Model No. EE-62CE-42T

Two Post Lift

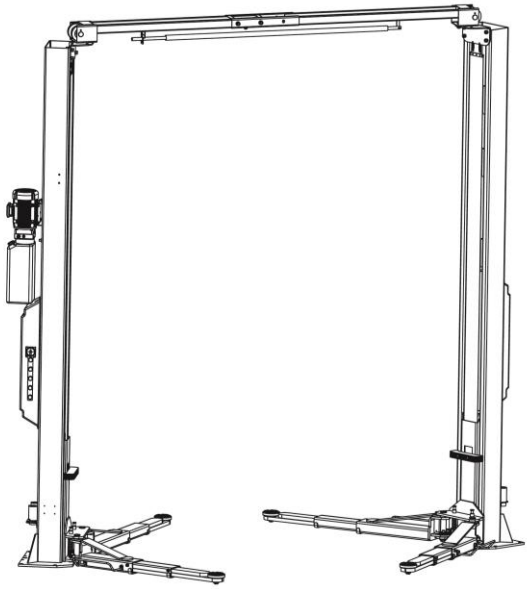
Electrical Release

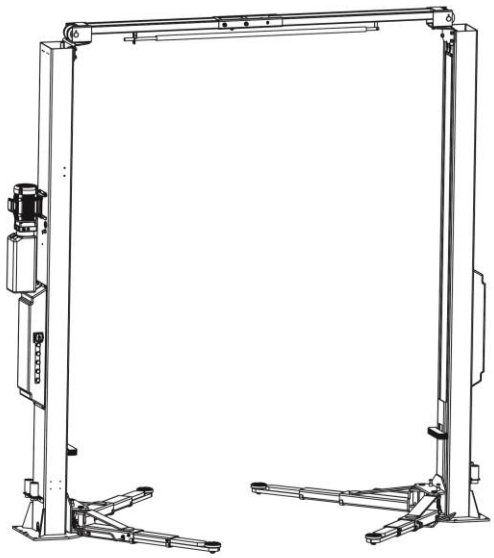
Asymmetrical/Symmetrical Installation

Lifting Capacity 4200KG

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: 08/03/2024

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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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Warranty

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.

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 option 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;

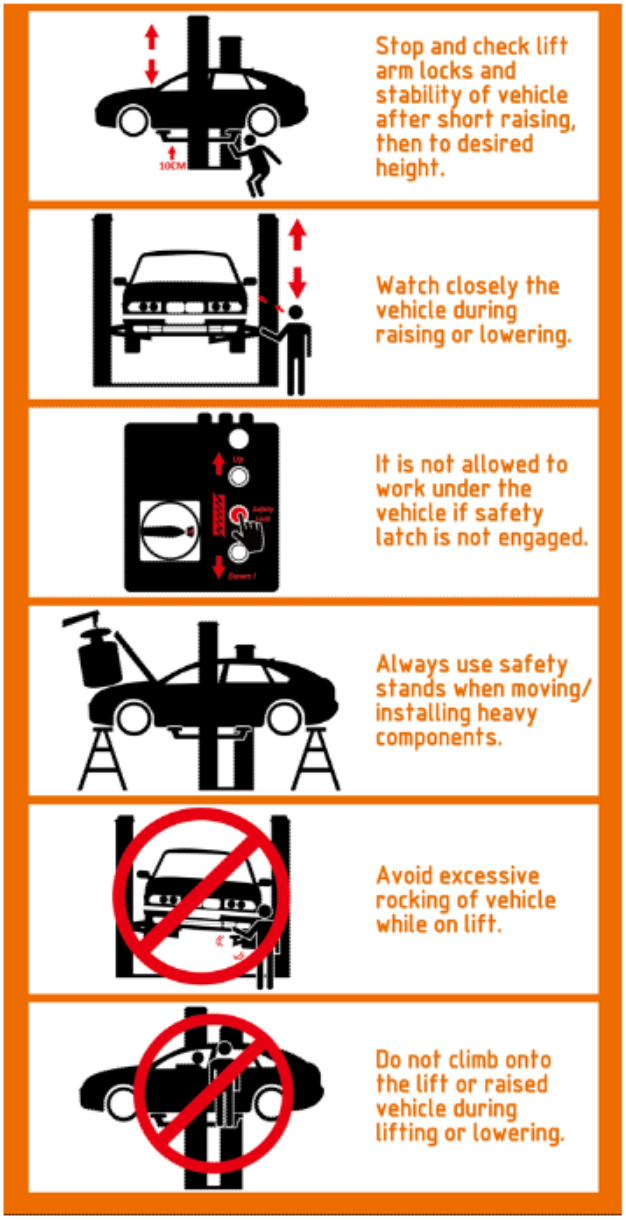
b. Empty the oil tank;

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 remember them for future operation.



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 (A). 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)*	*Quantity*
Lift	*Steel brackets*	*3950*570*770*	*1*
Power unit	*Carton*	*850*250*350*	*1*

2.2 Storage

The packs must be kept in a covered and protected area in a temperature range of -10℃ to +40℃. 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:

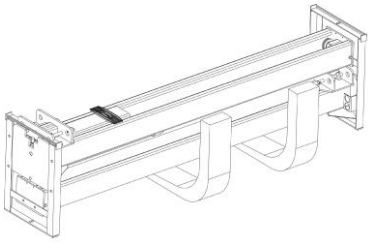
-Never stack to more than 2 meters in height.

-Never make stacks of single pack. 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.



Opening the packs

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

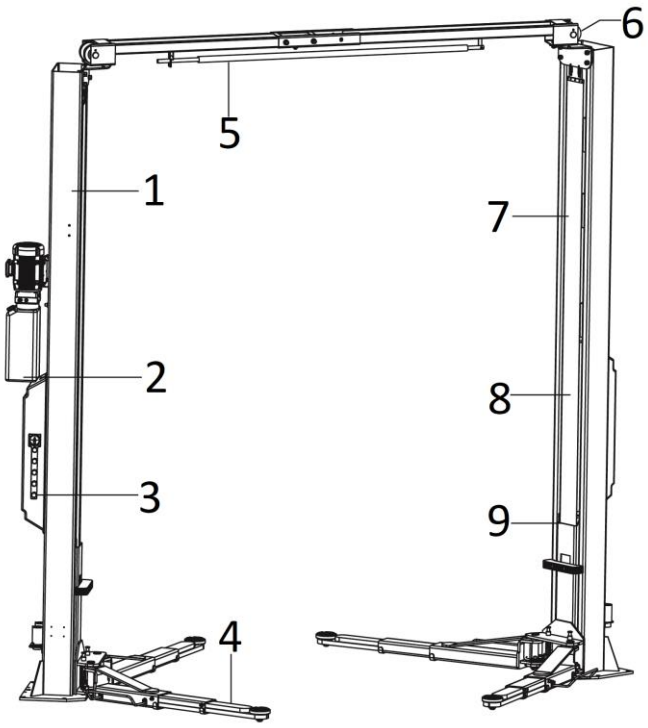
3.1 General descriptions

This is chassis supporting vehicle lift for road vehicles.

It is mainly composed by two posts, two carriages, four swing arms, a power unit and a control unit.

It is driven by an electro-hydraulic system. The gear pump delivers hydraulic oil to oil cylinders and pushes upwards its piston. The cylinder piston drives to raise the carriage and swing arms. It is equipped with mechanical safety locking unit which ensures no risks of slipping off in case of hydraulic failure.

3.2 Construction of the lift



1. Post

2.Hydraulic power unit

3.Control unit

4.Swing arm

5.Crossbeam

6.Pulley assembly

7.Steel rope

8.Hydraulic cylinder

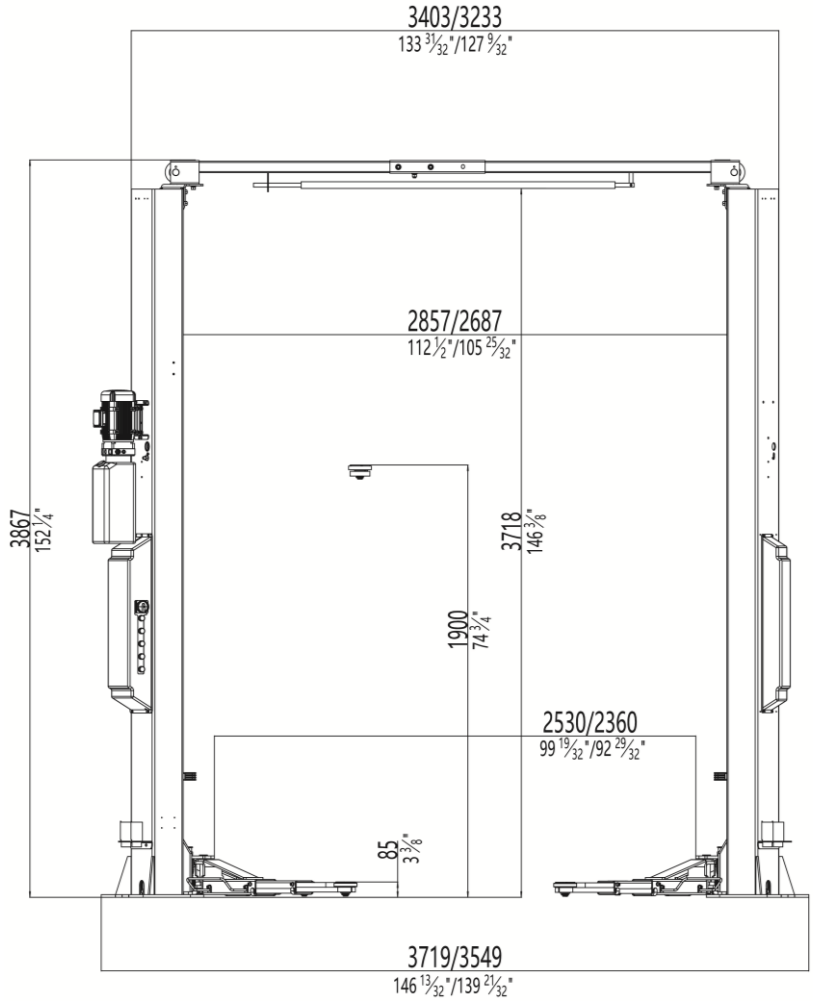
9.Carriage

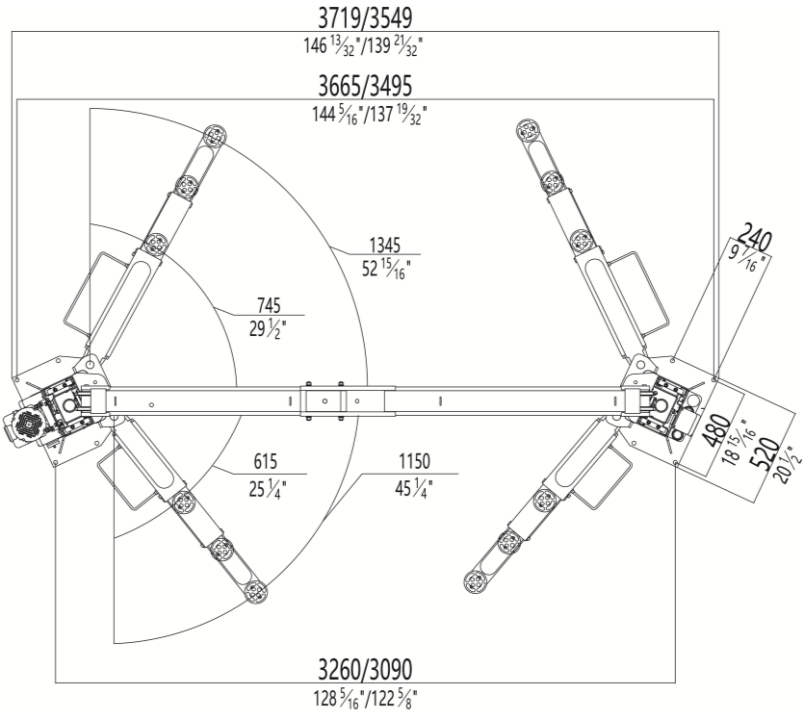
3.3 Technical data

Model	Lifting capacity	Max height for the pick-up adapter(locking device disengaged)	Full rise time (with rated load, 2.2kW, 1Ph motor)	Full rise time (with rated load, 3.0kW, 3Ph motor)
EE-62CE-42T	4200kg	1900mm	Approx.55s	Approx.45s

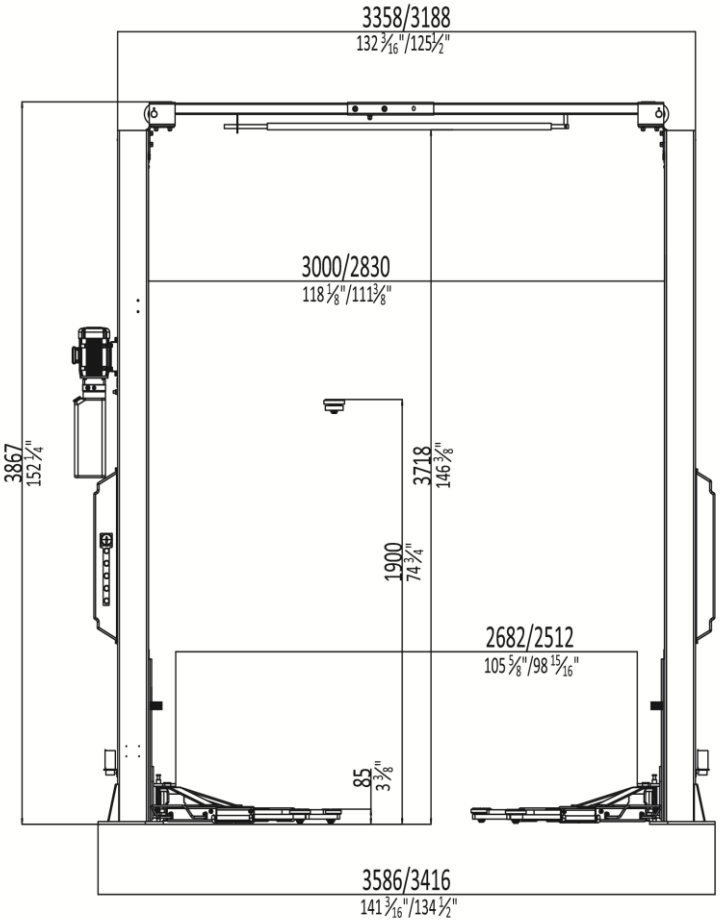
3.4 Dimensions

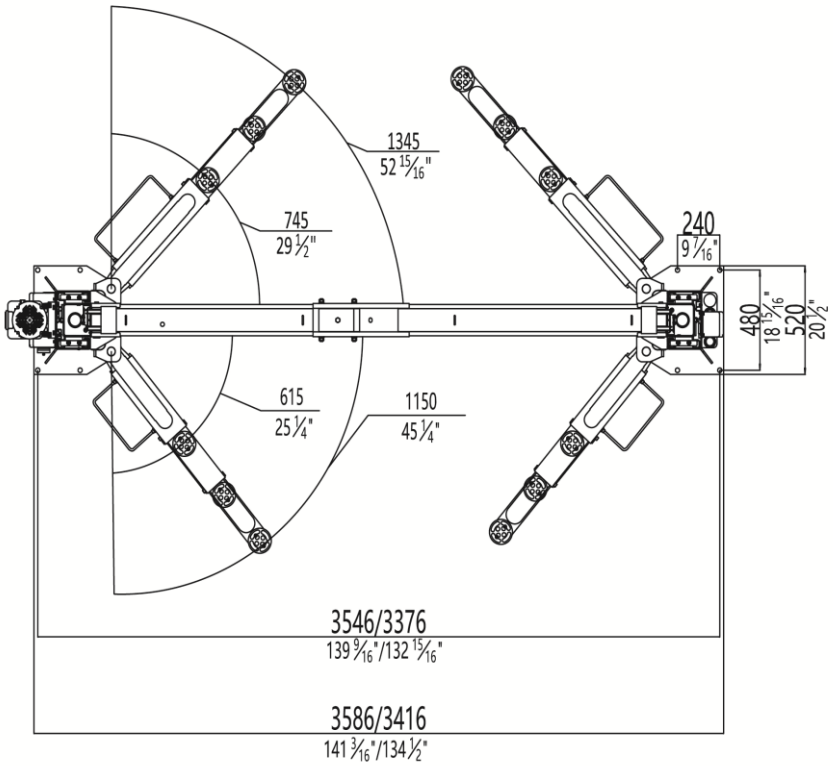
Asymmetrical installation



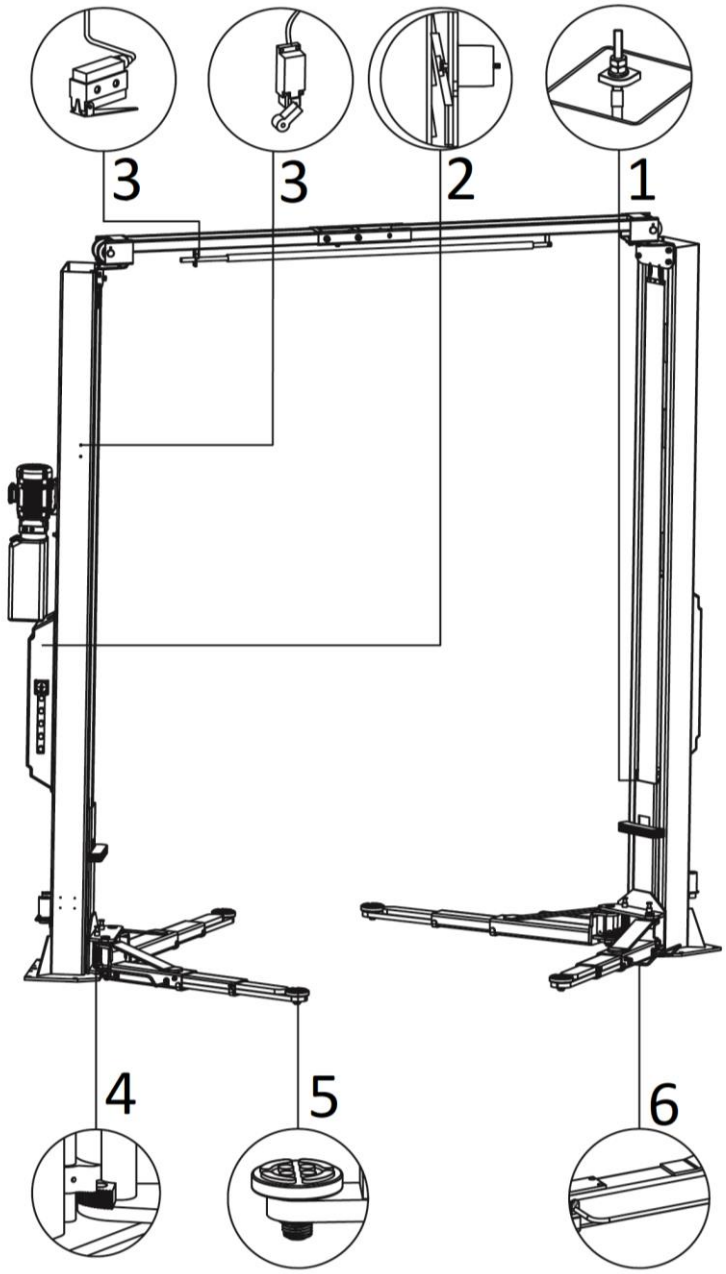


Symmetrical installation





3.5 Safety devices descriptions



Pos.	Description	Function
1	Steel rope	Ensure the synchronization for both carriages
2	Mechanical safety locking unit	Catch the carriages in case of hydraulic failure
3	Max height limit switch	Stop rising movement at maximum safety height
3	Roof protective limit switch	Stop rising in case the overhead bar is touched.
4	Arm locking unit	Ensure the lifting arms are locked and avoid being swinging during lifting process
5	Lifting pad	Safe rubber contact with the wheel base of lifted vehicle
6	Fender	Protect feet from entering into danger areas that may cause pinching or shearing

INSTALLATION INSTRUCTIONS

4.1 Preparations before installation

4.1.1 Space requirements.

Indoor installation only. 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 a qualified electrician.* Requirements for power supply cable of the installation site: at least 2.5mm^2 wire core for 3Ph power and 4.0mm^2 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.
- Foundations preparations (see Annex 1, floor plan)

To ensure stability and safety under load, the lift shall be installed with the base frame being in direct and firm contact with the concrete foundation. Don't attempt to fix the base frame directly onto floor with ceramic and other decorated surfaces otherwise you put the lift into a very dangerous situation.

C25 concrete foundation with a minimum thickness of 200mm.

Surface under the base plates: Horizontal and even (Gradients max. 0.5 %).

Newly built concrete ground must be older than 20days.

4.1.3 Tools and equipment needed for installation

Tool name	Specification	Qty
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
Levelling device	Accuracy: 1mm	1
Hammer	10 pounds	1
Truck lift	Capacity more than1000kg	1
Torque spanner	MD400	1

4.2 Installation attentions

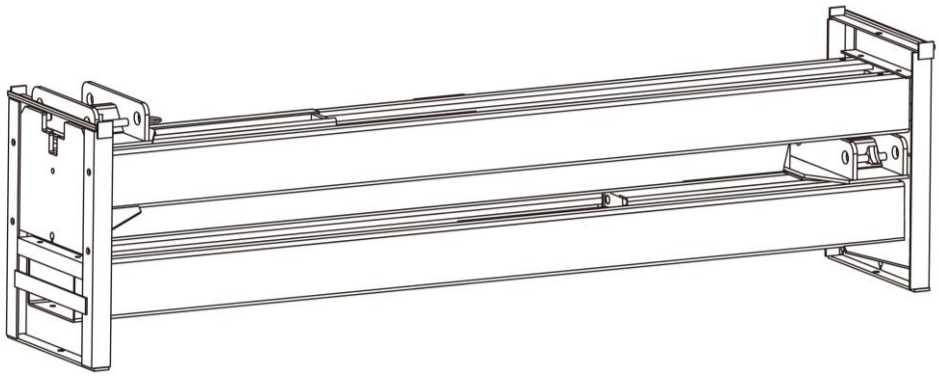
4.2.1 Tighten all hydraulic and electrical connections.

4.2.2 Tighten all screws, nuts and bolts.

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

4.3 General Installation Steps

ONLY TRAINED AND QUALIFIED INSTALLERS CAN PERFORM LIFT INSTALLATION DUTIES.



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

Step 2: Firstly, put something supporter between the two posts or suspend one of the posts by a forklift and then remove the bolts from the packing frame.

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 from the packing frame.

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 the crossbeam and install the car roof protection rod.

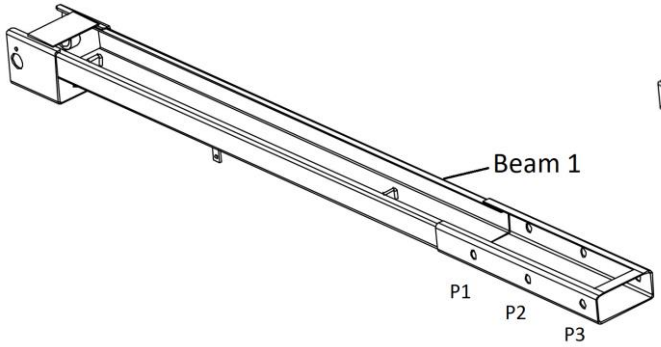
Connect the overhead crossbeams and fix the roof protection rod.

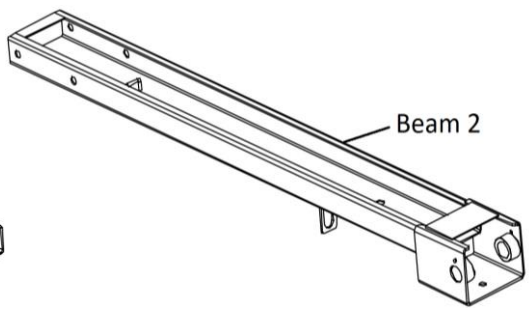
Connect beam 1 and beam 2 .

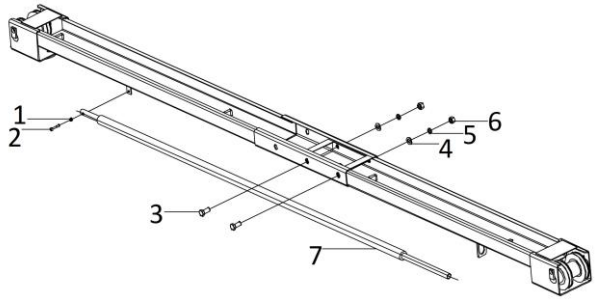
The total length of the beam can be adjustable to adapt to the space where the lift is to be installed.

Tighten beam 2 with beam 1 at position P2 and P3 to fit wider installation.

Tighten beam 2 with beam 1 at position p1 and p2 to fit narrower installation.







*1.Hex socket cylinder head screw M6*35*

2.Locking nut M6

*3.Hex head full swivel screw M14*30*

4.Flat washer M14

5.Spring washer M14

6.Hex nut M14

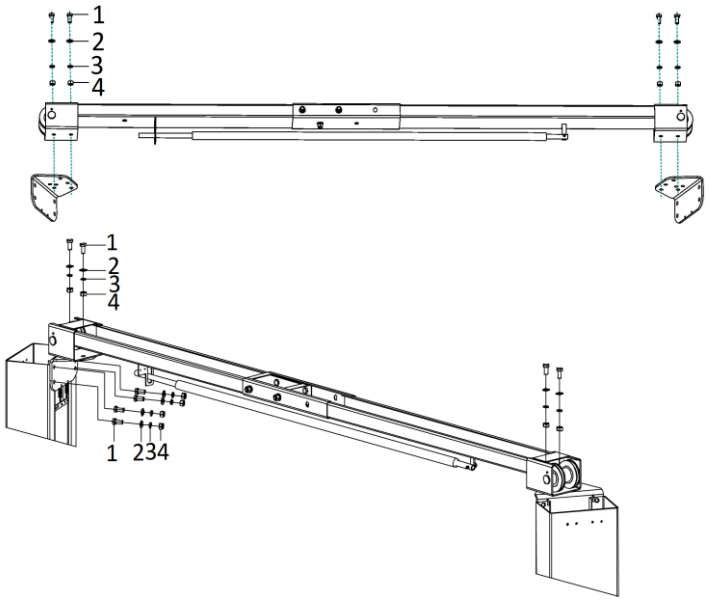
7.Car roof protection rod

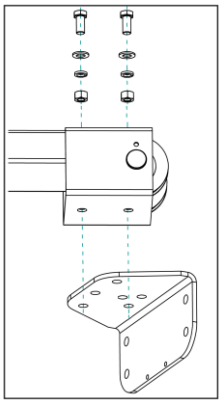
Step 6: Install the crossbeam onto the two posts.

Make the posts face to each other and the distance between the posts equals to the length of the overhead crossbeam.

Tighten the beam with the posts using hex head full swivel screws.

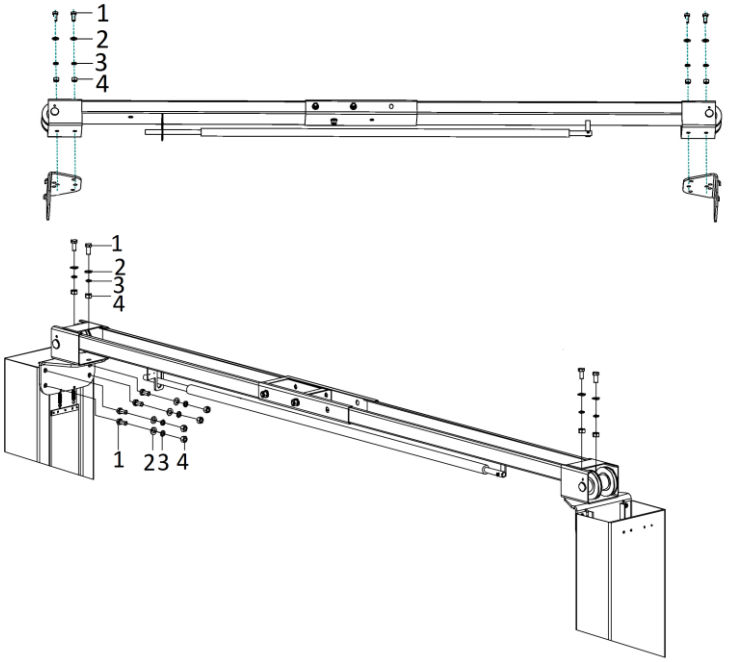
Asymmetrical installation

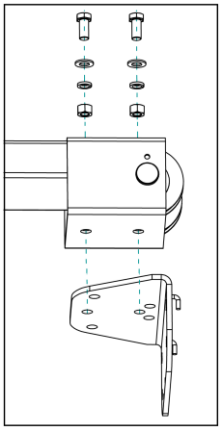




1. *Hex head full swivel screw M14*30*
2. *Flat washer M14*
3. *Spring washer M14*
4. *Hex nut M14*

Symmetrical installation





1. *Hex head full swivel screw M14*30*
2. *Flat washer M14*
3. *Spring washer M14*
4. *Hex nut M14*

Step 7: Erect and secure the post.

1. Make the posts face to each other and the distance between the posts equals to the length of the base plate. Use proper means to erect the post.

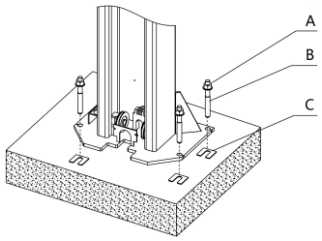
2. Use suitable means to raise the lifting carriage to the first latching position. All the mounting holes in the base plate are then accessible. Make sure the locking pawl is engaged.

3. Check and align the position of the base plates again.

4. Drill the mounting holes. Remove the drilling dust from the hole.

5. Use a spirit level to check the vertical alignment of the posts. If necessary, place equalizing plates under the base plates.

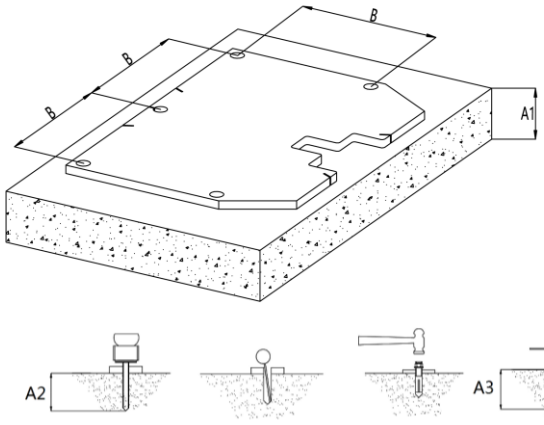
6. Tighten the nuts. **Torque: 80-100Nm.**

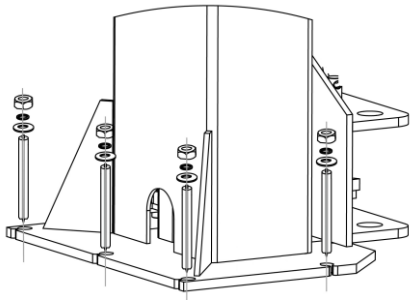


A. *Nut*

B. *Expansion anchoring bolt*

C. *Equalizing* plate

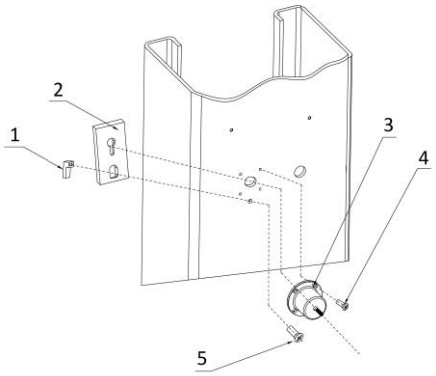




Anchoring bolt	A1 (foundation thickness)	A2 (drilling depth)	A3 (anchoring depth)	B	C
M18x160	≥200mm	130mm	105mm	240mm	≤55mm

Step 8: Install the mechanical locking unit.

Fix four safety locking plates and electromagnets with two of them on each post.



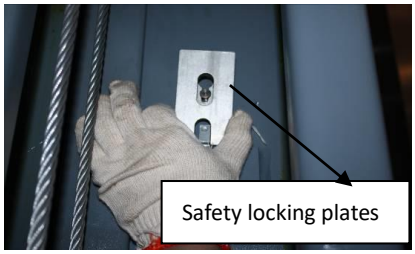
1. Orientation block

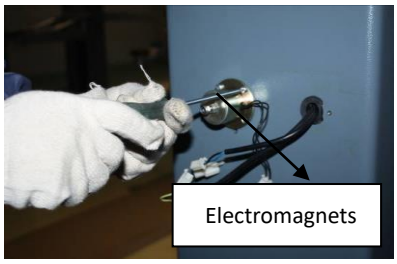
2. Safety locking plate

3. Electromagnet

4. Cross socket cap head screw M6x12

5. Cross socket cap head screw M6x16





Step 9: Connect steel ropes.

1. Route and fix according to the following diagram of steel rope connection.

2. Use suitable means to raise carriages at both sides to the first latching point. Ensure the both carriages are locked.

3. After the rope being fixed, adjust and make the cables at both sides be with the same tension. (This could be judged by the sound caused by mechanical safety locking system during lifting process.)

4. Grease with No.1 lithium grease (It is a must.)

5. Tighten both ropes at both lower holders reserved in the carriage for wider installation. (see fig.1)

Tighten both ropes at both upper holders reserved in the carriage for narrower installation.(see fig.2)

Fig.1 : Wider installation

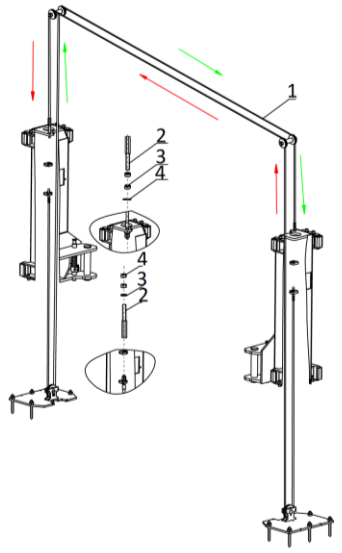
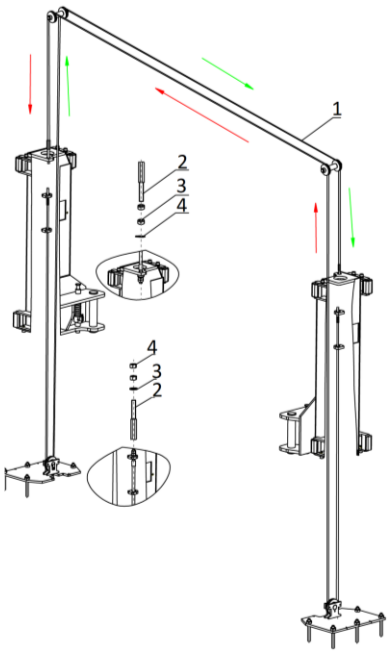


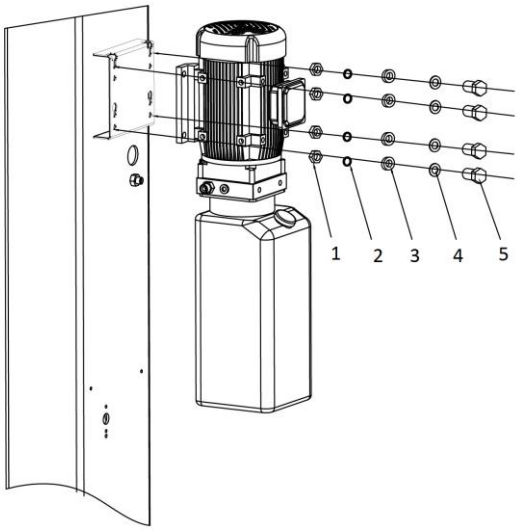
Fig.2 : Narrower installation



Step 10: Install the hydraulic system.

Attention: Do not contaminate the hydraulic system when do the connection.

1. Mount the power unit onto the power side post.



1.Hex hut M10

2.Spring washer M10

3.Flat washer M10

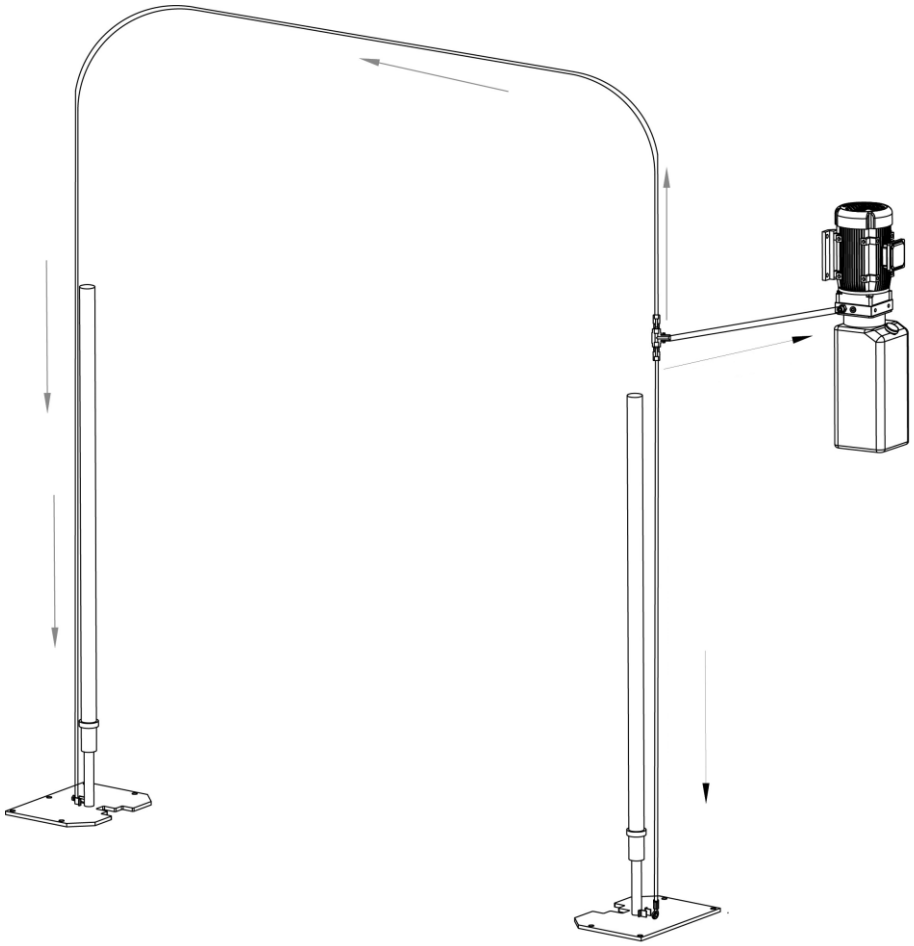
4.Anti-shock pad

5.Hex head full swivel screw M10x35

2. Connect oil hoses according to the following diagram.

Don't let any solid substance go into the hydraulic line.

Ensure the connectors are tightened against leakage.

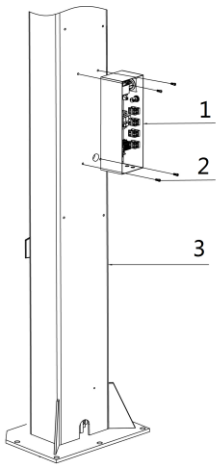


Step 11: Install the electrical system.

Refer to electrical connection diagram before making the connection.

Attention: electrical system connection must be done by qualified electricians.

1. Mount the control box on to the power side post.



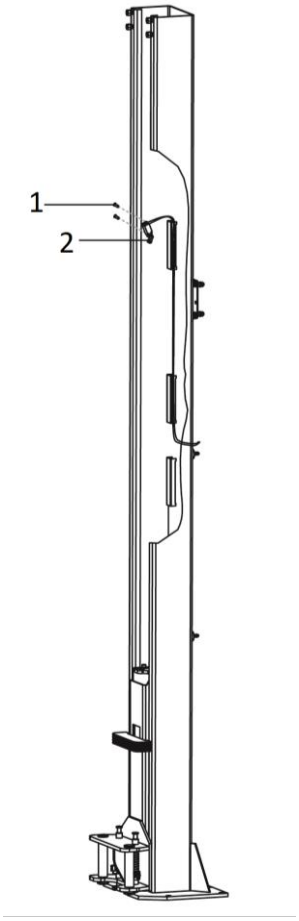
1.Control box

2.Hex socket cylinder head screw M6x10

3.Post

2. Fix the limit switch onto the inside surface of the power side post.

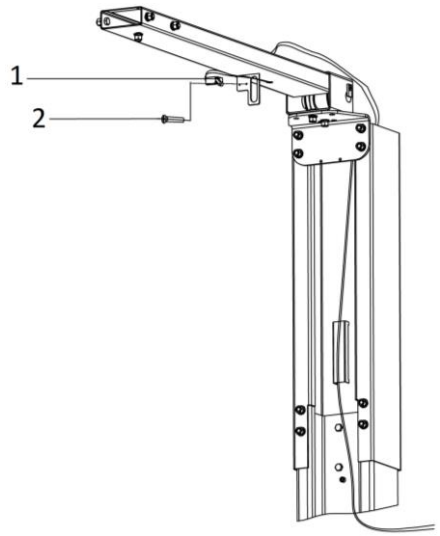
Connect the wire of limit switch with the terminals reserved in the control box.



*1.Cross socket flat head screw M5*10*

2.Limit switch TZ8108

3.Connect the limit switch fixed at the crossbeam.



1.Cross socket flat head screw M4x25

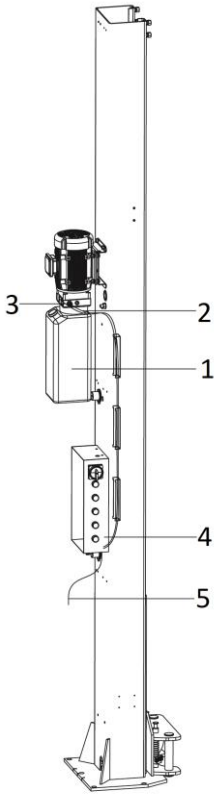
2.Limit switch D4MC1000

4. Connect quick connectors between electromagnets.

Quick connector

Adjustable bolt

5. Connect the wire of solenoid valve and motor.



1.Power unit

2.Motor wire

3.Solenoid valve wire

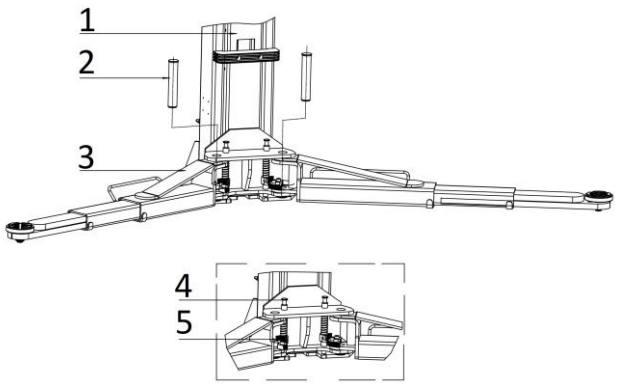
4.Control box

5.Power supply wire

Step 12: Install lifting arms.

Connect the lifting arm and the carriage using pin shaft. Ensure the arm locks can engage and release effectively.

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



1. *Carriage*
2. *Pin shaft*
3. *Swing arm*
4. *Pulling rod*
5. *Arm locking unit*

Step 13: Fill with hydraulic oil.

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

Lift must be lowered till the bottom before changing or adding hydraulic oil

Prepare 10 liters of anti-abrasion hydraulic oil. The level of oil shall reach the tippets volume mark of the tank.

After bleeding the hydraulic system, add more oil after running the lift for several cycles until the lift can rise to the maximum lifting height.

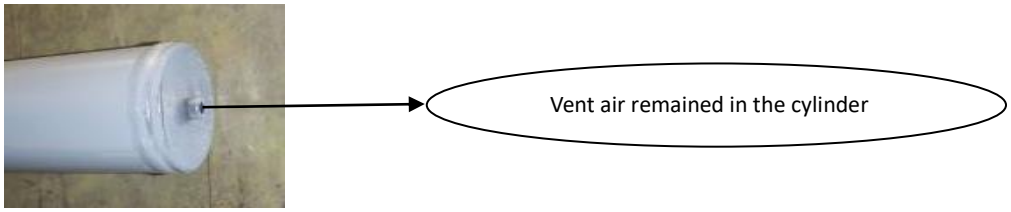
It is suggested to use HM NO.46 hydraulic oil. When average temperature of the location is below 10℃, use HM NO.32 hydraulic oil. Change the oil 6 months after initial use and change once per year thereafter.

Step 14: 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

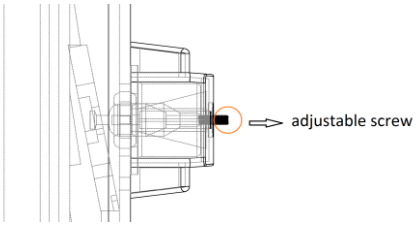
Vent air remained the oil cylinder. Loosen the nut on top of the oil cylinder and slightly press the UP button until oil gets out. Screw the nut tight thereafter.



After bleeding the hydraulic system, fluid level in power unit reservoir may be down. Add more fluid if necessary to raise lift to full height. It is only necessary to add fluid to raise lift to full height.

Check the mechanical safety locking system

Check if mechanical locks can be well engaged or released in the running process. Adjust by screwing the screw as showed in the following drawing in case the locks do not work well.



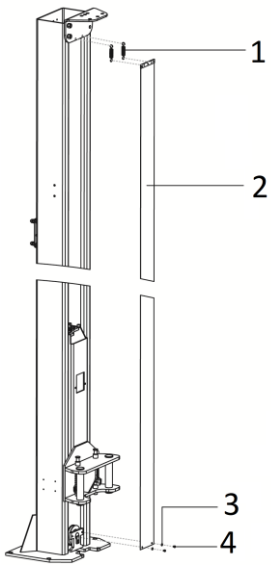
Check the synchronization of lifting carriages.

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

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

<u>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.</u>

Step 15: Fix the two protective column curtains and two covers for electromagnets.

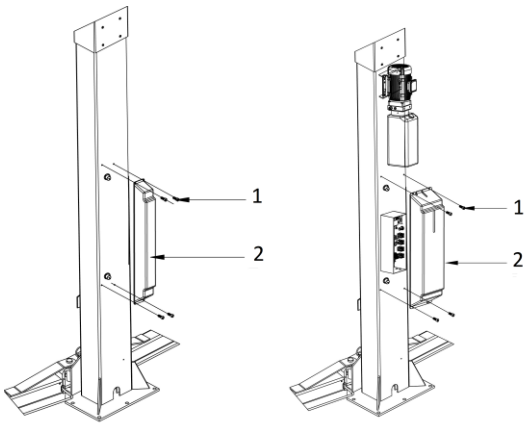


1. Spring

2. Protective column curtain

3. Flat washer M6

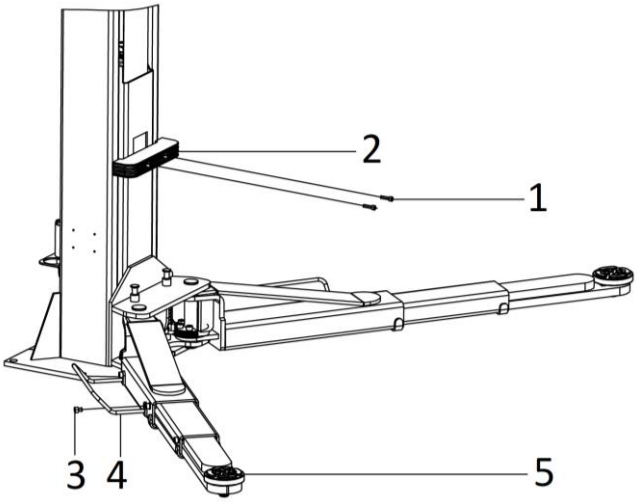
4. Cross socket cap head screw M6x8



1.Hex socket screw M6x12

2. Cover

Step 16: Fix door-opening protection pads, feet protection fenders and lifting trays.



*1. Hex socket cylinder head screw M8*30*

2.Door protection pad

*3.Hex socket cylinder head screw M10*12*

4.Feet protection fender

5.Lifting tray

4.4 Items to be checked after installation.

S/N	Check items	YES	NO
1	Screw torque of expansion bolts : 80-100Nm;	√	
2	Rising speed ≥20mm/s;	√	
3	Noise with rated load ≤75dB(A);	√	
4	Grounding resistance: not bigger than 4Ω;	√	
5	Height difference of the two carriages ≤5mm;	√	
6	Mechanical locks are robust and synchronized when running with rated load ;	√	
7	All control buttons work as “hold to run”.	√	
8	The limit switches work well.	√	
9	The grounding wire is connected.	√	
10	The carriage rises and lowers smoothly.	√	
11	There is no abnormal noise when running with load.	√	
12	There is no oil leakage when running with load.	√	
13	The expansion bolts, nuts or circlips are well secured or tightened.	√	
14	The max lifting height can be reached.	√	
15	All safety advices, name plate and logos are clear.	√	

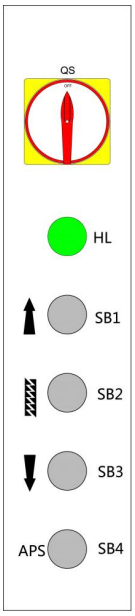
OPERATION INSTRUCTIONS

5.1 Precautions

- ONLY authorized persons are permitted in the lift area.
- Do not try to raise the vehicle with excessive length or width. Otherwise there is risk of vehicle falling from lift.
- Inspect the space above and below the load and the loading carrying devices. It shall be free of obstructions before operating.
- Before raising operation, run the lift without load for a complete cycle to ensure it is in good condition.
- Before lifting the vehicle and during all operations on the vehicle, make sure that it is properly stopped by the hand brake.
- Check the vehicle after raising a short distance to ensure that it is correctly and safely positioned.
- It is forbidden for people to stand in the field of motion during raising or lowering movement.
- The load carrying device shall be observed by the operator throughout the motion of the lift.
- Engage the safety locking device before entering under the raised vehicle.
- Avoid excessive rocking of vehicle while on the lift.
- Always use safety stands when moving or installing heavy components.
- Do not climb onto the load or load carrying device when they are raised.

5.2 Operation instructions

To avoid personal injury and 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.



Pos.	Descriptions	Function
QS	Power switch	Control main power
HL	Power indicator	Show if electricity is connected
SB1	UP button	Control the rising movement
SB2	Safety lock button	Engage the mechanical safety lock
SB3	DOWN button	Control the lowering movement
SB4	APS button	Push APS button to lower the carriage directly, on condition that the lock is not engaged.

Only one operator is allowed to work around the vehicle lift.

Always engage the safety locking mechanism before any operation on the lifted vehicle.

Do not make any operation on the lifted vehicle at a height under the first latching position (less than 500mm).

Never attempt to lower the lifted vehicle to the bottom when any of its wheel is removed unless you are assured that no damage will occur.

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 adapters 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 height excepted, push the “Safety Lock” button to engage the mechanical safety locking unit. Check again the stability and then perform maintenance or repair work underneath.

Lower the lift

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

1. Push the “DOWN” button on the control box. Meanwhile the lifting arms automatically rise about 5CM to release the mechanical safety locking unit. After that the lift starts descending.
2. When the lift is fully lowered, position the lifting arms and adapters to provide an unobstructed exit before removing vehicle from lift area.
3. Drive the vehicle away.

APS function

In the case the mechanical locking unit is released, push APS button for direct lowering.

It enables to efficiently park the lifted vehicle at exact height which is necessary for chassis maintenance, transmission repair or changing. Without this APS system, it is hard and also time-consuming to park exactly as each time you lower the vehicle, the carriage of the lift will rise to release the mechanical safety catch.

TROUBLE SHOOTING

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

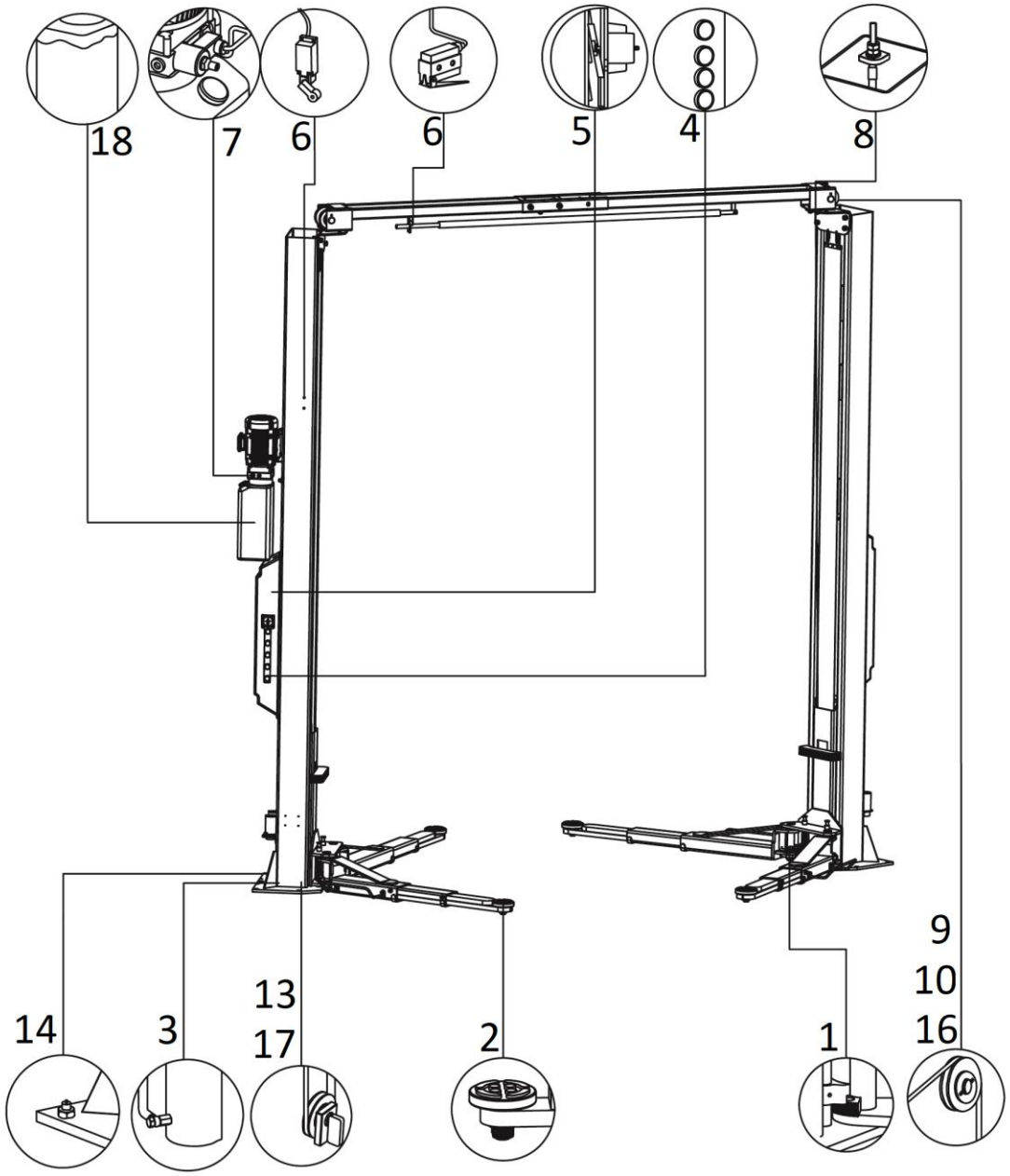
We will offer our service at the earliest time we can.

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

TROUBLES	POSSIBLE 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.
	Unloading valve fails to work well.	Clean or replace it.
	Slack steel rope	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 it.
	Dirty hydraulic oil	Change the oil.
	Jammed anti-surge valve	Clean it.
	Jammed oil hose	Replace it.
The steel rope is abraded	No grease at installation or out of lifetime	Replace it.

MAINTENANCE

Following are requirements for routine maintenance. Easy and low cost routine maintenance can ensure the lift work normally and safely. Frequency of routine maintenance is determined by working condition and frequency.



Pos.	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

Pos.	Components	Methods	Period
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 catch	Check if both mechanical catches can engage and disengage simultaneously by pushing control buttons.	Every day
6	Limit switch	Push the UP button and inspect to ensure the lifting platform stops rising when the switch is activated.	Every day
7	Unloading valve	Inspect if the valve leaks. Clean or change the valve in case of leakage.	Every day
8	Steel ropes	Check the synchronization of both carriages and adjust the tension of the rope if desynchronization.	Every day
9	Bushing of the upside pulley	Lubricate the bushing with NO.1 lithium based grease.	Every 3 months
10	Steel ropes	Lubricate the rope with NO.1 lithium based grease. It is advised to change with new steel cables every 3 years. (Not obligatory if the parts are in good condition) Stop using the lift and replace the rope immediately on condition that there are ten or more broken wires on a cable.	Every 3 months
11	Running track inside the post for carriages	Lubricate the track with NO.1 lithium based grease. No obstruction on the track.	Every 3 months
13	Bushing of the downside pulley	Lubricate the bushing with NO.1 lithium based grease.	Every 3 months
14	Expansion bolts	Check with torque spanner. For M18 bolt ,the torque is no less than 80N.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	Slacken the steel rope and dismantle the pulley assembly. Measure the abrasive clearance and change the bushing if the clearance is bigger than 0.5mm.	Every year
17	Bushing of the downside pulley	Slacken the steel rope and dismantle the pulley assembly .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

General requirements:

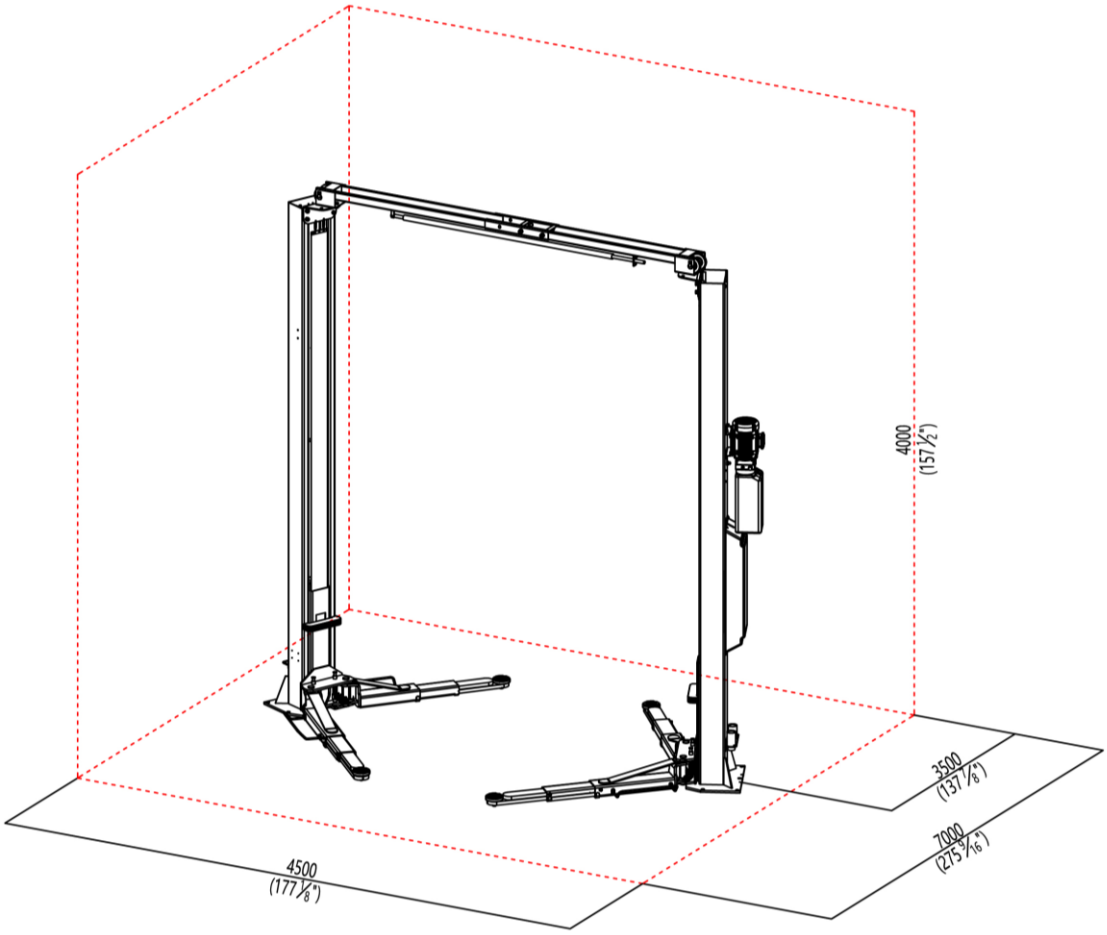
Indoor installation only. The space requirement specified in the below scheme is for a reference only. There must be sufficient space for driving and lifting vehicles and enough safety distance shall be reserved according to the regulations of the local authorities. It is advised to reserve a clearance of at least 1 meter between the lift and fixed elements (e.g. wall) in all lifting positions.

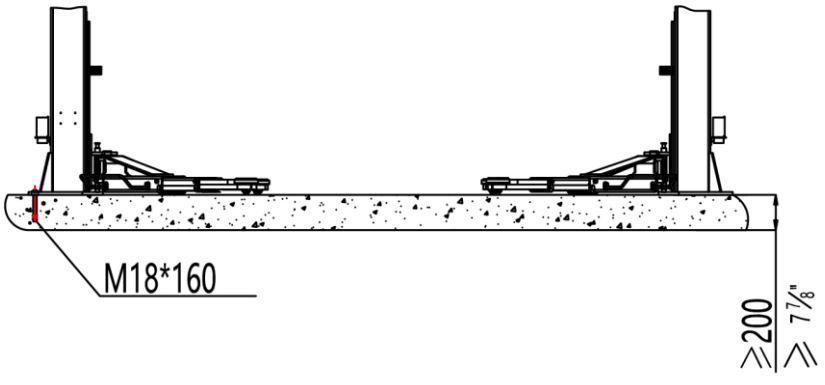
C25 concrete foundation with a minimum thickness of 200mm.

Surface under the base plate of each post: Horizontal and even (Gradients max. 0.5 %)

Newly built concrete ground must be older than 20days.

In mm.

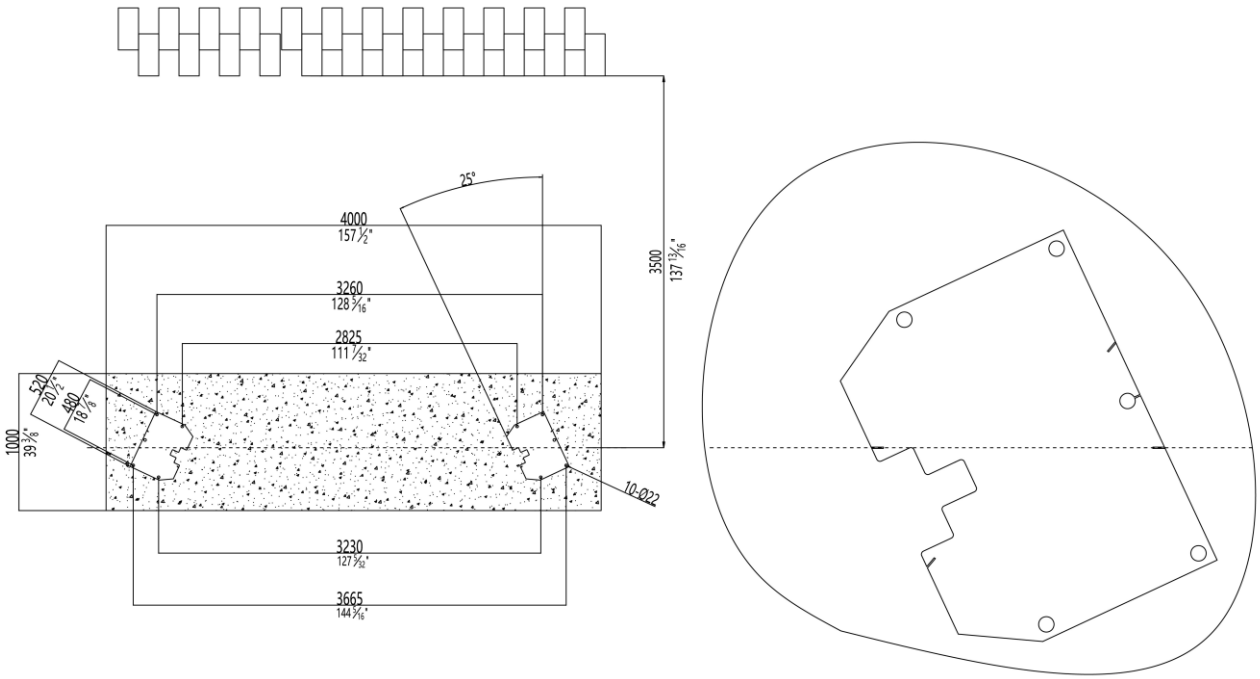




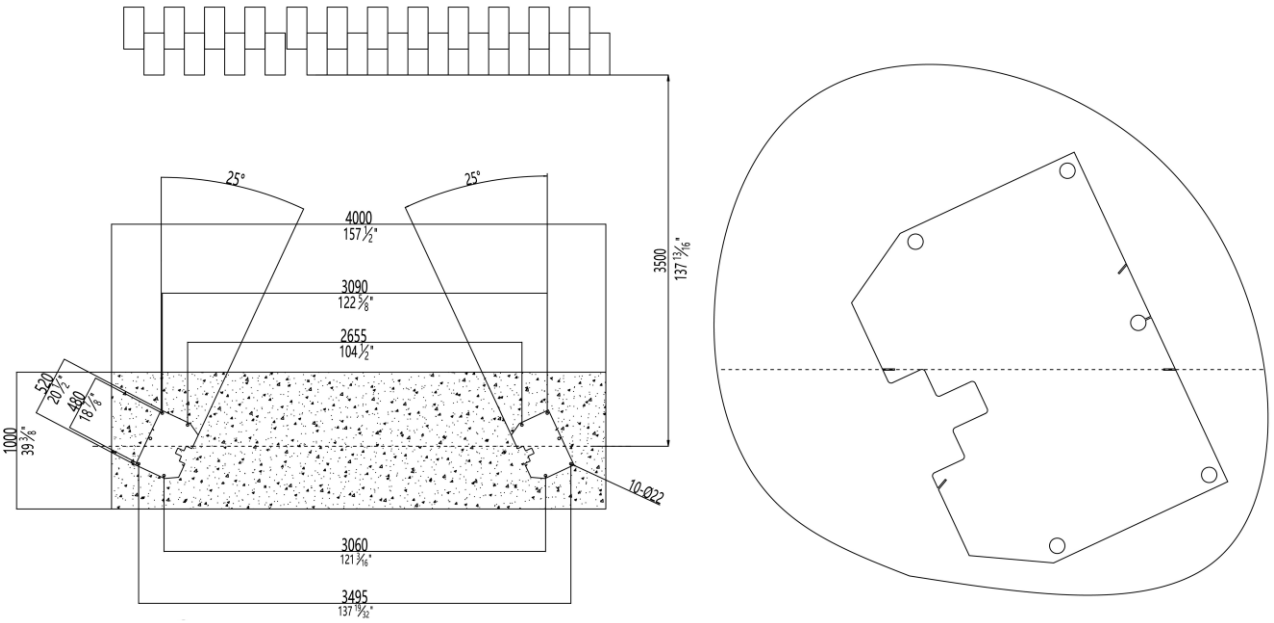
Install asymmetrically

Check the angle of the two baseplates using a straight line. The line shall go through both slots reserved on the baseplates.

1. Layout for wider installation

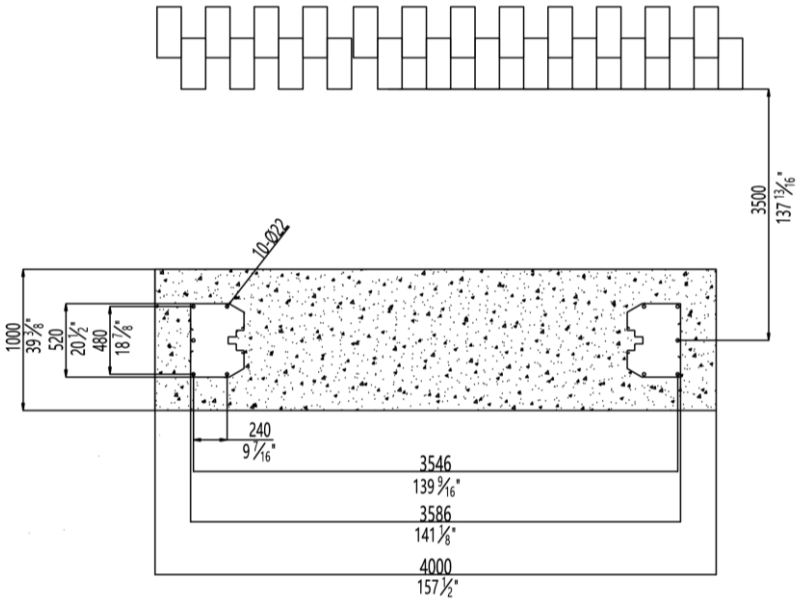


2. Layout for narrower installation

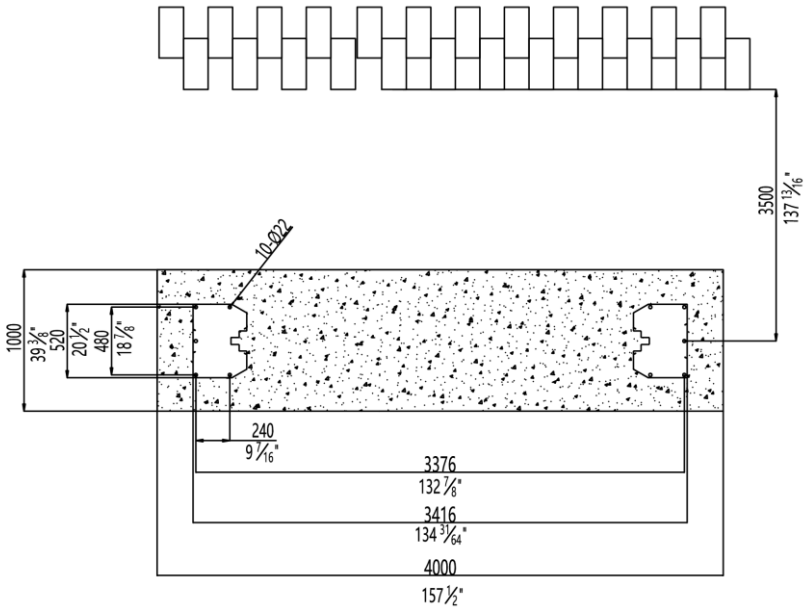


Install symmetrically

1. Layout for wider installation

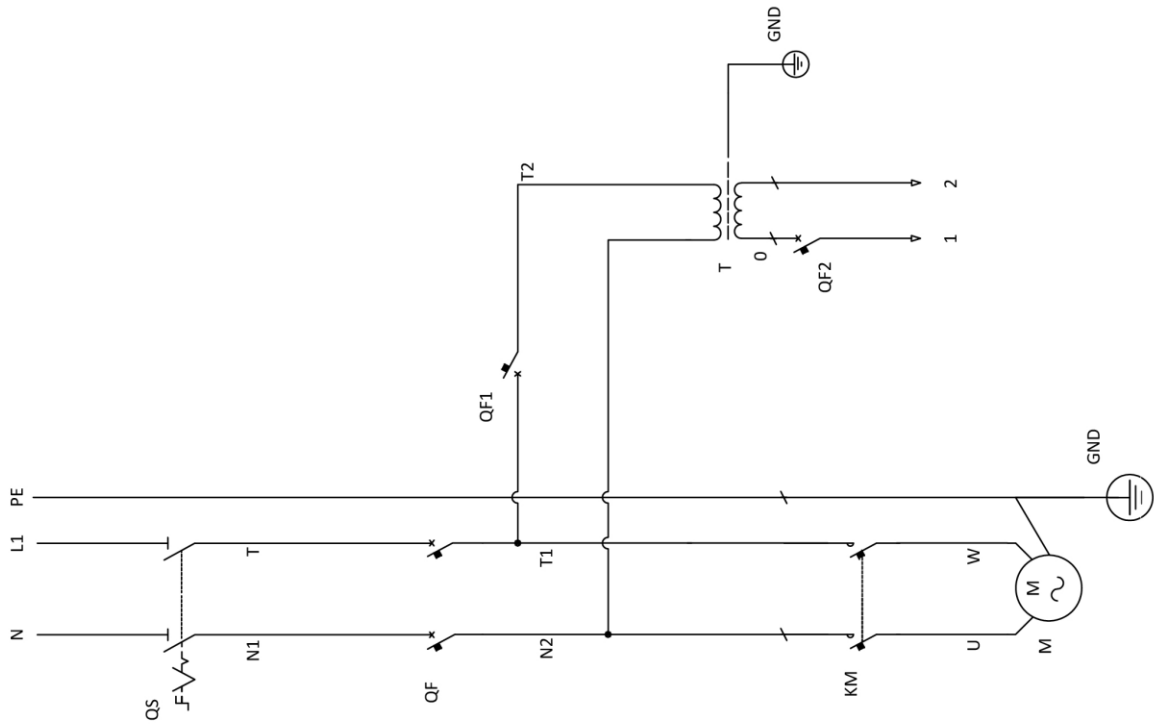


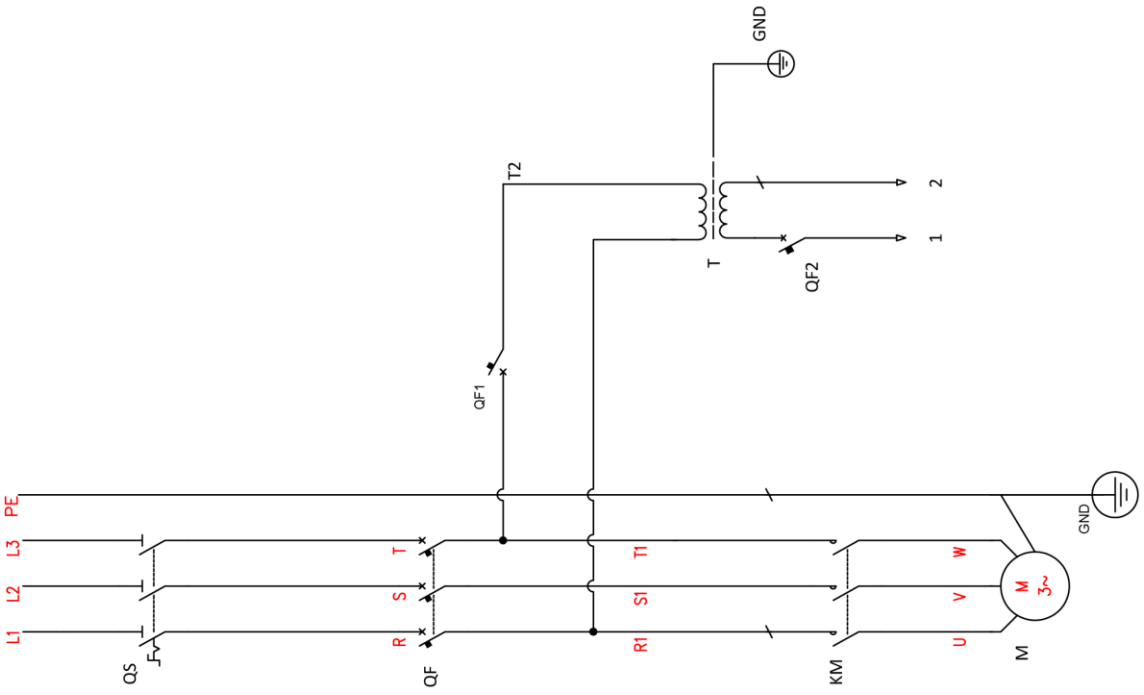
2. Layout for narrower installation

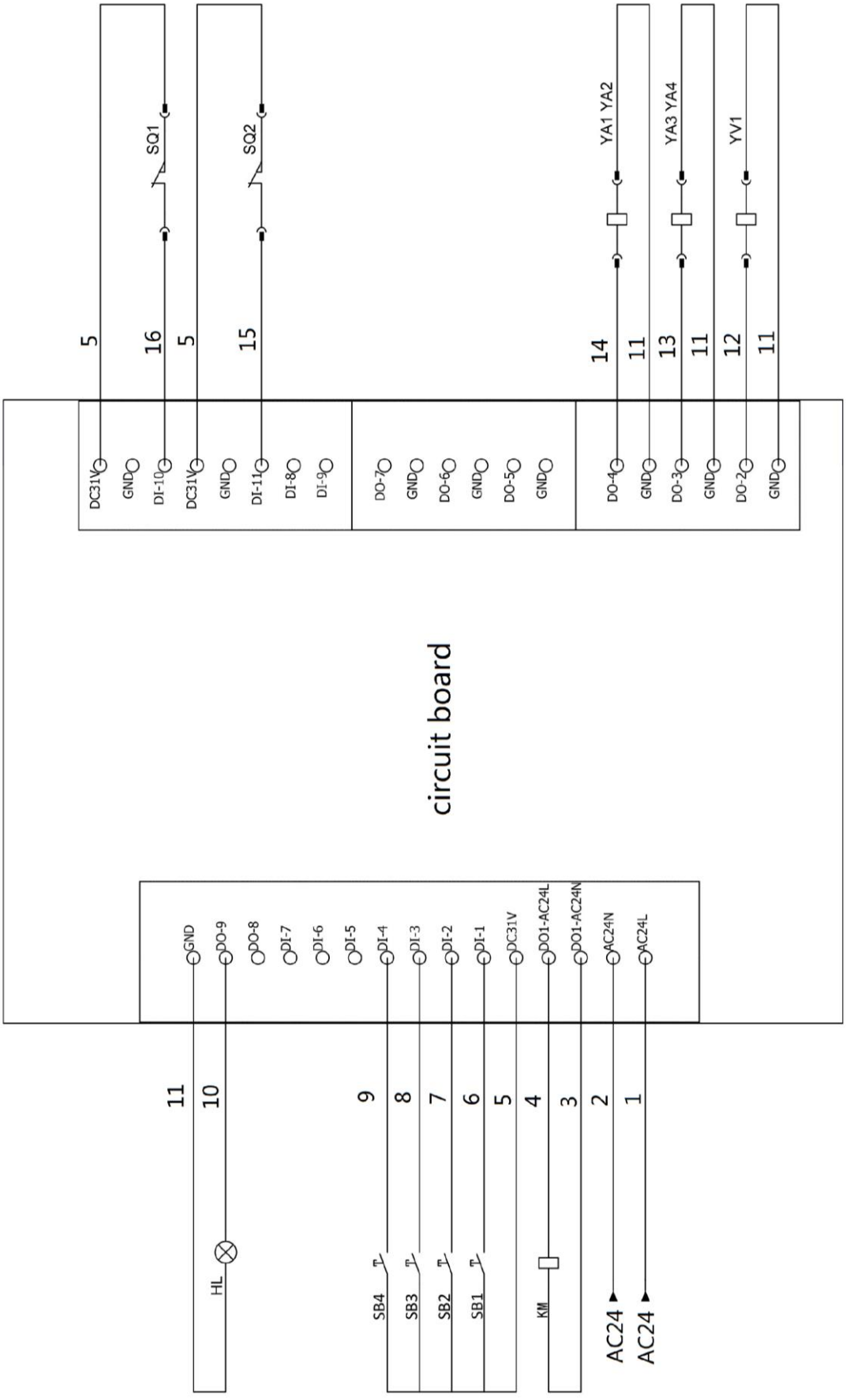


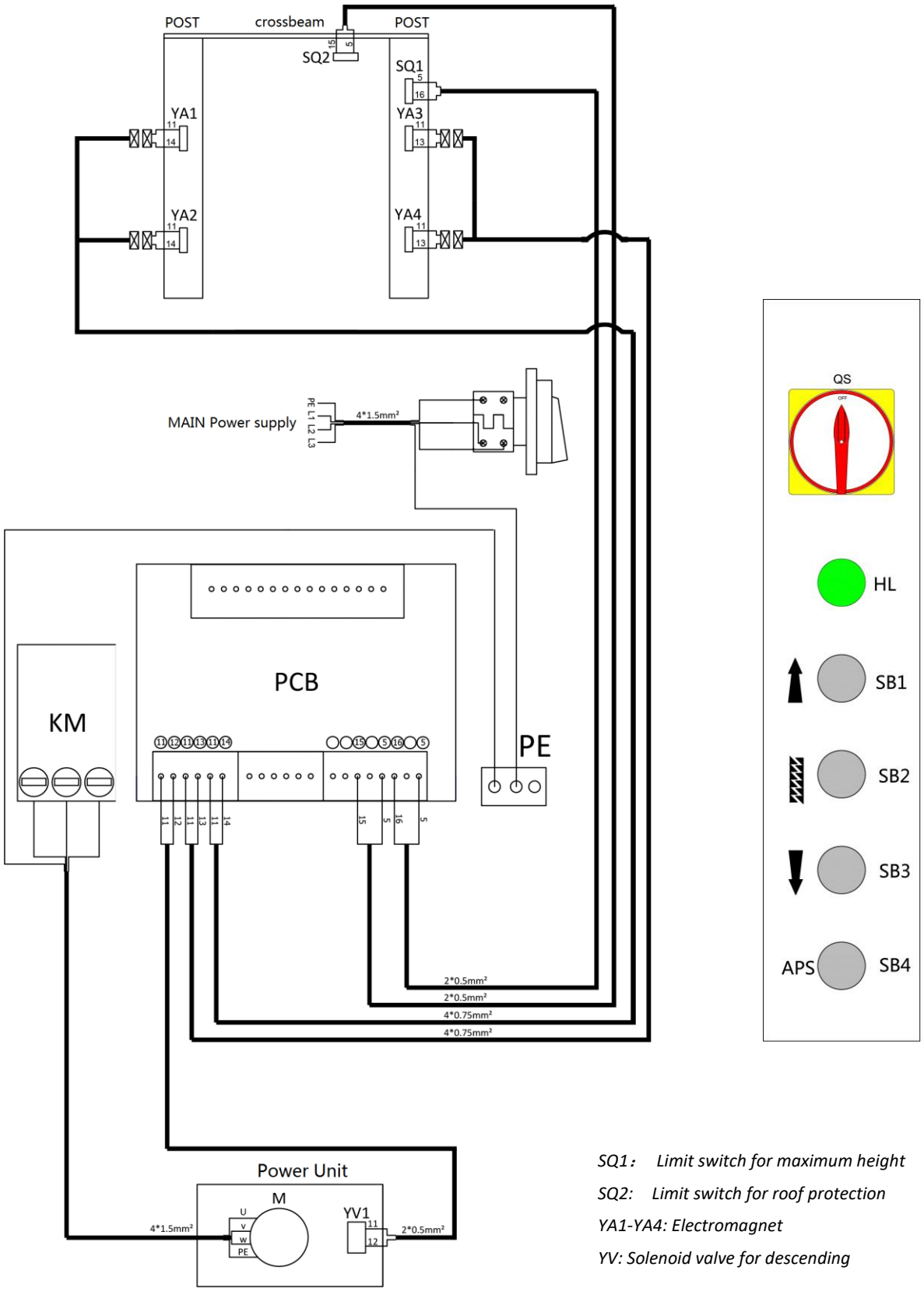
Annex 2, Electrical diagrams and parts list

(Note: For the specific requirements on voltage, the actual voltage of your lift may differ with the following diagram)






circuit board
DC31V
GND
DI-10
DC31V
GND
DI-11
DI-8
DI-9
DO-7
GND
DO-6
GND
DO-5
GND
DO-4
GND
DO-3
GND
DO-2
GND
SQ1
SQ2
YA1 YA2
YA3 YA4
YV1
5
16
5
15
14
11
13
11
12
11
GND
DO-9
DO-8
DI-7
DI-6
DI-5
DI-4
DI-3
DI-2
DI-1
DC31V
DO1-AC24L
DO1-AC24N
AC24N
AC24L
11
10
9
8
7
6
5
4
3
2
1
HL
SB4
SB3
SB2
SB1
KM
AC24
AC24



SQ1： Limit switch for maximum height

SQ2: Limit switch for roof protection

YA1-YA4: Electromagnet

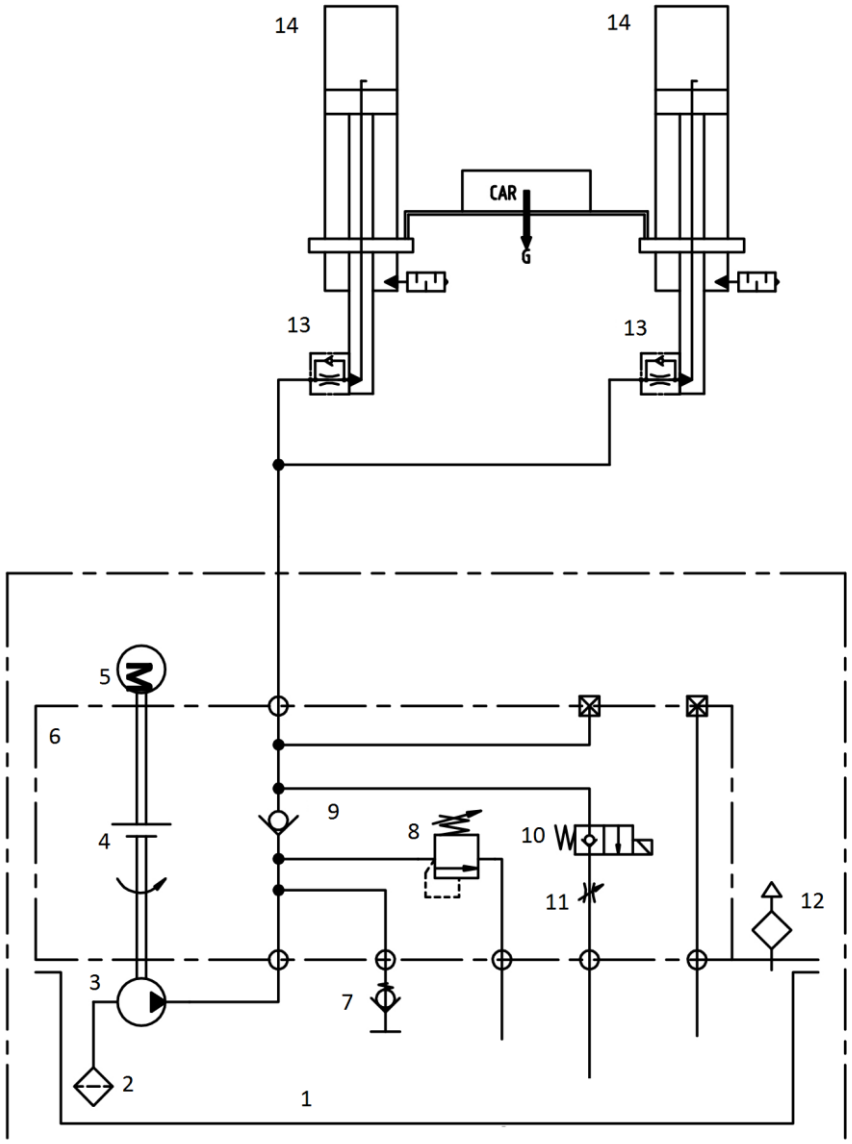
YV: Solenoid valve for descending

Supply cable	Yellow-Green	Blue	Other colors
3 wires	Earth wire	Neutral wire	Phase wire
5 wires	Earth wire	Neutral wire	Phase wire
Supply cable	**Yellow-Green**	**Other colors**	
4 wires	Earth wire	Phase wire	

Pos.	Code	Description	Qty
T	320102013	Transformer (dual 380V220V)	1
T	320102014	Transformer (dual 400V230V)	1
T	320102015	Transformer (dual 415V240V)	1
QF	320801003	Circuit breaker	1
QF1	320803003	Circuit breaker	1
QF2	320803006	Circuit breaker	1
KM	320901011	AC contactor	1
QS	320304001	Main switch	1
SB1 SB2 SB3 SB4	320401042	Button	4
SQ1	320301011	Limit switch	1
SQ2	320301002	Limit switch	1
YA1 YA2 YA3 YA4	330310005	Electromagnet	4
HL	321800001	Power indicator	1
	321301026	Circuit board	1

NOTE: For power supply of other voltages, the transformers are different.
Please check with our customers service people when order spare parts.

Annex 3, Hydraulic diagrams and parts list



1.oil tank

2.oil sucking filter

3.gear pump

4.coupling

5.motor

6.hydraulic block

7.cushion valve

8.overflow valve

9.single way valve

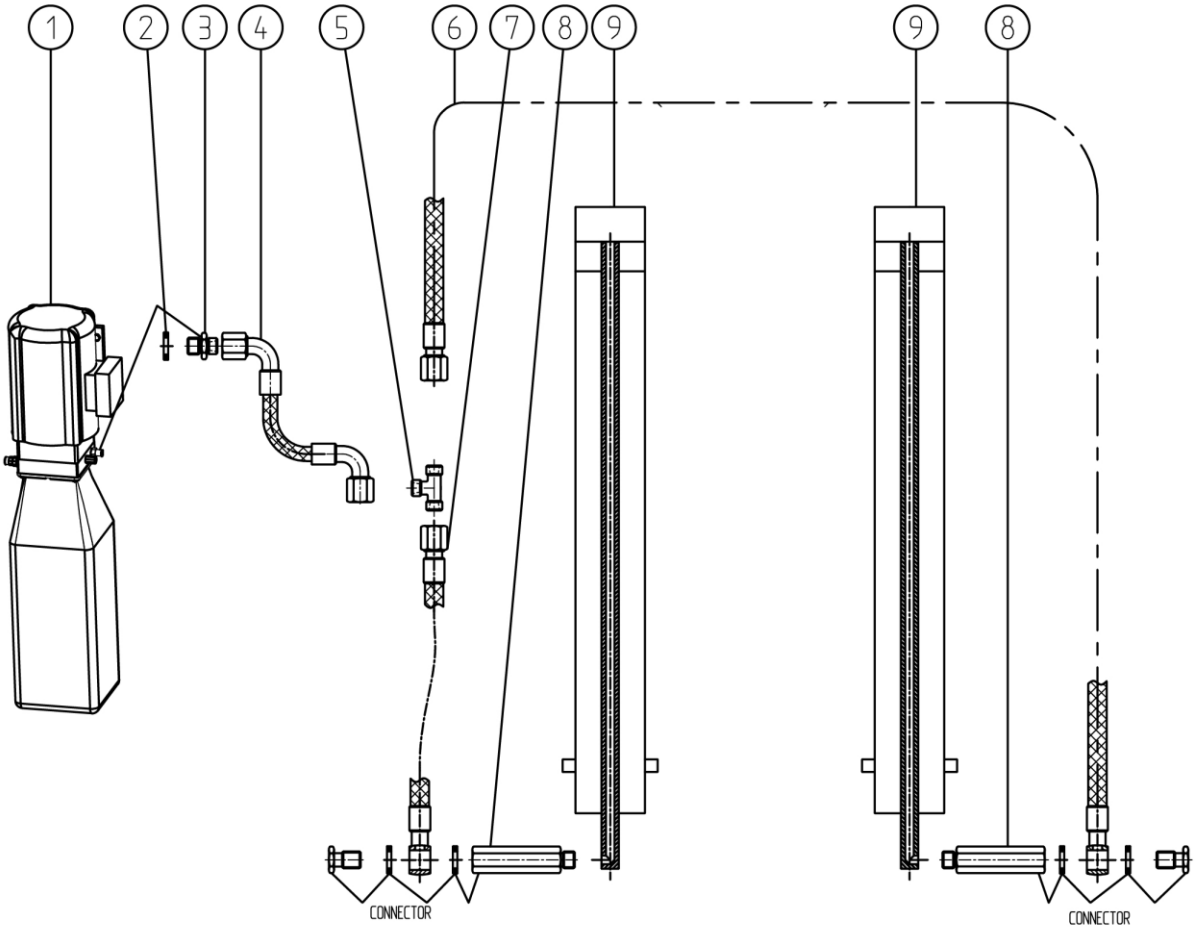
10.solenoid valve for descending

11.flow control valve

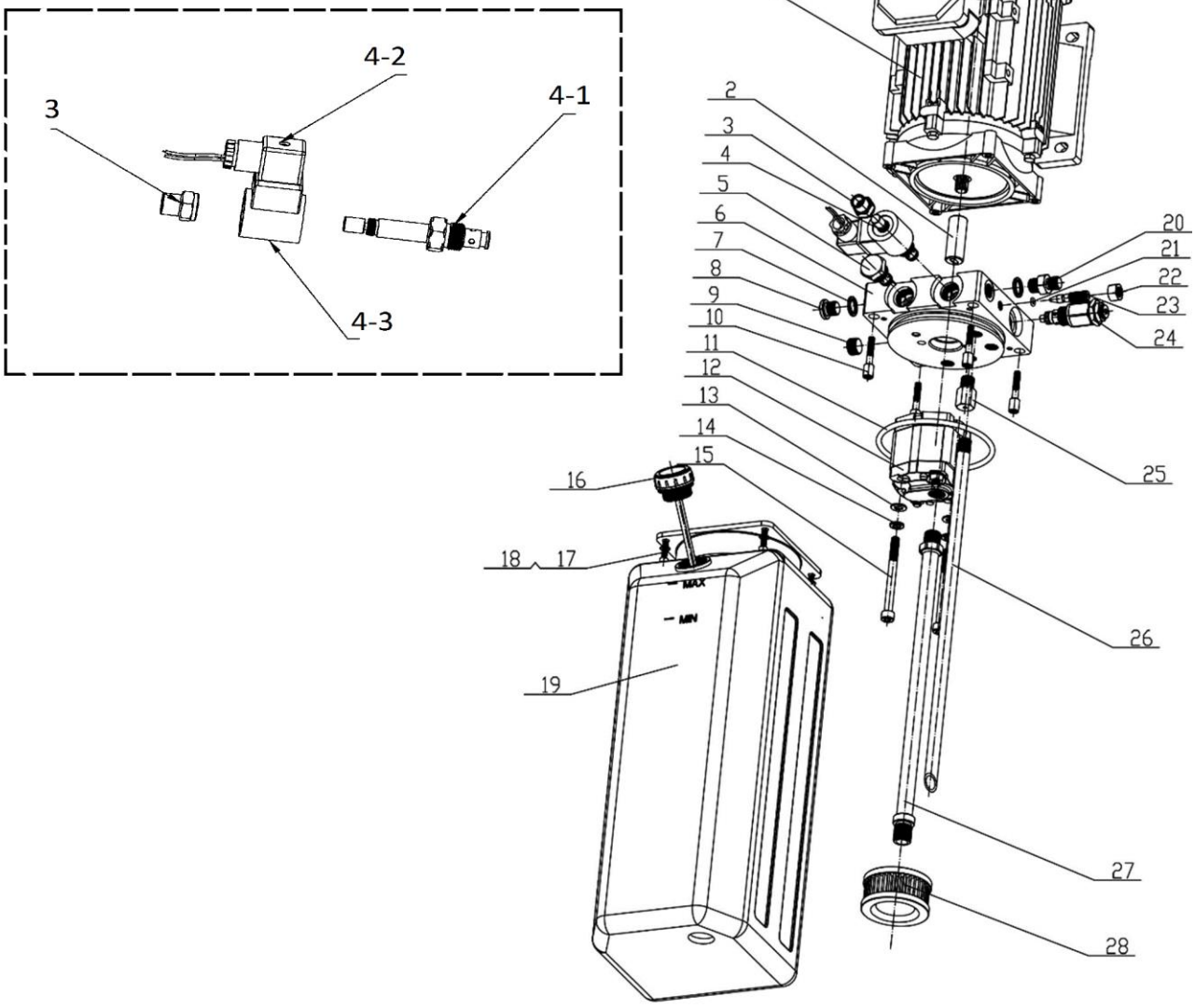
12.tank cover

13.composite connector

14.oil cylinder



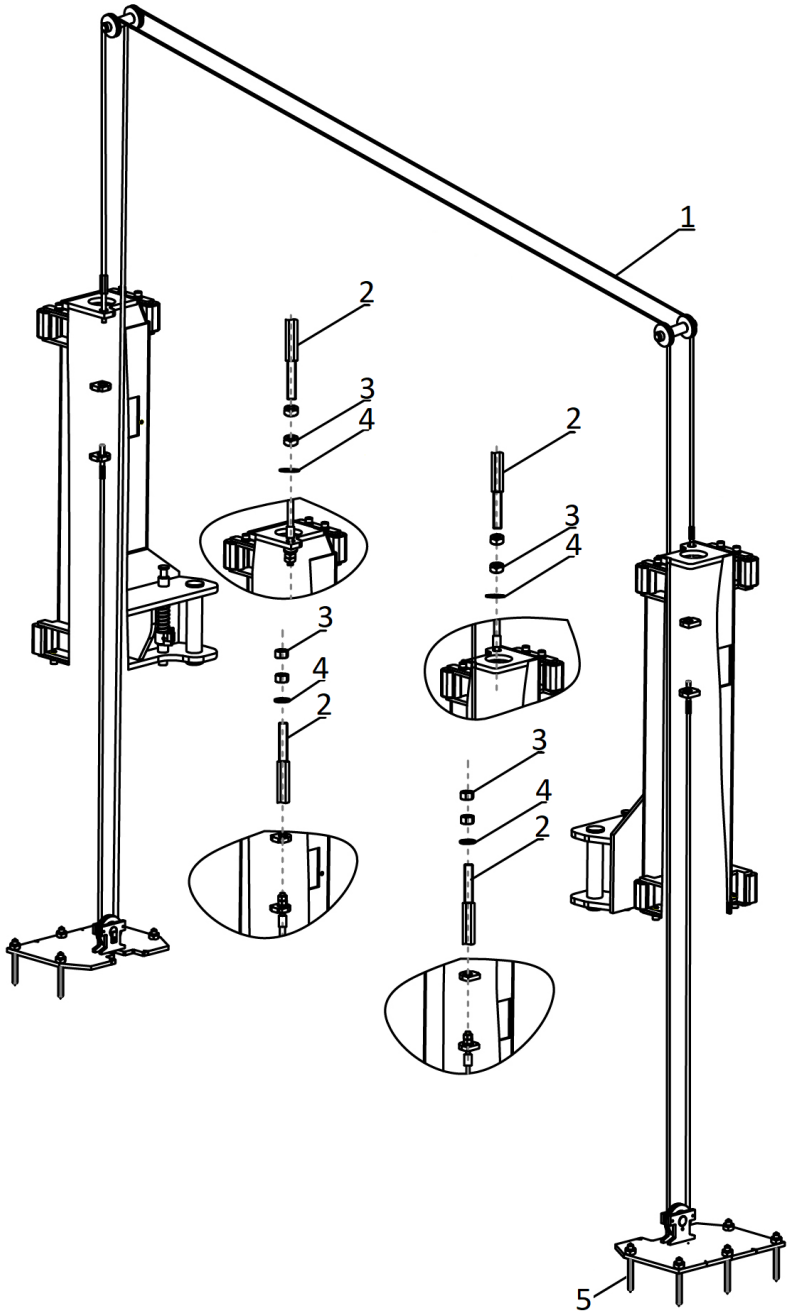
Pos.	Code	Description	Specification	Qty
1		Power unit	2.2kW /3.0kW	1
2	207103025	Composite washer	13.7*20*1.5	5
3	310101008	Shift connector	M14*1.5-G1/4 inside cone	1
4	624008046	Oil hose	Φ8.,L=320mm	1
5	615006003	Three way connector	6214E-A4-B4	1
6	624002025B	Rubber oil hose	L=8625mm	1
7	624002004B	Rubber oil hose	L=2265mm	1
8	615015003	Composite connector	6255E-A7-B7	2
9	625000013	Oil cylinder	YG5060-38-1800	2



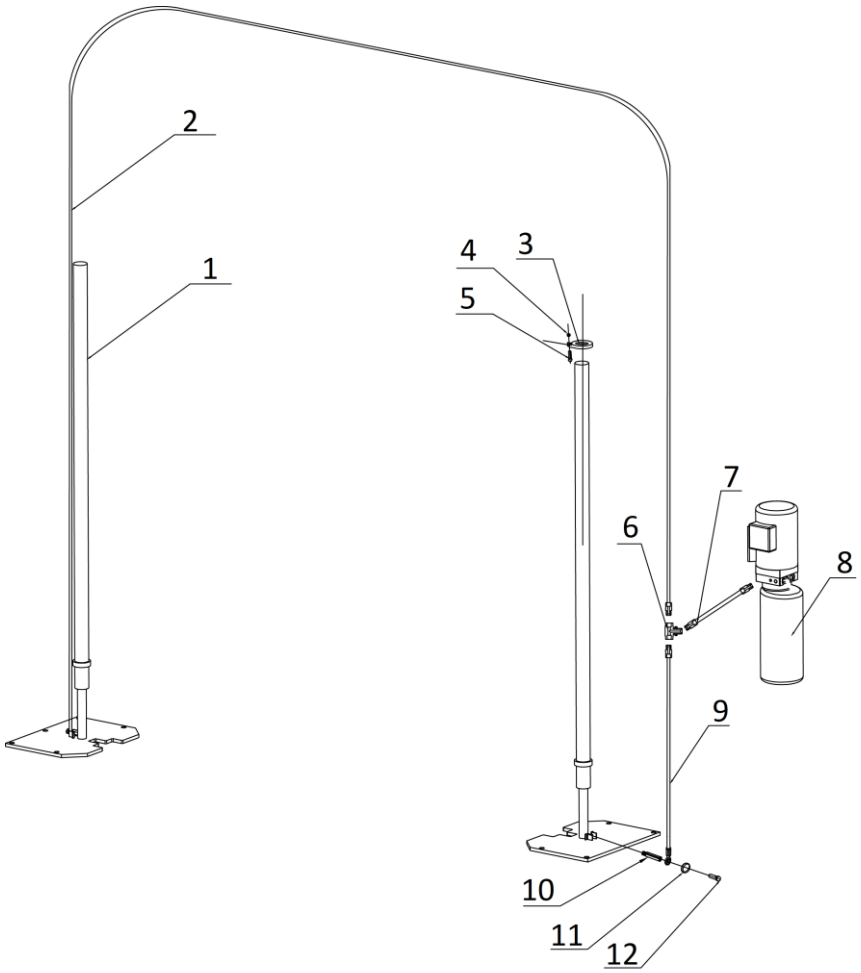
Pos.	Code	Descriptions	Specification	Qty
1	320201001	AC motor	220V-2.2KW -1PH-50HZ-2P	1
	320201002	AC motor	230V-2.2KW -1PH-50HZ-2P	1
	320201003	AC motor	240V-2.2KW -1PH-50HZ-2P	1
	320204016	AC motor	380V-3.0KW-3PH-50HZ-2P	1
	320204017	AC motor	400V-3.0KW-3PH-50HZ-2P	1
	320201011	AC motor	220V-2.2KW-1PH-60HZ-2P	1
2	330404015	Coupling	YBZ-E0.963Z0/1-02, 46mm	1
3	203204102	Locking nut	FHLM-1/2-20UNF	1
4	791150005	Solenoid valve assembly (include part No.3, 4-1,4-2 and 4-3)	DC24V	1
4-1	330311005	Valve spool	24DC(Keta)（LSV-08-2NCP-M-2H）	1
4-2	330308032	Solenoid plug	DIN43650-DC	1

Pos.	Code	Descriptions	Specification	Qty
4-3	330308031	Solenoid	LC2-0-C-2H,24VDC-	1
5	330302008	Non-return valve	YBZ-E2D3I1/1-03	1
6	330101113	Hydraulic block	LBZ-T2BK-8	1
7	207103019	Composite washer	M14	2
8	310101008	Transition connector	M14*1.5-G1/4 inside cone	1
9	210101014	Plug	Z3/8	1
10	201101100	Bolt	M6*50（NLJLD）	4
11	207101098	O-ring	109*5.3	1
12	330201005	Gear pump	CBK-F220/CBK-2.1F	1
	330201006	Gear pump	CBK-F225/CBK-2.5F	1
	330201007	Gear pump	CBK-F233	1
13	204101005	Washer	M8	4
14	204201013	Spring washer	M8	2
15	202109072	Hex socket cylinder head screw (with spring washer)	M8*85	2
16	330502013	Lid of oil tank (breather)	YBZ-BT-M30*2-B	1
17	202109144	Bolt	M5*18	4
18	204101003	Flat washer	M5	4
19	330405001	Plastic oil tank	10L	1
20	210101013	Plug	M14*1.5	1
21	207101099	O-ring	5*1.8	4
22	203102003	Hex nut (thin, 6mm)	M10*1	1
23	330305015	Flow-restrictive valve	YBZ-E2D3I1/1-11A	2
24	330304007	Relief valve	YF08-40	1
25	330301003	Buffer valve	HCF-Z1/4	1
26	330402001	Oil-returning pipe	YH-D	1
27	330401005	Oil-sucking pipe	XYGN-L293 Nylon 66, Length=293mm	1
28	330403001	Oil-sucking filter	YG-C	1

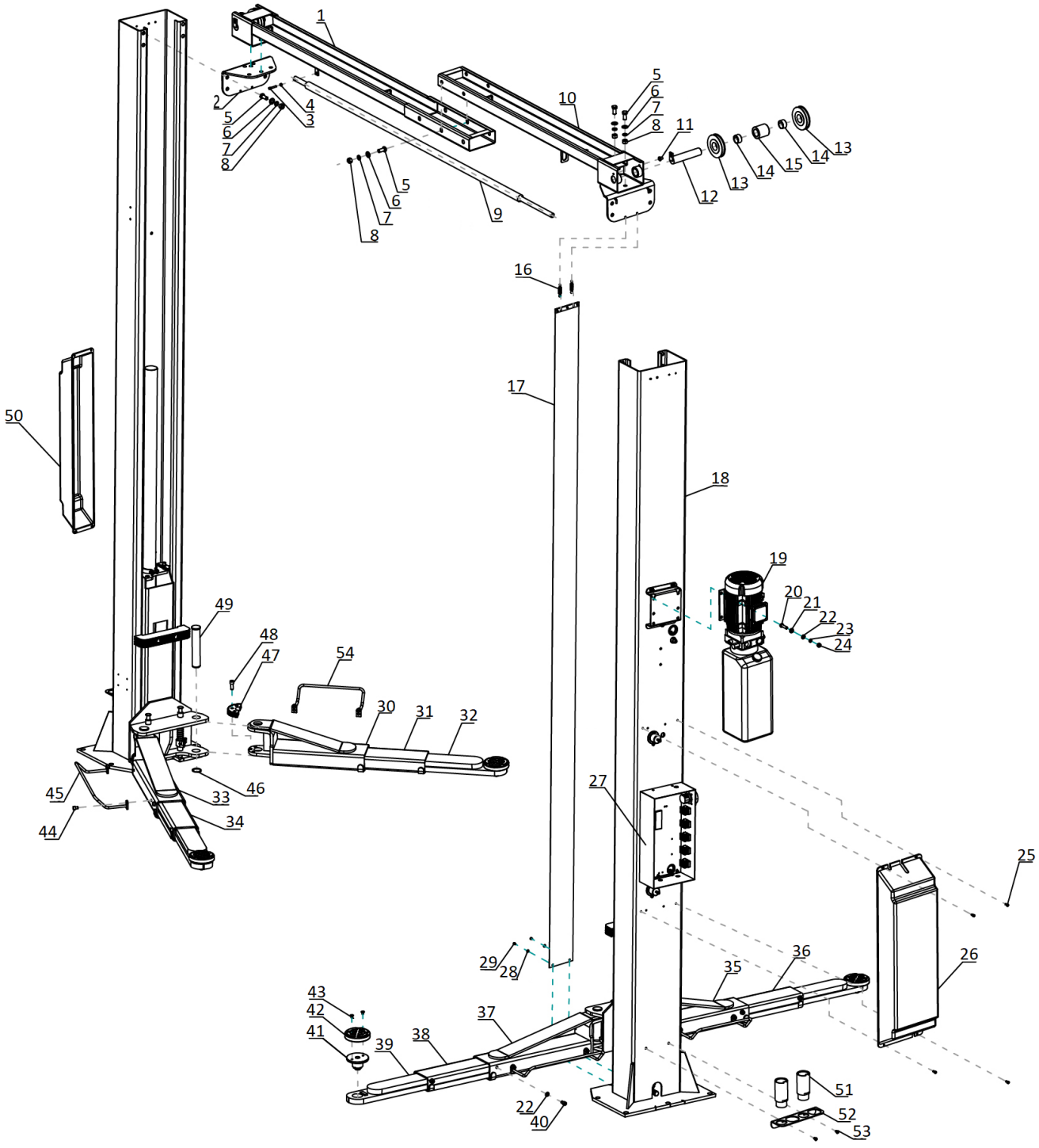
Annex 4 , Mechanically exploded drawings and parts list



Pos.	Code	Description	Specification	Qty
1	615012100B	Steel cable	38LZ-A6 L=10480MM Φ9.3	2
2	615012100B	Steel cable	38LZ-A6 L=10480MM Φ9.3	2
3	203101009	Hex nut	M16	8
4	204101009	Flat washer	M16	4
5	201201007	Expansion bolt	M18*160	10



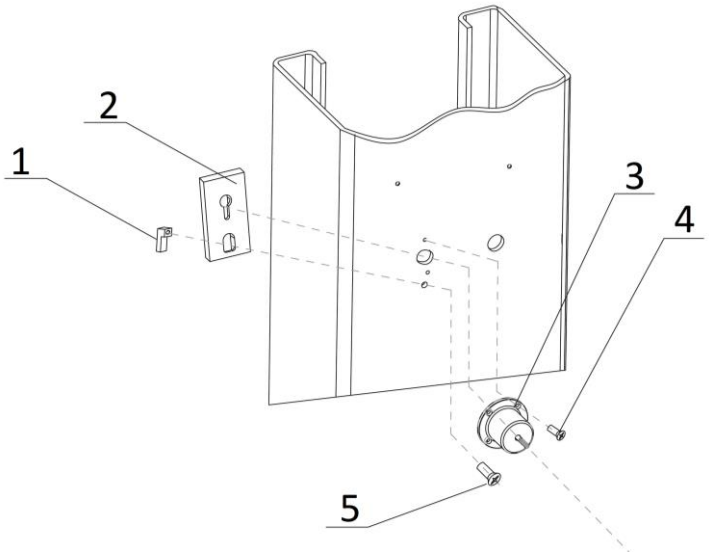
Pos.	Code	Description	Specification	Qty
1	625000013	Oil cylinder	YG5060-38-1800	2
2	624002025B	Rubber oil hose	L=8625mm	1
3	410170101B	Ring for cylinder fixation	6264-A24-B1	2
4	203103005	Hex locking nut	M6	2
5	202109024	Hex head full swivel screw	M6*35	2
6	615006003	Three way connector	6214E-A4-B4	1
7	624008046	Oil hose	L=320	1
8		Power unit	2.2kW,3.0kW	1
9	624002004B	Oil hose	L=2265	1
10	615015003	Composite connector	6255E-A7-B7	2
11	207103025	Composite washer	13.7*20.00*1.50(BS224)	2
12	615015003	Composite connector	6255E-A7-B7	2



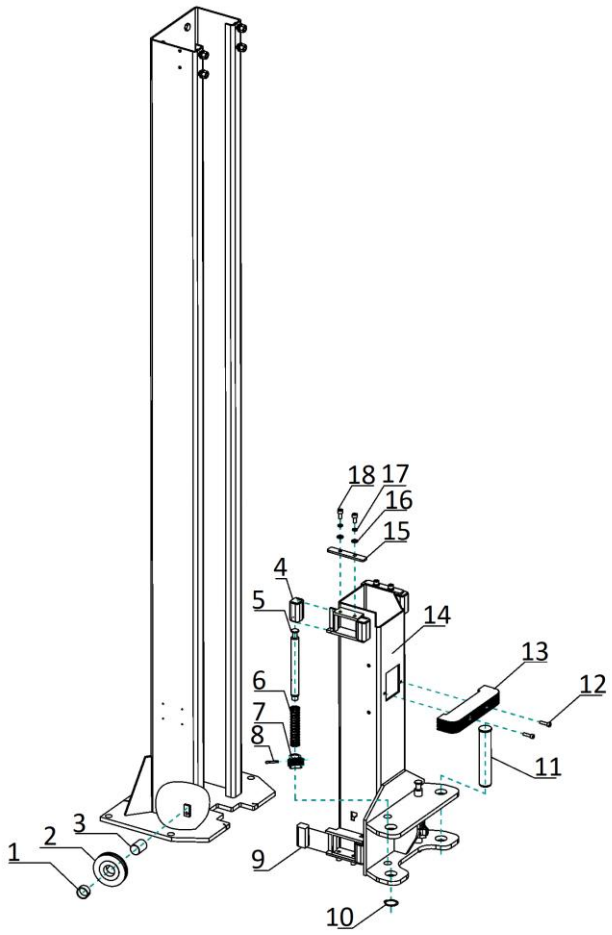
Pos.	Code	Description	Specification	Qty
1	614901691	Crossbeam(out)	62C-A21-B1-42T-EA	1
2	614901732	Connection plate	62C-A21-B3-42T-EA	2
3	202109024	Hex head full swivel screw	M6X35-GB70_1	1
4	203103005	Hex locking nut	M6-GB889	2
5	201102035	Hex head full swivel screw	M14X30-GB5783	17
6	204101008	Flat washer	D14-GB95	17
7	204201007	Spring washer	D14-GB93	17

Pos.	Code	Description	Specification	Qty
8	203101008	Hex nut	M14-GB6170	17
9	420060010	Black foam tube	6214E-A21-B3	1
10	614901692	Crossbeam (in)	62C-A21-B2-42T-EA	1
11	202111008	Hex socket flat head screw	M10X16-GB70_3	2
12	612901718	Upside pulley shaft assembly	62C-A21-B3	2
13	410902109	Pulley	C9Z-A1-B2	6
14	205101101	Bearing	3520-SF-1X	6
15	410911631	Space sheath	62C-A21-B4	2
16	410274470C	Spring	6435B-A4-B30	4
17	615068647	Chain protection cloth	62C-A1-B3	2
18	614901693	Power side post	62C-A1-B1-42T-EZA	2
19		Power unit		1
20	201103004	Hex head full swivel screw	M10X35-GB5783	4
21	420040010	Anti-shock washer	6254E-A23	4
22	204101006	Flat washer	D10-GB95	20
23	204201005	Spring washer	D10-GB93	17
24	203101006	Hex nut	M10-GB6170	7
25	202109019	Hex socket cylinder head screw	M6X12-GB70_1	8
26	420680117	Protective cover	62B-A17	1
27		Control unit		1
28	204101004	Flat washer	D6-GB95	4
29	202101027	Cross socket cap head screw	M6X8-GB818	4
30	614901425	The first stage of short arm (left-side)	6254E-A29-B1	1
31	614901426	Short mid-arm (left-side)	6254E-A29-B2	1
32	614901427	Short retractable arm	6254E-A29-B3	2
33	614901736	The first stage of long arm (left-side)	6254E-A30-B1	1
34	614901735	Long mid-arm (left-side)	6254E-A30-B2	1
35	614901733	The first stage of short arm (right-side)	6254E-A31-B1	1
36	614901734	Short mid-arm (right-side)	6254E-A31-B2	1
37	614901422	The first stage of long arm (right-side)	6254E-A28-B1	1
38	614901423	Long mid-arm (right-side)	6254E-A28-B2	1
39	614901424	Long retractable arm	6254E-A28-B3	2
40	202109040	Hex socket cylinder head screw	M10X16-GB70_1	8
41	610004547	Lifting tray assembly(round)	6254E-A7-B4-V1	4
42	420040250	Round lifting pad	6254E-A7-B4-C4	4
43	202111004	Hex socket flat head screw	M8X12-GB70_3	8
44	202110018	Hex socket cylinder head screw	M10X12-GB70_1	8
45	614004030B	Long fender	6254E-MDN-A10-B4	2
46	204301013	Circlip	D38-GB894	4

Pos.	Code	Description	Specification	Qty
47	410901074	Semi-Teeth block	6254E-A7-B8	4
48	202109085	Hex socket cylinder head screw	M12X30-GB70_1	12
49	410049031B	Pin shaft	6254E-A12	4
50	420047160B	Protective cover	62B-A16	1
51	612004003B	Height adapter	6254E-A11	4
52	410901744	Holder for the height adapter	6254E-A1-B1-C6-V0	2
53	202110004	Hex socket button head screw	M8X12-GB70_2	4
54	614004012B	Short fender	6254E-A27-B4	2

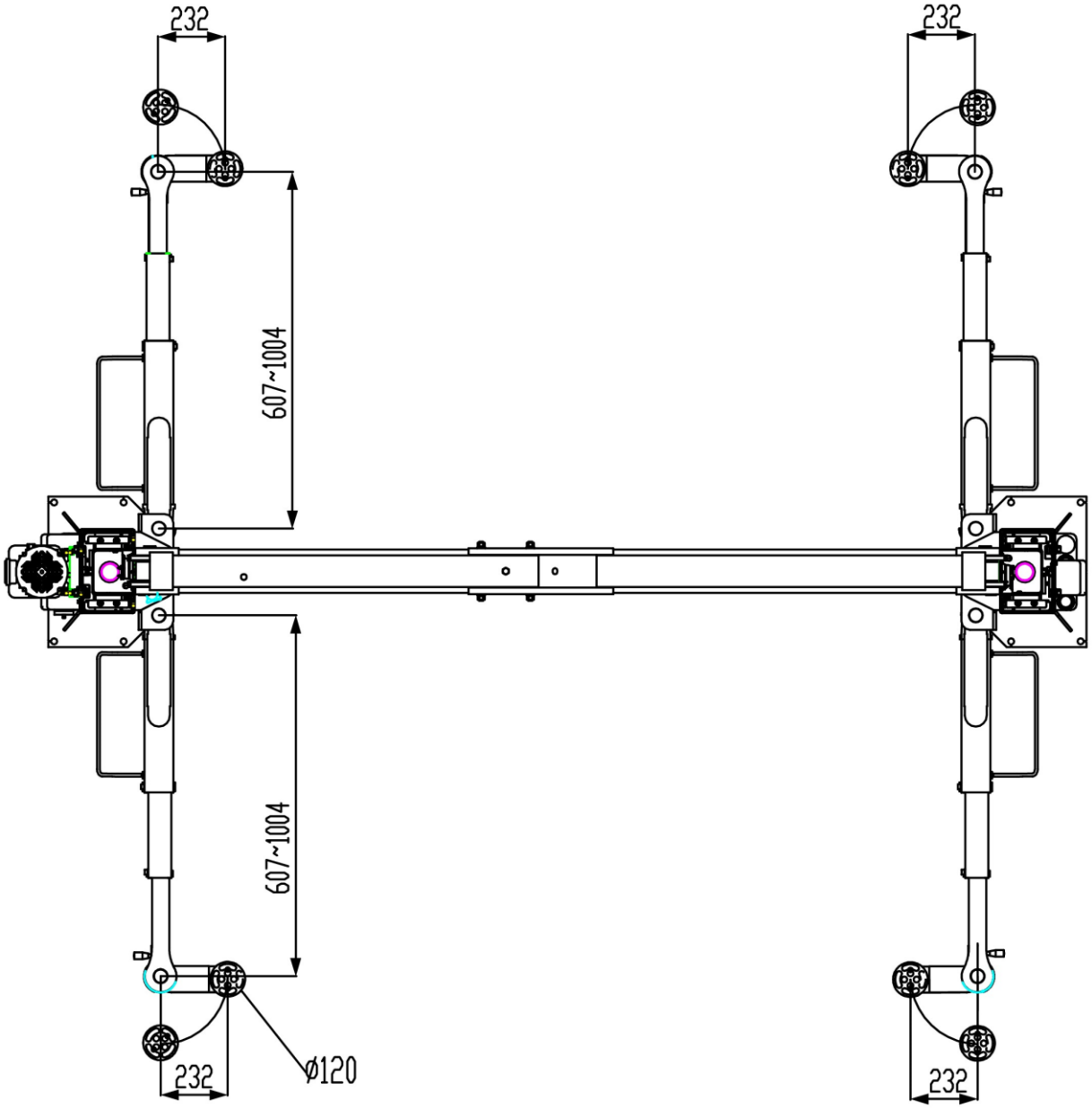


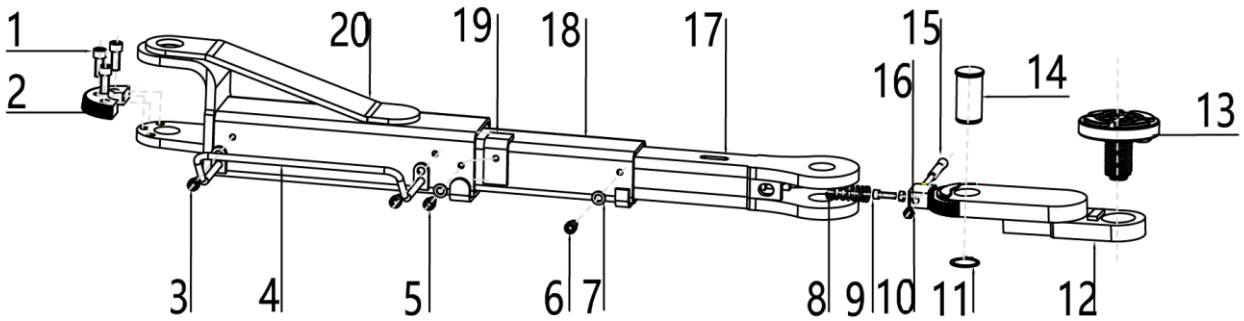
Pos.	Code	Description	Specification	Qty
1	410040071	Orientation block	6254E-A17	4
2	410040061	Safety locking plate	6254E-A13	4
3	330310005	Electromagnet	6254E-A14	4
4	202109017	Hex socket cylinder head screw	M6*8	8
5	202109020	Hex socket cylinder head screw	M6*15	4



Pos.	Code	Description	Specification	Qty
1	205101101	Bearing	3520-SF-1X	2
2	410902109	Pulley	C9Z-A1-B2	2
3	410540080	Pulley shaft	C12-A1-B3-C1	2
4	420042080	Slider	6254E-A2-B7-1	12
5	410902001B	Pulling rod	6254E-A2-B1-C1-1	4
6	410150121	Pressure spring	6254E-A2-B4	4
7	410901075	Teeth block	6254E-A2-B9	4
8	206102013	Elastic post pin	D6X40-GB879	4
9	410902400	Slider	E25-A3-B2	4
10	204301013	Circlip	D38-GB894	4
11	410049031B	Shaft	6254E-A12	4
12	202109031	Hex socket cylinder head screw	M8X30-GB70_1	4
13	420680124	Protection rubber pad	62B-A3-B11	2
14	614901694	Carriage	62C-A3-B1-42T-EA	2
15	410047111	Retain plate for sliders	62B-A3-B2	8
16	204101006	Flat washer	D10-GB95	16
17	204201005	Spring washer	D10-GB93	16
18	202109041	Hex socket cylinder head screw	M10X20-GB70_1	16

Optional Elbow arm





Pos.	Code	Description	Specification	Qty
1	202109085	Hex socket cylinder head screw	M12X30-GB70_1	3
2	410901074	Semi-teeth block	6254E-A7-B8	1
3	202110018	Hex socket cylinder head screw	M10X12-GB70_1	2
4	614004012B	Fender	6254E-A27-B4	1
5	202109027	Hex socket cylinder head screw	M10X12	1
6	202109040	Hex socket cylinder head screw	M10X16	1
7	204101006	Flat washer	D10-GB95	2
8	410910969	Pressure spring	6254E-A27-B9	1
9	202109030	Hex socket cylinder head screw	M8X25-GB70_1	1
10	203101005	Hex nut	M8-GB6170	2
11	204301013	Circlip	D38-GB894_1	1
12	612901428	B Elbow part	6254E-A27-B5-1	1
13	615004042	Support adapter assembly	6254E-A7-B4-V0	1
14	410910967	Joint shaft	6254E-A27-B6	1
15	610802109	Handle assembly	6254E-A27-B8-0	1
16	410910966	Teeth block	6254E-A27-B7	1
17	614901559	Retractable arm	6254E-A27-B6-C1	1
18	614004009C	Mid arm	6254E-A27-B2	1
19	410911116	Space padding plate	6254E-A27-B13	1
20	614004007C	First stage of the arm	6254E-A27-B1	1