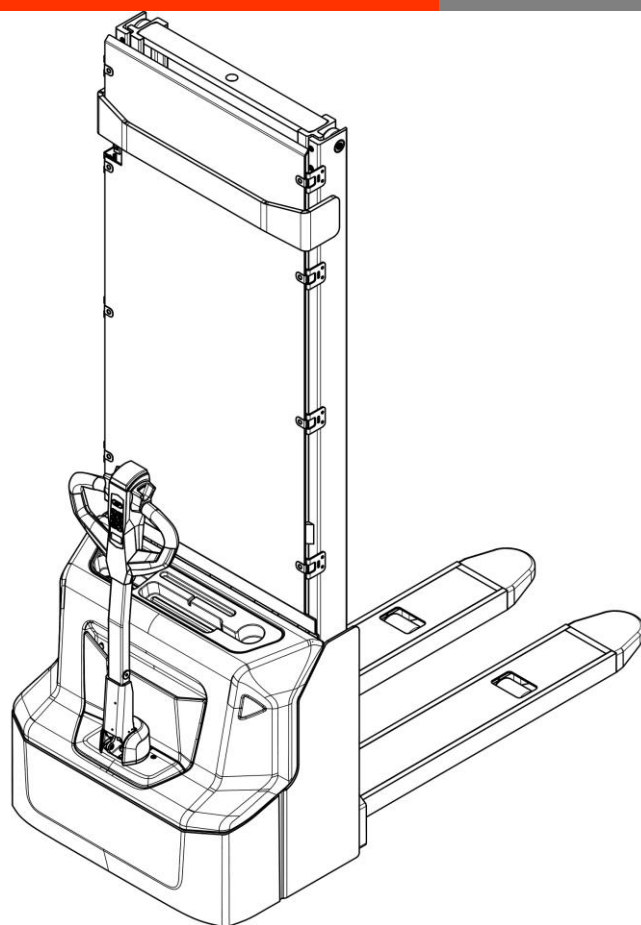


# INSTRUCTION HANDBOOK

## Electric Stackers

### SWB-130



#### **WARNING**

Do not use the electric truck 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 for future reference.

Version 07/2024

SWB-130-SMS-002-EN

## FOREWARD

Before operating the electric stacker, read this ORIGINAL INSTRUCTION HANDBOOK carefully and understand the usage of the truck completely. Improper operation of the truck may create a danger situation. This handbook describes the usage of different electric stackers. When operating and servicing the truck, make sure, that it applies to your type.

Keep this handbook for future reference. If this or the warning/caution labels are damaged or got lost, please contact your local dealer for replacement.

### ATTENTION:

- Environmentally hazardous waste, such as batteries, oil and electronics, will have a negative effect on the environment or 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. The information written in this handbook is provided as reference for operating and servicing the stacker and may vary in terms of description of particular features of the truck.



NOTE: On this manual, the left sign means warning and danger, which can lead to death or serious injury if not followed.

### Copyright

The copyright remains with the company, mentioned on the CE- certificate at the end of this document or, if sold within the USA, with the company, mentioned on the company sticker.

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# 1. CORRECT APPLICATION

It is only allowed to use this electric stacker according to this instruction handbook.

The trucks described in this handbook are self-propelled pedestrian controlled electric power stackers, with electrically powered lifting function. The trucks are designed for stacking operations in dedicated racking by lifting and lowering the palletized loads up to the desired lifting heights.

A wrong usage can cause human injuries or can damage equipment.

The operator/ the operating company has to ensure the correct usage and has to ensure, that this truck is used only by staff, which is trained and authorized to use this truck.

The truck 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 various transportation applications without crossing permanent obstacles or potholes. The work on ramps is allowed if ramp is not exceeding the allowed angle. While operating, the load must be placed approximately on the longitudinal centre plane of the truck.

Lifting or transporting people is forbidden.

If used on tail lifts or loading ramps, please ensure that these are used correctly according to the operating instructions.

The capacity is marked on capacity sticker as well on the Identification plate. The operator has to consider the warnings and safety instructions.

Operating lighting must be minimum 50 Lux.

## Modification

No modifications or alterations to this stacker 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 plate, decals, tags and operation and maintenance handbooks.

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. DESCRIPTION OF THE STACKER

### a. Overview of the main components

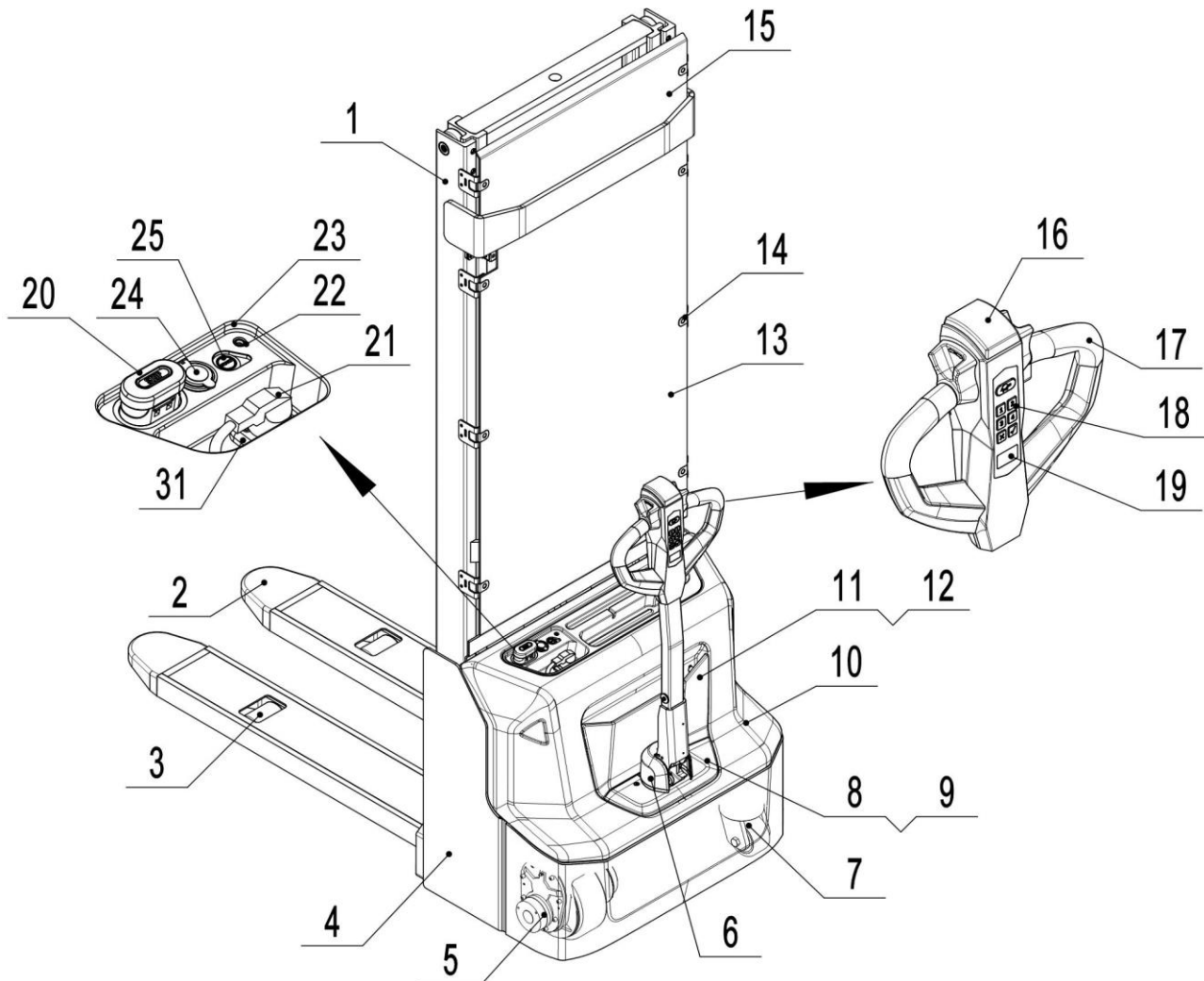


Fig. 1: Overview main components

- |                              |                      |                          |
|------------------------------|----------------------|--------------------------|
| 1. Mast                      | 10. Main cover       | 19. LCD                  |
| 2. Fork carriage             | 11. Cover            | 20. Emergency button     |
| 3. Load roller assembly      | 12. Cover            | 21. Spring cord          |
| 4. Chassis                   | 13. Protective board | 22. Charging LED         |
| 5. Driving wheel assembly    | 14. Buckle           | 23. Panel                |
| 6. Protective cover (tiller) | 15. Protective board | 24. USB port             |
| 7. Steering roller assembly  | 16. Belly button     | 25. Button switch        |
| 8. Cover                     | 17. Tiller           | 31. Socket (EN1175:2020) |
| 9. Cover                     | 18. Pin-code panel   |                          |

## b. Main technical data

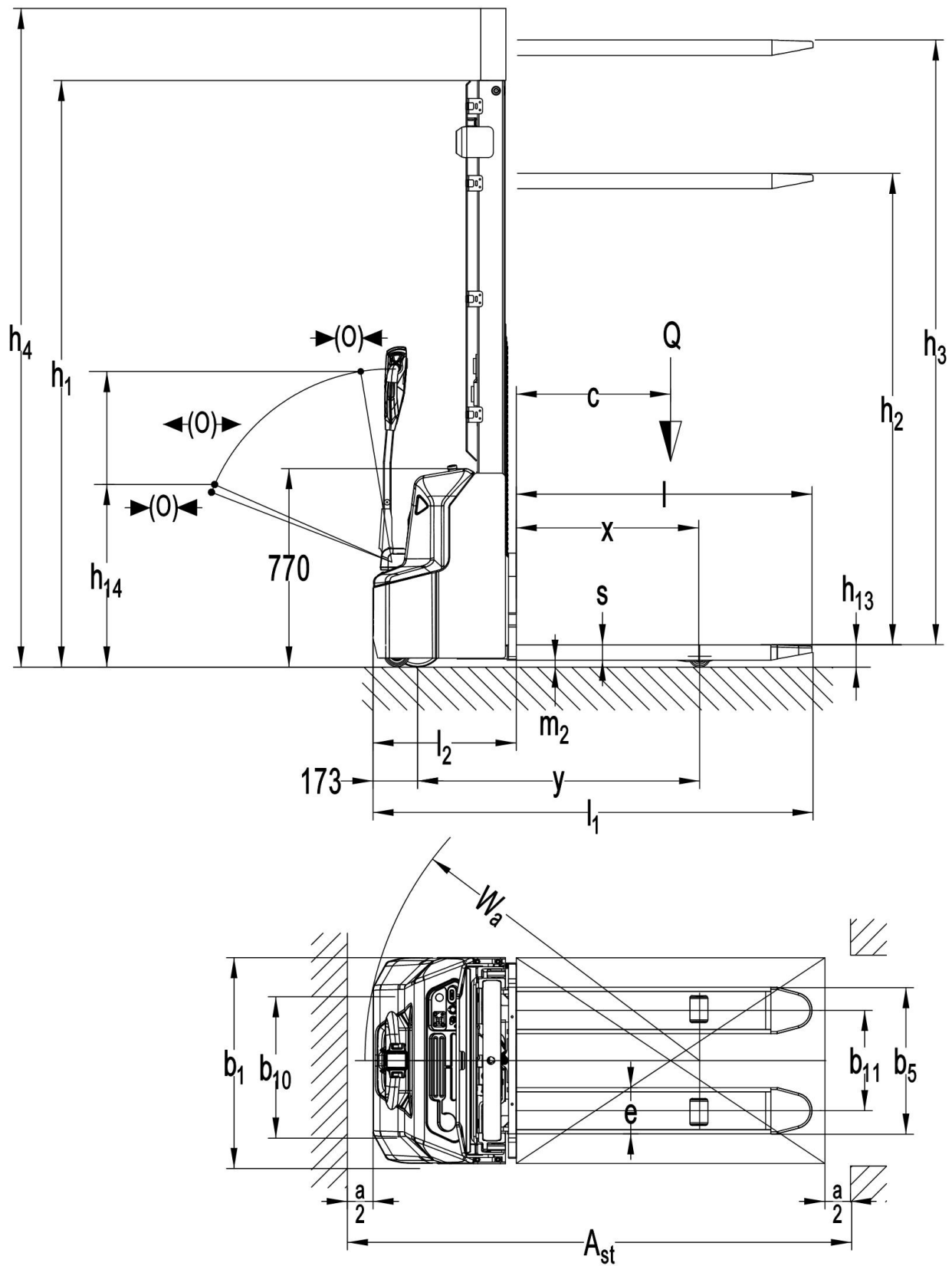


Fig. 2: Technical data

Table1: Main technical data for standard version

| Type sheet for industrial truck acc. to VDI 2198 |      |                                               |                      |                   |
|--------------------------------------------------|------|-----------------------------------------------|----------------------|-------------------|
| General data                                     | 1.2  | Manufacturer`s type designation               |                      | SWB-130           |
|                                                  |      |                                               |                      | 3600FFL           |
|                                                  | 1.3  | Power (battery ,diesel, petrol, gas, manual)  |                      | Battery           |
|                                                  | 1.4  | Operator type                                 |                      | Pedestrian        |
|                                                  | 1.5  | Load Capacity / rated load                    | Q(t)                 | 1.3               |
|                                                  | 1.6  | Load centre distance                          | c(mm)                | 600               |
|                                                  | 1.8  | Load distance ,centre of drive axle to fork   | x(mm)                | 710               |
|                                                  | 1.9  | Wheelbase                                     | Y(mm)                | 1097              |
| Weight                                           | 2.1  | Service weight                                | kg                   | 670               |
|                                                  | 2.2  | Axle loading, laden front/rear                | kg                   | 560 / 1410        |
|                                                  | 2.3  | Axle loading, unladen front/rear              | kg                   | 480 / 190         |
| Tires, chassis                                   | 3.1  | Tires                                         |                      | Polyurethane (PU) |
|                                                  | 3.2  | Tire size, front                              | Ø x w (mm)           | Φ210 x 75         |
|                                                  | 3.3  | Tire size, rear                               | Ø x w (mm)           | Φ84 x 93          |
|                                                  | 3.4  | Additional wheels(dimensions)                 | Ø x w (mm)           | Φ100 x 50         |
|                                                  | 3.5  | Wheels, number front/rear(x=driven wheels)    |                      | 1x + 1 / 2        |
|                                                  | 3.6  | Track, front                                  | b <sub>10</sub> (mm) | 550               |
|                                                  | 3.7  | Track, rear                                   | b <sub>11</sub> (mm) | 400 / 515         |
| Dimensions                                       | 4.2  | Lowered mast height                           | h <sub>1</sub> (mm)  | 2280              |
|                                                  | 4.3  | Free Lift height                              | h <sub>2</sub> (mm)  | 1800              |
|                                                  | 4.4  | Lift height                                   | h <sub>3</sub> (mm)  | 3514              |
|                                                  | 4.5  | Extended mast height                          | h <sub>4</sub> (mm)  | 3990              |
|                                                  | 4.9  | Height of tiller in drive position min./ max. | h <sub>14</sub> (mm) | 710 / 1150        |
|                                                  | 4.15 | Height, lowered                               | h <sub>13</sub> (mm) | 90                |
|                                                  | 4.19 | Overall length                                | l <sub>1</sub> (mm)  | 1710              |
|                                                  | 4.20 | Length to face of forks                       | l <sub>2</sub> (mm)  | 560               |
|                                                  | 4.21 | Overall width                                 | b <sub>1</sub> (mm)  | 800               |
|                                                  | 4.22 | Fork dimensions                               | s/e/l (mm)           | 60 / 180 / 1150   |
|                                                  | 4.25 | Width across forks                            | b <sub>5</sub> (mm)  | 570 / 685         |
|                                                  | 4.32 | Ground clearance, centre of wheelbase         | m <sub>2</sub> (mm)  | 24                |
|                                                  | 4.33 | Aisle width for pallets 1000X1200             | Ast (mm)             | 2167              |
|                                                  | 4.34 | Aisle width for pallets 800X1200 lengthways   | Ast (mm)             | 2133              |
|                                                  | 4.35 | Turning radius                                | Wa (mm)              | 1300              |
| Performance                                      | 5.1  | Travel speed, laden/ unladen                  | Km/h                 | 4.2 / 4.5         |
|                                                  | 5.2  | Lift speed, laden/ unladen                    | m/s                  | 0.10 / 0.14       |
|                                                  | 5.3  | Lowering speed, laden/ unladen                | m/s                  | 0.13 / 0.11       |
|                                                  | 5.8  | Max. gradeability, laden/ unladen             | %                    | 4 / 10            |
|                                                  | 5.10 | Service brake                                 |                      | Electromagnetic   |

|                 |     |                                              |       |          |
|-----------------|-----|----------------------------------------------|-------|----------|
| <b>Electric</b> | 6.1 | Drive motor rating S2 60min                  | kW    | 0.65     |
|                 | 6.2 | Lift motor rating at S3 7.5%                 | kW    | 2.2      |
|                 | 6.3 | Battery acc. to DIN 43531/35/36 A, B, C, no  |       | no       |
|                 | 6.4 | Battery voltage, nominal capacity K2         | V/Ah  | 24 / 100 |
|                 | 6.5 | Battery weight                               | kg    | 26       |
|                 | 6.6 | Energy consumption acc: to VDI cycle         | Kwh/h | 0.6      |
| <b>Other</b>    | 8.1 | Type of drive control                        |       | DC       |
|                 | 8.4 | Sound level at driver's ear acc. to EN 12053 | dB(A) | <70      |

| Type                      | Lowered mast height<br>h1(mm) | Free Lift height<br>h2(mm) | Lift height<br>h3(mm) | Extended mast height<br>h4(mm) |
|---------------------------|-------------------------------|----------------------------|-----------------------|--------------------------------|
| <b>Two stage<br/>mast</b> | 1780                          | 1300                       | 2510                  | 2990                           |
|                           | 1930                          | 1450                       | 2810                  | 3290                           |
|                           | 2080                          | 1600                       | 3110                  | 3590                           |
|                           | 2280                          | 1800                       | 3510                  | 3990                           |

### c. Description of the safety devices and warning labels (Europe and other, except USA)

- A Crane hook label
- B Warning decal: Do not step under or on the forks
- C Residual lift capacity sticker
- D Never reach through
- E Identification plate (ID-plate)
- F Sticker to read and follow these instructions
- G Sign of filling point
- H "No passengers" decal
- I Warning decal
- J Warning decal

The truck is equipped with an emergency switch (20) which stops all lifting, lowering, driving functions and engages the failsafe electromagnetic brake when it is pressed. By pull this button out; the truck can be operated after the controller checked the functions. Before operating, type the password on pin-code panel and press the ✓ button. To prevent against unauthorized access, press emergency switch (20) or press the X button of pin-code panel.

The truck is equipped with a safety (belly) button (16) which switches the driving function away from the operator, if the truck travels towards the operator and the tiller is activated in the tillers operating zone. Follow also the instructions given on the decals. Replace the decals if they are damaged or missing.

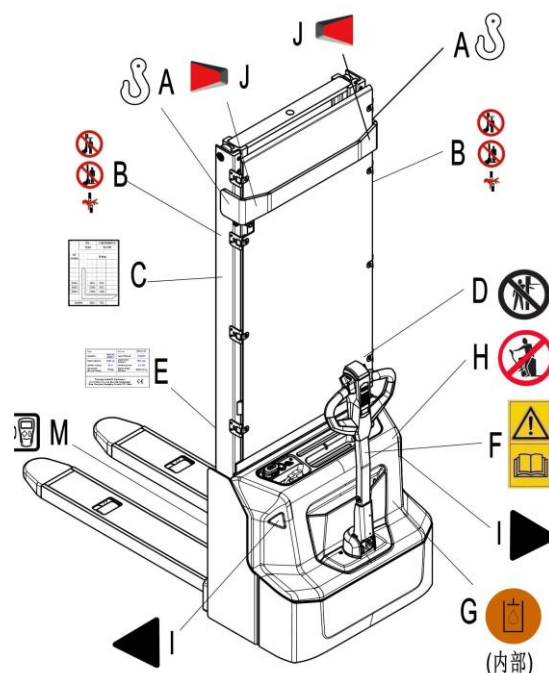


Fig. 3: Safety and warning labels



## d. Identification plate

- |   |                                              |    |                                 |
|---|----------------------------------------------|----|---------------------------------|
| 1 | Designation, type                            | 7  | Battery weight minimum/ maximum |
| 2 | Serial number                                | 8  | Nominal power in kW             |
| 3 | Rated capacity in kg                         | 9  | Load center distance            |
| 4 | Supply voltage in V                          | 10 | Manufacturing date              |
| 5 | Own mass (self weight) in kg without battery | 11 | Option                          |
| 6 | Name and address of manufacturer)            |    |                                 |

|   |                                               |         |                      |              |    |
|---|-----------------------------------------------|---------|----------------------|--------------|----|
| 1 | Type                                          | xxx xx  | Option               | xx X xxxx    |    |
| 2 | Serial No.                                    | xxxxx   | Year of Manuf.       | MM/YYYY      |    |
| 3 | Rated capacity                                | xxxx kg | Load center distance | xxx mm       | 11 |
| 4 | System voltage                                | xx V    | Nominal power        | xx kW        | 10 |
| 5 | Net weight without battery                    | xxx kg  | Battery mass min/max | xxx / xxx kg | 9  |
|   |                                               |         |                      |              | 8  |
| 6 | XXXX XXXX<br>XXXXXXXXXX xx<br>XXXXXX / XXXXXX |         |                      | CE           | 7  |

If sold to the EU, here the place of the CE marking **CE**

Fig. 4: Identification plate

### 3. WARNINGS, RESIDUAL RISK AND SAFETY INSTRUCTIONS



#### **DO NOT**

- Put foot or hand under or into the lifting mechanism.
- Allow other person than the operator to stand in front of or behind the truck when it is moving or lifting/lowering.
- Overload the truck.
- Put foot in front of the wheels, injury could result.
- Lift people. People could fall down and suffer severe injury.
- Push or pull loads; use drawbar
- Side or end load. Load must be distributed evenly on the forks.
- Use the truck with unstable, unbalanced not stable load.
- Use the truck without following the instructions.
- Lifted loads could become unstable at wind forces. In the case of wind forces do not lift the load if there is any influence to the stability
- Do not use the truck without help if load is causing insufficient visibility. Operation without help of additional people may result in crushes or injuries. Always make sure the transportation of load is safe.
- Do not operate the truck with removed covers or the apron.

Watch difference in floor levels when driving. Load could fall down or the truck could get uncontrollable.

Keep watching the condition of load. Stop operating the truck if load becomes unstable.

Brake the truck and activate the emergency button (20) by pushing when sliding load on or off the truck. If the truck has any malfunctions, follow chapter 10.

Practice maintenance work according to regular inspection. This truck is not designed to be water resistant. Use the truck under dry condition. Prolonged continuous operation might cause damage of the power pack. Stop operation if temperature of hydraulic oil is too high.



- When operating the electric stacker, the operator has to wear safety shoes.
- The truck is intended to be used for indoor applications with ambient temperatures between +5°C and + 40°C.
- The operating lighting must be minimum 50 Lux.
- To prevent unintended sudden movements when not operating the truck (i.e. from another person, etc.), press emergency switch (5) or press the X button of pin-code panel.

## 4. COMMISSIONING, TRANSPORTING, DECOMMISSIONING

### a. Commissioning

Table 2: Commissioning data

| Type                      | SWB-130 / 2600 | SWB-130 / 2900 | SWB-130 / 3200 | SWB-130 / 3600 |
|---------------------------|----------------|----------------|----------------|----------------|
| Commissioning weight [kg] | 656            | 669            | 682            | 700            |

After receiving our new stacker or for re-commissioning you have to do following before (firstly) operating the truck:

- Check if are all parts included and not damaged
- Make sure the tiller is assembled correctly (electrical socket is connected and fixed with two plastic clamps, circlip of the axle is installed)
- Check that battery is charged (follow chapter 8)
- Do the work according to the daily inspections as well as functional checks.

### b. Lifting/ transportation

For transporting, remove the load, lower the forks to the lowest position and fix the truck safe with dedicated lifting gear according to the following figures.

#### Lifting



USE DEDICATED CRANE AND LIFTING EQUIPMENT  
DO NOT STAND UNDER THE SWAYING LOAD  
DO NOT WALK INTO THE HAZARDOUS AREA DURING LIFTING

Park the truck securely and lash the truck according to the points identified in Fig. 5. Lift the truck to its destination and place the truck securely before removing the lifting gear. The lashing points are according to the Fig. 5.

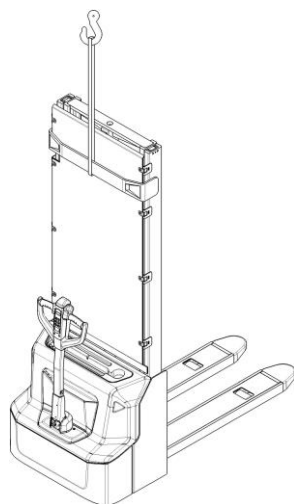


Fig. 5: Lifting with a crane

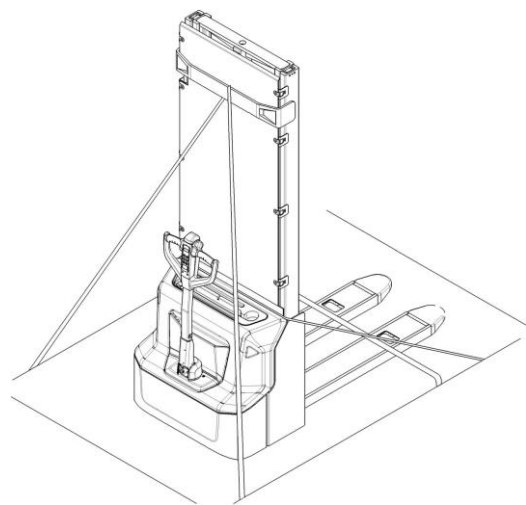


Fig. 6: Fixing points

## Transportation



DURING TRANSPORTATION ON A LORRY OR TRUCK ALWAYS FASTEN THE TRUCK SECURELY

Lower the forks and park the truck securely.

Fasten the truck according to Fig. 6 by fixing dedicated lashing belts to chassis, Fork carriage and mast, and fasten the other side at the transporting truck.

## c. Decommissioning

For storage, remove the load, lower the truck to the lowest position, grease all in this handbook mentioned greasing points (regular inspection), and eventually protect the truck against corrosion and dust. Remove the batteries and jack the truck safely, so that there will be no flattening after storage.

For final decommissioning hand the truck to a designated recycling company. Oil, batteries and electric components must be recycled due to legal regulations.

## 5. DAILY INSPECTION

This chapter describes pre-shift checks before putting the truck into operation.

Daily inspection is effective to find the malfunction or fault on this truck. Check the truck on the following points before operation.

Remove load from truck and lower the forks.



**DO NOT USE THE TRUCK IF ANY MALFUNCTION IS FOUND.**

- Check for scratches, deformation or cracks.
- Check if there is any oil leakage from the cylinder.
- Check the smooth movement of the wheels.
- Check the function of driving in both directions (section 6e).
- Check the functions of braking by activation of tiller arm sensor, reversing of driving buttons, release of driving buttons and of the safety (belly) button (section 6g).
- Check the function of driving with tiller in its vertical position (section 6e).
- Check the function of the emergency brake by activating the emergency button.
- Check the lifting and lowering functions by operating the buttons (section 6c and 6d).
- Check the function of steering by turning the tiller from one end position to the other one. The steering should be smooth, without jerks or abnormal sound.
- Check if all bolts and nuts are tightened firmly.
- Visual check if there are any broken electric wires.
- If supplied with a backrest extension, check it for damages and correct assembling.
- Check the presence of warning stickers and signs (section 2c)

If supplied with a backrest extension, check it for damages and correct assembling

## 6. OPERATION INSTRUCTIONS



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

Make sure, that the load is palletized and stable and that the daily inspection is carried out.

Pull out the emergency button (Fig.1, 20), Press the button switch, and a green light will appear on the switch (Fig.8), type the password on pin-code panel and press ✓ button to start the truck. Truck can also be activated with RFID access card.

Press the horn button (Fig.7, 27) to activate the audible warning signal.

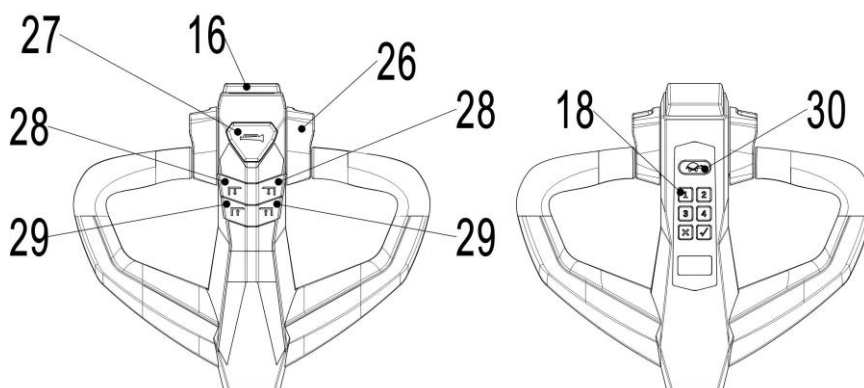


Fig.7: Tiller operating controls

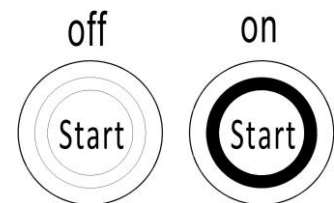


Fig.8: Button switch

### a. Parking



DO NOT PARK THE TRUCK ON INCLINED SURFACES

The truck is equipped with an electromagnetic failsafe stopping and parking brake.

Always lower the forks fully. Press the button, green LED ring is off (Fig.8), and press the emergency switch (20).

### b. Residual lift diagram

The residual lift diagram indicates the maximum capacity  $Q$  [kg] for a given load centre  $c$  [mm] and the corresponding lift height  $H$  [mm] for the truck with horizontal load.

The white markings on the mast indicate if the specific lifting limits reached. For instance with a load centre of gravity distance  $c$  of 600 mm and a maximum lift height  $H$  of 3600 mm, the max. Capacity  $Q$  is 800 kg.

|      |         |
|------|---------|
| Type | SWE-130 |
| Mast | 3600    |

| h3+h13 (mm) | Q (kg) |
|-------------|--------|
| 3600        | 800    |
| 3200        | 900    |
| 2900        | 1100   |
| 2700        | 1200   |
| 2500        | 1300   |

|        |     |
|--------|-----|
| c (mm) | 600 |
|--------|-----|

Fig. 9: Residual lift diagram

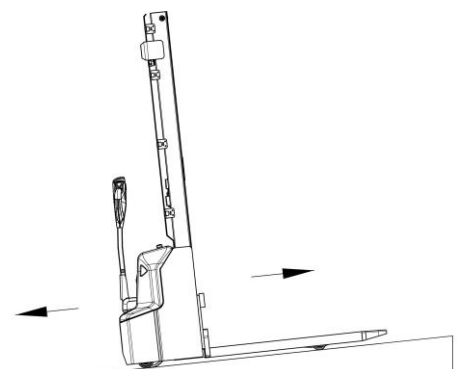


Fig.10: Load facing uphill

### c. Lifting



DO NOT OVERLOAD THE TRUCK! THE MAXIMUM CAPACITY IS 1300kg.  
LIFT ONLY CAPACITIES ACCORDING TO THE RESIDUAL LIFT DIAGRAM.

Travel with the lowered forks fully underneath the pallet and press the lifting button (Fig. 7, 28) until you reached the desired lifting height.

### d. Lowering

If the forks are in the racking, firstly travel out of the racking carefully with or without the pallet. By travelling out of the racking, take care that the forks are not touching the racking.

Press the lowering button (Fig. 7, 29) carefully.

Lower the load until the forks are clear of the pallet, then drive the truck carefully out of the load unit.

### e. Travelling



TRAVEL ON INCLINES ONLY WITH THE LOAD FACING UPHILL.

DO NOT TRAVEL ON INCLINES MORE THAN SPECIFIED WITH THE TECHNICAL DATA.

TRAVELLING IS ONLY ALLOWED IF THE FORKS ARE LOWERED DOWN TO THE LIFTING POINT (<300MM).

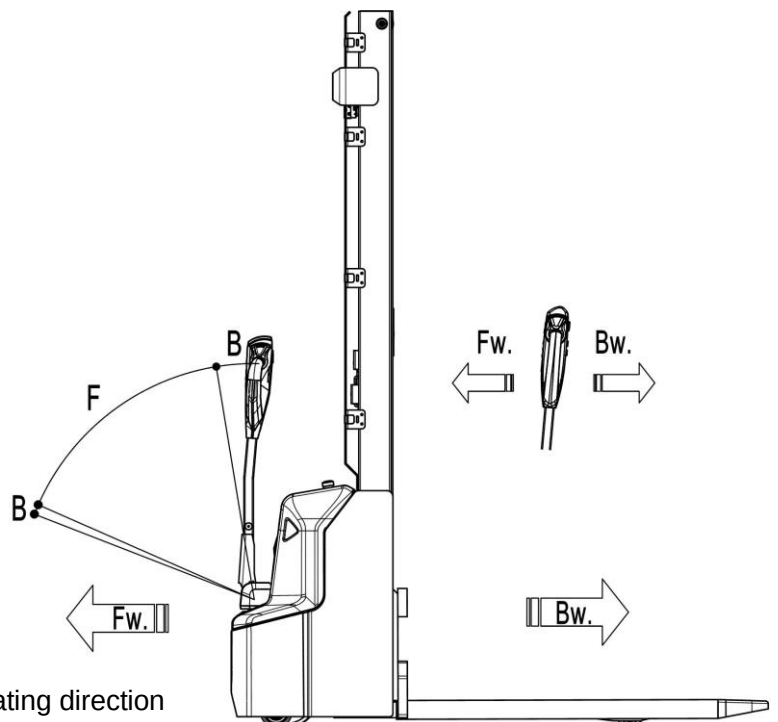


Fig.11: Operating direction

After starting the truck by activation from Pin-code panel carefully move the tiller to the operating zone ('F', fig.11).

Turn the accelerator button to the desired direction forward 'Fw.' Or backwards 'Bw.'(fig. 11).

Control the travelling speed by moving the accelerator button (26) carefully until you reached the desired speed. If you move the accelerator button back to the neutral position, the controller decelerates the truck until the truck stops. If the truck stopped, the parking brake will be engaged.

Drive carefully the truck to the destination. Watch the route conditions and adjust the travelling speed with the accelerator- button.

Press turtle button (Fig.7, 30) to enter into slow speed mode, travel slowly by moving the accelerator button (Fig.7, 26) , press turtle button again to return back to regular mode.

Press turtle button 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.

## **f. Steering**

You steer the truck by moving the tiller to the left or right side. When travel in front direction (opposite to direction of forks) the turning of tiller bar to right side will cause the truck turning clockwise.

## **g. Braking**



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

The braking function can be activated on several ways:

- By moving the accelerator button (26) back to the initial '0' position or by releasing the button, the regenerative braking is activated. The truck brakes until it stops.
- By moving the accelerator button (26) from one driving direction directly to the opposite direction, the truck brakes regenerative until it starts traveling into the opposite direction.
- The truck brakes, if the tiller is moved up or down to the braking zones ('B'). If the tiller is released, the tiller moves automatically up to the upper baking zone ('B').The truck brakes until it stops.
- The safety (belly) button (16) prevents the operator from being crushed. If this button is activated, the truck decelerates and/ or starts traveling into the backwards direction ('Bw.') for a short distance and stops. Please consider, that this button also operates, if the truck is not traveling and the tiller is in the operating zone.

## **h. Malfunctions**

If there are any malfunctions or the truck is inoperative, please stop using the truck and activate the emergency button (20) by pushing it. If possible, park the truck on a safe area and press the X button of pin-code panel. Inform immediately the manager and, or call your service. If necessary, move the truck



out of the operating area by using dedicated lifting equipment. Do not tow the truck.

## **i. Emergency**

In emergencies or in the event of tip over (or off dock), keep safe distance immediately. If possible push the emergency button (20). All electrical functions will be stopped.

## 7. PIN-CODE PANEL

SWB-130 is equipped with a pin-code panel and two ID cards.

### a. Introduction

Pin-code panel is an electronic system which is similar with an electronic alarm system. Truck will not able to operate before typing a correct password, the main function is to prevent unauthorized operation.

### b. Main functions

For SWB-130 it can be operated only when correct password is typed or valid ID card is used.

SWB-130 supports password access and ID card access. The truck supports up to 5 ID cards and 1 set of password. The password consists of 4 numbers ranging from 0 to 9.

ID card access

Put the ID card in the area that is close to the pin-code panel. If the ID card is valid, the display is lit and shows "ON", which indicates the pin-code panel works normally, that is, the output of the electric lock switch signal is normal (the display is lit and shows "OFF", and the red indicator flashes when operation of ID card access is incorrect).

Password access

There are two passwords of pin-code panel, one is the default user password 1234, and you can use it immediately. The other one is the administrator password 3232; with this you can set a new user password according to the following steps:

- Type "3232", click "√".
- Type previous user password, click "√".
- Type new password, and click "√", previous password will be replaced.

In case you need to reset the password, please follow the procedure under:

- Type "123", click "√".
- Type "123" again, click "√". Password will be "1234".

Follow these steps to disable the password lock function:

- Enter "123" and press "√" to release.
- Input "3131" and press the "√" key to release. The password lock function will be automatically canceled.

In case you need to add additional ID card, please follow the procedure under:

- Type "3434", click "√".
- Swipe the new ID card within 5 seconds.
- This pin-code panel supports Max. five cards.

## 8. Battery-Safety, Servicing, Recharging, Replacement



- Only qualified personnel are allowed to service or charge the batteries. The instructions of this handbook must be observed.
- Recycling of batteries undergoes national regulations. Please follow these regulations.
- By handling batteries, open fire is prohibited!
- In the area of battery charging neither burning materials nor burning liquids are allowed. Smoking is prohibited and the area must be ventilated.
- Park the truck securely before starting charging or installing/changing the batteries
- Before finishing the maintenance work, make sure, that all cables are connected correctly and that there are no disturbing towards other components of the truck.

SWB-130 is equipped with the following lithium battery:  
24V / 100Ah, 27kg



IT IS ONLY ALLOWED TO USE LITHIUM BATTERY.  
PLEASE CONSIDER THE MAXIMUM OPERATING TEMPERATURE OF THE BATTERIES.

### 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 connect 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, overvoltage, 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. Battery Decals

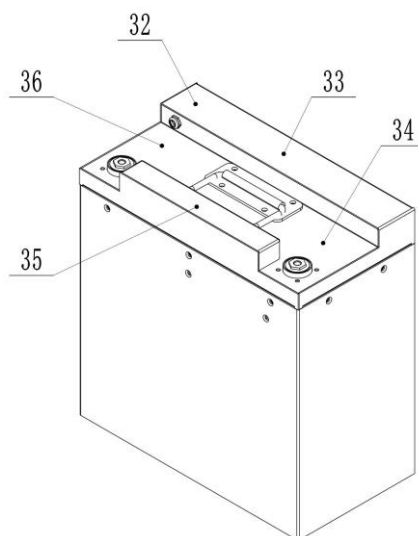


Fig.12: Battery Decals

Table 3: Battery Decals

| Item | Description                         | Item | Description                  |
|------|-------------------------------------|------|------------------------------|
| 32   | Battery version information sticker | 35   | Barcode and QR code stickers |
| 33   | Anti-collision stickers             | 36   | Main nameplate sticker       |
| 34   | Warning stickers                    |      |                              |

### Battery identification plate

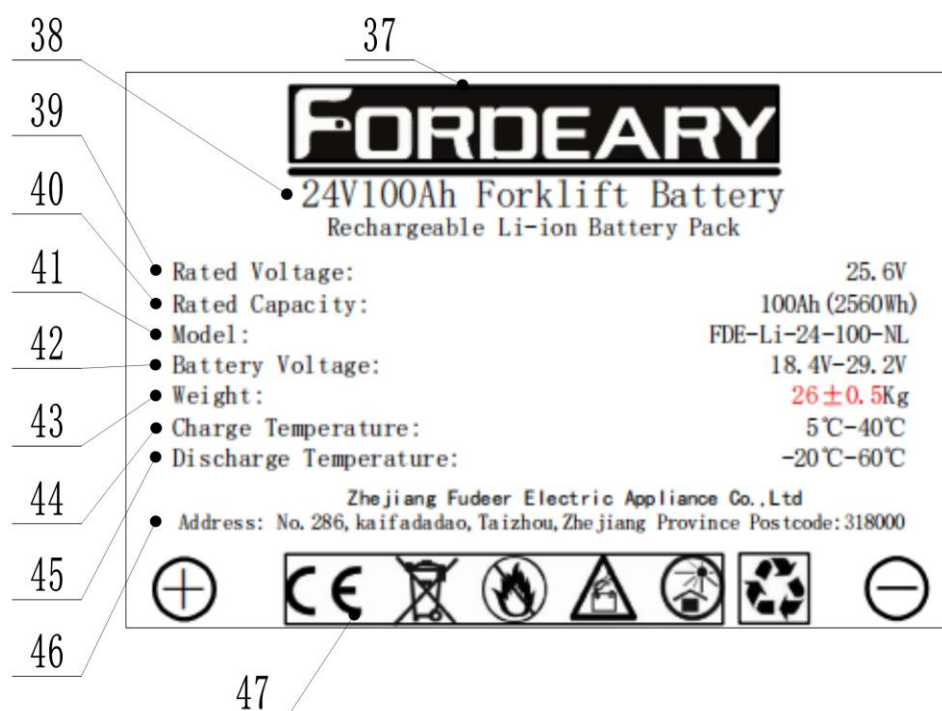


Fig.13: Battery identification plate

Table 4: Battery identification plate

| Item | Description           | Item | Description                                     |
|------|-----------------------|------|-------------------------------------------------|
| 37   | LOGO                  | 43   | Battery weight, charging temperature range      |
| 38   | Battery information   | 44   | Charging temperature range, date of manufacture |
| 39   | Rated voltage         | 45   | Discharge temperature range                     |
| 40   | Rated capacity        | 46   | Manufacturer's name, production address         |
| 41   | Battery model         | 47   | CE and other safety marks                       |
| 42   | Battery voltage range |      |                                                 |

Service mass is indicated on the battery data plate, the center of gravity is located approximately at middle of the battery case.

## c. Safety Instructions, Warning Indications and other Notes

### (lithium-ion battery)

#### 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 may be damaged causing serious safety risks. The charger in use must be approved 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 short connection of battery terminals, for instance, by water or other intentional/unintentional short connections.
- Temperature damages caused by placing of batteries in overheated environment conditions 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/or leakage of harmful materials, a safe place for storing non-functional or damaged 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 5: Symbols - Safety and Warnings

|                                                                                   |                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Used lithium-ion batteries must be treated as hazardous waste.<br>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 causing overheating.<br>Do not ignite or locate batteries close to open flame, heat sources or sparks.<br>Keep lithium-ion batteries away from heat sources.                                   |
|  | Caution!<br>Battery short-circuit is prohibited.                                                                                                                                                                             |
|  | Protect the lithium-ion battery from solar radiation or other forms of heat radiation.<br>Do not expose the lithium-ion battery to heat sources.                                                                             |

## Explosion and fire hazard



Physical damage, thermal impacts 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.

#### Suitable extinguishing agents

- Carbon dioxide extinguisher (CO<sub>2</sub>)
- 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, maintenance and storage

The lithium-ion batteries are maintenance-free.

### Deep discharge can damage the battery

Self-discharge without periodical recharge can lead 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 cannot be charged. Deeply 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 of batteries

- 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 impacts

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

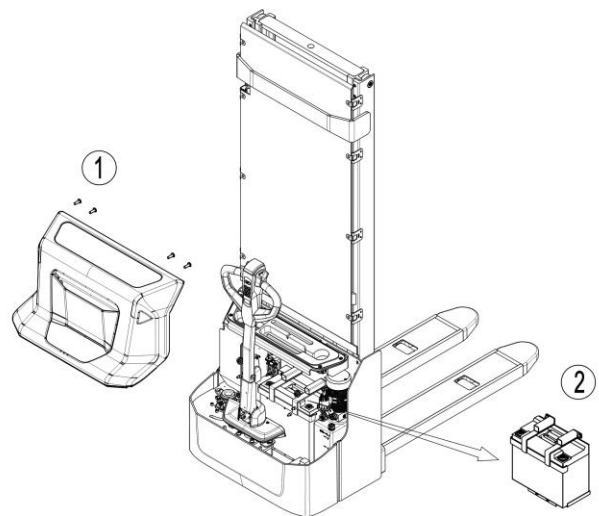
### Shipping faulty batteries

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

## d. Replacement

Park the truck securely and press emergency switch (20). Remove four screws firstly, take out the main cover. Secondly, remove the screw on negative pole of the battery and then remove the screw on positive pole. Thirdly, unloosen and remove the battery fixing frame.

The installation is in the reverse order.



**Fig. 14:** Battery replacement

## e. Battery Indicator

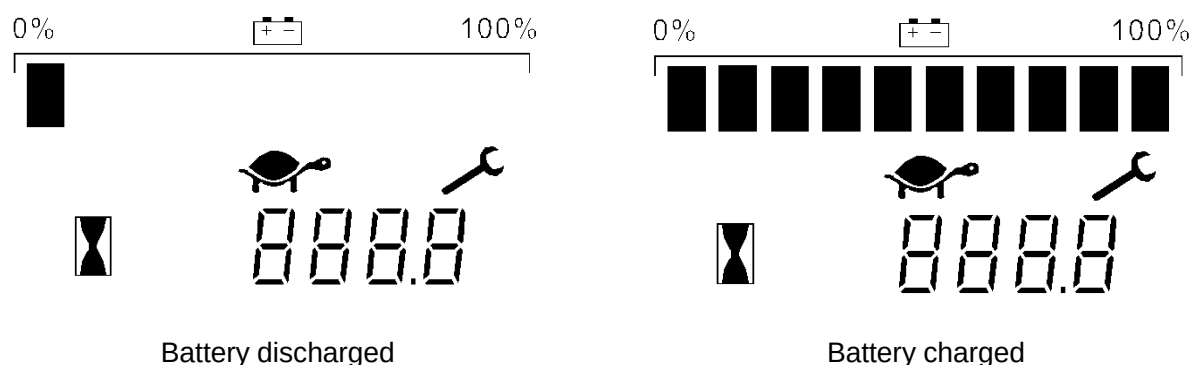


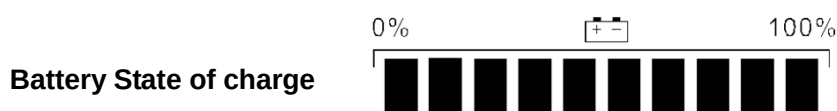
Fig. 15: Battery discharge indicator

### Display

An alpha-numeric liquid crystal display is fitted in the centre of the unit that shows the hours worked. The display is backlight (the backlight is normally lighted).

### Alarms

The same display can also indicate the alarm state, showing a code corresponding to the type of alarm.



The battery's state of charge indication is integrated in the LCD display; it is shown by ten notches. Each notch represent the 10% of the battery charge. As the battery becomes discharged, the notches turn off progressively, one after the other, in proportion to the value of the residual battery charge. This value, sent to the display by the controller via CAN-BUS.

### 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.

## f. Charging



- Before using the charger, please fully understand the instructions of the charger instructions.
- Always follow these instructions.
- The room, where you are charging must be ventilated.
- The exactly charge status can be only checked from the discharge indicator. To control the status, the charging must be interrupted and the truck must be started.

Park the truck at a dedicated secured area with a dedicated power supply.

Lower the forks and remove the load;

Switch the truck off, pull the charger plug (21) out of the socket (23/31), the charger starts charging the battery if the charger plug (21) is connected to the main power supply.

When charging is finished, disconnect the plug (21) from the power supply, and insert it into the socket (23/31).

Table 6: LED-Status

| LED- signal  | Function         |
|--------------|------------------|
| Red flashing | Battery charging |
| Green on     | Fully charged    |

## 9. REGULAR MAINTENANCE



- Only qualified and trained personnel are allowed to do maintenance on this truck.
- Before maintaining, remove the load and lower the forks to the lowest position.
- If you need to lift the truck, follow chapter 4 b by using designated lashing or jacking equipment. Before working, put safety devices (for instance designated lift jacks, wedges or wooden blocks) under the truck to protect against accidental lowering, movement or slipping.
- Please pay attention by maintain the tiller arm. The gas pressure springs are pre-loaded by compression. Carelessness can cause injury.
- Use approved and from your dealer released original spare parts.
- Please consider that oil leakage of hydraulic fluid can cause failures and accidents.
- It is allowed to adjust the pressure valve only from trained service technicians.
- Truck batteries of long-term storage (more than 3 months) should be put in dry and cool places. Charge and discharge the battery every 3 months. The storage voltage is about 25 ~ 26V.

Check the items emphasized in maintenance checklist.

### a. Maintenance checklist

Table 7: Maintenance checklist

|    |                                                                                  | Interval (Month) |   |   |    |
|----|----------------------------------------------------------------------------------|------------------|---|---|----|
|    |                                                                                  | 1                | 3 | 6 | 12 |
|    | Hydraulic                                                                        |                  |   |   |    |
| 1  | Check the hydraulic cylinder, piston for damage noise and leakage                |                  | • |   |    |
| 2  | Check the hydraulic joints and hose for damage and leakage                       |                  | • |   |    |
| 3  | Inspect the hydraulic oil level, refill if necessary                             |                  | • |   |    |
| 4  | Refill the hydraulic oil ( 12 month or 1500 working hours)                       |                  |   |   | •  |
| 5  | Check and adjust the function of the pressure valve (1300kg +0/ +15%)            |                  |   |   | •  |
|    | Mechanical system                                                                |                  |   |   |    |
| 6  | Inspect the forks for deformation and cracks                                     |                  | • |   |    |
| 7  | Check the chassis for deformation and cracks                                     |                  | • |   |    |
| 8  | Check if all screws are fixed                                                    |                  | • |   |    |
| 9  | Check mast and chain for corrosion, deformation or damages, replace if necessary | •                |   |   |    |
| 10 | Check the gearbox for noise and leakage                                          |                  | • |   |    |
| 11 | Check the wheels for deformation and damages, replace if necessary               |                  | • |   |    |
| 12 | Lubricate the steering bearing                                                   |                  |   |   | •  |
| 13 | Inspect and lubricate the pivot points                                           |                  | • |   |    |
| 14 | Lubricate the grease nipples                                                     | •                |   |   |    |
| 15 | Replace the guarding and/or protective screen if it is damaged                   | •                |   |   |    |
|    | Electric system                                                                  |                  |   |   |    |
| 16 | Inspect the electric wiring for damage                                           |                  | • |   |    |
| 17 | Check the electric connections and terminals                                     |                  | • |   |    |

|    |                                                        |  |   |  |  |
|----|--------------------------------------------------------|--|---|--|--|
| 18 | Test the Emergency switch function                     |  | • |  |  |
| 19 | Check the electric drive motor for noise and damages   |  | • |  |  |
| 20 | Test the display                                       |  | • |  |  |
| 21 | Check if correct fuses are used, if necessary replace. |  | • |  |  |
| 22 | Test the audio warning signal                          |  | • |  |  |
| 23 | Check the contactors                                   |  | • |  |  |
| 24 | Check the frame leakage (insulation test)              |  | • |  |  |
| 25 | Check function and wear of the accelerator             |  | • |  |  |
| 26 | Check the electrical system of the drive motor         |  | • |  |  |

## b. Lubricating points

Lubricate the marked points according to the maintenance checklist. The required grease specification is: DIN 51825, standard grease.

- 1 Load roller bearing
- 2 Mast
- 3 Chain
- 4 Steering bearing
- 5 Gear box
- 6 Steering roller bearing

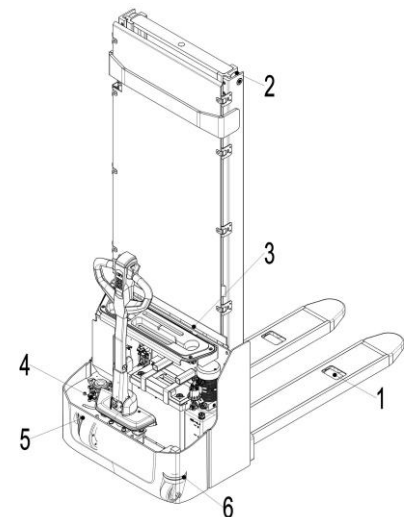


Fig. 16: Lubricating points

## c. Check and refill hydraulic oil

It is recommended to use hydraulic oil in connection with average temperature:

| Environment temperature | -5°C~25°C                      | >25°C                |
|-------------------------|--------------------------------|----------------------|
| Type                    | HVLP 32,<br>DIN 51524          | HLP 46,<br>DIN 51524 |
| Viscosity               | 28.8-35.2                      | 41.4 - 47            |
| Amount                  | 5L (depends on specific model) |                      |

Waste material like oil, used batteries or other must be probably disposed and recycled according to the national regulations and if necessary brought to a recycling company.

The oil level in the oil tank should be between min and max marks with fully lowered forks.

If necessary add oil at the filling point.

## d. Checking electrical fuses

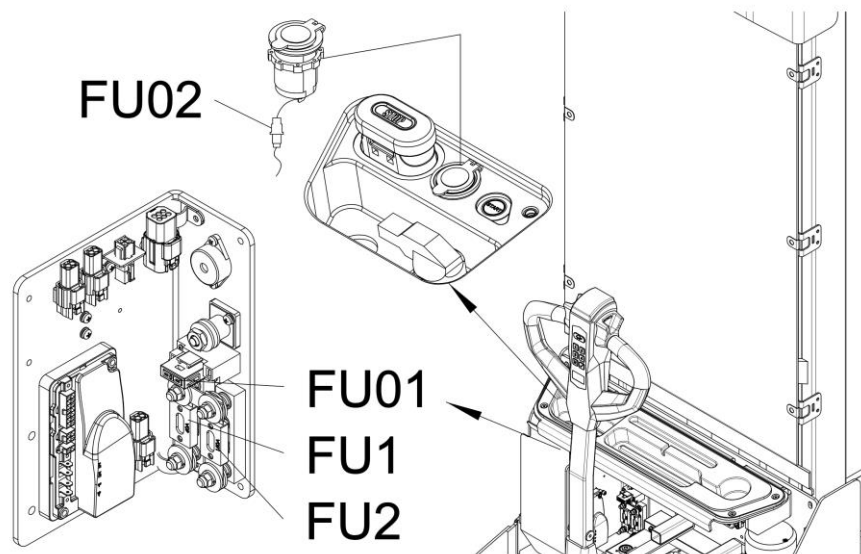


Fig. 17: Location of fuses

Table 8: Size of the fuses

|      | Rate |
|------|------|
| FU1  | 60A  |
| FU2  | 150A |
| FU01 | 10A  |
| FU02 | 1.5A |

## e. Removing, reattaching guarding



DO NOT USE THIS TRUCK, IF THE GUARDING IS DAMAGED OR NOT CORRECTLY ASSEMBLED!

If the guarding needs to be removed - de-attach holding clamps carefully. For reattaching place the screen to its correct position and place holding clamps back to their original position. If you need to replace parts, please call your service partner. Please make sure that the screen is fixed correctly and that the fixing elements are not damaged.

## 10. TROUBLE SHOOTING



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

Table 9: Trouble shooting

| TROUBLE                              | CAUSE                                                      | REPAIR                                                                                        |
|--------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Load can't be lifted                 | Load weight too high                                       | Lift only the max. capacity, mentioned on the ID-plate                                        |
|                                      | Battery discharged                                         | Charge the battery                                                                            |
|                                      | Lifting fuse faulty                                        | Check and eventually replace the lifting fuse                                                 |
|                                      | Hydraulic oil level too low                                | Check and eventually refill hydraulic oil                                                     |
|                                      | Oil leakage                                                | Repair the hoses and/or the sealing of the cylinder                                           |
| Oil leakage from air breathing       | Excessive quantity of oil.                                 | Reduce oil quantity.                                                                          |
| Stacker not starts operating         | Battery is charging                                        | Charge the battery completely and then remove the main power plug form the electrical socket. |
|                                      | Battery not connected                                      | Connect the battery correctly                                                                 |
|                                      | The fuse is faulty                                         | Check and eventually replace fuses                                                            |
|                                      | Battery discharged                                         | Charge the battery                                                                            |
|                                      | Combined emergency switch is activated                     | De-activate the combined emergency switch by insert and pull the knob.                        |
|                                      | Tiller in the operating zone                               | Move the tiller firstly to the braking zone.                                                  |
| Only travelling in one direction     | The accelerator and the connections are damaged.           | Check the accelerator and the connections.                                                    |
| The stacker only travels very slowly | The battery is discharged.                                 | Check the battery status at the discharge indicator                                           |
|                                      | The electromagnetic brake is engaged.                      | Check the electromagnetic brake                                                               |
|                                      | The relating tiller cables are disconnected or damaged     | Check the tiller cables and connections.                                                      |
|                                      | Defective height sensor for reduced speed at ~300mm height | Check the sensor                                                                              |
|                                      | Electric system overheated                                 | Stop using and cool down the truck                                                            |
|                                      | Defective heat sensor                                      | Check and if necessary replace the heat sensor                                                |
| The stacker starts up suddenly       | The controller is damaged.                                 | Replace the controller.                                                                       |
|                                      | The accelerator not moves back to its neutral position.    | Repair or replace the accelerator.                                                            |

If the truck has malfunctions and can't be operated out of the working zone, jack the truck up and go with a load handler under the truck and safe the truck securely. Then move the truck out of the aisle.

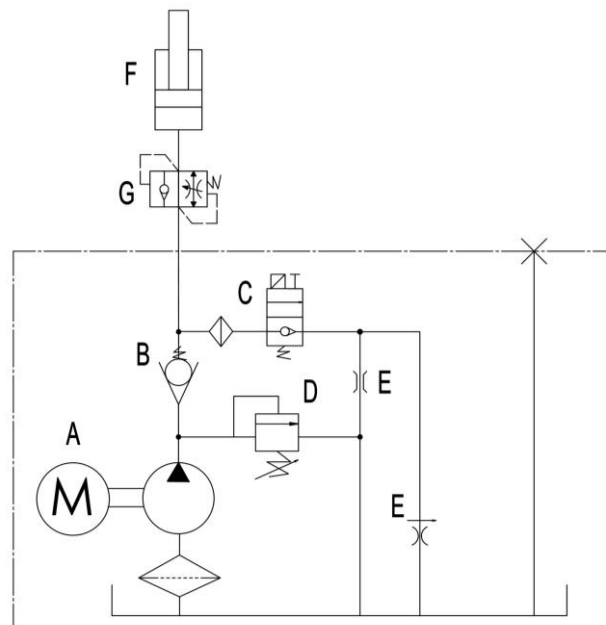




**Table 10:** Description of electrical diagram

| No. | Code | Item                       | No. | Code | Item                          | No. | Code | Item                        |
|-----|------|----------------------------|-----|------|-------------------------------|-----|------|-----------------------------|
| 1   | U    | charger                    | 9   | FU02 | fuse 1.5A                     | 17  | SC   | Turning deceleration switch |
| 2   | GB   | battery                    | 10  | FU2  | fuse 150A                     | 18  | USB  | USB charger                 |
| 3   | SB   | Push button switch         | 11  | DCC  | DC contactors                 | 19  | B    | handle                      |
| 4   | SU2  | UK micro switches          | 12  | MP   | Oil pump motor                | 20  | YV   | Drop solenoid valve         |
| 5   | SM   | DC power switch            | 13  | Et   | controller                    | 21  | Mt   | Traction motors             |
| 6   | FU1  | fuse 60A                   | 14  | FU01 | fuse 10A                      | 22  | YB   | Electromagnetic brakes      |
| 7   | SH   | Lifting speed limit switch | 15  | SU   | Height-limited micro switches | 23  | MD   | Remote modules              |
| 8   | SKQ  | Card reader                | 16  | SA   | Interlock switches            | 24  | HA   | horn                        |

## b. Hydraulic circuit



**Fig. 19:** Hydraulic circuit

**Table 11:** Description of hydraulic circuit

| Code | Item                  | Code | Item           |
|------|-----------------------|------|----------------|
| A    | Hydraulic power unit  | E    | Throttle valve |
| B    | Check valve           | F    | Cylinder       |
| C    | Electromagnetic valve | G    | Safety valve   |
| D    | Overflow valve        |      |                |

c. Schematic diagram of braking system

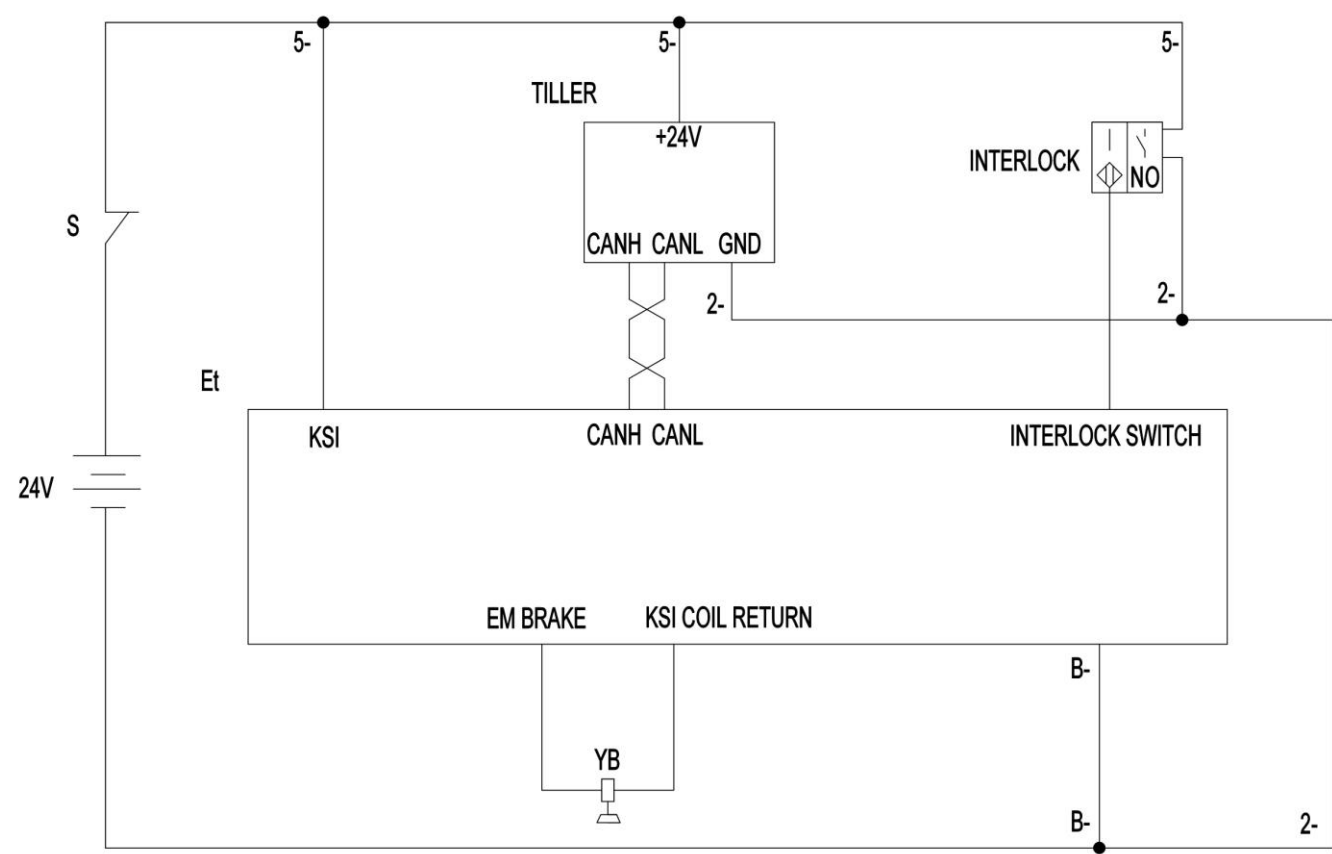


Fig. 20: Braking schematic diagram

## 12. DECLARATION OF CONFORMITY (valid, if sold within the EU)

### [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 подписаното лице декларира, че посочената машина отговаря на Директива на ЕО 2006/42/ЕС (Директива за машини) и 2014/30/EU (Електромагнитна съвместимост, EMC), включително техните изменения, преведени в националното законодателство на страните-членки. Подписаното 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-OVERENSSTEMMELSESESKLÆRING

Underskrivelsen 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. Underskrivelsen 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 (elektromagnetilise ühilduvuse, EMC), sealhulgas nende muudatustele, nagu on tõlgitud liikmesriikide siseriiklikesse õigusaktidesse. Allakirjutanut 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 ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ ΕΚ

Ο υπογράφωντος δηλώνει με το παρόν ότι το συγκεκριμένο μηχανήμα συμμορφώνεται με την Οδηγία 2006/42/ΕΚ (Οδηγία Μηχανών) και 2014/30/ΕΕ (Ηλεκτρομαγνητική Συμβατότητα, EMC) συμπεριλαμβανομένων των τροποποιήσεων τους όπως έχουν μεταφραστεί στην εθνική νομοθεσία των χωρών μελών. Ο υπογράφωντος 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 apliecinā, 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 apliecinā, ka ir piemēroti šādi standarti, tostarp tajos ietvertās normatīvās procedūras:

### [N] Opprinnelig EU-KONFORMITETSERKLÆRING

Underskrivelsen 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. Underskrivelsen 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 sporządzenia dokumentacji technicznej i oświadcza, że zastosowano następujące normy, w tym zawarte w nich procedury normatywne:

#### **[RO] Original DECLARATIE DE CONFORMITATE CE**

Semnatarul declara prin prezenta ca masina specificata este conforma cu Directiva CE 2006/42/CE (Directiva Masini) si 2014/30/UE (Compatibilitate electro-magnetica, EMC), inclusiv amendamentele acestora, astfel cum au fost traduse in legislatia nationala a tarilor membre. Semnatarul este autorizat individual sa intocmeasca documentele tehnice si declara ca au fost aplicate urmatoarele standarde, inclusiv procedurile normative cuprinse in 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 proceduren som finns däri, har tillämpats:

#### **[SK] Originál vyhlášení 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: **XXXXXXXXX**
- (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/ Түппі/ Tipo / ΤΥΠΟΣ/ Tipus/ Тип/ Tips/ Tipas/ Tüüp:  
(2) Serial No./ Serien-Nr./ N°. de série/ Seriennummer/ Nº de serie/ Numero di serie/ Serienr./ Sarjanro/ **αυξάνων αριθμός**/ Seriové číslo/ Szériaszám/ Nr.Seryjny/ Serijska številka/ Výrobné číslo/ Серийный номер/ 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 / **έτος κατασκευής**/ Rok výroby/ Gyártási év/ Rok produkcji / Letnik / Год изготовления / Üretim yılı / Väljalaskeasta / Izgatavošanas gads / Gamybos metai  
(4) Manufacturer/ Hersteller/ Fabricante/ Fabricant/ Fabrikant/ Fabricante/ Produttore/ производитель/ Výrobce/ Fabrikant/ Tootja/ Valmistaja/ Κατασκευαστής/ Gyártó/ Gamintojas/ Ražotājs/ Producent/ Producent/ Producător/ Производител/ 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/ Отвoаря за съставянето на техническата документация/ Zodpovída 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 összeállításért/ Atsakingas už techninės dokumentacijos sudarymą/ Atbildīgs par tehniskās dokumentācijas sastādīšanu/ Ansvarlig for sammenstilling av teknisk dokumentasjon/ Odpowiedzialny za kompletowanie dokumentacji technicznej/ Responsabil cu întocmirea 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/ **παραρνήσια**  
(7) Authorised signatory/ ImAuftrag/ pour ordre/ Incaricato/ Por orden de/ por procuração/ op last van/ påvegneaf/ påupdrag/ Etteroppdrag/ psta./ Ülesandel / pavedus / v.i. / Попоручению / megbízásból / длъжностнолице / z pověření / z poverenia / po nalogu / napolecenie / din sarcina / adina / θαη' ελληνή