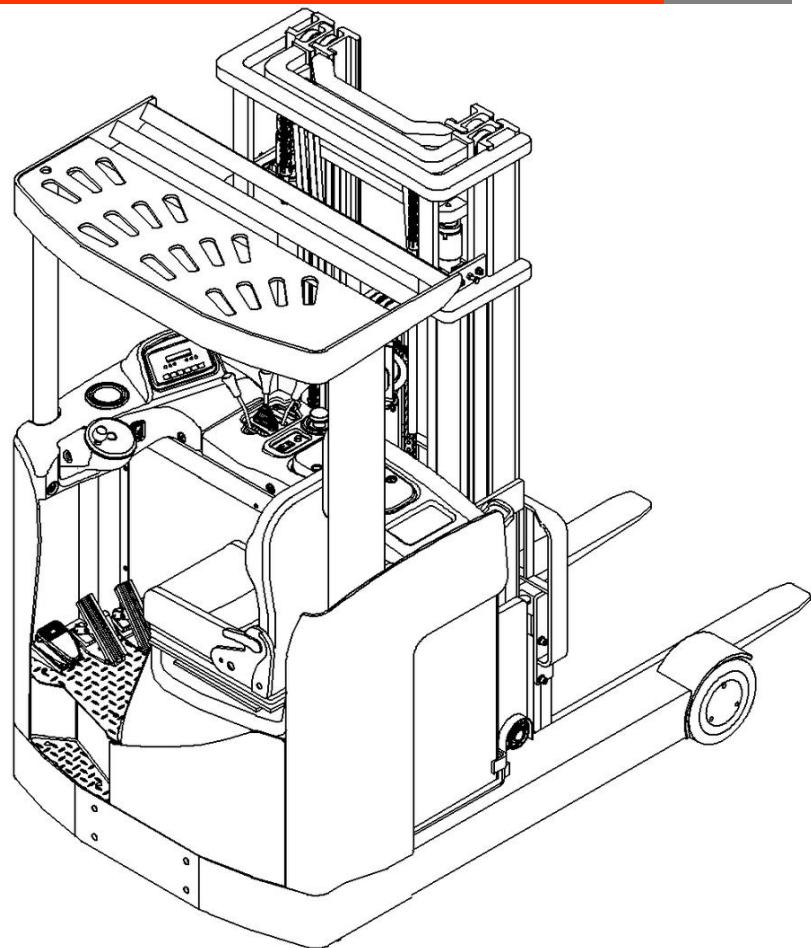


INSTRUCTION HANDBOOK

Electric Reack Truck



WARNING

Do not use the electric truck before reading and understanding these operating instructions.



NOTE:

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

Version 07/2016

RTXX-SMS-001-EN

FOREWORD

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

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.

This truck complies with the requirements according to EN 3691-1 (Industrial trucks- safety requirements and verification, part 1), EN 12895 (Industrial trucks- electromagnetic compatibility), EN 12053 (Safety of industrial trucks- test methods for measuring noise emissions), EN 1175 (Industrial truck safety – electrical requirements), assumed the truck is used according to the described purpose.

The noise level for this machine is 70 dB(A) according to EN 12053.

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 handbook is only for the purpose of operating /servicing the stacker, therefore please have understanding, that there is no guarantee out of particular features out of this handbook.



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

Copyright

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

TABLE OF CONTENTS

1. CORRECT APPLICATION	4
2. DESCRIPTION OF THE STACKER.....	5
a. Overview of the main components	5
b. Main technical data	6
Lowered mast height h ₁ mm.....	8
c. Description of the safety devices and warning labels(Europe and other, excepting USA).....	9
d. Identification plate	9
3. WARNINGS, RESIDUAL RISK AND SAFETY INSTRUCTIONS	10
4. COMMISSIONING, TRANSPORTATION, DECOMMISSIONING	11
a. Commissioning.....	11
b. Lifting/transportation.....	11
c. Decommissioning.....	12
5. DAILY INSPECTION	12
6. OPERATION INSTRUCTIONS	13
a. Parking	13
b. Residual lift diagram.....	13
c. Lifting.....	14
d. Lowering.....	14
e. Moving forks.....	14
f. Fork tilts.....	14
g. Travelling.....	14
h. Steering	16
i. Braking	16
j. Malfunctions	16
k. Emergency	16
7. BATTERY CHANGES AND REPLACEMENT	16
a. Replacement	18
b. Battery Indicator	18
c. Charging	19
8. REGULAR MAINTENANCE	19
a. Maintenance checklist.....	19
b. Lubricating points	21
c. Check and refill hydraulic oil.....	21
d. Checking electrical fuses.....	22
9. TROUBLE SHOOTING.....	22
10. WIRING/CIRCUIT DIAGRAM	28
a. Electrical circuit diagram	28
b. Hydraulic circuit.....	29
11. SPECIALIZED STIPULATION FOR THE US-AMERICAN MARKET	30

1. CORRECT APPLICATION

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

The trucks described in this handbook are electric reach trucks, with electrically powered lifting function. The trucks are designed for stacking operations in dedicated racking by lifting and lowering the palletized load up to the desired lifting height.

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 intensive operations without crossing permanent obstacles or potholes. Operating on ramps is not allowed. While operating, the load must be placed approximately on the longitudinal centre plane of the stacker.

Lifting or transporting people is forbidden. If travelling the load must be lowered to the lifting point.

It is not allowed to use this truck on tail lifts or loading ramps.

The capacity is marked on the load diagram 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 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, tags and operation and maintenance handbooks.

By not observing these instructions, the warranty becomes void.

2. DESCRIPTION OF THE STACKER

a. Overview of the main components

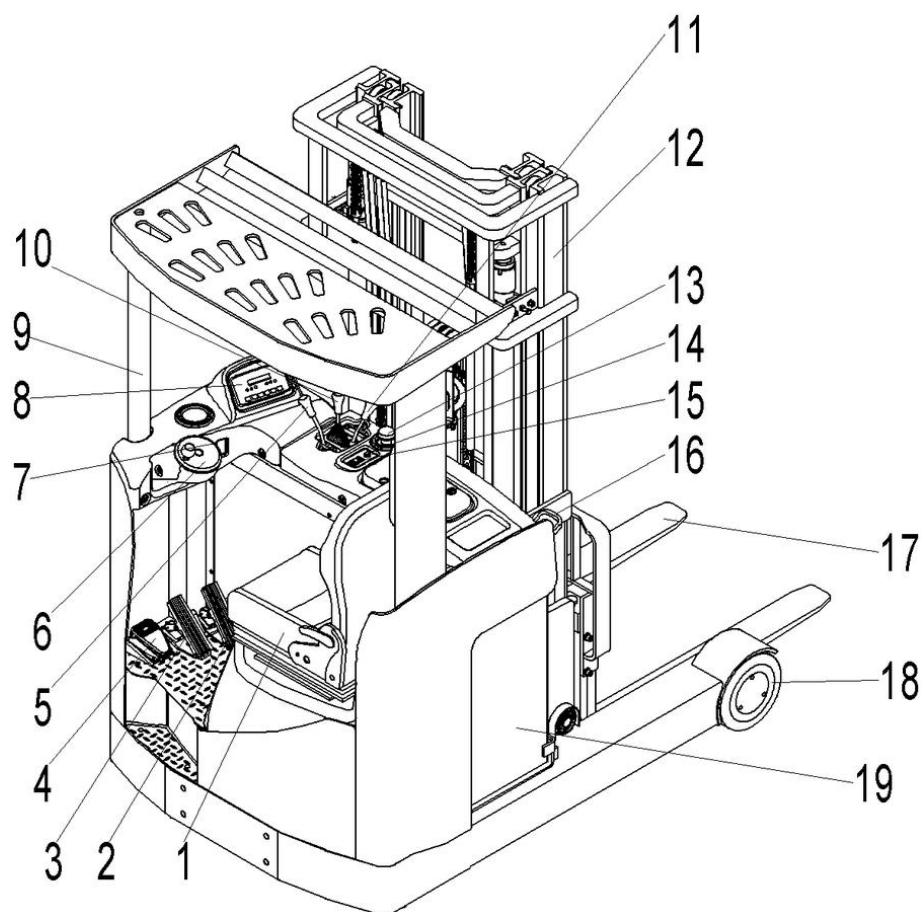


Fig. 1: Overview main components

- | | |
|---------------------------|-------------------------|
| 1. Seat | 11. Tilt control tiller |
| 2. Accelerator pedal | 12. Mast |
| 3. Brake pedal | 13. Emergency switch |
| 4. Safety pedal switch | 14. Switch |
| 5. Lifting control handle | 15. Horn button |
| 6. Steering circle | 16. Battery connector |
| 7. Key switch | 17. Fork |
| 8. Indicator | 18. Load roller |
| 9. Overhead guard | 19. Battery |
| 10. Control handle | |

b. Main technical data

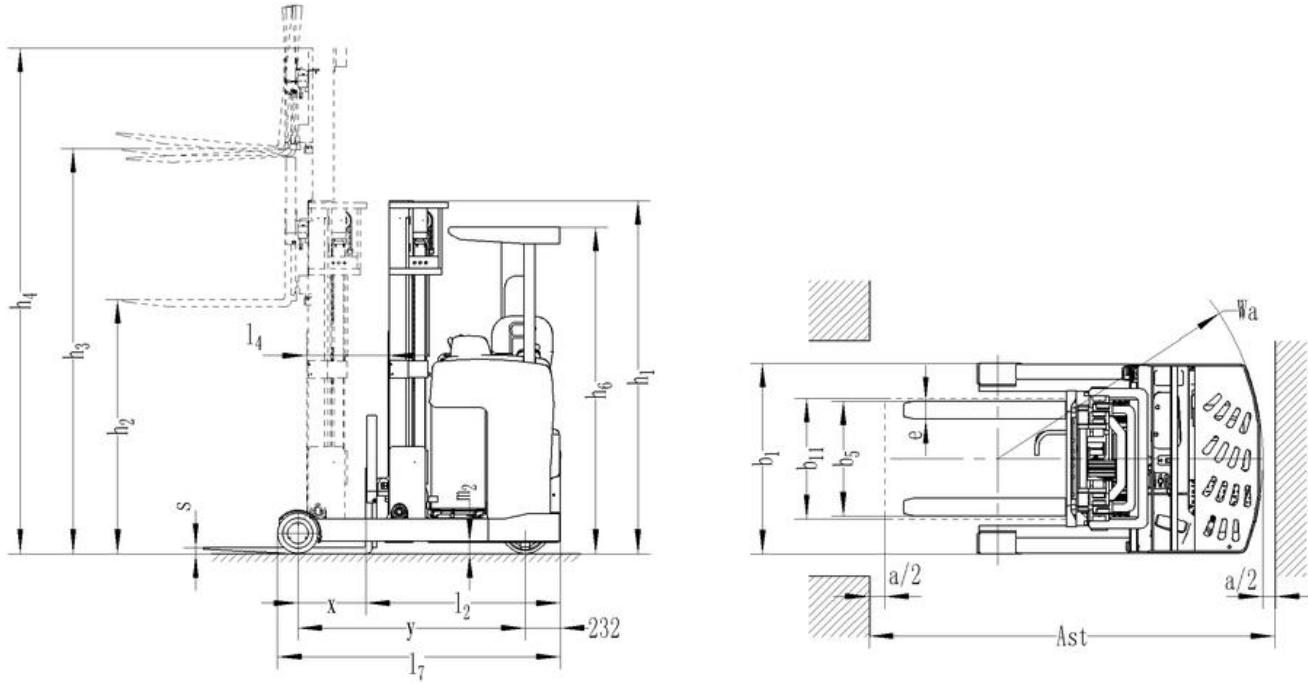


Fig. 2: Technical data

Table1: Main technical data for standard version

Technical data sheet for industrial truck acc. to VDI 2198						
Distinguishing mark	1.2	Manufacturer's type designation		RT20	RT16	RT14
	1.3	Power (battery ,diesel,petrol gas,manual)		Battery	Battery	Battery
	1.4	Operator type		Sit down	Sit down	Sit down
	1.5	Load Capacity / rated load	Q (t)	2.0	1.6	1.4
	1.6	Load centre distance	c (mm)	600	600	600
	1.8	Load distance ,centre of drive axle to fork	x (mm)	180	180	180
	1.9	Wheelbase	y (mm)	1500	1400	1350
Weight	2.1	Service weight	kg	3400	3000	2900
	2.3	Axle loading, laden front/rear	kg			
	2.4	Axle loading, unladen front/rear	kg			
	2.5	Axle loading, laden front/rear,fork retracted	kg			
Tires, Chassis	3.1	Tires		Polyurethane	Polyurethane	Polyurethane
	3.2	Tire size, front	$\phi \times W$ (mm)	313×125	313×125	313×125
	3.3	Tire size, rear	$\phi \times W$ (mm)	267×135	267×135	267×135
	3.5	Wheels, number front/rear(x=driven wheels)		2/1x+2	2/1x+2	2/1x+2

	3.7	Tread, front/rear	b ₁₁ (mm)	1124	1124	1124
Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β (°)	2/4	2/4	2/4
	4.2	Lowered mast height	h ₁ (mm)	2335	2335	2335
	4.3	Free Lift height	h ₂ (mm)	1420	1420	1420
	4.4	Lift	h ₃ (mm)	5000	5000	5000
	4.5	Extended mast height	h ₄ (mm)	5915	5915	5915
	4.7	Overhead guard height	h ₆ (mm)	2160	2160	2160
	4.19	Overall length	l ₁ (mm)	2350	2285	2260
	4.20	Length to face of forks	l ₂ (mm)	1280	1215	1190
	4.21	Overall width	b ₁ (mm)	1260	1260	1260
	4.22	Fork dimensions	s/e/l (mm)	40/120/1070	35/100/1070	35/100/1070
	4.25	Distance between fork-arms(min./max.)	b ₅ (mm)	240/760	200/755	200/755
	4.28	Reach distance	l ₄ (mm)	630	600	570
	4.31	Min. ground clearance	m ₁ (mm)	75	75	75
	4.34	Aisle width for pallets 800X1200 lengthways	Ast (mm)	2795	2735	2700
	4.35	Turning radius	Wa (mm)	1750	1655	1600
	4.37	Distance to the rotor arm front end	l ₇ (mm)	1865	1765	1700
Performance data	5.1	Travel speed, laden/ unladen	km/h	10.5/10.5	10.5/10.5	10.5/10.5
	5.2	Lift speed, laden/ unladen	m/s	0.27/0.38	0.27/0.38	0.27/0.38
	5.3	Lowering speed, laden/ unladen	m/s	0.35/0.35	0.35/0.35	0.35/0.35
	5.4	Reach forward speed laden/ unladen	m/s	0.15/0.20	0.15/0.20	0.15/0.20
	5.8	Max. gradeability, laden/ unladen	%	10/15	10/15	10/15
	5.10	Service brake		Electromagnetic	Electromagnetic	Electromagnetic
Electric- motor	6.1	Drive motor rating S2 60min	kW	6.4	6.4	6.4
	6.2	Lift motor rating S3 15%	kW	12.5	12.5	12.5
	6.3	Battery acc. to DIN 43531/ 35/ 36 A, B, C, no		A,4Pzs	A,4Pzs	A,4Pzs
	6.4	Battery voltage, nominal capacity K5	V/ Ah	48/480	48/360	48/360
	6.5	Battery weight	kg	939	750	750
Additional data	8.1	Type of drive control		AC-Speed Control	AC-Speed Control	AC-Speed Control
	8.2	System pressure	(bar)	160	160	160
	8.3	System flow	(l/min)	38	35	35
	8.4	Sound level at driver's ear acc.to EN 12053	dB(A)	<70	<70	<70

Mast table RT 20

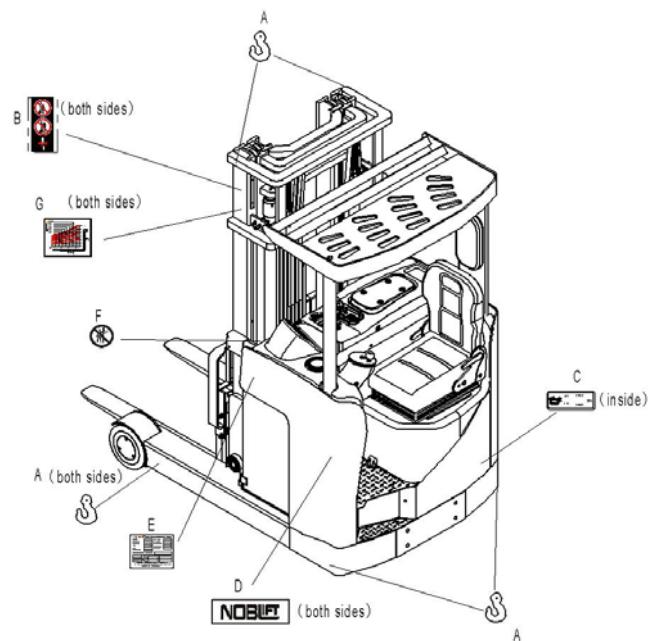
Designation	Lift height h_3 mm	Free Lift height h_2 mm	Lowered mast height h_1 mm	Extended mast height h_4 mm
RT 20				
Two stage mast -Standard Lift	2500	140	1830	3415
	2700	140	1930	3615
	3000	140	2080	3915
	3300	140	2230	4215
	3600	140	2380	4515
	4000	140	2580	4915
	4500	140	2830	5415
Three stage mast FFL-Full Free Lift	4500	1254	2167	5415
	5000	1420	2335	5915
	5300	1520	2435	6215
	5500	1585	2502	6415
	5800	1685	2602	6715
	6000	1755	2667	6915
	6500	1920	2835	7415
	7000	2095	2992	7915
	7500	2255	3167	8415
	8000	2420	3335	8915
	8500	2585	3502	9415
	9000	2755	3667	9915
	9500	2920	3835	10415
	10000	3085	4002	10915
	10500	3255	4167	11415

c. Description of the safety devices

and warning labels(Europe and

other, excepting USA)

- A. Crane and hook label
- B. Warning decal: Do not step under or on the forks
- C. Hydraulic oil sticker
- D. Manufacturer logo
- E. Name plate
- F. "No passengers" decal
- G. Residual lift capacity sticker



The truck has an emergency button (13) which stops all lifting-, lowering-, driving- functions and engages the failsafe electromagnetic brake when it is pushed. Pulling this button before operating the truck, Before operating, insert the key and turn the switch clockwise, and stamp the safety switch. To prevent against unauthorized access, turn the key anti-clockwise and remove it, if you not operate this truck. This truck is equipped with foot braking, which can be used as service brake during driving the truck. Follow also the instructions given on the decals. Replace the decals if they are damaged or missing.

Fig.3: Safety and warning labels

d. Identification plate

- 1 Designation, type
- 2 Serial number
- 3 Rated capacity in kg
- 4 Supply voltage in V
- 5 Own mass (self weight) in kg without battery

- 6 Name and address of manufacturer)
- 7 Battery weight minimum/ maximum
- 8 Nominal power in kW
- 9 Load center distance
- 10 Manufacturing data
- 11 Option

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

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

Fig. 4: Identification plate

3. WARNINGS, RESIDUAL RISK AND SAFETY INSTRUCTIONS



DO NOT

- Drive outside the stacking operation with a lifted load higher than the lifting point.
- 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 this truck on ramps.
- Use the truck without a removed protective screen (fig.1, pos. 19/ guarding).
- 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

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 (13) 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 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.
- It is not allowed to use the truck on ramps.
- To prevent unintended sudden movements when not operating the truck (i.e. from another person, etc.) switch off the truck and remove the key.

4. COMMISSIONING, TRANSPORTATION, DECOMMISSIONING

a. Commissioning

Table 2: Commissioning data

Type	RT 2050	RT1650	RT2060	RT1660	RT2070	RT1670	RT2080	RT1680
Commissioning weight [kg]	3385	3105	3520	3240	3655	3375	3790	3510
Version/Lift [mm]	5000	5000	6000	6000	7000	7000	8000	8000
Dimensions [mm]	2350x1260 x2335	2285x1260 x2335	2350x1260 x2667	2285x1260 x2667	2350x1260 x2992	2285x1260 x2992	2350x1260 x3335	2285x1260 x3335

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

- Check if are all parts included and not damaged
- Eventually installation and charging the batteries (follow chapter 7)

Do the work according to the daily inspections as well as functional checks.

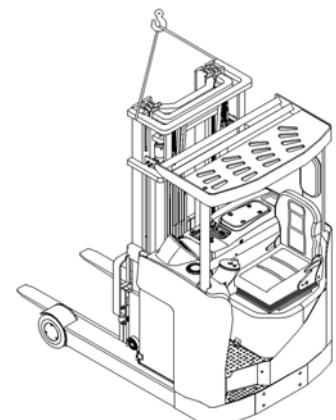
b. Lifting/transportation

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

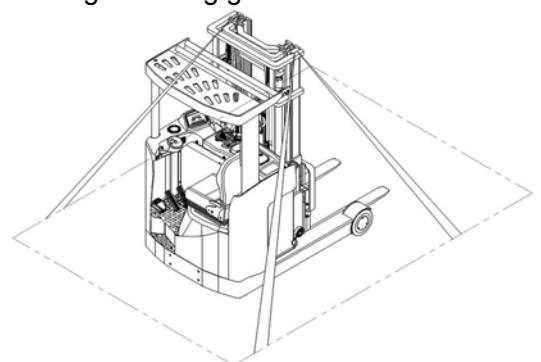
Lift the truck to its destination and place the truck securely before removing the lifting gear.

Fig.5: Lifting with a crane

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 each side of the truck's crane hook holes and fasten the other side at the transporting truck.

Fig. 6: Fixing points

C. Decommissioning

For storage, remove the load, lower the truck to the lowest position, grease all in this handbook mentioned greasing points (regular inspection), eventual 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 vertical creep of the truck.
- Check the chain and rollers for damages or corrosion.
- Check the smooth movement of the wheels.
- Check the function of the emergency brake by activating the emergency button.
- Check, the tiller arm- switch braking function
- Check the lifting and lowering functions by operating the buttons.
- Check if the protective screen has no damages and that is correctly assembled.
- Check the audio warning signal.
- Check if all bolts and nuts are tightened firmly.
- Check the function of the key switch.
- Check the speed limitation switch.
- Visual check if there are any broken hoses or broken electric wires.
- If supplied with a backrest extension, check it for damages and correct assembling.

6. OPERATION INSTRUCTIONS

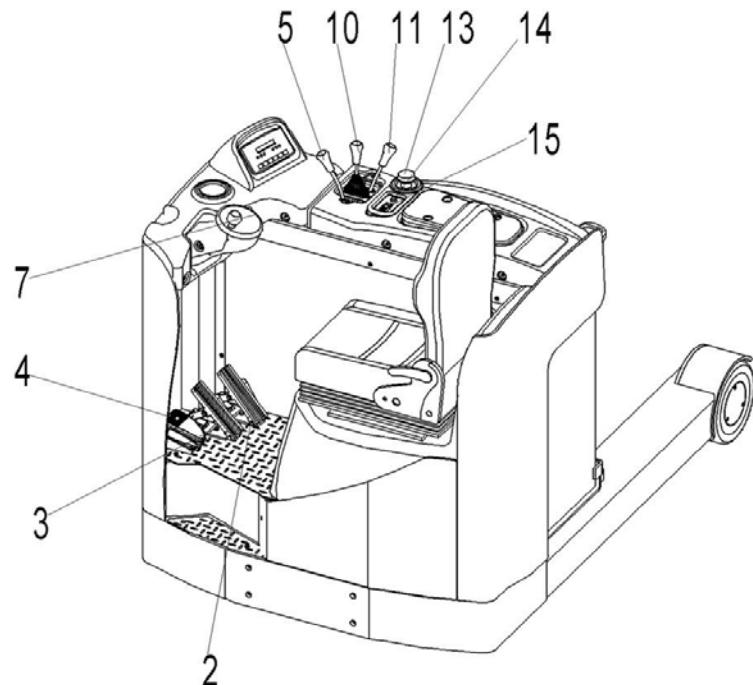


Fig.7: Tiller operating controls



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 switch(7), pull out the emergency button(13), and turn it clockwise to the “ON”- position. Press the horn button (15) to activate the audible warning signal.

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

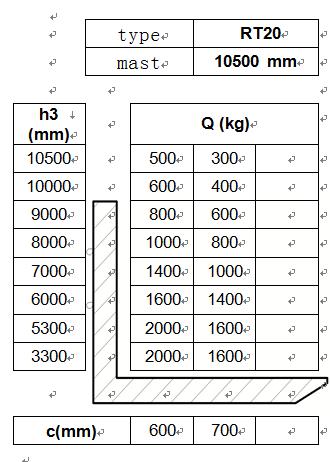


Fig. 9: Residual lift diagram

reached.

For instance with a load centre of gravity distance c of 600 mm and a maximum lift height H of 10500 mm, the max. capacity Q is 500 kg.

c. Lifting



DO NOT OVERLOAD THE TRUCK! THE MAXIMUM CAPACITY IS 2000 kg.

LIFT ONLY CAPACITIES ACCORDING TO THE RESIDUAL LIFT DIAGRAM.

Travel with the lowered forks fully underneath the fork and draw backwards the control handle(5) until you reached the desired lifting height.

d. Lowering

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

Move the control handle (5) forwards. The lowering speed can be adjusted by the movement of the lever. Lower the load until the forks are clear of the pallet, then drive the truck carefully out of the load unit.

e. Moving forks

Move the lever (10) forwards, the reach pantograph moves out of the truck.

Move the lever (10) backwards, the reach pantograph moves back into the truck.

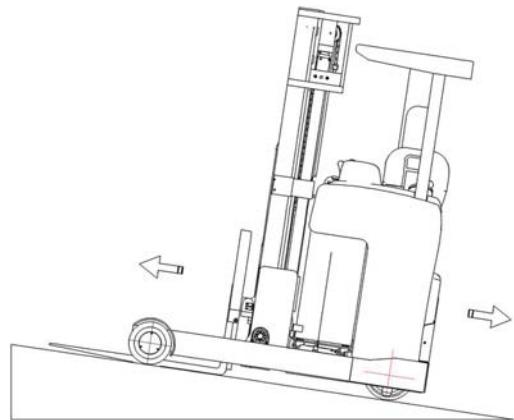


Fig.10: Load facing uphill

f. Fork tilts

Move the lever (11) forwards, the forks moving upwards.

Move the lever (11) backwards, the forks moving downside.



TRAVEL ON INCLINES ONLY WITH THE LOAD FACING UPHILL.

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

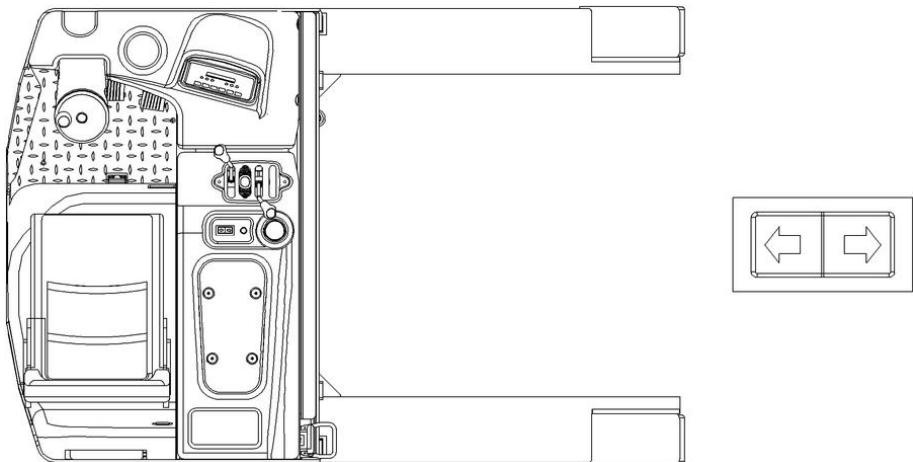
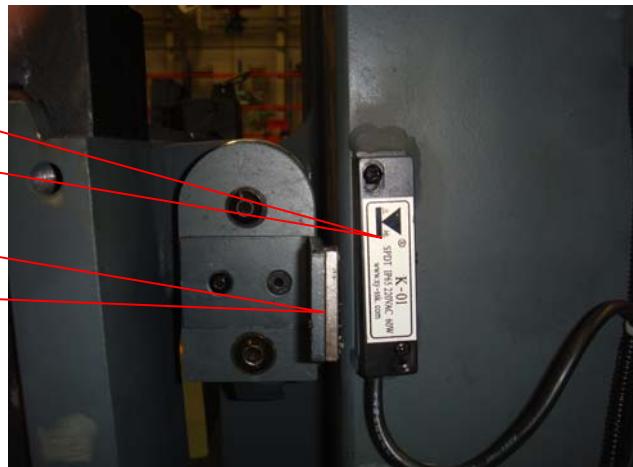


Fig.11: Operating direction

After starting the truck by turning the inserted key to the “ON”- position, firstly, step the safety pedal switch(4), then put your hand on the operating area (Fig.11). Put the switch (14) on the forward or backward direction (Fig.11), and there is arrow which means forward or backward on the indicator, just touch it. Control the travelling speed by moving the accelerator pedal (2) carefully until you reached the desired speed. The speed will be slower if you release the accelerator pedal, control the speed to ensure safety. If you need sharp slowdown, please release safety pedal(4) or stamp the brake pedal(3). 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.

- a、This truck is equipped with enough safety equipment to avoid accidents.



When the fork lifts to 600mm, the magnet steel will go through the surface of magnet control switch, and the speed decreases 60% to ensure safe driving and working; When the fork lowers, the magnet steel goes through the magnet control switch again, the driving speed will restore. Of course you can control the lifting and lowering speed by the lifting and lowering control lever.

- b、Turn on the power supply, the system

will start self inspection. If there is something wrong with the electrical system, such as open circuit, short circuit, or button on the active state, and you stamp the pedal switch, speed controller will not in the neutral position, and the truck will not drive and report default, only when the electrical system is OK, the truck will start normal work.



Drive carefully, the truck speed is 10.5km/h.

h. Steering



THE TRUCK IS EQUIPPED WITH AN ELECTRIC STEERING SYSTEM. TAKE CARE BY OPERATING A TRUCK WITH THIS KIND OF SYSTEM

You steer the truck by turning the aiming circle clock wise and anti-clock wise.

Turn the aiming circle to make the drive wheel move straight, and reach full speed. Turn the aiming circle a certain angle to turn the drive wheel. When turning, the angle is larger than **±10°**, comparing with straight driving, the speed will be different when turning, the speed will be more smaller if the turning angle is much larger.

i. Braking



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 switch (14) from one driving direction to another opposite direction, the truck regenerative brake and drive into the opposite direction.
- The truck brakes, release the accelerator switch, and stamp the brake pedal until the truck stop.
- Release the safety pedal switch (4).
- Press the emergency switch (13).

j. Malfunctions

If there are any malfunctions or the truck is inoperative, please stop using the truck and activate the emergency button (13) by pushing it. If possible, park the truck on a safe area, turn the key switch (7) 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.



When the truck has default, the wrench indicator on the bottom of the indicator will light on. Then we can use CURTIS handheld unit to find out the fault reason. The port is shown in the left figure. It is from left steering controller programming port, driving controller programming port, oil pump controller programming port, see chapter 9 the usual default code analysis.

k. Emergency

In emergencies or in the event of tip over (or off dock), keep safe distance immediately. If possible push the emergency button (13). All electrical functions will be stopped.

7. BATTERY CHANGES AND REPLACEMENT

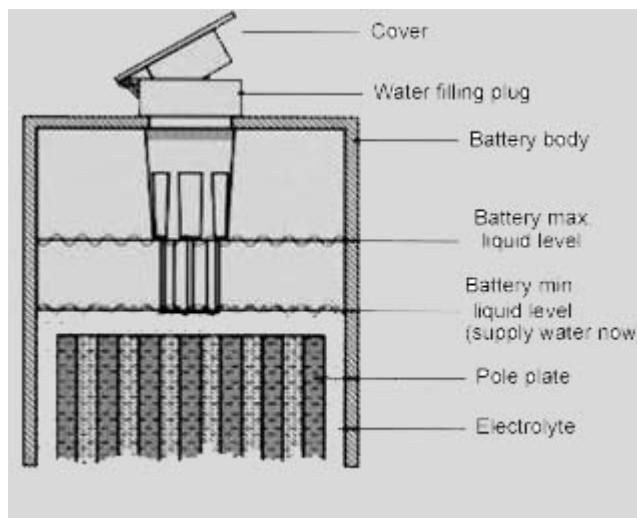


- Only qualified personnel are allowed to service or charge the batteries. The

instructions of this handbook and from the battery- manufacturer must be observed.

- The batteries are liquid acid traction batteries. Optional maintenance free batteries might be available; for these batteries re- filling is prohibited.
- 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.
- In the process of charging or operating, due to water evaporation, check the electrolyte weekly, the battery should be added distilled water regularly, the electrolyte level must be maintained between the highest and the lowest level, charging after filling distilled water.

Distilled water supplement and filling quantity shown as below:



Note: if the electrolyte level is not enough, must fill distilled water other than other liquid

The truck is equipped with following acid traction battery- type:

RT20 1 pc 48V 4PzS 480G (standard) [1220x355x784 mm (LxWxH)]

RT16/14 1 pc 48V 4PzS 360G (standard) [1220x283x784 mm (LxWxH)]



IT IS ONLY ALLOWED TO USE ACID TRACTION BATTERIES.
THE WEIGHT OF THE BATTERIES HAS AN INFLUENCE TO THE TRUCKS
OPERATING BEHAVIOR.
PLEASE CONSIDER THE MAXIMUM OPERATING TEMPERATURE OF THE
BATTERIES.

a. Replacement

Park the truck securely, release the battery hook, move the mast and battery components forward, turn off the truck with key (7), and press emergency switch(13), move the battery plug, and remove the battery with a crane. The installation is in the reverse order of the removal, otherwise the truck could be damaged.

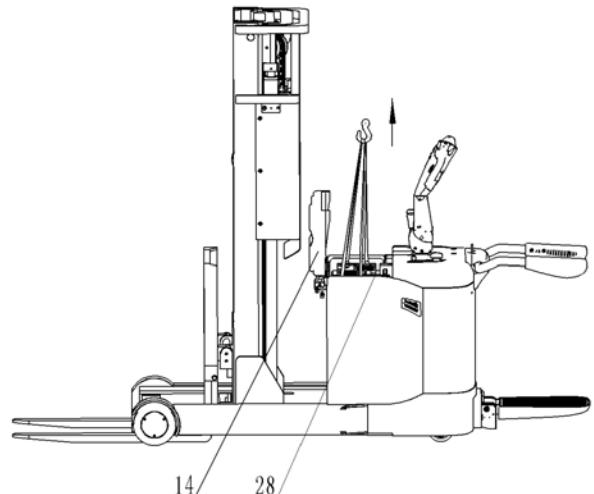
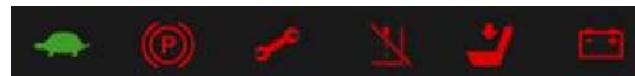


Fig. 12: battery replacement

b. Battery Indicator



Battery power is displayed in the right side, if fully charged, the indicator shows 100% (10 segments) , when the battery power only has 20%, the battery symbol will light on (the sixth one from left) , indicating it needs charging. When the battery power only has 10%, the forbit symble will light on (the fourth one from left) ,and the truck can't lift, but can drive slowly.

Fig.13: Battery discharge indicator

When the battery is removed, the indicator will show TRA : 5.7, then the truck can't drive, but you can move the mast. and the Max. lifting height is about 600mm.

There is key Mode on the right side of the indicator, you can switch driving mode by this key Mode. Shown as upper left corner in Fig. 13

H Mode high speed mode top speed drive 10.5Km/h

S Mode normal mode top speed drive 8.4Km/h

E Mode economic mode top speed drive 6.3Km/h

When switch to the economic mode, the slow speed indicator is on (the first one from left) .

c. Charging



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

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

Lower the forks and remove the load.

Switch the truck off and connect the battery plug to the charging plug of the charger.

The charger starts charging the battery.

Disconnect the battery plug after the charger finished charging.

Connect the plug (16) with the plug at the truck.

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 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.
- Only trained personnel can adjust the pressure valve

If you need to change the wheels, please follow the instructions above. The castors must be round and they should have no abnormal abrasion.

Check the items emphasized maintenance checklist.

a. Maintenance checklist

Table 3: Maintenance checklist		Interval (Month)			
		1	3	6	12
	Hydraulic				
1	Check the hydraulic cylinder, piston for damage noise and leakage		•		
2	Check the hydraulic joints and hose for damage and leakage		•		
3	Inspect the hydraulic oil level, refill if necessary		•		

4	Refill the hydraulic oil (12 month or 1500 working hours)				•
Mechanical system					
5	Inspect the forks for deformation and cracks		•		
6	Check the chassis for deformation and cracks		•		
7	Check if all screws are fixed		•		
8	Check mast and chain for corrosion, deformation or damages, replace if necessary	•			
9	Check the gearbox for noise and leakage		•		
10	Check the wheels for deformation and damages, replace if necessary		•		
11	Lubricate the load wheel bearing		•		
12	Inspect and lubricate the pivot points		•		
13	Lubricate the grease nipples	•			
14	Replace the guarding and/or protective screen if it is damaged	•			
Electric system					
15	Inspect the electric wiring for damage		•		
16	Check the electric connections and terminals		•		
17	Test the Emergency switch function		•		
18	Check the electric drive motor for noise and damages		•		
19	Check the working status of sensor		•		
20	Check if correct fuses are used, if necessary replace.		•		
21	Test the audio warning signal		•		
22	Check the contactors		•		
23	Check the frame leakage (insulation test)		•		
24	Check function and wear of the accelerator		•		
25	Check the electrical system of the drive motor		•		
Braking system					
26	Check brake performance		•		
Battery					
27	Check the battery voltage		•		
28	Clean and grease the terminals and check for corrosion and damage		•		
29	Check the battery housing for damages		•		
Charger					
30	Check the main power cable for damages			•	
31	Check the start-up protection during charging			•	
Function					
32	Test the audio warning signal	•			
33	Check the air gap of the electromagnetic brake	•			
34	Test the emergency braking	•			
35	Test the reverse and regenerative braking	•			
36	Test the safety (belly) button function	•			
37	Check the steering function	•			
38	Check the lifting and lowering function	•			
39	Check the tiller arm switch function	•			
40	Test the key switch of damages and function	•			

41	Test the speed limitation switch (lifting height >~600mm)	•			
42	Test the speed limitation switch (lifting height >~1800mm)	•			
	General				
43	Check if all decals are legible and complete	•			
44	Check if the protective screen and or guarding is not damaged	•			
45	Inspect the castor, adjust the height or replace it, if worn out		•		
46	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.

1. Load roller bearing
2. Guide rail
3. Hinge joint
4. Mast
5. Chain
6. Drive wheel gear

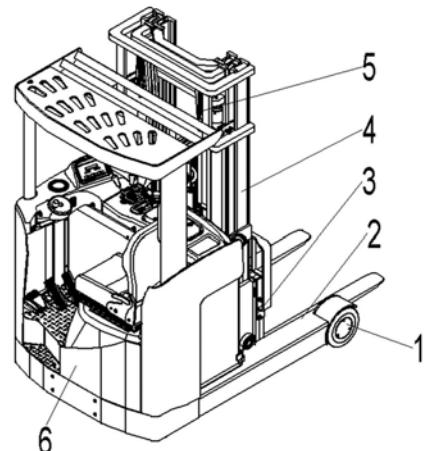


Fig. 14: Lubricating points

c. Check and refill hydraulic oil

The required hydraulic fluid- type is

- H-LP 46, DIN 51524
- Viscosity is 41.4 – 47

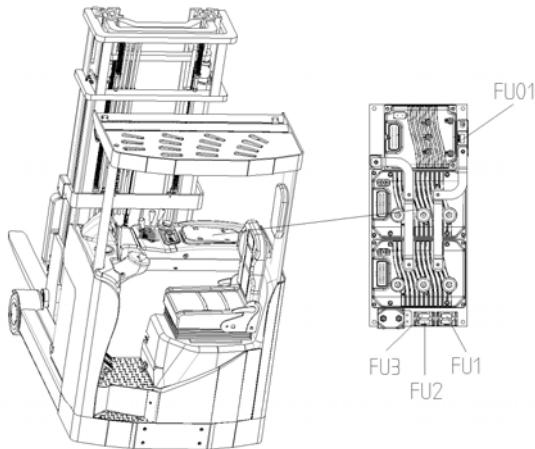
Waste material like oil, used batteries or other must be probably disposed and recycled according to the national regulations and if necessary brought to a recycling company.

The oil level height shall be in the not lifted position min.24L to 28.5L.

If necessary add oil at the filling point.

d. Checking electrical fuses

Remove the main cover. The fuses are located according to fig. 15; the size is according to table 4.



	Rate
FU 1	10A
FU 2	10A
FU 3	10A
FU 01	500A

Table 4: Size of the fuses

Fig. 15: Location fuses

9. TROUBLE SHOOTING



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

Table 5: 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
	Lifting stops at ~1800mm	Move the protective arms into the downside position
	Lifting stops at ~1800mm	Check the sensor for the protective arm
	Height sensor for 1800mm height defect	Check the height sensor on the mast
Oil leakage from air breathing	Excessive quantity of oil.	Reduce oil quantity.
Stacker not starts operating	Battery is charging	Charge the battery completely and then remove the main power plug form the electrical socket.
	Battery not connected	Connect the battery correctly
	The fuse is faulty	Check and eventually replace fuses
	Battery discharged	Charge the battery

	Combined emergency switch is activated	De-activate the combined emergency switch by insert and pull the knob.
	Tiller in the operating zone	Move the tiller firstly to the braking zone.
	Protective arms in the upright position, platform folded upright	Move the protective arms into the downside position
	Foldable platform or protective arms in one of the allowed positions	Check the proximate sensors for the arms and platform
	Foldable platform or protective arms not in one of the allowed positions	Check the correct function of the arms and/or platform
Only travelling in one direction	The accelerator and the connections are damaged.	Check the accelerator and the connections.
The stacker only travels very slowly	The battery is discharged.	Check the battery status at the discharge indicator
	The electromagnetic brake is engaged.	Check the electromagnetic brake
	The relating tiller cables are disconnected or damaged	Check the tiller cables and connections.
	Defective height sensor for reduced speed at ~300mm height	Check the sensor
	Electric system overheated	Stop using and cool down the truck
	Defective heat sensor	Check and if necessary replace the heat sensor
The stacker starts up suddenly	The controller is damaged.	Replace the controller.
	The accelerator not moves back to its neutral position.	Repair or replace the accelerator.

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

● Electrical control default and analysis

When the truck report default, there is fault code on the indicator, then we can find the according reason and solve the problem.

CODE	PROGRAMMER LCD DISPLAY <i>EFFECT OF FAULT</i>	POSSIBLE CAUSE	SET/CLEAR CONDITIONS
44	Pot2 Wiper Low <i>FullBrake.</i>	1. See Monitor menu » Inputs: Pot2 Raw. 2. Pot2 wiper voltage too low.	Set: Pot2 wiper (pin 17) voltage is lower than the low fault threshold (can be changed with the VCL function <i>Setup_Pot_Faults()</i>). Clear: Bring Pot2 wiper voltage above the fault threshold.
45	Pot Low Overcurrent <i>ShutdownThrottle;</i> <i>FullBrake.</i>	1. See Monitor menu » Outputs: Pot Low. 2. Combined pot resistance connected to pot low is too low.	Set: Pot low (pin 18) current exceeds 10mA. Clear: Clear pot low overcurrent condition and cycle KSI.
46	EEPROM Failure <i>S shutdownMotor;</i> <i>ShutdownMainContactor;</i> <i>ShutdownEMBrake;</i> <i>ShutdownThrottle;</i> <i>ShutdownInterlock;</i> <i>ShutdownDriver1;</i> <i>ShutdownDriver2;</i> <i>ShutdownDriver3;</i> <i>ShutdownDriver4;</i> <i>ShutdownPD;</i> <i>FullBrake;</i> <i>ShutdownPump.</i>	1. Failure to write to EEPROM memory. This can be caused by EEPROM memory writes initiated by VCL, by the CAN bus, by adjusting parameters with the programmer, or by loading new software into the controller.	Set: Controller operating system tried to write to EEPROM memory and failed. Clear: Download the correct software (OS) and matching parameter default settings into the controller and cycle KSI.
47	HPD/Sequencing Fault <i>ShutdownThrottle.</i>	1. KSI, interlock, direction, and throttle inputs applied in incorrect sequence. Faulty wiring, crimps, or switches at KSI, interlock, direction, or throttle inputs.	Set: HPD (High Pedal Disable) or sequencing fault caused by incorrect sequence of KSI, interlock, direction, and throttle inputs. Clear: Reapply inputs in correct sequence.
47	Emer Rev HPD <i>ShutdownThrottle;</i> <i>ShutdownEMBrake.</i>	1. Emergency Reverse operation has concluded, but the throttle, forward and reverse inputs, and interlock have not been returned to neutral.	Set: At the conclusion of Emergency Reverse, the fault was set because various inputs were not returned to neutral. Clear: If EMR_Interlock = On, clear the interlock, throttle, and direction inputs. If EMR_Interlock = Off, clear the
49	Parameter Change Fault <i>ShutdownMotor;</i> <i>ShutdownMainContactor;</i> <i>ShutdownEMBrake;</i> <i>ShutdownThrottle;</i> <i>FullBrake;</i> <i>ShutdownPump.</i>	1. This is a safety fault caused by a change in certain parameter settings so that the vehicle will not operate until KSI is cycled. For example, if a user changes the Throttle Type this fault will appear and require cycling KSI before the vehicle can operate.	Set: Adjustment of a parameter setting that requires cycling of KSI. Clear: Cycle KSI.
51-6 7	OEM Faults <i>(See OEM documentation.)</i>	These faults can be defined by the OEM and are implemented in the application-specific VCL code. See OEM documentation.	Set: See OEM documentation. Clear: See OEM documentation.

CODE	PROGRAMMER LCD DISPLAY EFFECT OF FAULT	POSSIBLE CAUSE	SET/CLEAR CONDITIONS
68	VCL Run Time Error <i>ShutdownMotor;</i> <i>ShutdownMainContactor;</i> <i>ShutdownEMBrake;</i> <i>ShutdownThrottle;</i> <i>ShutdownInterlock;</i> <i>ShutdownDriver1;</i> <i>ShutdownDriver2;</i> <i>ShutdownDriver3;</i> <i>ShutdownDriver4;</i> <i>ShutdownPD;</i> <i>FullBrake;</i> <i>ShutdownPump.</i>	1. VCL code encountered a runtime VCL error. 2. See Monitor menu » Controller: VCL Error Module and VCL Error. This error can then be compared to the runtime VCL module ID and error code definitions found in the specific OS system information file.	<i>Set:</i> Runtime VCL code error condition. <i>Clear:</i> Edit VCL application software to fix this error condition; flash the new compiled software and matching parameter defaults; cycle KSI.
69	External Supply Out of Range <i>None, unless a fault action is programmed in VCL.</i>	1. External load on the 5V and 12V supplies draws either too much or too little current. 2. Fault Checking Menu parameters Ext Supply Max and Ext Supply Min are mis-tuned. 3. See Monitor menu » Outputs: Ext Supply Current.	<i>Set:</i> The external supply current (combined current used by the 5V supply [pin 26] and 12V supply [pin 25]) is either greater than the upper current threshold or lower than the lower current threshold. The two thresholds are defined by the External Supply Max and External Supply Min parameter settings (page 52). <i>Clear:</i> Bring the external supply current
71	OS General <i>ShutdownMotor;</i> <i>ShutdownMainContactor;</i> <i>ShutdownEMBrake;</i> <i>ShutdownThrottle;</i> <i>ShutdownInterlock;</i> <i>ShutdownDriver1;</i> <i>ShutdownDriver2;</i> <i>ShutdownDriver3;</i> <i>ShutdownDriver4;</i> <i>ShutdownPD;</i> <i>FullBrake;</i> <i>ShutdownPump.</i>	1. Internal controller fault.	<i>Set:</i> Internal controller fault detected. <i>Clear:</i> Cycle KSI.
72	PDO Timeout <i>ShutdownInterlock;</i> <i>NMT State set to Pre-operational.</i>	1. Time between CAN PDO messages received exceeded the PDO Timeout Period.	<i>Set:</i> Time between CAN PDO messages received exceeded the PDO Timeout Period. <i>Clear:</i> Cycle KSI or receive CAN NMT message.
73	Stall Detected <i>ShutdownEMBrake;</i> <i>ShutdownThrottle;</i> Control Mode changed to LOS (Limited Operating Strategy).	1. Stalled motor. 2. Motor encoder failure. 3. Bad crimps or faulty wiring. 4. Problems with power supply for the motor encoder. 5. See Monitor menu » Motor: Motor RPM.	<i>Set:</i> No motor encoder movement detected. <i>Clear:</i> Either cycle KSI, or detect valid motor encoder signals while operating in LOS mode and return Throttle Command = 0 and Motor RPM = 0.
74	Fault On Other Traction Controller	Dual Drive fault: see Dual Drive manual.	
75	Dual Severe Fault	Dual Drive fault: see Dual Drive manual	
CODE	PROGRAMMER LCD DISPLAY EFFECT OF FAULT	POSSIBLE CAUSE	SET/CLEAR CONDITIONS

87	Motor Characterization Fault <i>ShutdownMotor;</i> <i>ShutdownMainContactor;</i> <i>ShutdownEMBrake;</i> <i>ShutdownThrottle;</i> <i>FullBrake;</i> <i>ShutdownPump.</i>	1. Motor characterization failed during characterization process. See Monitor menu » Controller: Motor Characterization Error for cause: 0=none 1=encoder signal seen, but step size not determined; set Encoder Step Size manually 2=motor temp sensor fault 3=motor temp hot cutback fault 4= controller overtemp cutback fault 5=controller undertemp cutback fault 6=undervoltage cutback fault 7=severe overvoltage fault 8=encoder signal not seen, or one or both channels missing 9=motor parameters out of characterization range.	<i>Set:</i> Motor characterization failed during the motor characterization process. <i>Clear:</i> Correct fault; cycle KSI.
89	Motor Type Fault <i>ShutdownMotor;</i> <i>ShutdownMainContactor;</i> <i>ShutdownEMBrake;</i> <i>ShutdownThrottle;</i> <i>FullBrake;</i> <i>ShutdownPump.</i>	1. The Motor_Type parameter value is out of range.	<i>Set:</i> Motor_Type parameter is set to an illegal value. <i>Clear:</i> Set Motor_Type to correct value and cycle KSI.
91	VCL/OS Mismatch <i>ShutdownMotor;</i> <i>ShutdownMainContactor;</i> <i>ShutdownEMBrake;</i> <i>ShutdownThrottle;</i> <i>ShutdownInterlock;</i> <i>ShutdownDriver1;</i> <i>ShutdownDriver2;</i> <i>ShutdownDriver3;</i> <i>ShutdownDriver4;</i> <i>ShutdownPD;</i> <i>FullBrake;</i> <i>ShutdownPump.</i>	1. The VCL software in the controller does not match the OS software in the controller.	<i>Set:</i> VCL and OS software do not match; when KSI cycles, a check is made to verify that they match and a fault is issued when they do not. <i>Clear:</i> Download the correct VCL and OS software into the controller.
92	EM Brake Failed to Set <i>ShutdownEMBrake;</i> <i>ShutdownThrottle.</i>	1. Vehicle movement sensed after the EM Brake has been commanded to set. 2. EM Brake will not hold the motor from rotating.	<i>Set:</i> After the EM Brake was commanded to set and time has elapsed to allow the brake to fully engage, vehicle movement has been sensed. <i>Clear:</i> Activate the throttle.
93	Encoder LOS (Limited Operating Strategy) <i>Enter LOS control mode.</i>	1. Limited Operating Strategy (LOS) control mode has been activated, as a result of either an Encoder Fault (Code 36) or a Stall Detect Fault (Code 73). 2. Motor encoder failure. 3. Bad crimps or faulty wiring. 4. Vehicle is stalled.	<i>Set:</i> Encoder Fault (Code 36) or Stall Detect Fault (Code 73) was activated, and Brake or Interlock has been applied to activate LOS control mode, allowing limited motor control. <i>Clear:</i> Cycle KSI or, if LOS mode was activated by the Stall Fault, clear by ensuring encoder senses proper operation, Motor RPM = 0, and Throttle
CODE	PROGRAMMER LCD DISPLAY EFFECT OF FAULT	POSSIBLE CAUSE	SET/CLEAR CONDITIONS

94	Emer Rev Timeout <i>ShutdownEMBrake;</i> <i>ShutdownThrottle.</i>	Emergency Reverse was activated and concluded because the EMR Timeout timer has expired. The emergency reverse input is stuck On.	Set: Emergency Reverse was activated and ran until the EMR Timeout timer expired. Clear: Turn the emergency reverse input Off.
98	Illegal Model Number <i>ShutdownMotor;</i> <i>ShutdownMainContactor;</i> <i>ShutdownEMBrake;</i> <i>ShutdownThrottle;</i> <i>FullBrake;</i> <i>ShutdownPump.</i>	<ol style="list-style-type: none"> 1. Model_Number variable contains illegal value. For 1234/36/38 models, a value other than 1234, 1236, 1238, or 1298 is illegal. For 1232 models, a value other than 1232 is illegal. 2. Software and hardware do not match. 	Set: Illegal Model_Number variable; when KSI cycles, a check is made to confirm a legal Model_Number, and a fault is issued if one is not found. Clear: Download appropriate software for your controller model.
99	Dualmotor Parameter Mismatch	Dual Drive fault: see Dual Drive manual.	/

10. WIRING/CIRCUIT DIAGRAM

a. Electrical circuit diagram

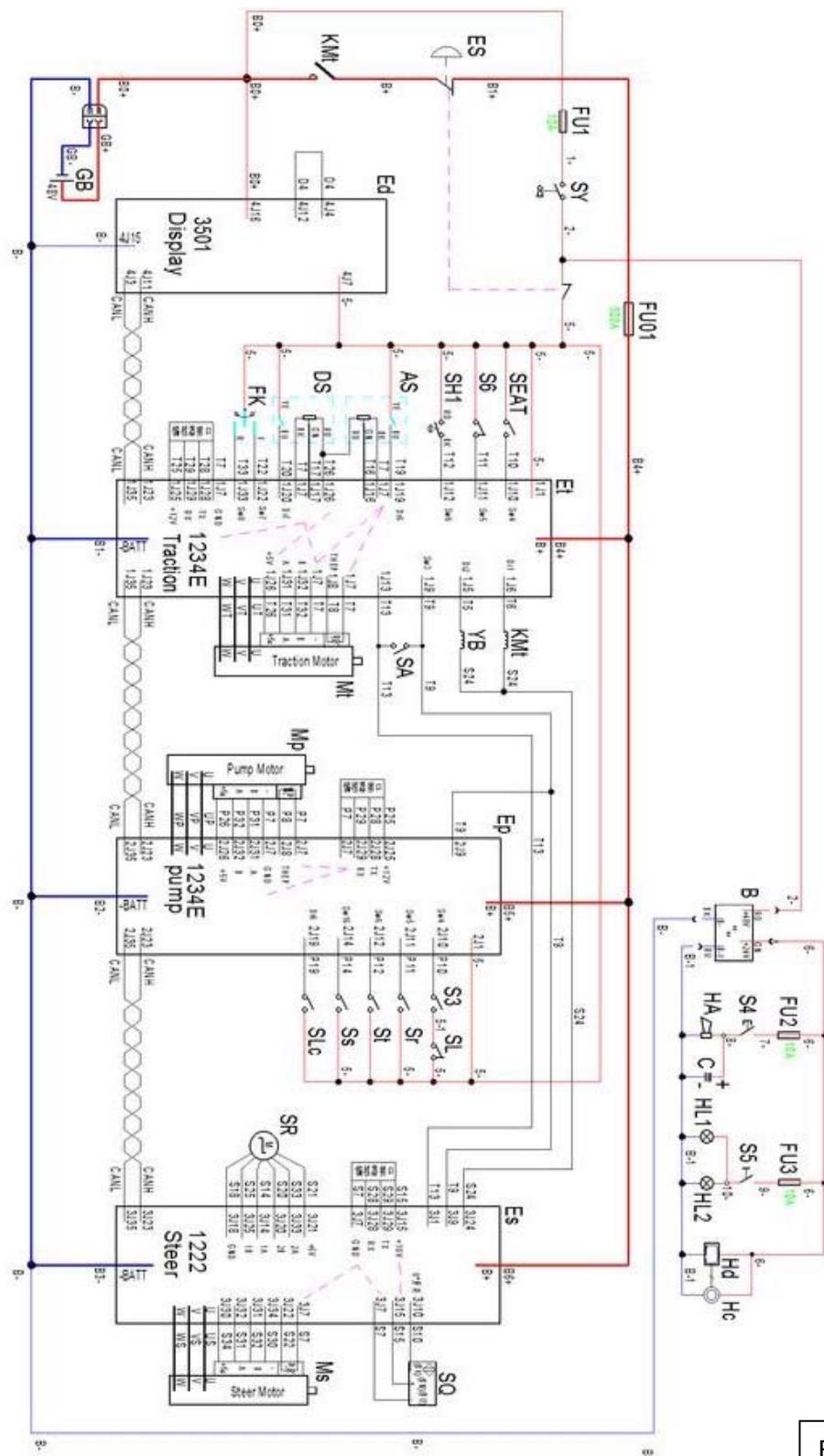


Fig. 16: Electric diagram

28

FU 1 : 10 A
FU2 : 10 A
FU 3 : 10 A
FU 01 : 500 A

b. Hydraulic circuit

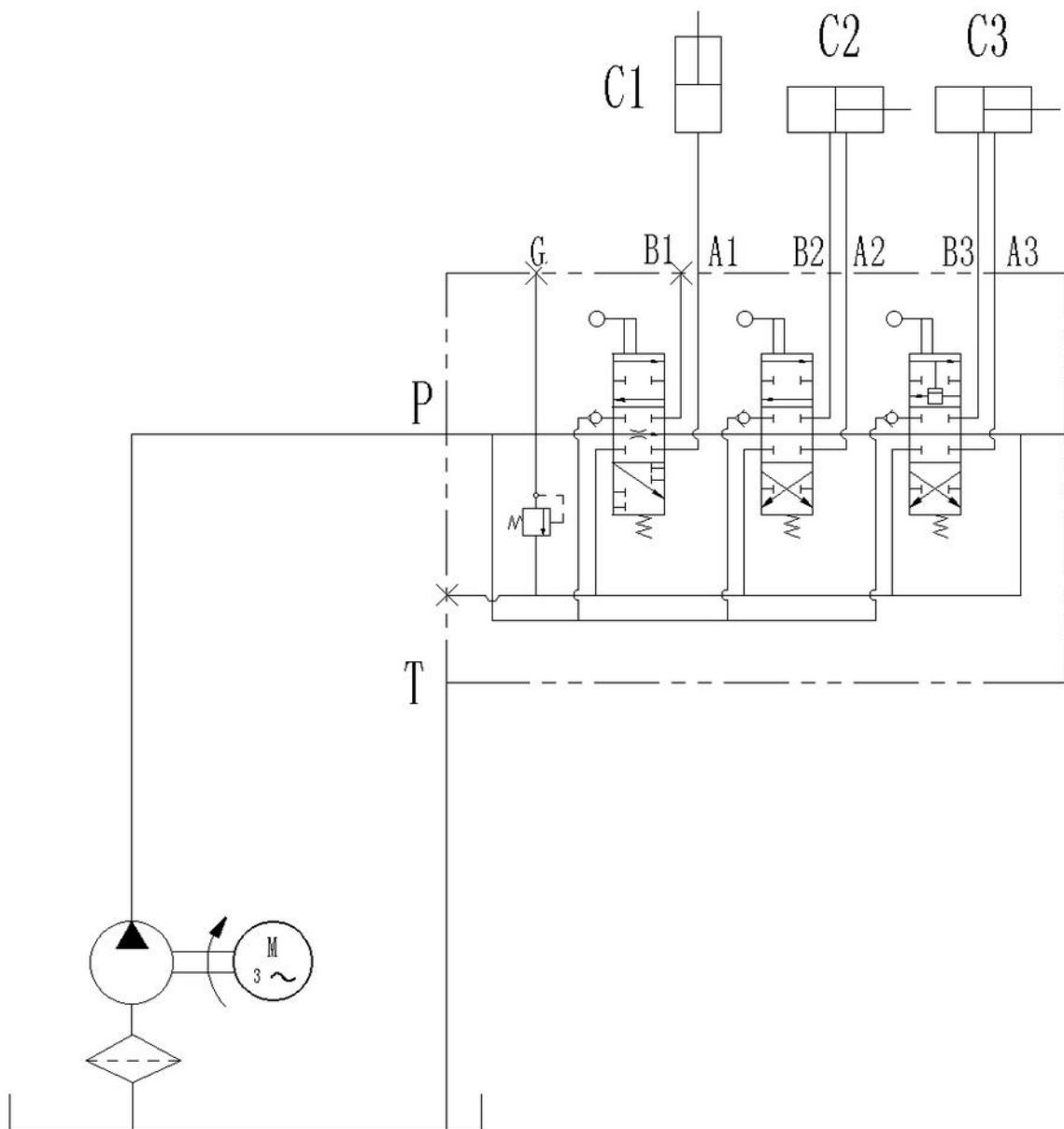


Fig. 17: Hydraulic circuit

C1: Lifting cylinder
C2: Forward/backward cylinder
C3: Forward/backward tilting cylinder

11. SPECIALIZED STIPULATION FOR THE US-AMERICAN MARKET

[GB] CE Declaration of Conformity

The signatory hereby declares that the specified machine conforms to the EU Directive 2006/42/EC (Machine Directive) and 2004/108/EEC (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.

[D] EG-KONFORMITÄTSERKLÄRUNG

Der Unterzeichner bescheinigt hiermit, dass die im Einzelnen bezeichnete Maschine den Europäischen Richtlinien 2006/42/EG (Maschinenrichtlinie) und 2004/108/EWG (Elektromagnetische Verträglichkeit - EMV) einschließlich deren Änderungen sowie dem entsprechenden Rechtserlass zur Umsetzung der Richtlinien in nationales Recht entspricht. Der Unterzeichner ist bevollmächtigt, die technischen Unterlagen zusammenzustellen.

[E] DECLARACIÓN DE CONFORMIDAD CE

El signatario certifico por medio de la presente que la máquina especificada cumple con las Normas Europeas 2006/42/CE (Normativa para maquinarias) y 2004/108/CE (Compatibilidad electromagnética), incluyendo sus respectivas modificaciones, así como con el decreto-ley para la adaptación de las normas al derecho nacional. El signatario dispone de una autorización individual que le permite compilar la documentación técnica.

[F] DECLARATION DE CONFORMITE CE

Par la présente déclaration, les soussignés certifient que le machines spécifié ci-dessus est conforme à la loi et aux directives européennes 2006/42/CE (directive sur les machines) et 2004/108/CEE (compatibilité électromagnétique - CEM), y compris aux modifications qui y sont apportées et à l'arrêté autorisant sa transposition en droit national. Chaque signataire est habilité à établir individuellement la documentation technique.

[NL] EG-CONFORMITEITSVERKLARING

Ondergetekenden verklaren hierbij dat - volgens de nationale wetgeving van de Lidstaten - de hierboven vermelde opgegeven machina beantwoordt aan de bepalingen qua veiligheid bij machines (EG richtlijn 2006/42/EC) en electro-magnetische compatibiliteit (EG richtlijn 2004/108/EEC). Ondergetekenden zijn ieder individueel gemachtigd het technisch dossier samen te stellen.

[P] DECLARAÇÃO DE CONFORMIDADE CE

Pela presente, os signatários certificam que o máquina especificado está conforme às Directivas Europeias 2006/42/CE („Máquinas“) e 2004/108/CEE („Inocuidade Electromagnética - IEM“), incluindo as alterações das mesmas e o respetivo decreto-lei para a transposição em lei nacional. Cada um dos signatários está autorizado a proceder à elaboração da documentação técnica.

[I] DICHIARAZIONE DI CONFORMITÀ CE

I sottoscritti dichiarano che il veicolo per trasporti interni a macchina specificato soddisfa le Direttive Europee 2006/42/EC (Direttiva Macchine) e 2004/108/EEC (Compatibilità elettromagnetica - EMV) comprese le relative modifiche, come pure il rispettivo decreto legislativo per la conversione delle direttive in diritto nazionale. I sottoscritti sono singolarmente autorizzati alla creazione della documentazione tecnica.

[BG] ЕВРОПЕЙСКА ОБЩНОСТ - ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ

Подписаните удостоверяват с настоящето, че подробно описаното машина средство отговаря на европейския норматив 2006/42/EG (норматив за машини) и на 2004/108/EG (електро-магнетична съвместимост), включително с техните промени, както и на съответния указ за прилагане на нормативите в националното право. Подписаните при това са упълномощени поотделно да съставят техническата документация.

[CZ] EG - PROHLÁSENÍ O SHODE

Níže podepsaný tímto potvrzuje, že podrobný popis uvedené stroje odpovídá Evropským směrnicím 2006/42/EC (směrnice pro stroje) a 2004/108/EEC (elektromagnetická interference - EMV) včetně jejich pozdějších úprav, jakož i příslušným právním výnosům pro uplatnění příslušné směrnice v rámci národního práva. Každý z podepsaných jsou jednotlivě zplnomocněni k vytvoření technických podkladů.

[DK] EF-OVERENSSTEMMELSESERKLÆRING

Undertegnede attesterer hermed, at det specificerede maskine stemmer overens med de Europæiske Direktiver 2006/42/EU (maskindirektiv) og 2004/108/EØF (elektromagnetisk kompatibilitet - EMC) samt med den modsvarende lovvedtagelse til implementering af direktiver i den nationale lovgivning. De undertegnede er hver for sig beføjet til at sammenstille de tekniske dokumenter.

[EST] EL vastavusavaldus

Allkirjutanud töendavad käesolevaga, et üksikasjaliselt kirjeldatud täpsustatud masin vastab Euroopa direktiividele 2006/42/EÜ (Direktiiv masinate kohta) ja 2004/108/EMÜ (Elektromagnetiline sobivus - EMS) kaasa arvatud nende muudatused ja nendele vastavatele õigusmäärustele direktiivide muutmiseks siseriiklikuks õiguseks. Iga allkirjutanu üksikult on volitatud koostama tehnilist dokumentatsiooni.

[FIN] EU-YHDENMUKAISUUSSELOSTUS

Allekirjoittaneet todistavat täten, että kukaan erikseen mainitut omalla voimanlähteellä varustettu tehdaskone vastaa EU-direktiivien 2006/42/EC (koneenrakennusdirektiivi) ja 2004/108/EEC (sähkömagneettinen yhteensopivuus – EMC) määräyksiä sekä niiden muutoksia ja niiden kansalliseen lainsäädäntöön soveltuamista koskevaa oikeussääntöä. Jokaisella allekirjoittaneesta on oikeus itsenäisesti laataa asiaankuuluvia teknisiä asiakirjoja.

[GR] ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ ΕΟΚ

Οι υπογράφοντες βεβαιώνουν διά της παρούσης ότι το συγκεκριμένο μηχάνημα συμμορφώνεται προς την Κοινωνική Οδηγία 2006/42/EK («Μηχανήματα») και 2004/108/EOK (Ηλεκτρομαγνητικής Συμβοτότητας, ΗΜΣ), καθώς και οι τροποποιήσεις τους, όπως μεταφράστηκε στην εθνική νομοθεσία των χωρών μελών. Οι υπογράφοντες είναι σε κάθε περίπτωση εξουσιοδοτημένοι ατομικά να καταρτίσουν τα τεχνικά έγγραφα.

[H] EU KONFORMITÁSI NYILATKOZAT

Alulírottak ezennel igazolják, hogy a részletesen leírt a megfelel a 2006/42/EC (Gép-Irányelv) és a 2004/108/EEC (Elektromágneses összeférhetőség - EMV) Európai Irányelvöknek, beleértve azok módosításait, valamint az irányelvez nemzeti jogba történő általánosítására irányuló megfelelő jogi rendelkezést. Továbbá az alulírottak mindegyike rendelkezik meghatalmazással arra nézve, hogy összeállíthatja a műszaki dokumentációt.

[LT] ES atitinkimo deklaracija

Zemiau pasirašau asmenys patvirtina, kad atskirai aprašytas nurodyta mašina atitinka Europos Sajungos direktyvas 2006/42/EB (Mašinų direktyva) ir 2004/108/EEB (Elektromagnetinis suderinamumas – EMS) įskaitant jų pakeitimus, o taip pat ir atitinkamą teisės aktą dėl direktyvų įgyvendinimo nacionalinėje teisėje. Kiekvienas iš pasirašiusi asmenų turi teisę ruošti techninę dokumentaciją.

[LV] ES atbilstības deklārācija

Ar zemāk redzamajiem parakstiem tiek apliecināts, ka norādīts mašīna atbilst Eiropas Savienības normatīvām 2006/42/EG (Mašīnu normatīvas) un 2004/108/EWG (Elektromagnētiskā atbilstība – EMV), ieskaitot to izmaiņas, kā arī atbilstošas tiesiskos rīkojumus normatīvu pielāgošanai nacionālajai

likumdošanai. Parakstu īpašnieki ir atsevišķi pilnvaroti sastādīt tehniskās dokumentācijas.

[N] EU-KONFORMITETSERKLÄRING

Undertegnede bekrefter hermed at de enkelte betegnede maskin med kraftdrift tilsvarer de europeiske retningslinjene 2006/42/EC (maskinretningslinje) og 2004/108/EEC (elektromagnetisk fordraglighet - EMV) inklusiv disses endringer og den tilsvarende rettsforordning til omsetning av nasjonal rett. Hver undertegnede er fullmektig til å sette sammen de tekniske dokumentene.

[PL] DEKLARACJA ZGODNOŚCI WE

Niżej podpisani deklarują, że poniżej opisana maszyna spełnia wymagania określone w dyrektywach Europejskich 2006/42/EC (Dyrektywa Maszynowa) i 2004/108/EEC (Kompatybilności elektromagnetycznej - EMC) wraz z ich późniejszymi zmianami oraz odpowiednimi rozporządzeniami mającymi na celu przeniesienie tych dyrektyw do prawa krajów członkowskich. Sygnatarusz jest indywidualnie upoważniony do zestawiania dokumentacji technicznej.

[RO] DECLARATIE DE CONFORMITATE CE

Subsemnatii adeveresc prin prezenta că vehiculul de specificat mașină descriș individual corespunde directivelor europene 2006/42/CE (Directiva privind mașinile) și 2004/108/CEE (Compatibilitatea electromagnetică - CEM) inclusiv modificărilor lor precum și actului legislativ corespunzător prentru transpunerea directivelor în drept național. Subsemnatii sunt fiecare în parte împoterniciți să întocmească documentația tehnică.

[RUS] Декларация соответствия стандартам ЕС

Настоящим лица, подписавшие документ, удостоверяют, что машина с указанной спецификацией соответствует европейским стандартам 2006/42/EG (Транспортная директива) и 2004/108/EWG (Электромагнитная совместимость - EMC), включая изменения в них, а также соответствующим национальным стандартам и нормам. Каждое по отдельности лицо, подписавшее документ, имеет полномочия для составления технической документации.

[S] EG-KONFORMITETSFÖRKLARING

Undertecknarna intygar härmed att det i detalj betecknade maskin uppfyller de Europeiska direktiven 2006/42/EG (Maskindirektiv) och 2004/108/EEG (Elektromagnetisk tålighet - EMV), inklusive ändringarna i detta och den motsvarande rättsförordningen för att omsätta direktiven i nationell rätt. Undertecknarna har var för sig fullmakt att sammanställa den tekniska dokumentationen.

[SK] vyhlásenie o zhode

Dolu podpísaní týmto potvrzdujeme, že podrobny popis uvedené stroje Zodpovedá Európskym smerniciam 2006/42/EC (ernica pre stroje) a 2004/108/EWG (elektromagnetic k tolerancia – EMV) vrátane jeho neskorších úprav, rovnako zodpovedá aj príslušným právnym nariadeniam na uplatnenie smerníc v rámci národného práva. Každý z podpísaných je jednotivo splnomocnený na vytvorenie technických podkladov.

[SLO] EU IZJAVA O SKLADNOSTI

Podpisani s tem potrjujemo, da posamično označeno določeno stroj vozilo odgovarja Evropski direktivi 2006/42/EC (Direktiva o strojih) in 2004/108/EEC (Elektromagnetna skladnost - EMC) vključno z njihovimi spremembami ter ustrezno pravno uredbo o prevzemu smernic v nacionalno pravo. Podpisniki so vsakokrat posamezno pooblaščeni za izdajanje tehnične dokumentacije.

[TR] AB Uygunluk Açıklaması

İmza sahibi şahıslar, ayrıntıları belirtilen makine aracının, 2006/42/EC (Makine Yönetgesi) ve 2004/108/EEC (Elektromanyetik Uyumluluk – EMC) no'lu Avrupa Yönetgelerine ve bunların değişiklik sonucu oluşan metinlerine ve yönetgelerin milli hukuk hükümlerine dönüştürülmesine dair ilgili hukuk kararnamesine uygun olduğunu tasdik ederler. İmza sahibi şahıslar teknik dosyaları bir araya getirmek için münferiden vekil tayin edildi.

- (1) Type/ Typ/ Modello/ Tyyppi/ Tipo / TYΠΟΣ/ Típus/ Tip/ Tips/ Tipas/ Tüüp:
- (2) Serial No./ Serien-Nr./ N°. de série/ Serienummer/ N° de serie/ Numero di serie/ Serienr./ Sarjanro/ συξάνων αριθμός/ Seriové číslo/ Szériaszám/ Nr.Seryjny/ Serijska številka/ Výrobné číslo/ Серийный номер/ Seri No./ Seerianr./ Sērijas Nr./ Serios numeris:
- (3) Year of constr./ Baujahr/ Année de constr./ Bouwjaar/ Año de constr./ Anno di costruzione/ Produktionsår/ Byggear/ Tillverkningsår/ Valmistusvuosi / Ano de fabrico / έτος κατασκευής/ Rok výroby/ Gyártási év/ Rokprodukci/ Letnik / Год изготовления / Üretim yılı / Váljalaskeasta / Izgatavošanas gads / Gamybosmetai
- (4) Manufacturer or his authorized representative in Community/ Hersteller oder in der Gemeinschaft ansässiger Vertreter/ Fabricant ou son mandataire établi dans la Communauté/ Fabrikant of zijn in de Gemeenschap gevestigde gemachtigde/ Fabricante o representante establecido en la Comunidad/ Construtor ou Representante estabelecido na Comunidade/ Costruttore oppure il suo rappresentante nella Comunità/ Fabrikant eller dennesi Fællesskabet etablerede befudlmægtigede/ Produsent eller agent innen felleskapet/ Tillverkare eller representant inom EU/ Valmistaja tai yhteisömaassa oleva edustaja / V'robce nebo jeho zastoupení/ Gyártó / producent albo jego przedstawiciel w EG (Wspólnota Europejska)/ Kanadzethetőazonho á oknívo nyitópóthá alállítottan/ Üretici ya da Bölgedeki Yetkili Temsilci/ Proizvajalec ali pooblaščeni zastopnik s sedežem v EU/ Výrobca alebo zástupca so stálym bydliskom v EÚ / Изготовитель или его представитель, зарегистрированный в стране Содружества/ Tootja või organisatsioonis paiknev esindaja/ Ražotājs vai vietējais uzņēmuma pārstāvis / Gamintojas arba šalyje reziduojanis atlstovas:
- (5) Date/ Datum/ Data/ Fecha/ datum/ Dato/ päiväys/ Kuupäev/ Datums/дата / Dátum/ dátum/ tarih/ ημερομηνία
- (6) Authorised signatory/ Im Auftrag/ pour ordre/ Incaricato/ Por orden de/ por procuração/ op last van/ på vegne af/ på uppdrag/ Etter oppdrag/ psta./ Ülesandel / pavedus / v.i. / По поручению / megbízásából /длъжностно лице / z pověření / z poverenia / po nalogu / na polecenie / din sarcina / adina / θητη' εληνή

(1) Type:

XX XX – Self-propelled industrial truck

(2) Serial No:

XXXXXXX

(3) Year of constr.:

YYYY

(4) Manufacturer or his authorized representative in Community:

Company name/ Street / Postal code Town/ Country

(5) Date:

YYYY/MM/DD

(6) Authorized signatory:

Mr. Sample