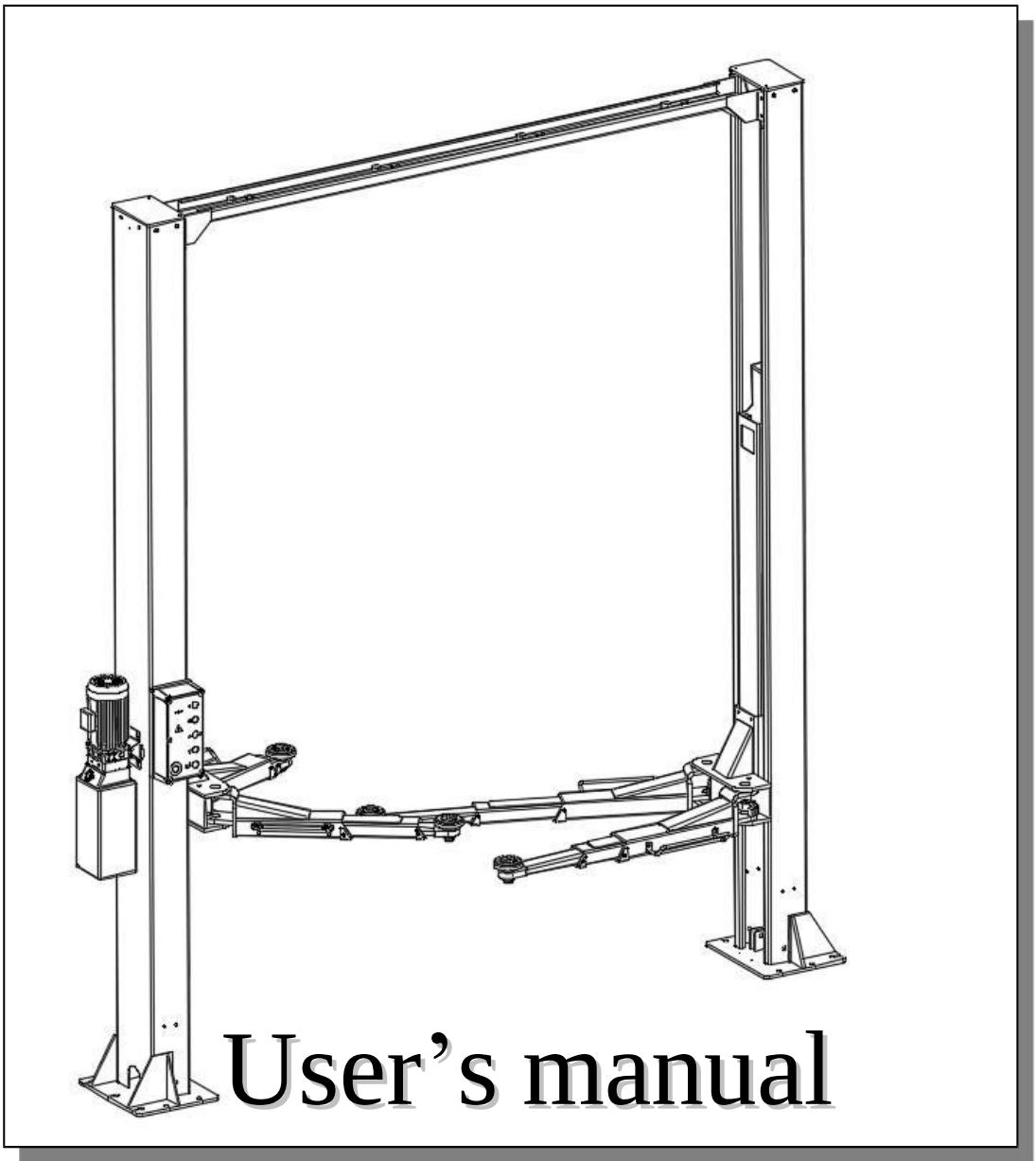
TWO POST LIFT
LJCC2050A



User's manual

Manufacturer:

MANUFACTURE AND SERVICE AGENT

TWO POST LIFT

Model:	
Serial no.:	
Manufacture date:	/ / /

Manufacture:
Name:
Address:
Telephone:
Fax:
http:
E-mail:

AUTHORIZED SERVICE CENTRE

INSTRUCTION

-Though we have considered about the machine safety during design and manufacture, proper training and frequent operation can be better for the safety. Forbid to operate or repair the lift without reading this user's manual.

-Check the nameplate on motor and currency request on nameplate, only professional electrician is allowed to connect the power.

-Forbid to load vehicle over 4500KG!

-Read the warning content in user's manual carefully!

-We do not take responsibility to the damage due to improper use or operation.

Manufacturer owns the right to make little changes for the manual owing to the improvement of technology.

CATALOGUE

Catalogue

⚠ Discharge the outside packing and other packing material, to check whether any damage or missing during transportation according to "packing list". If find damage or missing, should notice the carrier immediately.

PACKING

Standard scheme: main post and its components, sub post and its components（1＃）， hydraulic unit（2＃），standard equipments totally 2 cases.

Chapter 2 Description of machine

2.1 USAGE

This two post lift can lift various vehicles which weight is less than 5000kg. And it is suitable for vehicle test, repair, maintenance and care.

This lift is designed to lift vehicles, not for other usage.

-Forbid to use for washing and spraying vehicles!

-Forbid to lift vehicle which weight is over5000KG!

2.2 FEATURES

-Design and manufacture according to relevant standard, and machine performs stable and reliable.

-With hydraulic locking and mechanical locking system, safety and reliable.

-With insurance bar for top protection, to prevent effectively the vehicle from being damaged.

-With safety valve and antiknock valve in case of hydraulic failure or over loading, to prevent the lift from lowering quickly when oil pipe bursts.

-Double cylinder drive, to lift and lower stably.

-Adopt imported hydraulic and electrical components from Italy, Germany and Japan.

2.3 MAIN FABRIC PRINCIPLE:

-Lifting fabric: Each post has one cylinder, when pump the oil into the cylinder, the cylinder pole will move upwards, to hold the carriage move upwards.

-Support fabric: After driving the vehicle into the working area, adjust the angle of arms and length of extension arms, to ensure the arms support on the effective vehicle bearing point.

Fix the position of vehicle by arm orientation fabric, in case of slipping.

Then adjust the screw to fit different height chassis.

-Balance fabric: To keep the balance during lifting, connect the two carriages with two steel cables to ensure the synchronization of the two. Then tighten the steel cable, or it will not synchronize.

If carriages, arms are not in level, adjust the steel cable nut, to ensure the carriages and arms in level. Then tighten the cables to ensure the synchronization.

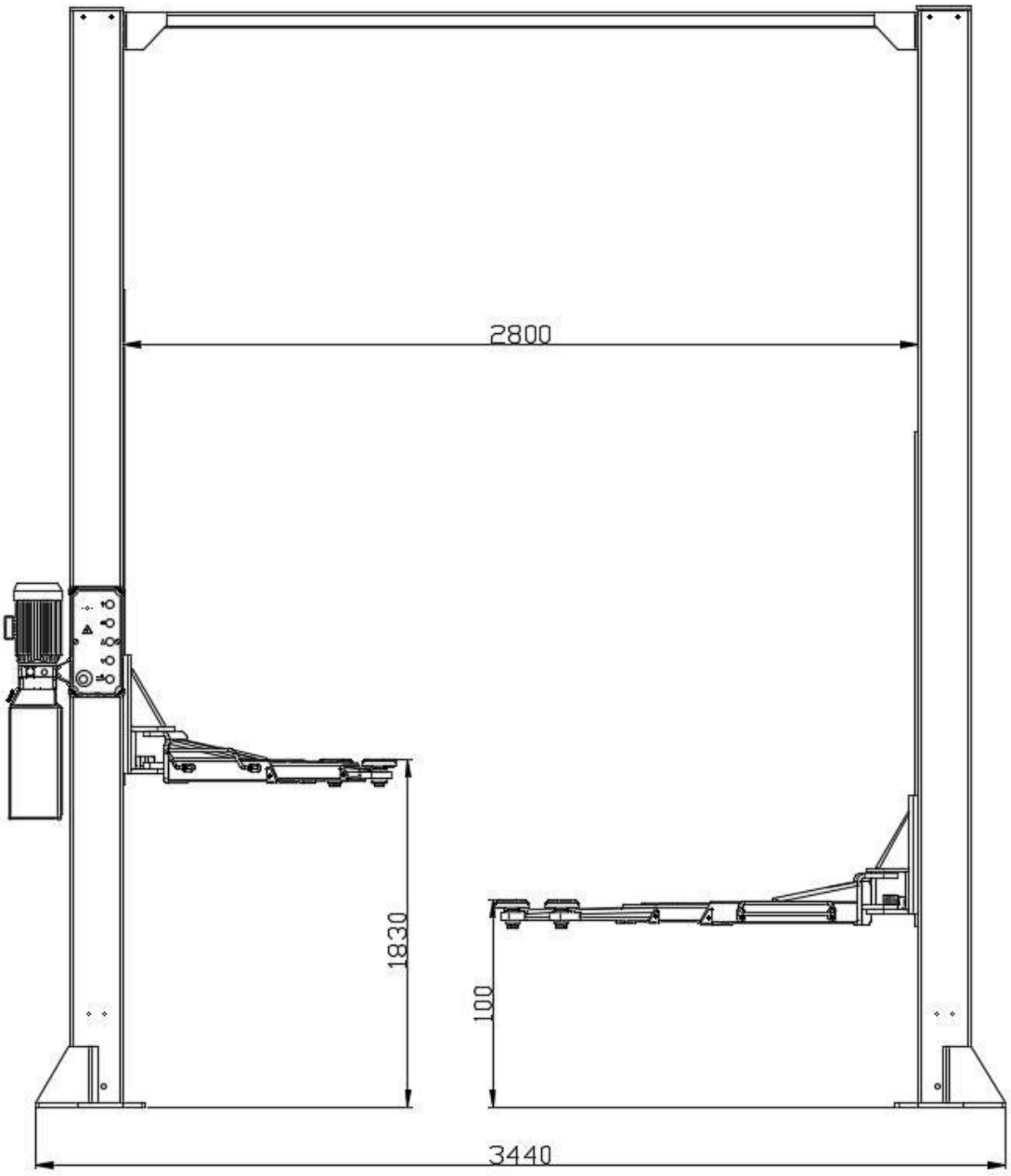
-Electromagnetic safety locking fabric: During lifting, each post has safety-locking device to ensure the lift can stop reliable without falling.

-Principal of electromagnetic safety locking: The upper side of safety racks adhibit on the safety teeth for the angle and deadweight. The carriages push the safety rack and go up step by step. If failure of lift and begins to lower quickly, safety rack will clip on the teeth to stop the carriage to stop lowering. (See picture 9 and 10)

-There are orientation device on the arms, to lock arms when they are in proper position, which can prevent the vehicle from slipping.

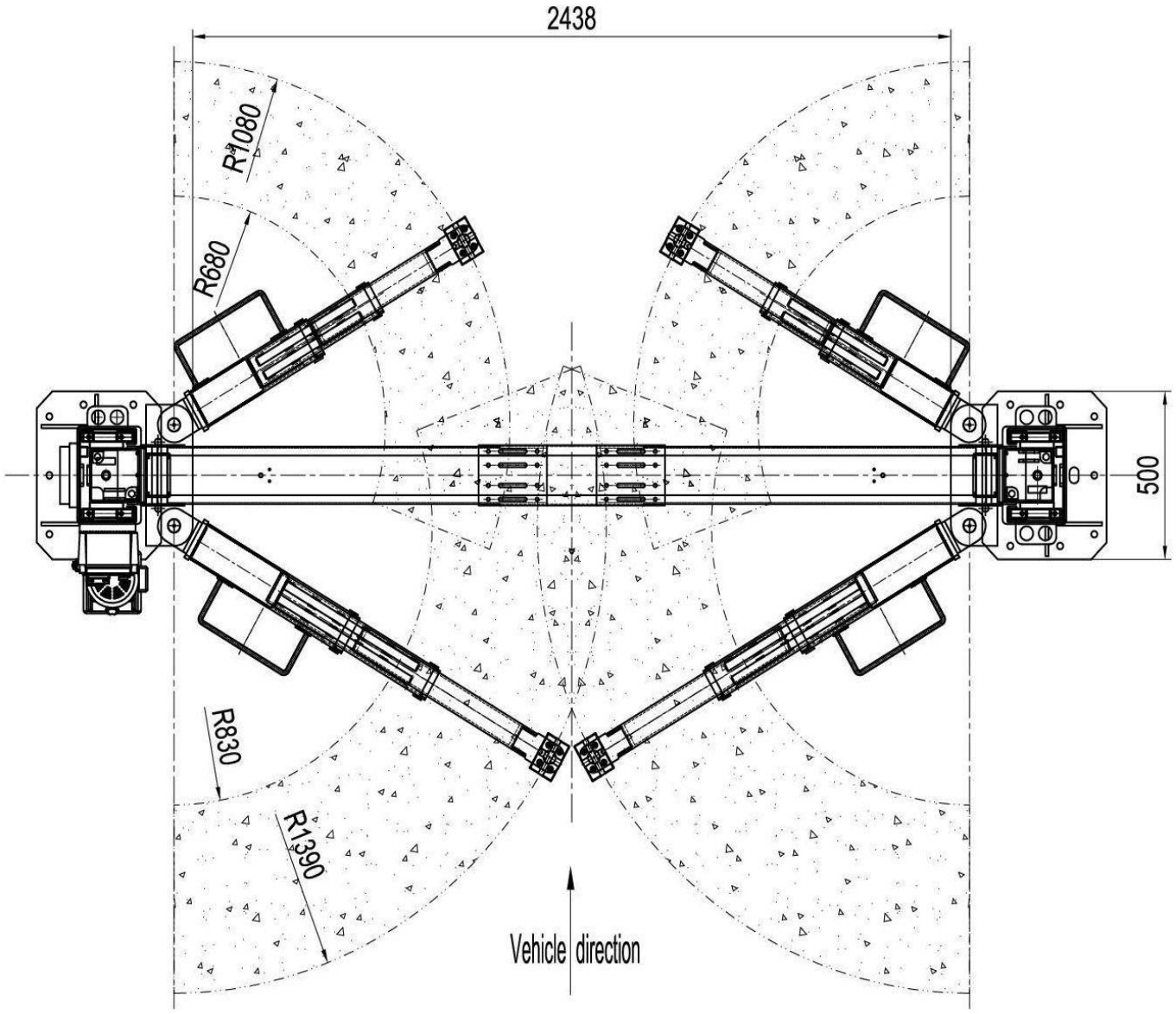
Chapter 2 Description of machine

2.4 CONFIGURATION DRAWING:



Picture 1 (dimension drawing)

Chapter 2 Description of machine



Picture 2 (arm extension drawing)

Chapter 2 Description of machine

2.5 TECHNICAL PARAMETER

Item	Parameter
Drive	**Electrical hydraulic**
Max lifting weight	5000kg
Lifting height	1830/1890mm
Original height	98/160mm
Lifting time	≤60S
Lowering time	≤60S
Pass width	2390mm
Overall width	3440mm
Overall weight	845kg
Voltage	AC 400V or 230V ± 5% 50Hz
Machine power	2.2 KW
Hydraulic oil	13L 20＃ high abrasive hydraulic oil (prepared by user)
Working temperature	5-40℃
Working humidity	30-95%
Noisy level	< 76db
Installation height	Height above sea level ≤1000M
Storage temperature	-25℃~55℃
Installation place	Indoor

Table 1

Chapter 3 Installation

3.1 INSTALLATION NOTIC

-Improper installation will cause damage to machine or personnel. We do not take responsibility to any direct or indirect damage due to improper installation or operation.

-The proper installation floor should be level, to ensure level lifting and lowering. Any slant can affect the performance of the machine.

-Forbid to install the machine on asphaltum floor. According to the floor requirement, can only install machine on good condition concrete floor, no crack and other defects.

-Without certify permit from architect, forbid to install machine on the floor which has empty room downstairs.

-Avoid installing machine near warming device, water faucet, air humidifier and ingle.

-Power supply: Before installation, get ready for the power supply.

3.2 INSTALLATION PROCESS

3.2.1 GENERAL ORIENTATION

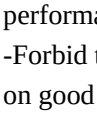
-Lift can only be installed on concrete with steel to reinforce.

Thickness of concrete ≥ 200mm， to ensure the intensity reach to 3000PSI（2.1Kg/mm^2）upwards。

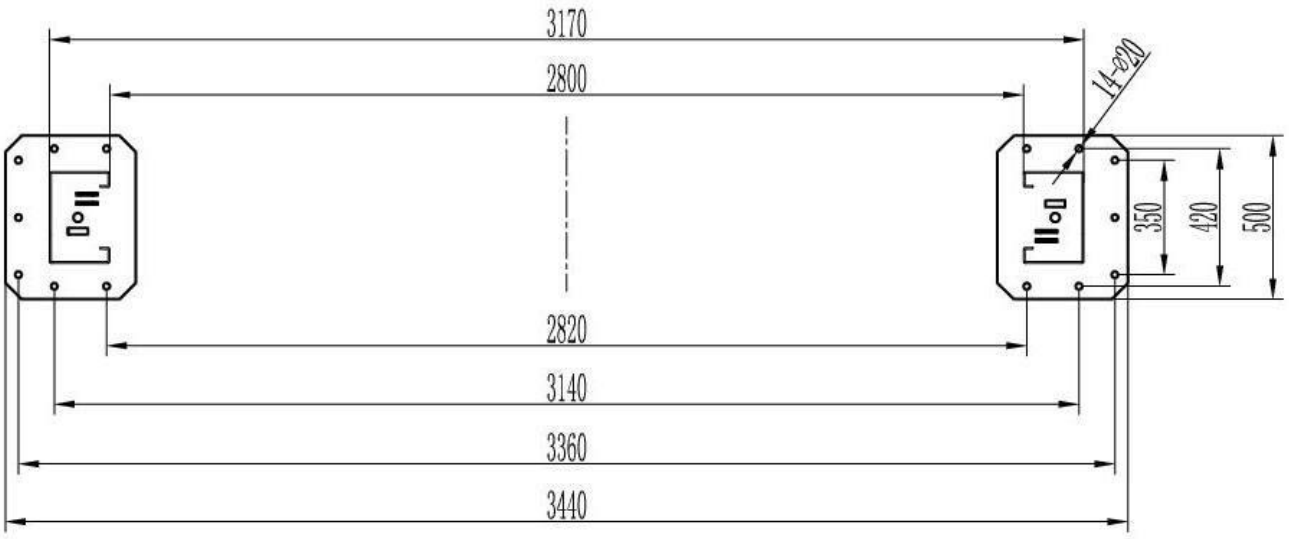
-Height of indoor should be over 4000 mm， regard to hold enough space for all lifting vehicles(approximate 4m from the lift center)

-Distance from post to wall should be at lease 1200mm. In case of emergency situation or working convenience, should consider about enough space for safety channel.

3.2.2 FLOOR LAYOUT

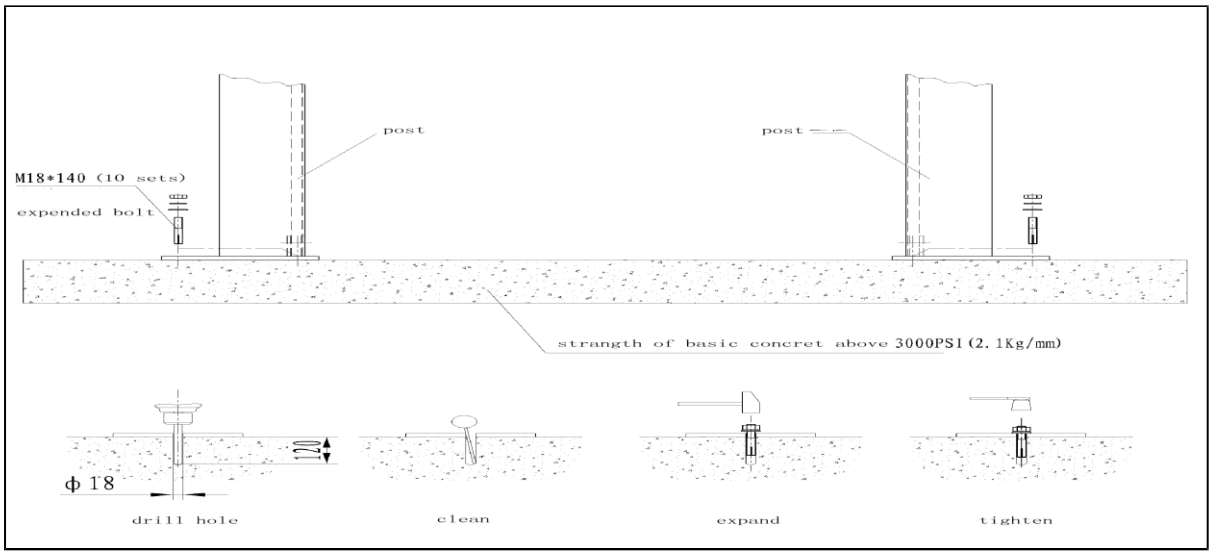


It's very important for the floor layout (picture 3). If it's not correct, there may be some problems during installation and operation. The total level error is less than 4mm, which can decrease the problems during final installation.



Picture 3 (floor layout)

3.2.3 INSTALLATION DRAWING OF POST



Picture 4 (post installation)

Notice: Drill hole with ϕ 19mm aiguille and then anchor with pneumatic tools. The depth of hole and bolts should be the same and insert the bolt. The air anchor, made against the washer to under the post. When fastening to the use of torque wrench, do not use impact tools to tighten.

3.2.4 STEEL CALBE INSTALLATION

1 Fix the posts according to the drawing, and place the main post, slave post according to picture 4. Drill hole for expansion bolt withφ19mm aiguille and no need to fix the bolt at the moment.

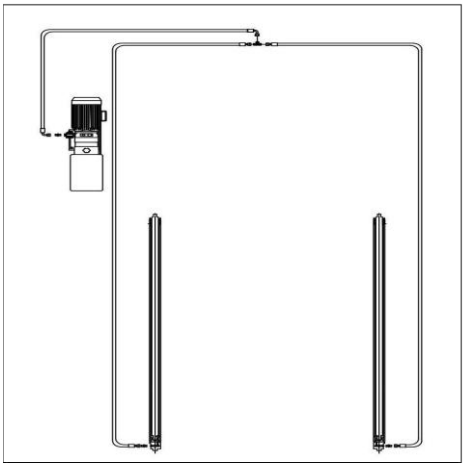
2 Check and ensure the posts dimension is in accordance with picture 5. Test the vertical of post with spirit level (construction using type).

Picture 5 (post orientation)

3.2.5 ORIENTATION OF CROSSBEAM

1 Fix the crossbeam according to the drawing. That side with limit switch should be installed on the post with hydraulic unit, then fasten with screw.

2 Fasten the expansion bolt.



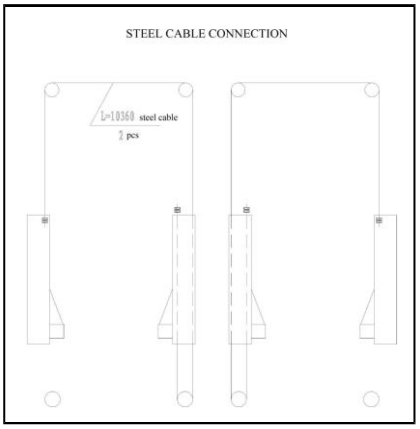
Notice: Select suitable steel shim as gasket and insert under the post bottom, to make the post vertical. The thickness of steel shim should less than 5 mm.

3.2.6 Oil pipe and accessory installation

1 Connect the oil pipe and cable through the oil pipe slot.

2 Fix the hydraulic station, then connect the oil pipe fittings and wire plug.

Picture 6（oil pipe list and installation）



Picture 7 oil pipe connection cable

3.2.7 STEEL CABLE INSTALLATION

1 Open the cover of carriage and fix the carriage on the first tooth. Connect the steel cable and tighten the nut.

2 Set the carriage on the lowest locking point, and then adjust the steel cables.

3 Ensure no cross and mistake installation of cables, also ensure the steel cables are on top the pulley.

3.2.8 INSTALLATION OF OTHER PARTS

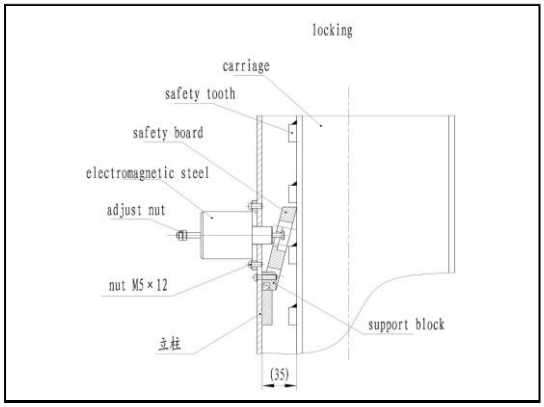
-Unlocking device installation:

1 Install safety part and steel cable according to unlocking device 1 and 2, and tighten the cable with cable clip. (See picture 8 and picture 9)

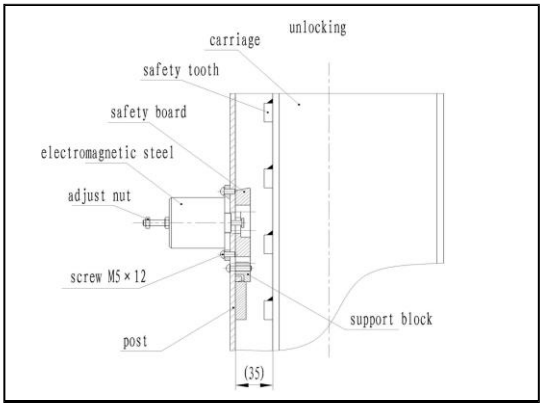
Important notice:

Correct standard of unlocking adjustment is as follow: When nut of electromagnetic steel core is at the end (see picture 9), two safety boards strike close to the carriage, to lock the carriage effective. When the nut of electromagnetic steel core is at the root of thread, two safety boards can open together and carriage lowers. The synchronization of two carriages depends on the force of steel cables.

Install and fix four swing arms on carriage with hinge axis, and fix the support block.



Picture 8（locking 1）



Picture 9 (unlocking 2)

INSTALLATION OF ARMS:

-Fix the long and short sway arms with hinge axis on the carriage according to the floor layout.

-Install the correspond long and short extension arms and fix with M8×12 bolt to avoid slipping.

-Put the adapter to the holes on extension arms (can choose differ height adapter to suit different height chassis)(see picture 8:)

Picture 8

3.2.9 INSTALLATION OF CONTROL BOX OF WIRES

-Fix the control box on the post with bolt.

-Connect the wires according to electrical diagram and air loop according to air loop diagram.

Only authorized qualified personnel can install the electrical part.

-Open the control box cover first.

-Power connection:

Connect the 3 phase five wires ($3\times2.5mm^2+2\times1.5\ mm^2$) for the power supply to the terminal of control box according to the circuit diagram.

If for 230V connection, connect to the control box according to the circuit diagram.

-Connection for the electromagnetic steel of release:

For detail connection, please see the circuit diagram.

-Up limit switch connection:

For detail connection, please see the circuit diagram.

Picture 10 (up limit switch connection)

4.1 PREPARATION BEFORE ADJUSTMENT

-Upright adjustment:

Use plumb to fix the top of post and check whether its install position is upright.

Then hammer the expanded bolt and tighten the ground bolt cap.

Only can hammer the expanded bolt after the expired period of the concrete and the gap between base plate and ground surface must be filled with iron plate or concrete and then tighten the anchor bolts.!

4.2 PROCESS OF ADJUSTMENT

-Check whether the connection of power is correct, pay attention to the turning of 3 phase motor.

-Ensure all bolts are tightened enough.

-Press "UP" button, safety board goes up with carriage and releases the lock. Release the button, carriages stop lifting.

-Press "DOWN" button, to pull-in electromagnetic steel, and the carriages lower. Release the button, carriages stop lowering.

4.3 SYCHRONIZATION ADJUSTMENT

-Repeat to lift and lower the lift several times, to ensure the tensile force of two steel cables. If not, adjust the cable nut.

-Press "UP" button, to check whether the lifting and lowering of carriage is synchronized. If not, adjust the cable nut.

4.4 LOADING TEST

To check whether hydraulic system works normally when loading heavy weight.

Notice:

-Check every oil pipe and fitting, to ensure no leakage before operating the lift.

-Use all the arms when lifting vehicle on the recommended point of the chassis. Vehicles barycenter must be in the middle of two support arm.

-Remove or install any heavy part, one should use safety support like jack to keep the balance of vehicle.

-When lifting or lowering with loading, forbid personnel to stand under the arms or vehicle and keep in case of danger.

-Cut off all the power when lift is not on work.

Chapter 5 Maintenance and care

Notice

ATTENTION:

-All bearings and hinges on this machine must be lubricated once a month

-The lock latch, steel cable, and some other moving parts should be lubricated monthly.

-The hydraulic oil must be replaced once a year. The oil level should always be kept at upper limit position.

-Check the steel cable every three months and if there is some abrasion, something wrong, stops using and contact with the manufacturer.

-Check the integration of the insurance system every day.

When change hydraulic oil, put machines to the lowest position, have the oil tank empty, when add new oil, should be filled by filter.

Chapter 6 Trouble Shooting

Failure phenomenon	Cause and Phenomena	Resolutions method
The motor doesn't run in lifting operation	connection of power supply wires or zero wire is not correct	Check and correct wires connection
	the AC contactor in the circuit of the motor does not pick up	If the motor works when forcing the contactor down with an isolation rod, check the control circuit. If the voltage at two ends of the contactor coil is normal, replace the contactor.
	UP button failure	Check the contact point of the button and wires connection and exclude.
When lifting operation, the motor runs but it is no lifting movement	The motor turns reverse	Exchange the phases of the power supply wires
	lifting with light load is normal but no lifting with heavy load	The set safe pressure of the over-flow valve may be increased by turning the set knob right ward slightly. The spool of the lowering solenoid valve is stuck by dirt. Clean the spool.
	the amount of hydraulic oil is not enough	Add hydraulic oil
	the descend valve is not closed fastened	Check the descend valve and exclude.
When press lower button, the lift is not lowering	① the safety pawl are not released from the safety teeth	First lift a little and then lowering
	he solenoid air valve does not work	Check the solenoid loop circuit and solution
Two carriages are not synchronized when lift	The force of two steel cable different or force not enough.	Adjust the cable adjustment nut.
Leak oil	Oil pipe fitting loosen	Screw down the pipe fitting

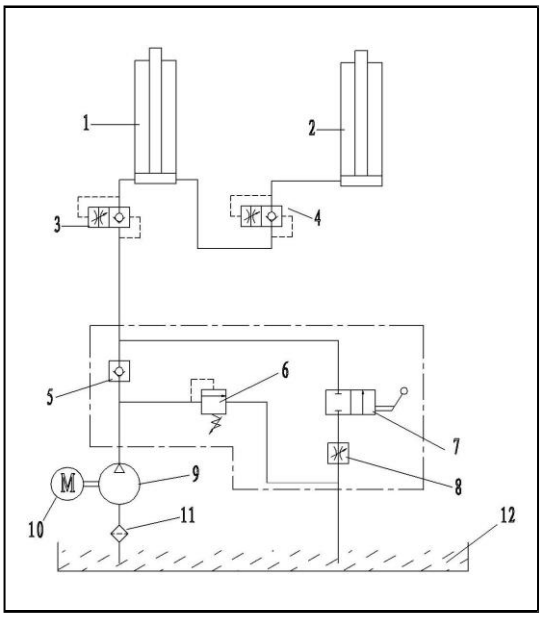
Chapter 7 Appendix

7.1 HYDRALIC SYSTEM

-When pressed "UP" button to start the motor, to pump oil from oil tank to cylinder, and to push the cylinder piston to move. Overflow valve is closed and the pressure is been set before packing in factory, to ensure the maximum loading of lift. When the system pressure is over max pressure, overflow valve will work to have the oil back to oil tank.

-Release "UP" button, motor stops to wok and carriages stop lifting.

-Press "DOWN" button, to connect the electromagnetic steel and open the safety rack, pump begins to have oil back to oil tank and the carriage begins to lower.



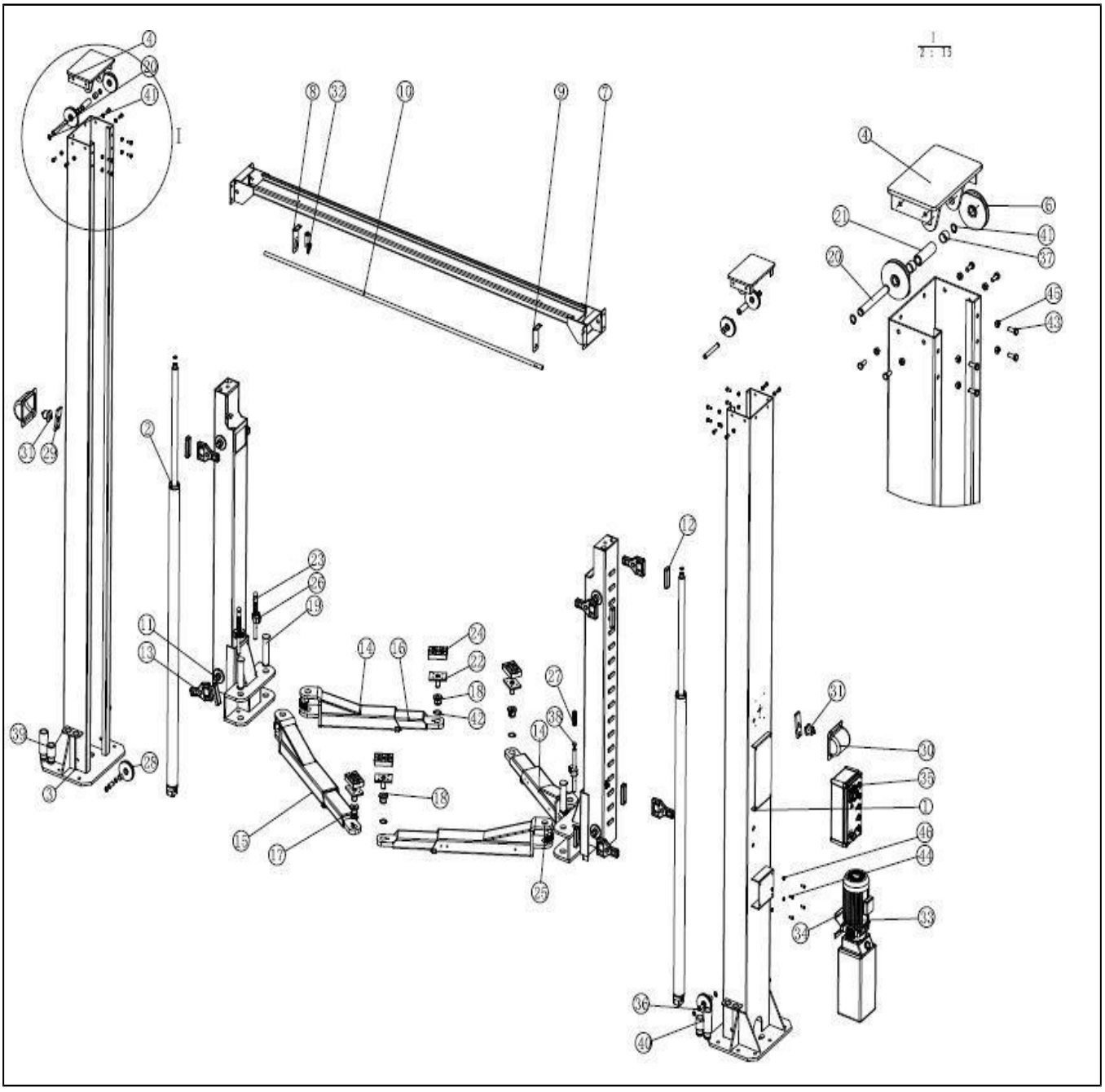
Picture 11 (hydraulic schematic drawing)

1/2cylinder 3/4 antiknock valve 5 check valve

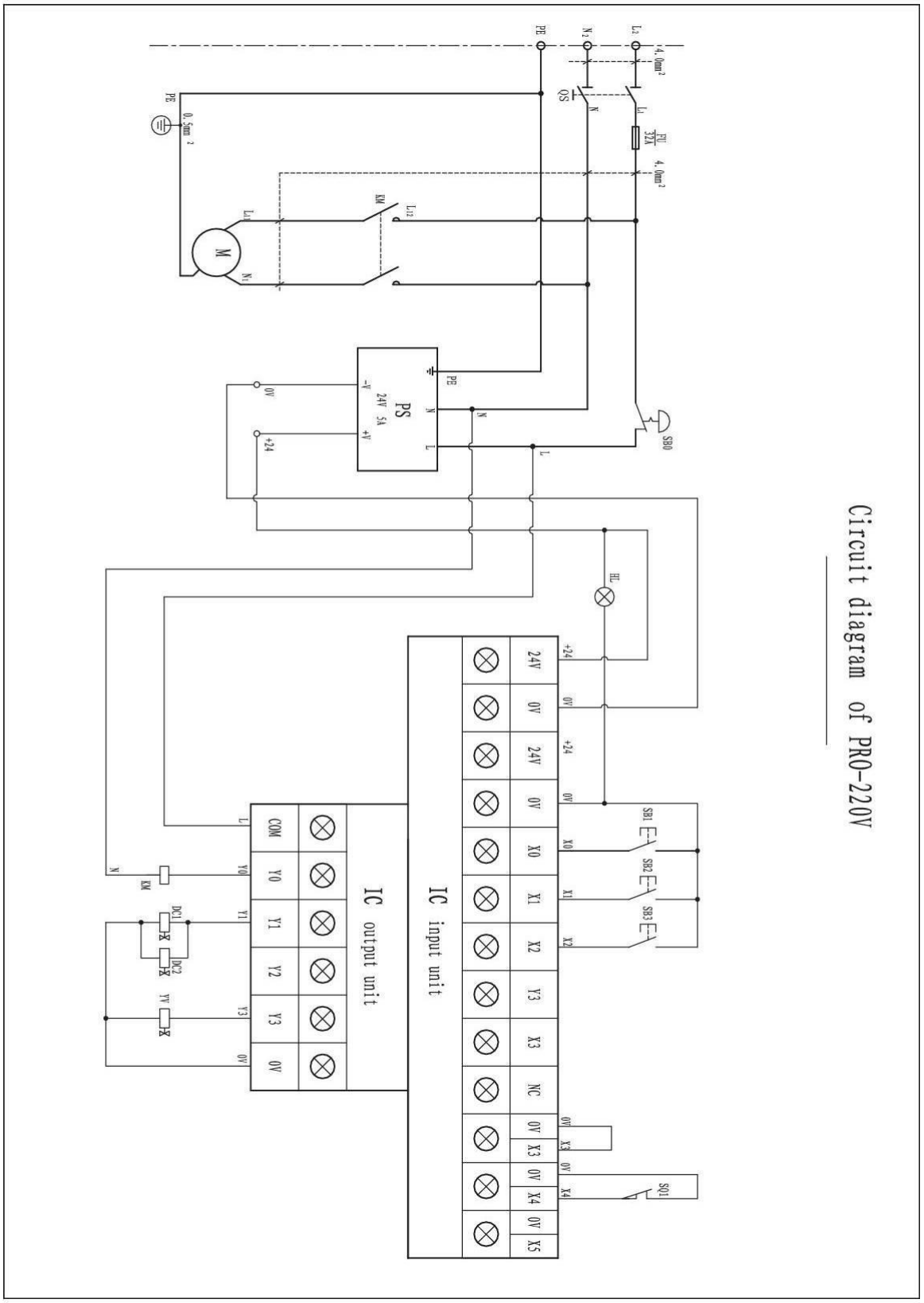
6 overflow valve 7 manual rotate valve 8 throttle valve

9 pump 10 motor 11 filter 12 oil tank

7.2 EXPLODED DRAWING OF MAICHINE



Circuit diagram（220V）:



Circuit diagram（380V）: