

**Model No. FL-8448P**

Four Post Lift

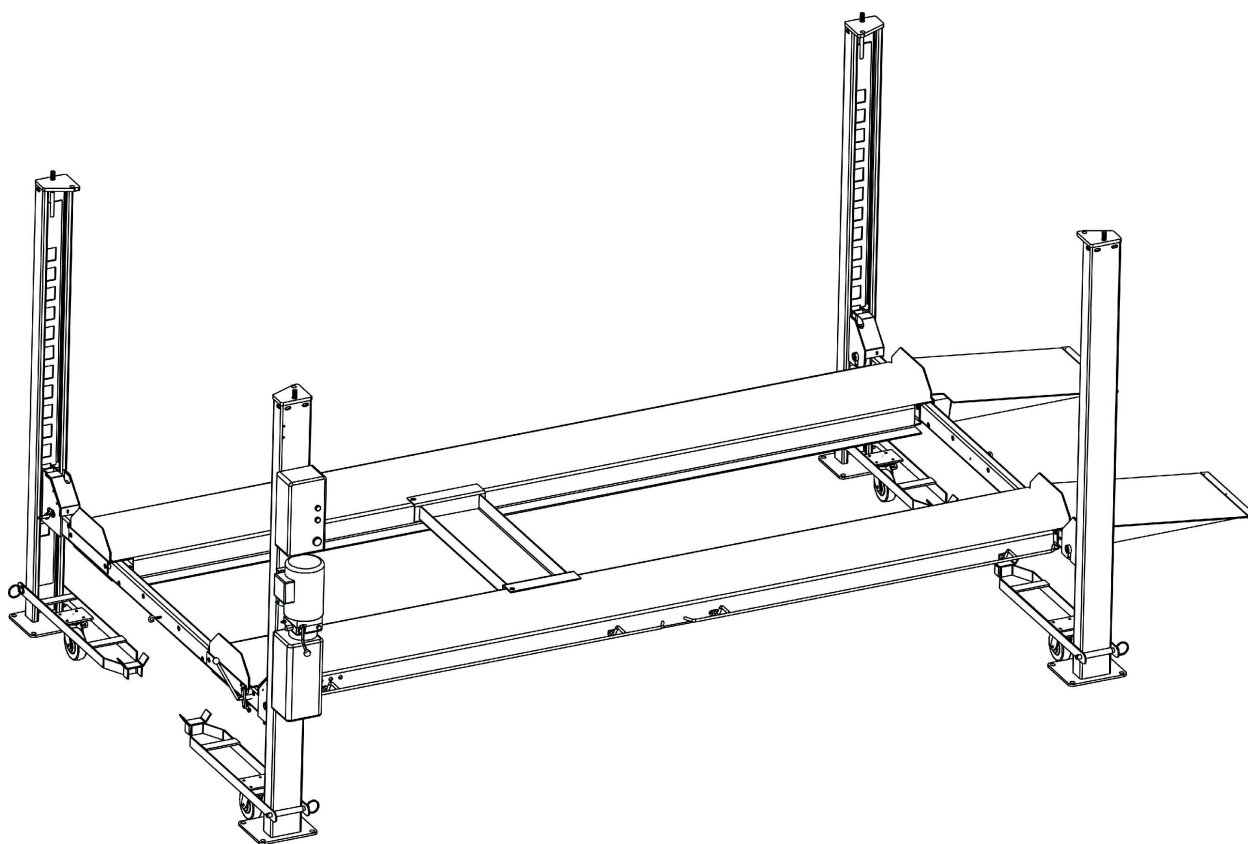
Manual Release

Lifting Capacity 8000LB

**Installation, Operation  
and Parts Manual**



**FRIEND**



*Distributed by*



*Please read this entire manual carefully and completely before installation or operation of the lift.*

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**IMPORTANT SAFETY INSTRUCTIONS**

**1.1 Important notices**

It will offer one-year's quality warranty for the whole machine , during which any quality problem will be properly solved to the user's



satisfaction. However, we will not take any responsibility for whatever bad consequence resulted from improper installation and operation, overload running or unqualified ground condition.

Users must always bear in mind that this lift is specially designed for lifting cars or other vehicles, so never use it for any other purposes. Otherwise, we, as well as our sales agency, will not bear any responsibility for accidents or damages of the lift.

Make sure to pay careful attention to the label of the lifting capacity attached on the lift and never try to lift cars with its weight beyond. Read this manual carefully before operating the machine so as to avoid economic loss or personnel casualty incurred by wrong operation. Without our professional advice, users are not permitted to make any modification to the control unit or whatever mechanical unit.

## 1.2 Qualified personnel

1.2.1 Only properly trained personnel can operate the lift.

1.2.2 Electrical connection must be done by a competent electrician.

1.2.3 People who are not concerned are not allowed in the lifting area.

## 1.3 Danger notices

1.3.1 Do not install the lift on any asphalt surface.

1.3.2 Read and understand all safety warnings before operating the lift.

1.3.3 Do not leave the controls while the lift is still in motion.

1.3.4 Keep hands and feet away from any moving parts. Keep feet clear of the lift when lowering.

1.3.5 Only properly trained personnel can operate the lift.

1.3.6 Do not wear unfit clothes such as large clothes with flounces, tires, etc, which could be caught by moving parts of the lift.

1.3.7 To prevent evitable incidents, surrounding areas of the lift must be tidy and with nothing unconcerned.

1.3.8 The lift is simply designed to raise the entire body of vehicles, with its maximum weight within the lifting capacity.

1.3.9 Always insure the safety latches are engaged before any attempt to work near or under the vehicle. Never remove safety related components from the lift. Do not use if safety related components are damaged or missing.

1.3.10 Do not rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.

1.3.11 Check at any time the parts of the lift to ensure the agility of moving parts and the performance of synchronization. Ensure regular maintenance and if anything abnormal occurs, stop using the lift immediately and contact our dealers for help.

1.3.12 Lower the lift to its lowest position and do remember to cut off the power source when service finishes.

1.3.13 Do not modify any parts of the lift without manufacturer's advice.

1.3.14 If the lift is going to be left unused for a long time, users are required to:

- a. Disconnect the power source;
- b. Empty the oil tank;
- c. Lubricate the moving parts with hydraulic oil.

## 1.4 Training

Only properly trained people are allowed to operate the lift. We are quite willing to provide professional training for the users when necessary.

**Attention: For environment protection, please dispose the disused oil in a proper way.**

## 1.5 Warnings (Read and understand all safety warnings before operation)

All safety warning signs attached on the lift are for the purpose of drawing the user's attention to safety operation. The labels must be kept



clean and need to be replaced when they are worn-out or have dropped. Read the explanations of the labels carefully and try to memorize them.

<p><b>SAFETY INSTRUCTIONS</b></p>  <p>Read operating and safety manuals before using lift.</p>	<p><b>SAFETY INSTRUCTIONS</b></p>  <p>Do not operate a damaged lift.</p>	<p><b>CAUTION</b></p>  <p>Lift to be used by trained operator ONLY.</p>
<p><b>CAUTION</b></p>  <p>Authorized personnel only in lift area.</p>	<p><b>WARNING</b></p>  <p>Clear area if vehicle is in danger of falling.</p>	<p><b>WARNING</b></p>  <p>Remain clear of lift when raising or lowering vehicle.</p>
<p><b>WARNING</b></p>  <p>Keep feet clear of lift while lowering.</p>	<p><b>WARNING</b></p>  <p>Do not override self-closing lift controls.</p>	<p><b>WARNING</b></p>  <p>Chock wheel to prevent vehicle movement.</p>

### OVERVIEW OF THE LIFT



### 2.1 General descriptions

This four post lift is generally composed by four posts, two beams, two platforms, a hydraulic oil cylinder and a set of power unit. It is driven by an electro-hydraulic system. Up and down of platforms is controlled by the to and fro movement of the oil cylinder. To ensure ultra safety, it is equipped with mechanical safety locks in the four posts , which will automatically engaged in the process of lifting so as to prevent the platforms from sudden dropping down in case the hydraulic system fails to work.

### 2.2 Technical Data:

Lifting height: 1900mm.

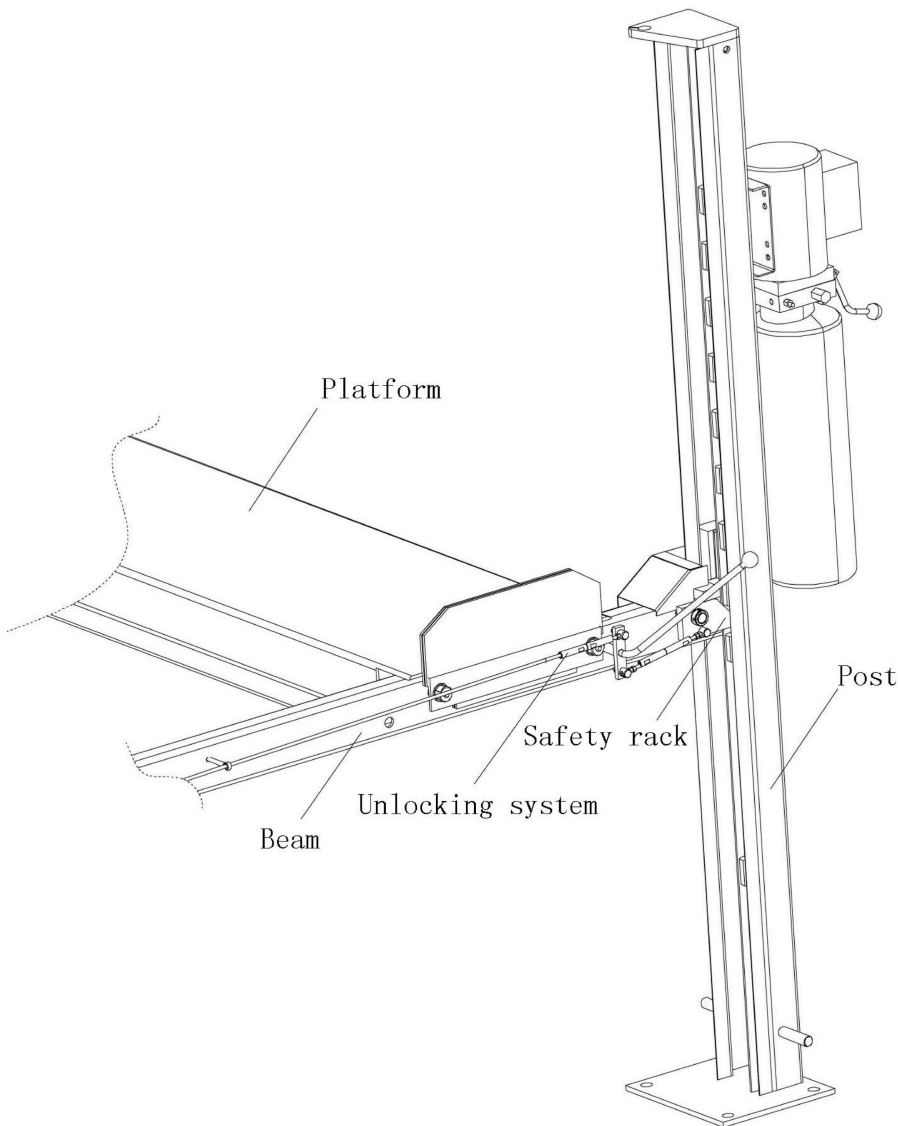
Min. Height: 122mm

Lifting capacity: 8000LB

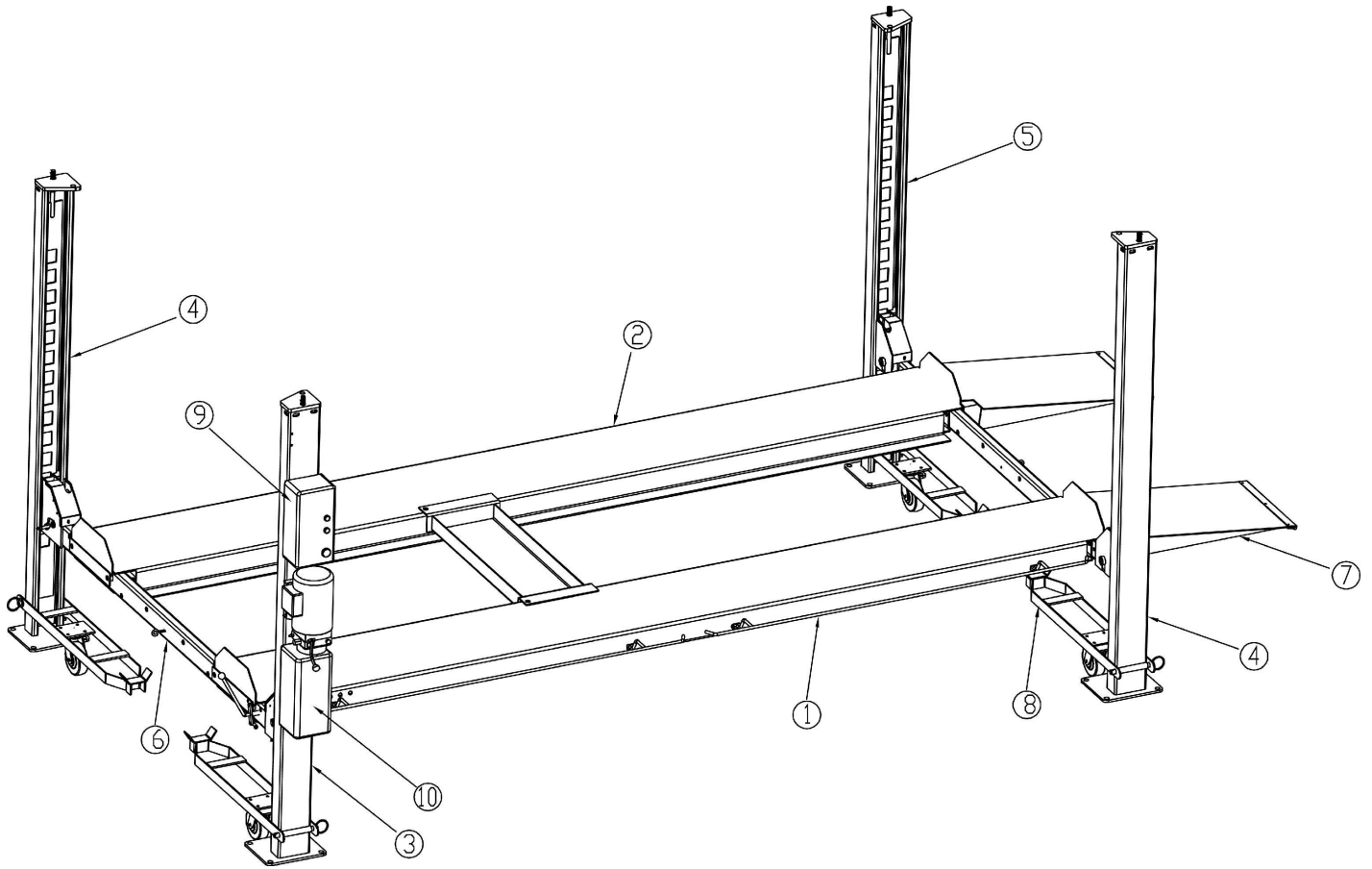
Lifting time: 50S

Power supply: 110V, 60HZ

### 2.3 Safety construction:



### 2.4 General construction of the lift



1. Main Platform
2. Assistant Platform
3. Main Post
4. Assistant Post 1
5. Assistant Post 2
6. Beam
7. Ramp
8. Mobile Jack
9. Control Box
10. Power unit

## 2.5 Nameplate

The nameplate is fixed beneath the oil tank

Check the work voltage and the lift capacity printed on the name plate.

Do not lift vehicles with weight beyond the capacity.

S/N and production date could be helpful for after sale service.

## INSTALLATION INSTRUCTIONS



### 3.1 Preparations before installation

#### 3.1.1 Tools and equipments needed

- ✓ Appropriate lifting equipment
- ✓ Anti-abrasion hydraulic oil.
- ✓ Rotary Hammer Drill with 3/4" drill bit.
- ✓ Chalk and tape measure, magnetic plump, 8 metersΦ15 level pipe.
- ✓ Sockets and open wrenches, a set of inside hex wrenches, cross and straight screw drivers.
- ✓ Hammer, 4pounds, sharp nose pliers, Φ17,Φ19,Φ22 socket spanners.

#### 3.1.2 List for parts checking ---Annex 1 ( Packing list )

Unfold the package and check if any parts missed as per Annex 1. Do not hesitate to contact us in case any parts missed, but if you do not contact us and insist installing upon the lack of some parts, Friend as well as our dealers will not bear any responsibility for this and will charge for any parts subsequently demanded by the buyer.

#### 3.1.3 Ground conditions

The lift should be fixed on a smooth and solid concrete ground with its strength more than 3000psi, tolerance of flatness less than 5mm and minimum thickness of 200mm. In addition, newly built concrete ground must undergo more than 28days' cure and reinforcement.

### 3.2 Precautions for installation

3.2.1 Make sure the four posts stand paralleled and are vertical to the ground. No slanting.

3.2.2 Joints of oil hose and steel cable must be firmly connected in order to avoid the looseness of steel cable and leakage of oil hose.

3.2.3 All bolts should be firmly screwed up.

3.2.4 Do not place any vehicle on the lift in the case of trial running.

### 3.3 Installation instructions

#### **Step1: Choose a proper site.**

##### Location requirement

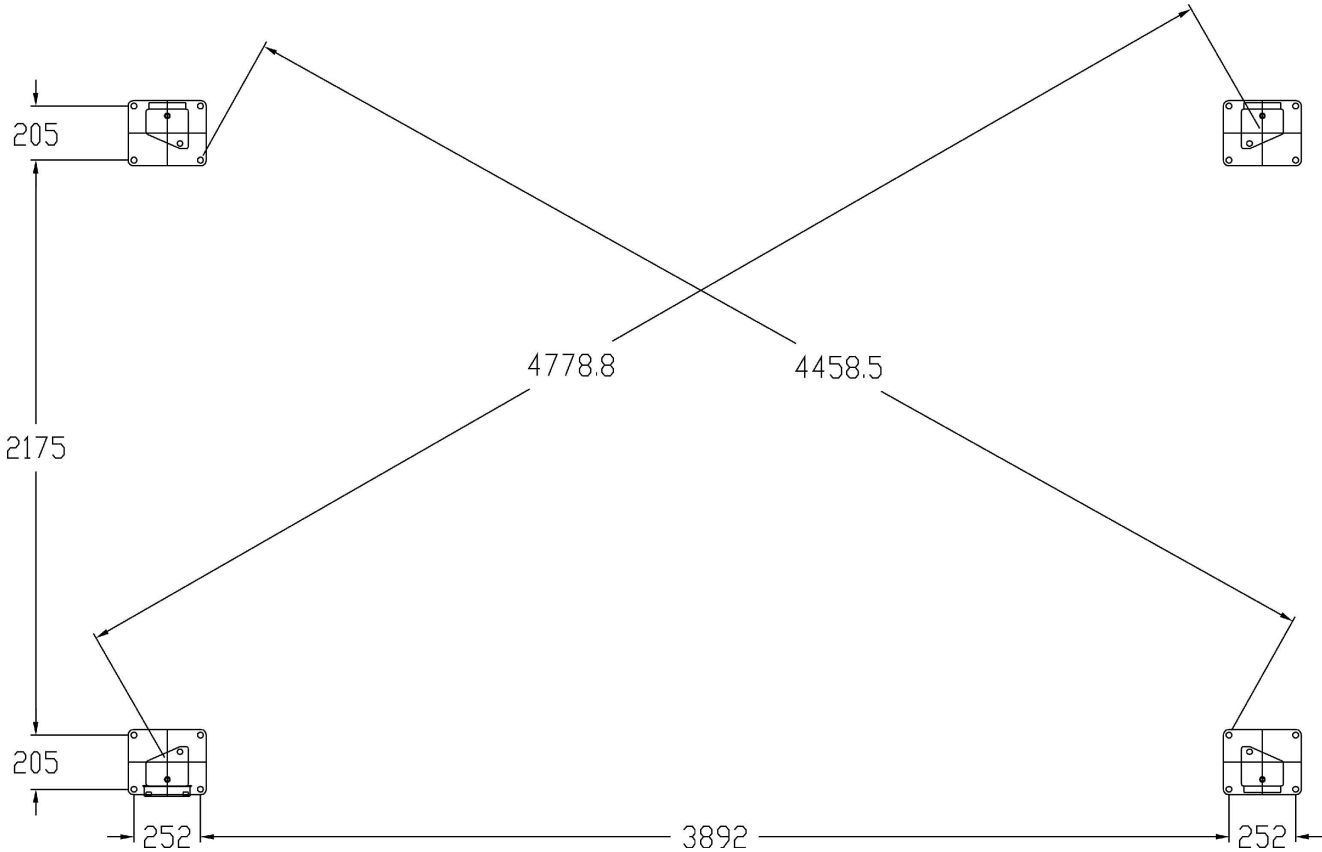
If not specifically stated, our lifts are only for indoor use. It should be fixed on a smooth and solid concrete ground. Do not install this lift on expansion beams of concrete or on a second or an elevated floor without first consulting building architect. Make sure that the space around or over the lift should be free of obstructions like heaters, building supports, electrical lines etc.





### Step 2: Fix the installation layout.

Once the installation site is determined, mark first the standing point of the four posts by a tape measure and chalk. Ensure two diagonal lines are of the same length.



### Step 3: Remove the package.

1. Place some wooden battens on the ground and then use a crane to have the packing rack removed on to the battens so as to make its base is of some clearance from the ground.
2. Have the platforms of the lift suspended by a crane and then screw off the upside bolt and remove the first platform on to the wooden battens initially prepared.
3. Screw off the downside bolt and take away the packing rack on both sides.
4. Remove the shock absorption plastic film with a knife.

### Step 4: Use a crane to have the general parts positioned in accordance with following layout. (For convenient installation, it would be better to pad something supporting under the platform)

Oil cylinder, steel cable and oil hose have already been fixed in the main platform before packing.

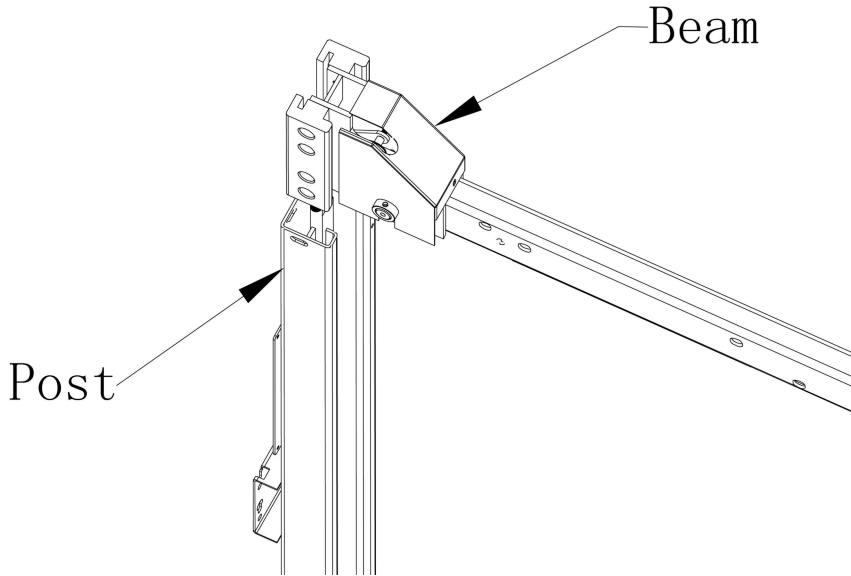
Wire rope, oil hose, safety lock etc, have already been fixed in the beams before packing.





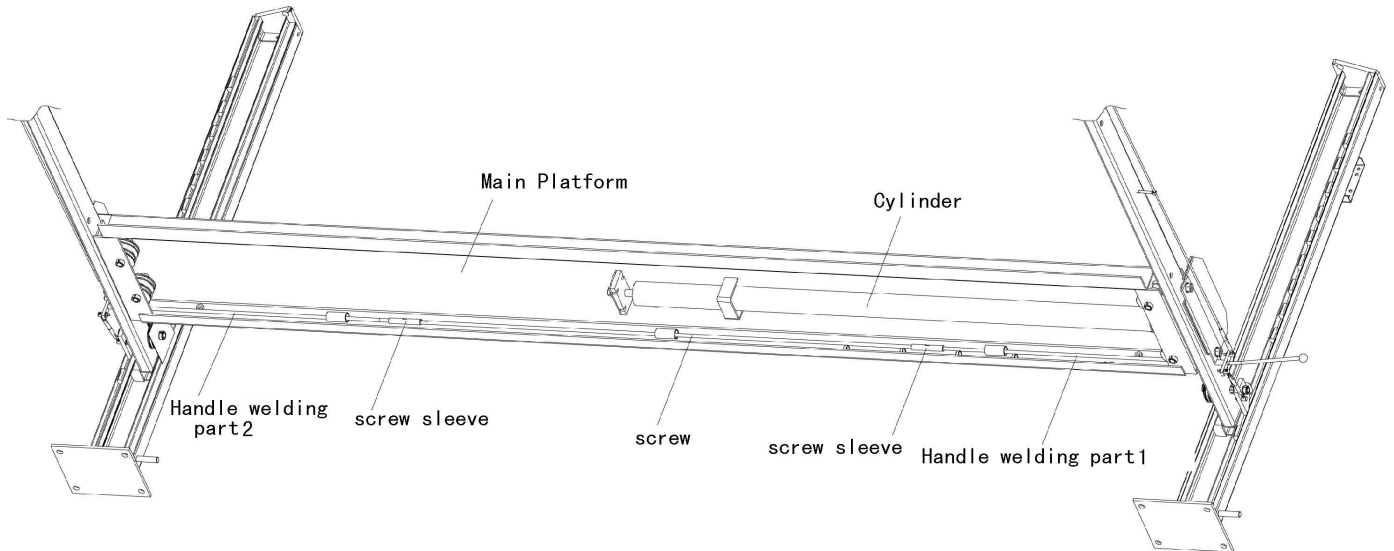
Step 5: Put the four posts on the prior position.

Step 6: Sling the beam and vertical fall into the post, see below attached picture. (It would be better to put something supporting under the beam, about 800mm height.)

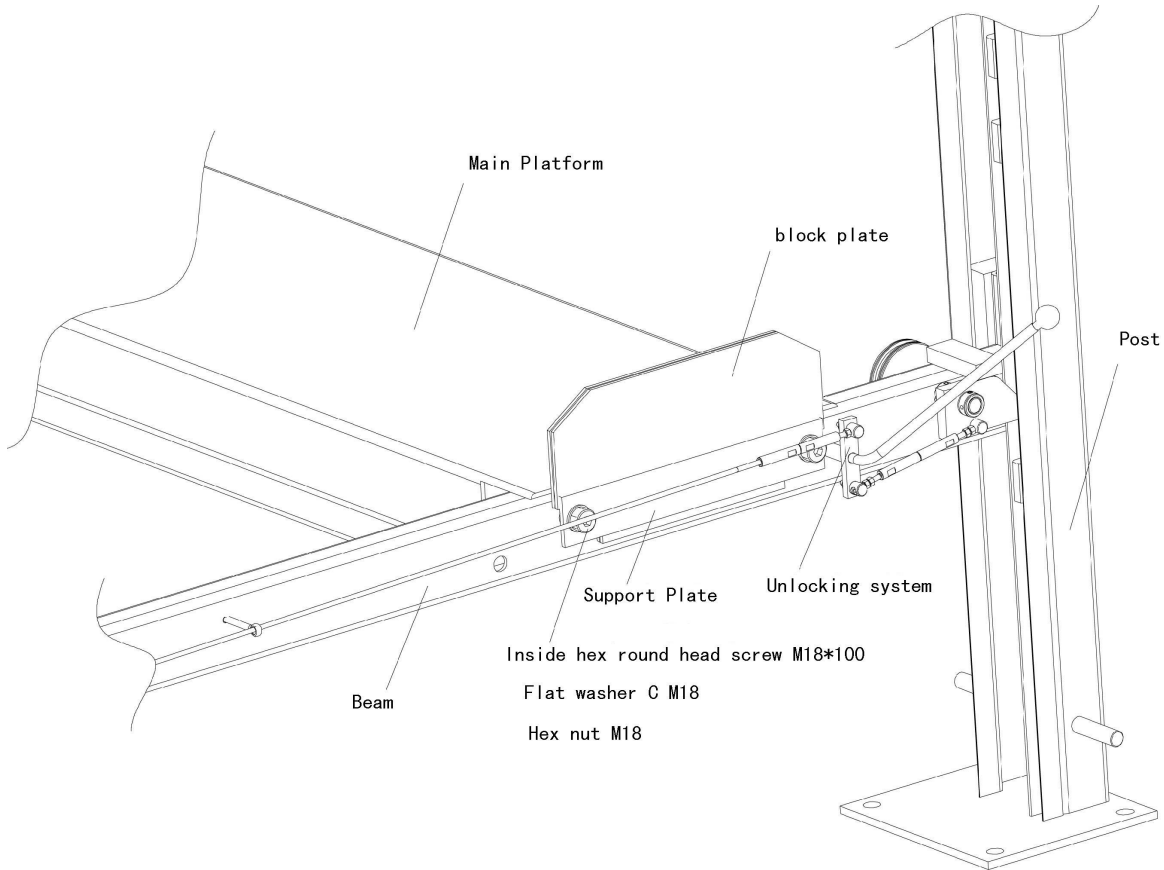


### Step 7: Install the platform and connecting plate

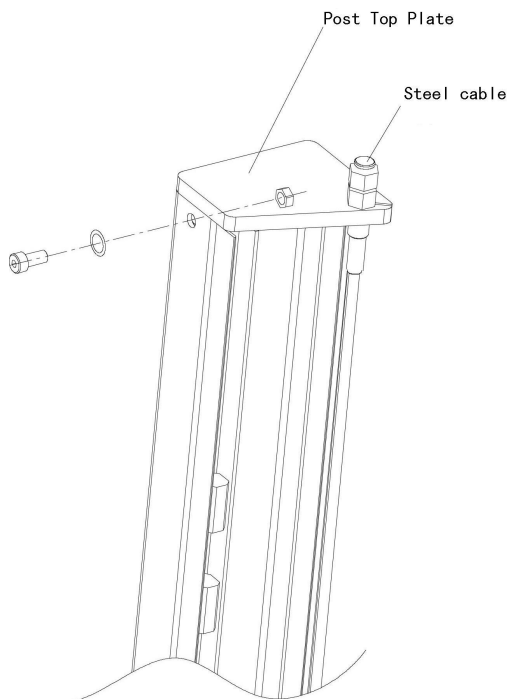
1. Install unlock parts, connecting handle welding 1 and handle welding 2 screw sleeve, following the attached picture, (Note: handle welding 1 and handle welding 2 through the beam and lead to platform)



2. Use hex round head screw M18\*100, hex nut M18, flat washer  $\varnothing 18$  to connect the platform, beam, and connecting plate, and insert the block plate. Following the attached picture. (Note: take out the steel cable and through the wheel of beam and lead to post)



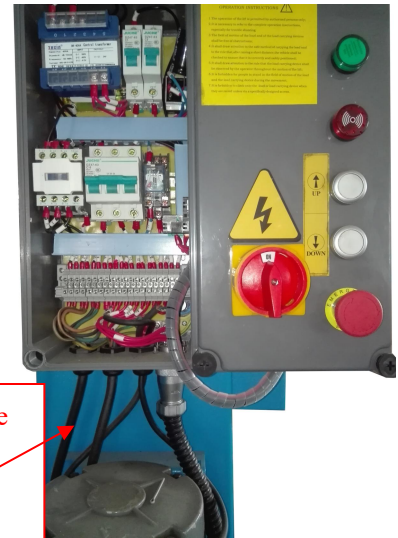
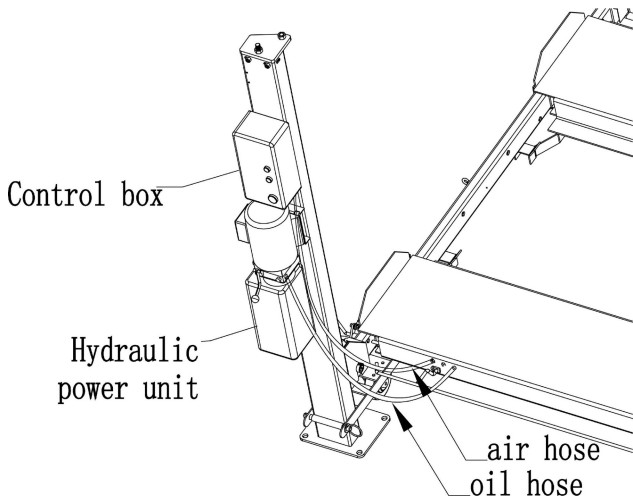
**Step 8: Install post top plate, Use hex round head screw M12\*25, hex nut M12, flat washer  $\varnothing$  12 to fix the top plate, and then tighten the 4 steel cables on the top plate.**



**Step 9: Assemble the hydraulic power unit and control box.**

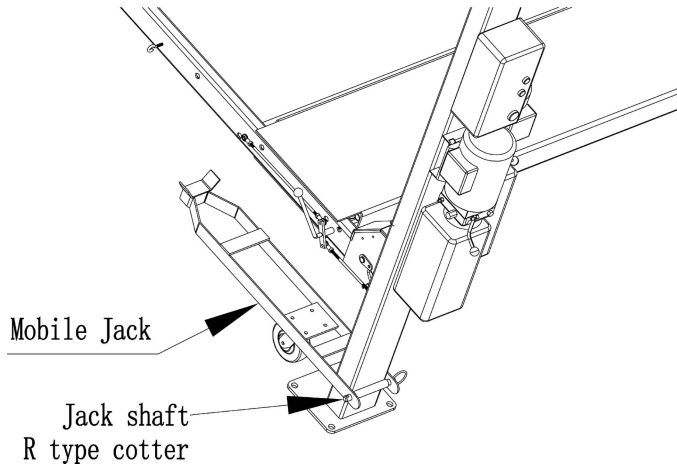
**1. Connecting the air hose and oil hose to hydraulic power unit. Following the attached picture.**

2. Fix control box on the post by 4 cross recess pan head screw. Counterpart connect the control box cable.



- 1. power supply cable
- 2. motor wire
- 3. up limit wire

Step 10: Assemble mobile jack



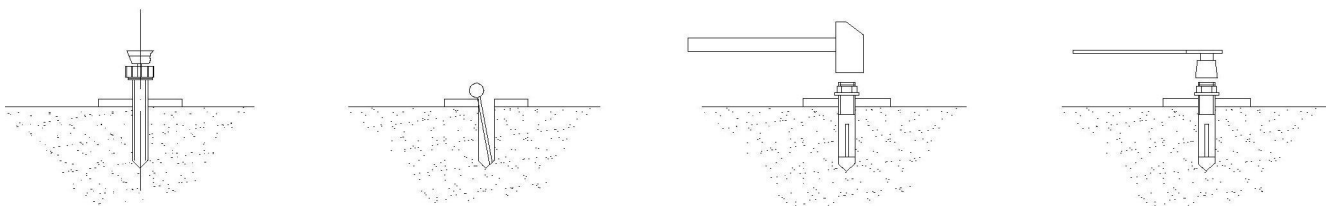
Step 11: Adjust the level

Please do not put any car when adjusting the level.

Power on, press the up button after indicator light is on light. Measuring if two platform height is same after steel cable is tight, if not, adjust the steel cable from top post, meanwhile, check the safety lock if available and manual release is available.

Step 12: Install the ramp, place cover A and cover B on the beam and put on the oil pans. (Down the platform to Min when install ramp).

Step 13: Install expansion bolts.



3.4 Items to be checked after installation.

S/N	Check items	YES	NO
1	Are the posts vertical to the floor?		
2	Are oil hoses well connected?		
3	Are steel cables well connected?		
4	Are two platforms well connected?		
5	Are electrical connections right?		
6	Are the rest joints firmly screwed?		
7	Are all items need lubricating added with grease?		

**OPERATION INSTRUCTIONS**

4.1 Precautions

4.1.1 Check all the joints of oil hose. Only when there is no leakage, the lift can start work.

4.1.2 The lift, if its safety device malfunctions, shall not be used.

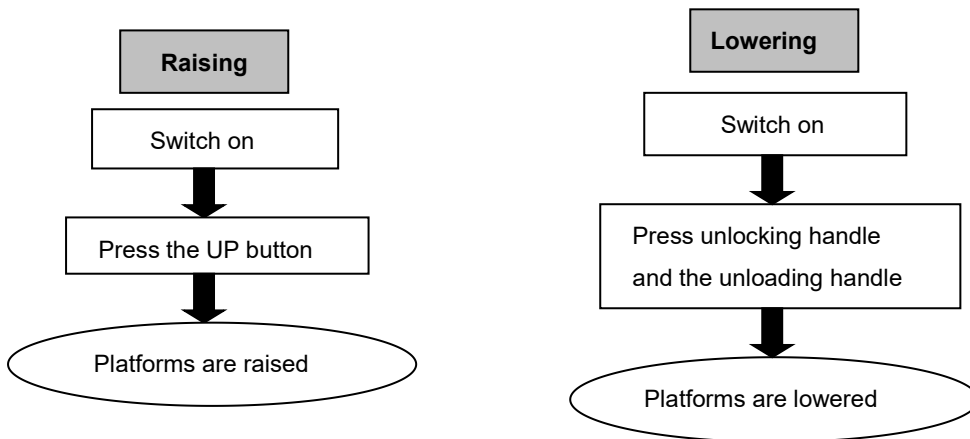
4.1.3 The machine shall not lift or lower an automobile if its center of gravity is not positioned midway of the platforms. Otherwise, the Friend as well as our dealers will not bear any responsibility for any consequence resulted thereby.

4.1.4 Operators and other personnel concerned should stand in a safety area during lifting and lowering process.

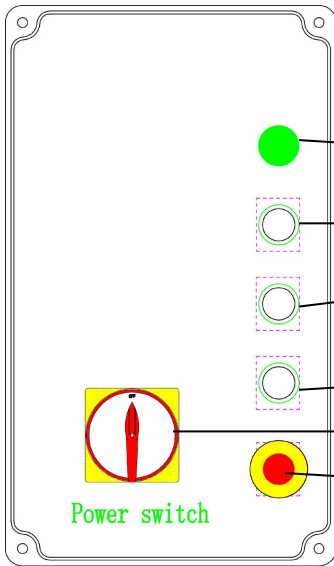
4.1.5 When the platforms rise to the desired height, switch off the power at once to prevent any mal-operation done by unconcerned people.

4.1.6. Make sure the safety lock of the lift is engaged before start working under the vehicle and no people under the vehicle during lifting and lowering process.

4.2 Flow chart for operation



4.3 Operation instructions



Name	Function
Power Indicator	Indicate when power connected
Buzzer	Send out alarm sound
Up button	Raise the lift
Safety lock button	Assistant to Lower the lift
Down Button	Lower the lift
Power Switch	Control power
Emergency stop	Ensure safety

### TROUBLT SHOOTING

**ATTENTION:** If the trouble could not be fixed by yourself, please do not hesitate to contact us for help .We will offer our service at the earliest time we can. By the way, your troubles will be judged and solved much faster if you could provide us more details or pictures of the trouble.

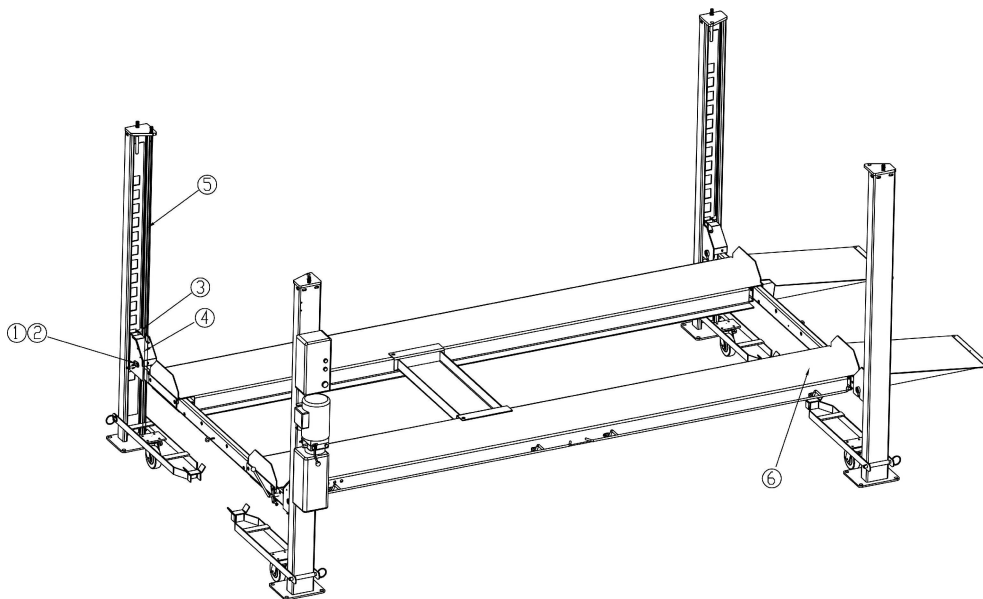
TROUBLES	CAUSE	SOLUTION
Abnormal noise	Abrasion exists on insider surface of the posts.	Grease the inside of the post.
	Trash in the post.	Clear the trash
Motor does not run and will not rise	The wire connection is loose.	Check and make a good connection.
	The motor is blown.	Replace it.
	The limit switch is damaged or the wire connection is loose.	Connect it or adjust or replace the limit switch.
Motor runs but will not rise	The motor run reversely.	Check the wire connection.
	Overflow valve is loose or jammed.	Clean or adjust it.
	The gear pump is damaged.	Replace it.
	Oil level is too low.	Add oil.
	The oil hose became loose or dropped off.	Tighten it.
	The cushion valve became loose or jammed.	Clean or adjusts it.
Platforms go down slowly after being raised	The oil hose leaks.	Check or replace it.
	The oil cylinder is not tightened.	Replace the seal.
	The single valve leaks.	Clean or replace it.
	The overflow valve leaks.	Clean or replace it.
	Manual unloading valve or electrical unloading valve leaks.	Clean or replace it.
Rising too slow	The oil filter is jammed.	Clean or replace it.

	Oil level is too low.	Add oil.
	The overflow valve is not adjusted to the right position.	Adjust it.
	The hydraulic oil is too hot ( above 45° ) .	Change the oil.
	The seal of the cylinder is abraded.	Replace the seal.
	Inside surface of the posts is not well greased.	Add grease.
Lowering too slow	The throttle valve jammed.	Clean or replace.
	The hydraulic oil is dirty.	Change the oil.
	The anti-surge valve jammed.	Clean it.
	The oil hose jammed.	Replace it.
The steel cable is abraded	No grease when installation or out of lifetime	Replace it.

### MAINTENANCE

Easy and low cost routine maintenance can ensure the lift work normally and safely. Following are requirements for routine maintenance. You may decide the frequency of routine maintenance by consulting your lift’s working conditions and time.

THE FOLLOWING PARTS NEED TO BE LUBRICATED



SN	Name
1	Slider wheel
2	Slider wheel
3	Slider
4	Spring
5	Steel cable
6	Slider wheel shaft weld parts 2

#### 6.1 Daily checking items before operation

The user must perform daily check. Daily check of safety latch system is very important – the discovery of device failure before action could save your time and prevent you from great loss, injury or casualty.

- Before operation, judge whether the safety latches are engaged by sound.
- Check whether oil hose well connected and whether it leaks or not.
- Check the connections of chain and steel cable and check the power unit.
- Check whether plug bolts firmly screwed.
- Check if safety teeth and safety block matched well or not.

**6.2 Weekly checking items**

- Check the flexibility of moving parts.
- Check the working conditions of safety parts.
- Check the amount of oil left in the oil tank. Oil is enough if the carriage can be raised to highest position. Otherwise, oil is insufficient.
- Check whether plug bolts firmly screwed.

**6.3 Monthly checking items**

- Check whether plug bolts firmly screwed.
- Check the tightness of the hydraulic system and screw firm the joints if it leaks.
- Check the lubrication and abrasion circumstance of axial pins, carriages, lifting arms and other related parts and replace in time with new ones if they failed to work well.
- Check the lubrication and abrasion circumstance of steel cable.

**6.4 Yearly checking items**

- Empty the oil tank and check the quality of hydraulic oil.
- Wash and clean the oil filter.

**If users strictly follow the above maintenance requirements, the lift will keep in a good working condition and meanwhile accidents could be avoided to a large extent.**

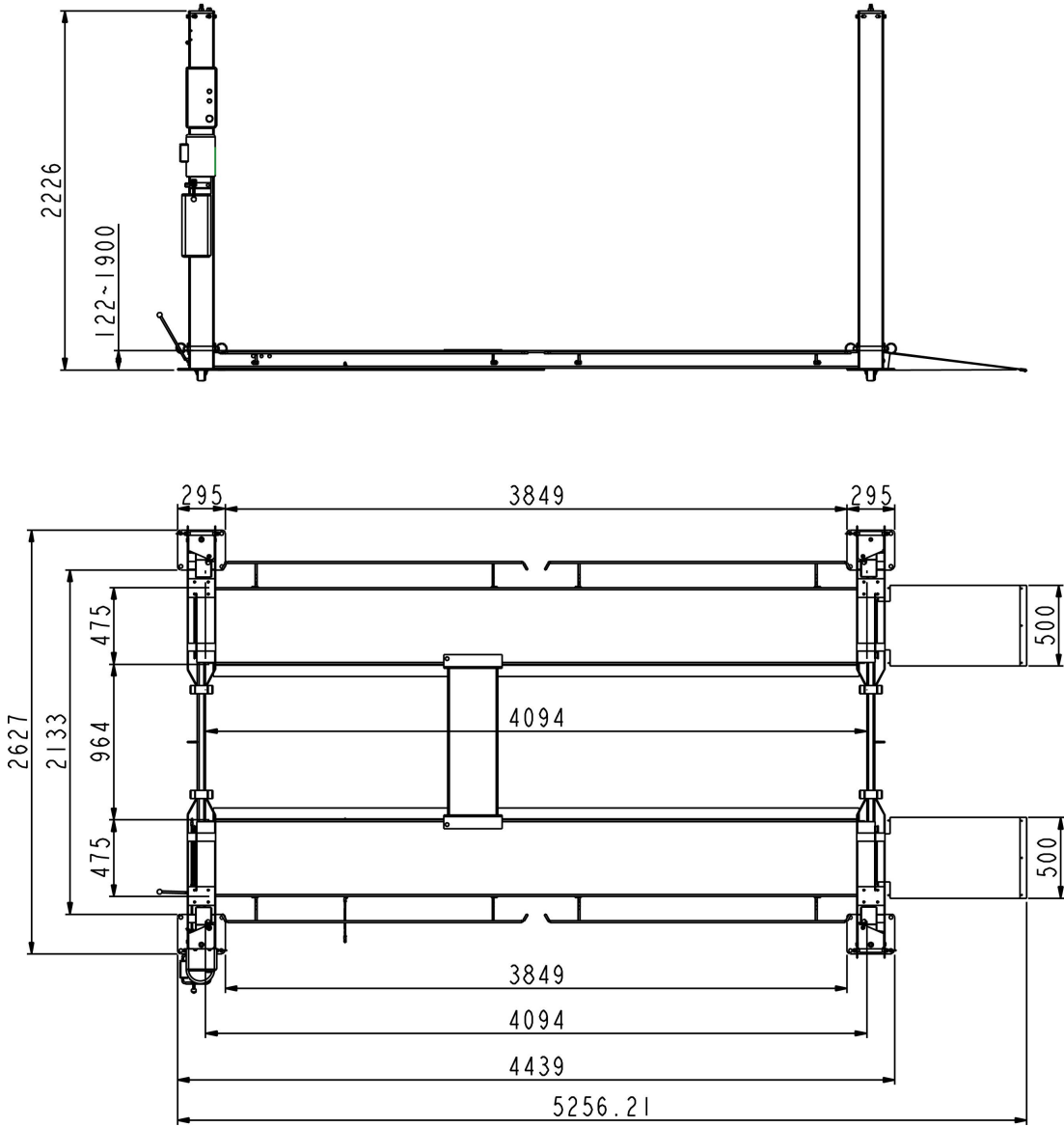
**ANNEX****Annex1, Packing list of the whole lift**

SN	Name	Drawing/Specification	QTY	Note
1	Beam	FL-8448P-A4-B1	2	
2	Ramp	FL-8448P-A8	2	
3	Main Platform	FL-8448P-A5-B1	1	
4	Assistant platform	FL-8448P-A6-B1	1	
5	Main post	FL-8448P-A1	1	
6	Assistant post 1	FL-8448P-A2	2	
7	Assistant post 2	FL-8448P-A3	1	
8	Power unit		1	
9	Mobile jack	FL-8448P-A13	4	
10	Split pan 3*40	GB/T 91-2000	4	
11	Oil hose	FL-8448P-A8-B5	1	
12	protect pipe spring	FL-8448P-A8-B6	1	
13	Expansion bolt	M18X160	16	
14	Hexagon head full thread screw	M18X100	8	
15	Hex head nut	M18	8	
16	Flat washer C	φ18	8	
17	Feet protector	FL-8448T-A10	4	
18	Left cover plate	FL-8448P-A1-B3	2	
19	Right cover plate	FL-8448P-A2-B2	2	
20	Block plate	FL-8448P-A9	4	
21	Control box		1	
22	Oil pan	950*600*40mm	4	
23	Triangle rubber block	230*95*95	2	

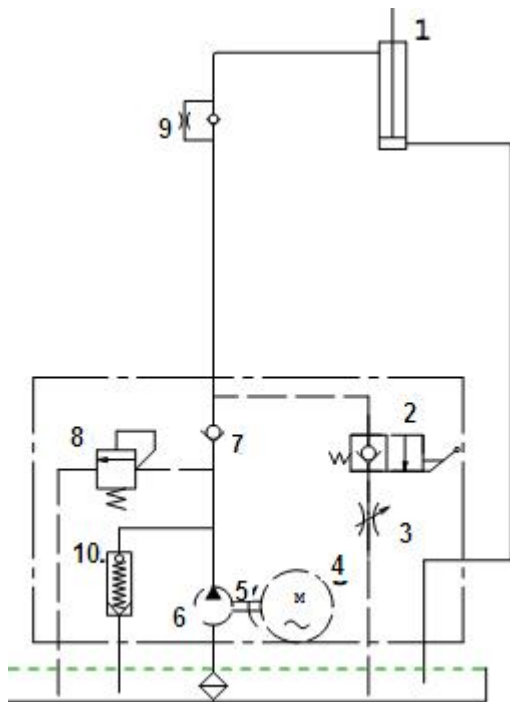




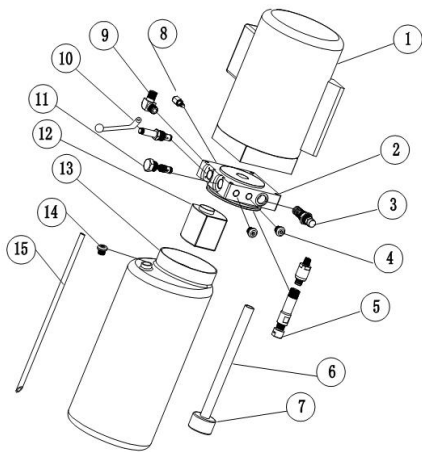
**Annex2, Overall diagram**



**Annex 3, Hydraulic working system**



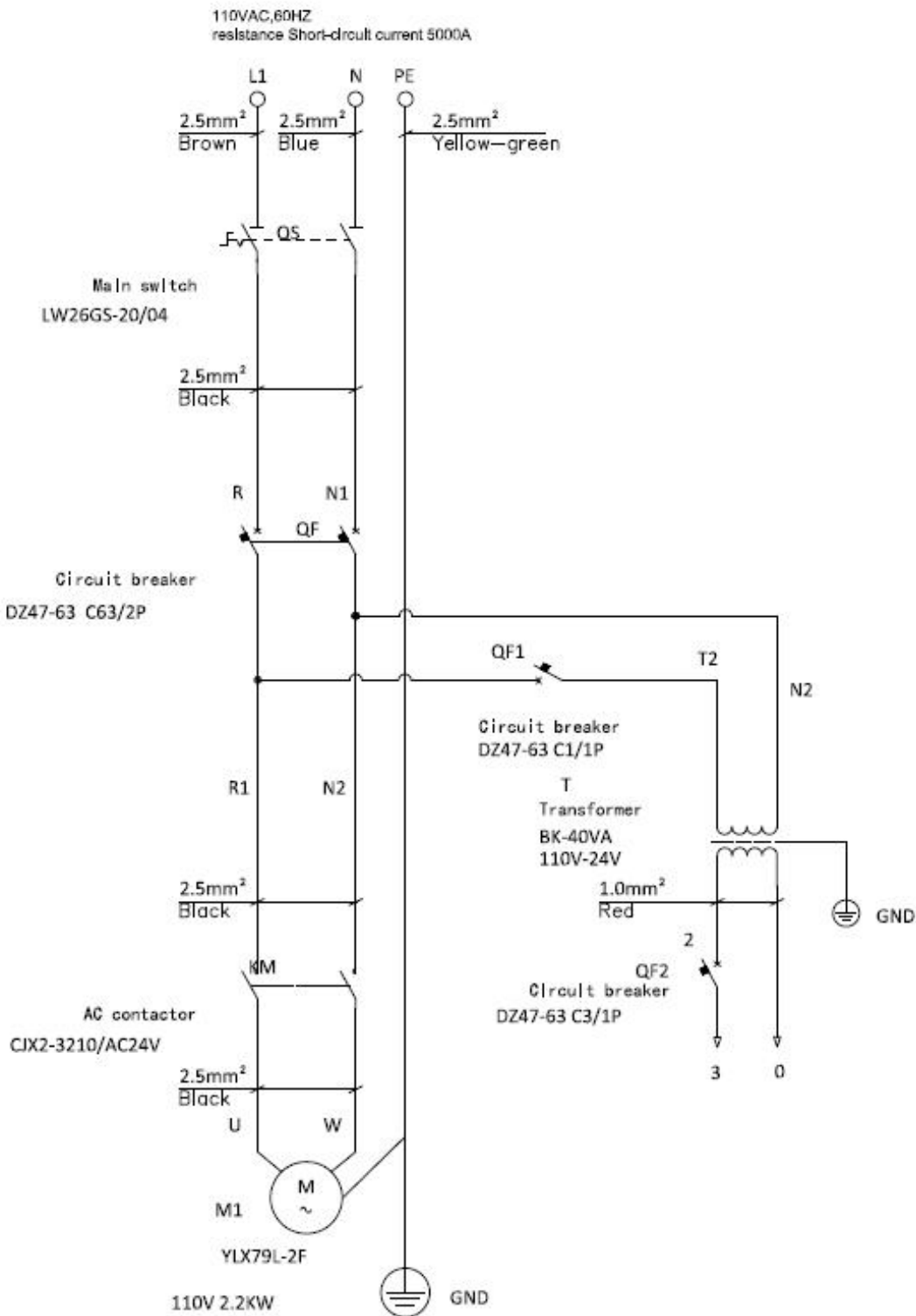
- 1. Oil cylinder
- 2. Manual unloading valve
- 3. Throttle valve
- 4. Motor
- 5. Coupling
- 6. Gear pump
- 7. One way valve
- 8. Overflow valve
- 9. Anti-surge valve
- 10. Cushion valve



S/N	Name	Qty
1	Motor	1
2	Hydraulic block	1
3	Over-flow valve	1
4	Plug	2
5	Cushion valve	1
6	Oil-in tube	1
7	Oil filter	1
8	Throttle valve	1
9	Oil hose connector	1
10	Manual unloading valve	1
11	Single way valve	1
12	Gear pump	1
13	Plastic oil tank	1
14	Oil tank cover	1
15	Oil-back hose	1

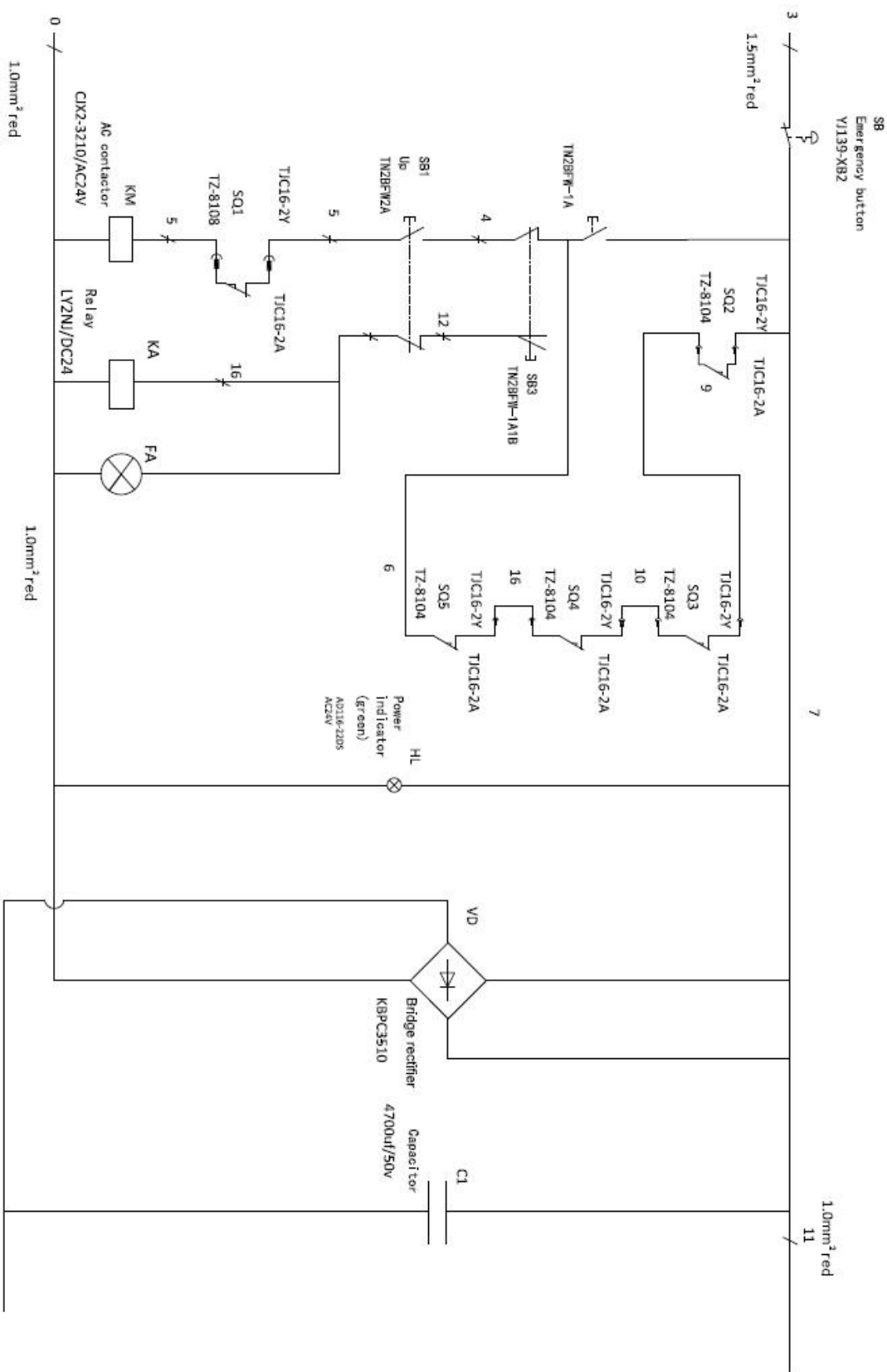


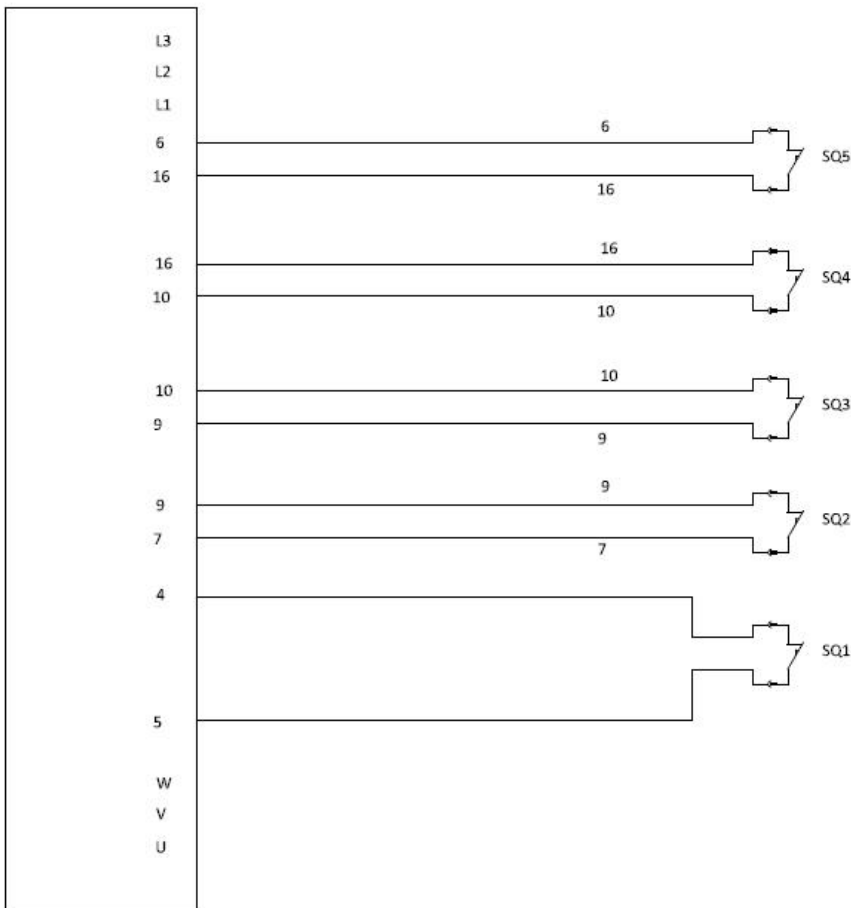
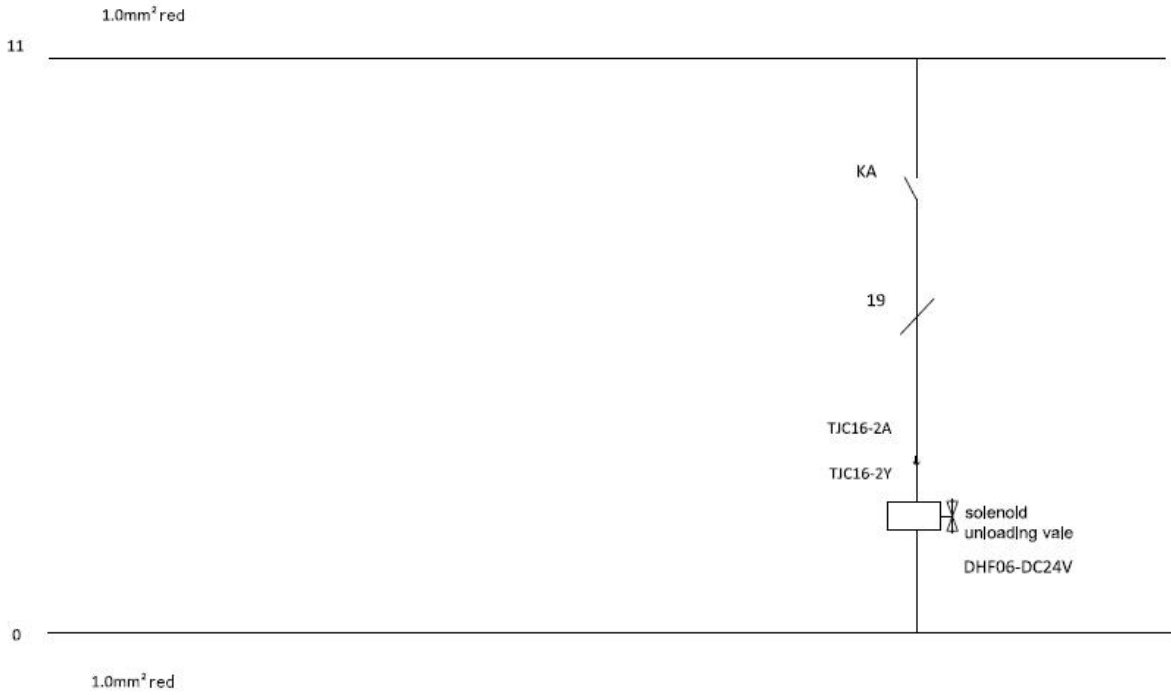
**Annex 4, Wiring diagram**  
**Single phase**





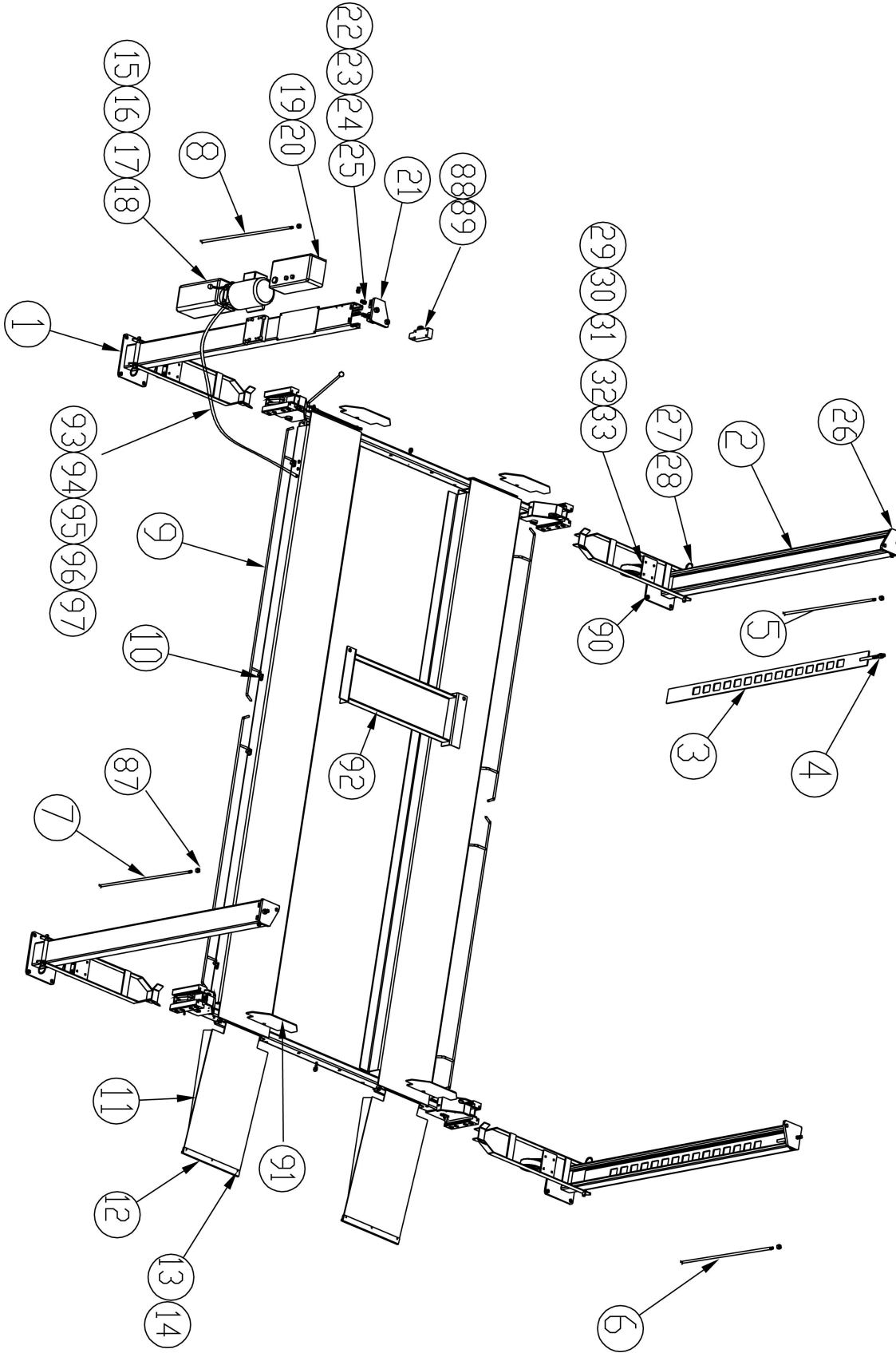
### Three phase

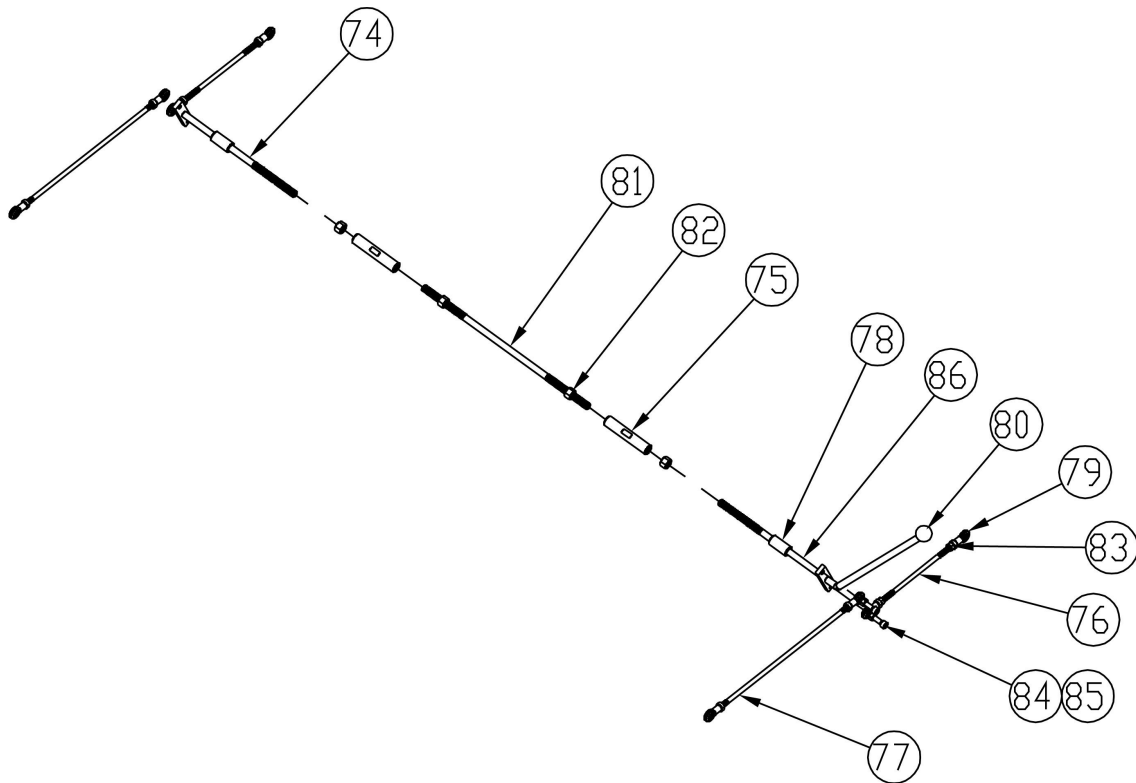
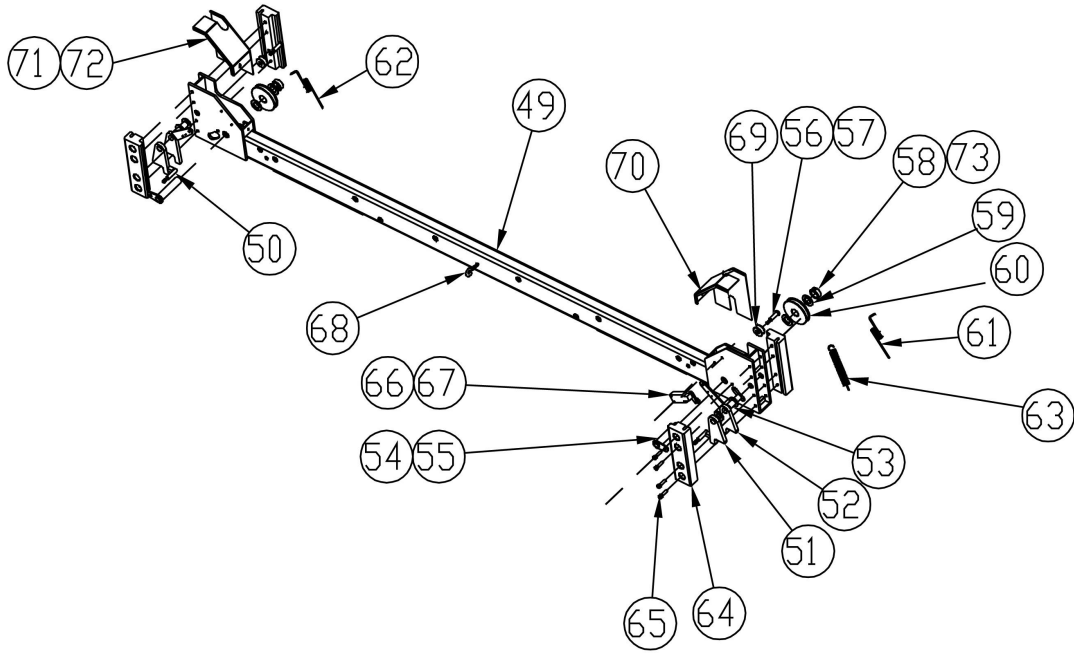
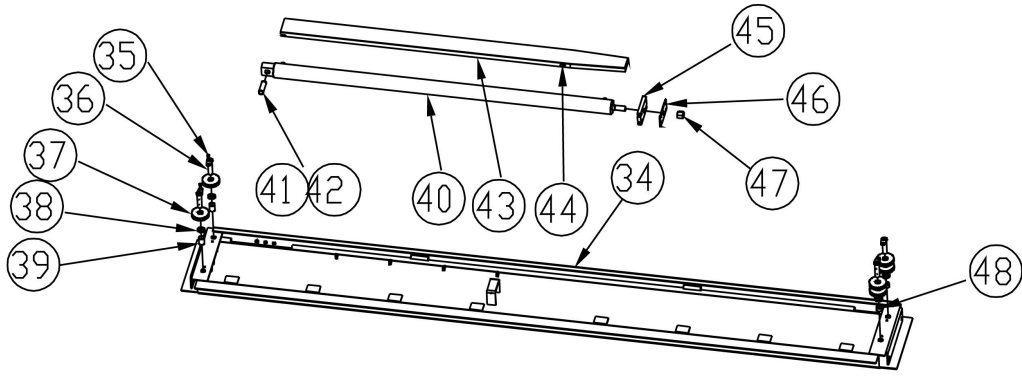






Annex5, Separate diagrams for the lift







## Exploded Drawing List:

SN	Materials No.	Name	Specification (Drawing No.)	QTY	Materials	Note
1		Main post	FL-8448P-A1-B1	1	weld part	
2		Assistant post	FL-8448P-A2-B1	3	weld part	
3		Safety rack	FL-8448P-A1-B2	4	weld part	
4		Hex nut	M18	4	standard	GB/T 6170-2000
5		Steel cable L=8260		1	components	
6		Steel cable L=4200		1	components	
7		Steel cable L=2750		1	components	
8		Steel cable L=6830		1	components	
9		Feet protector	FL-8448T-A16	4	weld part	
10		Hex round head screw	M6*12	8	standard	GB/T 70.1-2000
11		Ramp	FL-8448P-A8-B1	2	weld part	
12		Hex socket set screw with cone point	M6X10	8	standard	GB/T78-2000
13		Cross head screw	M5*12	6	standard	GB/T 818-2000
14		Hex nut	M5	6	standard	GB/T 6170-2000
15		Power unit	M6	1	components	
16		All threaded hex head bolt	M8*20	4	standard	GB/T5781-2000
17		Flat washer C	M8	4	standard	GB/T 95-1985
18		Hex nut	M8	4	standard	GB/T 6170-2000
19		Control box		1	components	
20		Cross head screw	M6*12	4	standard	GB/T 818-2000
21		Right top cover plate	FL-8448P-A2-B2	2	weld part	
22		All threaded hex head bolt	M12*25	16	standard	GB/T5781-2000
23		Spring washer	M12	16	standard	GB/T 97-1985
24		Flat washer C	M12	16	standard	GB/T 95-1985
25		Hex nut	M12	16	standard	GB/T 6170-2000
26		Left top cover plate	FL-8448P-A1-B3	2	weld part	
27		Mobile jack shaft	FL-8448P-A13-B3	4	weld part	
28		R open shaft		4	standard	DIN 11024-1973
29		Mobile jack bracket	FL-8448P-A13-B1	4	weld part	
30		Universal wheel	FL-8448P-A13-B2	4	components	
31		All threaded hex head bolt	M10*25	16	standard	GB/T5781-2000
32		Hex nut	M10	16	standard	GB/T 6170-2000
33		Flat washer C	M10	16	standard	GB/T 95-1985
34		Main platform	FL-8448P-A5-B1	1	weld part	
35		Hex round head screw	M8*16	4	standard	GB/T 70.1-2000
36		Slider wheel shaft 2	FL-8448T-A5-B2	4	weld part	
37		Slider wheel	FL-8448P-A4-B9	6	45	
38		Big gasket	FL-8448P-A4-B12	4	Q235A	
39		Axle sleeve 1	FL-8448T-A5-B3	2	Q235A	



40		Cylinder	∅ 75*1841	1	components	
41		Cylinder shaft	FL-8448P-A5-B5	1	45	
42		Circlip for shaft	D28	2	standard	
43		Oil sink	FL-8448P-A17	1	Q235A	
44		Hex round head screw	M6*15	2	standard	GB/T 70.1-2000
45		Steel cable fix plate	FL-8448T-A7-B2-C1	1	Q235A	borrow
46		Steel cable close plate	FL-8448T-A7-B4	1	Q235A	borrow
47		Screw	M27	1	standard	
48		Axle sleeve 2	FL-8448T-A5-B4	2	Q235A	
49		Beam	FL-8448P-A4-B1	1	weld part	
50		Main safety rack	FL-8448P-A4-B2	1	weld part	
51		Assistant safety rack	FL-8448P-A4-B3	1	weld part	
52		Steel rope protect part	FL-8448P-A4-B4	2	weld part	
53		Safety shaft	FL-8448P-A4-B7	2	45	
54		Slide wheel shaft 1	FL-8448P-A4-B5	4	weld part	
55		Hex round head screw	M8*12	4	standard	GB/T 70.1-2000
56		Small wheel shaft	FL-8448P-A4-B8	4	45	
57		Screw	M8	4	standard	
58		Slider wheel closing ring	FL-8448P-A4-B6	12	45	
59		Big gasket	FL-8448P-A4-B12	8	Q235A	
60		Slider wheel	FL-8448P-4-B9	4	45	
61		Torsion spring 1	FL-8448T-A3-B19	2	65Mn	
62		Torsion spring 2	FL-8448T-A3-B21	2	65Mn	
63		Spring 1	FL-8448T-A3-B20	8	65Mn	
64		Slider	FL-8448T-A3-B11	8	Nylon1010	
65		Hex round head screw	M8*30	32	standard	GB/T 70.1-2000
66		limit switch	8104	4	standard	
67		Hex round head screw	M5*15	2	standard	GB/T 70.1-2000
68		Round circle	FL-8448P-A4-B16	2	Q235A	
69		Slider wheel	FL-8448T-A3-B9	4	Nylon1010	
70		Assistant cover	FL-8448P-A4-B15	2	weld part	
71		Main cover	FL-8448P-A4-B14	2	weld part	
72		Cross head screw	M6*10	2	standard	GB/T 818-2000
73		Hex socket set screw with cone point	M8*10	4	standard	GB/T78-2000
74		handle connect plate 2	FL-8448P-A10-B2	1	weld part	
75		Screw sleeve	FL-8448P-A10-B3-C1	2	45	
76		Rob 3	FL-8448P-A10-B4	2	45	
77		Rob 4	FL-8448P-A10-B5	2	45	
78		Axle sleeve	FL-8448P-A10-B6	2	Q235A	
79		Universal connector	FL-8448T-A11-B6	8	components	
80		Handle ball	M10*32	1	Plastic	JB/T 7271.1-94
81		Rob1	FL-8448P-A10-B7	1	45	




82		Hex nut	M12	4	standard	GB/T 6170-2000
83		Hex nut	M8	8	standard	GB/T 6170-2000
84		All threaded hex head bolt	M8*30	4	standard	GB/T5781-2000
85		Screw	M8	4	standard	GB/T 95-1985
86		Handle connect plate 1	FL-8448P-A10-B1	1	weld part	
87		Hex nut	M20	4	standard	GB/T 6170-2000
88		limit switch 8108		1	standard	
89		Hex round head screw	M5*12	2	standard	GB/T 70.1-2000
90		Expansion bolt	M18*160	16	standard	
91		Block plate	FL-8448P-A9	4	Q235A	
92		Moving plate	FL-8448P-A11	1	weld part	
93		Oil hose	φ8, straight and bent L=1700	1	components	
94		Oil hose	φ8, Both ends pass through .L=1700	1	components	
95		Oil cylinder joint	NPT3/8-G1/4 (with throttle valve)	1	standard	
96		Long square pipe	G1/4-G1/4(with thin nut)	1	standard	
97		protect pipe spring	FL-8448T-A17	1	65Mn	

## Annex6, Spare parts list

### Spare parts list- mechanical part

SN	Materials No.	Name	Specification (Drawing No.)	QTY	Materials
1		Torsion spring 1	FL-8448T-A3-B19	2	
2		Torsion spring 2	FL-8448T-A3-B21	2	
3		Slider	FL-8448T-A3-B11	8	
4		Spring	FL-8448T-A3-B20	8	


### Spare parts list- electrical system

S/N	Material#	Name	Specification	Unit	Qty	Pic.
1		Power switch	LW26GS-20/04	Pcs	1	
2		Button	TN2BFW/A/B	Pcs	3	
3		Power indicator	AD17-22G-AC24	Pcs	1	
4		Transformer	JBK3-40VA 220V-24V	Pcs	1	Same as item7
5		Transformer	JBK3-40VA 230V-24V	Pcs	1	Same as item7



S/N	Material#	Name	Specification	Unit	Qty	Pic.
6		Transformer	JBK3-40VA 240V-24V	Pcs	1	Same as item7
7		Transformer	JBK3-40VA 380V-24V	Pcs	1	
8		Transformer	JBK3-40VA 400V-24V	Pcs	1	Same as item7
9		Transformer	JBK3-40VA 415V-24V	Pcs	1	Same as item7
10		AC contactor	CJX2-1210/AC24	Pcs	1	
11		Circuit breaker	DZ47-63 C16 /3P	Pcs	1	
12		Circuit	DZ47-63 C32 /2P	Pcs	1	
13		Circuit	DZ47-63 C3 /1P	Pcs	1	
14		Circuit	DZ47-63 C1 /1P	Pcs	1	Same as item13
15		Limit switch	TZ8104	Pcs	1	
16		Emergency stop	YJ13P-XB2	Pcs	1	
17		Control box	190*430*135	Pcs	1	
18		Limit switch	TZ8108	PCS	1	

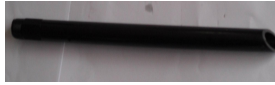
## Spare parts list- hydraulic system

S/N	Material#	Name	Specification	Unit	Qty	Pic.
1		Hydraulic block (manual release)	YF-1	Pcs	1	



S/N	Material#	Name	Specification	Unit	Qty	Pic.
2		Unloading handle	YF-2	Pcs	1	
3		Unloading valve	XYF-C	Pcs	1	
4		Single -way valve	DYF-C	Pcs	1	
5		Over-flow valve	EYF-C	Pcs	1	
6		Throttle valve		Pcs	1	
7		Cushion valve	HCFY-C	Pcs	1	
8		Hex socket plug	M14*1.5	Pcs	2	
9		Power unit connector	M14*1.5-G1/4inside swivel	Pcs	1	
10		Coupling	YL-A	Pcs	1	
11		Gear pump	CBK-F225	Pcs	1	
12		Gear pump	CBK-F220	Pcs	1	Same as item 11
13		Oil-in pipe	YX-B/270	Pcs	1	
14		Oil filter	YF-C	Pcs	1	



S/N	Material#	Name	Specification	Unit	Qty	Pic.
15		Oil -back pipe	YH-D	Pcs	1	
16		Plastic oil tank	10L	Pcs	1	