



## OPERATING INSTRUCTIONS

Electric pallet truck

HWE1500-2



Please read this manual before using the product and follow the instructions it contains!

## GENERAL

Foreword	3
Safety instructions	3
Technical data	4
Overview of the main components	4
Safety devices and warning signs	5

## MAINTENANCE

Maintenance	5
Instruction manual	5
Charging and replacing the battery	7
Regular inspections	8
Safety regulations	8
Checklist for maintenance / inspection	9
Troubleshooting	10
Service & contact	10
UKCA Declaration of Conformity	11

## FOREWORD

Congratulations on the purchase of your new electric pallet truck HWE1500-2. The easy to use pallet truck has been manufactured from high quality materials, specially designed for long lasting and reliable use. For your own safety and for the correct operation of the lift truck, please read and follow these operating instructions before using the lift truck.

It is best to keep these operating instructions. Check the lift truck for transport damage. Damaged electric lift trucks must not be used.

The lift truck is used for electrical lifting and lowering as well as transporting goods. Improper handling may result in injuries or damage to the machine. The liability for damage resulting from improper use of the device or failure to observe the specifications and rules of conduct contained in this operating manual is excluded. The operator / user must ensure correct use, whereby it must be ensured that the electric lift truck is only used by trained and authorized persons.

## SAFETY INSTRUCTIONS

- Read warning signs on the lift truck and instructions in this manual before use.
- Only operate the lift truck if you are familiar with it and have been trained to do so.
- Only use the lift truck when you have checked that it is in perfect condition. Pay particular attention to the wheels, drawbar, chassis, control unit, battery, etc.
- Do not use on heavily soiled floors or explosive environments.
- Only use on level ground. Do not work on slopes with a gradient of more than 5 %.
- Do not transport persons on the forks.
- Wear gloves when using it.
- When transport / lifting goods, all persons should keep a safety distance of 600 mm.
- Always distribute the weight of the goods evenly on both forks. Never use only one fork. The center of gravity of the goods should be in the middle of the two forks.
- Observe the goods during transport. If the goods become unstable and threaten to fall / tilt, stop operation immediately with the emergency stop button.
- Do not charge beyond the maximum capacity.
- Do not drive the cart while lifting or lowering goods.
- Suitable for indoor use at a room temperature between 0 °C and 40 °C.
- Carry out the maintenance work according to the regular inspection.
- The battery should be charged in a dry and ventilated place and away from open fire.
- Modifications and changes to the device not approved by the manufacturer will void the warranty.

## TECHNICAL DATA

### GENERAL

Type	Unit	Value
Brand		SolidHub
Model		HWE1500-2
Rated Capacity	kg	1500
Service Weight (include Battery)	kg	138
Lift Height	mm	85 - 200
Load Centre	mm	600
Axle Centre to Fork Face	mm	944
Wheelbase	mm	1190

### DIMENSIONS

Type	Unit	Value
Height of Draw Bar in driving Position, min. / max.	mm	725 / 1145
Fork Height, lowered	mm	85
Overall Length	mm	1550
Length to Fork Face	mm	400
Overall Width	mm	550 / 685
Fork Dimensions	mm	50 x 150 x 1150
Min. Ground Clearance	mm	35
Aisle Width with Pallet 1000 x 1200 across Forks	mm	1750
Aisle Width with Pallet 800 x 1200 along Forks	mm	1800
Min. Turning Radius	mm	1345

### PERFORMANCE

Type	Unit	Value
Travel Speed, with / without Load	km/h	4.2 / 4.5
Max. Gradeability with / without Load	%	5 / 10
Service Break		Electromagnetic

### WHEELS

Type	Unit	Value
Wheeltype		PU
Driving Wheel Size	mm	Ø 210 x 70
Bearing Wheel Size	mm	Ø 80 x 60
Track Width, rear, loading Side	mm	400 / 535
Wheels, Number front / rear (x = driven)		1x / 4

### DRIVE

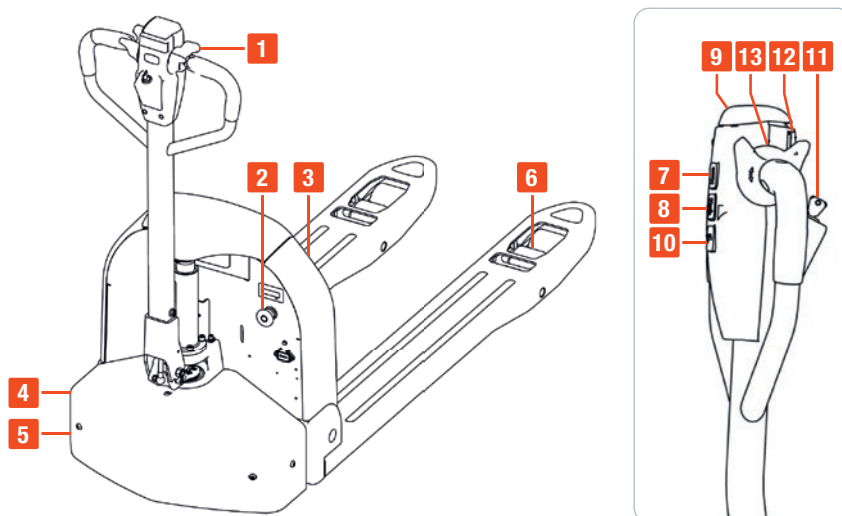
Type	Unit	Value
Drive Motor, Output S2 60 min.	kw	0.75
Lift Motor Rating at S3 15 %	kw	0.8
Battery Voltage	V	24
Rated Capacity	Ah	30
Battery Weight (+ / - 5 %)	kg	7

### OTHERS

Type	Unit	Value
Type of Drive Control		DC
Noise Exposure of the Operator	dB(A)	≤ 70
Steering Type		Mechanical Steering

## OVERVIEW OF THE MAIN COMPONENTS

Nr.	Value
1	Handle Arrangement
2	Emergency Stop Button
3	Lithium-Ion-Battery
4	Actuator Housing
5	Drive Wheel
6	Tandem Bike
7	Lowering Button
8	Lifting Button
9	Belly Switch
10	Horn
11	Key Switch
12	Turtle Speed Switch
13	Accelerator



## SAFETY DEVICES AND WARNING SIGNS

The lift truck has an emergency stop switch (2 / E) that stops all lifting, falling and driving functions and disables the electromagnetic brake. After actuating this function, pull the switch out again. Unlock the lift truck according to the operating instructions. For safety and against unauthorized use, the red button must be pressed. Follow the instructions on the safety stickers. Please replace damaged or missing safety stickers immediately.

## MAINTENANCE

### DAILY INSPECTION AND MAINTENANCE

Check the lift truck daily before use, paying particular attention to the wheels and axles. Foreign objects such as cloth / cloths etc. can jam the wheels or fork. After finishing work with the lift truck and before checking, unload the forks and lower them to the lowest position.

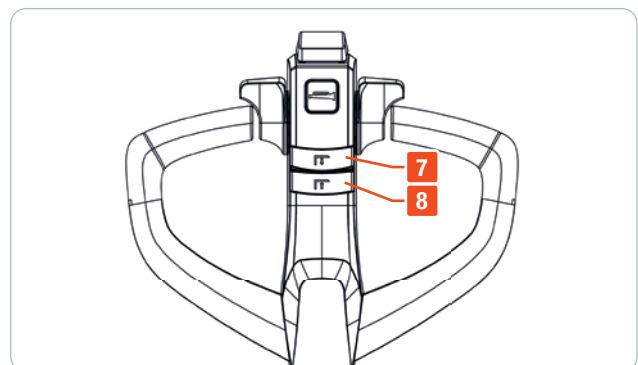
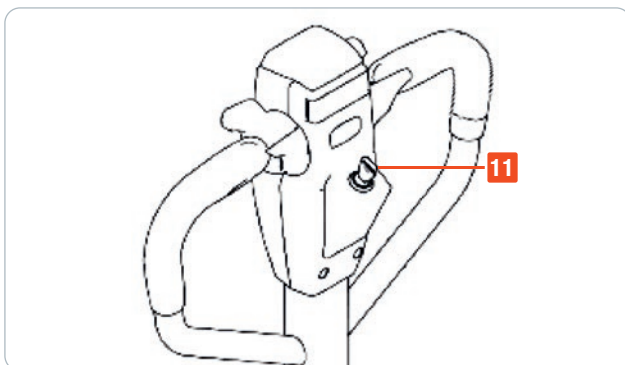
- Visual inspection for damage to pipes, wires, scratches, deformations or cracks.
- Check for leaks in the hydraulic system.
- Check the condition of the vehicle when driving straight ahead.
- Check the rollers for damage or corrosion.
- Check that the wheel moves smoothly.
- Press the emergency stop button to check the emergency brake function.
- Check brake function, check handle lever switch.
- Press the keys to check the lifting and lowering function.
- Check the horn.
- Check that all screws and nuts are tightened.
- Check the function of the key switch.
- Use engine oil or grease to lubricate all moving parts.

## INSTRUCTION MANUAL

Please observe the warning and safety instructions when operating this lift truck. Make sure that you always look in the direction of travel and that no goods or objects obstruct or restrict your view. Make sure that the goods are placed stable and safe for transport in the middle of the fork.

### SWITCH ON AND OFF

Ensure that goods are placed stably and securely in the centre of the forks for transport. To start turn the key (11) clockwise to the ON position. Press the horn (trumpet symbol) to start the signal tone.



## PARKING

Never park the lift truck on a slope or sloping terrain! This lift truck is equipped with an electromagnetic parking brake. When not in use, always set the fork to the lower position and park the lift truck in a safe area. Use the X button (A) to secure the machine against unauthorized access.

## LIFTING OF LOADS

Never load the forklift beyond the specified capacity. The maximum load capacity of the HWE1500-2 is 1500 kg.

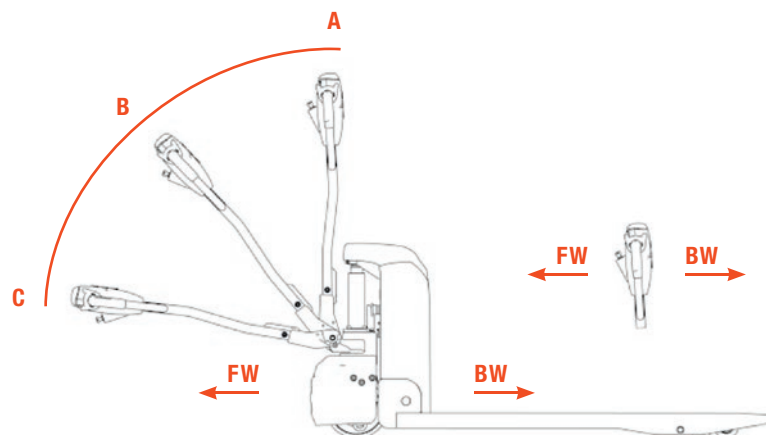
To move, place the fork completely under the goods to be lifted and press the lift button (8). Take short brakes in between lifting to prevent the engine from overheating.

## LOWERING OF LOADS

Press the down button (7) carefully. As soon as the weight has been reduced and the pallet stands securely, carefully pull out the fork.

## CONTROL

Start the lift truck, bring the tiller to an inclined position "B". Operate the direction lever on the tiller: Forward "FW" or Backward "BW". By moving the direction lever carefully, you control the speed until the desired speed is reached. Position the directional lever in the middle to slow down the lift truck until it comes to a complete stop / park position. Always drive carefully and keep your eyes on the road - adjust the speed if necessary. Reduce the speed if necessary also by using the turtle switch.



## APPLY BRAKES

The load braking performance depends on the ground conditions and the load of the lift truck. Activate the brake function as follows: By moving the directional lever back to position "A" or by releasing this lever, the truck brake is activated, or by moving the directional lever in the opposite direction until it begins to move in the other direction. If the tiller is moved up "A" or down into the braking zone "C", the vehicle braking is activated. When the emergency stop switch is pressed, the handle is automatically moved to the braking zone and the parking brake is activated. The large red safety button on the head of the tiller allows this function to be triggered with the upper body as well. The lift truck slows down and comes to a standstill up to reverse "BW".

## TROUBLESHOOTING

If there is a fault and / or the lift truck does not work, please stop using the truck and press the emergency stop button (2). Immediately inform your service representative and / or contact customer service.

## IN CASE OF EMERGENCY

In case of an emergency, press the emergency stop switch (2). All electrical functions are stopped. Keep a safety distance.

## CHARGING AND REPLACING THE BATTERY

- Only qualified personnel should repair or recharge the battery. Please observe the operating instructions.
- These batteries are maintenance-free and must not be refilled with water.
- Battery recycling must comply with state laws and regulations. Please comply with these regulations.
- Improper handling, e.g. use near fire or gas, may cause an explosion! For this reason, storage of flammable materials or flammable liquids in the charging area of the battery is prohibited. Smoking is prohibited and the area must be well ventilated.
- Before charging the battery, place the lift truck in a safe position (parking position).
- Perform maintenance work before connecting the wiring harness correctly and trouble-free to other parts of the vehicle.
- The pallet truck is equipped with a lithium-ion battery; battery voltage 24 V; This battery belongs to the environmental protection battery, without chemical mercury and cadmium.
- Only use of the sealed lead battery is permitted.
- The battery has an operating temperature between 0 °C and 40 °C.
- The battery must be charged and discharged at least once a month.
- The battery must not be short-circuited, as this can permanently damage the battery.
- Do not incinerate or destroy batteries as this may result in the release or explosion of toxins or gases.
- If the battery has warmed up after use, please let it cool down in a ventilated environment before charging.

## CHARGING THE BATTERY

The lithium-ion battery may only be charged with the supplied power supply unit. After approximately 1.5 - 2 hours (continuous load) the battery of the lift truck must be charged. Only charge the battery in well ventilated places.

When charging is complete, disconnect the plug from the mains and the battery. If the battery is completely discharged, the charging process takes about 2.5 hours. If the battery level is too low, you won't be able to lift the forks anymore.

In that case charge the battery.

If you want to replace the battery follow these steps

1. Turn off the machine.
2. Open the battery cover and unplug the battery.
3. Pull out the battery.

## REGULAR INSPECTIONS

Only qualified and trained personnel may service the lift truck. Before maintenance, please remove any goods from the fork and bring it to the lowest position (parking position of the forks). Use only special cranes / hoists to lift the lift truck. Make sure to position an additional safety device (such as a jack, wedge or wood) under the lift truck. Special care must be taken when servicing the handlebars. The gas spring is under pressure. Carelessness during maintenance is a source of accidents.

Please use only approved original spare parts. Spare parts, including all oils, must be collected and processed in accordance with local environmental and health laws.

Please note that leakage of the hydraulic oil can lead to failure of the machine and possibly to an accident. Have only a technician trained for work on the pressure control valve carry out the work. If you need to replace a wheel, please follow the instructions above. The impeller must be round and must not show any abnormal wear. Regularly service the lift truck using the checklist provided in the user manual. Maintenance technician: Maintenance and servicing should only be carried out by a maintenance technician trained by the manufacturer. After the service and maintenance work has been carried out, this must be recorded and signed in the service protocol.

**Cleaning procedure:** Do not use flammable liquids to clean the lift truck. All power to the unit must be turned off before cleaning. (emergency stop switch) Use soft air suction or compressed air, non-conductive and antistatic brushes for cleaning electrical and electronic components.

**Wheels:** The quality of the wheels has a considerable influence on the stability and handling of the lift truck. Changes to the wheels may only be made after consulting the manufacturer. The wheels must always be replaced in pairs.

**Lifting chain and rollers:** Chain and rollers wear quickly without good lubrication. Perform periodic lubrication according to the following maintenance table. Shorten the lubrication period under unfavourable operating conditions (such as in dusty environments).

**Hydraulic oil line:** The oil line must be replaced every 6 years. When changing the hydraulically mounted parts, the oil line should also be changed.

The respective inspection points (plus equipment identification) for the periodic inspections/thorough examinations are to be checked in an integrated manner in the associated inspection report of the lifting equipment, taking into account the mandatory fulfilment of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER). (Recommendation: FEM4.004)

## SAFETY REGULATIONS

**Requirement for the operator:** All employees who work with the lift truck must receive instruction on the device in advance. The employees must be familiar with the contents of the operating instructions. Untrained personnel is not allowed to operate the lift truck.

**Error messages:** If the vehicle has malfunctions or defects, this must be reported to the manufacturer. If there is any wear on the wheels or brakes, the lift truck must not be used until it has been completely repaired.

**Safe operation and environmental protection:** Inspection and maintenance must be performed in accordance with the time intervals on the maintenance list. Vehicle parts, especially safety devices, must not be changed without approval. All original spare parts have been checked by the quality assurance department. To ensure safety, only original spare parts from the manufacturer may be used. Old wear parts, oils and fuels must be disposed of in accordance with the environmental regulations of the respective country.

**Safety regulations and warning signs:** Safety regulations, warning signs and warning notices described in these operating instructions and on the lift truck must be observed.

**Participation in road traffic:** The lift truck may not be used in public places, except in special areas. Use in the elevator and manoeuvring on the loading area: if the elevator or a loading area has sufficient loading capacity, it is allowed to use the lift truck on these areas. If the elevator is also to be used by persons, it must be ensured that the elevator truck is parked in the elevator before persons enter the elevator.



**Travel speed:** The travel speed must be adapted to local conditions. The speed must be slowed down when turning, as well as when passing through narrow passages and doors. The operator must maintain control of the lift truck at all times.

**Use on loading ramps:** When driving on a ramp, make sure that the ramp is clean and non-slip. The goods must always point upwards on the ramp, thus preventing the goods from sliding down. It is not allowed to stop or turn around on a ramp.

## CHECKLIST FOR MAINTENANCE / INSPECTION

		Monthly intervals			
		1	3	6	12
<b>Brake</b>					
1.1	Check the brake performance; if necessary, replace the brake discs or adjust the brake clearance			•	
<b>Electrics</b>					
2.1	Check display, display for function	•			
2.2	Check the alarm system and safety equipment		•		
2.3	Check if wires are damaged			•	
2.4	Check electrical connections and terminals		•		
2.5	Check the electric motor for noises		•		
<b>Battery</b>					
3.1	Check the battery voltage		•		
3.2	Visual inspection of the battery charging plugs			•	
3.3	Check for corrosion or damage		•		
3.4	Check if the battery case is damaged		•		
<b>Mechanics</b>					
4.1	Check the gearbox for abnormal noises			•	
4.2	Check the chassis for deformation and cracks		•		
4.3	Lubricating the steering		•		
4.4	Check that all screws are tightened securely		•		
4.5	Check the chassis and chain for corrosion, deformation or damage, replace the chain if necessary	•			
4.6	Check the wheels / rollers for deformation and/or damage, replace faulty wheels if necessary			•	
<b>Hydraulics</b>					
5.1	Check functionality		•		
5.2	Check the hoses, tubes and the interface for attachment, sealing and presence		•		
5.3	Testing of pistons and cylinders			•	
5.4	Checking the chain			•	
5.5	Check oil level			•	
5.6	Refilling the hydraulic oil				•
5.7	Check and clean hydraulic oil filter. Replace if necessary				•
5.8	Change hydraulic oil monthly (hydraulic oil YA-N32)	•			
<b>Battery charger</b>					
6.1	Check whether the power cable or the power supply unit is damaged		•		
<b>Functions</b>					
7.1	Test of the signal tone	•			
7.2	Checking the Electromagnetic Brake with air gap	•			
7.3	Testing the emergency brake function	•			
7.4	Test of reverse braking and regenerative braking function	•			
7.5	Testing the large red emergency stop switch on the drawbar (belly switch)	•			
7.6	Check the steering function	•			
7.7	Check the lifting and lowering function	•			
7.8	Check the functions of the drawbar	•			
7.9	Check the key switch for damage	•			
<b>Miscellaneous</b>					
8.1	Check that all labels are legible and complete	•			
8.2	Perform a test run	•			

## TROUBLESHOOTING

Problem	Cause	Solution
After pressing the button, the operating display does not light up	Power interruption due to loose contacts	Check the battery terminals and tighten the screws on all connections. The switch contacts should be free
The piston rod of the lifting oil cylinder does not extend at a constant speed	There is air in the cylinder	Start the process 2 - 3 times to get the air out of the cylinder
The lifting oil cylinder cannot be lifted	The hydraulic oil in the system is not sufficient	Top up hydraulic oil
	Battery charge is too low	Charge the battery
	Oil leaks from the machine	Inject, repair and replace the seals if necessary and tighten the screws on the oil line connections
	The machine was overloaded	Take goods off the fork to reduce the load
The machine produces an abnormal noise during up and down travel	Too little or dirty hydraulic oil in the system	Check the quality of the oil filled in and top up with clean oil
	The motor or housing is loose and causes friction	Tighten the loose screws
	The environment is very humid	Reduce the air humidity

## SERVICE & CONTACT

Contact our product experts and find help and solutions for your product. Here you will find all contact information listed by country and language: [www.topregal.co.uk/en/service](http://www.topregal.co.uk/en/service)

Responsible for the content:  
 TOPREGAL GmbH  
 Industriestrasse 3  
 70794 Filderstadt  
 GERMANY  
[www.topregal.com](http://www.topregal.com)

# UKCA Declaration of Conformity

The manufacturer

**TOPREGAL UK Ltd.**  
**Carlton Drive Crumlin**  
**Gwent NP11 4EA**

hereby declares that the following product

Product name:

**SolidHub Electric pallet truck**

Type:

**HWE1500-2**

Serial number:

**HWE1500-2-1000000000 - HWE1500-2-9999999999**

that the equipment is in conformity with the following relevant UK legislations and applied standards:

**2006/42/EC Machinery Directive**

**EN ISO 12100**

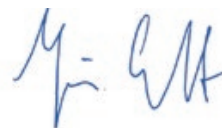
**EN ISO 3691**

**EN 1175-1+A1**

**EN 16307-1+A1**

Name and address of the person who is authorized, compile the technical documentation:

TOPREGAL UK Ltd.  
Carlton Drive Crumlin  
Gwent NP11 4EA



Place: Crumlin UK  
Date: 21.01.2022

Juergen Effner  
Chief Executive Officer

# SolidHub