

PALLET INVERTER

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1. Instruction

Dear users: Thank you for purchasing or using our products! Before using this product, please kindly read this manual carefully:

1. Instruction manual

- (1) The manual is an important part of our company's products, as one of the accessories of the whole factory;
- (2) The company's products are continuously optimized and improved, and all the information and usage data in the manual will change, so our company has the final interpretation right.
- (3) The instructions may not be copied without the written permission of the company.

2. Application

The pallet inverter machine is a machine for electro-hydraulic clamping and hydraulically turning goods to replace the pallet. Safe and efficient, it is able to fully demonstrate its flexibility, tranquility and environmental performance.

2. The overall view

1. Structure

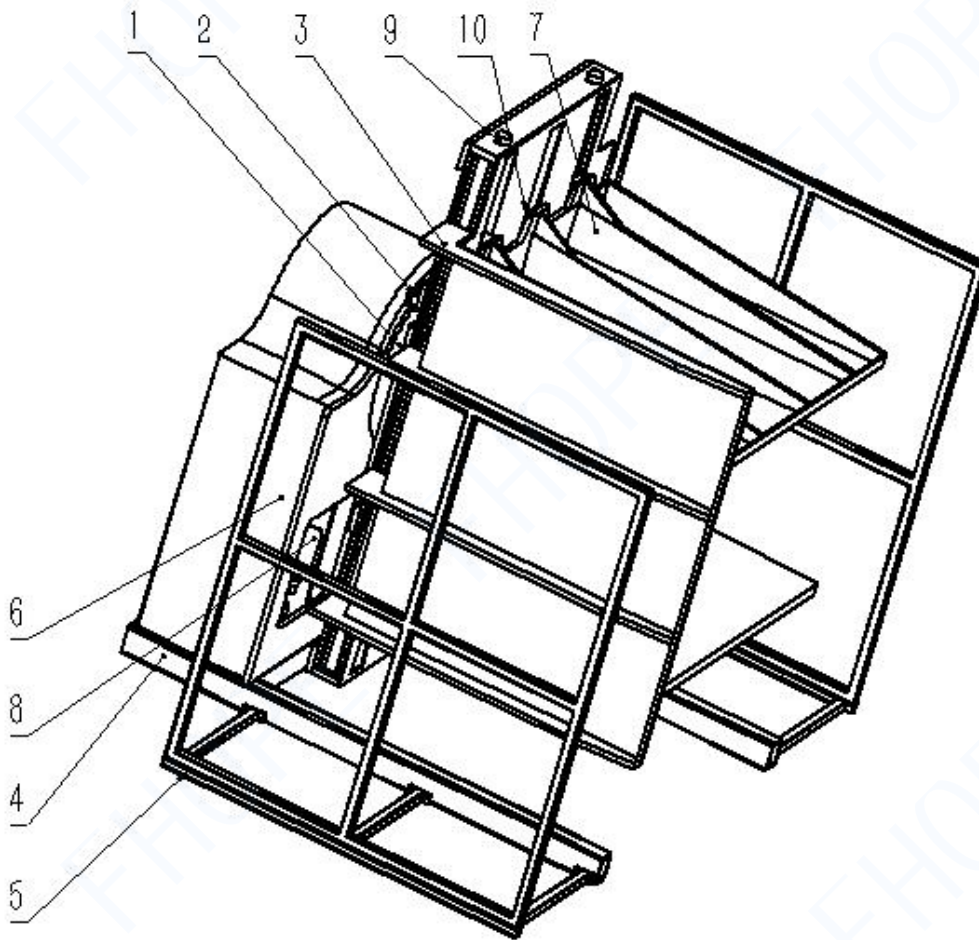


Figure 1

1. Figure 1 shows the main components of the pallet inverter machine.

- (1) Slewing drive
- (2) Hydraulic motor
- (3) Rotating frame
- (4) Chassis
- (5) Protective fence
- (6) Electrical control cabinet

- (7) Upper platen/clamper
- (8) Hydraulic pumping station
- (9) Guide column
- (10) Clamping cylinder

2. working principle



Switch the control mode to LOC , press Clamp button for clamping goods. Press Release button for releasing the goods. L-rotate and R-rotate for rotating and recovering the frame. Manu mode for button jog control, Auto mode for one press to start.

When the pallet inverter is clamped, the multi-way valve is closed and button is released, and the pump station works, directly driving the upper clamper relative to the rotating frame through the oil cylinder to clamp and relax the working device; and operating the multi-way valve when the flipping frame is turned over, the pump station works, and the rotary drive is driven by the hydraulic motor to drive the flip frame to rotate (the flip angle is 0-180°).

3. Signage

In order to make you use it more efficiently and safely, the tray flip machine has the following simple and clear signage tips:

- (1) Nameplate (please find on the machine)
- (2) A sign indicating the control function (please find on the control box/Panel)
- (3) A sign indicating the location of the person who is likely to cause injury (please find on the machine)
- (4) A sign indicating the main switch (please find in the electrical cabinet)
- (5) Warning signs prohibited for use (please find on the machine)
- (6) Need to read the label of the manual

Note: Do not move or blur the signage under any circumstances!

3. Technical parameter

Pallet width	1000-1100mm	Pallet length	1000-1300mm
Height(including goods)	1100-2200mm	Max load	2000kg
Driven type	Hydraulic	Power supply	380V, 50Hz, 3Ph
Main motor	5.5Kw		

4. Safe operation

For personal safety and to avoid damage to the vehicle, overload is never allowed.

1, operation

Users are advised to operate and maintain the product in strict accordance with the requirements of this manual to avoid accidental injury and accidental damage to the machine and cargo.

Overloading and unbalanced placement of goods are absolutely prohibited.

- (1) This pallet inverter is not suitable for long-term outdoor use.
- (2) All accidents caused by the modification of the pallet inverter machine without the manufacturer's consent are not related to the manufacturer.
- (3) The operator must be trained and able to achieve the required proficiency. Otherwise, it is easy to cause accidental injury and accidental damage to the machine. It is best to be operated by a special person to grasp the performance of lubrication and wear of the machine.

(4) Turn off the power when the machine is not working.

2. clamping

(1) Carefully place the goods on the bottom plate of the clammer;

(2) Try to keep the clamping frame symmetrical with the cargo center to avoid eccentric loading;

(3) Press the clamp button to clamp the load;

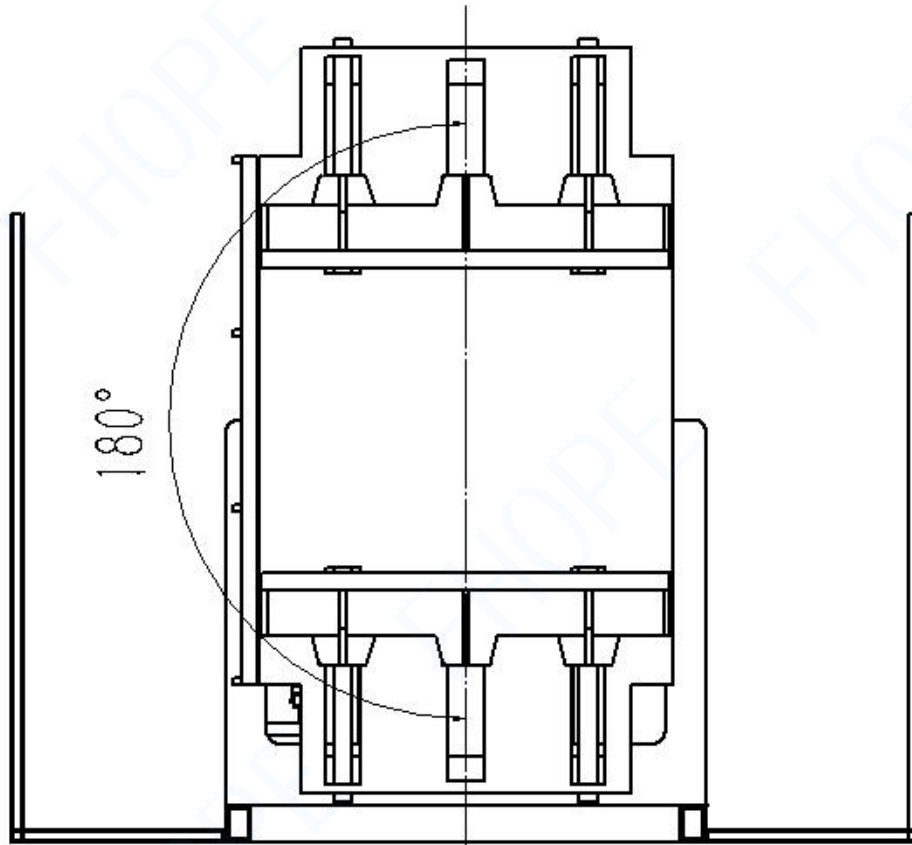


Figure 2

3. flip (the angle of flipping is shown in Figure 2)

(1) When the cargo is clamped, slowly push the rotate button;

(2) Carefully observe the presence or absence of the cargo around it, and if there is any abnormality, immediately release the button;

(3) Rotating the clamp to the required angle;

Note: During the process of clamping and turning the cargo, it is forbidden to enter the dangerous area.

4. Prohibited matters

(1) Prohibition of drinking operation

(2) Absolute prohibition of overload, prohibiting uneven stacking of goods



5. Safety facilities

- (1) Main switch: main power switch
- (2) Overload phase failure protection: protect the pump station motor
- (3) Current limiting valve: control the falling speed
- (4) Protective net: prevent entry into dangerous areas
- (5) Control power supply AC24V: ensure safe operation

6, safety procedures

The operator should maintain a reasonable distance from hazardous areas that may cause the hands and feet to be pressed (eg, rotating frames, clamps, and other moving parts). The following instructions must be followed.

The pallet changer must be used in accordance with the following procedures:

- (1) The operator must be familiar with the rules of the use of the machine and wear appropriate work clothes.
- (2) The operator is responsible for not allowing any person without professional training to operate the equipment or to stand on the work device. During the work, the operator should warn the non-professionals to stay away from the work area.
- (3) It is not allowed to disassemble and modify the safety device. Do not allow equipment to be used in high-risk areas such as flammable or explosive places.
- (4) Overload is absolutely prohibited under any circumstances.
- (5) Before starting work, the operator must check:

Whether the equipment is reliably grounded; check whether the fasten parts are loose; the power supply wiring is well connected and kept clean and dry; the safety device works well.

- (6) The equipment can only be used and parked in places where it is not exposed to rain and snow, and cannot be used in very humid places under any circumstances.

The manufacturer does not assume any responsibility for failures and accidents caused by negligence, lack of corresponding capabilities or technical capabilities.

7. Transportation

In order to facilitate loading and unloading, the vehicle provides lifting holes, indicated by lifting signs. Pay attention to safety when lifting.

Fourth, maintenance

The equipment is inspected at least once a year;

Maintenance of the equipment must be carried out by trained professionals;

The performance and safety features of the equipment must be checked after each maintenance;

Phased inspection equipment can reduce the risk of accidental damage to the equipment and personal accidents;

Note: Disconnect the main power switch before performing any maintenance work.

1, daily inspection

Please check the integrity of the equipment before each use, and find that the problem should be dealt with in time, but do not try to repair it yourself. It should be repaired by professionally trained technicians or professional maintenance personnel. Check the content:

- (1) Check the line for damage
- (2) Check if the wiring is reliable and reliable

- (3) Check the equipment for obvious defects such as cracks, deformation, distortion, corrosion, etc.
- (4) Check if the clamping is relaxed and the rotation is normal.
- (5) Check the hydraulic oil capacity of the pumping station tank
- (6) Check if the fasteners are loose

5. Common error and trouble shooting

1. Indication light doesn't work

- ①. No power supply: switch on the POWER switch.
- ②. Indication light : replace the light.
- ③. Plug isn't connected correctly: plug it to the outlet correctly.

2. Turnover body doesn't move

- ①. Haven't connected to power supply: check the power supply.
- ②. Something wrong with the hydraulic station: check the hydraulic system.
- ③. Control button doesn't work: replace it.
- ④. Electrical components broken: replace it.

3. Turnover body slant

- ①. Uneven ground: change to another place
- ②. Product is inappropriately placed: centralize the product.

4. Turnover is insufficient

- ①. Load is over weight: reduce the weight to the machine's fixed range.
- ②. Hydraulic oil level is too low.

- ③. Hydraulic components have leaking problem.

6.Maintenance

1. The maintenance content and time are detailed in the following table:

Parts name	Checking content	Time for checking			
		Fifteen days	Three months	Six months	Tweleve months
Chassis and frame	Sliding block		○		
	Screw and screw blot		○		
	Gap between loading parts		○		
Operation handle	Any diviation		○		
	Able to recover			○	
Electrical circuit	Control switch		○		
	Connection			○	
	Fuse		○		
Hydraulic circuit	Capacity		○		
	Oil level			○	
	Leaking		○		
	Oil replacement				○
	Limited valve pressure				○
	Limited valve oil level				○
Hydraulic cylinder	Sealing parts damage		○		
Gerenal checking	Power connection is reliable				○
	Clamping speed				○
	All parts safety		○		
	Full load test		○		

Position	Variety of lubricant	Time for replacement		
		3 months	6 month	9 months
Rotating station	Lithium grease NLG1-2		•	
Hydraulic pumping station	46# hydraulic oil		•	

Change the hydraulic fluid each month is suggested. Replace the clamp at the lowest position, remove the cylinder hose connector and place it in the container, press the lift button to operate the pump station and drain the hydraulic oil in the tank, then add YA-N46 hydraulic oil (if at temperature For use in lower cold storage, it is recommended to use YH-10 hydraulic oil. After two to three lifts, there may be air in the pipeline. The equipment can work normally, but if the lifting height is insufficient, the hydraulic oil should be replenished.

2、electrical diagram

