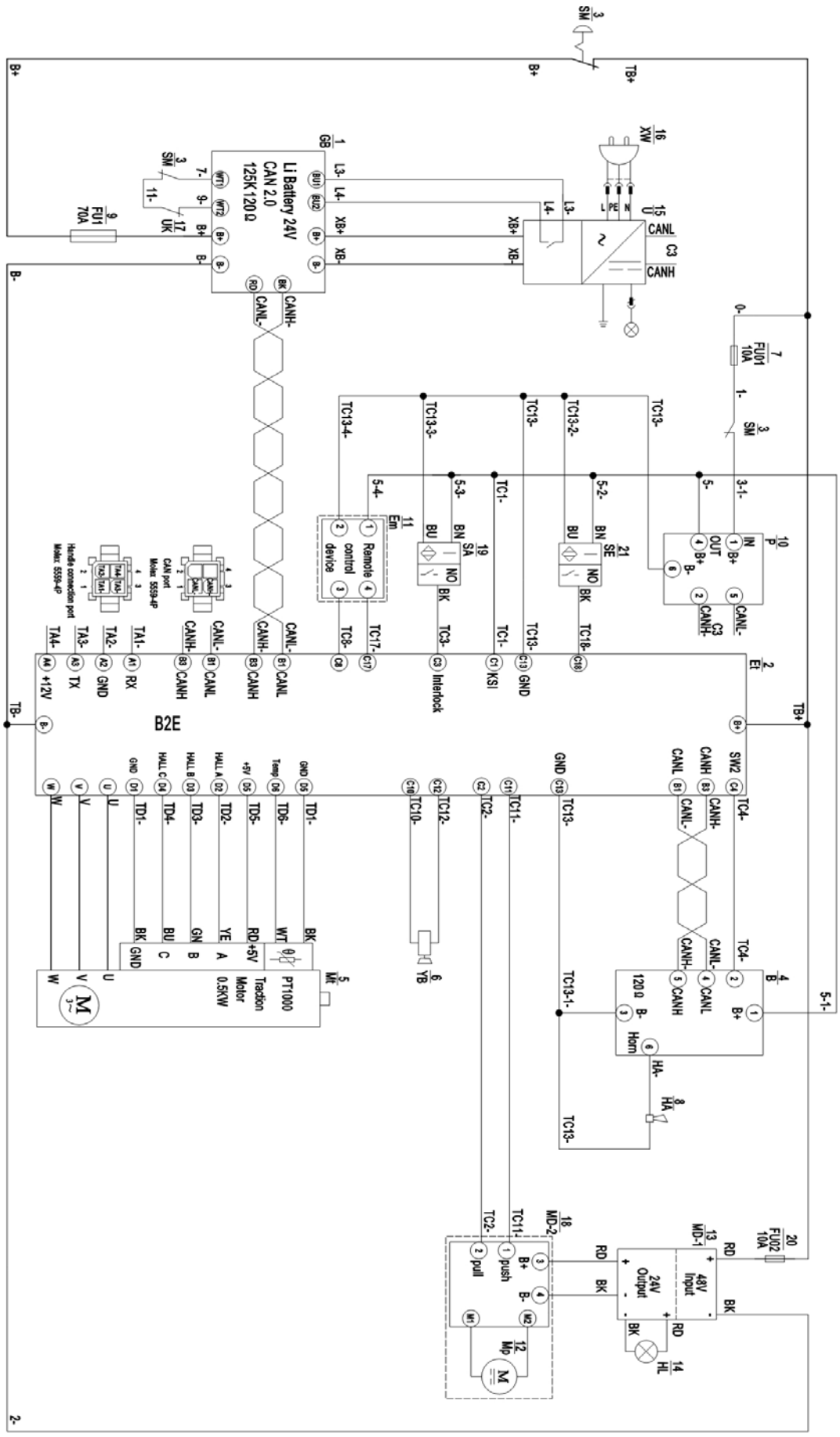


Fig. 23: Electric diagram (Built-in charger)

Table 9: Description of electrical diagram

Code	Item	Code	Item	Code	Item
GB	Battery	HA	Buzzer	UK	Safety socket
Et	Controller	P	Display	MD-2	Actuator module
SM	Emergency disconnect switch	Em	Remote control	SA	Proximity switch
B	Control Handle	Mp	Linear actuator	FU02	10A fuse
Mt	Drive motor	MD-1	Converter	SE	Proximity switch
YB	Electromagnetic brake	HL	Warning light		
FU1	10A fuse	U	Charger		
FU01	70A fuse	XW	Power input cable		

Original CE Declaration of conformity

[GB] Original CE Declaration of conformity
The signatory hereby declares that the specified machine conforms to the EC Directive 2006/42/EC (Machine Directive), and 2014/30/EU (Electro-Magnetic Compatibility, EMC) including their amendments as translated into national legislation of the member countries. The signatory is individually authorized to compile the technical documents and declares that the following standards, including the normative procedures contained therein, have been applied:

[D] Original EG- Konformitätserklärung
Der Unterzeichner erklärt hiermit, dass die angegebene Maschine den EG-Richtlinien 2006/42/EG (Maschinenrichtlinie) und 2014/30/EU (Elektromagnetische Verträglichkeit, EMV) einschließlich ihrer Änderungen in der Umsetzung in die nationale Gesetzgebung der Mitgliedsländer entspricht. Der Unterzeichner ist zur Zusammenstellung der technischen Unterlagen einzeln befugt und erklärt, dass folgende Normen, einschließlich der darin enthaltenen normativen Verfahren, angewendet wurden:

[E] Original DECLARACIóN DE CONFORMIDAD CE
El signatario declara por la presente que la máquina especificada cumple con la Directiva CE 2006/42/EC (Directiva de Máquinas) y 2014/30/EU (Compatibilidad Electromagnética, EMC) incluidas sus enmiendas traducidas a la legislación nacional de los países miembros. El firmante está autorizado individualmente para compilar los documentos técnicos y declara que se han aplicado los siguientes estándares, incluidos los procedimientos normativos contenidos en ellos:

[F] Originale DECLARATION DE CONFORMITE CE
Le signataire déclare par la présente que la machine spécifiée est conforme à la directive CE 2006/42/CE (directive machine) et 2014/30/UE (compatibilité électromagnétique, CEM), y compris leurs modifications telles que traduites dans la législation nationale des pays membres. Le signataire est individuellement autorisé à compiler les documents techniques et déclare que les normes suivantes, y compris les procédures normatives qu'elles contiennent, ont été appliquées:

[NL] Origineel EG-CONFORMITEITSVERKLARING
De ondertekenaar verklaart hierbij dat de gespecificeerde machine voldoet aan de EG-richtlijnen 2006/42/EG (machinerichtlijn) en 2014/30/EU (elektromagnetische compatibiliteit, EMC) inclusief hun amendementen zoals vertaald in de nationale wetgeving van de aangesloten landen. De ondertekenaar is individueel gemachtigd om de technische documenten samen te stellen en verklaart dat de volgende normen, inclusief de normatieve procedures die daarin zijn opgenomen, zijn toegepast:

[P] Original DECLARAÇÃO DE CONFORMIDADE CE
O signatário declara que a máquina especificada está em conformidade com a Diretiva EC 2006/42/EC (Diretiva de Máquinas) e 2014/30/EU (Compatibilidade Eletromagnética, EMC), incluindo suas emendas traduzidas para a legislação nacional dos países membros. O signatário está individualmente autorizado a compilar os documentos técnicos e declara que as seguintes normas, incluindo os procedimentos normativos neles contidos, foram aplicadas:

[I] Originale DICHIARAZIONE DI CONFORMITÀ CE
Il firmatario dichiara che la macchina specificata è conforme alla Direttiva CE 2006/42/CE (Direttiva macchine) e 2014/30/UE (Compatibilità elettromagnetica, EMC) compresi i relativi emendamenti tradotti nella legislazione nazionale dei paesi membri. Il firmatario è autorizzato individualmente alla compilazione dei documenti tecnici e dichiara che sono state applicate le seguenti norme, comprese le procedure normative ivi contenute:

[BG] Оригинален ЕВРОПЕЙСКА ОБЩНОСТ - ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ
С настоящото подписалото лице декларира, че посочената машина отговаря на Директива на ЕО 2006/42/ЕС (Директива за машини) и 2014/30/EU (Електромагнитна съвместимост, ЕМС), включително техните изменения, преведени в националното законодателство на страните-членки. Подписалото лице е лично упълномощено да съставя техническите документи и декларира, че са приложени следните стандарти, включително съдържащите се в тях нормативни процедури:

[CZ] Originál EG - PROHLÁŠENÍ OSHODĚ
Signatář tímto prohlašuje, že uvedený stroj je ve shodě se směrnicí ES 2006/42/ES (Směrnice o strojích) a 2014/30/EU (Elektromagnetická kompatibilita, EMC) včetně jejich změn ve znění přeložené do národní legislativy členských zemí. Podepisující osoba je samostatně oprávněna sestavit technické dokumenty a prohlašuje, že byly použity následující normy, včetně normativních postupů v nich obsažených:

[DK] Original EF-OVERENSSTEMMELSESERKLÆRING
Underskriveren erklærer hermed, at den specificerede maskine er i overensstemmelse med EF-direktivet 2006/42/EC (maskindirektivet) og 2014/30/EU (elektro-magnetisk kompatibilitet, EMC) inklusive deres ændringer som oversat til national lovgivning i medlemslandene. Underskriveren er individuelt bemyndiget til at udarbejde de tekniske dokumenter og erklærer, at følgende standarder, inklusive de normative procedurer indeholdt deri, er blevet anvendt:

[EST] Originaal EL vastavusavaldus
Allakirjutanu kinnitab käesolevaga, et nimetatud masin vastab EÜ direktiivile 2006/42/EÜ (masinadirektiiv) ja 2014/30/EL (elektromagnetiline ühilduvus, EMC), sealhulgas nende muudatustele, nagu on tõlgitud liikmesriikide siseriiklikesse õigusaktidesse. Allakirjutanul on individuaalselt õigus koostada tehnilisi dokumente ja ta kinnitab, et on kohaldatud järgmisi standardeid, sealhulgas neis sisalduvaid normatiivprotseduure:

[FIN] Alkuperäinen EU-YHDENMUKAISUUSSELOSTUS
Allekirjoittaja vakuuttaa täten, että määritetty kone on EY-direktiivin 2006/42/EY (konedirektiivi) ja 2014/30/EU (sähkömagneettinen yhteensopivuus, EMC) mukainen, mukaan lukien niiden muutokset, sellaisina kuin ne on käännetty jäsenmaiden kansalliseen lainsäädäntöön. Allekirjoittaja on henkilökohtaisesti valtuutettu kokoamaan tekniset asiakirjat ja vakuuttaa, että seuraavia standardeja, mukaan lukien niihin sisältyvät normatiiviset menettelyt, on sovellettu:

[GR] Πρωτότυπο ΔΗΛΩΣΗΣΥΜΜΟΡΦΩΣΗΣΕΟΚ
Ο υπογράφοντος δηλώνει με το παρόν ότι το συγκεκριμένο μηχάνημα συμμορφώνεται με την Οδηγία 2006/42/ΕΚ (Οδηγία Μηχανών) και 2014/30/ΕΕ (Ηλεκτρομαγνητική Συμβατότητα, ΕΜC) συμπεριλαμβανομένων των τροποποιήσεών τους όπως έχουν μεταφραστεί στην εθνική νομοθεσία των χωρών μελών. Ο υπογράφοντος είναι ατομικά εξουσιοδοτημένος να συντάξει τα τεχνικά έγγραφα και δηλώνει ότι έχουν εφαρμοστεί τα ακόλουθα πρότυπα, συμπεριλαμβανομένων των κανονιστικών διαδικασιών που περιέχονται σε αυτά:

[H] Eredeti EU KONFORMITÁSI NYILATKOZAT
Az aláíró ezennel kijelenti, hogy a megadott gép megfelel a 2006/42/EC (gépirányelv) és a 2014/30/EU (elektromágneses összeférhetőség, EMC) irányelveknek, beleértve azok módosításait a tagországok nemzeti jogszabályaiba lefordítva. Az aláíró egyénileg jogosult a műszaki dokumentumok összeállítására, és kijelenti, hogy a következő szabványokat, beleértve az abban foglalt normatív eljárásokat, alkalmazták:

[LT] Originalus ES atitikimo deklaracija
Pasirašęs asmuo pareiškia, kad nurodyta mašina atitinka EB direktyvą 2006/42/EB (mašinų direktyvą) ir 2014/30/ES (elektromagnetinį suderinamumą, EMC), įskaitant jų pakeitimus, išverstus į šalių narių nacionalinius teisės aktus. Pasirašęs asmuo yra individualiai įgaliotas rengti techninius dokumentus ir pareiškia, kad buvo taikomi šie standartai, įskaitant juose nurodytas normines procedūras:

[LV] Oriģināls ES atbilstības deklarācija
Parakstītājs ar šo apliecina, ka norādītā iekārta atbilst EK Direktīvai 2006/42/EK (Mašīnu direktīva) un 2014/30/ES (Elektromagnētiskā saderība, EMC), ieskaitot to grozījumus, kas ir tulkoti dalībvalstu nacionālajos tiesību aktos. Parakstītājs ir individuāli pilnvarots sastādīt tehniskos dokumentus un apliecina, ka ir piemēroti šādi standarti, tostarp tajos ietvertās normatīvās procedūras:

[N] Opprinnelig EU-KONFORMITETSERKLÆRING
Underskriveren erklærer herved at den spesifiserte maskinen er i samsvar med EC-direktivet 2006/42/EC (maskindirektivet), og 2014/30/EU (elektromagnetisk kompatibilitet, EMC) inkludert deres endringer som oversatt til nasjonal lovgivning i medlemslandene. Underskriveren er individuelt autorisert til å sammenstille de tekniske dokumentene og erklærer at følgende standarder, inkludert de normative prosedyrene som finnes deri, er brukt:

[PL] Oryginalny DEKLARACJA ZGODNOŚCI WE
Sygnatariusz niniejszym oświadcza, że określona maszyna jest zgodna z dyrektywą WE 2006/42/WE (dyrektywa maszynowa) i 2014/30/UE (kompatybilność elektromagnetyczna, EMC) wraz z ich poprawkami w tłumaczeniu na ustawodawstwo krajowe krajów członkowskich. Sygnatariusz jest indywidualnie

upoważniony do sporządzania dokumentacji technicznej i oświadcza, że zastosowano następujące normy, w tym zawarte w nich procedury normatywne:

[RO] Original DECLARAŢIE DE CONFORMITATE CE

Semnatarul declară prin prezenta că mașina specificată este conformă cu Directiva CE 2006/42/CE (Directiva Mașini) și 2014/30/UE (Compatibilitate electro-magnetică, EMC), inclusiv amendamentele acestora, astfel cum au fost traduse în legislația națională a țărilor membre. Semnatarul este autorizat individual să întocmească documentele tehnice și declară că au fost aplicate următoarele standarde, inclusiv procedurile normative cuprinse în acestea:

[RUS] Оригинал Декларация соответствия стандартам ЕС

Настоящим подписывающая сторона заявляет, что указанная машина соответствует Директиве ЕС 2006/42/ЕС (Директива по машинам) и 2014/30/ЕС (Электромагнитная совместимость, ЭМС), включая их поправки, переведенные в национальное законодательство стран-членов. Подписавшаяся сторона имеет индивидуальное право на составление технических документов и заявляет, что были применены следующие стандарты, включая содержащиеся в них нормативные процедуры:

[S] Original EG-KONFORMITETSFÖRKLARING

Undertecknaren intygar härmed att den specificerade maskinen överensstämmer med EG-direktivet 2006/42/EC (maskindirektivet) och 2014/30/EU (elektromagnetisk kompatibilitet, EMC) inklusive deras tillägg som översatts till nationell lagstiftning i medlemsländerna. Undertecknaren är individuellt behörig att sammanställa de tekniska dokumenten och förklarar att följande standarder, inklusive de normativa procedurerna som finns däri, har tillämpats:

[SK] Originál vyhlásenie o zhode

Signatár týmto vyhlasuje, že špecifikovaný stroj je v súlade so Smernicou ES 2006/42/EC (Smernica o strojoch) a 2014/30/EU (Elektromagnetická kompatibilita, EMC) vrátane ich dodatkov preložených do národnej legislatívy členských krajín. Signatár je individuálne oprávnený zostavovať technické dokumenty a vyhlasuje, že boli aplikované nasledujúce normy vrátane normatívnych postupov v nich obsiahnutých:

[SLO] Original EU IZJAVA O SKLADNOSTI

Podpisnik s tem izjavlja, da je navedeni stroj v skladu z Direktivo ES 2006/42/ES (Direktiva o strojih) in 2014/30/EU (Electro-Magnetic Compatibility, EMC), vključno z njunimi spremembami, kot so prevedene v nacionalno zakonodajo držav članic. Podpisnik je posamično pooblaščen za sestavo tehnične dokumentacije in izjavlja, da so bili uporabljeni naslednji standardi, vključno z normativnimi postopki, ki jih vsebuje:

[TR] Orijinal AB Uygunluk Açıklaması

İmza sahibi, belirtilen makinenin AB Direktifi 2006/42/EC (Makine Direktifi) ve 2014/30/EU (Elektro-Manyetik Uyumluluk, EMC) ve bunların üye ülkelerin ulusal mevzuatına tercüme edilen değişiklikleri ile uyumlu olduğunu beyan eder. İmza sahibi, teknik belgeleri derlemeye bireysel olarak yetkilidir ve burada yer alan normatif prosedürler dahil olmak üzere aşağıdaki standartların uygulandığını beyan eder:

<the applied standards have to be shown here>

(1) Type: **XX XX– Self-propelled industrial truck**

(2) Serial No: **XXXXXXXX**

(3) Year of constr.: **YYYY**

(4) Manufacturer: Noblelift Intelligent Equipment Co., Ltd.
528 Changzhou Road, Taihu Sub-district, Changxing, 313100, PR China

(5) Responsible for compiling the technical documentation: <Company name>,
<Company Address>

(6) Date: <Place>, **YYYY.MM.DD**

(7) Authorized signatory: <Position> **Mr. Sample**

(1) Type/ Typ/ Tipo/ Modello/ Tyyppi/ Tipo / ΤΥΠΟΣ/ Típus/ Tip/ Тип/ Tips/ Tipas/ Tüüp:
(2) Serial No./ Serien-Nr./ N°. de série/ Serienummer/ Nº de serie/ Numero di serie/ Serienr./ Sarjanro/ αυξάνωναριθμός/ Seriové číslo/ Szériaszám/ Nr.Seryjny/ Serijska številka/ Výrobné číslo/ Серийныйномер/ Seri No./ Seerianr./ Sērijas Nr./ Serijos numeris:
(3) Year of constr./ Baujahr/ Année de constr./ Bouwjaar/ Año de constr./ Anno di costruzione/ Produktionsår/ Byggeår/ Tillverkningsår/ Valmistusvuosi / Ano de fabrico / έτοςκατασκευής/ Rokvýroby/ Gyártásév/ Rokprodukcji / Letnik / Годизготовления / Üretimyılı / Väljalaskeaasta / Izgatavošanas gads / Gamybosmetai
(4) Manufacturer/ Hersteller/ Fabricante/ Fabricant/ Fabrikant/ Fabricante/ Produttore/ производител/ Výrobce/ Fabrikant/ Tootja/ Valmistaja/ Κατασκευαστής/ Gyártó/ Gamintojas/ Ražotājs/ Produsent/ Producent/ Producător/ Производитель/ Tillverkare/ Výrobca/ Proizvajalec/ Üretici firma
(5) Responsible for compiling the technical documentiton/ Verantwortlich für die Zusammenstellung der technischen Dokumentation/ Responsable de compilar la documentación técnica/ Responsable de la compilation de la documentation technique/ Verantwoordelijk voor het samenstellen van de technische documentatie/ Responsável pela compilação da documentação técnica/ Responsabile della compilazione della documentazione tecnica/ Отговаря за съставянето на техническата документация/ Zodpovídá za sestavení technické dokumentace/ Ansvarlig for udarbejdelse af den tekniske documentation/ Vastutab tehnilise dokumentatsiooni koostamise eest/ Vastaa teknisen dokumentaation laatimisesta/ Υπεύθυνος για τη σύνταξη της τεχνικής τεκμηρίωσης/ Felelős a műszaki dokumentáció összeállításáért/ Atsakingas už techninės dokumentacijos sudarymą/ Atbildīgs par tehniskās dokumentācijas sastādīšanu/ Ansvarlig for sammenstilling av teknisk dokumentasjon/ Odpowiedzialny za kompletowanie dokumentacji technicznej/ Responsabil cu intocmirea documentatiei tehnice/ Ответственный за составление технической документации/ Ansvarig för att sammanställa den tekniska dokumentationen/ Zodpovedá za zostavenie technickej dokumentácie/ Odgovoren za pripravo tehnične dokumentacije/ Teknik dokümantasyonun derlenmesinden sorumlu
(6) Date/ Datum/ Data/ Fecha/ datum/ Dato/ päiväys/ Kuupäev/ Datums/дата/ Dátum/ dátum/ tarih/ ημερομηνία
(7) Authorised signatory/ ImAuftrag/ pour ordre/ Incaricato/ Por orden de/ por procuração/ op last van/ påvegneaf/ påuppdrag/ Etteroppdrag/ psta./ Ülesandel / pavedus / v.i. / Попоручению / megbízásából /длъжностнолице / z pověření / z poverenia / po nalogu / napolecenie / din sarcina / adına / θαη' ελνιή