

Model No. EE-6214EKZ

Clear Floor Two Post Lift

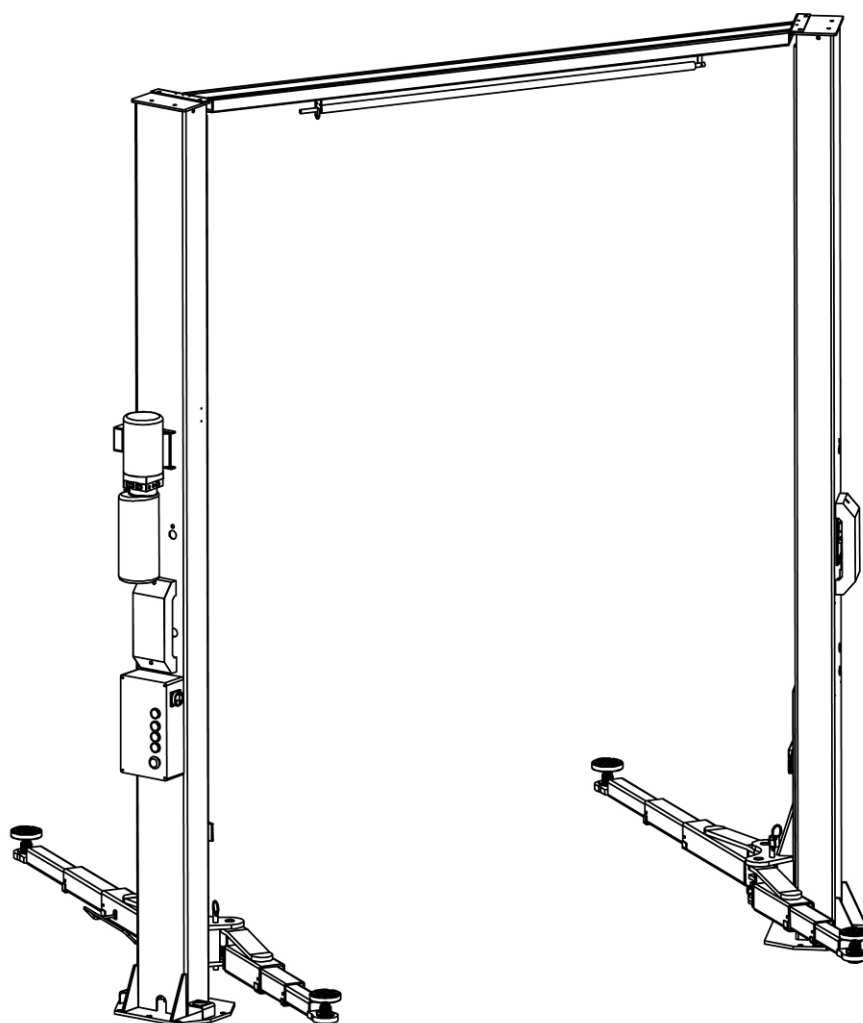
Electrical Release

Lifting Capacity 4000KG

Installation, Operation and Parts Manual



EAE



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

DATE: 29/09/2017

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IMPORTANT NOTES

Before start up, connecting and operating EAE products, it is absolutely essential that the operating instructions/owner's manual and, in particular the safety instructions are studied carefully. By doing so you can eliminate any uncertainties in handling EAE products and thus associated safety risks up front; something which is in the interest of you own safety and will ultimately help avoid damage to the device, When an EAE product is handed over to another person, not only the operating instructions but also the safety instructions and information on its designated use must be handed over to the person.

By using the product you agree the following conditions:

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The use of non-approved hardware will result in a modification of our products and thus to the exclusion of any liability or warranty, even if such hardware has been removed again in the interim.

It is not permissible to make any changes to our products and these are not only to be used together with genuine accessories and genuine replacement parts. Otherwise any warranty claims will be invalid.

Liability

The liability of EAE is limit to the amount that the customer has actually paid for this product. This exclusion of liability does not apply to damages caused through willful misconduct or gross negligence on the part of EAE.

All information in this manual is believed to be correct at time of publication.

EAE reserves the right to amend and alter technical data and composition without prior notice.

Please confirm at time of ordering.

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SAFETY NOTES

1.1 Operation of lifting platforms

This lift is specially designed for lifting motor vehicles. Users are not allowed to use it for any other purposes. The applicable national regulations, laws and directives must be observed.

Only users aged 18 or above who have been instructed on how to operate the lifting platform and have proven their ability to do so to the owner are to be entrusted with unsupervised operation of lifting platforms. The task of operating the lifting platforms must be granted in writing.

Before loading a vehicle onto the lift, users should study the original operation instructions and familiarize themselves with the operating procedures in several trial runs.

Lift vehicle within the rated load. Don't attempt to raise vehicles with excessive weight.

1.2 Checking of the lifting platforms

Checks are to be based on the following directives and regulations:

- Basic principles for testing lifting platforms
- The basic health and safety requirements stipulated in the directive 2006/42/EC
- Harmonized European standards
- The applicable accident prevention regulations

The checks are to be organized by the user of the lifting platform. The user is responsible for appointing an expert or qualified person to perform checking. It must be ensure that the person chosen satisfies the requirements.

The user bears special responsibility if employees of the company are appointed as experts or qualified persons.

1.2.1 Scope of checking

Regular checking essentially involves performing a visual inspection and a functional test. This includes checking the condition of the components and equipment, checking that the safety systems are complete and functioning properly and that the inspection log book is completely filled in. The scope of exceptional checking depends on the nature and extent of any structural modification or repair work.

1.2.2 Regular checking

After initial commissioning, lifting platforms are to be checked by a qualified person at intervals of not longer than one year.

A qualified person is somebody with the training and experience required to possess sufficient knowledge of lifting platforms and who is sufficiently familiar with the pertinent national regulations, accident prevention regulations and generally acknowledged rules of engineering to be able to assess the safe operating condition of lifting platforms.

1.2.3 Exceptional checking

Lifting platforms with a lift height of more than 2 meters and lifting platforms intended for use with people standing under the load bearing elements of the load are to be checked by an expert prior or reuse following structural modifications and major repairs to load bearing components.

An expert is somebody with the training and experience required to possess specialist knowledge of lifting platforms and who is sufficiently

familiar with the pertinent national work safety regulations, accident prevention regulations and generally acknowledged rules of engineering to be able to check and give an expert opinion on lifting platforms.

1.3 Important safety notices

1.3.1 Recommend for indoor use only. DO not expose the lift to rain, snow or excessive moisture.

1.3.2 Only use this lift on a surface that is stable and capable of sustaining the load. Do not install the lift on any asphalt surface.

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

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

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

1.3.6 Only these properly trained personnel can operate the lift.

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

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

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

1.3.10 Always insure the safety locks 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.

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

1.3.12 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.

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

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

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

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

WARNING: *The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.*


1.4 Warning labels

All safety warning labels are clearly depicted on the lift to ensure that the operator is aware of and avoid the dangers of using the lift in an incorrect manner. The labels must be kept clean and they have to be replaced if detached or damaged. Please read carefully the meaning of each label and memories them for future operation.

SAFETY ADVICE

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	<p>Only trained personnel are allowed to operate the lift.</p>
	<p>Always keep lift area clear when lowering or raising vehicle.</p>
	<p>Do not try to raise a vehicle exceeds the rated capacity.</p>
	<p>Always raise a vehicle with four swing arms.</p>
	<p>Position and adjust pads to lifting points recommended by vehicle manufacturers.</p>

	<p>Stop and check lift arm locks and stability of vehicle after short raising, then to desired height.</p>
	<p>Watch closely the vehicle during raising or lowering.</p>
	<p>Always use safety stands when moving/ installing heavy components.</p>
	<p>Avoid excessive rocking of vehicle while on lift.</p>
	<p>Do not climb onto the lift or raised vehicle during lifting or lowering.</p>

1.5 Potential safety risks

1.5.1 Main voltage



Insulation damage and other faults may result in accessible components being live

Safety measures:

- Only ever use the power cord provided or a tested power cord.
- Replace wires with damaged insulation.
- Do not open the operating unit.

1.5.2 Risk of injury, danger of crushing

In the event of excessive vehicle weight, incorrect mounting of the vehicle or on removing heavy object, there is a risk of the vehicle falling off or tipping up.

Safety measures:

- The lift is only ever to be employed for the intended purpose.
- Carefully study and heed all the information given in Section 1.4.
- Observe the warning notices for operation.

1.6 Noise level

Noise emitted during operating the lift should be less than 70dB. For your health consideration, it is suggested to place a noise detector in your working area.

PACKING, STORAGE AND TRANSPORTATION

Packing, lifting, handling, transporting operations must be performed only by experienced personnel with appropriate knowledge of the lift and after reading this manual.

2.1 The lift was dismantled into the following 2 parts for transportation

Name	Packed by	Dimension(mm)	Weight(kg)	Quantity
Lift	Steel brackets	3920*570*930	756	1
Power unit	Carton	850*250*350	24	1

2.2 Storage

The packs must be kept in a covered and protected area in a temperature range of -10°C to $+40^{\circ}\text{C}$. They must not be exposed to direct sunlight, rain or water.

Stacking the packs

We advise against stacking because the packs are not designed for this type of storage. The narrow base, heavy weight and large size of the packs make stacking difficult and potentially dangerous.

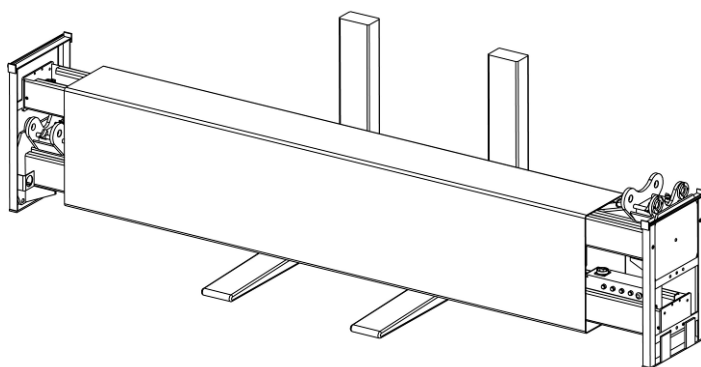
If stacking is unavoidable, use all appropriate precautions:

- never stack to more than 2 meters in height.
- never make stacks of single packs. Always stack pairs of packs in a cross pattern so that the base is bigger and the resulting stack is more stable. Once the stack is complete, restrain it using straps, ropes or other suitable methods.

A maximum of two packs can be stacked on lorries, in containers, and in railway wagons, on condition that the packs are strapped together and restrained to stop them falling.

2.3 Lifting and handling

The packs can be lifted and transported only by using lift trucks. Never attempt to hoist or transport the unit using lifting slings.



When the lift is delivered make sure that it has not been damaged during transportation and that all the parts specified on the packing list are present.

Packs must be opened adopting all the precautions required to avoid injury to persons (keep at a safe distance when cutting the straps) or damage to parts of the machine (be careful that no parts are dropped while you are opening the packing)

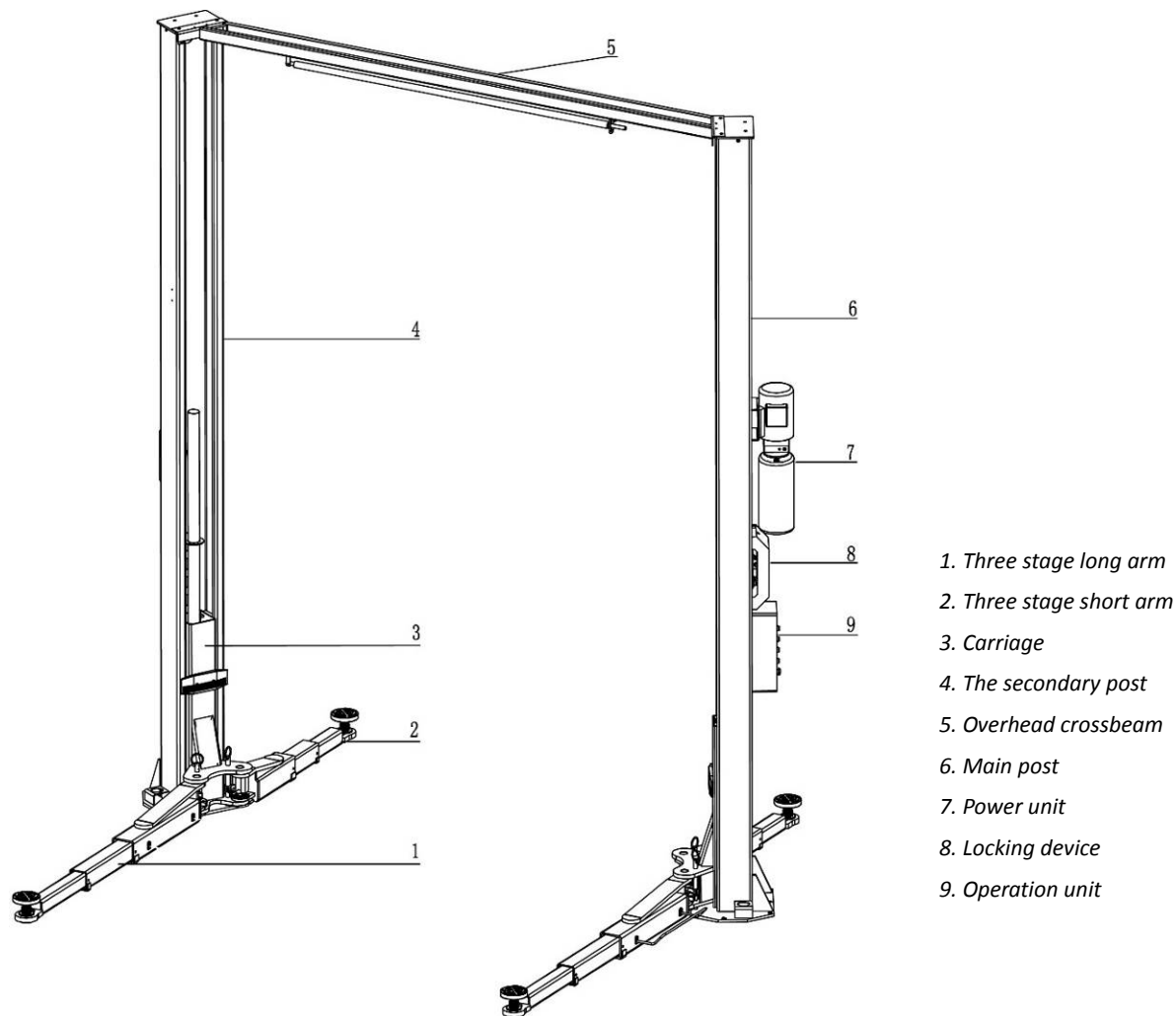
Take special care with the hydraulic power unit, the control panel and the cylinder.

PRODUCTS DESCRIPTIONS

3.1 General descriptions

The lift is powered by an electro- hydraulic system. The gear pump delivers hydraulic oil to oil cylinders and pushes upwards its piston. The piston drives to raise the carriages and the lifting arms. During lifting process, the mechanical safety locking unit ensures no slipping in case of failure hydraulic system.

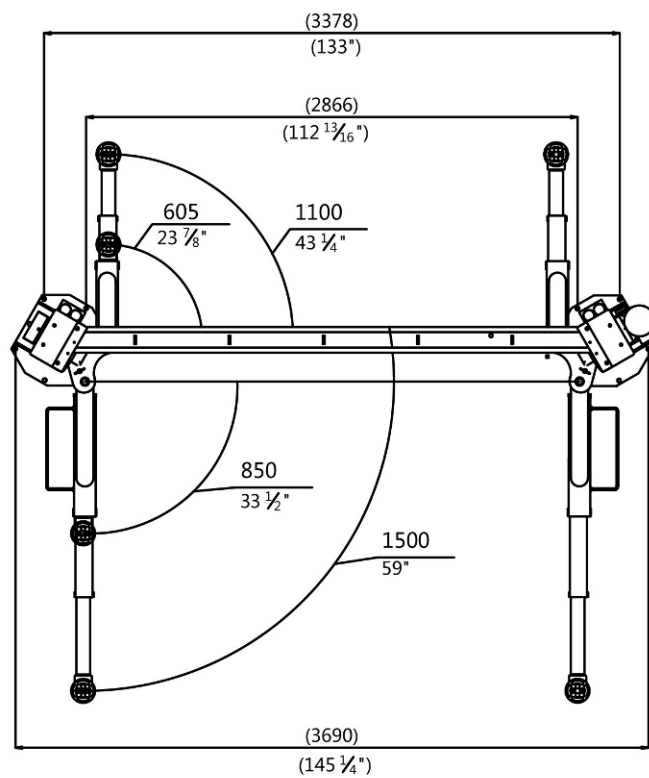
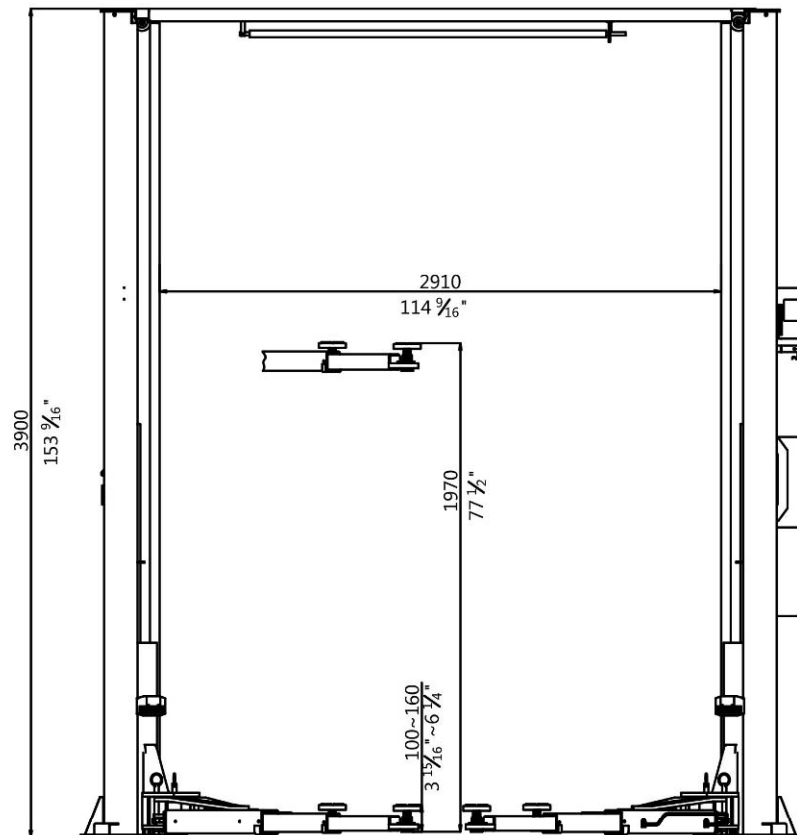
3.2 Construction of the lift



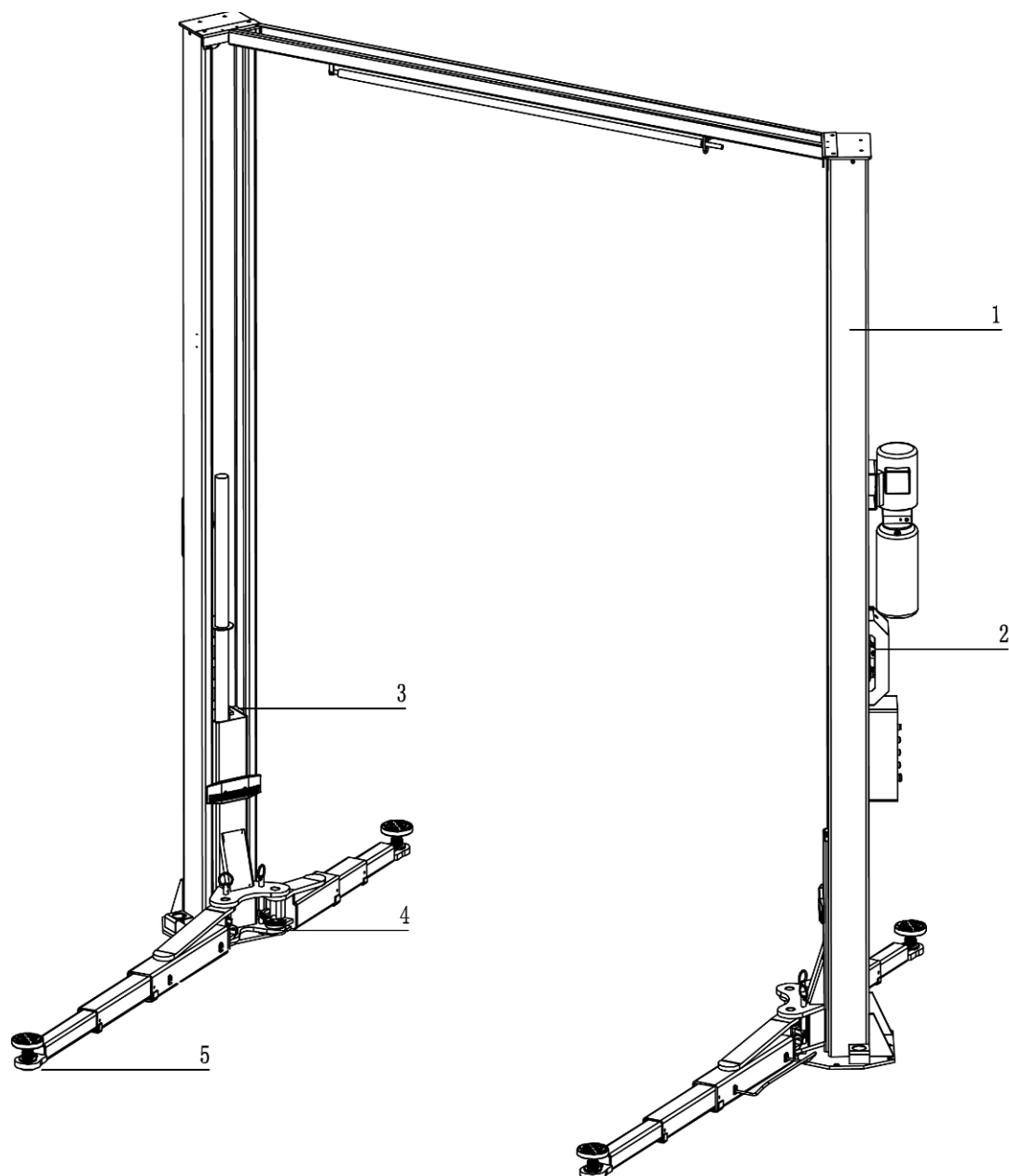
3.3 Technical data

Model	Lifting capacity	Full rise	Full rise time (3.0kW motor)	Full rise time (2.2kW motor)
EE-6214EKZ	4000kg	1970mm	45S	55S

3.4 Dimensions



3.5 Safety devices descriptions



POS.	Name	Function
1	Max height limit switch	Stop rising at max height
2	Mechanical locking unit	Catch the carriages in case of hydraulic failure
3	Steel cable	Ensure the synchronization for both carriages
4	Arm locking unit	Ensure the lifting arms are locked and avoid being swinging during lifting process
5	Rubber lifting pad	Safe contact with the wheel base of the lifted vehicle

INSTALLATION INSTRUCTIONS

4.1 Preparations before installation

4.1.1 Space requirements.

Refer to 3.4 for the dimensions of the lift. There must also be a clearance of at least 1 meter between the lifting platform and fixed elements (e.g. wall) in all lifting positions. There must be sufficient space for driving vehicles on and off.

4.1.2 Foundations and connections

The user must have the following work performed before erecting the lift.

- Construction of the foundation following consultation with the manufacturer's customer service or an authorized service agent. Routing of the wiring to the installation location. **The user must provide fuse protection for the connection. *Electrical system connection must be done by licensed technicians.*** Requirements for power supply cable of the installation site: at least 2.5mm² wire core for 3Ph power and 4.0mm² wire core for 1Ph power.
- Refer also to the corresponding information on the name plate and in the operation instructions. Before doing electrical connection, make sure the lift is electrically adapt to the local power supply.

4.1.3 Foundations preparations

Refer to Annex 1 for individual footing and continuous footing.

C20/25 concrete base with strength more than 3000psi, Minimum thickness of 200mm (continuous footing).

Surface: Horizontal and even (Gradients max. 0.5 %)

Newly built concrete ground must be older than 20days.

4.1.4 Tools and equipment needed for installation

Tool name	Specification	Quantity needed
Electrical drill	With D16 and D18 drill bit.	1
Open spanner	D17-19mm	2
Adjustable spanner	bigger than D30mm	1
Cross socket screw driver	PH2	1
Quick spanner handle adapter/ Ratchet	REB-310	1
Socket spanner	D24mm	1
Levelling device	1mm accuracy	1
Hammer	10 pounds	1
Truck lift	Capacity more than 1000KG	1
Lifting string	Capacity, 1000KG	2
Torque spanner	MD400	1

4.2 Installation attentions

4.2.1 Joints of oil hose and wiring must be firmly connected in order to avoid leakage of oil hose and looseness of electrical wires.

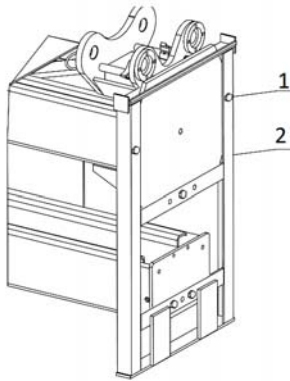
4.2.2 All bolts should be firmly screwed up.

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

4.3 General Installation Steps

Step 1: Remove the packaging, take out the carton for accessories and cover plate.

Step 2: Firstly, put something supporting between the two posts or suspend one of the posts by a crane and then remove the bolts on the package.



1.Hex bolt 2.Iron rack

Attention : Please pay special attention not to let the post fall down for it may cause casualty or bring damages to the accessories fixed in the post.

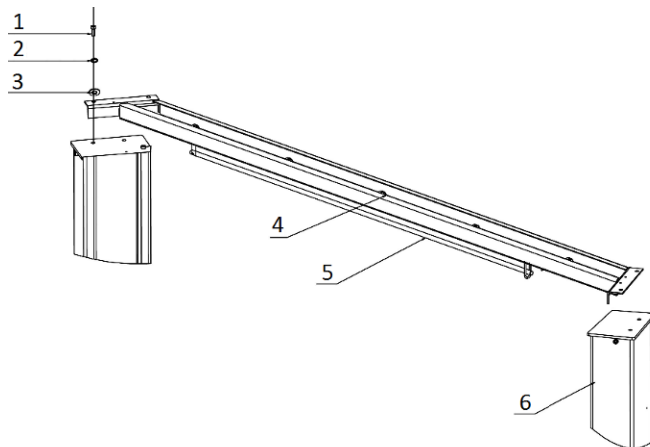
Step 3: When the first post has been taken away, place something supporter under the second post and then remove the bolts on the package.

Step 4: Fix the standing position for the two posts. (see Annex 1, floor plan)

1. Unfold the package and decide on which post the power unit will be mounted.
2. Draw an outline of the base plate on the ground with chalk and ascertain the position for the post.

Step 5: Connect crossbeam.

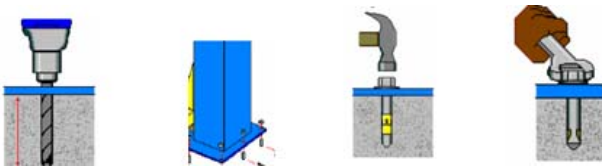
Make the posts face to each other and the distance between the posts equals to the length of the overhead crossbeam. Fix the beam to the posts by screw M12×20.



- 1.Hex socket cylinder head screw M12*20
- 2.Spring washing M12
3. Flat washer M12
4. Overhead crossbeam
5. Vehicle roof protection rod
6. Post

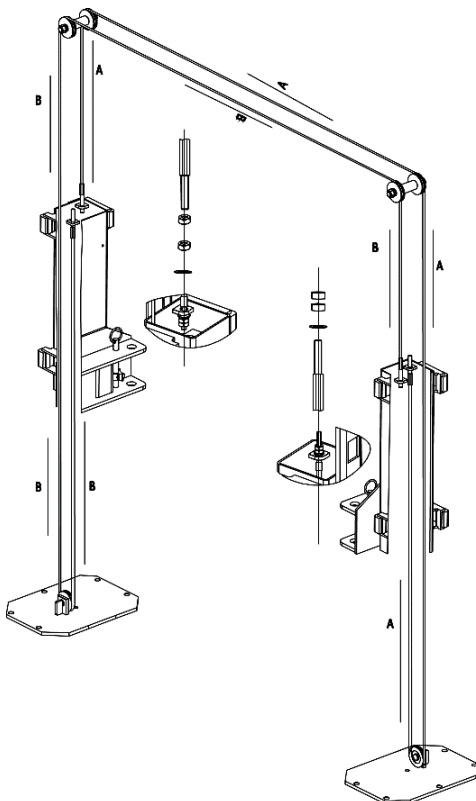
Step 6: Erect and secure the post.

1. Use suitable means to raise the lifting carriage to the first latching position. All the mounting holes in the base plate are then accessible. Make sure the locking pawl is engaged.
2. Check the position of the base plates again.
3. Drill the mounting holes. Remove the drilling dust from the hole.
4. Use a spirit level to check the vertical alignment of the lifting posts. If necessary, place equalizing plates under the base plates. The equalizing plates must be of the same length as the side of the base plate resting on them. Otherwise the load of the base plate will not be transferred evenly to the foundation.
5. Erect and secure the other post similarly.



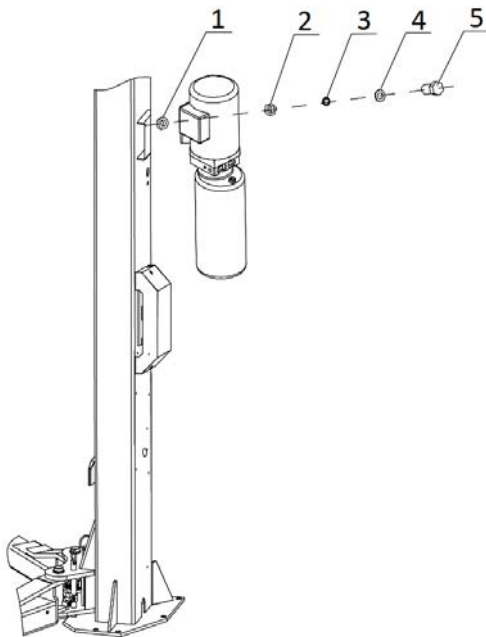
Step 7: Connect the synchronization steel ropes.

1. Route and fix according to the following diagram of steel cable connection.
2. Raise both carriages to the first latching position (approximately 800mm above the ground). 3. Make sure that the mechanical safety locks in each post are fully engaged before attempting to route cables.
4. After the cable being fixed, adjust and make the cable at both sides be with the same tightness which could be judged by the sound emitted during lifting process.
5. Grease after being fixed. (It is a must.)



Step 8: Connect oil hoses.

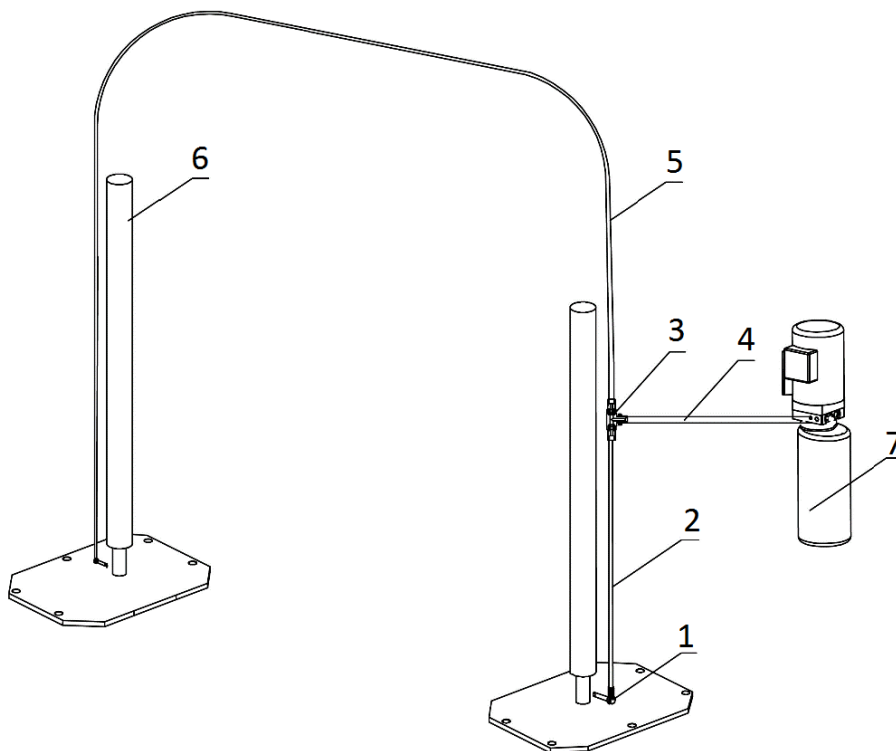
1. Install hydraulic power unit onto the main post.



- 1. Anti-vibration washer
- 2. Hex head nut M10
- 3. Spring washer M10
- 4. Flat washer M10
- 5. Hex head full swivel screw M10*35

2. Connect oil hoses (NO.4 and 5 in the below Fig.) to the "T" connector in the main post.

NOTE: make sure the connectors and hose are clean.

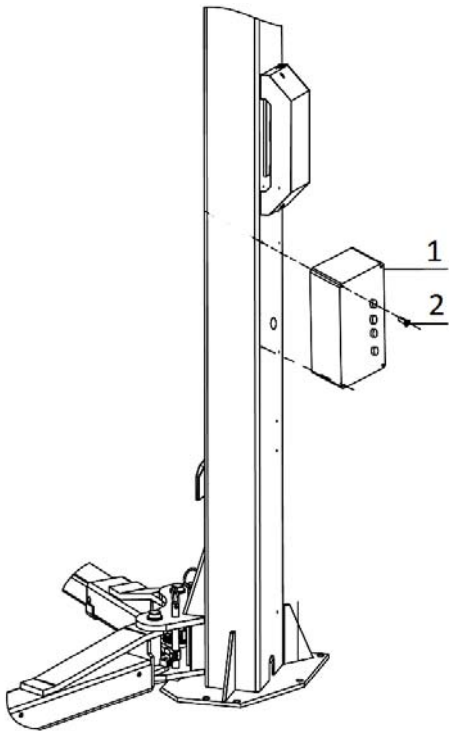


- 1. Composite connector
- 2. Rubber oil hose
- 3. "T" connector
- 4. Short oil hose
- 5. Long oil hose
- 6. Oil cylinder
- 7. Hydraulic power unit

Step 9: Connect electrical system.

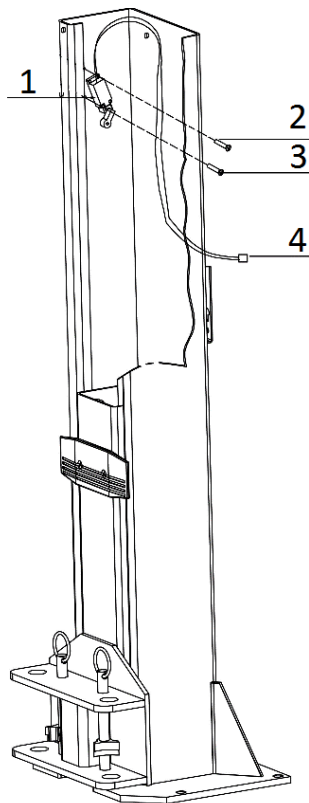
Refer to electrical connection diagram.

1. Fix the operation unit onto the main post.



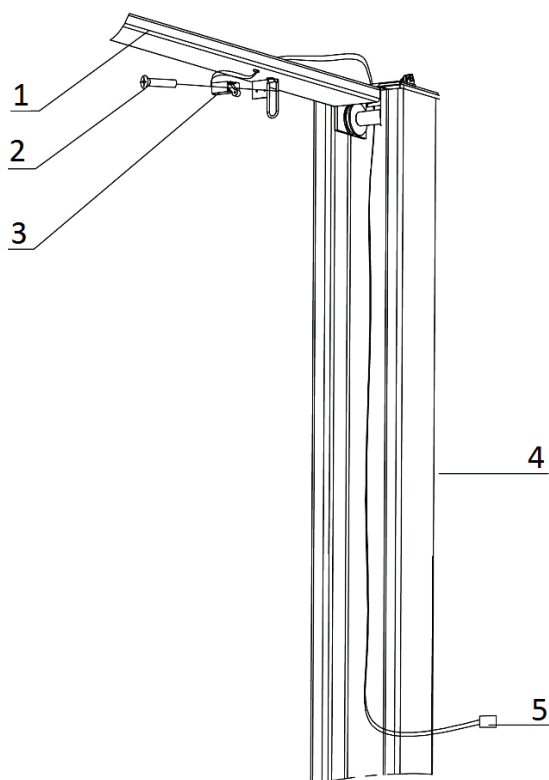
1. Control box
2. Cross socket cap head screw M5*8

2. Fix max height limit switch onto the inside surface of the main post and connect its wire with the corresponding wire comes from the control box by quick electrical connector.



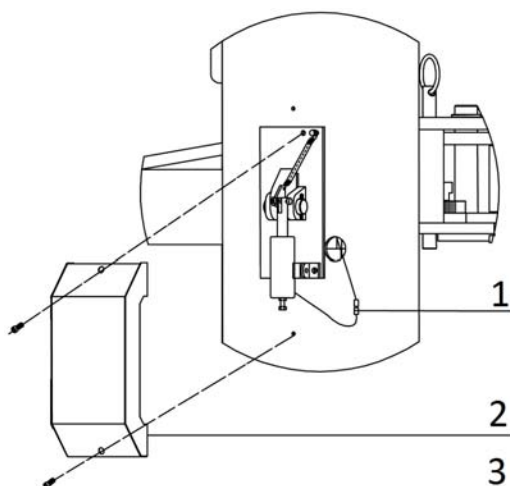
1. Max height limit switch TZ8108
2. Cross socket cap head screw M4*12
3. Cross socket cap head screw M4*25
4. Quick electrical connector

3. Fix car roof protection limit switch onto the overhead crossbeam and connect its wire with the corresponding wire comes from the control box by quick electrical connector.



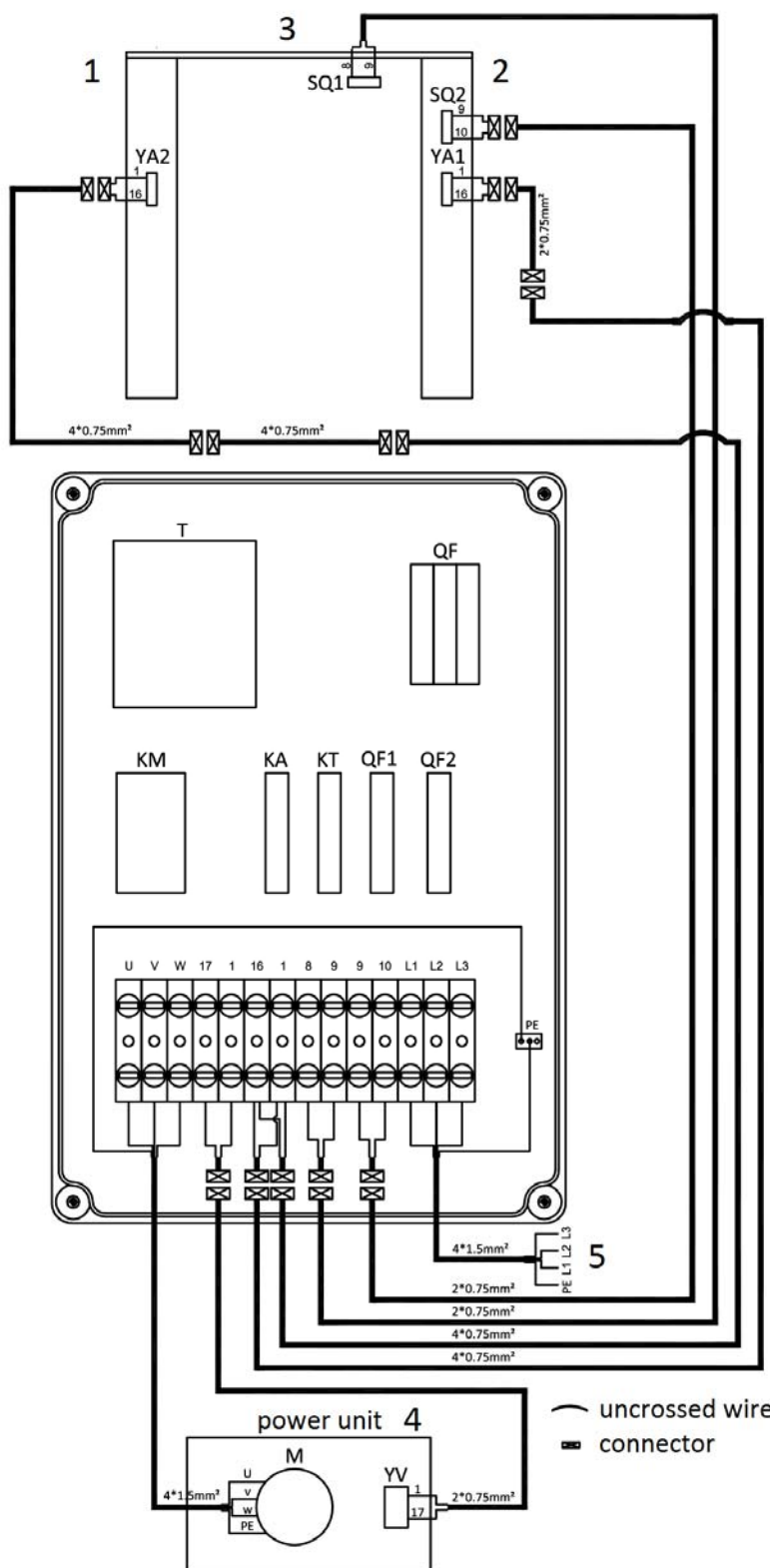
- 1. Overhead crossbeam
- 2. Cross socket flat head screw M4*25
- 3. Car roof protection limit switch D4MC1000
- 4. Main post
- 5. Quick electrical connector

4. Connect wires of electromagnets. Dismantle its protection cover before making the connection.



- 1. Quick electrical connector
- 2. Protection cover
- 3. Hex socket cylinder head screw M6*8

5. Connect electrical wires referring to the following wire connection diagram. Check that the supply voltage is adapted to the voltage of the lift.

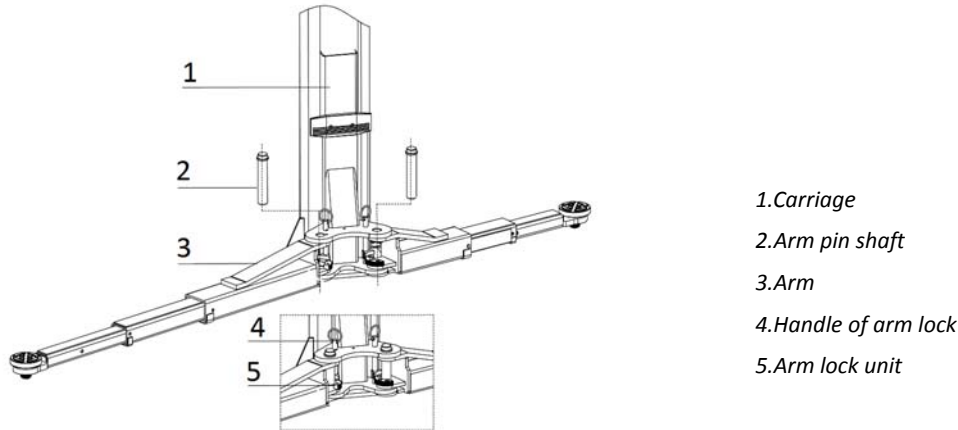


Step 10: Install lifting arms.

Connect the lifting arm and the carriage. The arm pin shafts (No. 2) must be greased at the installation

Install the lifting arms onto the carriages and ensure the arm lock could work.

Attention: Install Lifting arms and fix feet protection bars ONLY after the complete assembly has been erected and anchored.



Step 11: Fill with hydraulic oil.

CLEAN AND FRESH OIL ONLY. DON'T FILL THE TANK COMPLETELY FULL.

Lift must be fully lowered before changing or adding hydraulic oil.

Prepare 13 liters of hydraulic oil. Firstly, fill about 10 liters into the oil tank and run the lift up and down for 2 or 3 times.

After running the lift for several cycles, add more oil if necessary to raise lift to full height.

Note: It is suggested to use NO.46 hydraulic oil when average temperature of the location is above 18 degree Celsius and using NO.32 hydraulic oil when temperature is below 18 degree Celsius.

Change the oil 6 months after initial use and change once per year thereafter.

Step 12: Trial running.

Get familiar with lift controls by running the lift through a few cycles before loading vehicle on lift. This step is of particular importance for it can check if the oil hoses are well connected. The connection is qualified when there is no abnormal sound or leakage after having been tested for 5-6 times.

Bleeding the hydraulic system

Unscrew but don't remove the nut on top of the oil cylinder and slightly press the UP button until oil gets out. Screw the nut tight thereafter. After bleeding, oil level in power unit reservoir may be down. Raise and lower lift several cycles. Add more oil if necessary to raise lift to full height. It is only necessary to add oil to raise lift to full height.



Vent air remained in the cylinder

Check the mechanical safety locking unit.

Check if its safety locking plates can be effectively engaged or released in the running process.

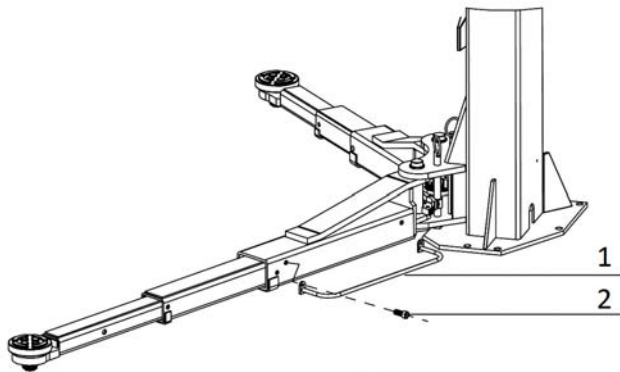
Check the synchronization of both lifting carriages.

Ensure the synchronization by adjusting the balance steel cables at both sides. Make both cables be of the same tightness.

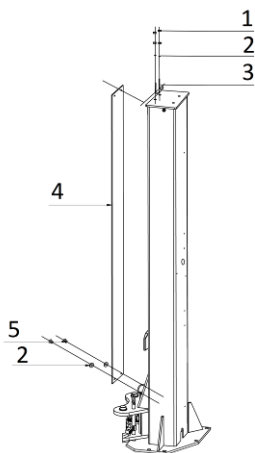
This could be judged by the sound emitted by the safety locking unit during lifting process.

If the lift doesn't raise, the motor may turn in the wrong direction. In such event, interchange wires U, V in the connection box.

Step 13: Fix feet protection fenders, chain protection clothes, and lifting trays.



1. Feet protection fender
2. M10*15 Hex socket cylinder head screw M10*15



1. Hex nut M6
2. Flat washer M6
3. Hook for chain protection cloth
4. Chain protection cloth
5. Cross socket cap head screw M6*8

4.4 Items to be checked after installation

S/N	Check items	YES	NO
1	Screw torque of expansion bolts : 60-80N•m;	√	
2	Rising speed $\geq 20\text{mm/s}$;	√	
3	Noise with rated load $\leq 75\text{db}$;	√	
4	Grounding resistance: not bigger than 4Ω ;	√	
5	Height difference of the two carriages $\leq 5\text{mm}$;	√	
6	Mechanical catch unit is robust and synchronized when running with rated load ;	√	
7	If the control button works as “hold to run”?	√	
8	If limit switches work well?	√	
9	If grounding wire is connected?	√	
10	If rising and lowering smoothly?	√	
11	If there is no abnormal notice during running with rated load?	√	
12	If there is no oil leakage when running with rated load?	√	
13	If expansion bolts, nuts or circlips are well secured?	√	
14	If the max lifting height is 1970mm?	√	
15	If Safety advices, name plate and logos are clear?	√	

OPERATION INSTRUCTIONS

5.1 Precautions

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

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

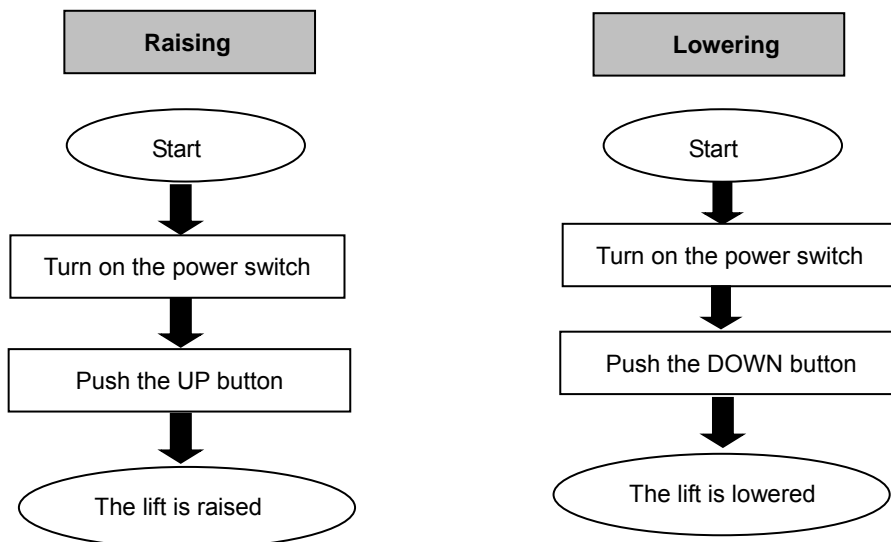
5.1.3 It shall not lift or lower an automobile if its center of gravity is not positioned midway of the runways. The manufacturer as well as the dealers will not bear any responsibility for any consequence resulted thereby.

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

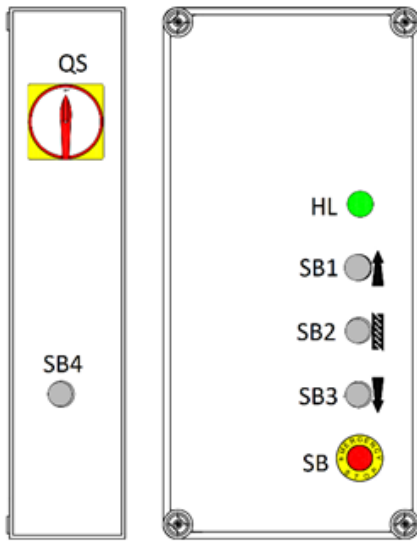
5.1.5 Turn off the power to lock the button with a padlock to prevent any wrong operation done by unconcerned people after being raised to the expected height.

5.1.6. 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.

5.2 Flow chart for operation



5.3 Operation instructions



POS.	Name	Function
QS	Main switch	Control main power
HL	Power indicator	Show if electricity is connected
SB1	UP button	Control the rising movement
SB2	LOCK button	Engage mechanical lock
SB3	DOWN button	Control the lowering movement
SB4	APS button	Control directing lowering movement

To avoid personal injury and/or property damage, permit only trained personnel to operate the lift. After reviewing these instructions, get familiar with lift controls by running the lift through a few cycles before loading vehicle on lift. Always lift the vehicle using all four adapters. Never raise just one end, one corner or one side of vehicle adapters. The lift must be only used in a static position for lifting and lowering vehicles.

Raise the lift

Make sure vehicle is neither front nor rear heavy and center of balance should be midway between adapters and centered over the lift.

1. Park the vehicle between two posts.
2. Adjust the lifting arms until lifting trays are under the pick-up positions of the vehicle and make sure the gravity of vehicle located over the center of four lifting arms.
3. Turn on the main power switch.
4. Push the "UP" button on the control box until lifting trays have touched the pick-up positions of vehicle.
5. Keep on raising the vehicle making its wheels have a bit clearance off the ground and check again the stability.
6. Raise the vehicle to the expected height, push the "Safety Lock" button to engage the mechanical safety lock. Check again the stability before doing maintenance or repair work underneath.

Lower the lift

When lowering the lift pay careful attention that all personnel and objects are kept clear.

Push APS button and DOWN button for direct lowering.

1. Push the "DOWN" button on the control box. Initially the carriages will go upwards about 5CM to release the safety lock. After that the carriage starts descending.
2. When the lift is fully lowered, position the lift arms and adapters to provide an unobstructed exit before removing vehicle from lift area.
3. Drive the vehicle away.

TROUBLE SHOOTING

ATTENTION: If the trouble could not be fixed by yourself, please do not hesitate to contact us for help.

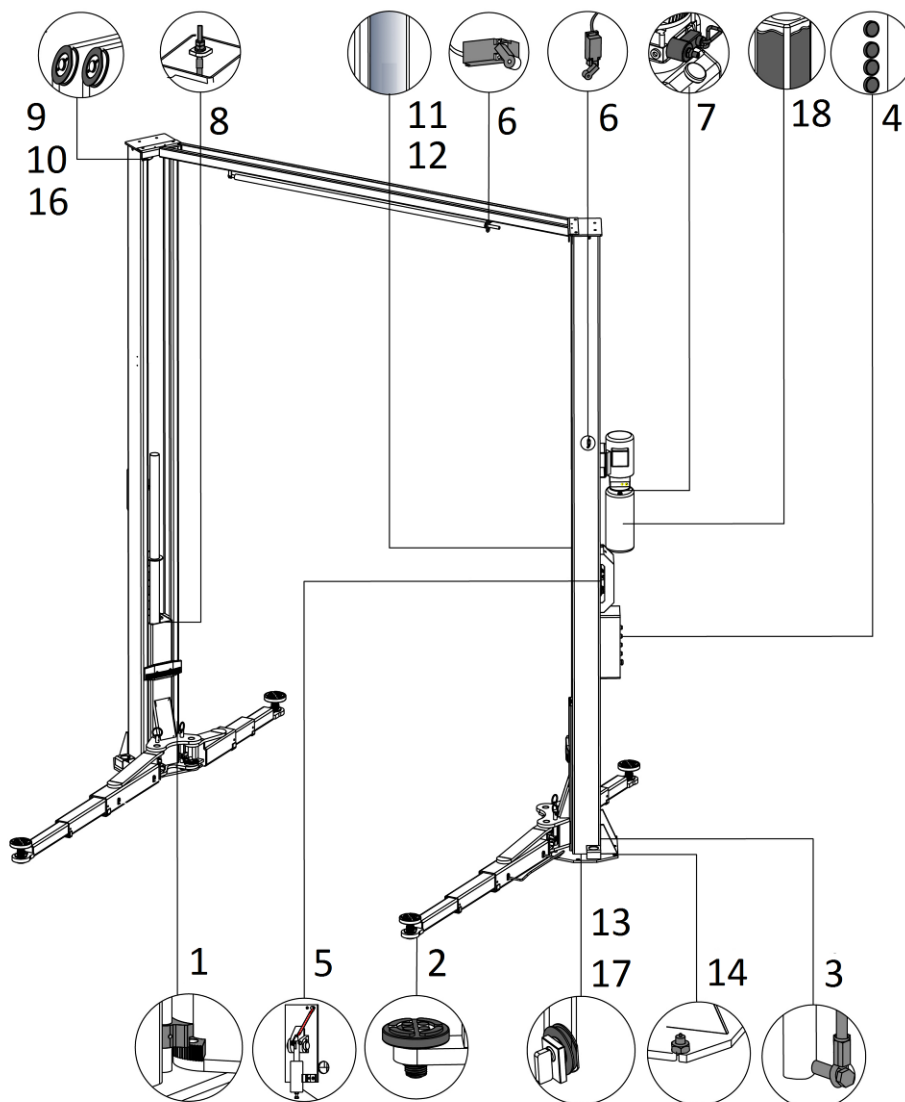
We will offer our service at the earliest time we can.

Troubles could be judged and solved much faster when more details or pictures could be provided.

TROUBLES	CAUSES	SOLUTIONS
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	Loose wire connection	Check and make a good connection.
	Blown motor.	Replace it.
	Damaged limit switch or its wire connection is loose.	Adjust or replace the limit switch.
Motor runs but will not raise	The motor run reversely.	Check the wire connection.
	Overflow valve is not well screwed up or jammed.	Clean or make adjustment
	Damaged gear pump.	Replace it.
	Too low oil level.	Add oil.
	The hose connection is loose.	Tighten it.
	The cushion valve is not well screwed up or jammed.	Clean or make adjustment
Carriages go down slowly after being raised	The oil hose leaks.	Check or replace it.
	Untightened oil cylinder.	Replace the seal.
	The single way valve leaks.	Clean or replace it.
	Solenoid valve fails to work well.	Clean or replace it.
	Slack steel cable	Check and adjust the tightness.
Raising too slow	Jammed oil filter	Clean or replace it.
	Too low oil level.	Add oil.
	The overflow valve is not adjusted to the right position.	Make adjustment.
	Too hot hydraulic oil (above 45°) .	Change the oil.
	Abraded. Seal of the cylinder	Replace the seal.
	Inside surface of the posts is not well greased.	Add grease.
Lowering too slow	Jammed throttle valve	Clean or replace.
	Dirty hydraulic oil	Change the oil.
	Jammed. anti-surge valve	Clean it.
	Jammed oil hose	Replace it.
The steel cable is abraded	No grease at 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. Follow the below routine maintenance schedule with reference to the actual working condition and frequency of your lift.



S/N	Components	Methods	Period
1	Swing arm locking units	Push the UP button to raise the lifting arms and check if four swing arms are locked into position. Add grease in case necessary.	Every day
2	Rubber contact pads	Inspect the pads and clean off any objects that may cause sliding or damage.	Every day
3	Cylinder and oil hose connectors	Inspect to ensure no leakage before using the lift.	Every day
4	Control buttons	Check if control buttons work as "hold- to -run " and check if they work as the function indicated.	Every day
5	Mechanical safety locking unit	Check if both mechanical catches can engage and disengage simultaneously by pushing control buttons.	Every day

S/N	Components	Methods	Period
6	Limit switch	Push the UP button and inspect and to ensure the lifting platform stops rising when the switch is activated.	Every day
7	Unloading valve	Inspect if the valve leaks or not. Clean or change the valve if it leaks.	Every day
8	Steel cables	Check the synchronization of both carriages and adjust the tightness of the cable if desynchronization is unacceptable.	Every day
9	Bushing of the upside pulley and circlip of the shaft	Lubricate the bushing with NO.1 lithium based grease. Check if the circlip is in its original position.	Every 3 months
10	Steel cables	Lubricate the cables with NO.1 lithium based grease. Change with new steel cables every 3 years or ten single wires have broken.	Every 3 months
11	Running track inside the post for carriages	Lubricate path with NO.1 lithium based grease. No obstruction on the path.	Every 3 months
12	Chain and its pins (optional)	Lubricate the chain with NO.1 lithium based grease. Change the chains every 3 years or if any cracks occurred to the pin of the chain.	Every 3 months
13	Bushing of the downside pulley and circlip of the shaft	Lubricate the bushing with NO.1 lithium based grease. Check if the circlip is in its original position.	Every 3 months
14	Expansion bolts	Check with torque spanner. For M18 bolt ,the torque is no less than 80N.m / For M16, the torque is no less than 60N.m	Every 3 months
	Whole Lift	Running the lift for several cycles with and without rated load. The lift can run steadily and smoothly with no abnormal noise.	Every 3 months
16	Bushing of the upside pulley and circlip of the shaft	Slacken the steel cable and dismantle the bushing. Measure the abrasive clearance and change the bushing if the clearance is bigger than 0.5mm.	Every year
17	Bushing of the downside pulley and circlip of the shaft	Slacken the steel cable and dismantle the bushing. Measure the abrasive clearance and change the bushing if the clearance is bigger than 0.5mm.	Every year
18	Hydraulic oil	Change the oil 6 months after initial use and once per year thereafter. Inspect the hydraulic oil and change the oil if the oil becomes black or there is dirt in the oil tank.	Every year

If users stick to the above maintenance requirements, the lift will always keep a good working condition and its service life could be extended.

Annex 1, Floor plan

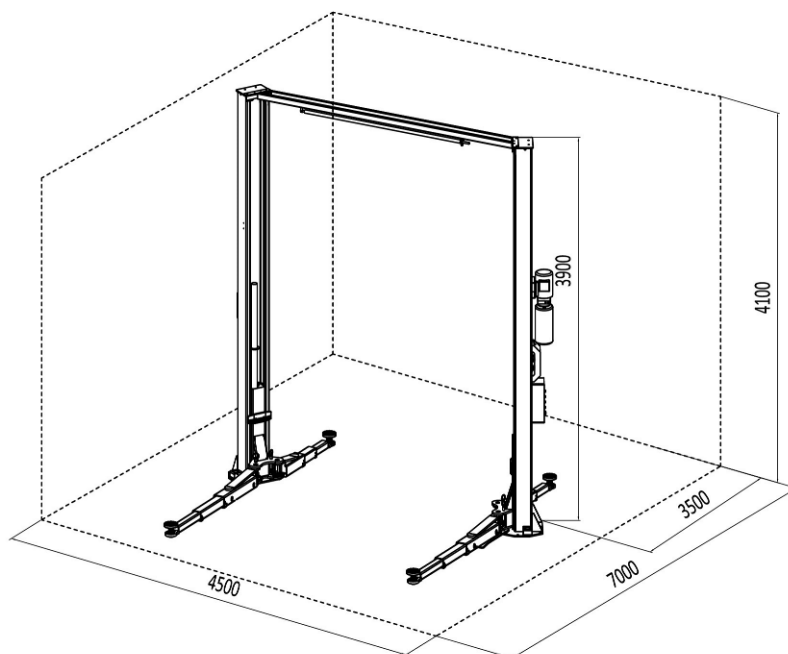
Indoor installation only. There must also be a clearance of at least 1 meter between the lifting platform and fixed elements (e.g. wall) in all lifting positions. There must be sufficient space for driving vehicles on and off.

C20/25 concrete base with strength more than 3000psi, Minimum thickness of 200mm.

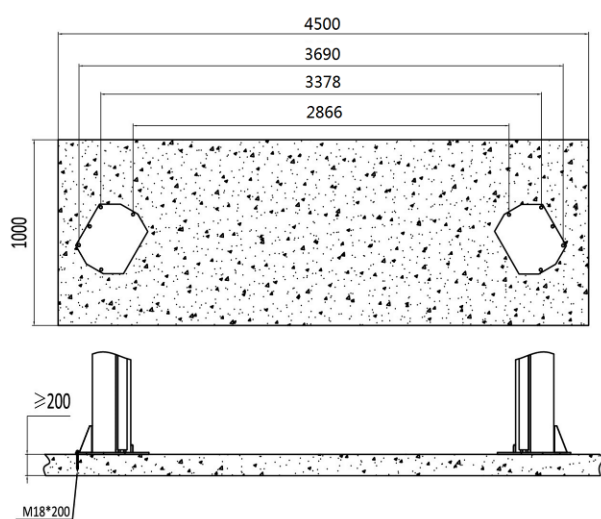
Surface: Horizontal and even (Gradients max. 0.5 %)

Newly built concrete ground must be older than 20days.

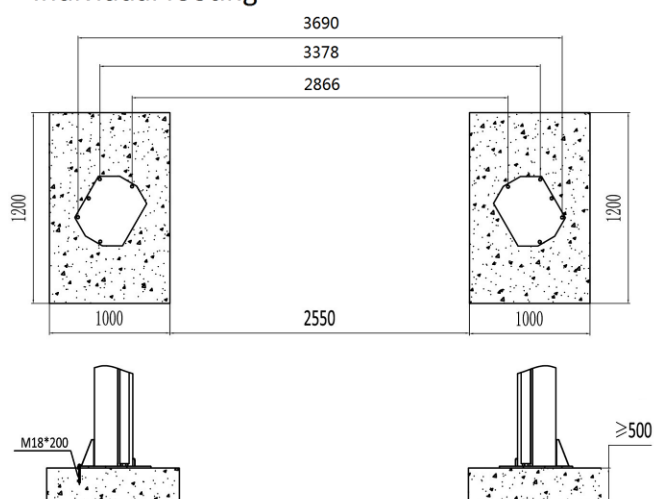
In mm.

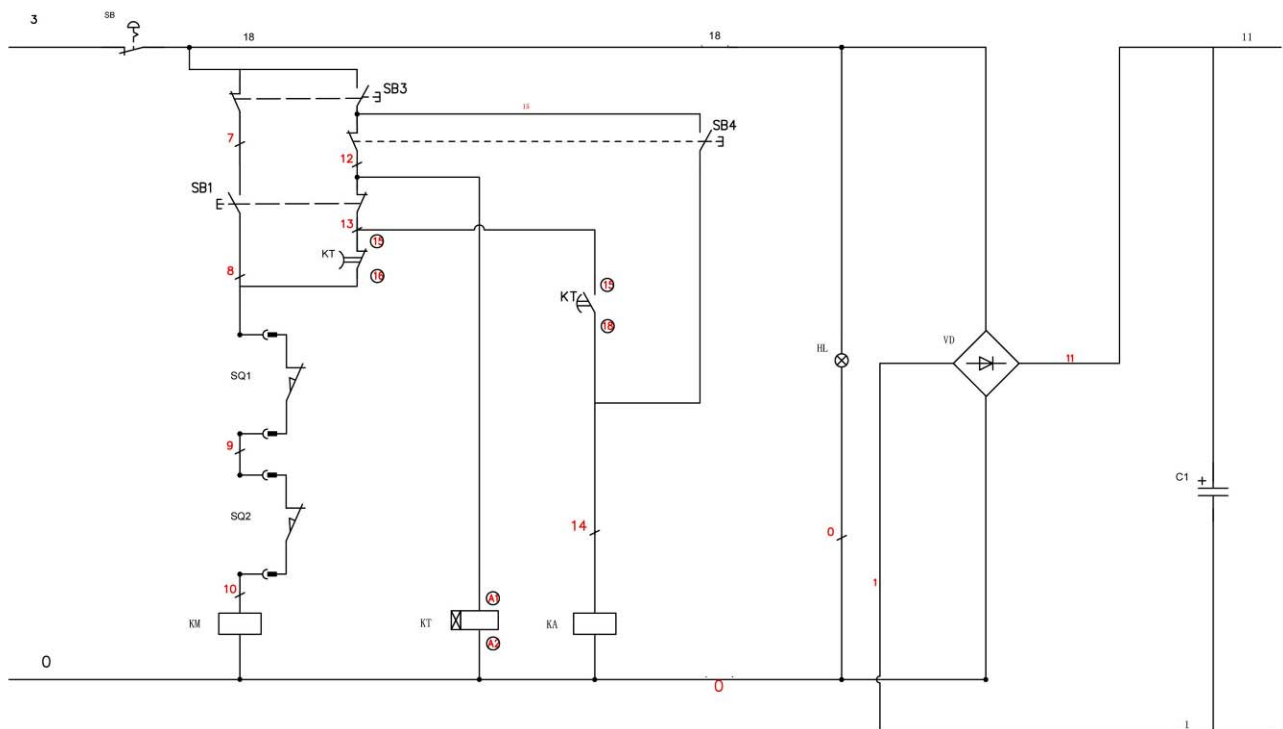
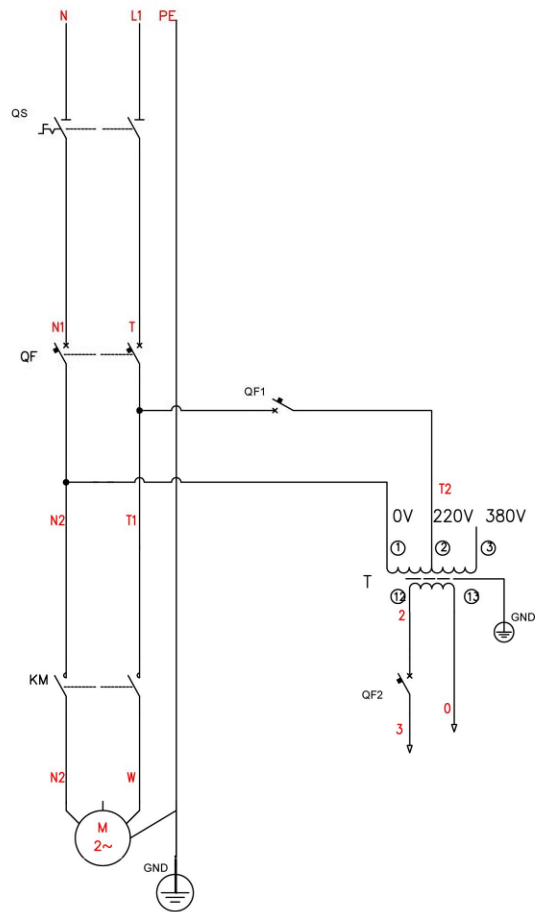


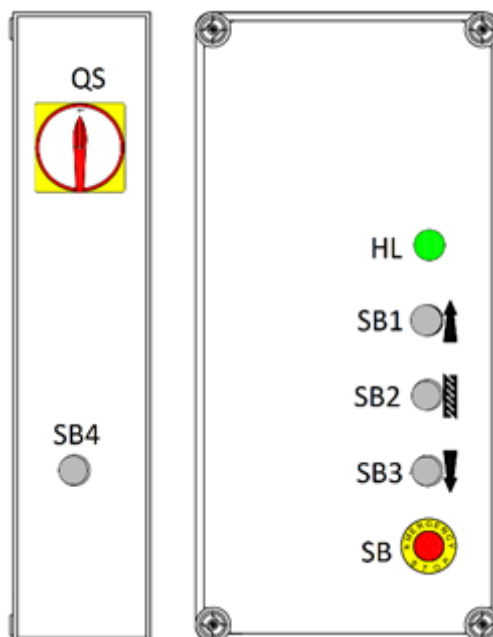
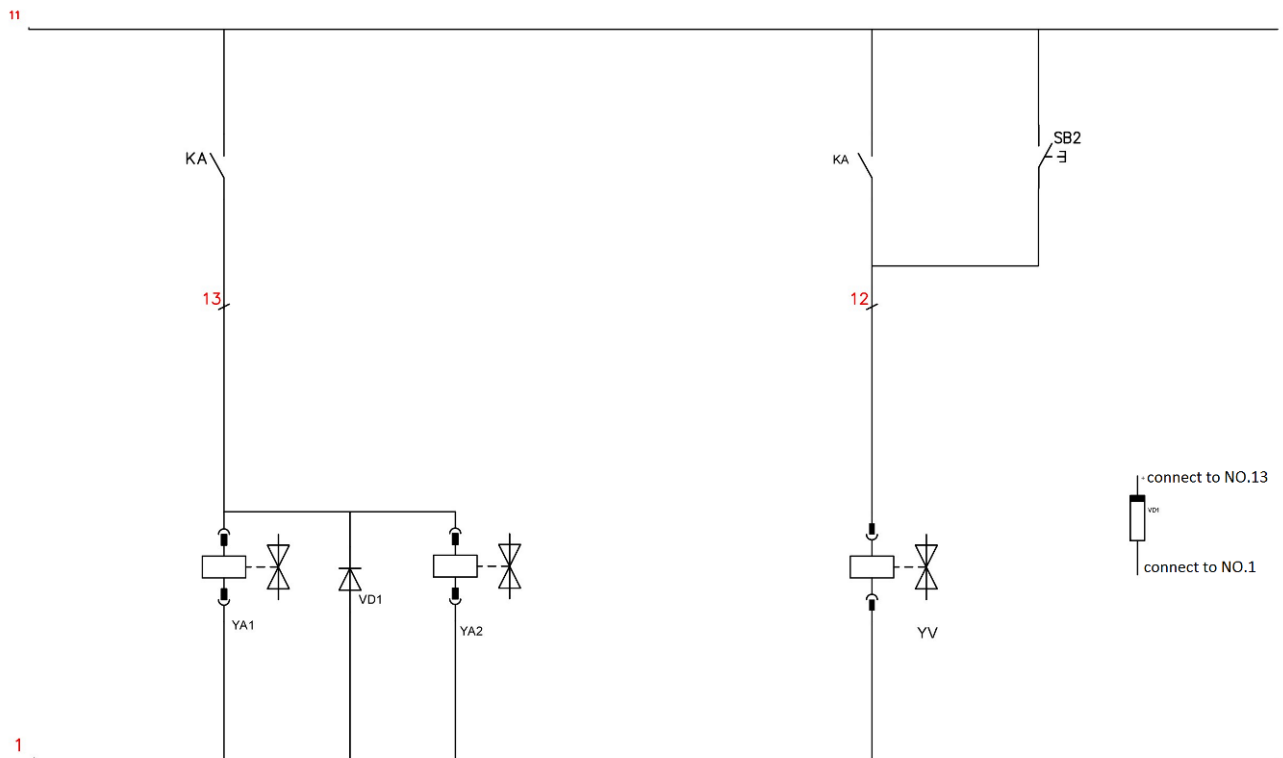
Continuous footing

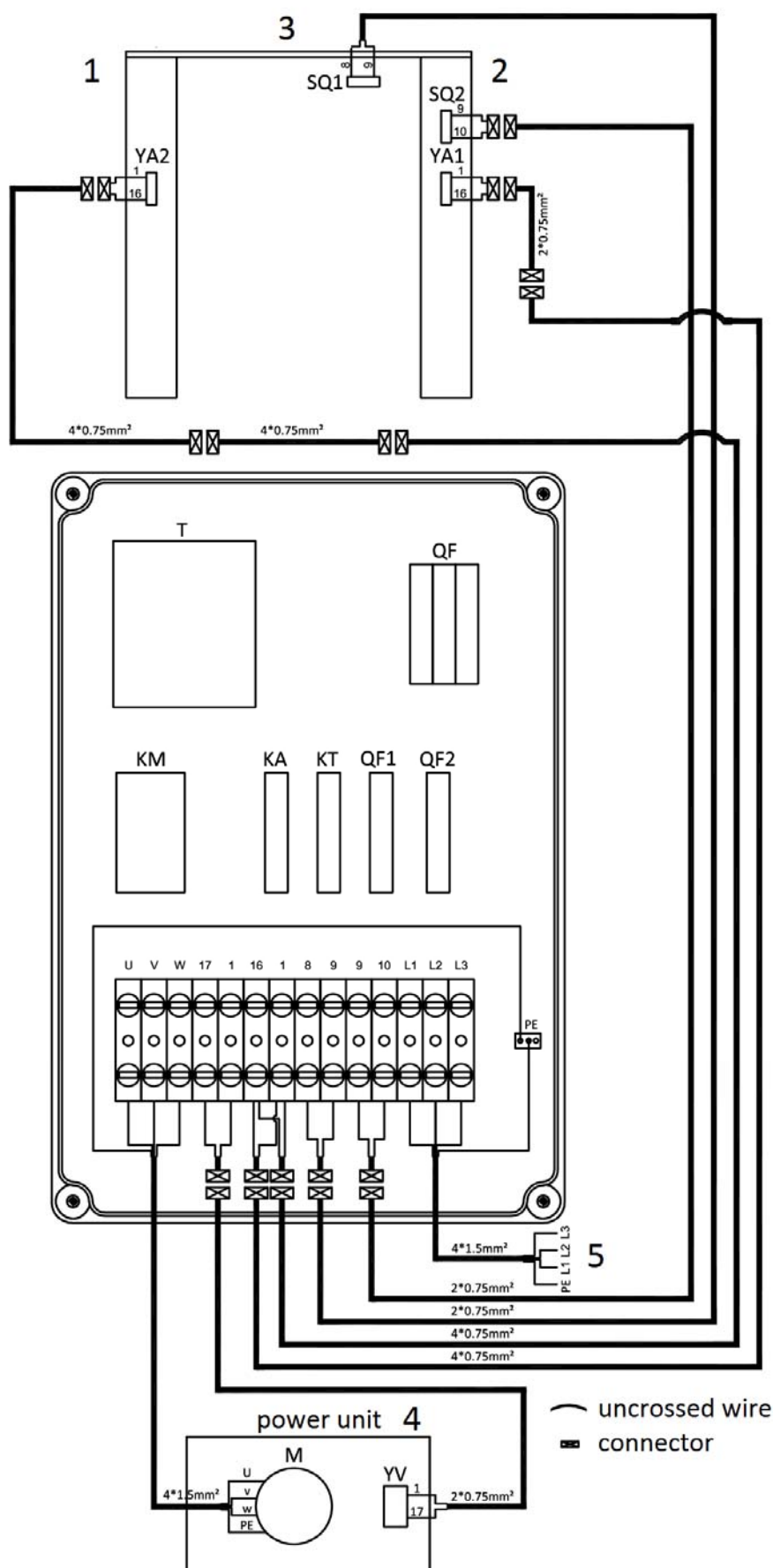


Individual footing



[illegible]



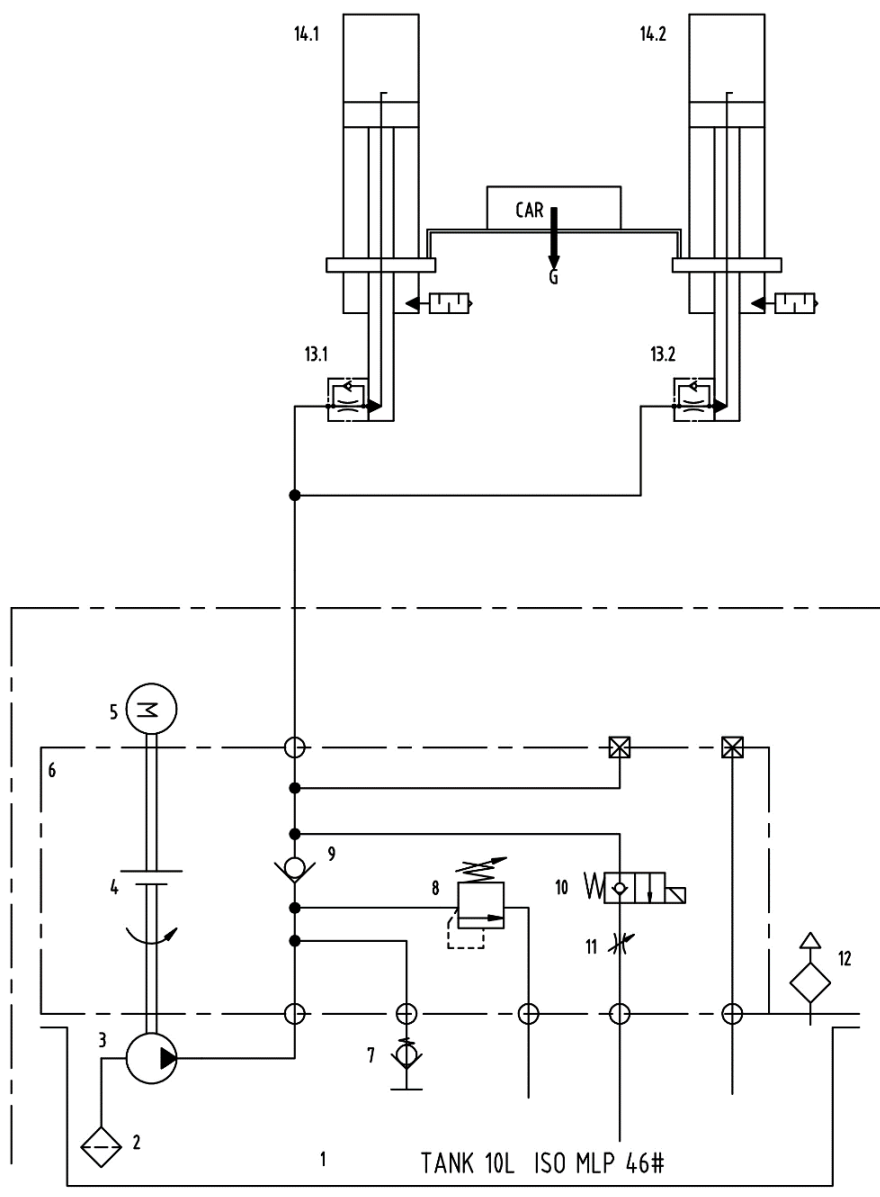


POS.	Code	Name	Specification	Qty
T	320102005	Transformer (Dual)	BK-100VA 400V230V-24V	1
	320101035	Transformer	JBK3(JBK5)-100VA 380V-24V	1
	320101036	Transformer	JBK3(JBK5)-100VA 400V-24V	1
	320101037	Transformer	JBK3(JBK5)-100VA 415V-24V	1
	320101032	Transformer	JBK3(JBK5)-100VA 220V-24V	1
	320101033	Transformer	JBK3(JBK5)-100VA 230V-24V	1
	320101034	Transformer	JBK3(JBK5)-100VA 240V-24V	1
SQ1	320301002	Limit switch	D4MC-1000	1
SQ2	320301011	Limit switch	TZ8108	1
QS	320304001	Power switch	LW26GS-20/04	1
SB1-SB4	320401013	Button	AR22F0R-11-W	4
SB	320402002	Emergency stop	XB2BS542C	1
KA	320601026	Integrated relay	NCH8-20/20 AC24V	1
KT	320602009	Integrated time relay	ZYS11-A(AC24, 5S	1
QF	320801003	Circuit breaker-dual	DZ47-63C25/3P	1
	320801001	Circuit breaker-3Ph	DZ47-63C16/3P	1
	320802001	Circuit breaker-1Ph	DZ47-63C32/2P	1
QF1	320803003	Circuit breaker	DZ47-63C3/1P	1
QF2	320803005	Circuit breaker	DZ47-63C6/1P	1
KM	320901011	AC contactor (3Ph/3.0kW)	CJX2-1810/AC24V	1
	320901001	AC contactor(1Ph,3Ph/2.2kW)	CJX2-1210/AC24	1
C	321001004	Capacitor	4700UF/50V	1
VD	321002001	Bridge rectifier	KBPC5A-35A	1
HL	321201001	Power indicator	AD17-22G-AC24	1
YA1-YA2	410044350B	Electromagnet	6254E.V3-A14	2

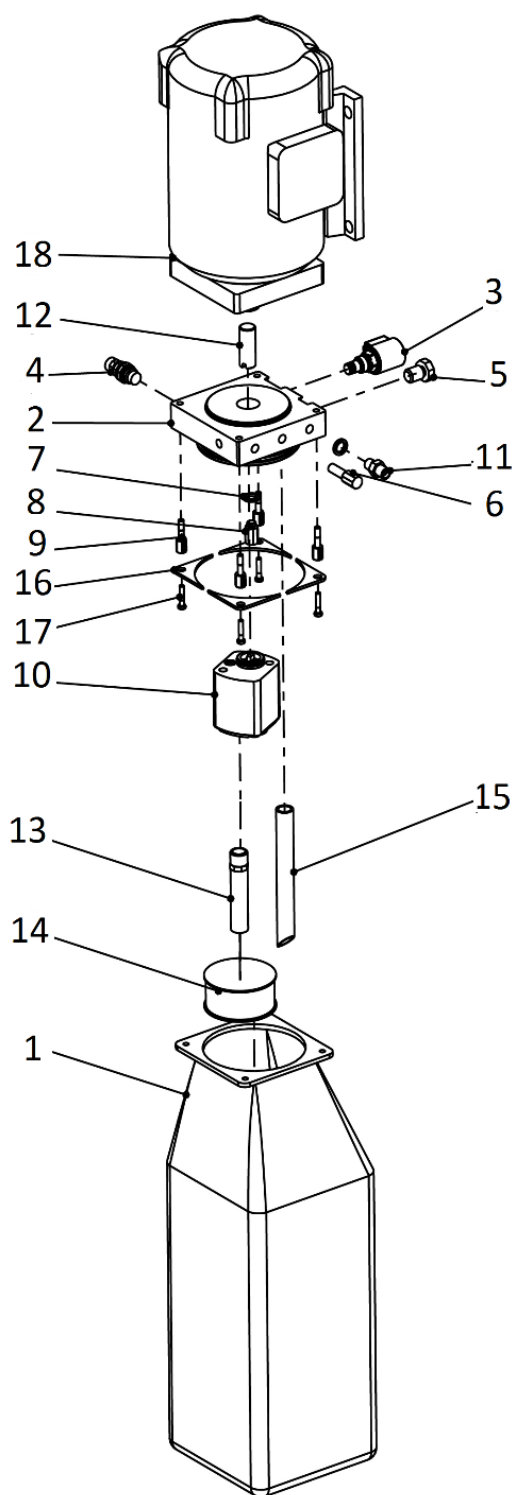
NOTE: For power supply of other voltage, the transformer is different.

Please check with our customers service people when order spare parts.

Annex 3, Hydraulic schemes and parts list



- | | |
|-------------------|-----------------------------|
| 1.oil tank | 8.overflow valve |
| 2.oil filter | 9.single way valve |
| 3.gear pump | 10.solenoid unloading valve |
| 4.coupling | 11.flow control valve |
| 5.aluminium motor | 12.tank cover |
| 6.hydraulic block | 13.composite connector |
| 7.cushion valve | 14.oil cylinder |



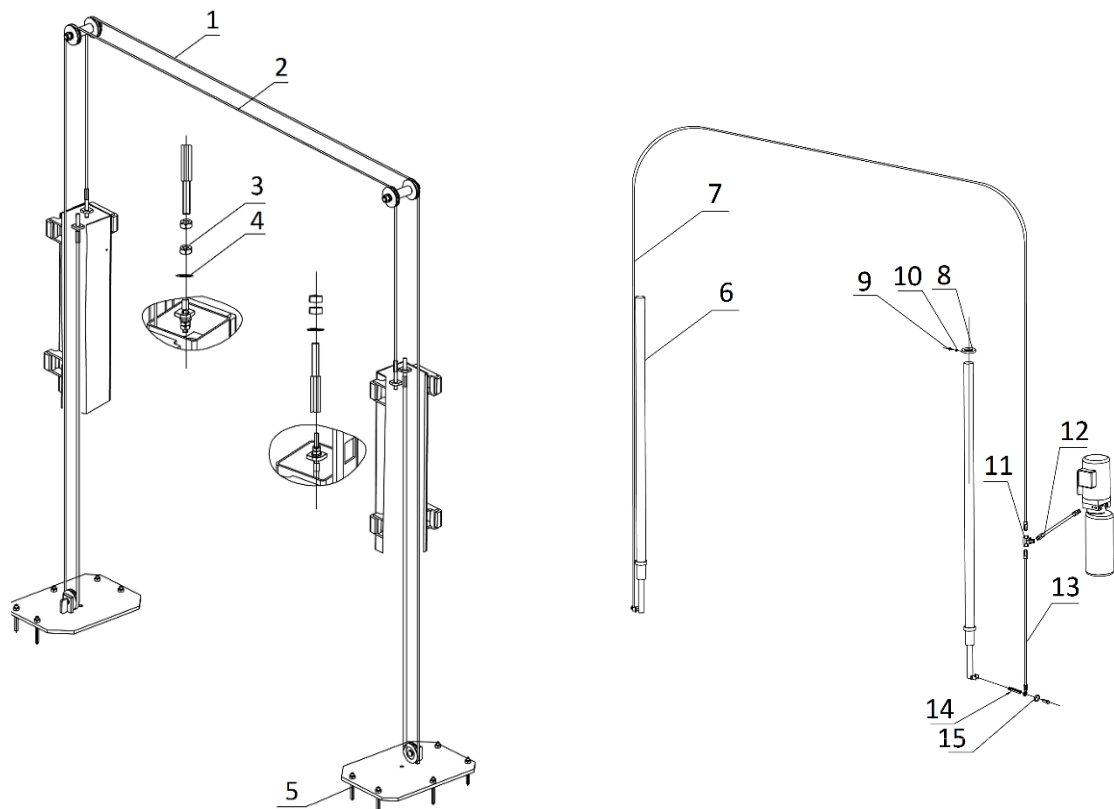
POS.	Code	Name	Specification	Qty
1	330405001	Oil tank	10L	1
2	330101063B	Hydraulic block	YF-2D (XLFKG-F)	1
3	330308006	Solenoid unloading valve	DHF06-220H/DC24	1
4	330304001	Overflow valve	EYF-C	1

POS.	Code	Name	Specification	Qty
5	330302001	Single way valve	DYF-C	1
6	330305002	Throttle valve	TC-VF	1
7	207103019	Composite washer	M14	2
8	330301001	Cushion valve	HZYF-C1	1
9	202109064	Screw for oil tank installation	M6*30	4
10	330201007	Gear pump (for 3Ph/3.0kW motor)	CBK-F233	1
	330201005B	Gear pump (for 1Ph/2.2kW motor)	CBK-F220/CBK-2.1F	1
	330201006	Gear pump (for 3Ph/2.2kW motor)	CBK-F225/CBK-2.5F	1
11	310101028	Shift connector	G1/4,M14x1.5	1
12	330404001	Coupling	YL-A	1
13	330401005	Oil sucking tube	XYGN-L293	1
14	330403001	Oil filter	YG-C	1
15	330402001	Oil back pipe	YH-D	1
16	410010091	Tank reinforced plate	6254E-A4-B12	4
17	201103001	Hex flange screw	M5*25	4
18	320204016	Motor	380V-3.0KW -3PH-50HZ-2P	1
	320204017	Motor	400V-3.0KW -3PH-50HZ-2P	1
	320204018	Motor	415V-3.0KW -3PH-50HZ-2P	1
	320201001	Motor	220V-2.2KW -1PH-50HZ-2P	1
	320201002	Motor	230V-2.2KW -1PH-50HZ-2P	1
	320201003	Motor	240V-2.2KW -1PH-50HZ-2P	1
	320201004	Motor	380V-2.2KW -1PH-50HZ-2P	1
	320201005	Motor	400V-2.2KW -1PH-50HZ-2P	1
	320201006	Motor	415V-2.2KW -1PH-50HZ-2P	1

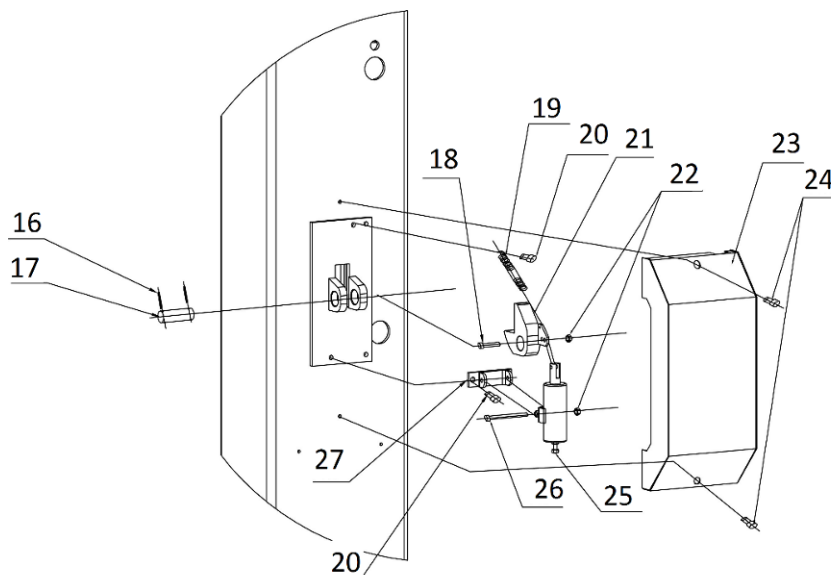
Seal rings for oil cylinders

POS.	Code	Name	Specification	Qty
1	207103002	Type Y seal ring	B7-50*35*9	1
2	207105004	Dust proof ring	DHS38 (38*46*6)	1
3	207106018	Anti-abrasion ring	50X46X15	1
4	207101022	Type O seal ring	φ7.6*2.62 AS 568/*109	1

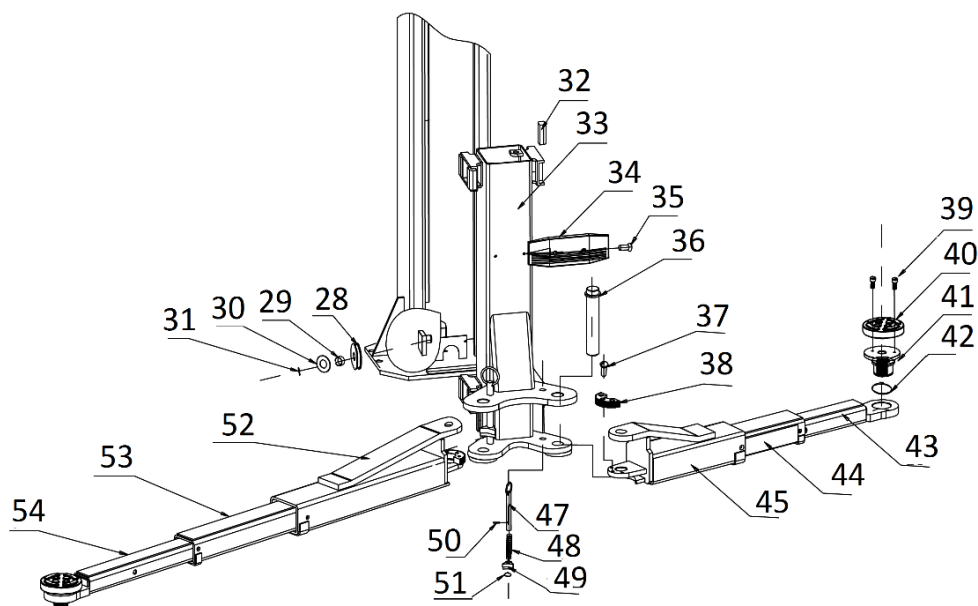
Annex 4, Mechanical exploded drawings and parts list



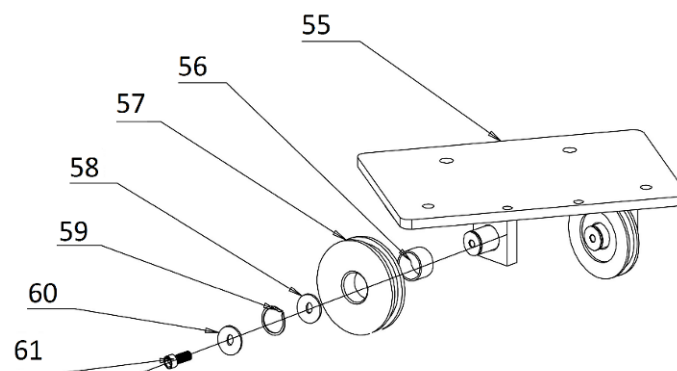
POS.	Code	Name	Specification	Qty
1	615015004B	Steel rope	6214EKZ.V2-A7 L=10950mm	1
2	615015005B	Steel rope	6214EKZ.V2-A8 L=11100mm	1
3	203101009	Hex nut M16	M16	8
4	204101009	Class C flat washer M16	M16	4
5	201201008	Expansion bolt M18*200	M18*200	10
6	615017013	Oil cylinder	6264-A24	2
7	624002025B	Oil hose	Φ8, L=8625mm	1
8	410170101B	Cylinder fixation ring	6264-A24-B1	2
9	202109024	Hex socket cylinder head screw	M6*35	2
10	203101004	Hex nut M6	M6	2
11	615006003	Oil hose	6214E-A4-B4	2
12	624001814	Oil hose	Φ8,L=300mm	1
13	624002004B	Oil hose	L=2265	1
14	615015003	Composite connector	6255E-A7-B7	2
15	207103025	Composite washer	13.7*20*1.5	4



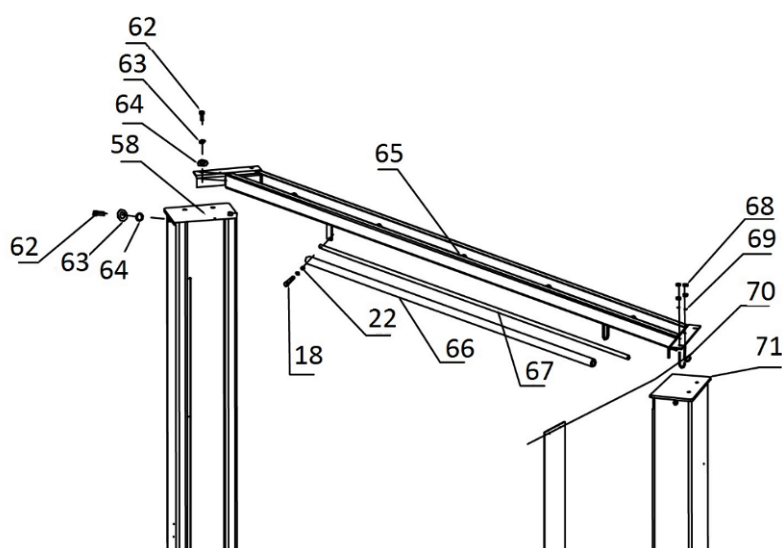
POS.	Code	Name	Specification	Qty
16	206201004	Cotter pin	3*45	4
17	410044340	Safety shaft	62B-A1-B6	2
18	202109024	Hex socket cylinder head screw	M6*35	2
19	410350990	Pull spring	6214EKZ.V2-A15	2
20	202109027	Hex socket cylinder head screw	M8*12	10
21	410048781	Safety hook assembly	62B-A1-B4-C1	2
22	203103005	Hex locking nut M6	M6	4
23	614035034	Safety lock protective cover	6215EKZ.V2-A13	2
24	202109017	Hex socket cylinder head screw M6*8	M6*8	4
25	410044350B	Electromagnet	6254E.V3-A14	2
26	202109132	Hex socket cylinder head screw	M6*65	2
27	614004809B	Fixation holder of electromagnet	62B-A1-B6-E	2



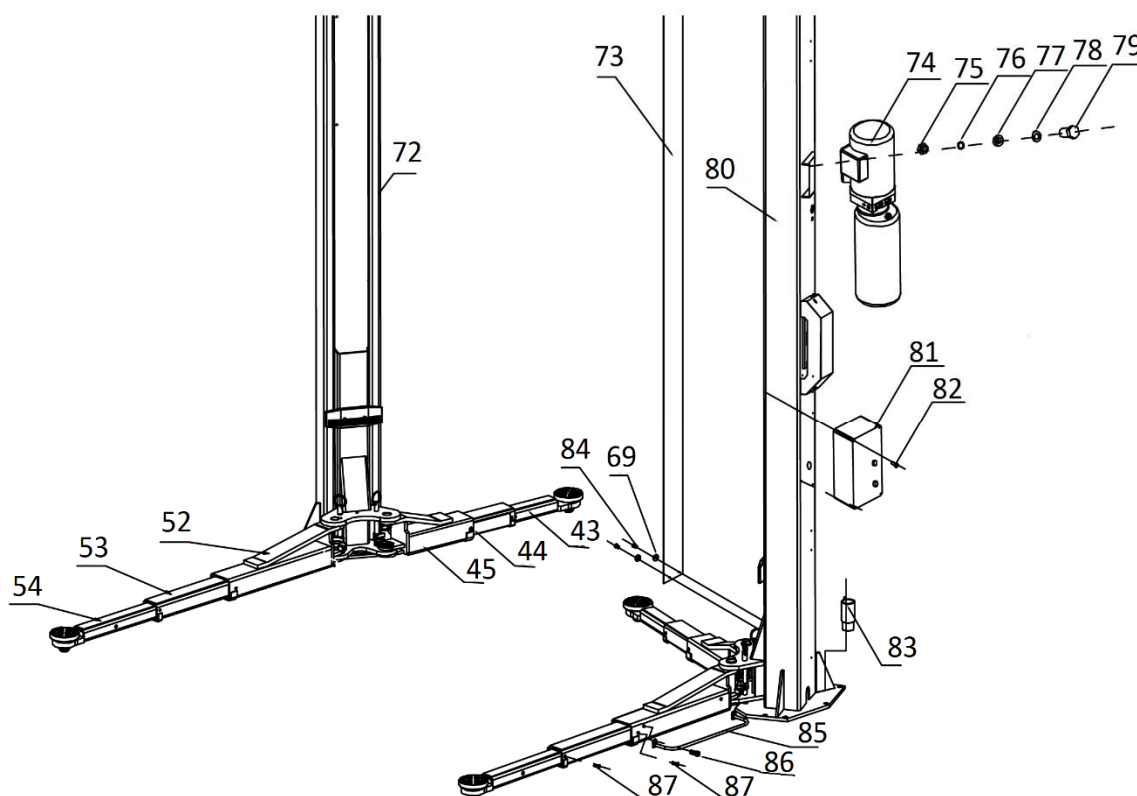
POS.	Code	Name	Specification	Qty
28	410010021B	Down pulley	6254A-A1-B1 Φ88 L=16	2
29	205101007	Bearing 2512	SF-1,2512	2
30	410010031	Washer	6254E-A1-B3	4
31	206201004	Cotter pin	3*45	2
32	420010010	Slider	6254E-A2-B5	8
33	614035030B	Carriage	6215EKZ.V2-A3-B1	2
34	420010020B	Protection rubber pad	6254E-A2-B6	2
35	202103021	Cross socket flat head screw M8*16	M8*16	4
36	410131381	Arm shaft	6255E-A13	4
37	202109085	Hex socket cylinder head screw	M12*30	12
38	410150901	Teeth wheel (half)	6215-A4-B3 (6254E-A7-B6)	4
39	202111007	Hex socket flat head screw M8*20	M8*20	8
40	420040050B	Round lifting pad	6254E-A7-B4-C4	4
41	615004003D	Lifting tray	6254E-A7-B4	4
42	204301008	Circlip φ22	Type B,22	4
43	614035024	Short third stage arm	6214EKZ.V2-A4-B3	2
44	614035023B	Short second stage arm	6214EKZ.V2-A4-B2	2
45	614035022C	Short first stage arm	6214EKZ.V2-A4-B1	2
47	612013004C	Pulling rod assembly (left)	6255E-A3-B4	2
47	612015006C	Pulling rod assembly (right)	6255E-A3-B4	2
48	410150121	Pressure spring	6254E-A2-B4	4
49	410150891	Teeth block	6254E-A2-B3(6215-A3-B3)	4
50	206102008	Elastic post pin	5*50	4
51	204301008	Circlip φ22	Type B,22	4
52	614035025C	First stage long arm	6214EKZ.V2-A5-B1	2
53	614035026B	Second stage long arm	6214EKZ.V2-A5-B2	2
54	614035027	Third stage long arm	6214EKZ.V2-A5-B3	2



POS.	Code	Name	Specification	Qty
55	614035004	Top plate	6214EKZ-A2-B2-C1	1
56	205101008	Bearing 2518	SF-1,2518	4
57	410010061	Up pulley	6254E-A5-B1	4
58	410010031	Washer	6254E-A1-B3	4
59	204301009	Type B circlip $\phi 25$	Type B, $\phi 25$	4
60	204104001	Large washer	M40*8*2.5	4
61	202110005	Hex socket button head screw M8*20	M8*20	4



POS.	Code	Name	Specification	Qty
62	202109093	Hex socket cylinder head screw	M12*30	8
63	201102027	Flat washer	M12	8
64	204201006	Spring washer M12	M12	8
65	614035031	Crossbeam	6215EKZ.V2-A6-B1	1
66	420060010	Black foam tube	0	1
67	410060013	Long rod	6214E-A21-B5	1
68	203101004	Hex nut M6	M6	8
69	204101004	Class C flat washer M6	M6	4
70	410010051	Pulling rod of chain protection cloth	6254E-A1-B5	4
71	614035002	Top plate	6214EKZ-A1-B2-C1	1



POS.	Code	Name	Specification	Qty
72	614035021	Secondary post	6214EKZ.V2-A2-B1	1
73	615006001	Chain protection cloth	6214E-A1-B3(6214A-A1-B3(3743*140MM))	2
74		Hydraulic power unit	2.2kW / 3.0kW	1
75	203101006	Hex nut M10	M10	4
76	204201005	Spring washer M10	M10	4
77	420040010	Anti-shock pad	6254E-A23	4
78	204101006	Class C flat washer M10	M10	4
79	201103004	Hex head full swivel screw M10*35	M10*35	4
80	614035020	Main post	6214EKZ.V2-A1-B1	1
81	321204002	Control box	460*260*135	1
82	202101020	Cross socket cap head screw	M5*8	4
83	612004003B	Height adapter	6254E-A11 L=130MM	4
84	202101027	Cross socket cap head screw M6*8	M6*8	4
85	614035038	Feet protection fender (left)	6215EKZ.V2-A14-B1-1	2
85	614035039	Feet protection fender (right)	6215EKZ.V2-A14-B1-2	
86	202110004	Hex socket cylinder head screw M8*12	M8*12	4
87	202109040	Hex head full swivel screw M10*15	M10*15	8