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CD-1501XS

Model 04 Pallet stacking forklift Usage and Maintenance Instructions



Warning

You must read the operating instructions in this manual before use.



Notice

- . Please check the last page of this document and the nameplate for all current product type markings.
- . Keep the item safe for further use.

Perface

Before operating this electric stacker, please carefully read this instruction manual and fully understand how to use the vehicle. Improper operation may lead to danger.

This manual describes the operation of different types of electric stackers. Please ensure that the stacker is compatible with your company's model when operating and maintaining it.

Keep this manual safe for future use. If this manual or warning label is damaged or lost, please contact your local dealer for a replacement.

This pallet stacker meets the requirements of the following European standards: EN ISO 3691-1, EN 12895, EN 12053, and EN 1175-1. This compliance is based on the assumption that the vehicle is operated for its intended use as specified by these standards.

Notice:

- . Hazardous waste that is harmful to the environment, such as used batteries, waste oil, and electronic products, can have negative impacts on the ecological environment or human health if not handled properly.
- . Waste packaging should be placed in solid waste bins according to material classification and collected and processed by local specialized environmental protection agencies. To avoid pollution, littering is prohibited.
- . To prevent oil leaks during product use, users should prepare absorbent materials (sawdust or dry cloths) to promptly absorb any spilled oil. To avoid secondary environmental pollution, used absorbent materials should be disposed of to the appropriate department according to local regulations.
- . Our products are continuously being improved. Since this manual is intended solely for the operation and maintenance of stackers, it does not guarantee any specific functionality. Thank you for your understanding.

Notice:

In this manual, the symbols on the left indicate warnings and dangerous situations that could result in death or serious injury if not followed.

Copyright

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1.How to use

This electric stacker forklift may only be used in accordance with this instruction manual.

- 1.The stacker truck described in this manual is a walk-behind electric stacker truck with electrically operated height control. This stacker truck is designed to lift, lower, and transport rack loads to the desired lifting height.
- 2.Improper use may result in personal injury or machine damage.
- 3.The operator/operating company must ensure proper use and that the stacker forklift is operated only by trained and authorized personnel.
- 4.This forklift must be used on a firm, level, intact plane and suitable surface. This vehicle is designed for indoor use in ambient temperatures ranging from +5°C to +40°C and for light-load applications where crossing permanent obstacles or pits is not required.
- 5.Operation on slopes is prohibited. When operating, the load must be approximately positioned at the load center of the forklift.
- 6.Lifting or transporting personnel is strictly prohibited. If transport is necessary, the goods must be lowered to the lifting point (<300mm).
- 7.This vehicle is prohibited from being used on lifting platforms or loading/unloading ramps.
- 8.Rated loads are indicated on the load curve and nameplate. Operators must heed these warning signs and safety instructions.Operating lighting must be at least 50 lux.

Change

Any changes or alterations that may affect the vehicle's rated load, stability, or safe operation must be approved in writing by the vehicle's original manufacturer, its authorized manufacturer, or its successor. This includes changes affecting braking, steering, visibility, and the addition of movable accessories. Once the manufacturer or its successor has approved the modifications or alterations, the load curves, labels, identification markings, and operating and maintenance manuals must be updated accordingly. Damage to the vehicle resulting from failure to follow these instructions will void the warranty.

2.Vehicle overview

a.Overview of main components

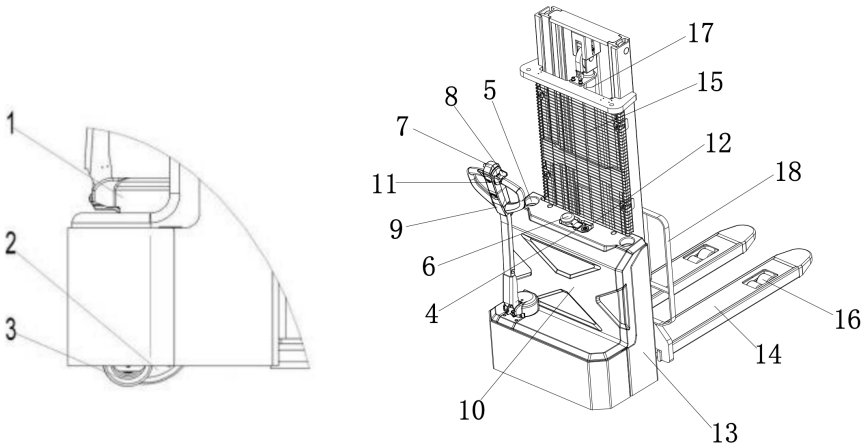


Figure 1:Overview of main components

1	Drive motor cover	10	Outer cover assembly
2	Driving wheel	11	Battery display
3	Steering wheel	12	Key switch
4	Charging indicator light (optional)	13	Body
5	Charging spring cable (optional)	14	Pallet rack
6	Emergency stop switch	15	Grille
7	Belly switch	16	Load-bearing wheels
8	Accelerator (butterfly switch)	17	Hydraulic system
9	Multifunctional handle	18	Back rack (optional)

b.Main technical data

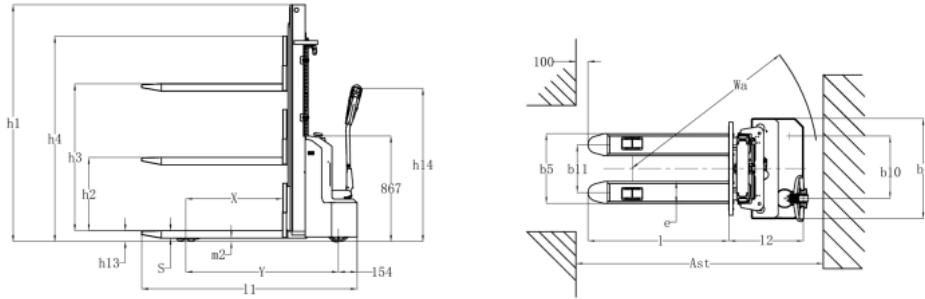


Figure 2 : Technical parameters

Based on VDI 2198 Standard Industrial Vehicle Type Table

Characteristic	1.1 Mode	/	SE-HSWS1501
	1.2 Power source(electric, diesel, LPG, electrical)	/	Electric
	1.3 Driving methods (walking, standing, seated, picking)	/	Walk-Behind
	1.4 Rated load carrying capacity	Q(t)	1.5
	1.5 Load center distance	C(mm)	600
	1.6 Front overhang	X(mm)	789
	1.7 Wheelbase	Y(mm)	1245
Weight	2.1 Weight (including battery)	kg	560
	2.2 Fully loaded, the axle load is applied to the drive wheel side/load-bearing wheel side.	kg	580/1400
	2.3 Unloaded axle load on drive wheel side/load-bearing wheel side	kg	400/160
Wheel	3.1 tire	/	PU(PU Wheel)
	3.2 Front wheel size	Φ x w (mm)	Φ220 × 70
	3.3 Rear wheel size	Φ x w (mm)	Φ80 × 70
	3.4 Stabilizer wheel (size)	Φ x w (mm)	Φ100 × 50
	3.5 Number of wheels (front/rear)	/	1x+1/2
	3.6 Wheelbase (front)	b10(mm)	557
	3.7 Wheelbase (Rear)	b11(mm)	410
Size	4.1 Gauge height when retracted	h1 (mm)	1932
	4.2 Free height gain	h2 (mm)	78
	4.3 Lift height	h3 (mm)	2813
	4.4 Maximum height of gantry during operation	h4 (mm)	3339
	4.5 Handle height at minimum/maximum drive position	h14mm	670/1228
	4.6 Fork lowering height	h13mm	87
	4.7 Overall length	l1(mm)	1759
	4.8 Body length	l2(mm)	614
	4.9 overall width	b1(mm)	820
	4.10 Fork size	s/ e/ l(mm)	60/80/1150

Size	4.11 Distance between fork arms	b5 (mm)	570
	4.12 Minimum ground clearance	m2(mm)	27
	4.13 The aisle width is 1000*1200 mm and the forks are placed along the forks (200 mm safety distance)	Ast (mm)	2324
	4.14 The aisle width is 800*1200 mm and the forks are placed along the forks (200 mm safety distance)	Ast (mm)	2269
	4.15 Turning radius	Wa (mm)	1481
performance	5.1 Driving speed: Full load/Unloaded	km/h	4.3/4.65
	5.2 Speed increase (full load/no load)	m/s	0.096/0.155
	5.3 Descent speed full load/no load	m/s	0.125/0.117
	5.4 Maximum climbing ability (full load/no load)	%	5/10
	5.5 Driving brake		Electromagnetic braking
Motor	6.1 Drive motor power	kW	0.75
	6.2 Increase motor power S3 7.5%	kW	2.2
	6.3 battery based on DIN 43531/ 35/ 36A, B, C standard		no
	6.4 Battery voltage, rated capacity K5	V/Ah	2x12/ 61
	6.5 Battery weight	kg	2x20
	6.6 energy consumption, base on VDI recycle standard	kWh/h	0.8
Other	7.1 Drive control method		DC speed control
	7.2 Driver's ear noise level	db(A)	≤ 75

Specifications and models

Specifications and models		Gauge height when retracted h1(mm)	Free height gain h2(mm)	Lift height h3(mm)	Maximum height of gantry during operation h4(mm)	Maximum fork clearance h3+h13(mm)
Single door frame	1600	1980	1508	1513	1985	1600
	2000	2380	1908	1913	2385	2000
Double door frame	2600	1782	78	2513	3039	2600
	2900	1932	78	2813	3339	2900
	3200	2082	78	3113	3639	3200
	3600	2282	78	3513	4039	3600

c. Description of safety devices and warning labels

- A Hook tag
- B Warning label: Do not stand under or on the forks.
- C Load curve icon sticker
- D Read and follow the instructions on the label.
- E "No Rides" sticker
- F Nameplate
- G Refueling sticker

This stacker forklift has an emergency stop switch 6 (Figure 1), can stop all lifting, lowering, and driving functions, and can also disable the electromagnetic brake. After checking the controller's functions, simply pull up this switch to operate the stacker forklift. Before operation, insert the key and turn on the switch 12 (Figure 1) rotate clockwise. If you are not operating this forklift, to prevent unauthorized use, turn the key counterclockwise and remove it. This forklift is equipped with a belly switch. (Figure 1), When the vehicle is moving towards the operator, simply touch the belly switch within the handle's operating range to move the vehicle away from the operator. Also, follow the instructions shown on the label. Replace the label promptly if it is damaged or missing.

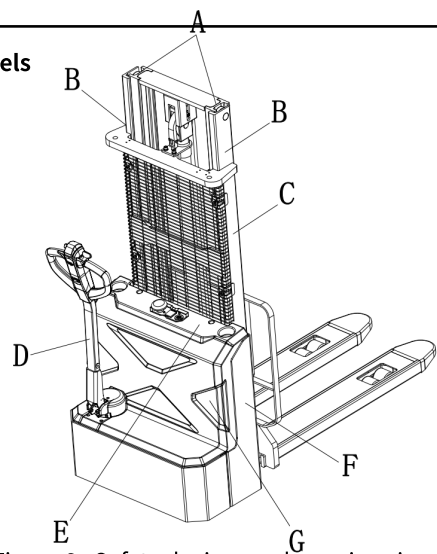


Figure 3: Safety devices and warning signs

d. VIN location

VIN is located on the vehicle's hull.

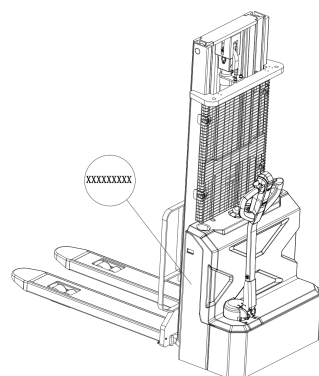


Figure 4: VIN location

e. Nameplate

The nameplate is located on the left or right side of the vehicle body.

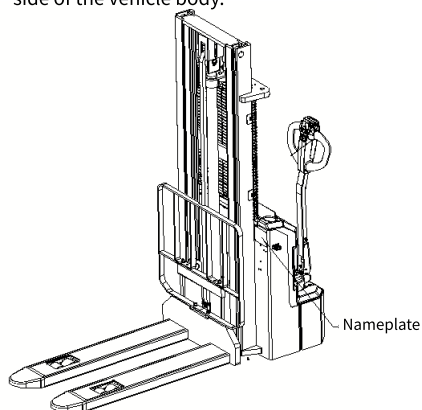


Figure 5 : Nameplate location

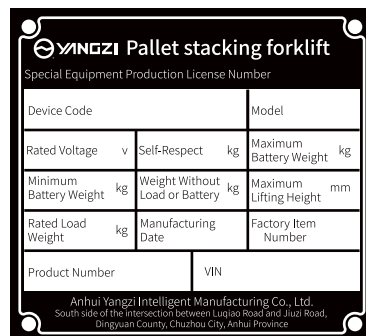


Figure 6: Nameplate (Subject to the actual posting)

3. Warnings, Residual Risks and Safety Instructions

⚠ strictly prohibited

- When operating outdoors, stacking operations raise the cargo to a height above the lifting point. (<300MM)
- Place your feet or hands under or inside the lifting mechanism.
- Placing your foot in front of the wheel can cause injury.
- Lifting personnel. Personnel may fall and suffer serious injury.
- Push and pull goods
- Use this vehicle on a slope.
- Vehicles without protective netting installed (Figure 1, item 15/Grille).
- Side loading or rear loading. Goods must be evenly distributed on the forks.
- Use this vehicle to load unstable or unbalanced cargo.
- Use without the manufacturer's instruction manual.
- Provides AC voltage other than 110V or 220V required by the vehicle charger.

Observe different ground conditions while driving. Goods may fall or the vehicle may lose control. Check the load status from time to time. If the goods become unstable, stop operating the vehicle immediately. If the goods slide on or off the vehicle, brake the vehicle immediately and press the emergency stop switch 6. For any malfunctions of the forklift, please refer to Chapter 6.

Perform maintenance according to regular inspections. This stacker is not waterproof. Please use this vehicle in a dry environment. Prolonged continuous operation may damage the battery assembly. Stop operation if the hydraulic oil temperature becomes too high.

⚠ precautions

- When operating this forklift, the operator must wear safety shoes.
- This vehicle is suitable for indoor use in temperatures between +5°C and +40°C.
- Operating lighting must be at least [a minimum] 50 Lux.
- Operating vehicles on slopes is prohibited.
- 为To prevent unexpected sudden movement of the vehicle body when it is not being operated., the vehicle power must be turned off when not in use.

4. Test run, transportation, shutdown

a. Test run

Table 2: Test run data

Model	HSWS1501
Packing weight [kg]	705
Lift height [mm]	2900

Upon receiving your new forklift or before performing readjustment, please perform the following steps before (first) operating the vehicle: Check that all parts are included and undamaged.

- Final installation and charging of the battery (see Chapter 7)
- Work is carried out based on routine inspections and machine function checks.

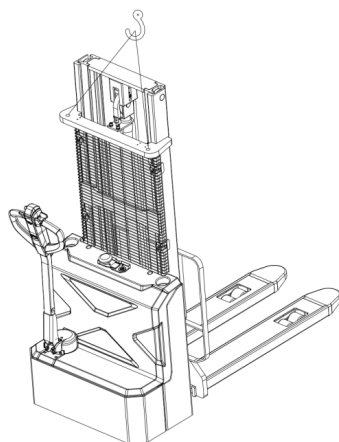


Figure 7: Use a crane to lift and transport

b. Lift/Transportation

During transport, remove the goods, lower the forks to the lowest position, and secure the vehicle with specialized lifting equipment as shown in Figure 7.

⚠ Lift

When using a specialized crane, do not stand under swaying cargo. Do not enter the danger zone during hoisting.

Park the vehicle safely and secure the vehicle body according to the points shown in Figure 8. Lift the vehicle to its destination and safely place the vehicle before removing the lifting equipment.

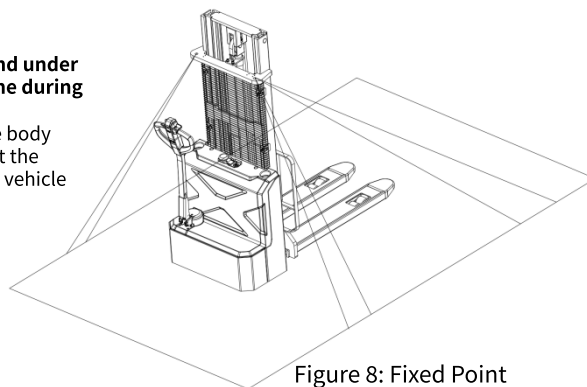


Figure 8: Fixed Point

Transportation

During transportation, the vehicle must be securely fastened to the truck or van.



Lower the forks and park the vehicle safely. As shown in Figure 8, secure the forks to the mast and body of each vehicle with lifting straps, and secure the other side to the transport truck.

c. Storage/Discontinuation

When storing, remove cargo, lower the vehicle to its lowest position, and apply grease to all lubrication points mentioned in this manual (check regularly) to prevent rust and dust accumulation. Remove the battery and check safety devices to ensure the vehicle is not crushed after storage.

When the vehicle is finally decommissioned, it will be handed over to a designated recycling company. According to regulations, the oil, battery, and electrical components must be recycled.

5. Daily inspection

This chapter explains the pre-operation checks that must be performed before operating a vehicle. Routine inspections can effectively detect malfunctions or breakdowns in this vehicle. Before operation, the following points should be checked:

⚠ Move the goods onto the vehicle body and lower the forks. If any malfunction is found, stop using this vehicle.

- Check for scratches, deformation, or cracks.
- Check if the hydraulic cylinder is leaking oil.
- Check the vehicle's longitudinal movement.
- Inspect the chain and rollers for damage or corrosion.
- Check if the wheels can move smoothly.
- Press the emergency stop button to check the emergency braking function.
- Check the braking function of the lever switch.
- Press the button to check the raise and lower functions.
- Check the protective mesh for damage and ensure it is installed correctly.
- Check the speaker
- Check that all bolts and nuts are tightened.
- Check the function of the key switch
- Check the speed limit switch
- Visually inspect for any damaged oil pipes or wires.
- If the vehicle is equipped with a guardrail, check it for damage and ensure it is installed correctly.

6. Operating Instructions

Before operating this vehicle, please follow the warnings and safety instructions (see Chapter 2).

Before operating this vehicle, ensure that the cargo or other equipment will not impair visibility!

Ensure the goods are placed horizontally and stably, and conduct daily checks. To begin, insert the key and turn it clockwise to the "open" position. The key can only be used on walk-controlled electric stackers. Before finally inserting the key, carefully pull out the emergency stop button.

Press the horn button 21 (Figure 9) to start the horn.

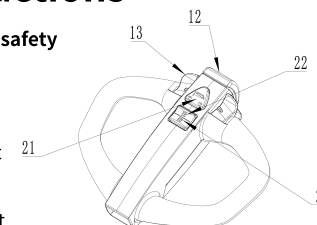


Figure 9: Handle operation control

a. Parking

⚠ Do not park on the slope.

This vehicle is equipped with an electromagnetic fault-protected parking and parking brake.

Always lower the forks fully and drive the vehicle to a safe area. Turn the key counterclockwise to the "off" position and remove it.

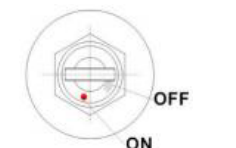


Figure 10: Key switch

b. Load curve

The load curve shows the maximum load capacity Q [kg] of a vehicle with a given load center c [mm] and a corresponding lifting height H [mm] for a horizontally loaded vehicle.

For example: a cargo with a center of gravity distance c of 500mm has a maximum lifting height H of 3600mm, at its highest altitude, the maximum load capacity Q is 800 kg.

Type	HSWS-1501
Mast	3600

h3 (mm)	Q (kg)	
3600	800	600
3200	1000	800
2900	1200	1000
2500	1500	1100

c (mm)	500	600
--------	-----	-----

Figure 11: Load curve

c. Lifting

- ⚠ Do not overload. This vehicle has a maximum load capacity of 1500kg when the load center is 500mm away. Only exceed the load capacity allowed by the load curve.**

When driving, lower the forks completely onto the legs and press the lift button (Figure 9, 22) until you reach your desired lifting height.

d. Decline

If the forks are on the rack, carefully remove the vehicle from the rack, either along with the pallet or separately.

Carefully press the lower button (Figure 9, 23). Lower the cargo until the forks leave the pallet, then carefully drive the vehicle away from the cargo.

e. Drive

- ⚠ Travel on an incline is permitted only when the cargo is facing upwards. As shown in Figure 12, do not exceed the specified technical parameters when traveling on an incline.**

Speed is limited when the forks are raised to the lifting point (>300mm).

Turn the inserted key to the 'on' position (Fig. 10; finally, carefully pull out the emergency stop button), start the vehicle, and move the handle to the operating area ('F', Fig. 13).

Rotate the accelerator button to the desired forward direction 'Fw.' or backward direction 'Bw.' (Figure 13).

Control your speed by carefully moving the accelerator button (13, Figure 9) until you reach the desired speed.

If you move the accelerator button back to the middle position, the controller will slow the vehicle down until it stops.

If the vehicle comes to a stop, the parking brake will engage.

Drive carefully to your destination. Observe road conditions and adjust your speed using the accelerator button.

f. Turn

The vehicle is steered by moving the handle left and right.

g. Break

- ⚠ Braking performance depends on road conditions and vehicle load.**

The braking function can be activated in the following ways (Figure 9, Figure 13):

- Regenerative braking is activated by moving the accelerator button (Figure 9, 13) back to the '0' position or releasing the button. The vehicle brakes until it comes to a stop.
- By moving the accelerator button (Fig. 9, 13) directly from one direction of travel to the opposite direction, the vehicle performs regenerative braking until it begins to travel in the opposite direction.
- If the lever is moved up or down to the braking zone ('B'), the vehicle brakes. If the lever is released, it automatically moves up to the upper braking zone ('B'). The vehicle begins to brake until it comes to a stop.
- The belly switch (Figures 9, 12) prevents the operator from being squeezed. Pressing this switch will cause the vehicle to begin decelerating and/or begin to reverse a short distance ('Bw.') before coming to a stop. Consider this switch as also being usable if the handle is in the operating area and the vehicle is not moving.

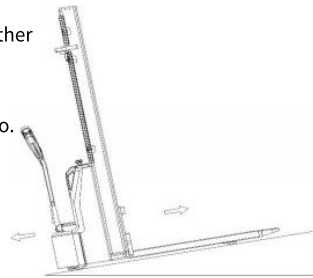


Figure 12: Goods up

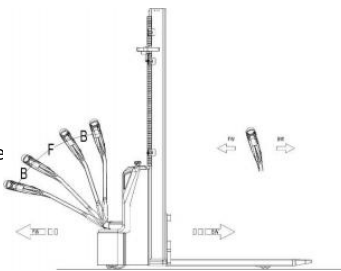


Figure 13: Operation direct

h. Fault

If the vehicle malfunctions or becomes inoperable, stop using the vehicle and press the emergency stop switch 6 (Figure 1). If possible, park the vehicle in a safe area, turn the key switch 12 (Figure 1) counter-clockwise, and then remove the key.

Immediately notify the manager and/or contact your after-sales service personnel. If necessary, use professional lifting equipment to tow the vehicle away from the operating area.

i. Emergency

In an emergency or when the vehicle is at risk of overturning, maintain a safe distance. If possible, press the emergency stop switch (6), which will immediately shut down all electrical functions.

7. Battery charging and replacement



- Only qualified personnel may perform repairs or charge the battery. Please strictly adhere to this user manual and the battery manufacturer's instructions.
- These batteries are maintenance-free; refilling is prohibited.
- Battery recycling must comply with national regulations. Please follow these regulations.
- Never use open flames when handling batteries, as the gases may cause an explosion!
- Flammable materials or liquids must not be stored in the battery charging area. Smoking is prohibited, and this area must be well-ventilated.
- Please park your vehicle safely before starting to charge or installing/replacing the battery.
- Before completing the maintenance work, ensure that all wiring harness connections are correct and do not interfere with other components on the vehicle.

For lead-acid models, this vehicle is equipped with the following sealed liquid acid batteries:

- 2 pieces of 12V/61Ah 3hr

For lithium battery models, this vehicle is equipped with the following lithium batteries:

- 1 piece 24V/60Ah



- ⚠ The weight of the battery can have a certain impact on vehicle handling. Please take into account the maximum operating temperature of the battery.

a. Replace

Park the vehicle safely, close the stacker truck with the key (Fig. 1, 12) and press the emergency stop switch (Fig. 1, 6). Unscrew the two screws on the main cover and remove the main outer cover. Unscrew the screws on the negative terminals of the two batteries (shown as '-'), then unscrew the screws on the positive terminals (shown as '+'), and place the wiring harness aside. Loosen and remove the battery cover. Be careful when removing the battery to avoid touching the upper electrical dashboard or the side fuel tank. Remove the second battery from the bottom in the same way (lead-acid type only). The installation method is the reverse of the removal method. Connect the positive terminal of the battery first. Otherwise, the vehicle may be damaged.

- ② Two lead-acid batteries
- ③ A lithium battery

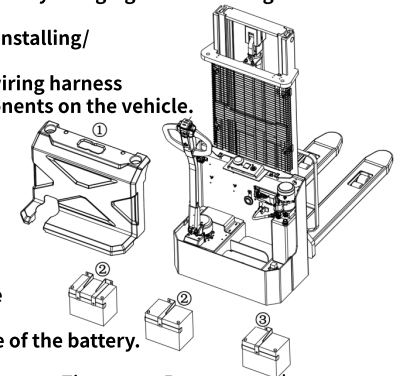


Figure 14: Battery replacement

b. Fuel meter display

The discharge status is indicated by 10 LED display segments.

The rightmost LED lights up only when the battery is properly charged and reaches the reset voltage. As the battery's state of charge decreases, the LEDs light up sequentially, but only one at a time. It features power-off memory.

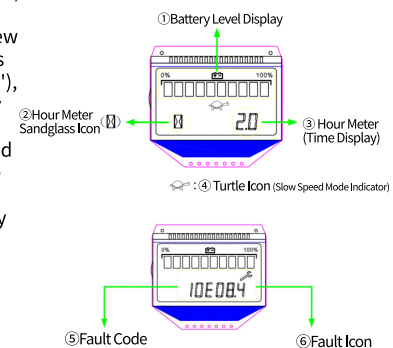


Figure 15/16 LED light condition

- ①: This is a battery level display, with each bar representing 10% of the battery. The lowest displayed bar is one. When the battery level is low, the battery level bars will flash.
- ②: The hourly funnel timer is activated. When the funnel flashes, it indicates that the handle is timing. The funnel flashes by default when the handle receives a message and displays the time.
- ③: Time is displayed in hours, with a maximum display of 99999.9h.
- ④: This is the mode status icon. When this icon is lit, it indicates that the controller mode is active; when it is off, the controller mode is disabled. The default way to switch controller mode is to short-press the turtle button.
- ⑤: When the handle display malfunctions, it will occupy the hour display area and alternate with the hour display. Different prefixes will indicate different fault types; please refer to the fault code meaning for details on the specific fault protocol.
- ⑥: Fault icon: This icon will be displayed when a fault occurs.

c. Charge

- This vehicle uses an external charger; using other chargers is not permitted.
- Before using the charger, please fully understand the contents of the charger's instruction manual.
- The charging space must be well-ventilated.
- Accurate charging status can only be viewed on the discharge indicator. To control the charging status, charging must be interrupted and the vehicle started.

Park the vehicle in a dedicated, secure area with a dedicated power supply.

Lower the forks and move the goods away.

Turn off the vehicle's power and insert the external charger into the vehicle's charging port (Figure 7).

The charger begins charging the battery.

A flashing red light on the external charger indicates charging is in progress, while a solid green light indicates charging is complete. The table below shows the functions of the LED lights:

Table 3: LED situation

LED light	function
flashing red light	Battery charging
Green light always on	Battery is fully charged
Alternate yellow and green	Invalid connection or fault status

After charging is complete, unplug the device from the socket and put the spring wire back into the device.

8.Regular maintenance

- ▲● Only qualified and trained personnel are permitted to perform maintenance work on this vehicle.
- ▲● Before maintenance, remove the goods from the forks and lower the forks to their lowest position.
- ▲● If you need to lift the vehicle, use the specified lashing or lifting equipment as shown in Chapter 4. Before operation, place safety devices (such as the specified jacks, wedges, or wooden blocks) under the vehicle to prevent accidental descent, movement, or sliding.
- ▲● Please pay attention to the maintenance of the handle. The gas spring is pre-compressed. Carelessness can cause injury.
- ▲● Please use approved and original parts issued by your dealer.
- ▲● Please consider that hydraulic oil leakage may lead to machine malfunction and accidents.
- ▲● Pressure valve adjustment is permitted only by trained maintenance technicians.
- ▲● If you need to replace the wheels, please follow the instructions above. The casters must be round and free from abnormal wear. Check the items listed in the maintenance checklist.

a.Maintenance checklist

		Interval (months)			
		1	3	6	12
Hydraulic system					
1	Check the hydraulic cylinders and pistons for damage, noise, and leaks.		●		
2	Check hydraulic connections and oil lines for damage and leaks.		●		
3	Check the hydraulic oil level and refill if necessary.		●		
4	Refill with hydraulic oil (for 12 months or 1500 working hours).				●
5	Check and adjust the function of the pressure valve (1500 kg +0/-10%).				●
Mechanical system					
6	Check the forks for deformation and cracks.		●		
7	Check the chassis for deformation and cracks.		●		
8	Check that all screws are fully tightened.		●		
9	Inspect the gantry and chain for corrosion, deformation, or damage	●			
10	Check the gearbox for noise and leaks.		●		
11	Check the wheels for deformation and damage, and replace them if necessary.		●		
12	Lubricate steering bearings				●
13	Check and lubricate the spindle center point		●		
14	Grease nipple	●			
15	Replace any damaged protective and/or protective panels.	●			
Electrical system					
16	Check if the wires are damaged.		●		
17	Check the condition of electrical connectors and terminals.		●		
18	Test the emergency stop switch function		●		
19	Check the electric drive motor for noise and damage.		●		
20	Test display		●		
21	Check that the correct fuse is being used and replace it if necessary.		●		
22	Detect speaker		●		
23	Check the pump contactor		●		
24	Check the frame for leaks (insulation test).		●		
25	Check the controller's operating functions.		●		
26	Check if the drive motor is damaged.		●		
Braking system					
27	Check braking; replace brake discs or adjust clearance if necessary.		●		
Battery					
28	Check battery voltage		●		
29	Clean and grease the terminals, and check for corrosion and damage.		●		
30	Check if the battery casing is damaged.		●		
Charger					
31	Check if the main power cord is damaged.				●
32	Check the startup protection program during charging.				●
Function					
33	Detect speaker	●			
34	Check the air gap of the electromagnetic brake.	●			
35	Test emergency braking function	●			
36	Detect reverse braking and regenerative braking functions	●			
37	Detecting the belly switch function	●			
38	Check steering function	●			
39	Check the boost and descent functions	●			
40	Check the lever switch function	●			
41	Check the key switch for damage and functionality.	●			
42	Speed limit switch for detection (lifting height >~300mm)	●			
Comprehensive					
43	Check that all labels are clear and intact.	●			
44	Check that the protective panels and/or guards are not damaged.	●			
45	Inspect the steering wheels; if worn, adjust the height or replace them.		●		
46	Conduct a trial run	●			

b.Lubrication point

The markings are shown on the lubrication and maintenance checklist.

The required grease specification is DIN 51825, standard grease.

- 1 Wheel bearings
- 2 Door frame
- 3 Chain
- 4 Steering bearing
- 5 Gearbox
- 6 Balance wheel bearing

c.Check and refill hydraulic oil

The required hydraulic oil type is:

Ambient temperature	-5°C~25°C	>25°C
Trademark	L-HM- 32, DIN 51524	L-HM- 46, DIN 51524
Viscosity	28.8-35.2	41.4 - 47
Oil volume	4L (according to the actual vehicle model)	

Waste materials such as waste oil, waste batteries or other materials must be processed and recycled in accordance with national regulations, and if necessary, they must be handed over to recycling companies for recycling.

d.Check electrical fuses

Remove the main outer cover. The fuse is located as shown in Figure 17; dimensions are shown in Table 5.

Table 5:Fuse size

	Power
FU1	200A
FU01	10A
FU02	1.5A/2A

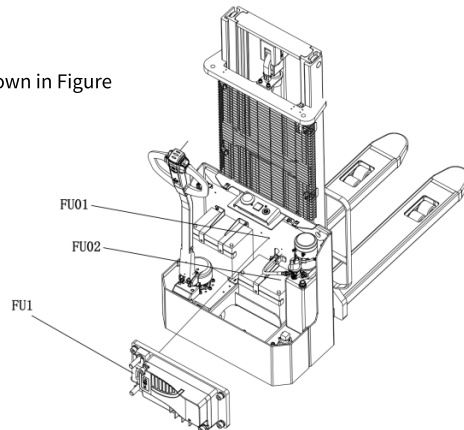


Figure 19 Fuse location

e.Remove and reinstall the protective netting

▲ Do not use this vehicle if the protective devices are damaged or not installed correctly!

If the safety net needs to be removed, unscrew the securing screws and carefully remove the net. The screws will remain on the machine body. When reinstalling, place the safety net in the correct position and secure each screw properly. If you require replacement parts, please contact your nearest after-sales service partner.

9.Failure analysis

Fault	Reason	Repair
Goods cannot be lift	Weight too large	Only increase maximum load
	Battery discharge	battery charging
	booster fuse malfunctioned	Inspect and ultimately replace the booster fuse.
	Hydraulic oil level too low	Check and finally fill with hydraulic oil.
	oil leak	Inspect the sealing of the oil pipes and/or cylinders.
Can't absorb oil	Excessive oil content	Reduce oil quality
Goods cannot be dropped	Oil clogging control valve	Check the hydraulic fluid and clean the control valves.
	The descent solenoid valve is not open or is damaged.	Inspect or replace the descent solenoid valve
Forklift cannot be operated	Battery is charging	Fully charge the battery, then unplug the main power cord from the power outlet.
	Battery not connected	Connect the battery correctly
	Fuse malfunction	Inspect and eventually replace the fuse.
	Battery is low	battery charging
	Power is not on.	Check emergency stop, key, and other switch components.
	The operation sequence was incorrect.	First, move the handle to the braking area, then return the handle to the operating area, and then operate the accelerator.
Vehicles travel in only one direction	Accelerator and connector damaged	Inspect the accelerator and connectors
The forklift moves very slowly	Battery is low	Check the battery status on the discharge indicator.
	Electromagnetic brake has been activated.	Check the electromagnetic brake
	The relevant handle wiring harness is not connected or is damaged.	Check the handle wiring harness and connectors
Forklift suddenly started.	Controller damaged	Replace controller
	The accelerator did not move back to its intermediate position.	Repair or replace the accelerator

If the vehicle still malfunctions after following the instructions in Chapter Six of the owner's manual.

10.Wiring / Circuit Diagram

a. Circuit diagram (lead-acid)

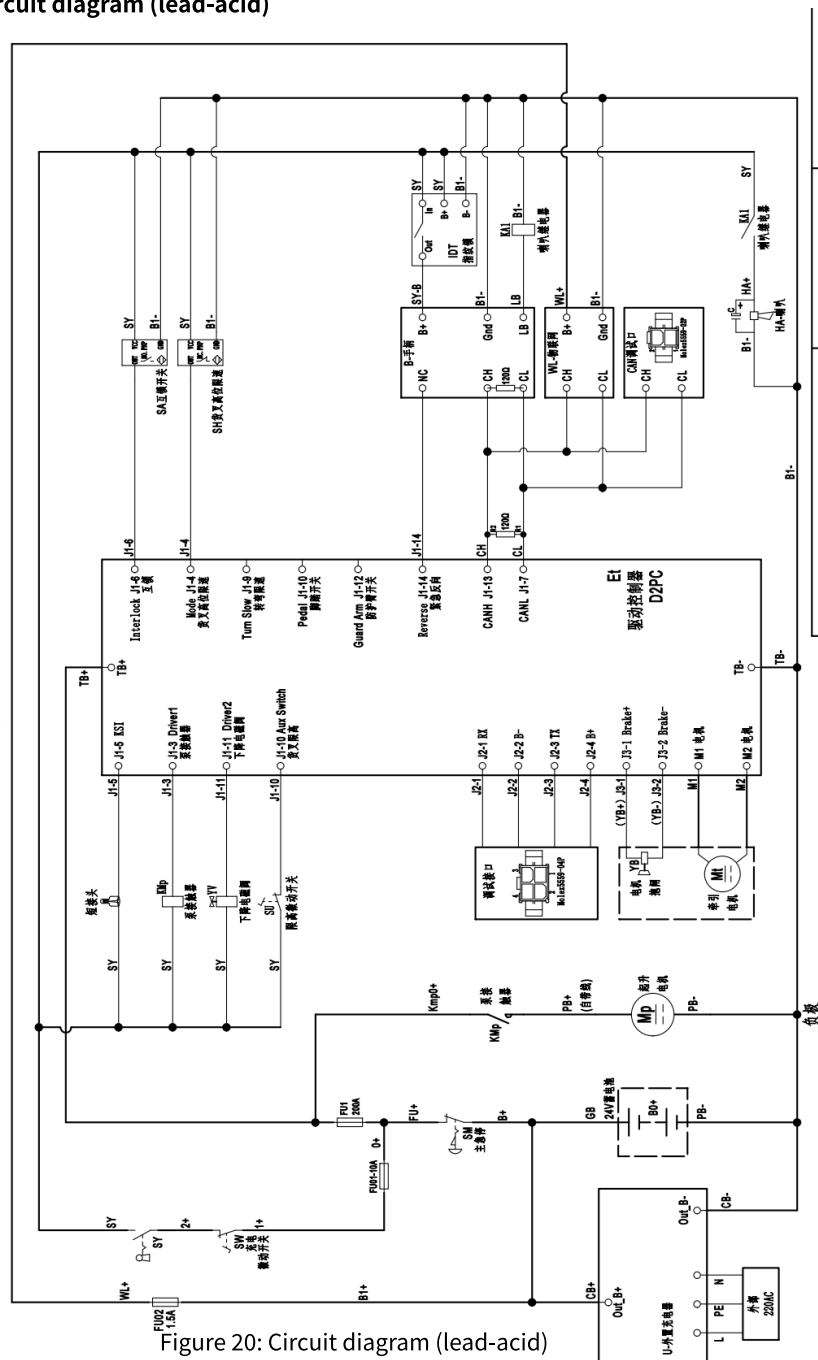


Figure 20: Circuit diagram (lead-acid)

b. Hydraulic circuit

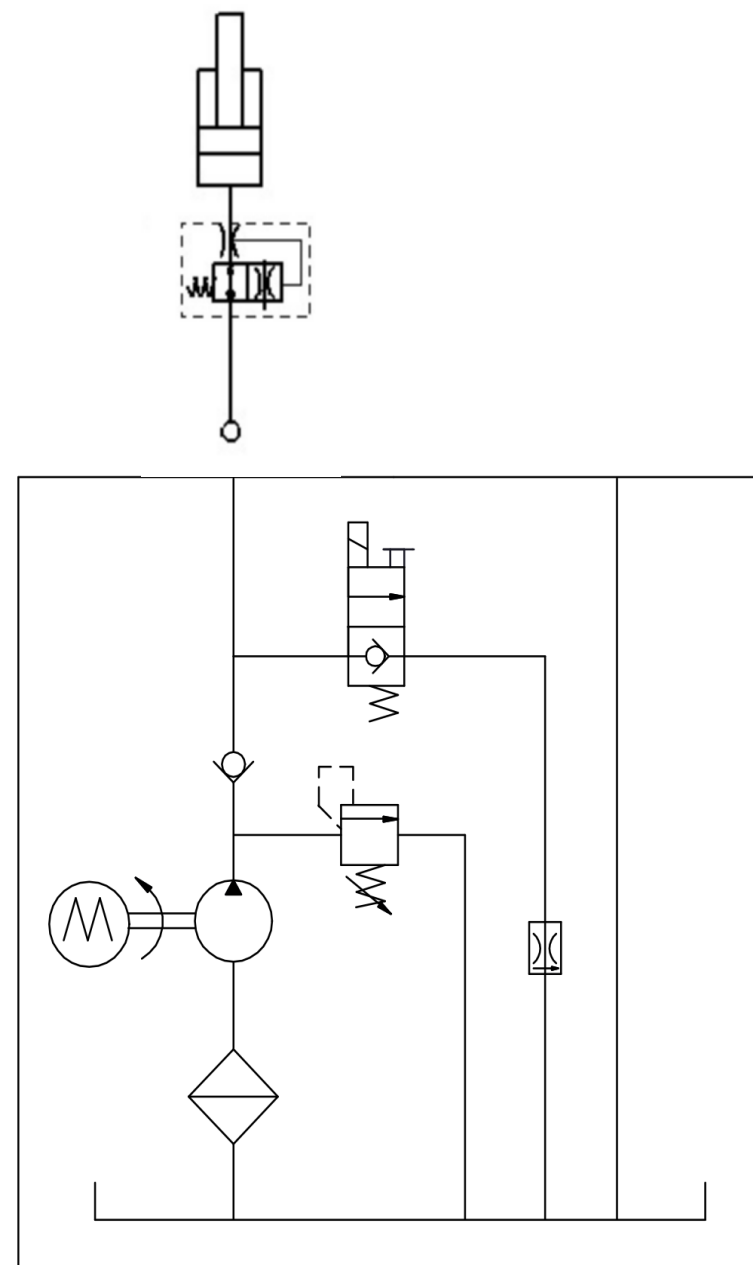
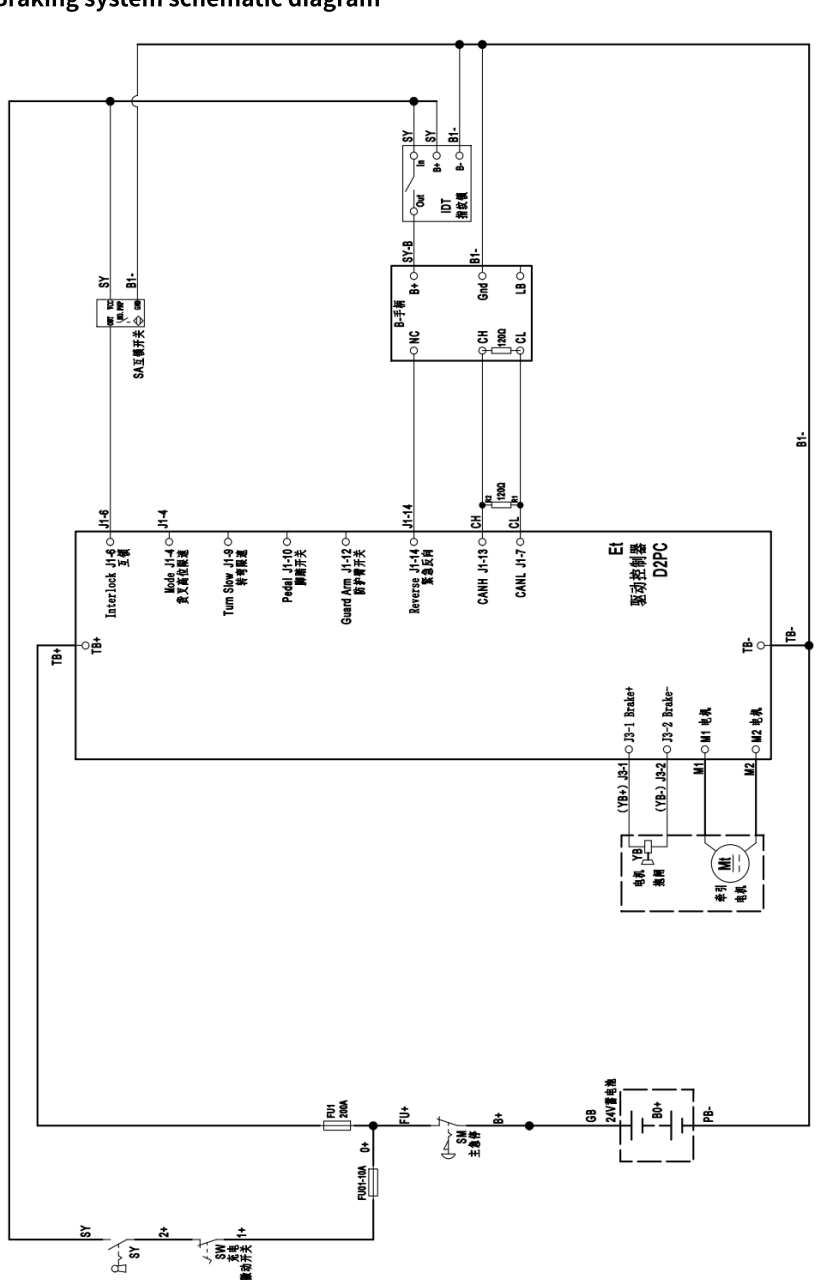


Figure 22: Hydraulic circuit

c.Braking system schematic diagram



User Notice :

一、Warranty Period:

1. The warranty period for warehouse forklifts is 12 months from the date of sale or 1000 hours of use, whichever comes first.
2. Parts covered by a 12-month or 1000-hour warranty include: frame, mast, motor, electronic control system, battery, charger assembly, accelerator, chain forks, gas springs, instruments, hydraulic cylinders, steering gear, multi-way valve, gear pump, and various bearings;
3. Parts covered by a 6-month or 500-hour warranty include: hoses, brakes, master cylinder, wheel cylinders, front wheel assembly, caster wheel assembly, drive wheel outer ring, horn, various seals, handlebar panel buttons, etc.
4. Components covered by a one-month or 200-hour warranty include: various sensors, various relays (starting, intermediate, safety, solenoid valves, etc.), various switches (brake, steering, reversing, lights), electronic regulators, and warning lights;
5. The above-mentioned malfunctions not caused by quality issues are not covered by warranty. The warranty period is whichever comes first.
6. For detailed warranty information, please consult Yangzi Forklift After-Sales Service Department or your local dealer.

II.Warranty Principles:

1. During the warranty period, routine maintenance of the machine must be performed.
2. Under normal use, if any parts have defects in material, manufacturing, or assembly, and are determined by Yangzi Forklift's professionals to be non-human-caused damage, the defective parts will be repaired or replaced free of charge.
3. Defects in forklifts may cause damage or downtime, reputational or economic losses (such as economic or moral, direct or indirect, anticipated, etc.) to users other than the machine itself. Yangzi Forklifts is only responsible for the repair and replacement of defective parts of the machine itself, and is not liable for compensation for losses other than those caused by the machine itself.

III.The following objects and situations are not covered by the warranty, even within the warranty period:

- 1.Losses or defects caused by accidents, improper driving, violations of regulations, negligence, or force majeure events such as overloading.

2. Defects and losses caused by unauthorized additions or modifications to the machine, alterations to the machine's structure or purpose, or impacts on the machine's performance and stability, without the consent of relevant personnel from Yangzi Forklift.
3. Unauthorized disassembly or intentional damage to the timer's operation will be handled as if the vehicle's warranty has expired.
4. Failure to stop and troubleshoot the machine when it malfunctions, resulting in losses due to operation while faulty, or losses artificially amplified by the operator.
5. Unauthorized adjustment, disassembly, or repair of system pressure settings or machine components, or incomplete parts, missing nameplates, etc., making it impossible to identify the cause of the malfunction and the responsible party.
6. Failure to perform routine maintenance on the machine, resulting in malfunctions.
7. Malfunctions caused by using substandard or unsuitable fuels for the local climate and temperature.
8. Faults where responsibility cannot be determined due to the loss of faulty parts.
9. Electrical components such as plugs, sockets, light bulbs (including combination lights), fuses, motor carbon brushes, and other easily damaged parts are not covered by the warranty.

Forklift Warranty Regulations

category	Warranty coverage	Warranty period
Complete machine	Motors: (walking motors, lift motors, gearboxes, etc.) Electrical components: (accelerators, controllers, chargers, batteries, etc.) Hydraulic components: (cylinders, pumps, chains, etc.) Structural components: (frames, forks, steering systems, etc.)	12 months
Consumable parts	Bearings, shafts, key switches, emergency stop switches, rollers, instruments, combination switches	6 months
Consumables	Plastic parts, brake pads, tires, light bulbs, fuse boxes, springs, paint, etc.	No warranty

END