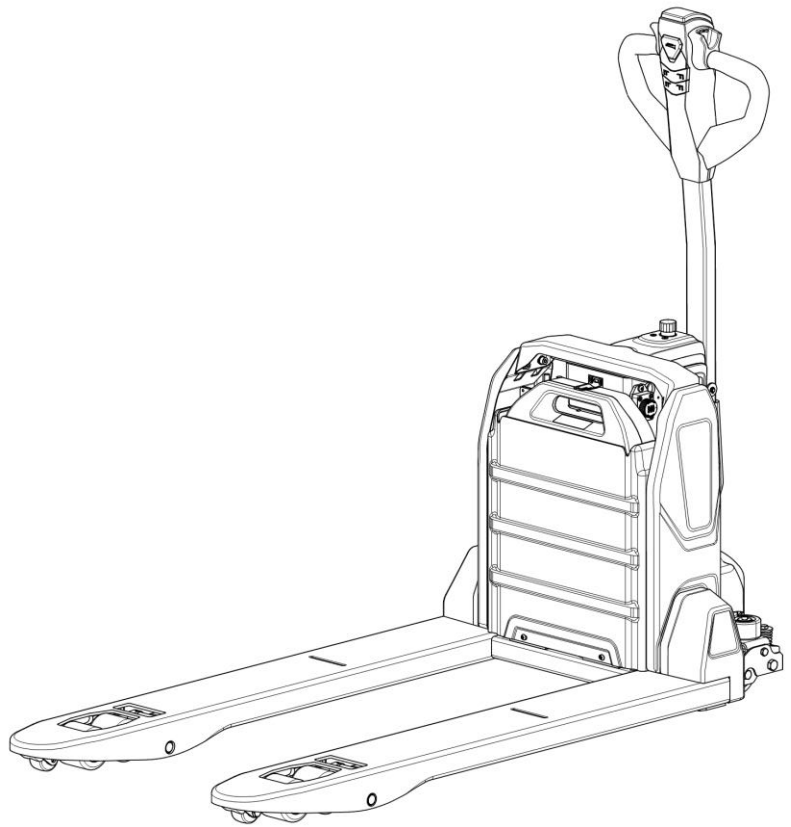


INSTRUCTION MANUAL

Electric Pallet Truck

PTE15N Pro (PTE33N Pro) / PTE20N Pro (PTE45N Pro)



WARNING

Do not use the pallet 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 09/2024

PTE15N Pro&PTE20N Pro-SMS-004-EN

FOREWORD

Before operating the truck, read this ORIGINAL INSTRUCTION MANUAL carefully and understand the usage of the truck completely. Improper operation could create danger.

This manual describes the usage of different electric pallet trucks. When operating and servicing the truck, make sure, that it applies to your type.

Keep this manual for future reference. If this or the warning/ caution labels are damaged or get 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. Because this manual is only for the purpose of operating /servicing the pallet truck, therefore please have understanding, that there is no guarantee out of particular features out of this manual.



NOTE: In this manual, the left symbol indicates warning and danger. Failure to comply with this instruction will result in severe injury and even death.

Copyright

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TABLE OF CONTENTS

1. CORRECT APPLICATION	2
2. DESCRIPTION OF THE TRUCK	4
a. Overview of the main components	4
b. Main technical data	5
c. Description of the safety devices and warning labels (Europe and other, excepting USA)	7
d. Identification plate (ID plate)	8
3. WARNINGS, RESIDUAL RISK AND SAFETY INSTRUCTIONS	9
4. COMMISSIONING, TRANSPORTING, DECOMMISSIONING	10
a. Commissioning	10
b. Lifting by crane/ transporting	10
c. Decommissioning	11
5. DAILY INSPECTION	12
6. OPERATING INSTRUCTIONS	13
a. Parking	13
b. Lifting	14
c. Lowering	14
d. Travelling	14
e. Steering	15
f. Braking	15
g. Malfunctions	15
h. Emergency	15
7. Pin-code panel	16
a. Introduction	16
b. Main codes and functions	16
8. BATTERY SAFETY, CHARGING AND REPLACEMENT	17
a. Description of the lithium-ion battery	17
b. Battery decals	17
c. Safety Instructions, Warning Indications and other Notes	18
d. Charging	22
e. Replacement	24
9. REGULAR MAINTENANCE	25
a. Maintenance checklist	25
b. Lubricating points	27
c. Check and refill hydraulic oil	27
d. Check the electrical fuses	28
10. TROUBLE SHOOTING	29
11. WIRING/ CIRCUIT DIAGRAM	30
a. Electrical diagram	30

b. Hydraulic diagram	36
12. SPECIALIZED STIPULATIONS FOR THE US- AMERICAN MARKET	37
a. Foreword/ Compliance	37
b. Identification plate	38
c. Description of warning labels (only US- market)	39
d. Technical data for US market	40
13. DECLARATION OF CONFORMITY (valid, if sold within EU)	42

1. CORRECT APPLICATION

It is only allowed to use this electric pallet truck according to this instruction manual.

The trucks described in this manual are self-propelled electric pallet trucks with electric control of lifting. The trucks are designed to lift, lower and transport palletized loads.

Improper use can cause human injuries or can damage equipment.

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

The pallet 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.–While operating, the load must be placed approximately on the longitudinal center plane of the truck.

Lifting or transporting people is forbidden.

If the truck is used on tail lifts or loading dock, please ensure that it is 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 pallet truck 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, identification plate and operation and maintenance manuals.

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

- arranges for the modification or alteration to be designed, tested and implemented by an engineer(s) expert in industrial trucks and their safety,
- maintains a permanent record of the design, test(s) and implementation of the modification or alteration,
- approves and makes appropriate changes to the capacity plate(s), decals, tags and instruction handbook, and
- 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.

Failure to comply with the operating instructions shall invalidate the warranty.

2. DESCRIPTION OF THE TRUCK

a. Overview of the main components

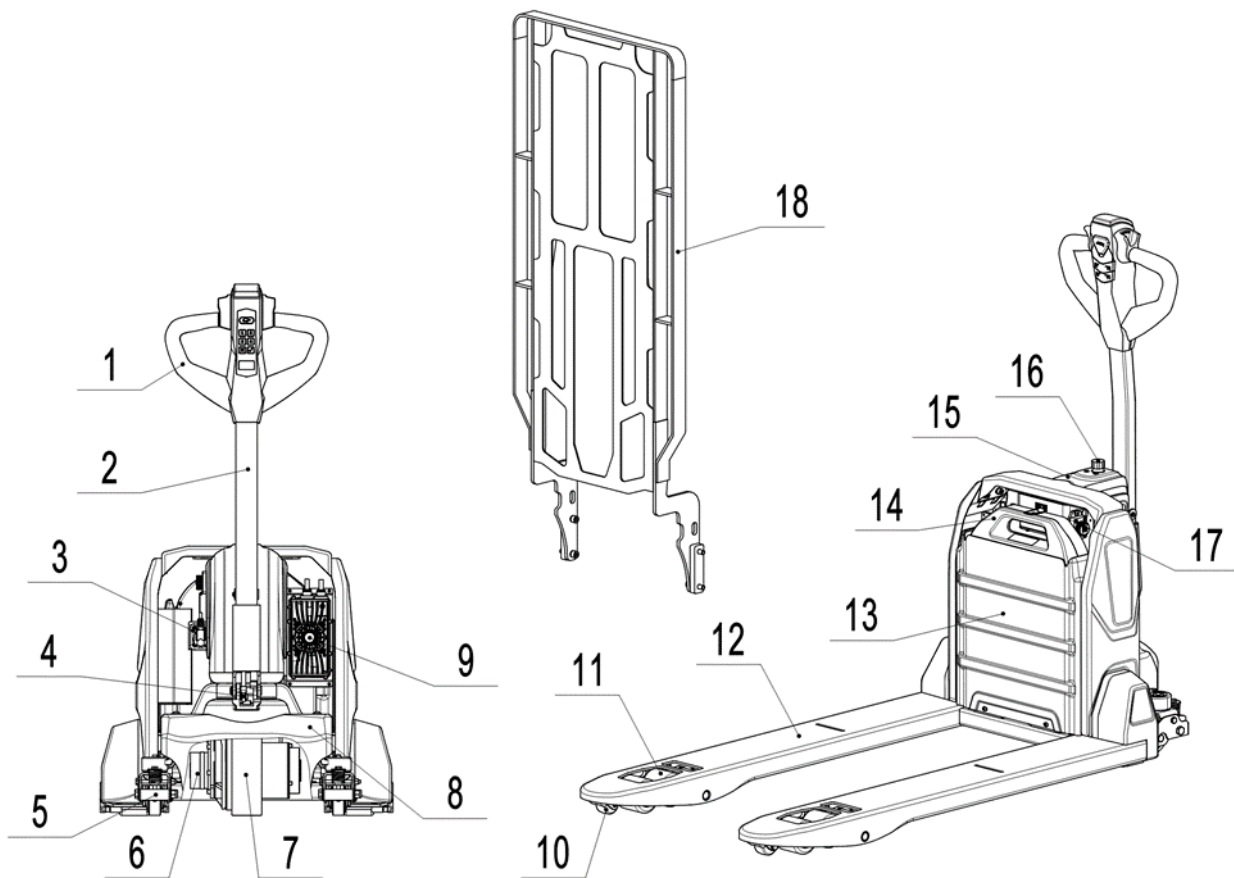


Fig. 1: Overview of the main components

Table 1: Main components

No.		Part	No.		Part
1	●	Control handle	10	●	Entry roller
2	●	Tiller bar	11	●	Load roller
3	○	Safety socket	12	●	Fork
4	●	Gas spring	13	●	Front panel
5	○	Side roller (PTE15N Pro)	14	●	Lithium battery
	●	Side roller (PTE20N Pro)	15	●	Cover
6	●	Electromagnetic brake	16	●	Emergency switch
7	●	Drive wheel	17	○	Battery lock
8	●	Apron	18	○	Load backrest
9	○	Integrated charger			
●: standard ○: optional					

Note: Optional load backrest (18) must be used with the side wheel (5).

b. Main technical data

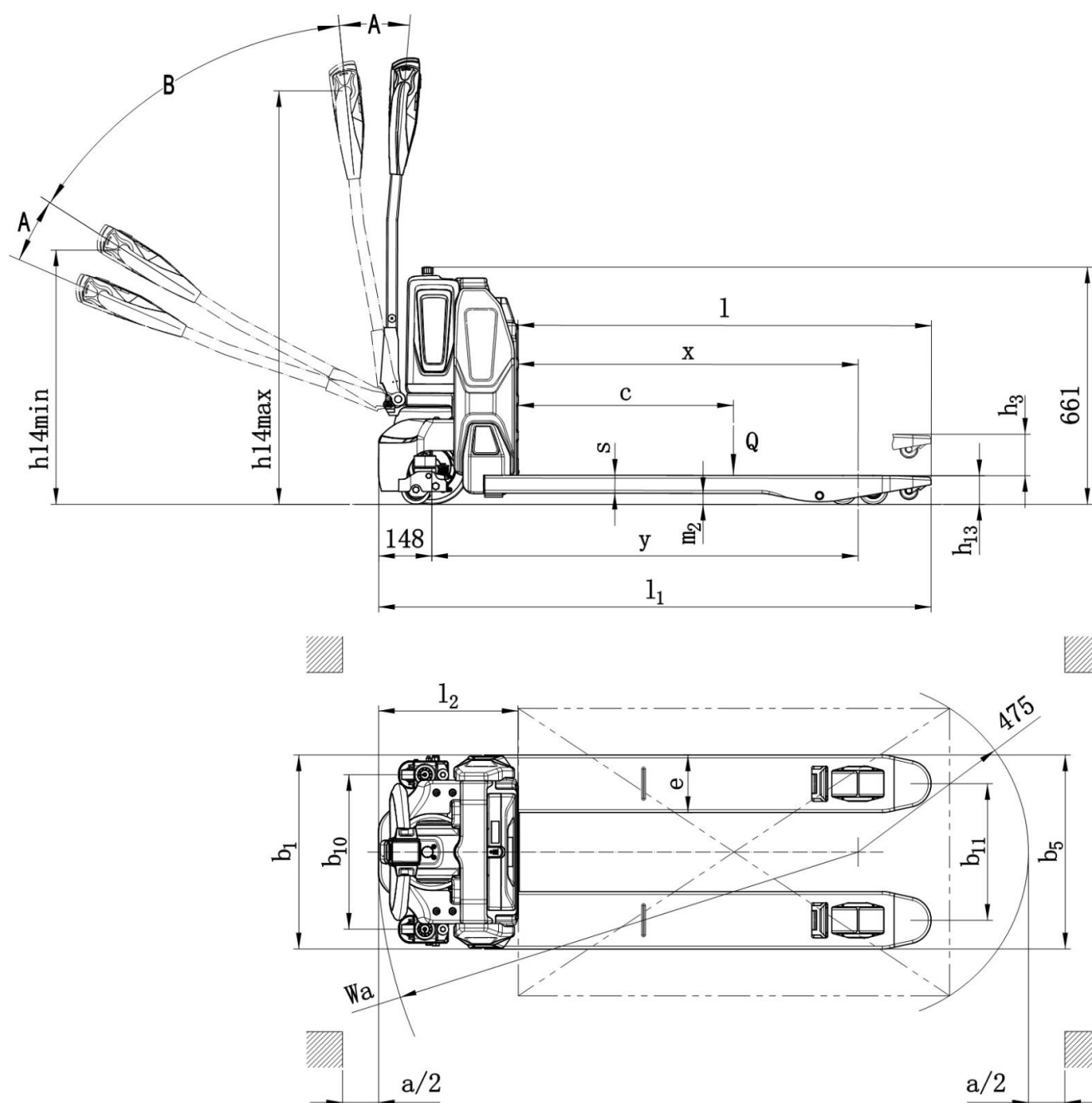


Fig. 2: Technical data

Table 2: Main technical data for standard version

Technical data in line with VDI 2198				No.20240227	
Identification	1.2	Model		PTE15N Pro	PTE20N Pro
	1.3	Drive		Battery	Battery
	1.4	Operation		Pedestrian	Pedestrian
	1.5	Load capacity/rated load	Q (t)	1.5	2.0
	1.6	Load center distance	c (mm)	600	600
	1.8	Load distance	x (mm)	947	951
	1.9	Wheelbase	y (mm)	1187	1189

Weights	2.1	Net weight with battery	kg	125	127	149	153
	2.2	Axle loading,laden front/rear	kg	500/1225	626/1002	621/1528	625/1528
	2.3	Axle loading,unladen front/rear	kg	96/29	99/29	115/34	119/34
Wheels/ frame	3.1	Tyres		PU		PU	
	3.2	Tyre size,front	Ø x w (mm)	Ø 210×70		Ø 210×70	
	3.3	Tyre size,rear	Ø x w (mm)	Ø 74×93 ¹⁾ /Ø 80×70 (Ø 80×93)		Ø 74×93 ¹⁾ /Ø 80×70 (Ø 80×93)	
	3.4	Additional wheels(dimensions)	Ø x w (mm)	-/Ø 80×30		-/Ø 80×30	
	3.5	Wheels,number front/rear (x=driven wheels)		1x/ 2(1x/ 4) or 1x +2/ 2(1x +2/ 4)		1x/ 2(1x/ 4) or 1x +2/ 2(1x +2/ 4)	
	3.6	Tread,width,front	b ₁₀ (mm)	-/430		-/430	
	3.7	Tread,width,rear	b ₁₁ (mm)	380	525	380	525
Basic dimensions	4.4	Lift	h ₃ (mm)	115		115	
	4.9	Height of tiller,min./max.	h ₁₄ (mm)	700 / 1160		700 / 1160	
	4.15	Height,lowered	h ₁₃ (mm)	75 ²⁾ /80		75 ²⁾ /80	
	4.19	Overall length	l ₁ (mm)	1537		1543	
	4.20	Length to face of forks	l ₂ (mm)	388		394	
	4.21	Overall width	b ₁ (mm)	540	685	540	685
	4.22	Fork dimensions	s/ e/ l (mm)	50 / 160 / 1150		50 / 160 / 1150	
	4.25	Width across forks	b ₅ (mm)	540	685	540	685
	4.32	Ground clearance(center of wheelbase)	m ₂ (mm)	25 ³⁾ /30		25 ³⁾ /30	
	4.34	Aisle width for pallets 800×1200 lengthways	A _{st} (mm)	2013		2019	
	4.35	Turning radius	W _a (mm)	1336		1342	
Performance data	5.1	Travel speed laden/unladen	km/h	4.2/4.7		4.8/5.2	
	5.2	Lift speed,laden/unladen	m/s	0.020/0.025		0.017/0.022	
	5.3	Lowering speed,laden/unladen	m/s	0.05 / 0.04		0.05/0.03	
	5.8	Max. gradeability,laden/unladen	%	6 / 16		8 / 16	
	5.10	Service brake		Electromagnetic		Electromagnetic	
Electric	6.1	Drive motor,output at S2 60min	kW	0.65		1.0	
	6.2	Lift motor,output at S3 10%	kW	0.5		0.8	
	6.3	Battery as per DIN 43531/35/36 A, B, C, no		No		No	
	6.4	Battery voltage/nominal capacity	(V)/(Ah)	24 / 20(24 /40)		48 / 20	
	6.5	Battery weight	kg	5.5(8.5)		8.5	
	6.6	Energy consumption acc. to VDI cycle	kWh/h	0.18		0.25	
Misc	8.1	Type of drive control		DC-speed control		DC-speed control	

Note: 1) For truck equipped with this load roller, h₁₃ is 75mm;

2) Here indicates that the truck is equipped with Ø74×93 single load roller;

3) When h₁₃ is 75mm, m₂ is 25mm.

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

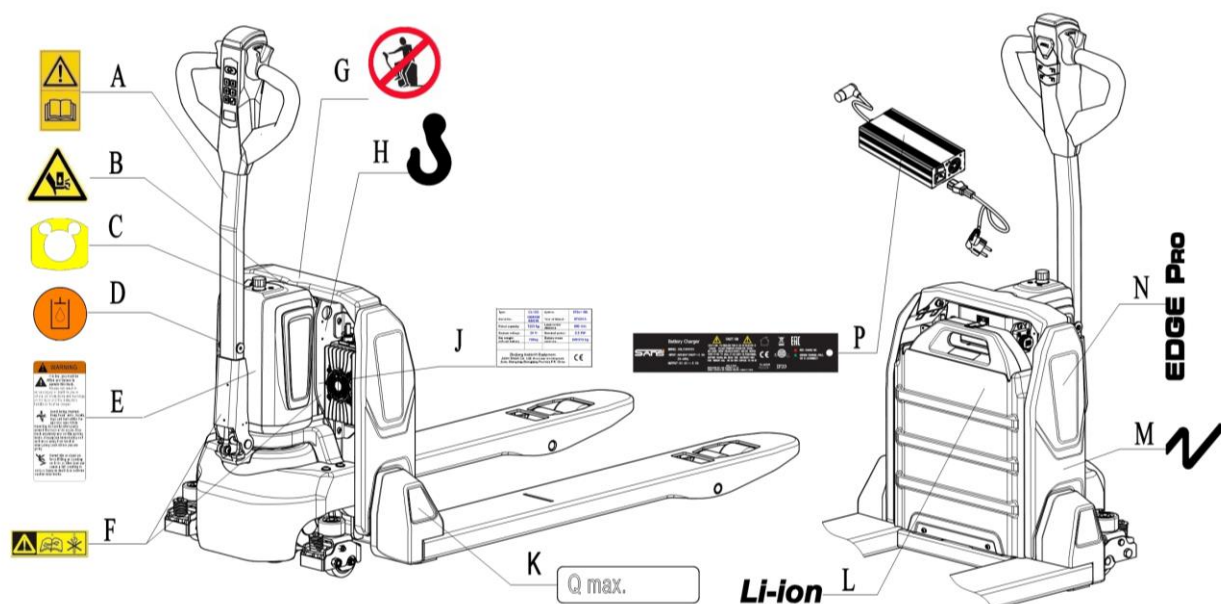


Fig. 3: Safety and warning labels

Table. 3: Description of safety devices and warning labels

A	Sticker (observe and follow the instructions)	H	Decal (crane hook)
B	Warning sticker (hands pinching)	J	Identification plate
C	Decal (emergency switch)	K	Label (capacity)
D	Sign oil filling point	L	Decal (Li-ion)
E	Warning sticker (safety information)	M	Decal (N)
F	Sticker (read and follow maintenance manual)	N	Decal (truck model)
G	Sticker (no passengers)	P	Charger ID plate

The truck is equipped with an emergency switch (16) which stops all lifting-, lowering-, driving- functions when it is pressed. By turning this button clockwise, the truck can be operated after the tiller is unlocked. To prevent unauthorized access, press emergency switch (16) or press "X" button on the pin-code panel. There is a safety (belly) button integrated in the control handle (1). If the truck travels towards the operator and the tiller is activated in the working zone, activate the safety (belly) button (1), truck travels a short distance away from the operator in load direction, thus protecting the operator. Follow the instructions given on the labels and decals. Replace the labels and decals in time if they are damaged or missing.

d. Identification plate (ID plate)

- | | | | |
|---|------------------------------------|----|-------------------------------|
| 1 | Designation, type | 7 | Battery weight Min./Max in kg |
| 2 | Serial number | 8 | Nominal power in kW |
| 3 | Rated capacity in kg | 9 | Load center distance in mm |
| 4 | Supply voltage in V | 10 | Manufacturing date (MM/YY) |
| 5 | Net weight in kg (without battery) | 11 | Option |
| 6 | Name and address of manufacturer | | |

Check the ID plate taped on the truck for contents and type.

1	Type	xxx xx	Option	xx X xxxx	
2	Serial No.	xxxxxx	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 XXXXXXXX xx XXXXX / XXXXXX			CE	7

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

Check the ID plate taped on the truck for contents and type.

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, lifting or lowering.
- Overload the truck.
- Put foot in front of the wheels, which could result in injury.
- Lift people. People could fall down and result in severe injury.
- Push or pull loads.
- Side or end load. Load must be distributed evenly on the forks.
- Use the truck with unstable or unbalanced load.
- Use truck without manufacturer's instructions manual.
- Wind force can affect the stability of a truck when lifting. In the case of wind force, do not lift the load if there is any influence to the stability.

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 switch (16) by pushing when the load is sliding 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. Stop operation if temperature of hydraulic oil is too high.



- When operating the electric pallet truck, 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 (16) or press "X" button on the pin-code panel.

4. COMMISSIONING, TRANSPORTING, DECOMMISSIONING

a. Commissioning

Table 4: Commissioning data

Type	PTE15N Pro (PTE33N Pro)	PTE15N Pro (PTE33N Pro)	PTE20N Pro (PTE45N Pro)	PTE20N Pro (PTE45N Pro)
Fork specification	540X1150 (21X45)	685X1150 (27X45)	540X1150 (21X45)	685X1150 (27X45)
Commissioning weight [kg] (lbs)	123 (271)	126 (278)	149 (328)	153 (337)
Dimensions [mm] (in)	1530x540x1250 (60X21X49)	1530x685x1250 (60X27X49)	1530x540x1250 (60X21X49)	1530x685x1250 (60X27X49)

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

- Check if all parts are included and not damaged.
- Make sure that the tiller is assembled correctly.
- Check if the lithium battery is charged (follow chapter 8)
- Carry out the daily inspections as well as functional checks.

b. Lifting by crane/ transporting

For transporting, remove the load, lower the forks to the lowest position and fix the truck safely according to the following figures.

Lifting by crane



USE DEDICATED CRANE AND LIFTING EQUIPMENT

DO NOT STAND UNDER THE SUSPENDED LOADS

DO NOT WALK INTO THE HAZARDOUS AREA DURING LIFTING

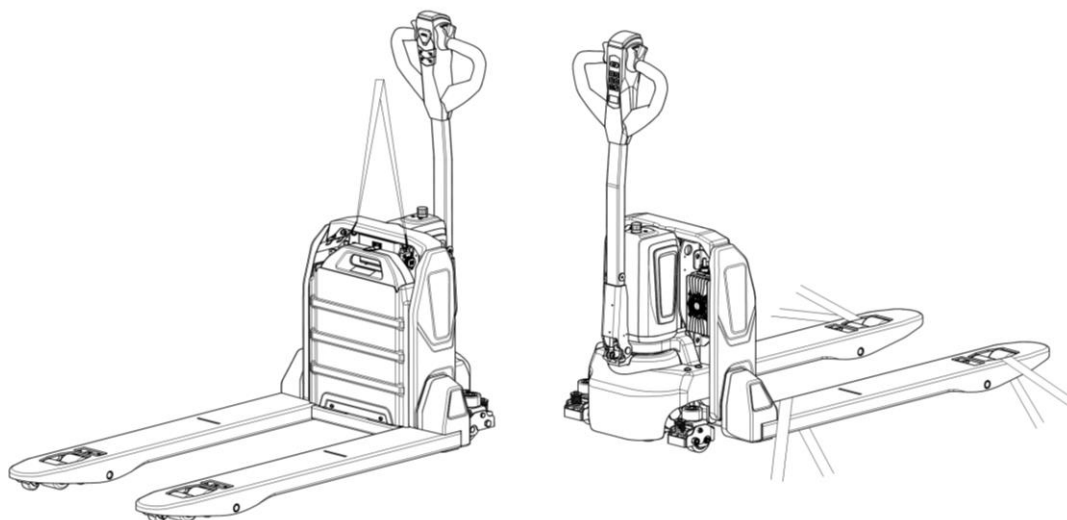


Fig. 4: Schematic diagram of lifting by crane and fixing points

Transporting



ALWAYS FASTEN THE TRUCK SECURELY WHEN TRANSPORTED ON A LORRY OR A TRAILER.

Lower the forks and park the truck securely.

Fasten the truck according to Fig. 4 by attaching dedicated lashing straps to the truck and the transport vehicle and tension sufficiently.

C. Decommissioning

For storage, remove the load, lower the truck to the lowest position, grease all greasing points mentioned in this manual (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 in accordance with 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 with tiller in its vertical position.
- Check the function of the emergency brake by activating the emergency switch.
- Check the braking function of the proximity switch of the tiller.
- Check the lifting and lowering functions by operating the buttons.
- Check if all bolts and nuts are tightened firmly.
- Visual check if there are any damaged electric wires.
- For truck equipped with a load backrest, check it for damage and for proper installation.

6. OPERATING INSTRUCTIONS



BEFORE OPERATING THIS TRUCK, PLEASE FOLLOW THE WARNINGS AND SAFETY INSTRUCTIONS (CHAPTER 3). ENSURE THAT THE LOAD IS PLACED ON THE PALLET STABLY AND CARRY OUT THE DAILY INSPECTION.

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

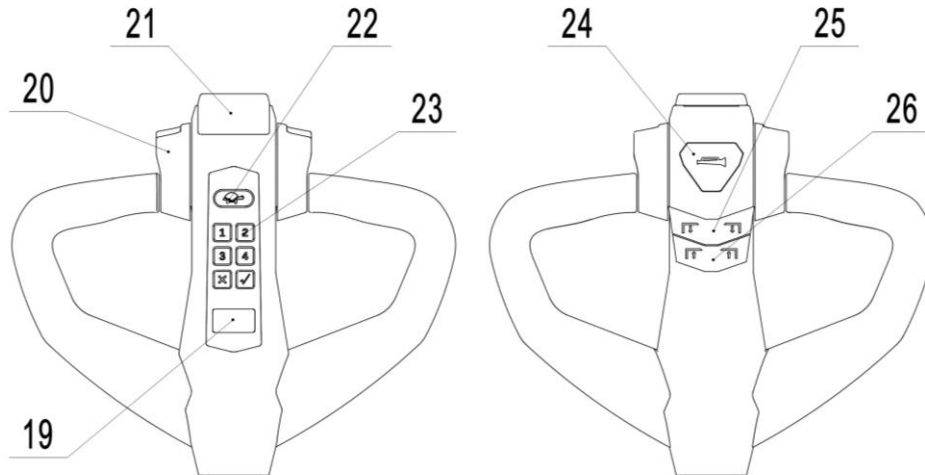


Fig.5: Tiller controls

Table.5: Tiller controls

No.	Item	No.	Item
19	Display	23	Pin-code panel
20	Accelerator	24	Horn button
21	Emergency switch	25	Lifting button
22	Turtle button	26	Lowering button

There are two ways to start the truck: by manually entering the access code on the pin-code panel (23) and press "✓" button, or by RFID card (PTE20N Pro (PTE45N Pro)).

Press the horn button (23) to activate the audible alarm signal.

If the truck is equipped with an integrated charger (9), the charging plug of the integrated charger must be fully fixed to the safety socket (3), otherwise the truck may fail to start.

a. Parking



DO NOT PARK THE TRUCK ON INCLINED SURFACES.

The truck is equipped with an electromagnetic fail-safe stopping and parking brake. Always lower the forks fully and activate the emergency switch (16) for parking.

b. Lifting



DO NOT OVERLOAD THE TRUCK!

MAXIMUM CAPACITY OF PTE15N Pro (PTE33N Pro) IS 1500KG (3307LBS).

MAXIMUM CAPACITY OF PTE20N Pro (PTE45N Pro) IS 2000KG (4409LBS).

Before entering the pallet, fully lower the forks and move the truck to the appropriate position so that the center of gravity of the pallet (load) is approximately located in the center of the forks. And press the lifting button (25) to the appropriate lifting height.

c. Lowering

Press the lowering button (26).

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

d. Travelling



TRAVEL ON INCLINES ONLY WITH THE LOAD FACING UPHILL.

DO NOT TRAVEL ON INCLINES EXCEEDING THE SPECIFIED TECHNICAL DATA.

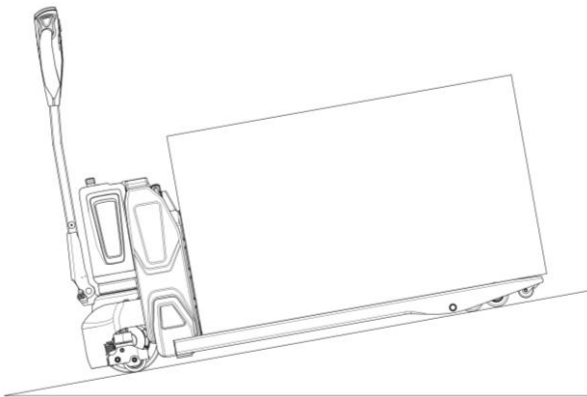


Fig. 6: Load facing uphill

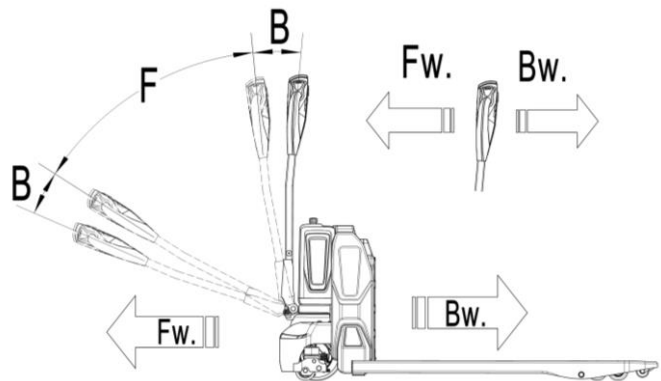


Fig. 9: Travel direction definition

After starting the truck by the access code or RFID card, move the tiller to the working zone ('F').

Turn the accelerator (20) to the desired direction forward 'Fw.' or backwards Bw.' (Fig. 9).

Control travelling speed by operating the accelerator (20) carefully to the desired speed.

If the accelerator (20) is back to the neutral position, the controller decelerates the truck until the truck stops. If the truck stops, the parking brake will be engaged.

Carefully drive the truck to the destination. Watch the route conditions and adjust the travelling speed by operating the accelerator (20).

The truck supports turtle (slow) speed and travelling with tiller in vertical position.

Press turtle button (22) to slow speed mode and travel slowly by operating the accelerator, press the turtle button again to switch to regular speed mode.

Press the turtle button (22) and hold it for 2 seconds to activate the driving function with tiller in vertical position when operating in confined areas.

e. Steering



Steer the truck by moving the tiller to the left or right side.

f. Braking



PLEASE CHECK THE BRAKING DISTANCE OF THE TRUCK BEFORE OPERATION.
THE BRAKING PERFORMANCE CAN BE INFLUENCED BY THE TRACK CONDITIONS AND THE LOAD CONDITIONS OF THE TRUCK.

The braking function can be activated in several ways:

- By moving the accelerator (20) to the neutral position or by releasing the accelerator, the regenerative braking is activated. The truck brakes until it stops.
- By moving the accelerator (20) from one driving direction directly to the opposite direction, the regenerative braking is activated until the truck starts traveling into the opposite direction.
- When the tiller is operated in the brake zone (' B ') or released, the tiller automatically moves up to the upper braking zone (' B '), the truck brakes until it stops.
- The emergency switch (21) prevents the operator from crash, once this button is activated, the truck slows down and/or begins to travel a certain distance to the rear (' Bw. ') and then stops.

g. Malfunctions

If there are any malfunctions or the truck is inoperative, please stop using the truck and activate the emergency switch (16) by pressing it. If possible, park the truck in a safe area and press "X" key on the pin-code panel. Immediately inform the manager or call your service. If necessary, move the truck out of the operating area by using dedicated towing/ lifting equipment.

h. Emergency

In emergencies or in the event of tipping over (or fall off a dock), keep a safe distance. If possible, press the emergency switch (16) and all electrical functions will be disengaged.

7. Pin-code panel

PTE15N Pro (PTE33N Pro) is equipped with the pin-code panel.

PTE20N Pro (PTE45N Pro) is equipped with the pin-code panel and RFID card.

a. Introduction

Pin-code panel is an electronic system which is similar with an electronic alarm system. Truck will not be able to operate before entering a correct access code, the main function is to prevent unauthorized operation. In addition to the convenience of operation, it is also of great help to the anti-theft and security of the machine.

b. Main codes and functions

PTE15N Pro (PTE33N Pro) is configured with a pin-code lock and supports 1 set of manual access code. The access code consists of four digits with numbers ranging from 0-9.

PTE20N Pro (PTE45N Pro) is configured with a pin-code lock and an ID card. It supports up to 5 ID cards and 1 set of access code. The access code consists of four digits with numbers ranging from 0-9.

ID card access

Place the ID card close to the pin-code panel. If the ID card is a valid ID card, the pin-code lock will emit a brief buzzer, followed by a blue indicator light, indicating that the pin-code lock is working normally, that is, the electric lock switch signal is output normally. (The red indicator flashes when the card is incorrectly operated).

Pin-code access

There are two types of access codes of the pin-code lock, one is the default user password "1234" for the operator. The other one is the administrator access code "3232" for setting a new user password, see the following steps:

- Enter access code "3232", press "√" key.
- Enter the original user password, press "√" key.
- Enter new password, and press "√" key, the original password is updated.

In case you need to reset the password, please follow the procedures below:

- Enter "123", press "√" key.
- Enter "123" *again*, press "√" key. Password is reset.

In case you need additional ID cards, please follow the procedure below:

- Enter "3434", press "√" key.
- Upload the new ID cards within 5 seconds by placing it near the ID card mark of the pin-code panel.
- This pin-code panel supports maximum 5 cards.

8. BATTERY SAFETY, CHARGING AND REPLACEMENT

a. Description of the lithium-ion battery

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

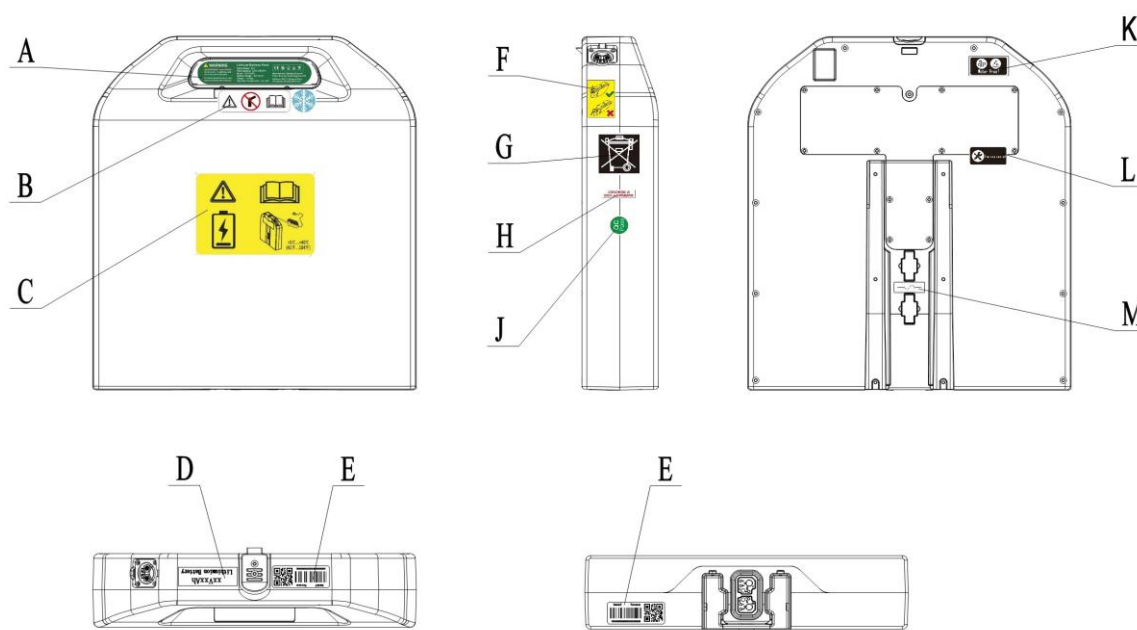


Fig. 8: Battery decals

Table 6: Description of battery decals

A	Identification plate (ID plate)	G	Sticker (do not discard the label)
B	Warning sticker (avoid collision)(with heating)	H	Sticker (removal of this sticker invalidates the warranty)
C	Warning sticker	J	Decal (QC)
D	Battery information	K	Sticker (waterproof and breathable)
E	Barcode and QR code	L	Sticker (inspection access)
F	Charging instructions	M	Decal (fuse)

Battery identification plate

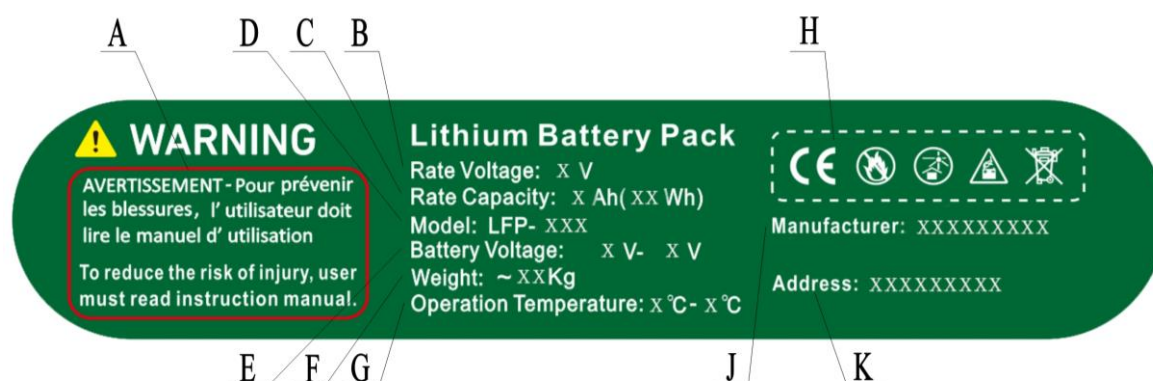


Fig. 9: Battery identification plate

Table 7: Description of battery identification plate

A	Safety information	F	Battery weight
B	Rated voltage	G	Operating temperature range
C	Rated capacity	H	CE mark and safety symbols
D	Model designation	J	Manufacturer
E	Voltage range	K	Manufacturer address

The battery ID plate indicates the battery mass, and the center of gravity is approximately located in the center of the battery case.

c. Safety Instructions, Warning Indications and other Notes

Safety regulations for handling lithium-ion batteries

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



Risk of electric shock and burning

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



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

Do not try to modify or alter the battery.



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

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



Improper use of charger or use of wrong charger can cause damages to a battery or charger. Follow the required charger specifications; If the operation voltage of the charger is out of the applicable voltage range, the charger or battery 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.

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 8: 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.

d. Charging



- 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.
- Before charging ensure that you are using an appropriate charger for charging the installed battery and that all safety measures are taken into consideration.

- The area for charging must be ventilated.
- The charge status of the battery is indicated by LEDs on the battery charger.
- 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.
- Lithium-ion batteries can also be used when not fully charged. In this case, the remaining operating time is reduced.
- 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 continued as a partial charge.

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

Lower the forks and remove the load. Park the truck at a dedicated secured area with a dedicated power supply. Turn off the power of the truck and connect the charger power cord (28) to the socket of power supply, and connect the charger plug (29) to the charging socket (30) of the battery. The charger starts charging the battery. If charging is completed, disconnect the charger from the battery and the power supply, then put the charger in the designated pocket.

It's also allowed to remove the battery and charge it in dedicated area.

If there is an optional second battery, the truck can be continued to operate after replacing the battery, and charge the battery that needs to be charged separately.

For trucks with built-in chargers, the charger plug (31) can be disconnected from the safety socket (3) and connected to the power socket for charging. When it is fully charged, the charger plug (31) needs to be connected to the safety socket (3).

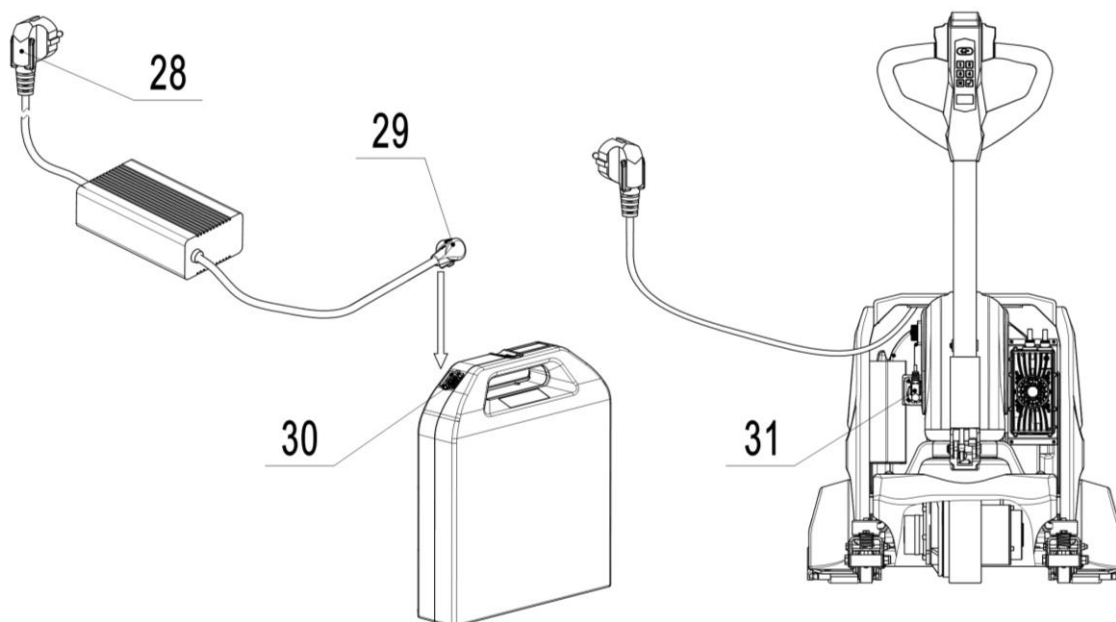


Fig.10: Battery charging

Table 9: LED-Status

LED - Signal	Function
Red	Charging
Green	Fully charged

Display

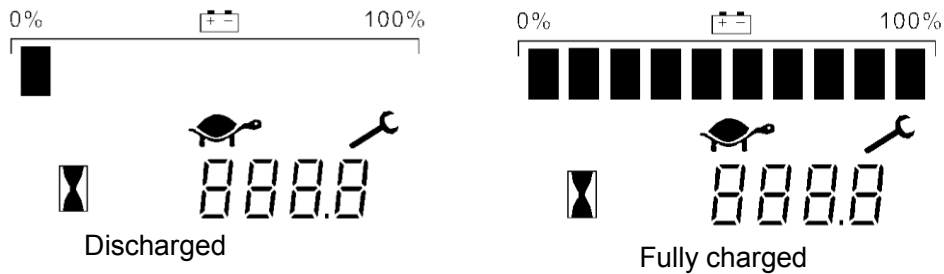


Fig. 11: Tiller panel

e. Replacement

Park the truck securely, activate the emergency switch (16) by pressing it to turn off the truck. Hold the battery grip and unfix the latch (27), then vertically take out the battery. The installation is in the reverse order.

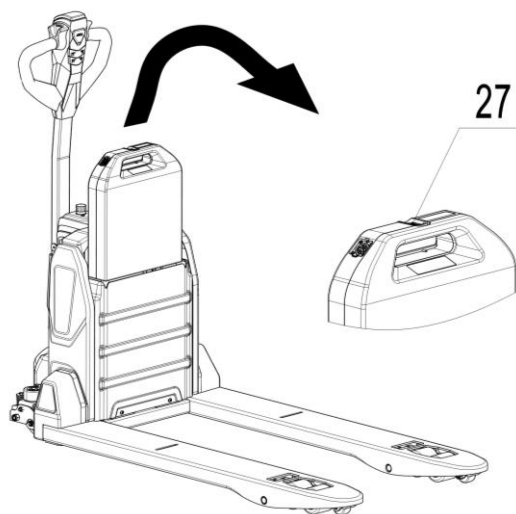


Fig. 12: Battery replacement

9. REGULAR MAINTENANCE



- Only qualified and trained personnel are allowed to do maintenance on this truck.
- Before maintaining, remove the load from the forks 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 spring is 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.

If you need to replace the wheels, please follow the instructions above. The casters must be round and free of abnormal wear.

Check the items emphasized in maintenance checklist.

a. Maintenance checklist

1 Owner

Can be performed by end-user, without involvement of professional service technicians. To be performed every 50 service hours, but at least once a week.

Hydraulic	
1	Check the hydraulic-oil level, refill if necessary
Mechanical system	
2	Check the wheels for deformation and damages
Electrical system	
3	Check the Emergency switch function
4	Check the display and warning signal
Braking system	
5	Check the work of electromagnetic brake
Battery	
6	Check the battery housing for damages
Function	
7	Check the horn function
8	Check the emergency braking
9	Check the reverse and regenerative braking
10	Check the safety (belly) button function
11	Check the steering function
12	Check the lifting and lowering function
13	Check the tiller arm switch function
General	
14	Check if all decals are legible and complete

2 Customer Service

Be performed by professional service technician. To be performed every 1000 service hours, but at least once a year.

Hydraulic	
1	Check the hydraulic cylinder for damage noise and leakage
2	Check the hydraulic joints for damage and leakage
3	Replace the hydraulic oil (12 month or 1500 working hours)
4	Check and adjust the pressure valve (1500kg/3300lbs (PTE15N/PTE33N)+0/+10% or 2000kg/4500lbs (PTE20N/45N)+0/+10%)
Mechanical system	
5	Check the forks and chassis for deformation and cracks
6	Check if all screws are fixed
7	Check the push rods for deformation and damages
8	Check the gearbox for abnormal sound and noise
9	Check the steering bearing
10	Check and lubricate the pivot points if necessary
11	Lubricate the grease nipples
Electrical system	
12	Check the Emergency switch function
13	Check the display
14	Check the electric wiring for damage
15	Check the electric connections and terminals
16	Check the electric drive motor for noise and damages
17	Check if correct fuses are used
18	Check the contactor
19	Check the frame leakage (insulation test)
20	Check function and mechanical wear of the accelerator
21	Check the electrical system of the drive motor
Braking system	
22	Check brake performance, if necessary, replace the brake disc
Battery	
23	Check the battery voltage
24	Check the terminals for corrosion and damages
Charger	
25	Check the main power cable for damages
26	Check the start-up protection during charging
Function	
27	Check the horn function
28	Check the emergency braking
29	Check the reverse and regenerative braking
30	Check the safety (belly) button function
31	Check the steering function
32	Check the lifting and lowering function
33	Check the tiller arm switch function
General	

34	Check if all decals are legible and complete
35	Check wheels for wear, damage and secure mounting
36	Carry out a test run

b. Lubricating points

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

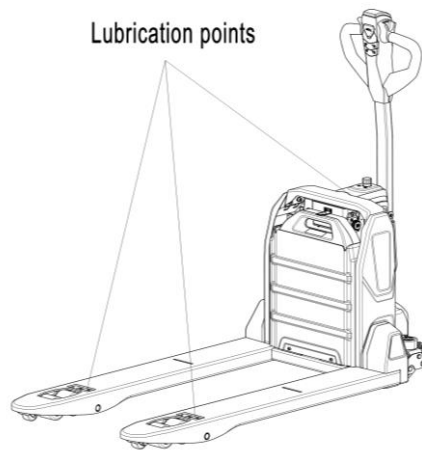


Fig. 13: Lubricating points

c. Check and refill hydraulic oil

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

Table 11: Hydraulic oil type

Environment temperature	-5°C~25°C	>25°C
Type	HVLP 32, DIN 51524	HLP 46, DIN 51524
Viscosity	28.8-35.2	41.4 - 47
Amount	0.4 L (0.11gal)	

Waste material like oil, used batteries or other must be properly 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. Check the electrical fuses

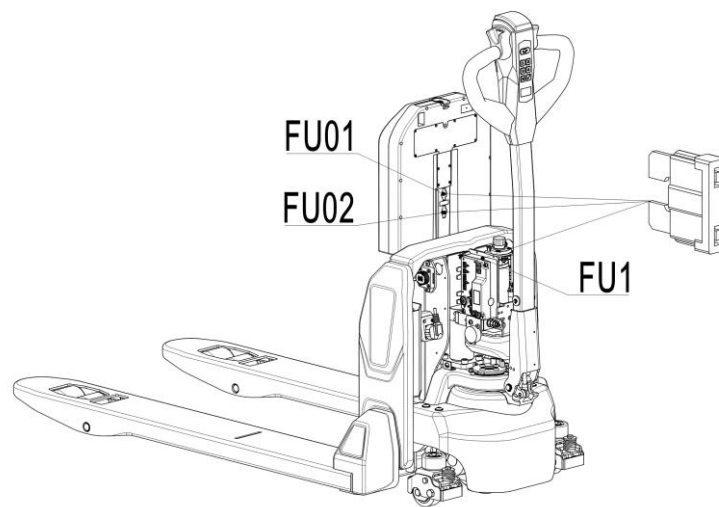


Fig. 14 Location of fuses

Table 8: Fuse

	PTE15N Pro (PTE33N Pro)	PTE20N Pro (PTE45N Pro)
FU1	10A	10A
FU01	20A	30A
FU02	70A	70A

10. TROUBLE SHOOTING



- IF TRUCK HAS MALFUNCTIONS, FOLLOW THE INSTRUCTIONS IN CHAPTER 6.

Table 13: Trouble shooting

TROUBLE	CAUSE	REPAIR
Load can't be lifted Oil leakage from air breathing	Load weight too high	Lift only the max. capacity, mentioned on the ID-plate
	Battery low power	Charge the battery
	Lifting contactor failure	Check and contact with service support for replacement if necessary
	Hydraulic oil level too low	Check and eventually refill hydraulic oil
	Oil leakage	Repair the sealing of the cylinder
	Excessive quantity of oil.	Reduce oil quantity.
Truck not starts operating	Battery is charging	Charge the battery completely and then remove the main power plug from the electrical socket.
TROUBLE	Battery is charging	Charge the battery completely and then remove the main power plug from the electrical socket.
	Battery not connected	Connect the battery correctly
	Fuse faulty	Check and eventually replace fuses
	Low battery	Charge the battery
	Emergency switch is activated	Turn the emergency switch clockwise
	Tiller in the operating zone	Move the tiller firstly to the braking zone.
	The built-in charger plug is not effectively connected to the socket	Connect the built-in charger to the safety socket

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 truck out of the aisle.

11. WIRING/ CIRCUIT DIAGRAM

a. Electrical diagram

PTE15N Pro (PTE33N Pro) without speed reduction in steering

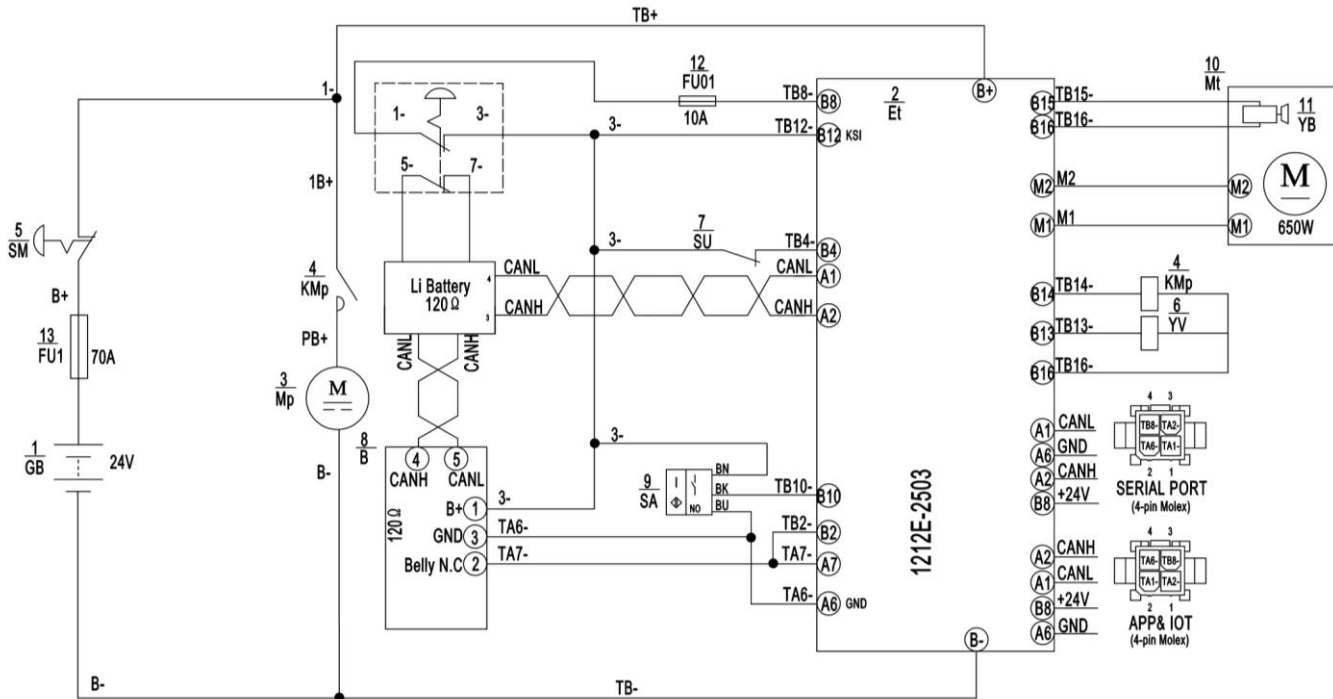


Fig. 15: Electrical diagram

Table 14: Description of electrical diagram

Code	Item	Code	Item
GB	Battery	B	CAN tiller
Et	Controller	SA	Proximity switch
Mp	Pump motor	Mt	Traction motor
KMp	Pump contactor	YB	Electromagnetic brake
SM	Emergency switch	FU1	10A fuse
YV	Electromagnetic valve	FU01	70A fuse
SU	Micro switch		

PTE15N Pro (PTE33N Pro) with speed reduction in steering

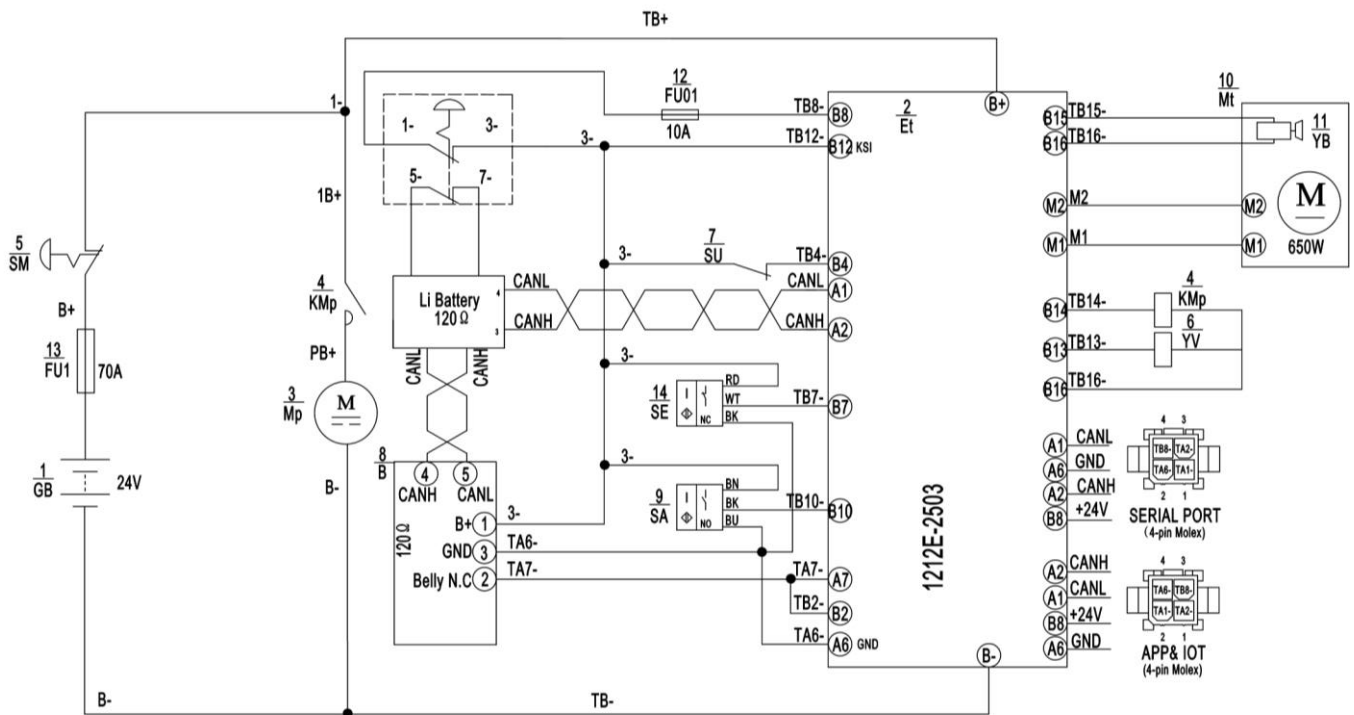


Fig. 16: Electrical diagram

Table 15: Description of electrical diagram

Code	Item	Code	Item
GB	Battery	B	CAN tiller
Et	Controller	SA	Proximity switch
Mp	Pump motor	Mt	Traction motor
KMp	Pump contactor	YB	Electromagnetic brake
SM	Emergency switch	SE	Proximity switch
YV	Electromagnetic valve	FU1	10A fuse
SU	Micro switch	FU01	70A fuse

steering



Fig. 17: Electrical diagram

Table 16: Description of electrical diagram

Code	Item	Code	Item
GB	Battery	B	CAN tiller
Et	Controller	SA	Proximity switch
Mp	Pump motor	Mt	Traction motor
KMp	Pump contactor	YB	Electromagnetic brake
SM	Emergency switch	FU1	10A fuse
YV	Electromagnetic valve	FU01	70A fuse
SU	Micro switch	UK	Safety socket
U	Charger	XW	Power input cable

PTE15N Pro (PTE33N Pro) with integrated charger and speed reduction in steering

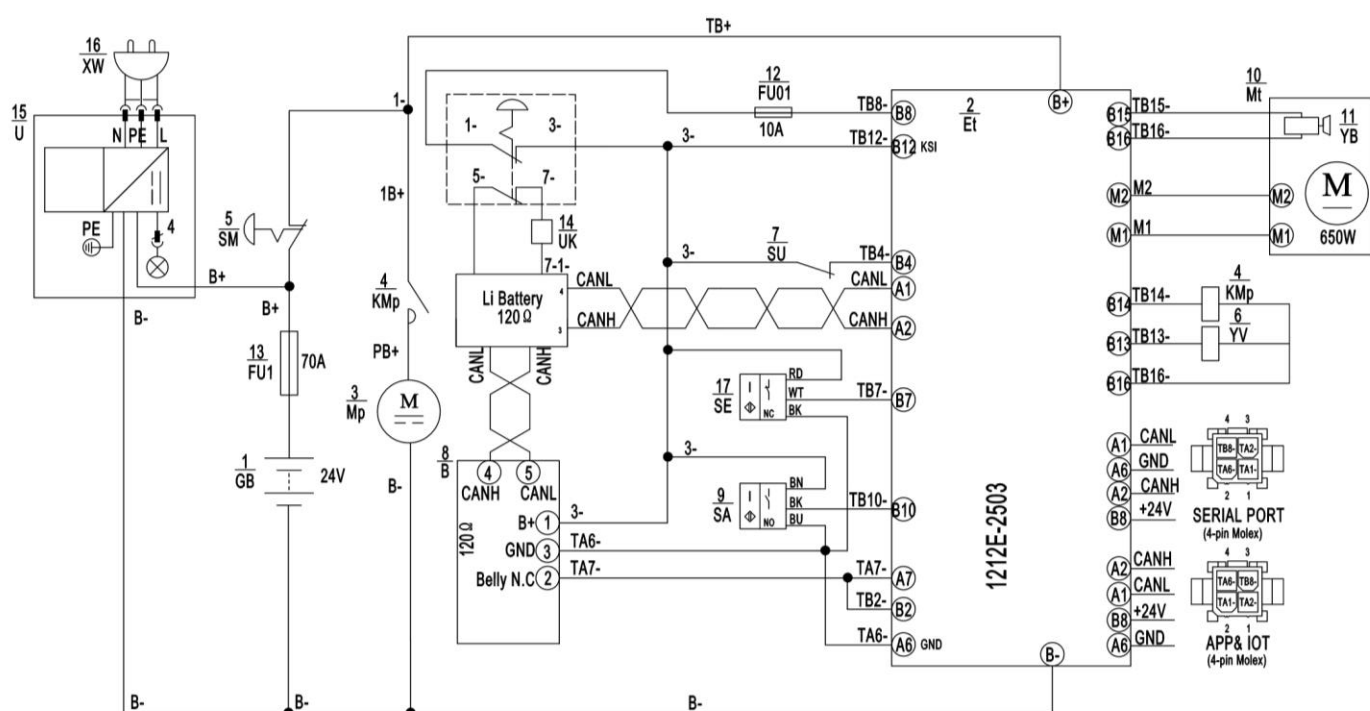


Fig. 18: Electrical diagram

Table 17: Description of electrical diagram

Code	Item	Code	Item
GB	Battery	B	CAN tiller
Et	Controller	SA	Proximity switch
Mp	Pump motor	Mt	Traction motor
KMp	Pump contactor	YB	Electromagnetic brake
SM	Emergency switch	SE	Proximity switch
YV	Electromagnetic valve	FU1	10A fuse
SU	Micro switch	FU01	70A fuse
UK	Safety socket	U	Charger
XW	Power input cable		

PTE20N Pro (PTE45N Pro) with speed reduction in steering

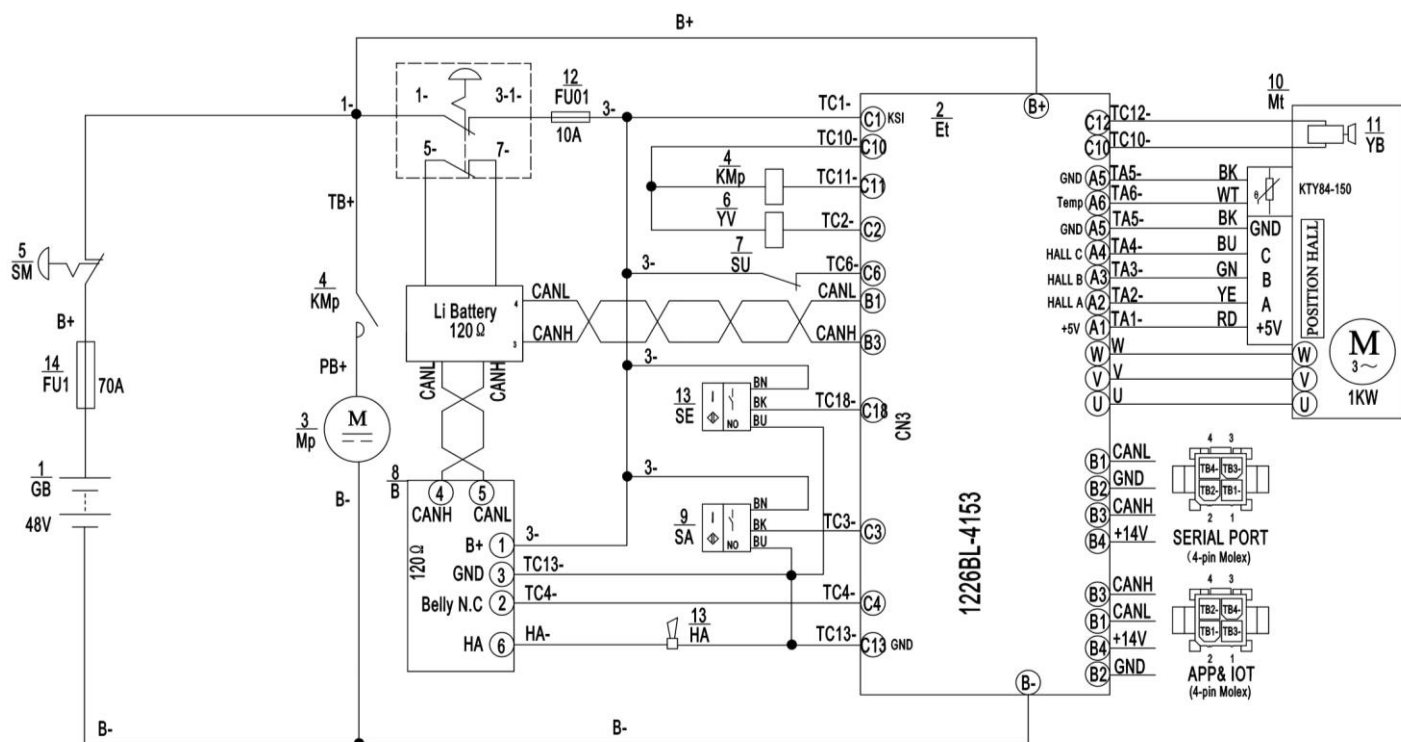


Fig. 19: Electrical diagram

Table 18: Description of electrical diagram

Code	Item	Code	Item
GB	Battery	B	CAN tiller
Et	Controller	SA	Proximity switch
Mp	Pump motor	Mt	Traction motor
KMp	Pump contactor	YB	Electromagnetic brake
SM	Emergency switch	FU1	10A fuse
YV	Electromagnetic valve	FU01	70A fuse
SU	Micro switch	HA	Buzzer
SE	Proximity switch		

PTE20N Pro (PTE45N Pro) with integrated charger and speed reduction in steering

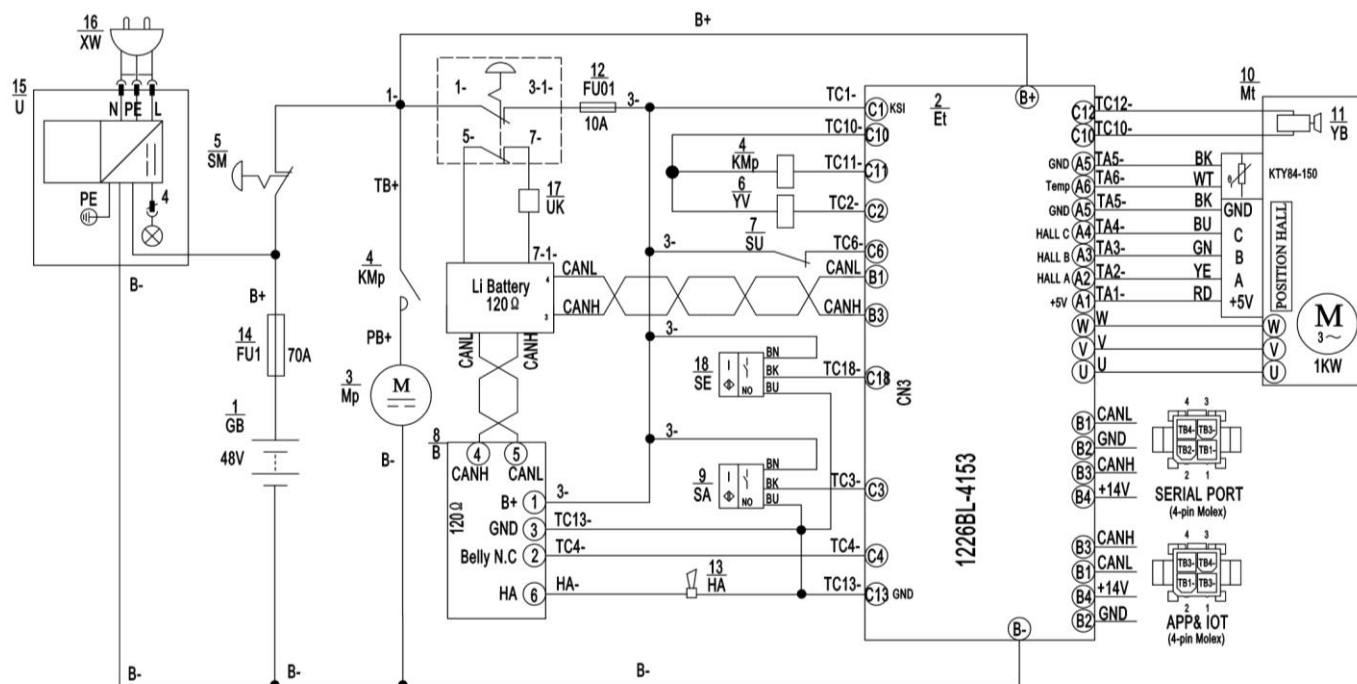


Fig. 20: Electrical diagram

Table 19: Description of electrical diagram

Code	Item	Code	Item
GB	Battery	B	CAN tiller
Et	Controller	SA	Proximity switch
Mp	Pump motor	Mt	Traction motor
KMp	Pump contactor	YB	Electromagnetic brake
SM	Emergency switch	FU1	10A fuse
YV	Electromagnetic valve	FU01	70A fuse
SU	Micro switch	HA	Buzzer
SE	Proximity switch	UK	Safety socket
U	Charger	XW	Power input cable

b. Hydraulic diagram

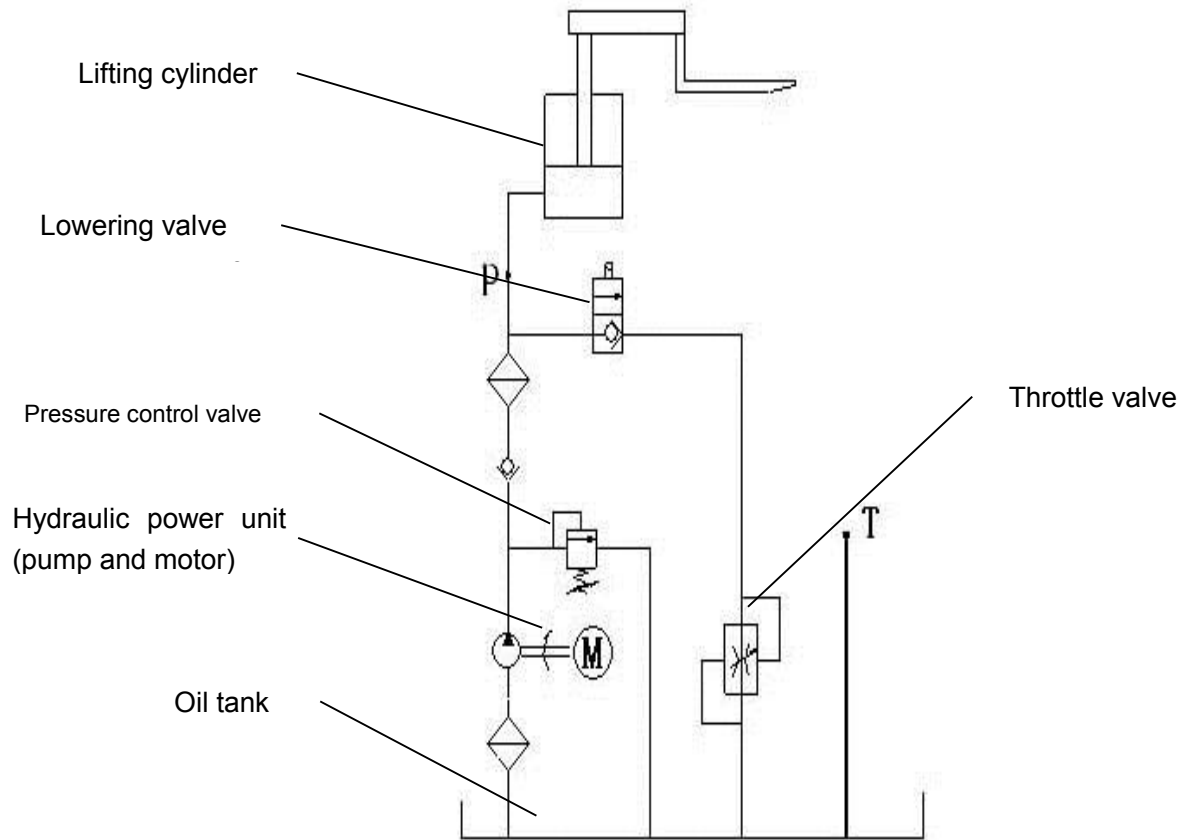


Fig. 21: Hydraulic circuit

12. SPECIALIZED STIPULATIONS FOR THE US- AMERICAN MARKET

The content in this chapter is specialized for the US-American market.


a. Foreword/ Compliance


Operating this truck requires knowledge which can be acquired from this instruction handbook. This handbook must be kept available throughout the entire period of use of the industrial truck.


IT IS LAW; YOU MUST BE TRAINED AND CERTIFIED TO OPERATE THIS TRUCK! READ AND OBEY ALL WARNINGS AND INSTRUCTIONS IN THIS MANUAL AND ON THE TRUCK!

Only properly trained operators are allowed to operate a powered industrial truck. Your employer must train you and certify, that you are qualified to operate this truck (required by OSHA § 1910.178). The training must satisfy OSHA requirements and as minimum the topics mentioned in this handbook. Depending on the context in this operating manual, the user can refer to several people, including the owner of the truck, anyone who leases or borrows this truck, and the operator as defined in ASME B56.1. Please pay attention to the section in ANSI/ITSDF B56.1 concerning the operator. In this standard, it is defined that the safe operation is the responsibility of the operator (ANSI/ITSDF B56.1, Part II, section 5.1.1). You and others can be seriously injured or even killed if you don't use this truck correctly. Before operating your truck, inspect your truck and ensure that it is in correct working order. This truck was designed and built to current industry and government standards. For more information see following:

- ANSI/ITSDF B56.1
- OSHA §1910.178 (Occupational Safety and Health Act)

 **DANGER** This sign indicates hazard situations, if not avoided, will result in serious injury or death. The instructions or precautions to this message must be observed to avoid the potential risk of injury or death.

 **WARNING** If not followed, warning indicates hazard situations which may lead to moderate injury. The instructions or precautions to this message must be observed to avoid the potential risk of injury or death.

 **CAUTION** If not followed, caution indicated situations which may lead to minor injury. Instructions or precautions must be observed to avoid minor injury.

b. Identification plate

- | | | | |
|---|--|----|---|
| 1 | Truck Model | 9 | Option |
| 2 | Serial Number | 10 | Maximum Battery Capacity (Ah) |
| 3 | Supply Voltage (Volts) | 11 | Battery Weight Min/Max lbs. (kg) |
| 4 | Truck Weight with Max. Battery, lbs (Kg) | 12 | Battery Manufacturer Information |
| 5 | Truck Weight without Battery, lbs. (Kg) | 13 | Battery Model Number |
| 6 | Manufacturing Date (MM/YYYY) | 14 | Battery Amp Hour Rate |
| 7 | Load Center Distance (mm) | 15 | Maximum Capacity (Uniformly Distributed load) |
| 8 | B56.1 Standard Statement | 16 | Truck Manufacturer Information |

1	●MODEL		OPTION		9
2	●SERIAL NO.		MAX. BATTERY CAPACITY		10
3			BATTERY WEIGHT		11
4	●SYSTEM VOLTAGE		MIN/MAX LBS (KG)		12
5	●TRUCK WEIGHT +/- 5% WITH MAX. BATTERY, LBS (KG)		BATTERY MANUFACTURER		13
6	●TRUCK WEIGHT +/- 5% WITHOUT BATTERY, LBS (KG)		BATTERY MODEL NUMBER		14
7	●YEAR OF MANUF.		BATTERY HOUR RATE		15
8	●LOAD CENTER DISTANCE				16
	THIS FORKLIFT MEETS OR EXCEEDS DESIGN SPECIFICATIONS OF ANSI/ITSDF B56.1 IN EFFECT ON THE DATE OF MANUFACTURE FOR TYPE E INDUSTRIAL TRUCKS WHEN EQUIPPED WITH E BATTERY.		MAX. CAPACITY (UNIFORMLY DISTRIBUTED LOAD)		
XXX LBS XXXX KGS					
XXXXX XXXXXXXXX XXXXXXXXX					

Fig. 22: Identification plate

c. Description of warning labels (only US- market)

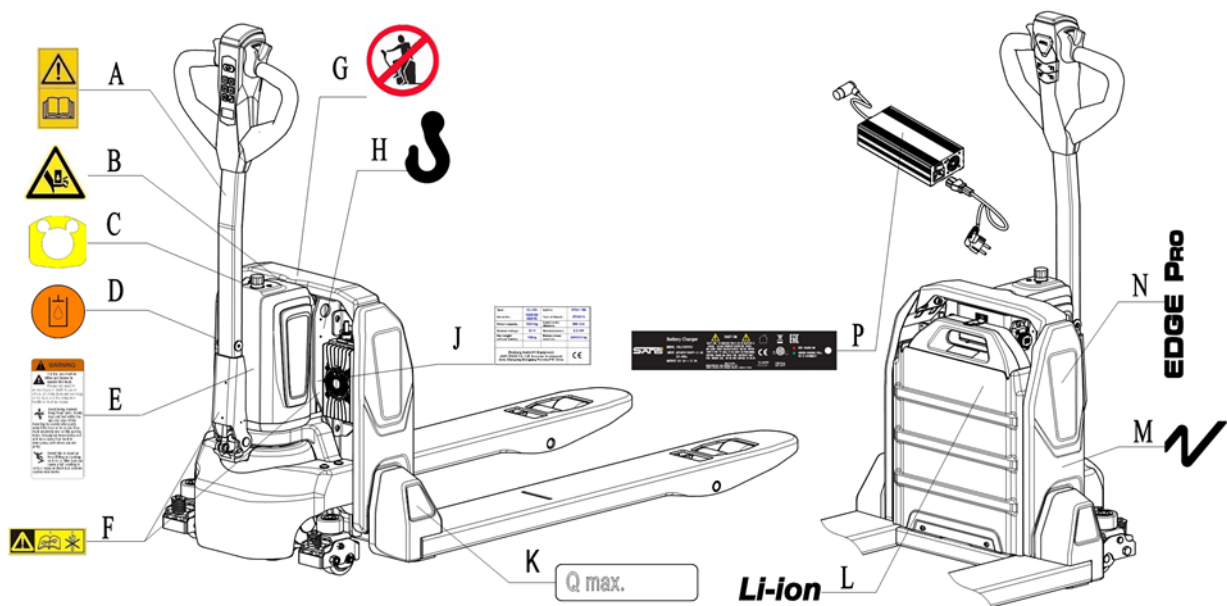


Fig. 23: Warning labels and safety devices (only US market)

Table 20: Description of warning labels and safety devices

A	Sticker (observe and follow the instructions)	H	Decal (crane hook)
B	Warning sticker (hands pinching)	J	Identification plate (ID-plate)
C	Decal (emergency switch)	K	Label (capacity)
D	Sign oil filling point	L	Decal (lithium battery)
E	Warning sticker (safety information)	M	Decal (N)
F	Sticker (read and follow maintenance manual)	N	Decal (truck model)
G	Sticker (no passengers)	P	Charger ID plate

The truck is equipped with an emergency switch which stops all lifting-, lowering-, driving- functions and engages the fail-safe electromagnetic brake when it is pushed. The function is described in chapter 2c. Follow the instructions given on the decals. Replace the decals if they are damaged or missing.

d. Technical data for US market

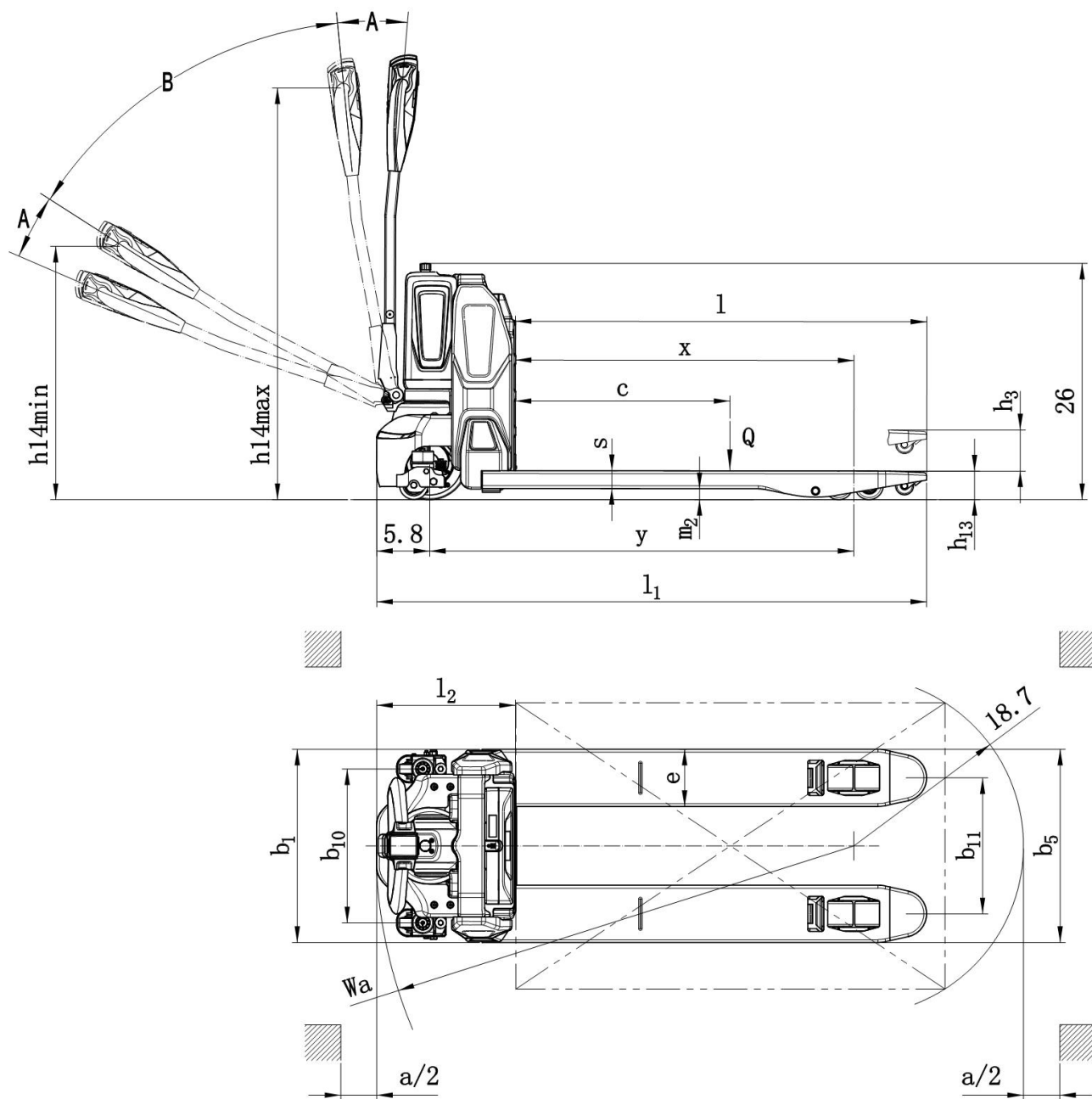


Fig. 24: Technical data (US market)

Table 21: Main technical data for standard version (US market)

Technical data in line with VDI 2198					
Identification	1.2	Model		PTE33N Pro	PTE45N Pro
	1.3	Drive		Battery	Battery
	1.4	Operation		Pedestrian	Pedestrian
	1.5	Load capacity/rated load	Q (lbs)	3307	4409
	1.6	Load center distance	c (in)	23.6	23.6

	1.8	Load distance	x (in)	37.3		37.4	
	1.9	Wheelbase	y (in)	46.7		46.8	
Weights	2.1	Net weight with battery	lbs	276	280	328	337
	2.2	Axle loading,laden front/rear	lbs	1102/2701	1380/2209	1369/3369	1378/3369
	2.3	Axle loading,unladen front/rear	lbs	212/64	218/64	115/34	119/34
Wheels/ frame	3.1	Tyres		PU		PU	
	3.2	Tyre size,front	Ø x w (in)	Ø 8.3×2.8		Ø 8.3×2.8	
	3.3	Tyre size,rear	Ø x w (in)	Ø 2.9×3.7 ¹⁾ / Ø 3.2×2.8 (Ø 3.2×3.7)		Ø 2.9×3.7 ¹⁾ / Ø 3.2×2.8 (Ø 3.2×3.7)	
	3.4	Additional wheels(dimensions)	Ø x w (in)	-/Ø 3.2×1.2		-/Ø 3.2×1.2	
	3.5	Wheels,number front/rear (x=driven wheels)		1x/ 2 (1x/ 4) 或 1x +2/ 2 (1x +2/ 4)		1x/ 2 (1x/ 4) 或 1x +2/ 2 (1x +2/ 4)	
	3.6	Tread,width,front	b ₁₀ (in)	-/16.9		-/16.9	
	3.7	Tread,width,rear	b ₁₁ (in)	15	21	15	21
Basic dimensions	4.4	Lift	h ₃ (in)	4.5		4.5	
	4.9	Height of tiller,min./max.	h ₁₄ (in)	28 / 46		28 / 46	
	4.15	Height,lowered	h ₁₃ (in)	3 ²⁾ /3.2		3 ²⁾ /3.2	
	4.19	Overall length	l ₁ (in)	60.5		61	
	4.20	Length to face of forks	l ₂ (in)	15.3		15.5	
	4.21	Overall width	b ₁ (in)	21	27	21	27
	4.22	Fork dimensions	s/e/l (in)	2 / 6.3 / 45		2 / 6.3 / 45	
	4.25	Width across forks	b ₅ (in)	21	27	21	27
	4.32	Ground clearance(center of wheelbase)	m ₂ (in)	1 ³⁾ /1.2		1 ³⁾ /1.2	
	4.34	Aisle width for pallets 800×1200 lengthways	A _{st} (in)	79		79	
	4.35	Turning radius	W _a (in)	53		53	
Performance data	5.1	Travel speed laden/unladen	mph	2.9 / 3		3 / 3.2	
	5.2	Lift speed,laden/unladen	in/s	0.8 / 1		0.7 / 0.9	
	5.3	Lowering speed,laden/unladen	in/s	2 / 1.6		2 / 1.2	
	5.8	Max. gradeability,laden/unladen	%	6 / 16		8 / 16	
	5.10	Service brake		Electromagnetic		Electromagnetic	
Electrisc	6.1	Drive motor,output at S2 60min	Hp	0.87		1.34	
	6.2	Lift motor,output at S3 10%	Hp	0.67		1.07	
	6.3	Battery as per DIN 43531/35/36 A, B, C, no		No		No	
	6.4	Battery voltage/nominal capacity	V / Ah	24 / 20 (24 /40)		48 / 20	
	6.5	Battery weight	lbs	12 (18.7)		18.7	
	6.6	Energy consumption acc. to VDI cycle	kWh/h	0.18		0.25	
Misc.	8.1	Type of drive control		DC-speed control		DC-speed control	

Notes:1) When h13 is 3in, select this single wheel;
2) With Ø 2.9×3.7 single wheel;
3) When h13 is 3in, m2 is 1in.

13. DECLARATION OF CONFORMITY (valid, if sold within 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

Underskriveren erklærer hermed, at den specificerede maskine er i overensstemmelse med EF-direktivet 2006/42/EC (maskindirektivet) og 2014/30/EU (elektromagnetisk 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 (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 määrätty 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 μηχάνημα συμμορφώνεται με την Οδηγία 2006/42/ΕΚ (Οδηγία Μηχανών) και 2014/30/ΕΕ (Ηλεκτρομαγνητική Συμβατότητα, EMC) συμπεριλαμβανομένων των τροποποιήσεών 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 CE KONFORMITÁSI NYILATKOZÁS

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 jogszabályaihoz 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 tulkti 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 DECLARATIE DE CONFORMITATE CE

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

[RUS] Оригинал Декларация соответствия стандартам ЕС

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

[S] Original EG-KONFORMITETSFÖRKLARING

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

[SK] Originál vyhlásenie o zhode

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

[SLO] Original EU IZJAVA O SKLADNOSTI

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

[TR] Original AB Uygunluk Açıklaması

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

<the applied standards have to be shown here>

- (1) Type: **XX XX– Self-propelled industrial truck**
- (2) Serial No: **XXXXXXXX**
- (3) Year of constr.: **YYYY**
- (4) Manufacturer: Noblelift Intelligent Equipment Co., Ltd.
528 Changzhou Road, Taihu Sub-district, Changxing, 313100, PR China
- (5) Responsible for compiling the technical documentation: <Company name>,
<Company Address>
- (6) Date: <Place>, **YYYY.MM.DD**
- (7) Authorized signatory: <Position> **Mr. Sample**

(1) Type/ Typ/ Tipo/ Modello/ Τυππί/ Tipo / ΤΥΠΟΣ/ Τίπος/ Τίπ/ Тип/ Tips/ Tipas/ Tüüp:

(2) Serial No./ Serien-Nr./ N°. de série/ Seriennummer/ Nº de serie/ Numero di serie/ Serienr./ Sarjanro/ αριθμωγράφος/ 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/ Rokvýroby/ Gyártásiév/ Rokprodukci / Letnik / Годизготовления / Üretim yılı / Väljalaskeasta / Izgatavošanas gads / Gamybosmetai

(4) Manufacturer/ Hersteller/ Fabricante/ Fabricant/ Fabrikant/ Fabricante/ Produttore/ производитель/ Výrobce/ Fabrikant/ Tootja/ Valmistaja/ Κατασκευαστής/ Gyártó/ Gamintojas/ Ražotājs/ Produsent/ Producent/ Producător/ Производитель/ Tillverkare/ Výrobca/ Proizvajalec/ Üretici firma

(5) Responsible for compiling the technical documentation/ Verantwortlich für die Zusammenstellung der technischen Dokumentation/ Responsable de compiler 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/ Zodpovedá za sestavení technické dokumentace/ Ansvarlig for udarbejdelse af den tekniske dokumentation/ Vastutab tehnilise dokumentatsiooni koostamise eest/ Vastaa teknisen dokumentaation laatimisesta/ Υπεύθυνος για τη σύνταξη της τεχνικής τεκμηρίωσης/ Felelős a műszaki dokumentáció összeállításáért/ Atsakingas už techninės dokumentacijos sudarymą/ Atbildīgs par tehniskās dokumentācijas sastādīšanu/ Ansvarlig for sammenstilling av teknisk dokumentasjon/ Odpowiedzialny za kompletowanie dokumentacji technicznej/ Responsabil cu 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/ päiväs/ Kuupäev/ Datums/ дата/ Dátum/ dátum/ tarih/ ημερομηνία

(7) Authorised signatory/ ImAuftrag/ pour ordre/ Incaricato/ Por orden de/ por procuração/ op last van/ påvegneaf/ påupdrag/ Etteropdrag/ psta./ Ülesandel / pavedus / v.i. / Попоручению / megbízásából / длъжностнолице / z pověření / z poverenia / po nalogu / napolecenie / din sarcina / adina / θαη' ελληνή