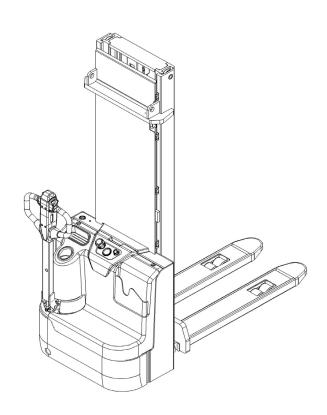
# 15ES-XB / 15ES-XN

# Electric Stacker Operator's Manual



# $\wedge$

#### **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.

#### **FOREWORD**

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.

## **TABLE OF CONTENTS**

1.		CORRECT APPLICATION	3
2.		DESCRIPTION OF THE STACKER	4
а	١.	Overview of the main components	4
b	١.	Main technical data	10
С	; <u>.</u>	Description of the safety devices and warning labels (Europe and other, except USA)	12
d		Identification plate	
3.		WARNINGS, RESIDUAL RISK AND SAFETY INSTRUCTIONS	10
4.		COMMISSIONING, TRANSPORTING, DECOMMISSIONING	11
а	١.	Commissioning	11
b	١.	Lifting/ transportation	11
С		Decommissioning	12
5.		DAILY INSPECTION	12
6.		OPERATION INSTRUCTIONS	13
а	١.	9	
b	١.	Residual lift diagram	
С		Lifting	14
d	١.	Lowering	14
е	).	Travelling	14
f.		Steering	15
g	١.	Braking	15
h	١.	Malfunctions	15
i.		Emergency	
7.		BATTERY CHARGING AND REPLACEMENT	16
а	۱.	'	
b	١.	Battery Indicator	
С		Charging	
d	١.	Description of the lithium-ion battery	
е	÷.	Battery Decals	
f.		Safety Instructions, Warning Indications and other Notes	
8.		REGULAR MAINTENANCE	
а	۱.	Maintenance checklist	
b	١.	Lubricating points	
С	:.	Check and refill hydraulic oil	
d	١.	Checking electrical fuses	
е		3, 3	
9.		TROUBLE SHOOTING	
10.		WIRING/ CIRCUIT DIAGRAM	
а	۱.	Electrical circuit diagram	
b			
11		DECLARATION OF CONFORMITY (valid, if sold within the EU)	35

#### 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.

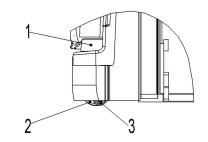
Only in the event that the truck manufacturer is no longer in business and there is no successor in the interest to the business, may the user arrange for a modification or alteration to a powered industrial truck, provided, however, that the user:

- 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



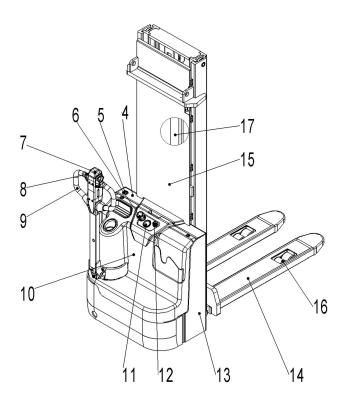


Fig. 1: Overview main components

- 1. Motor cover
- 2. Driving wheel
- 3. Steering wheel
- 4. Charging LED
- 5. Charging cable
- 6. Emergency button
- 7. Belly button
- 8. Accelerator
- 9. Tiller

- 10. Main cover
- 11. Discharge indicator and charging indicating LED
- 12. Key switch
- 13. Chassis
- 14. Fork carriage
- 15. Protective board
- 16. Load roller
- 17. Hydraulic system

## b. Main technical data

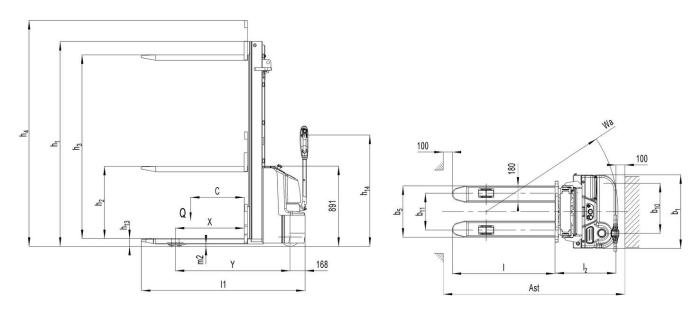


Fig. 2: Technical data

Table 1: Main technical data for standard version

	Type sheet for industrial truck acc. to VDI 2198							
	1.2	Manufacturer`s type designation	-	15ES-XB/	15ES-XN			
, g					3600			
General data	1.3	Power (battery ,diesel, petrol, gas, manual)		Batt	ery			
əral	1.4	Operator type		Pedes	strian			
ene	1.5	Load Capacity / rated load	Q(t)	1.9	5			
Ö	1.6	Load centre distance	C(mm)	60	0			
	1.8	Load distance ,centre of drive axle to fork	X(mm)	77	0			
	1.9	Wheelbase	Y(mm)	128	3			
g	2.1	Service weight	kg	782(73				
Weig ht	2.2 Axle loading, laden front/rear		kg	722/1560(70				
>	2.3	Axle loading, unladen front/rear	kg	544/238(50	07/223) <sup>1)</sup>			
	3.1	Tires		Polyurethane (PU)				
sis	3.2	Tire size, front	Ø x w	Ф210	×70			
chassis	3.3 Tire size, rear		Ø x w	Ф80	×70			
, c	3.4	Additional wheels(dimensions)	Ø x w	Ф100	×50			
Tires,	3.5	Wheels, number front/rear(x=driven wheels)		1x+	1/4			
F	3.6	Track, front	b <sub>10</sub> (mm)	55	7			
	3.7	Track, rear	b <sub>11</sub> (mm)	410/	525			
	4.2	Lowered mast height	h <sub>1</sub> (mm)	228	30			
	4.3	Free Lift height	h <sub>2</sub> (mm)	78	3			
S	4.4	Lift height	h <sub>3</sub> (mm)	35	15			
ion	4.5	Extended mast height	h <sub>4</sub> (mm)	400	05			
Dimensions	4.9	Height of tiller in drive position min./ max.	h <sub>14</sub> mm	710/1	245			
<u>ä</u>	4.15	Height, lowered	h <sub>13</sub> mm	85	5			
D	4.19	Overall length	l₁(mm)	1806	1830			
	4.20	Length to face of forks	l <sub>2</sub> (mm)	656	681			
	4.21	Overall width	b <sub>1</sub> (mm)	82	0			

	4.22	Fork dimensions	s/ e/ I(mm)	60/180/1150
	4.25	Width across forks	b <sub>5</sub> (mm)	570/685
	4.32	Ground clearance, centre of wheelbase	m2(mm)	25
	4.33	Aisle width for pallets 1000X1200 crossways	Ast	2317
	4.34	Aisle width for pallets 800X1200 lengthways	Ast	2261
	4.35	Turning radius	Wa	1474
ø	5.1	Travel speed, laden/ unladen	km/h	4.4/4.7
anc	5.2	Lift speed, laden/ unladen	m/s	0.105/0.17
Ĕ	5.3	Lowering speed, laden/ unladen	m/s	0.126/0.126
Performance	5.8	Max. gradeability, laden/ unladen	%	5/10
Pe	5.10	Service brake		Electromagnetic
	6.1	Drive motor rating	kW	0.75
	6.2	Lift motor rating at S3 7.5%	kW	2.2
Motor	6.3	Battery acc. to DIN 43531/35/36 A, B, C, no		no
S	6.4	Battery voltage, nominal capacity K5	V/Ah	4x12/64(48/50) <sup>1)</sup>
	6.5	Battery weight	kg	4x20(28) <sup>1)</sup>
	6.6	Energy consumption acc: to VDI cycle	kWh/h	0.5/(0.74) <sup>1)</sup>
_	8.1	Type of drive control		DC- Speed Control
other	8.4	Sound level at driver's ear acc. to EN 12053	db(A)	<70

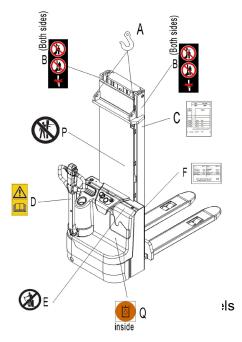
<sup>1).</sup>the parameters in bracket are for 15ES-XN

Designation	Lowered mast height	Free Lift height	Lift height	Extended mast height	Lift+fork height
Designation	h1(mm)	h2(mm)	h3(mm)	h4(mm)	h3+h13(mm)
one store most	1978	1510	1515	1985	1600
one stage mast	2378	1910	1915	2385	2000
	1930	78	2815	3305	2900
Two stage mast	2080	78	3115	3605	3200
	2280	78	3515	4005	3600

## c. Description of the safety devices and warning labels

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

The truck has an emergency button (6) which stops all lifting-, lowering-, driving- functions and engages the failsafe electromagnetic brake when it is pushed. By pulling this button, the truck can be operated after the controller checked the functions. Before operating, insert the key and turn the switch (2) clockwise. To prevent against unauthorized access, turn the key anti-clockwise and remove it if you do not operate this truck The truck is equipped with a safety (belly) button (7) which switches the driving function away from the operator, if the truck travels towards the operator and the tiller is in its operating zone. Follow



also the instructions given on the decals. Replace the decals if they are damaged or missing.

## d. Identification plate

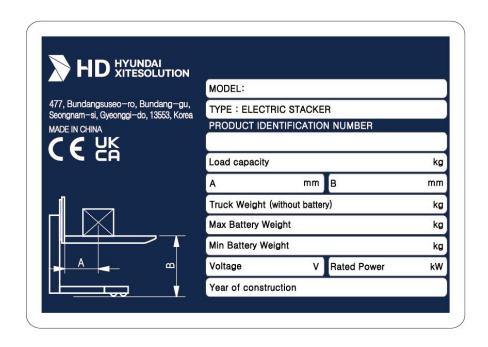


Fig. 4: Identification plate

## 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 truck without manufacturer's written consent.
- 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 (6) by pushing when sliding load on or off the truck. If the truck has any malfunctions, follow chapter 8.

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 (6) or press the X button of pin-code panel.

## 4. COMMISSIONING, TRANSPORTING, DECOMMISSIONING

## a. Commissioning

Table 2: Commissioning data

Туре	15ES-XB/3600	15ES-XN/3600
Commissioning weight [kg]	782	730
Dimensions [mm]	3600	3600

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.

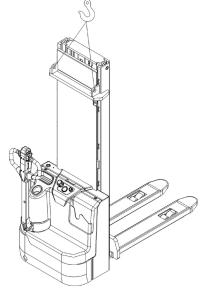


Fig. 5: Lifting with a crane

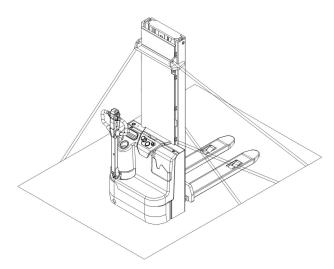


Fig. 6: Fixing points

#### **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 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).
BEFORE OPERATING THIS TRUCK, ENSURE THAT THE LOAD OR OTHER EQUIPMENT NOT CAUSES INSUFFICIENT VISIBILITY!

Make sure that the load is palletized and stable and that the daily inspection is carried out. For starting, insert the key and turn it clockwise to the "ON"- position. Eventually before inserting the key switch, the emergency button (6) must be pulled carefully.

Press the horn button (21) to activate the audible warning signal

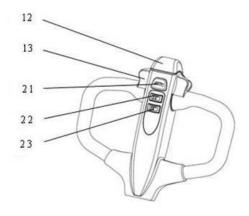


Fig.7: Tiller operating controls

## 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 and drive the truck to a safe area. Turn the key anti- clockwise to the "Off" – position and remove the key.

## 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.

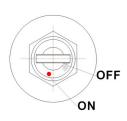
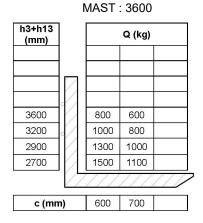


Fig.8: Key switch



TYPE: 15ES-XB

Fig. 9: Residual lift diagram

## c. Lifting



CAPACITY IS 1500 kg WHEN THE LOAD CENTER IS 600MM.

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, 22) until you reached the desired lifting height.

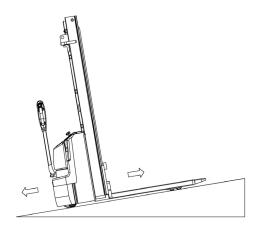


Fig.10: Load facing uphill

## 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, 23) 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).

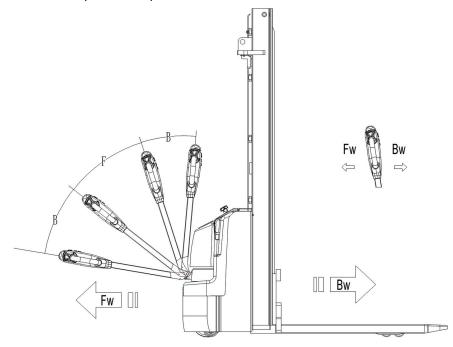


Fig.11: Operating direction

After starting the truck by turning the inserted key to the "ON"- position, 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 (13) 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.

## f. Steering

You steer the truck by moving the tiller to the left or right side.

## 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 (13) 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 (13) 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 (12) 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 (6) by pushing it. If possible, park the truck on a safe area, turn the key switch (12) anti- clockwise and remove the key.

Inform immediately the manager and, or call your service. If necessary, tow the truck out of the operating area by using dedicated towing/ lifting equipment.

## i. Emergency

In emergencies or in the event of tip over (or off dock), keep safe distance immediately. If possible push the emergency button (6). All electrical functions will be stopped.

#### 7. BATTERY CHARGING AND REPLACEMENT



- Only qualified personnel are allowed to service or charge the batteries. The instructions of this handbook and from the battery- manufacturer must be observed.
- Lead acid batteries are maintenance free batteries.
- Recycling of batteries undergoes national regulations. Please follow these regulations.
- By handling batteries, open fire is prohibited, gases could cause explosion!
- 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.

15ES-XB is equipped with the following lead-acid battery: 4x12V/ 64Ah 15ES-XN is equipped with the following lithium battery: 48V / 50Ah

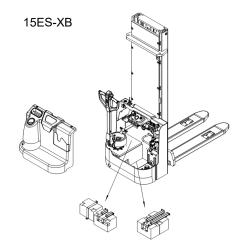


IT IS ONLY ALLOWED TO USE LEAD ACID BATTERY FOR 15ES-XB. IT IS ONLY ALLOWED TO USE LITHIUM BATTERY FOR 15ES-XN.
PLEASE CONSIDER THE MAXIMUM OPERATING TEMPERATURE OF THE BATTERIES

## a. Replacement

Park the truck safely and switch off the stacker with the key (Fig 1, 12) and press the emergency stop switch (Fig 1, 6).

Unscrew the 2 screws on the main cover and remove the cover. For 15ES-XB, unscrew the screws of the negative terminals (indicated with ' - ') for the upper two batteries firstly, then unscrew the screws of the positive terminals (indicated with ' + ') and put the cables aside. Unscrew the battery baffle and remove it. Remove the lower two batteries in the same way. For 15ES-XN, unscrew the screws of the negative terminals (indicated with ' - ') for the upper two batteries



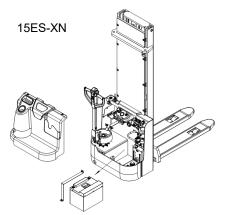


Fig. 12: Battery replacement

firstly, then unscrew the screws of the positive terminals (indicated with ' + ') and put the cables aside. Unscrew the battery baffle and remove it.

Remove the battery carefully by observing not to touch the upper electrical instruments board or the upside of the oil tank. The installation is in reverse order of the removal. Please connect the positive terminals firstly. Otherwise, the truck will be damaged.

## b. Battery Indicator

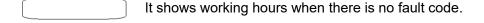


Fig. 13: Battery discharge indicator

When battery is fully charged, it shows 100%

It is normally off, when it appears (fixed) it shows the request of programmed maintenance or the alarm state.

"FC" means fault code, it's normal off, when it appears, it shows there is failure of truck, and the exact fault code will show after it.



## c. Charging

#### 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.



- 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.
- 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 is restored. Charging can be interrupted by pulling out the mains connector and considered 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.

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

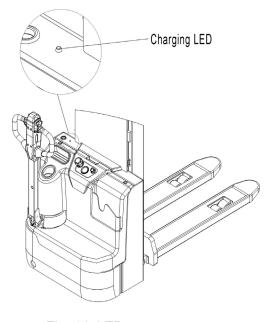
Lower the forks and remove the load;

Switch the truck off, the charger starts charging the battery if the charger plug (1,5) is connected to the main power supply.

When charging is finished, disconnect the plug (5) from the power supply and place it in the designated area.

Table 3: LED-Status

LED- signal	Function
Red	Charging
Green	Fully charged
Orange	Fault





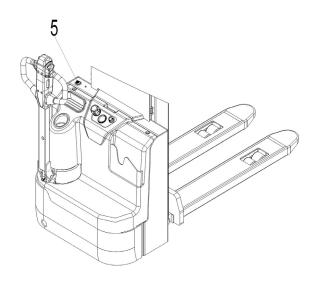


Fig. 15: Charging

## d. 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.

## e. Battery Decals

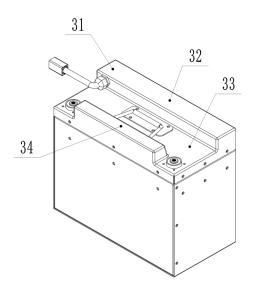


Fig.16: Battery Decals

Table 4: Battery Decals

Item	Description	Item	Description
31	Sticker for battery version	33	Safety information
32	Identification plate	34	Barcodes and QR codes

#### **Battery identification plate**

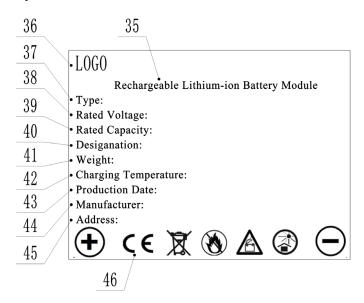


Fig.17: Battery identification plate

Table 5: Battery identification plate

Item	Description	Item	Description
35	Battery information	41	Weight
36 Manufacturer trademark		42	Charging Temperature
37	Туре	43	Production Date
38	Rated Voltage	44	Manufacturer
39	Rated Capacity	45	Address
40	Designation	46	CE mark and other safety labels

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

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

Failure to follow the below requirements may cause damage to your property, cause injuries or death.

#### Measures to prevent ignition

- It is forbidden to work at temperatures over 60 °C.
- It is forbidden to place it beside heat sources, such as stoves, fireplaces, etc.
- Direct sunlight must be avoided.
- It is forbidden to place batteries near inflammable and explosive substances.

#### Measures to prevent explosion

- Do not hit the battery, no impacts are allowed.
- Exclude penetration of objects through battery case or damages to battery case
- DO not throw products into the fire or water.

#### Measures to prevent electric leakage

- Do not disassemble.
- Do not contact by wet hands.

- Do not expose it to moisture or liquids.
- Do not place batteries in a place of easy access by children or animals.

#### Measures to preventing damage to battery systems

- It is forbidden to contact liquids or corrosive chemicals.
- Do not expose batteries to high temperature and/or high pressure.
- No trampling, disassembly or smashing.
- Do not attempt charging from discharge terminals and discharging from charging terminals.

#### Installation environment

In order to ensure the best operating performance, the battery need to be kept under normal working conditions: between 0 and 40 degrees Celsius and normal humidity. Avoid excessive temperature difference on both sides of the battery (more than 5°C)

#### **Emergency management**

Below are examples of several ways to deal with possible emergencies:

- In case of Smoke or Ignition: stop to use equipment immediately, take appropriate actions according to working instructions and stay away from the scene.
- In case battery is immersed in water: stop to use equipment immediately, take appropriate actions according to working instructions and stay away from the scene.
- Products produce smell: stop to use equipment immediately, remove the battery and take
  appropriate actions according to working instructions and stay away from the scene. Avoid
  contact with any leaking liquids or gases out of the battery (in case of contact clean
  immediately).

#### **Necessary safety equipment**

- Self-contained breathing apparatus and personal protective equipment.
- SEVO fluoro propane fire extinguishing system.

## 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.

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.

Do not ignite or locate batteries close to open flame, heat sources or sparks.

Keep lithium-ion batteries away from 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 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 (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, 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.

#### 8. 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 4b 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.

Check the items emphasized in maintenance checklist.

#### a. Maintenance checklist

Table 6: Maintenance checklist

		Int	erval	(Mor	nth)
		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 (1500kg/3300lbs +0/ +10%)				•
	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

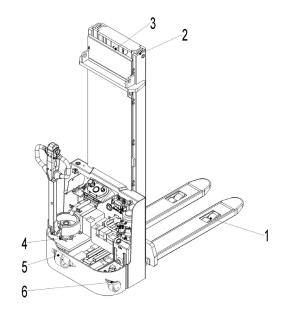


Fig. 18: Lubricating points

## c. Check and refill hydraulic oil

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

		<u> </u>	
Environment temperature	–5°C~25°C	>25°C	
Туре	HVLP 32,	HLP 46,	
	DIN 51524	DIN 51524	
Viscosity	28.8-35.2 41.4 - 47		
Amount	5L (depends or	n 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

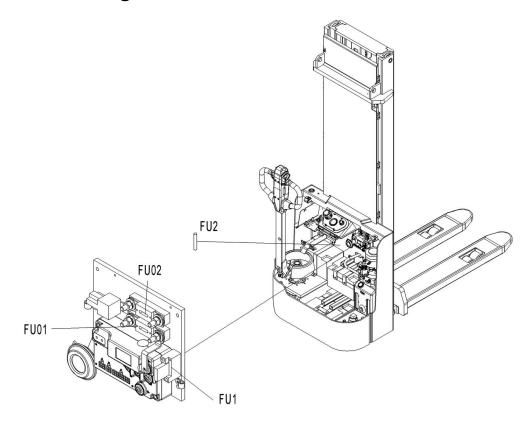


Fig. 19: Location of fuses

Table 7: Size of the fuses

	Rate
FU1	10A
FU2	0.5A
FU 01	80A
FU 02	130A

## 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, unscrew carefully. For reattaching place the guarding to its correct position and screw to their original position. If you need to replace parts, please call your service partner. Please make sure that the guarding is fixed correctly and that the fixing elements are not damaged.

## 9.TROUBLE SHOOTING



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

Table 8: 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
	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	Check the tiller cables and
	disconnected or damaged	connections.
The stacker starts up suddenly	The controller is damaged.	Replace the controller.
	The accelerator not moves back to	Repair or replace the accelerator.
	its neutral position.	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.

## 10. WIRING/ CIRCUIT DIAGRAM

## a. Electrical circuit diagram

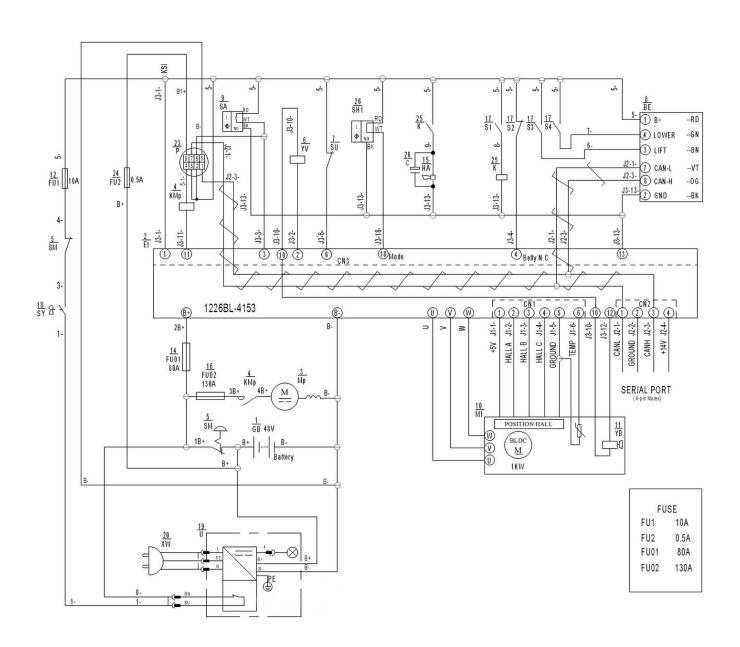


Fig. 20: Electrical diagram(15ES-XB)

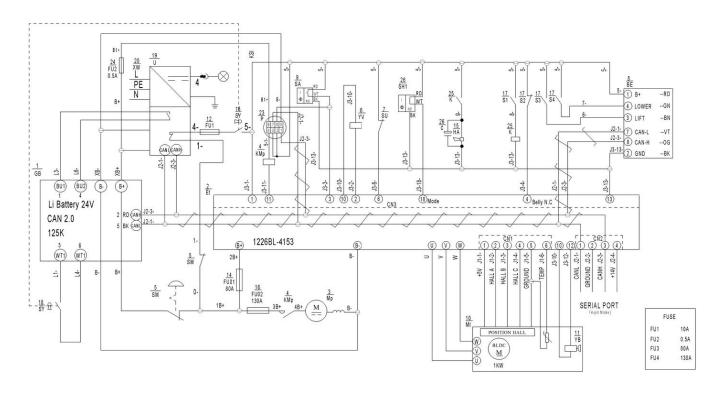


Fig. 21: Electrical diagram(15ES-XN)

Table 9: Description of electrical diagram

Code	Item	Code	Item
GB	Battery	FU01	80A fuse
Et	Controller	HA	Horn
Мр	Pump motor	FU02	130A fuse
КМр	Pump contactor	S1 S2 S3 S4	Tiller micro switch
SM	Emergency button	SY	Key switch
YV	Electromagnetic valve	U	48V charger
SU	Micro switch	XW	Charging cable
BE	CAN accelerator	FU2	0.5A fuse
SA	48V proximity switch (NO)	Р	48V BDI
Mt	Traction motor	K	Horn relay
YB	Electromagnetic brake	SH1	48V proximity switch (NC)
FU1	10A fuse	С	Capacitor
SE	Proximity switch		

## b. Hydraulic circuit

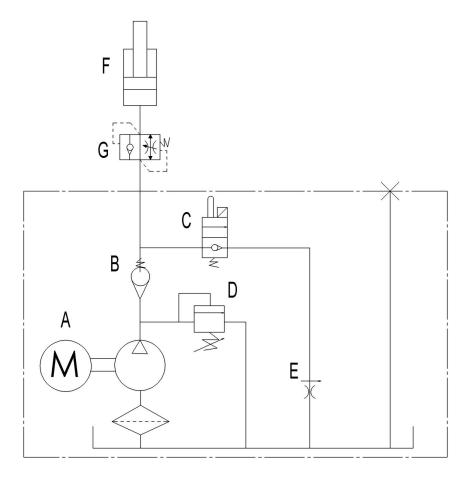


Fig. 22: Hydraulic circuit

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

### 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:

#### [ВС] 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/ЕU (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 OŠHODĚ

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 DECLARAȚIE 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 EC

Настоящим подписывающая сторона заявляет, что указанная машина соответствует Директиве EC 2006/42/EC (Директива по машинам) и 2014/30/EC (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: XXXXXXX

(3) Year of constr.:

(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/ Τиπ/ 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/ Gyártásiév/ Rokprodukcji / Letnik / Годизготовления / Üretimyılı / Väljalaskeaasta / Izgatavošanas gads / Gamybosmetai
- (4) Manufacturer/ Hersteller/ Fabricante/ Fabricante/ Fabricante/ Fabricante/ Produttore/ προизводител/ Výrobce/ Fabrikant/ Tootja/ Valmistaja/ Κατασκευαστής/ Gyártó/ Gamintojas/ Ražotājs/ Produsent/ Producent/ Producator/ Προυзводитель/ Tillverkare/ Výrobca/ Proizvajalec/ Üretici firma
- (5) Résponsible 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 dokumentatisioni 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. / Ποπορучению / megbízásából /длъжностнолице / z pověření / z poverenia / po nalogu / napolecenie / din sarcina / adına / θαη' εληνιή