LOW-PROFIRLE HIGH-RISE SCISSOR LIFT

Installation/Operation & Maintenance Manual

MODEL: HXL6435YM

Please read through this manual before operation. You must read and understand the precautions for safety to protect your safety and any damage to your property.

Version: HR201807.1.0

NOTE TO THE USER

Thank you for purchasing our products.
Please read this instruction carefully for safe and proper use of the car lift, and keep it handy for future reference.

■ This Manual is for model : HXL6435YM
■ As for the assurance of safety in design and construction of car lift, read this Manual first.
■ Please make sure that this manual is delivered to end users for their implementation of safety.
■ Don't use the car lift in a potentially explosive atmosphere.

Special Instructions

▲ Any damage caused during packing and transportation shall be claimed by the purchaser to the carrier.

▲ Safety performance has been taken into account during design and manufacture. However, appropriate training and careful operation can enhance safety. The equipment cannot be operated or repaired without reading this manual.

▲ The power supply and current requirements marked on the motor shall be checked. Power connection shall be conducted by professional qualified electrician.

▲ The equipment may not be modified without prior notice. We will not be held responsible for any update of sold products.

▲ Please carefully read the manual and deliver it to the dealer and our company for documentation. Otherwise, it will be deemed as

automatic waiver of corresponding service, and user shall bear the consequence themselves.

▲ The equipment shall not be used to raise any load exceeding rated lifting weight of 3.5 tons.

▲ Read carefully warning marks on the equipment.

Contents

I、General Introduction of HXL6435YM Scissor Lift

HXL6435YM Scissor Lift is a new product launched by our company. This product makes use of advanced electro-hydraulic control technology. It is easy to operate and applicable for most vehicle maintenance and Cleaning of import vehicles, trucks and minivans weighing no more than 3.5 tons, with main features as follows:

- Surface mounting and in-ground mounting.
- High-position cylinder protection system and low-position protection system are established, with limit switches for feedback control.
- Control voltage is 24V (safe voltage)
- Electro-hydraulic control system is safe and reliable, integrated control panel is easy to maintain, and all operations can be done by push buttons.
- The high quality self-lubricating bearings provide for reliable functioning and a long lift life.

II、Notices to Maintenance and Check of HXL6435YM Scissor Lift

Daily Maintenance and Check

1. Check safety lock audibly and visually while in operation.
2. Check safety latches for free movement and full engagement with rack.
3. Check hydraulic connections, and hoses for leakage.
4. Check bolts, nuts and screws, and tighten if needed (including those in the hydraulic part).
5. Check wiring and switches for damage.
6. Make sure that the input power is equipped with a safe grounding line, and check whether grounding of the lift is tight to ensure reliable grounding.
7. Check whether the sensor works as required.
8. Keep base plate free of dirt, grease or any other corrosive substances.
9. Check floor for stress cracks near anchor bolts.
10. Any part of the lift should be fastened securely, and no part is allowed to come loose or fall off.

Weekly Maintenance and Check

1. Check for any loose anchor bolts. Retighten as necessary. Do not use an impact wrench.

2. Check floor for stress cracks near anchor bolts.

3. Check hydraulic oil level.

4. Check and tighten bolts, nuts and screws (including those in the hydraulic part).

Yearly Maintenance and Check

1. Grease the areas where the slide blocks run.

2. Change hydraulic oil.

Suggestions and Points for Attention

1. When install the fittings to the ports of the power unit, the torque wrench is required, with torque between 24 and 28 NM so as to avoid damage of the valve guide.

2. The user is required to use high-quality hydraulic oil in the original packing and change it regularly. Any dirty or recycled hydraulic oil is forbidden.

3. It is suggested to lubricate all the movable parts to effectively improve the performance of the lift.

Note: Any article without reference to the model is applicable to the maintenance and check of lifts of all the models.

III、Operation Instruction of HXL6435YM Scissor Lift

1. Daily inspect your lift. Never operate if it malfunctions or it has broken or damaged parts. Use only qualified lift service personnel and genuine Roatry parts to make repairs.

2. Thoroughly train all employees in use and care of lift, using manufacture's instructions supplied with the lift.

3. Never allow unauthorized or untrained persons to position vehicle or operate lift.

4. Prohibit unauthorized persons from being in shop area while lift is in use.

5. Do not permit anyone on lift or inside vehicle when it is either being raised or lowered.

6. Always keep area around lift free of tools, debris, grease and oil.

7. Never overload lift. Capacity of HXL6435YM scissor lift is 3500kg.

8. Do not stand in front of the lift or vehicle while it is being positioned in lift bay.

9. Before driving vehicle into lift bay, be sure lift is fully lowered.

10. Load vehicle on lift carefully. Check for secure contact with vehicle. Raise lift to desire working height.

11. Do not go under vehicle if safe locking latches are off-line.

12. Do not block open or override self-closing lift controls; they are designed to return to the “off” or neutral position when released.

13. Remain clear of lift when raising or lowering vehicle.

14. Always lower lift completely and disconnect power source before disconnecting hydraulic lines.

15. Avoid excessive rocking of vehicle while on lift.

16. Clear area if vehicle is in danger of falling.

17. Completely lower lift before removing vehicle from lift area.

18. Release safe locking latches before attempting to lower lift.

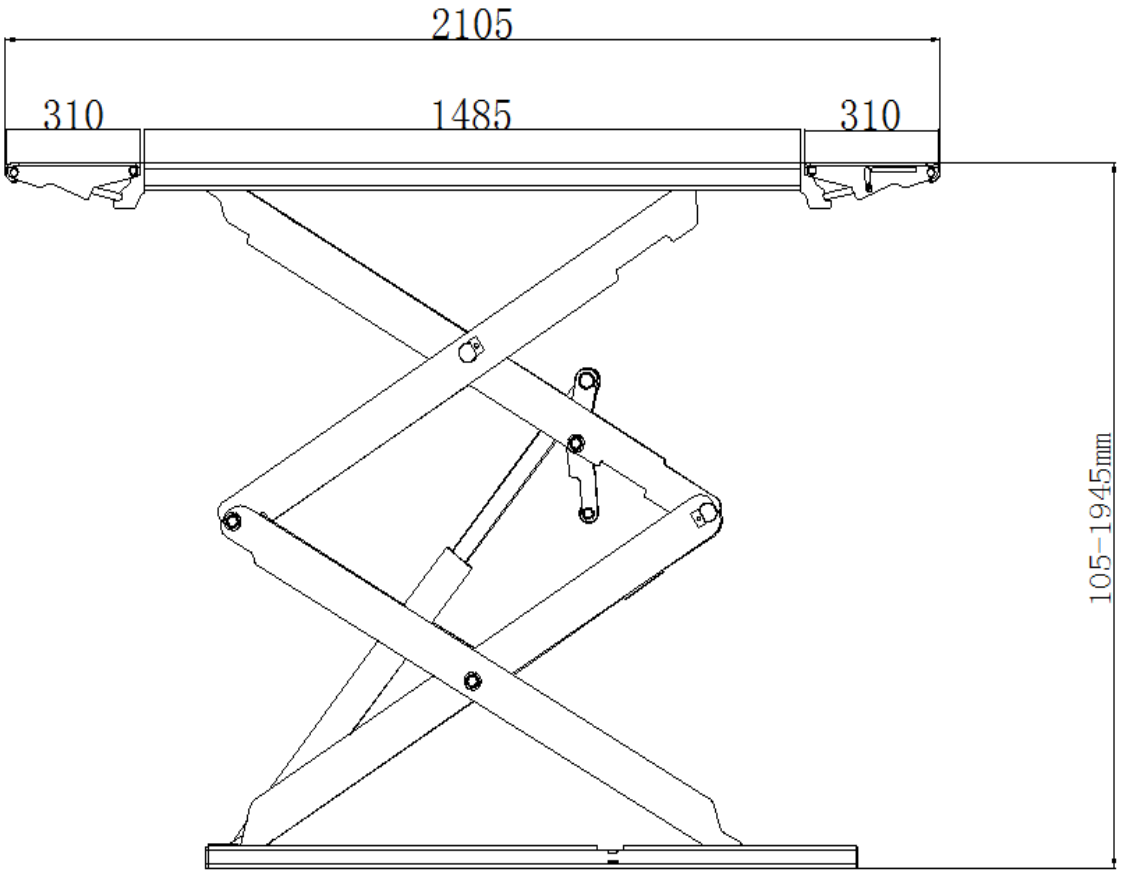
19. If the lift stops automatically when it is in motion, check the photoelectric switch. Don't operate the lift before the photoelectric switch returns to the normal state.

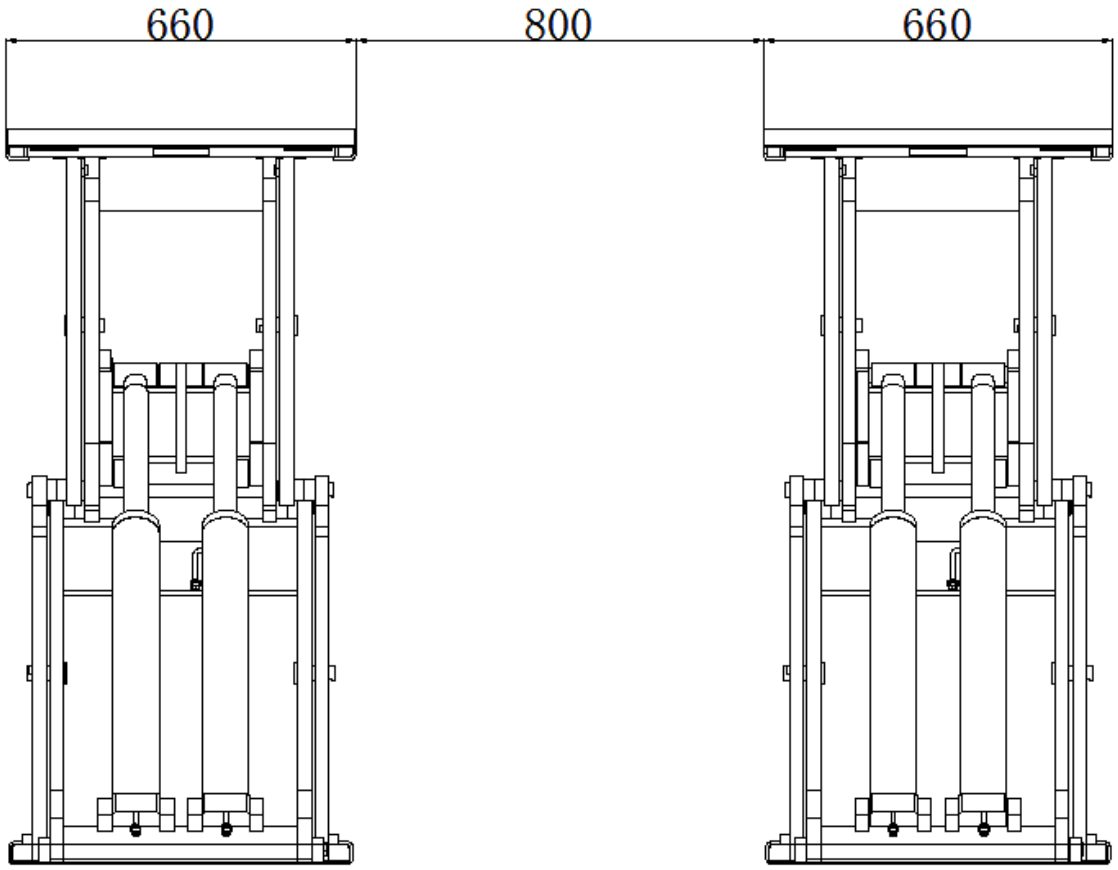
20. Normal operating temperature range is 7℃ (45° F) to 38℃ (100° F).

IV、Basic Specifications and Layout for HXL6435YM Scissor Lift

1. Basic Specifications

No.	Specification	Value
1	Capacity	3500Kg
2	Stroke	1945mm
3	Lowered height	105mm
4	Platform length	1485mm
5	Overall length	2105mm
6	Platform width	660mm
7	Overall width (max)	2120mm
8	Motor performance	2.2KW
9	Electrical connection (3 phase)	400V/50Hz
10	Rising time	≤60S
11	Lowering time	≤60S


2105
310
1485
310
105-1945mm



V、Installation and Adjustment of Scissor Lift

(First) Pre-Installation Preparation

1. Installation Environment

The equipment should be installed indoors without dust or any other pollution but with full illumination. The control box should be placed in the safe area.

2. Foundation Preparation

Make the foundation ready for installation in accordance with the foundation drawing. It is critical that the foundation be horizontal, and don’t rely too much on horizontal adjustment of the equipment. Thickness and strength of concrete foundation is equally significant, which should be

190mm thick and no less than C20 in strength. It is only after one-week concrete curing that the equipment can be installed. The tolerance of the level of the two pits should be no more than 5mm.

(Second) Transport to the installation location

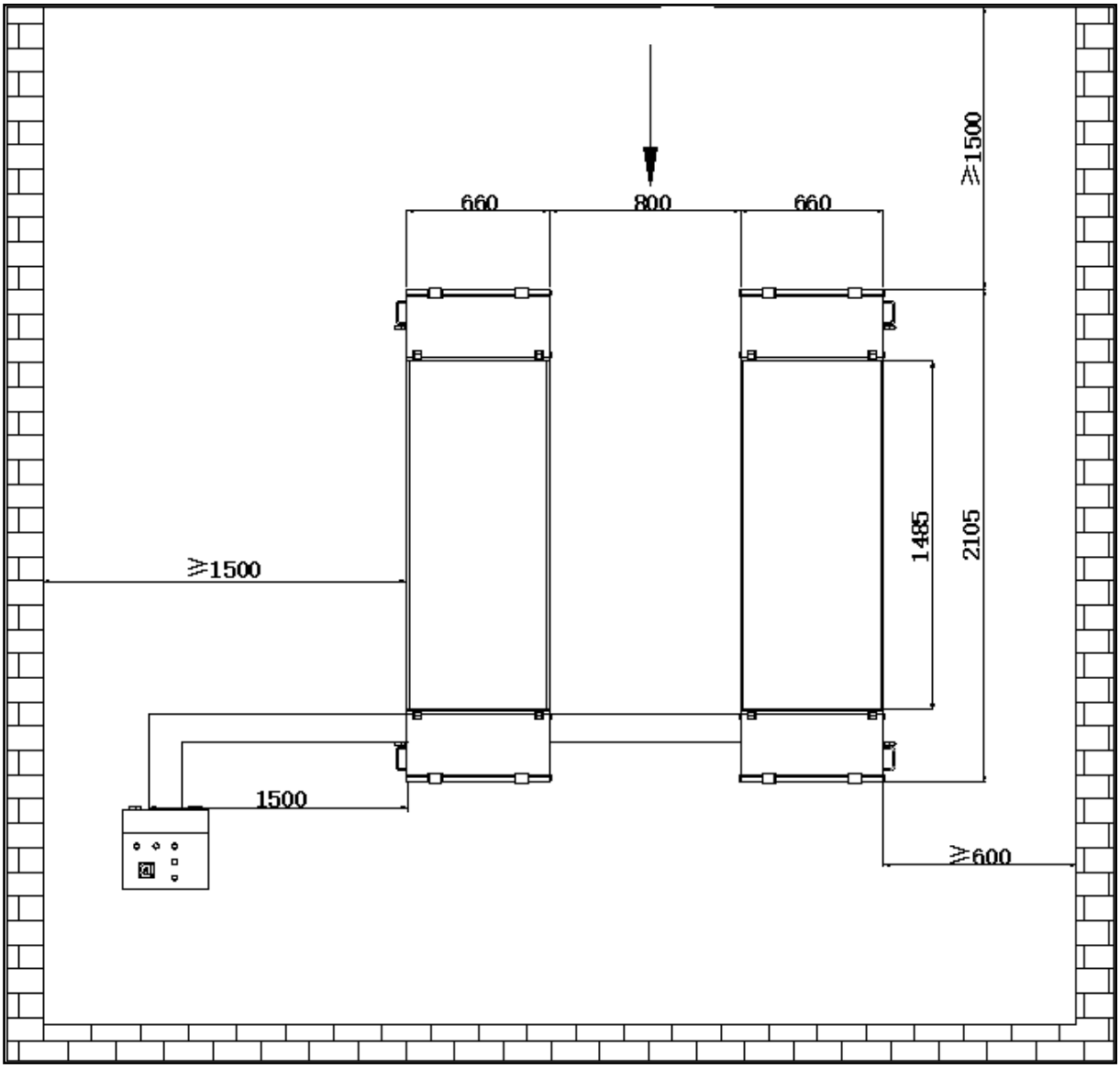
1. The transport can be performed with a forklift or a crane. When transport with a crane, ensure that the machine does not sway too heavily.

2. Open the packages to check whether any part is omitted or damaged in transportation.

3. Measure the under frame of the lift and transfer the measurements to the installation site.

4. Place the lift on the installation site, with the turning radius gauges in the front direction where the vehicle enters in, and the side of platform with sliding groove on the inside of the lift.

5. Place the control box in a location ensuring the operator has a clear view of the load and the lift, and ensure that the operator has avenues of escape if a danger arises.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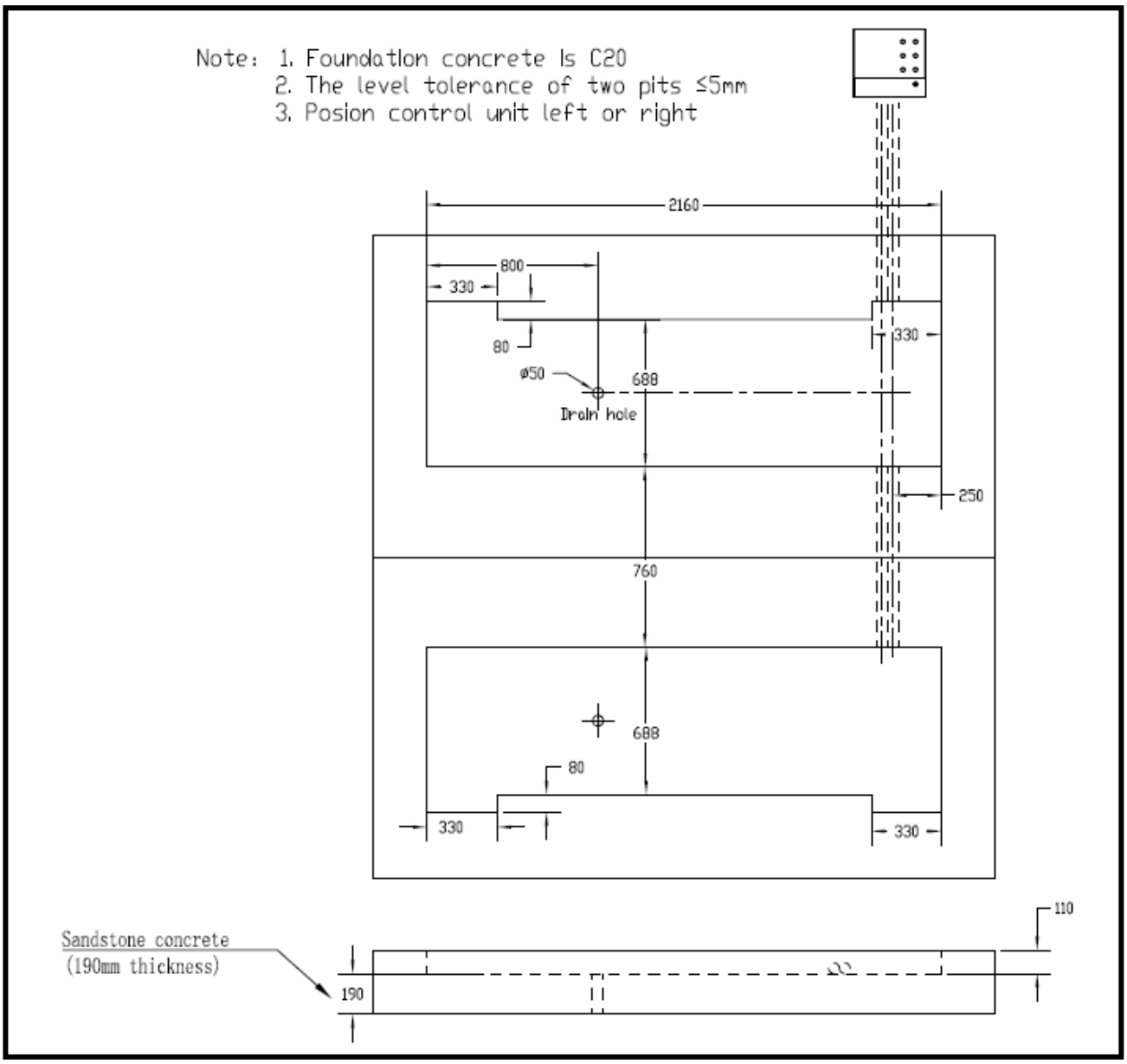
≥1500
1500
≥600

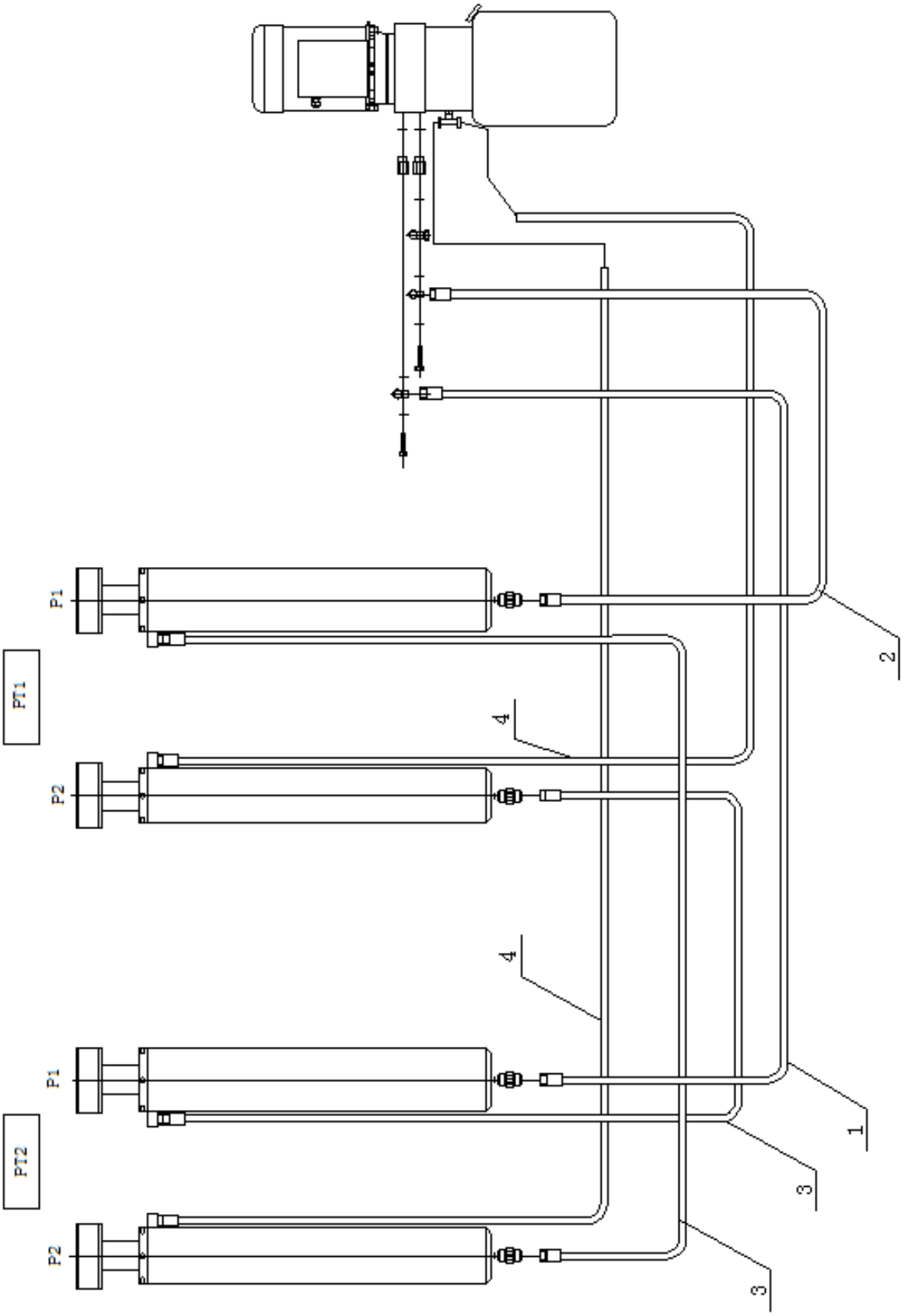

Note: 1. Foundation concrete is C20
2. The level tolerance of two pits ≤5mm
3. Posion control unit left or right
2160
800
330
80
ø50
688
Drain hole
330
250
760
688
80
330
330
Sandstone concrete
(190mm thickness)
190
110

（Third）Hydraulic circuit installation

1. Raise the lift to a certain height (where it is appropriate for installers to work in the pits) with a crane or other proper tools, ensure the safe locking latches are in-line, and secure it with the wood blocks or other tools.

2. Connect the remaining hydraulic hoses and fittings (during the connection, please protect the hoses and fittings, preventing odds and ends such as sandy soil from entering the hydraulic circuit) according to Hydraulic Circuit Installation Diagram and Hydraulic Schematic.

3. Fill 20L HM32 or HM46 ant wear hydraulic oil into the oil tank (the users provides the hydraulic oil), with the oil level 10mm lower than the top of the oil tank at the least and 30mm at the most (which can be checked with the stock rod on the air shield on the filling mouth of the oil tank). If the oil is insufficient during the process of debugging or use, please fill in some according to the actual situation.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PT1
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P2
PT2
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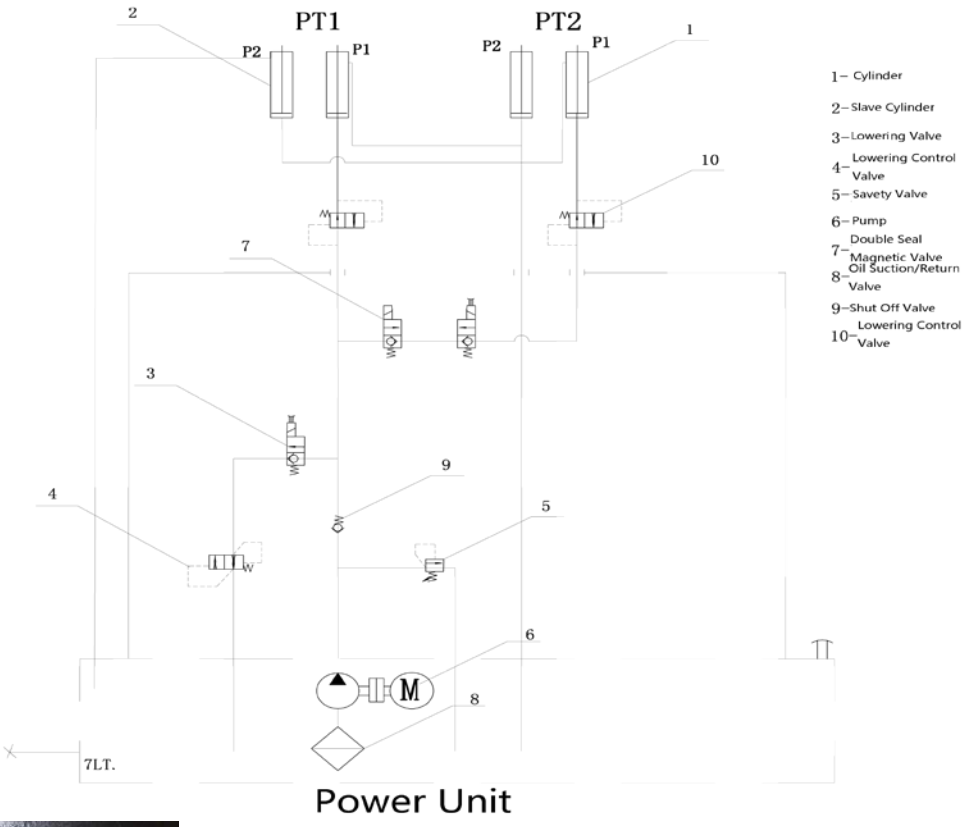
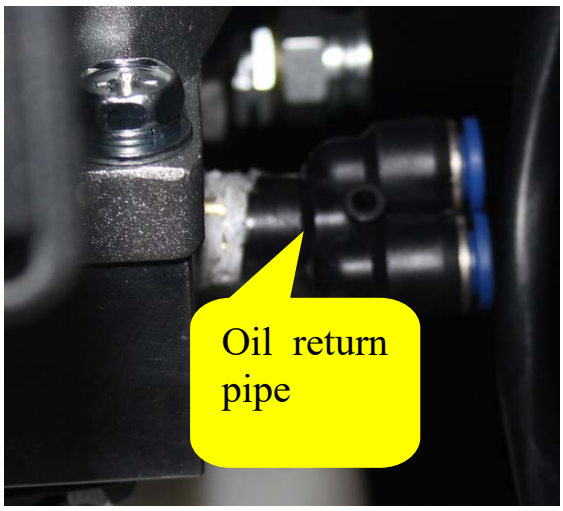


Power Unit



（Forth）Electrical installation

1. Connect power incoming line according to Electric Schematic, of which three black ones are phase lines, the light blue one is zero line and the one in yellow and green is earth wire. Grounding of the control box should be reliable.

2. Check the numbers of the corresponding lines in accordance with the Electric Schematic. Connect the 2-core plug-in unit of a high-position limit

switch, and the 2-core plug-in unit of a low-position limit switch with each other. Turn the high-position limit switch and the low-position limit switch on the open mode, so they will not work when refilling and level adjusting.

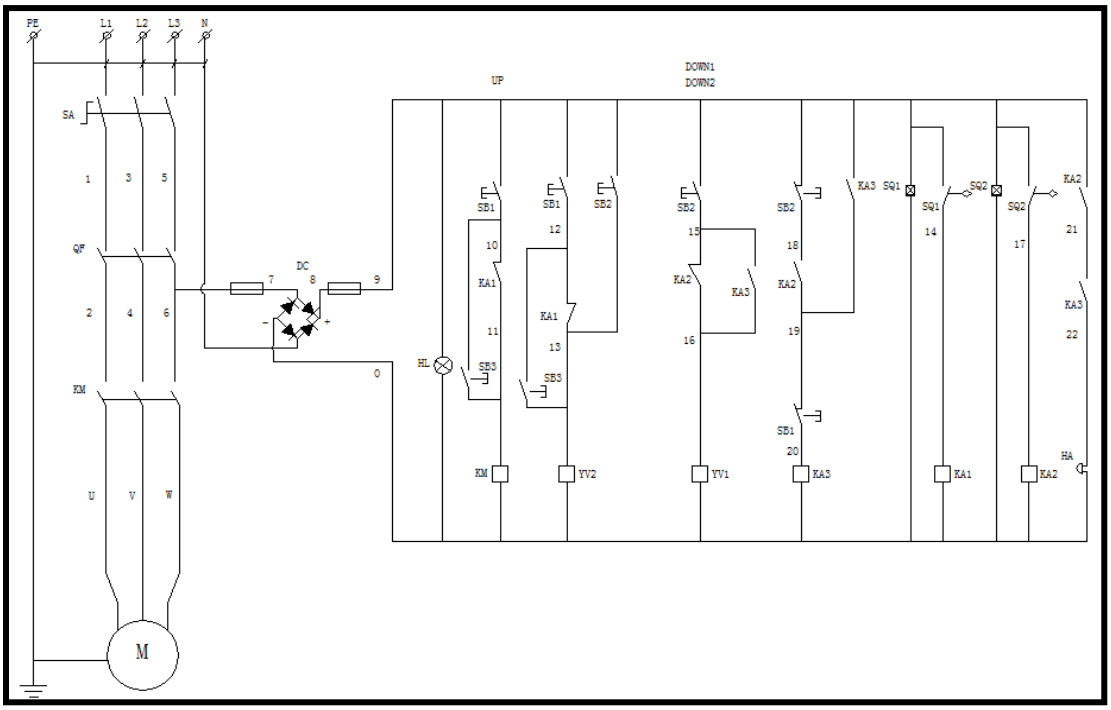
Requirements:

1. High electrical voltage, only trained professional electricians may work on the electrical system.

2. Wiring must be done in a reasonable way.

3. It is necessary to fix up a sealed and reliable distribution box.

4. Check the data plate of the motor for proper power supply.



Refilling and Level Adjustment of the Platforms

1.Turn the switch on the cover plate of the control box to the position with “ON”.

2.Levelling two platform (Before connect the limit switch wires)
Bleeding: Keep pushing the rising button, unit there no air bled from the cylinders (See the air return pipe)

3.Levelling two platform (When operate lift, two platforms un-levelling)
Bleeding: Keep pushing the **Leveling** button (Inside of cabinet), unit there no air bled from the cylinders (See the air return pipe)

Top Limit Switch：0(Blue)/14(Black)/9(Brown)
Lower Limit Switch：0(Blue)/9(Brown /17(Black)

VI、Trouble and Troubleshooting of HXL6435YM Scissor Lift

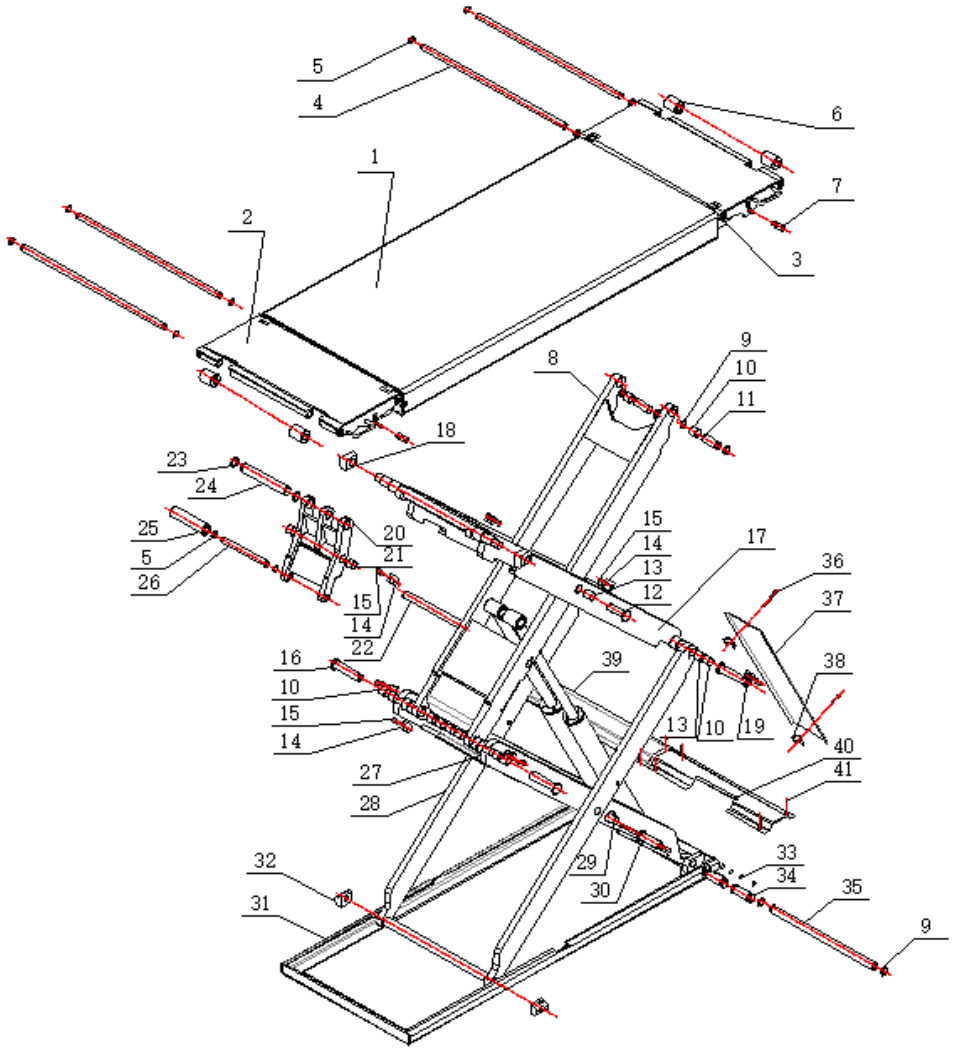
Trouble	Cause	Remedy
The electric motor does not run.	1. The fuses are blown or the over-current protective device is faulty 2. The voltage to motor is wrong	1. Replace the blown fuses or reset the over-current protective device. 2. Supply correct voltage to motor. 3. Repair and insulate all

	3. The electrical wires are disconnected. 4. The motor contactor is faulty. 5. Blown fuse on 24V power supply. 6. The transformer is faulty. 7. The motor thermic switch is activated from overheating.	connections. 4. Check the contactor coil operation and make sure it is activated when supplied with 24V. 5. Check the fuse on the transformer and replace it if necessary. 6. Check the output voltage of the transformer (24V). 7. Wait for 10 minutes and try starting again; then, using a tester to make sure contact is closed again.
The electric motor runs but will not raise lift.	1. Motor runs in reverse rotation. 2. Load too heavy. 3. Low fluid level. 4. The master hydraulic circuit breaks. 5. The oil filter is clogged. 6. Faulty hydraulic pump. 7. Faulty relief valve. 8. The disc of the lowing solenoid valve is dirty. 9. The emergency lowing throttle valve is open.	1. Switch the phase and make sure motor runs in the direction indicated by the arrow. 2. Check vehicle capacity. 3. Fill tank with hydraulic oil. 4. Check and retighten. 5. Check and clean. 6. Repair or replace the hydraulic pump. 7. Adjust and replace the relief valve. 8. Check the solenoid valve and clean the disc. 9. Check and tighten screw.
The motor has sounds, but can’t run.	1. Default phase occurs to the three-phase power supply.	1. Immediately stop to run the motor, and check whether default phase occurs to the main circuit.
The lift rises	1. The seal of the	1. Repair or replace the

too slowly.	hydraulic pump is damaged, resulting in oil leakage.	hydraulic pump.
The lift vibrates while working.	1. There is air in the hydraulic circuit. 2. The oil filter is dirty. 3. The gas leaks in the upper part of the suction pipe of the hydraulic pump.	1. Bleed repeatedly the hydraulic circuit according to the Operation Manual. 2. Check and Clean the oil filter. 3. Check and replace it.
The down button is pressed but the lift does not lower.	1. Make sure there are no obstacles blocking the lowering phase. 2. There is the poor contact inside the button. 3. The input voltage is abnormal. 4. Blown fuse on 24V power supply. 5. Faulty transformer. 6. The lowering Solenoid valve coil is faulty or not supplied with current. 7. Damaged or faulty lowering solenoid valve. 8. The air pressure is insufficient to release the safety locks.	1. Remove the obstacles blocking the lowering phase. 2. Check and replace the button. 3. Return the input voltage to normal. 4. Check and replace the fuse after eliminating the cause of the short circuit. 5. Check the output voltage of the transformer (24V). 6. Check to see if valve coil is getting current. 7. Unscrew the valve on the hydraulic block and make sure it moving freely when supplied with 24V solenoid. 8. Adjust the air pressure in the compressor.
The lift isn’t raising synchronous.	1. The refilling valve is open. 2. Leakage occurs in the hydraulic circuit.	1. Bleed and readjust the balance, and fasten the refilling valve. 2. Eliminate the leakage in the

		hydraulic circuit.

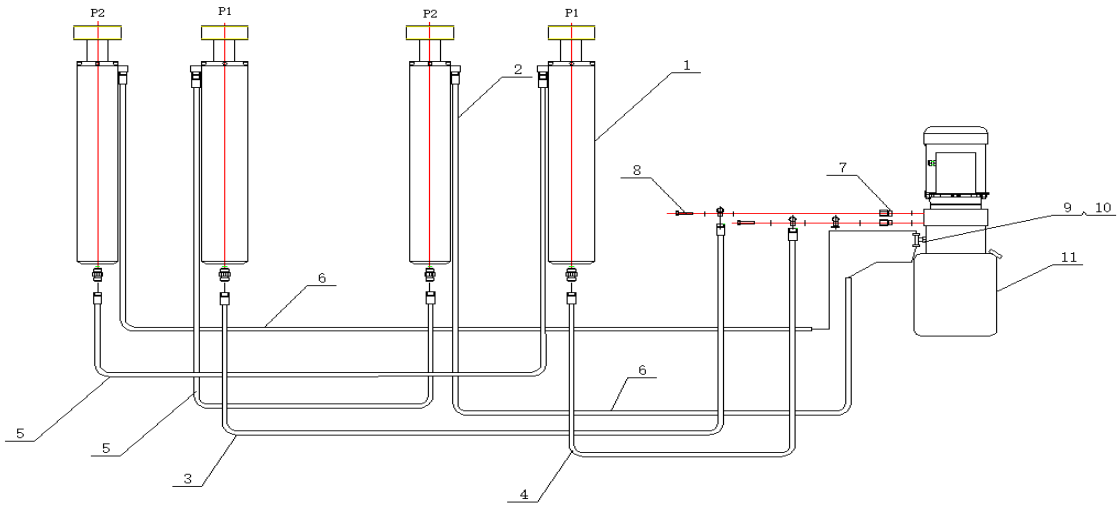
VII、Parts Break



No	P/N	NAME	QTY
1	RT1001C		
		Platform	2
2	RT1002C		
		Ramp	4
3	RT1003C		
		Ramp Support	4
4	RT1004C		
		Shaft	4
5	RT1005C		
		Circlip 20	8
6	RT1006C		
		Roller	8
7	RT1007C		
		Handle Bar	4
8	RT1008C		
		Inner Leg (UP)	2
9	RT1009C		
		Circlip 25	4

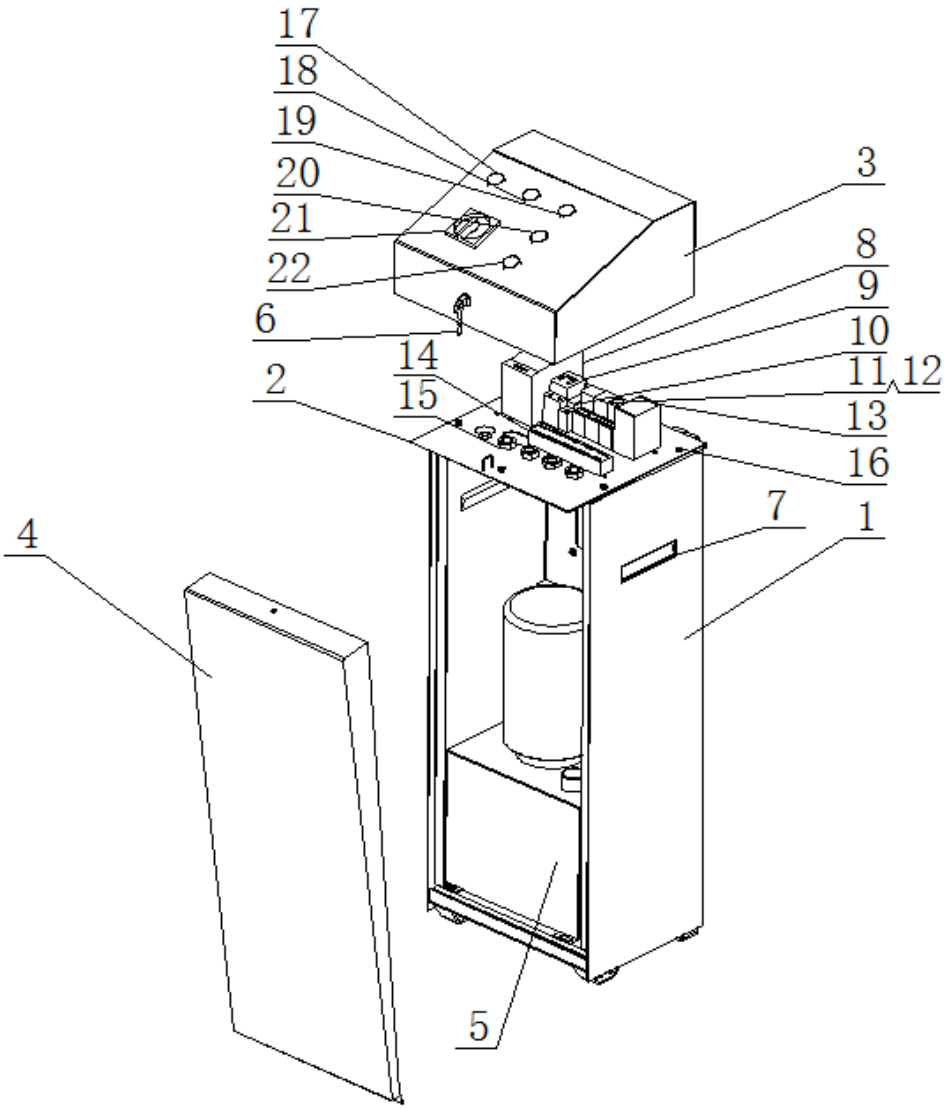
10	RT1010C		
		bearing	16
11	RT1011C		
		Pin	8
12	RT1012C		
		Shaft	4
13	RT1013C		
		bearing	4
14	RT1014C		
		Lock plate	8
15	RT1015C		
		Bolt M8x16	8
16	RT1016C		
		Pin	4
17	RT1017C		
		Outer Leg (UP)	2
18	RT1018C		
		Slider Block	8
19	RT1019C		
		Pin	4
20	RT1020C		
		Kicker Weldment	2
21	RT1021C		
		bearing	4
22	RT1022C		
		Pin	4
23	RT1023C		
		Circlip 30	8
24	RT1024C		
		Pin	2
25	RT1025C		
		Kicker Roller	4
26	RT1026C		
		Kicker Roller Pin	2
27	RT1027C		
		Inner Leg (Down)	2
28	RT1028C		
		Outer Leg (Down)	2
29	RT1029C		
		Bearing	12
30	RT1030C		
		Shaft	2
31	RT1031C		
		Base frame weldment	2
32	RT1032C		
		Slider Block	4

33	RT1033C		
		Bolt	8
34	RT1034C		
		Cylinder Fixed Pin	4
35	RT1035C		
		Shaft	4
36	RT1036C		
		Bolt M6x70	4
37	RT1037C		
		Cylinder Cover	2
38	RT1038C		
		Plate	4
39	RT1039C		
		Hose Cover	1
40	RT1040C		
		Hose Cover	2
41	RT1041C		
		Nylon Anchor M6x40	12



No	P/N	NAME	QTY
1	RT2001C		
		Master Cylinder	2
2	RT3001C		
		Slave Cylinder	2
3	RT4001C		
		Hydraulic Hose L=4200mm	1
4	RT4002C		
		Hydraulic Hose L=2900mm	1
5	RT4003C		
		Hydraulic Hose L=2600mm	2
6	RT4004C		

		Return Pipe	2
7	RT4005C		
		Fitting	2
8	RT4006C		
		Bolt	2
9	RT4007C		
		Air Fitting	1
10	RT4008C		
		Y version Air Fitting	1
11	RT4009C		
		PU	1



No	P/N	NAME	QTY
1	RT5001C		
		Cabinet	1
2	RT5002C		
		supporting plate	1
3	RT5003C		
		Cover	1
4	RT5004C		
		Door	1
5	RT5005C		
		Power unit 380V/50hz	1
6	RT5006C		
		Lock	1
7	RT5007C		
		ABS handle	1
8	RT5008C		
		Power Switch	1
9	RT5009C		
		breaker	1
10	RT5010C		
		Fuse	1
11	RT5011C		
		Relay 24V	1
12	RT5012C		
		Timing relay	1
13	RT5013C		
		Contactor	1
14	RT5014C		
		Wiring board	1
15	RT5015C		
		TightenerPG13.5	1
16	RT5016C		
		Screw M6x10	1
17	RT5017C		
		Power Light DC24V	1
18	RT5018C		
		Buzz DC24V	1
19	RT5019C		
		Lifting Button	1
20	RT5020C		
		Lowering Button	1
21	RT5021C		
		Power Switch	1
22	RT5022C		
		Emergency Switch	1
23			