

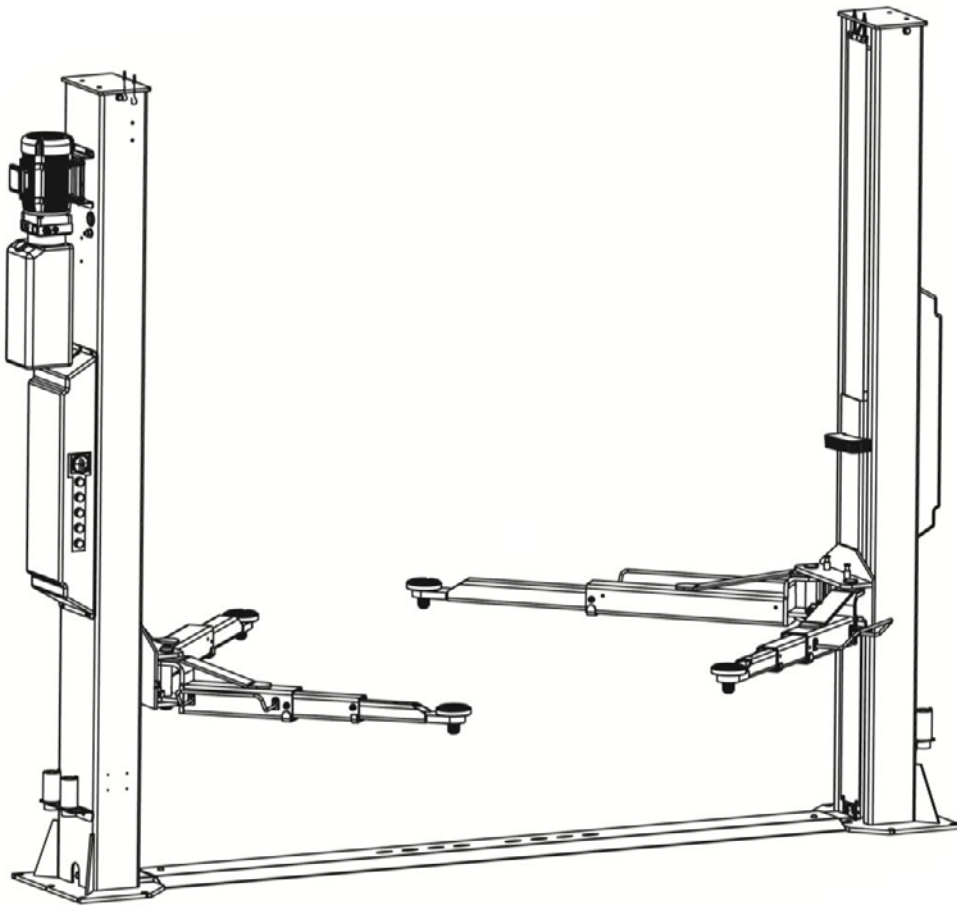
Model No. EE-62BE-35T / EE-62BE-42T

Two Post Lift

Electrical Release

Lifting Capacity 3500KG/4200KG

**Installation, Operation
and Parts Manual**



Distributed by

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

DATE: 21/06/2024
www.flex1one.dk

IMPORTANT NOTES

Before start up, connecting and operating Q-LINE 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 Q-LINE 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 Q-LINE 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 Q-LINE 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 Q-LINE.

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

Q-LINE 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.

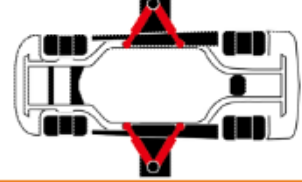
WARNING: *The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the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

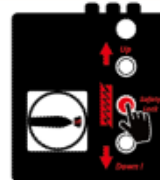
1.4 Warning labels

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

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

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. 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 (42T)	Steel brackets	2860*570*770	677	1
Lift (35T)	Steel brackets	2860*570*770	622	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°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:

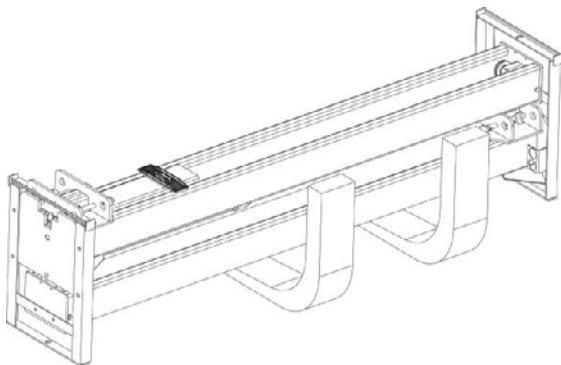
-never stack to more than 2 meters in height.

-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 only be lifted and transported by using lift trucks. Never attempt to hoist or transport the unit using lifting straps.



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

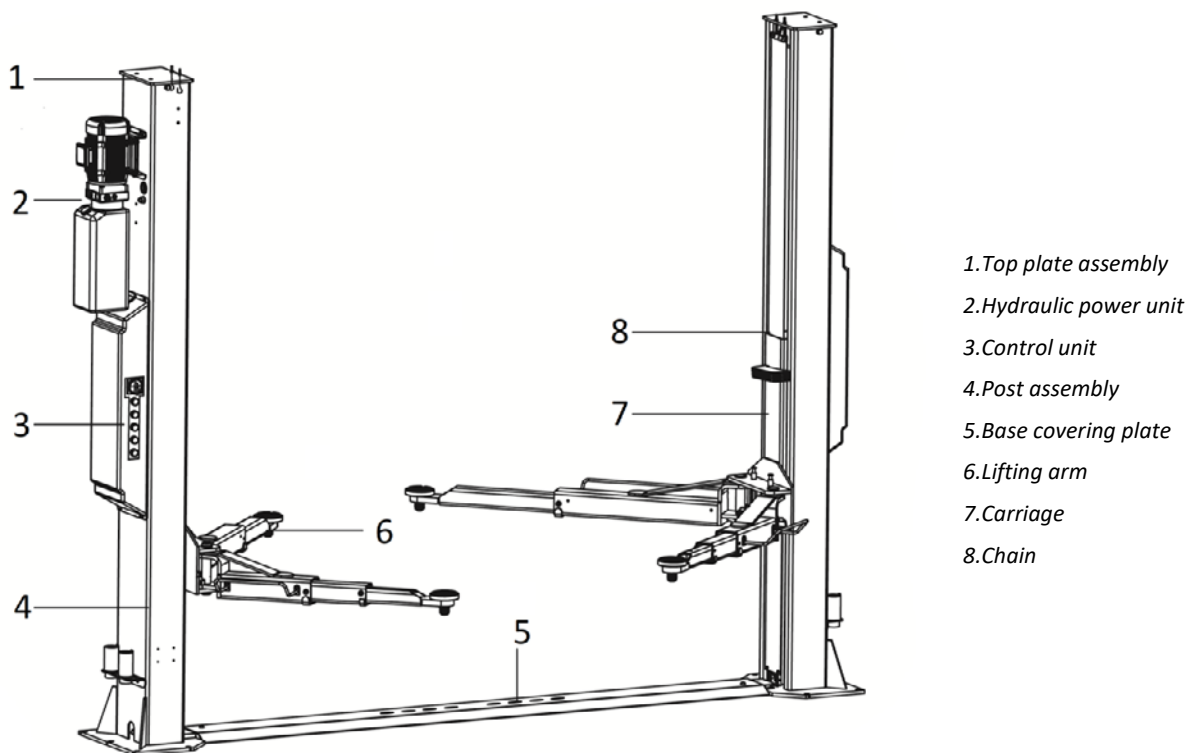
3.1 General descriptions

This is chassis supporting vehicle lift for road vehicles.

It is mainly composed by two posts, two carriages, four swing arms and a power and 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 piston drives the chain 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

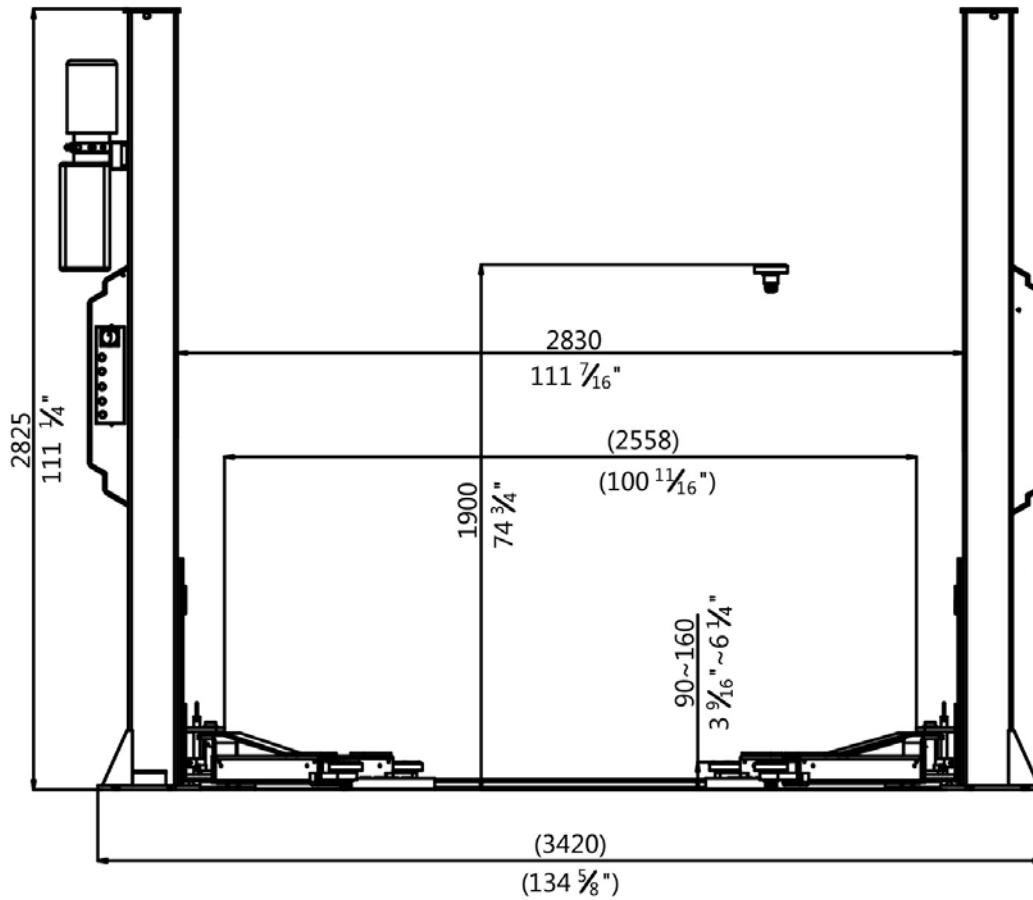


- 1.Top plate assembly
- 2.Hydraulic power unit
- 3.Control unit
- 4.Post assembly
- 5.Base covering plate
- 6.Lifting arm
- 7.Carriage
- 8.Chain

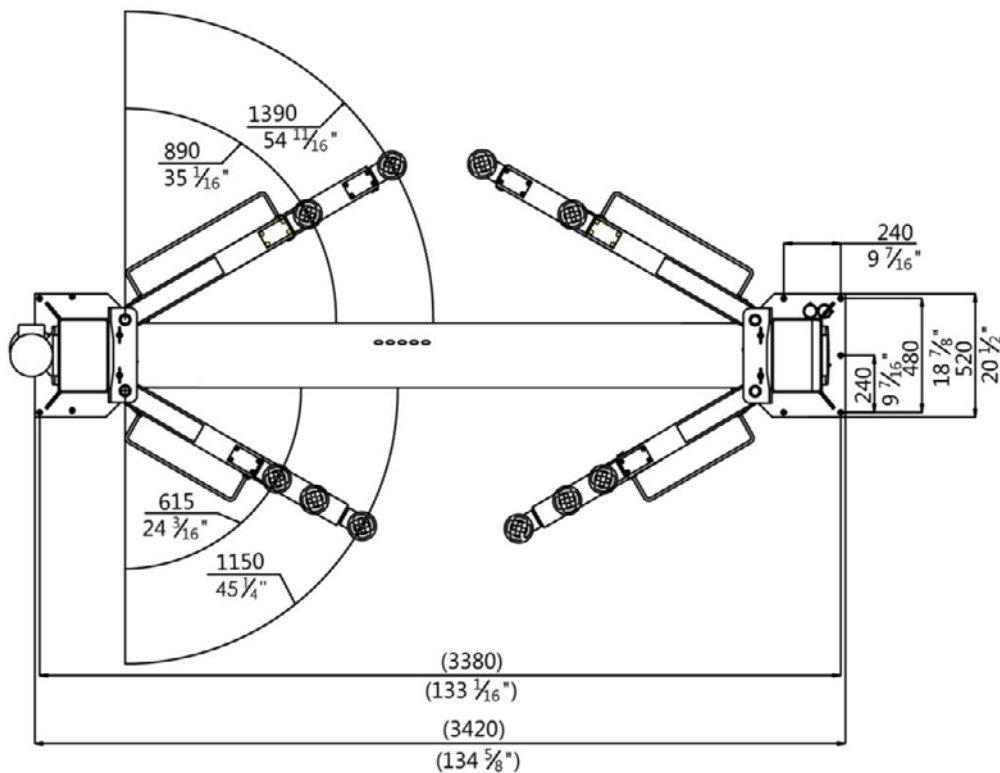
3.3 Technical data

Model	Lifting capacity	Full rise time (2.2kW motor)	Full rise time (3.5kW motor)	Max height for pick-up adapter
EE-62BE-35T	3500kg	Approx.55s	Approx.35s	1900mm
EE-62BE-42T	4200kg	Approx.55s	Approx.35s	1900mm

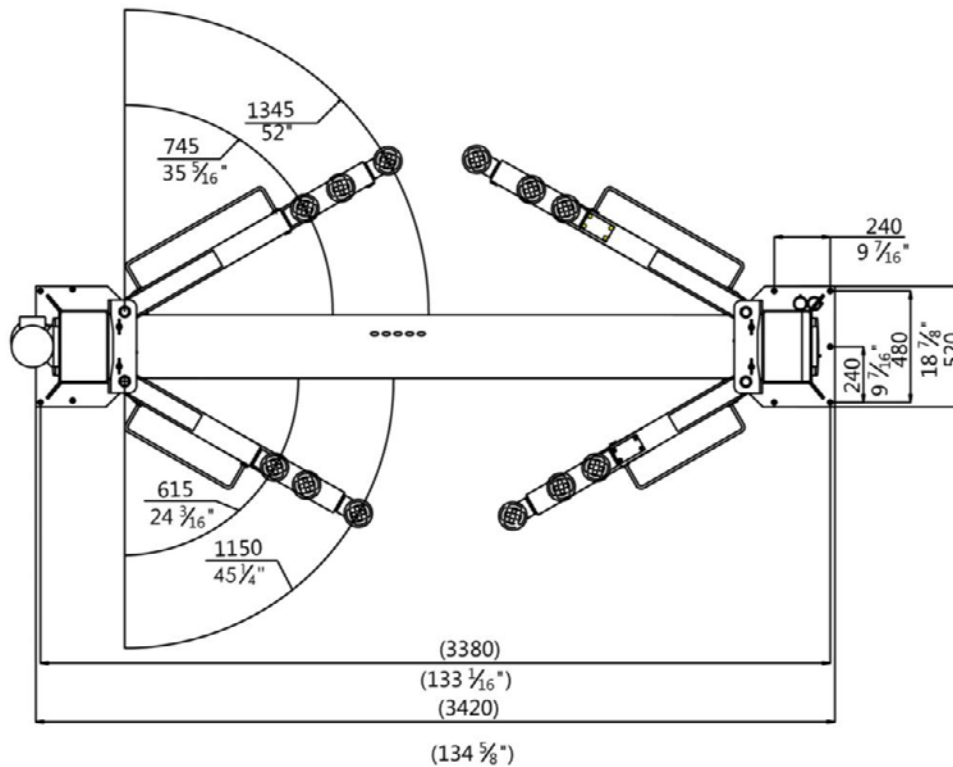
3.4 Dimensions



Two pieces of three-stage arm and two pieces of two-stage arm

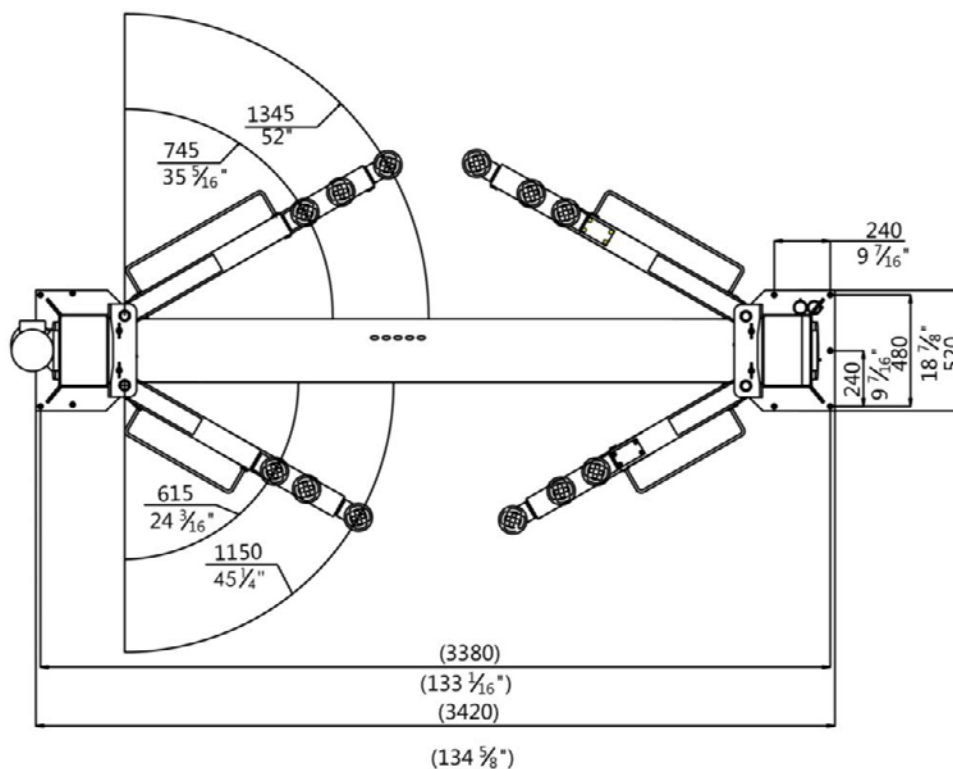


Four pieces of three-stage arm

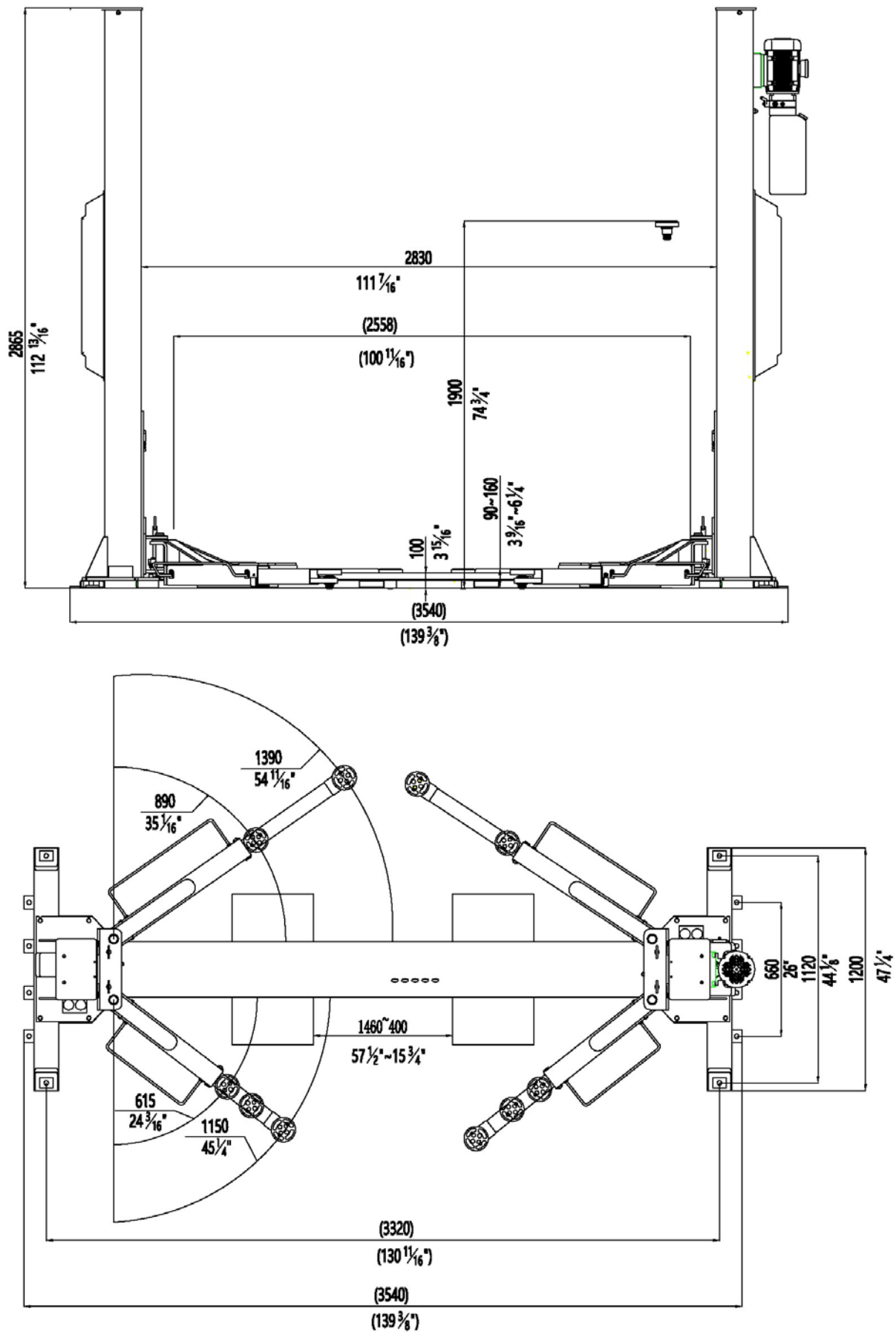


Four pieces of 3-stage arm

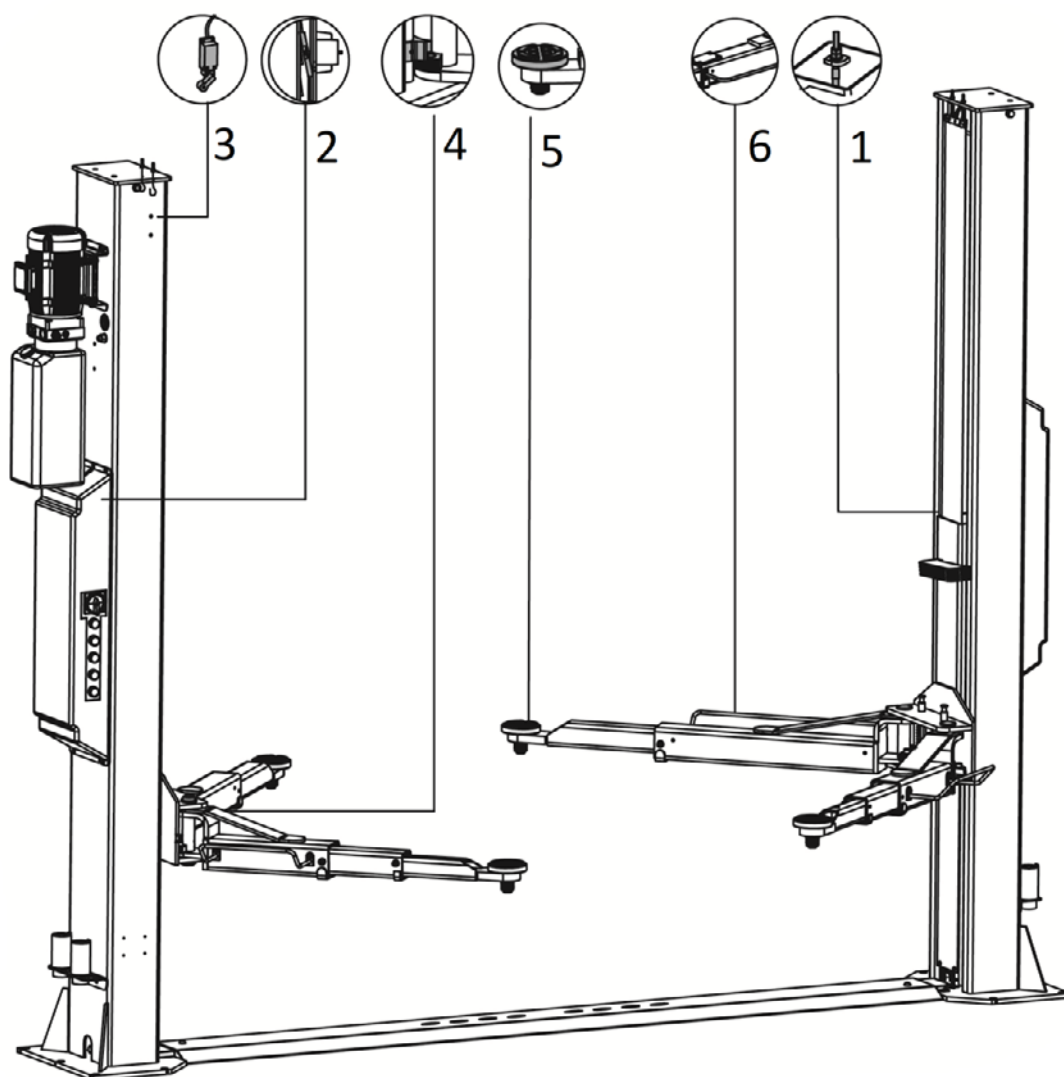
Four low-profile 3-stage arm, its pick-up clearance can be as low as 85mm.



Dimensions with optional stronger base frame (CODE: 791110098)



3.5 Safety devices descriptions



Pos.	Name	Function
1	Steel rope	Ensure the synchronization for both carriages.
2	Mechanical safety locking unit	Catch the carriages in case of hydraulic failure.
3	Limit switch	Stop rising movement at maximum safety height.
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 2.5mm² 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.
- Foundations preparations

Refer to Annex 1.

C25/C30 concrete foundation with a minimum thickness of 200mm.

Surface: 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	Quantity
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	1mm accuracy	1
Hammer	10 pounds	1
Truck lift	Capacity more than 1000kg	1
Torque spanner	MD400	1

4.2 Installation attentions

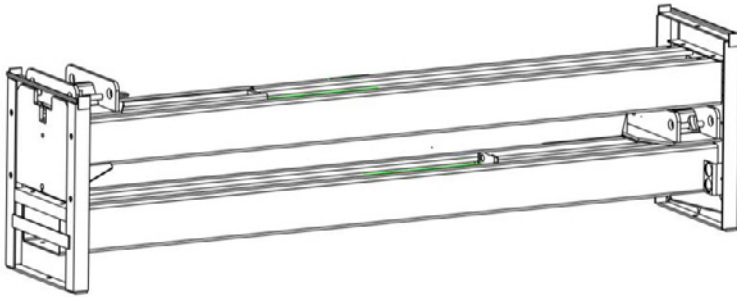
4.2.1 Tighten all hydraulic and electrical connections.

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 supporting between the two posts or suspend one of the posts by a crane and then remove the bolts from the packing frame.

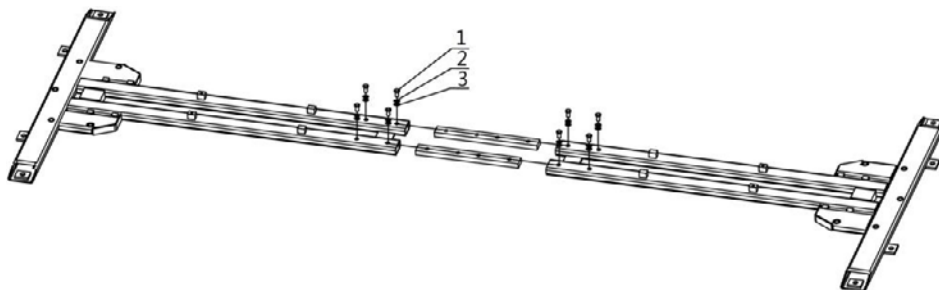
Attention: Please pay special attention not to let the post fall down for it may cause casualty or bring damages to the accessories fixed in the post.

Step 3: When the first post has been taken away, place something supporting under the second post and then remove the bolts from the packing frame.

Step 4: Fix the standing position for the two posts.

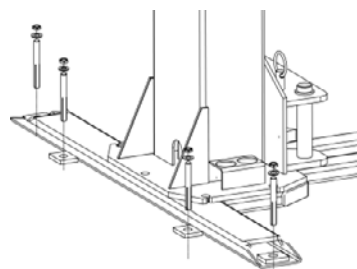
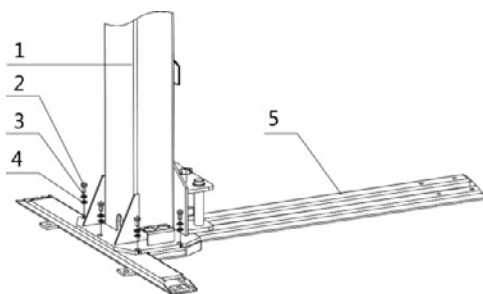
1. Unfold the package and decide on which post the power unit will be mounted.
2. Ascertain the position for the two posts with chalk and tape measure and draw an outline of the two base plates on the ground.

Assemble the optional stronger base frame.

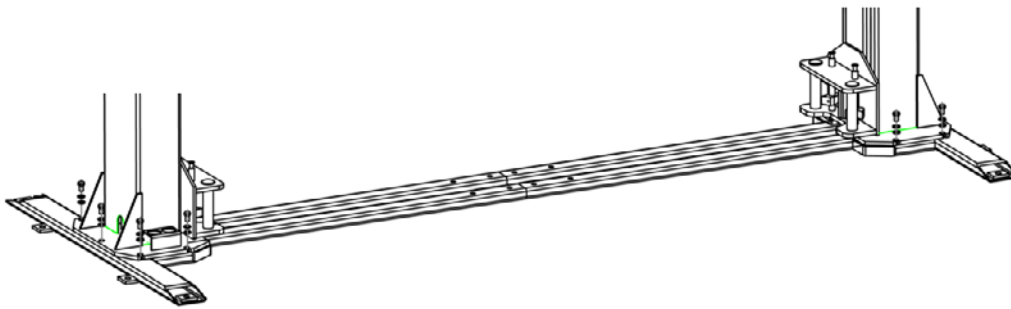


- 1.Hex head full swivel screw M16x30
- 2.Spring washer M16
- 3.Flat washer M16

Erect the posts and secure them onto the base plate.

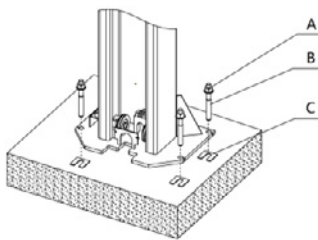


- 1.Post
- 2.Hex head full swivel screw M18*50
- 3.Spring washer M18
- 4.Flat washer M18
- 5.Base plate

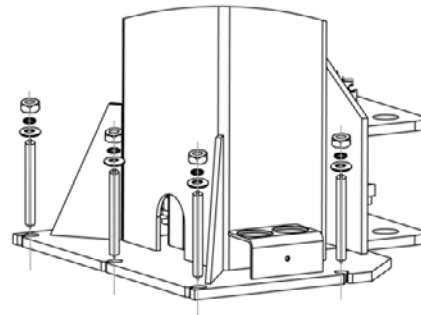
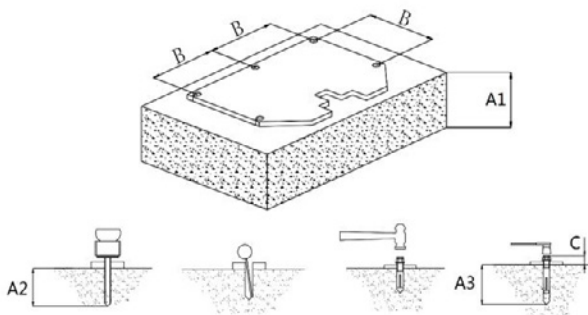


Step 5: Erect and secure the post.

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.**



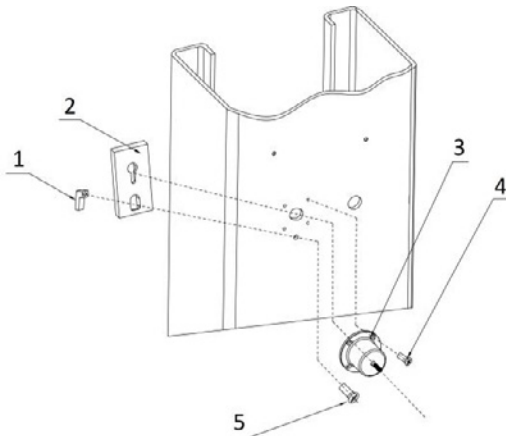
- A. Nut
B. Expansion anchoring bolt
C. Equalizing plate



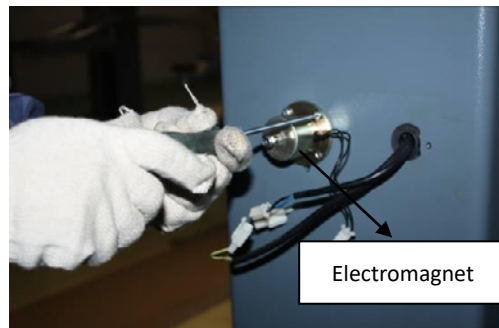
Anchoring bolt	A1 (foundation thickness)	A2 (drilling depth)	A3 (anchoring depth)	B	C
M18x160	≥200mm	130mm	105mm	240mm	≤55mm

Step 6: Install the mechanical locking unit.

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

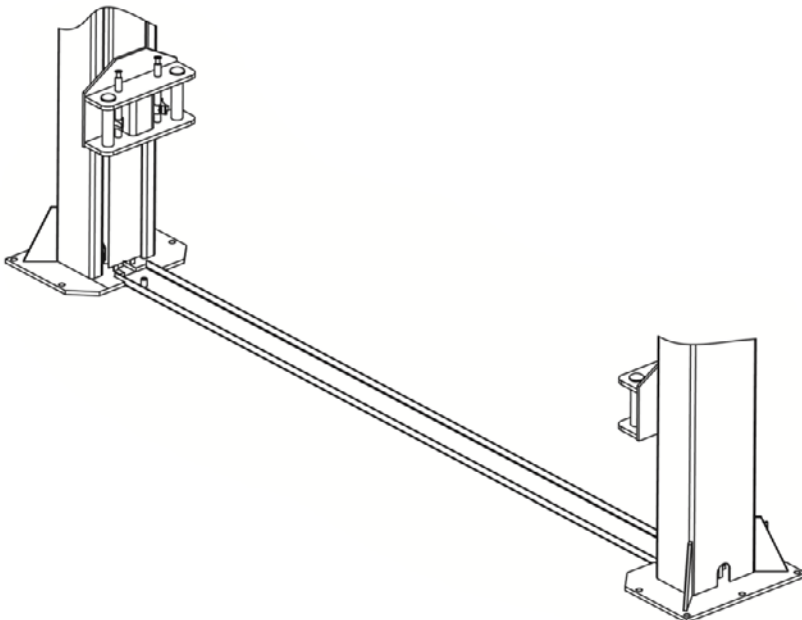


- | | |
|---|-----------------------------------|
| 1 | Orientation block |
| 2 | Safety locking plate |
| 3 | Electromagnet |
| 4 | Cross socket cap head screw M6*8 |
| 5 | Cross socket cap head screw M6*16 |



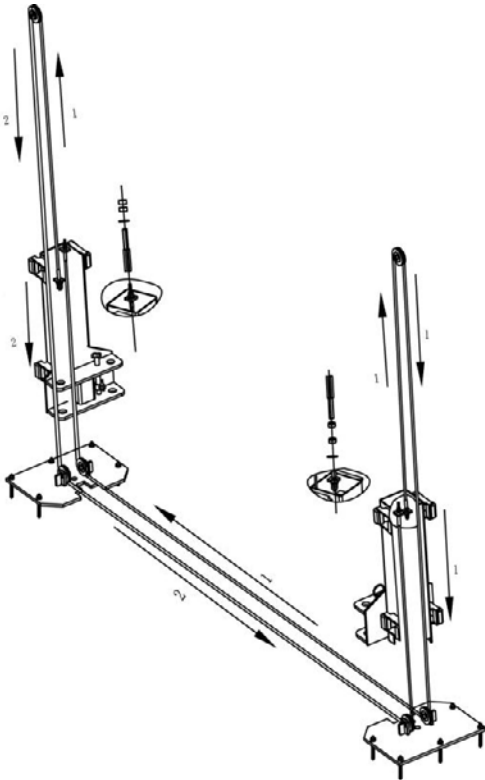
Step 7: Fix the slot base plate.

Use suitable means to raise the lifting carriage to the first locking position and then place the slot base plate between two base plates of the post.



Step 8: Connect steel cables.

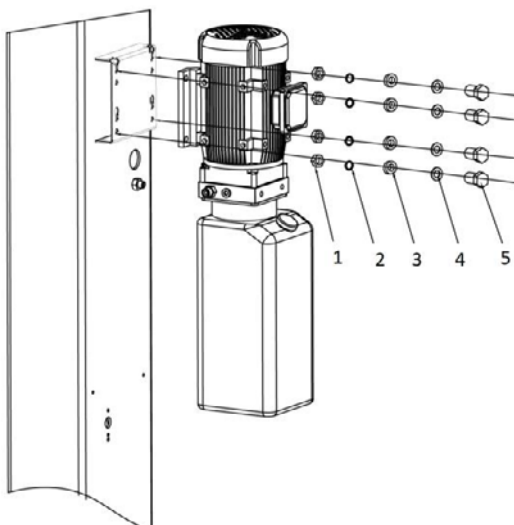
1. Route and fix according to the following diagram of steel rope connection.
2. Use suitable means to raise carriages at both sides to the first locking point. Ensure the both carriages are locked.
3. After the cable being fixed, adjust and make the cables at both sides be with the same tightness. (This 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.)



Step 9: Install the hydraulic system;

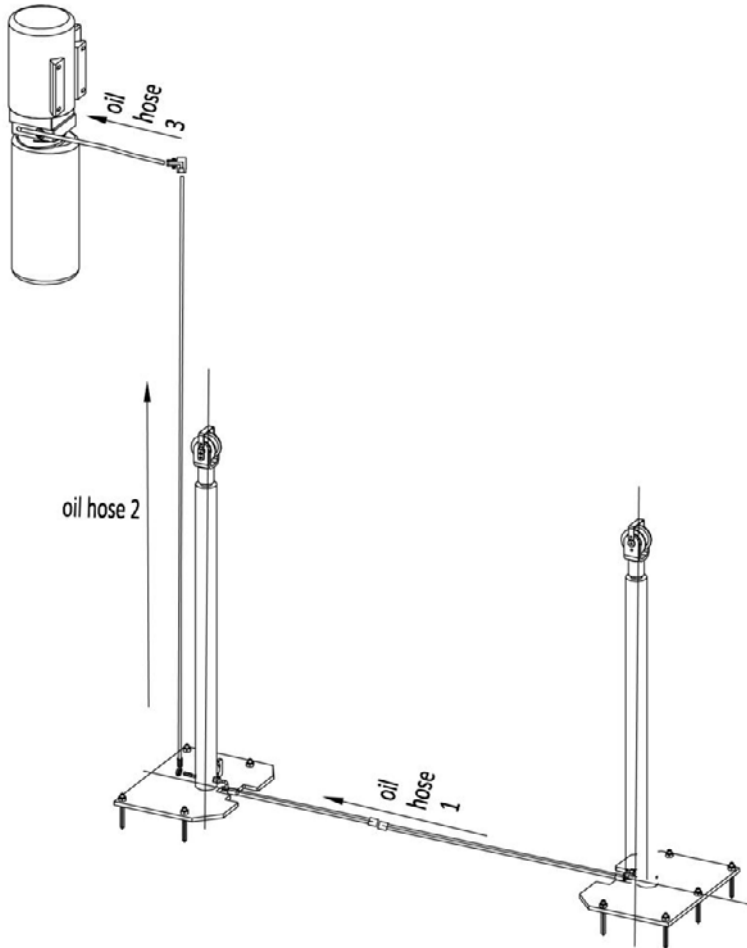
Attention: Do not contaminate the hydraulic system when do the connection.

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



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

2. Connect oil hoses according to the following diagram.
Don't let any solid substance go into the hydraulic line.
Ensure the connectors are screwed tight against leakage.

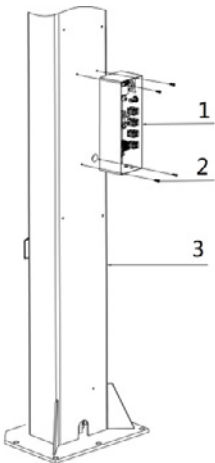


Step 10: Install the electrical system.

Attention: ONLY qualified electricians are permitted to do the electrical connection.

Refer to electrical connection diagram before making the connection.

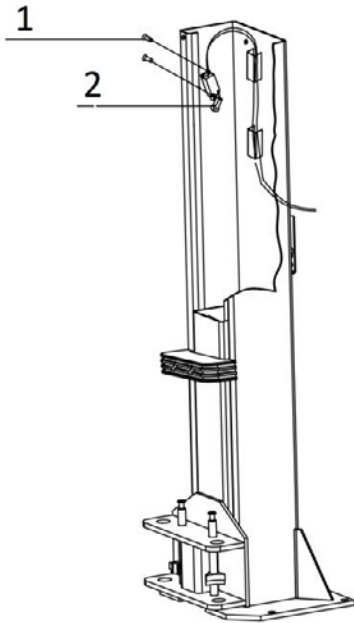
1. Mount the control box on to the power side post.



1. Control box
2. Hex socket screw M6*10
3. Post

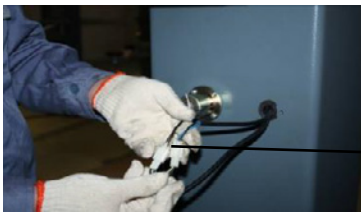
2. Fix the limit switch onto the inside surface of the power side post.

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

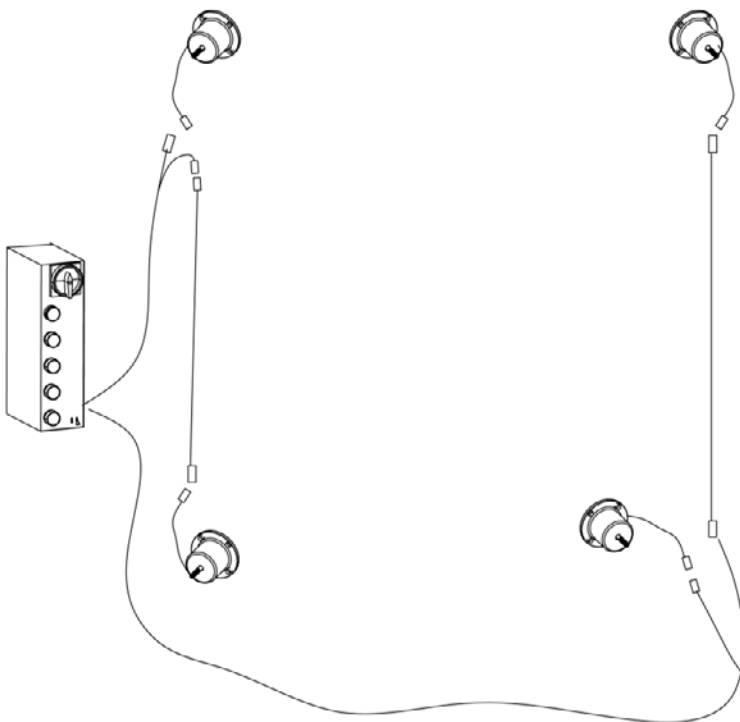
3. Connect quick connectors between electromagnets.



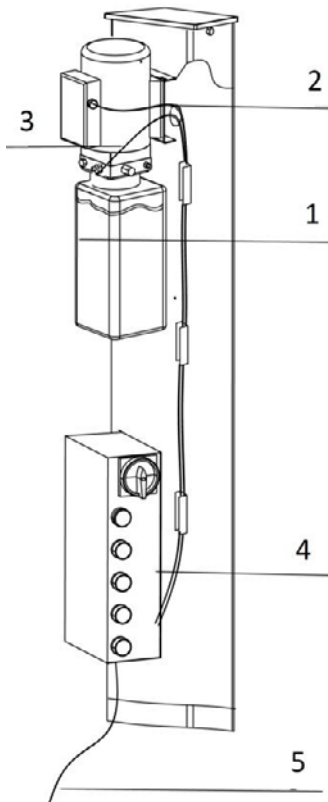
Quick connector



Adjustable bolt



4. Connect the solenoid valve wire and motor wire.



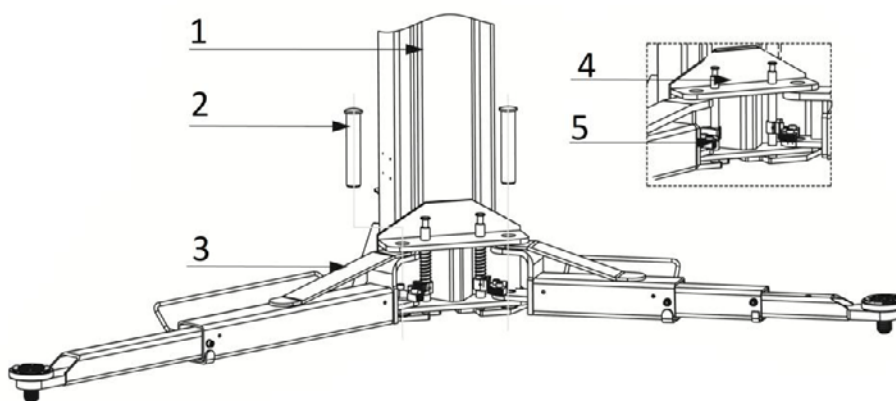
1. Power unit
2. Motor wire
3. Solenoid valve wire
4. Control box
5. Power supply wire

Step 11: Install lifting arms.

Connect the lifting arm and the carriage. The arm pin shafts must be greased at the installation.

Ensure the arm lock can engage and release effectively.

Attention: Install lifting arms and fix feet protection bars 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 12: 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

Pour 9 liters of anti-abrasion hydraulic oil into the oil tank. The level of oil shall reach the tippets volume mark of the tank.

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 °C, use HM NO.32 hydraulic oil.

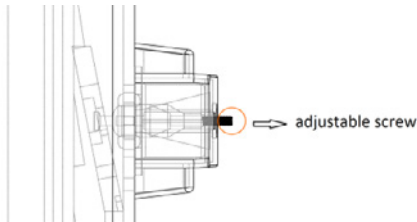
It is required to change the oil 6 months after initial use and change for every 12 months thereafter.

Step 13: 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 hose is well connected. The connection is qualified when there is no abnormal sound or leakage after having been tested for 5-6 times.

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.



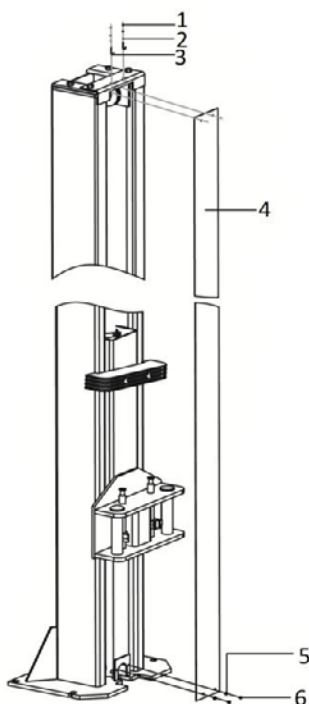
Check the synchronization of lifting carriages.

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

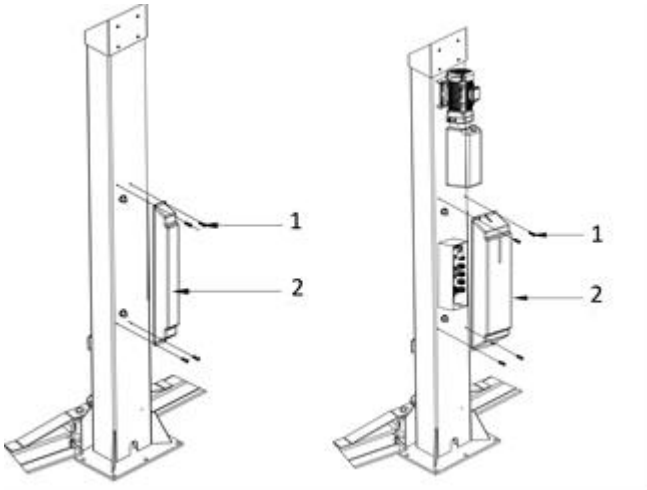
This could be judged by the sound emitted by the safety locking unit during lifting process.

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 14: Fix the two covering sheets and two covers for electromagnets.



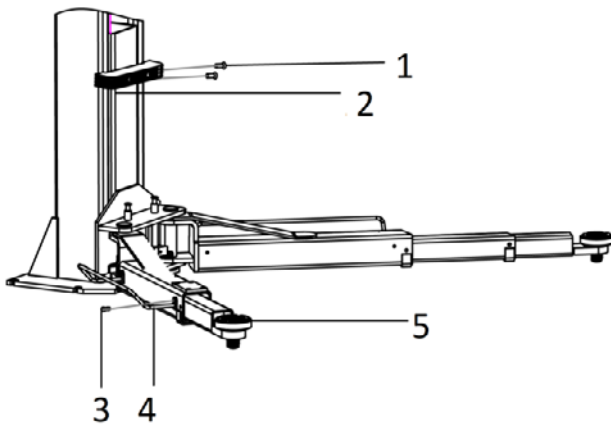
- 1.Hex nut M6
- 2.Flat washer M6
- 3.Hook
- 3.Covering sheet
- 5.Flat washer M6
- 6.Cross socket cap head screw M6*8



1.Hex socket screw M6*12

2. Cover

Step 15: Fix door-opening protecting pads and feet protection fenders. .



1. Hex socket cylinder head screw M8*30

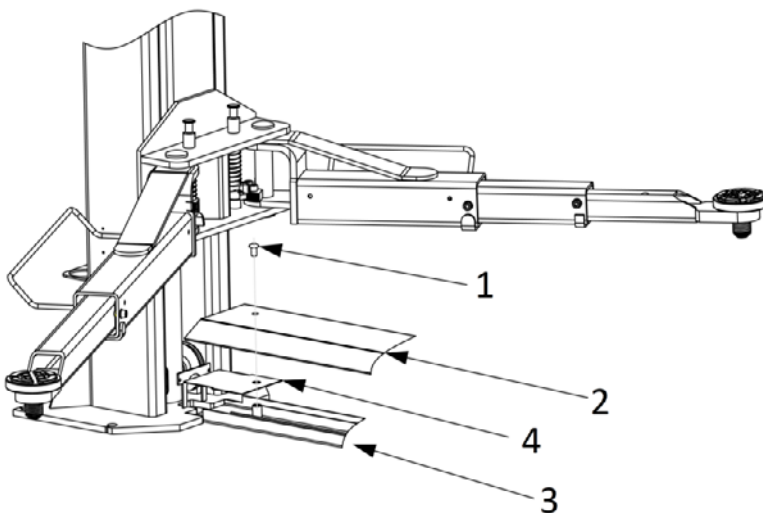
2.Door protecting pad

3.Hex socket cylinder head screw M10*12

4.Feet protecting fender

5.Lifting adapter

Step 16: Install the base cover plate.



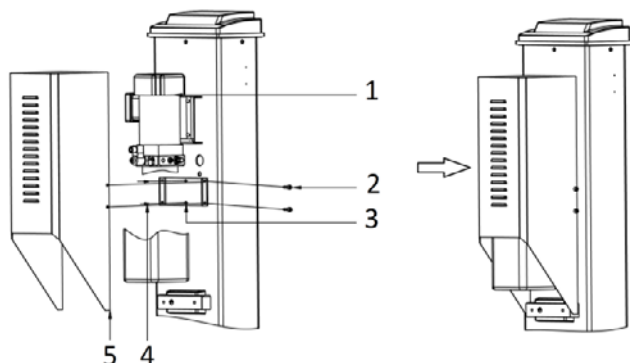
1.Hex socket flat head screw M12*20

2.Base cover plate

3.Slot base plate

4.Dust proof plate

Step 17: Install the motor housing. (Optional)



Pos.	Code	Description	Specification	Qty
1		Power unit		1
2	202109030	Hex socket cylinder head screw	M8*25	4
3	410047003	Holder for the housing	62B-A22-B2	1
4	202109027	Hex socket screw cylinder	M8*12	2
5	614004829	Motor housing	62-A22-B1	1

4.4 Items to be checked after installation.

S/N	Check items	YES	NO
1	Screw torque of expansion bolts: 80Nm ;	√	
2	Rising speed $\geq 20\text{mm/s}$;	√	
3	Noise with rated load $\leq 75\text{dB(A)}$;	√	
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	All control buttons works 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 run with load ;	√	
12	There is no oil leakage when run 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

5.1.1 Check all the joints 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 swing arms.

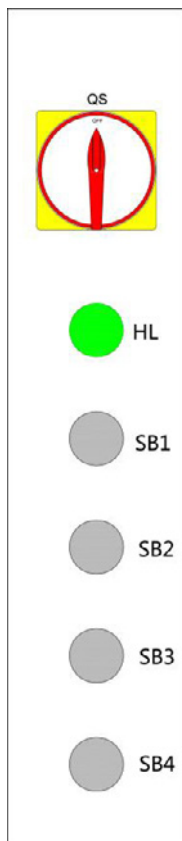
5.1.4 Operators and other personnel concerned should stand in a safety area during lifting and lowering process.

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 Operation instructions

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.



Pos.	Name	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 go upwards about 5CM which releases the mechanical safety locking unit. After that the lift 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.

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.

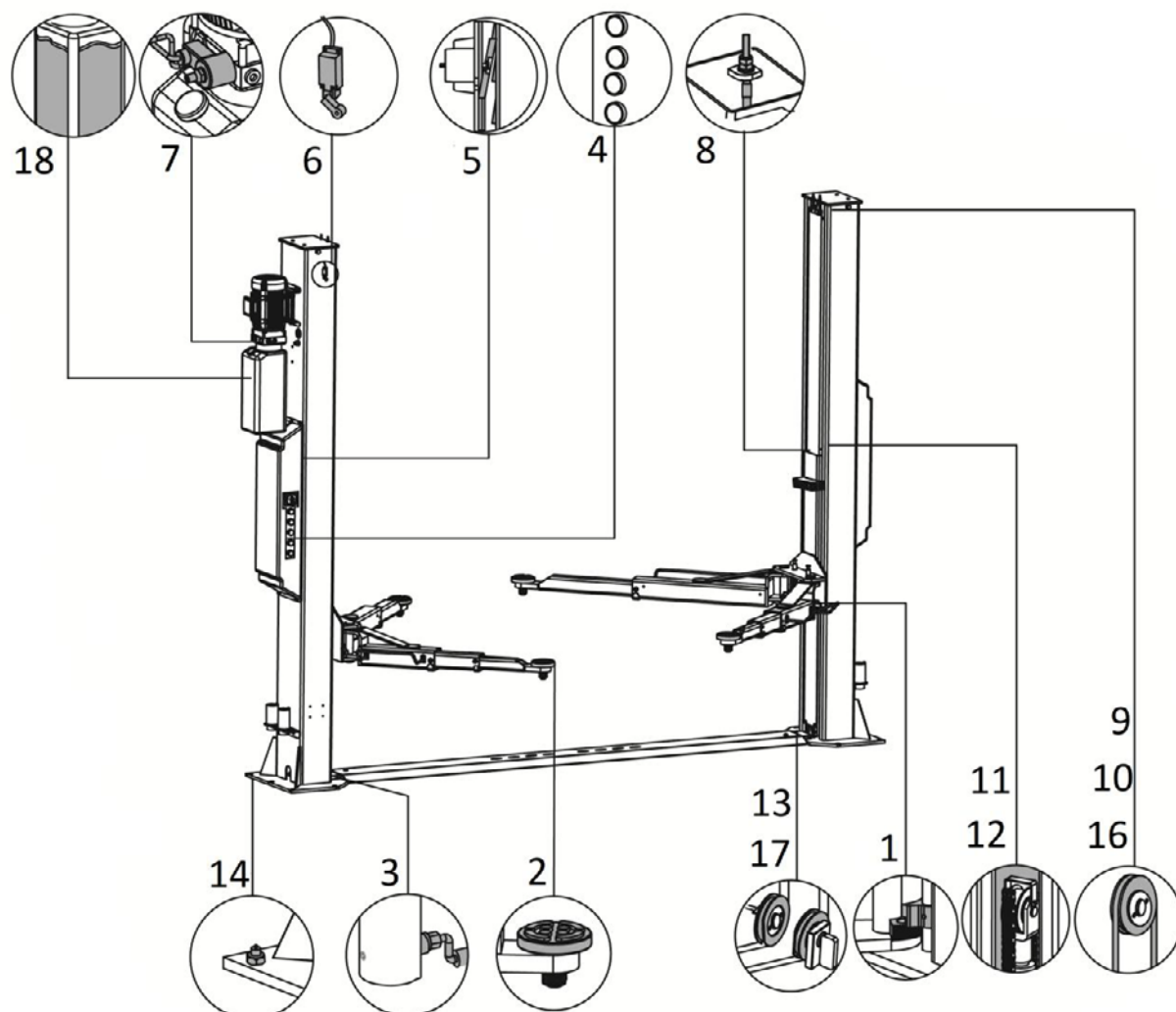
We will offer our service at the earliest time we can.

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.	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 effectively by pushing control buttons.	Every day
6	Max height limit switch	Push the UP button and inspect and ensure the lifting platform stops rising at maximum lifting height.	Every day
7	Unloading valve	Inspect if the valve leaks or not. Clean or change the valve if it leaks.	Every day

Pos.	Components	Methods	Period
8	Steel rope	Check the synchronization of both carriages and adjust the tightness of the cables if desynchronization is unacceptable.	Every day
9	Bushing of the upside pulley and circlip of the shaft	Add grease to ensure smooth running. Check if the circlip is in its original position.	Every 3 months
10	Steel rope	Lubricate the cable 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 cable immediately on condition that there are ten or more broken wires on a cable.	Every 3 months
11	Running path for carriages inside the post	Lubricate path with NO.1 lithium based grease. No obstruction on the path.	Every 3 months
12	Chain and its pins	Lubricate the chain with NO.1 lithium based grease. It is advised to 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 80Nm. For M16, the torque is no less than 60Nm.	Every 3 months
	Lift	Run 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 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 and circlip of the shaft	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 reference only.

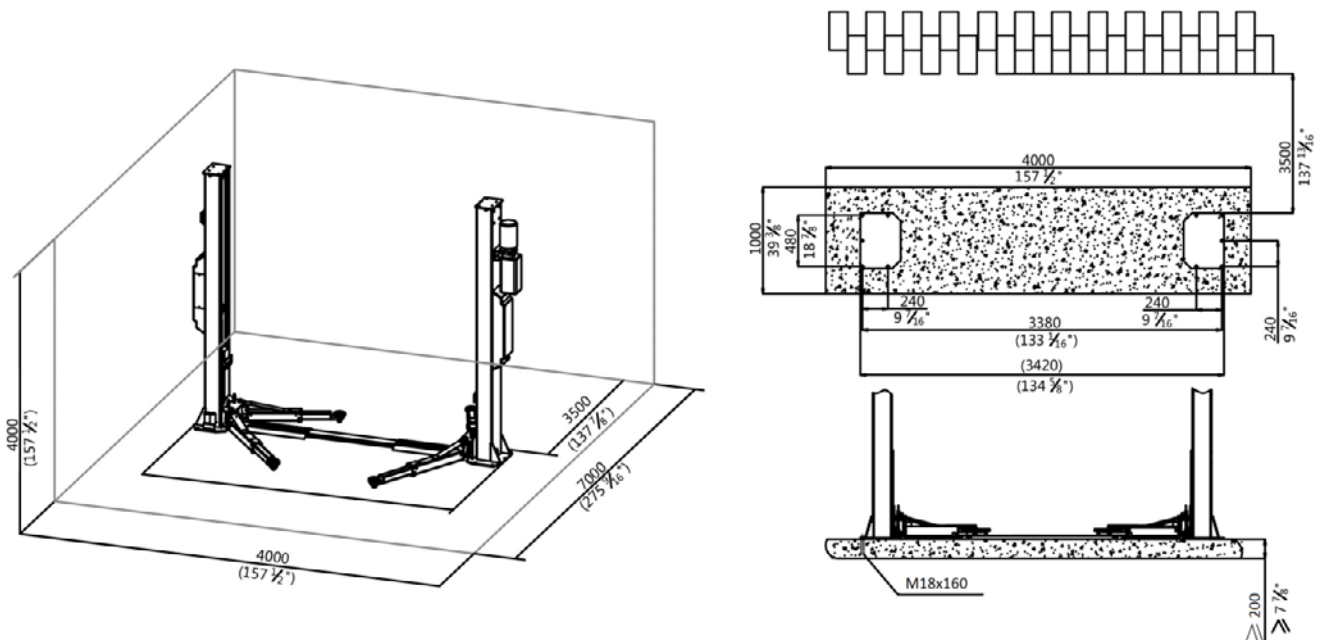
There must be sufficient space for driving and lifting vehicles and enough safety distance shall be reserved according to the regulations of the local authorities. It is advised to reserve a clearance of at least 1 meter between the lift and fixed elements (e.g. wall) in all lifting positions.

C25/C30 concrete foundation with a least 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.

The concrete strength shall at least be C25 for a standard lift structure.



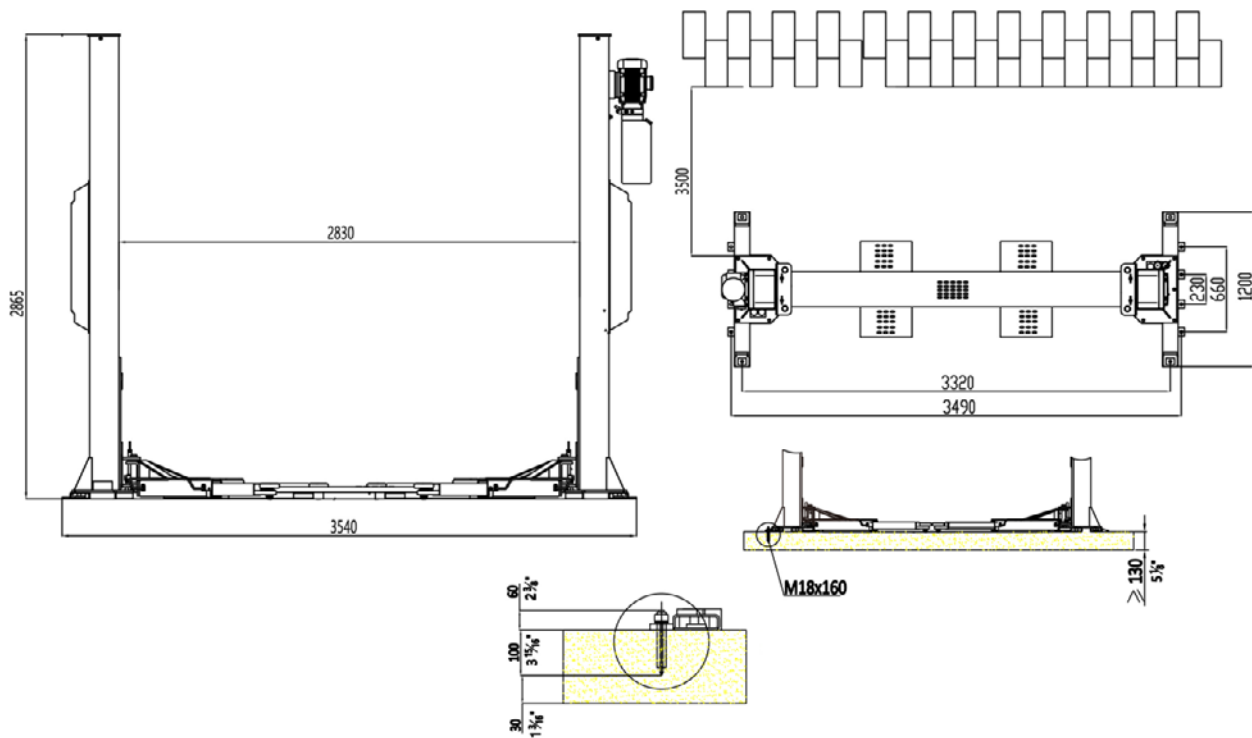
For optional large base frame.

C25/C30 concrete foundation with a least thickness of 130mm.

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

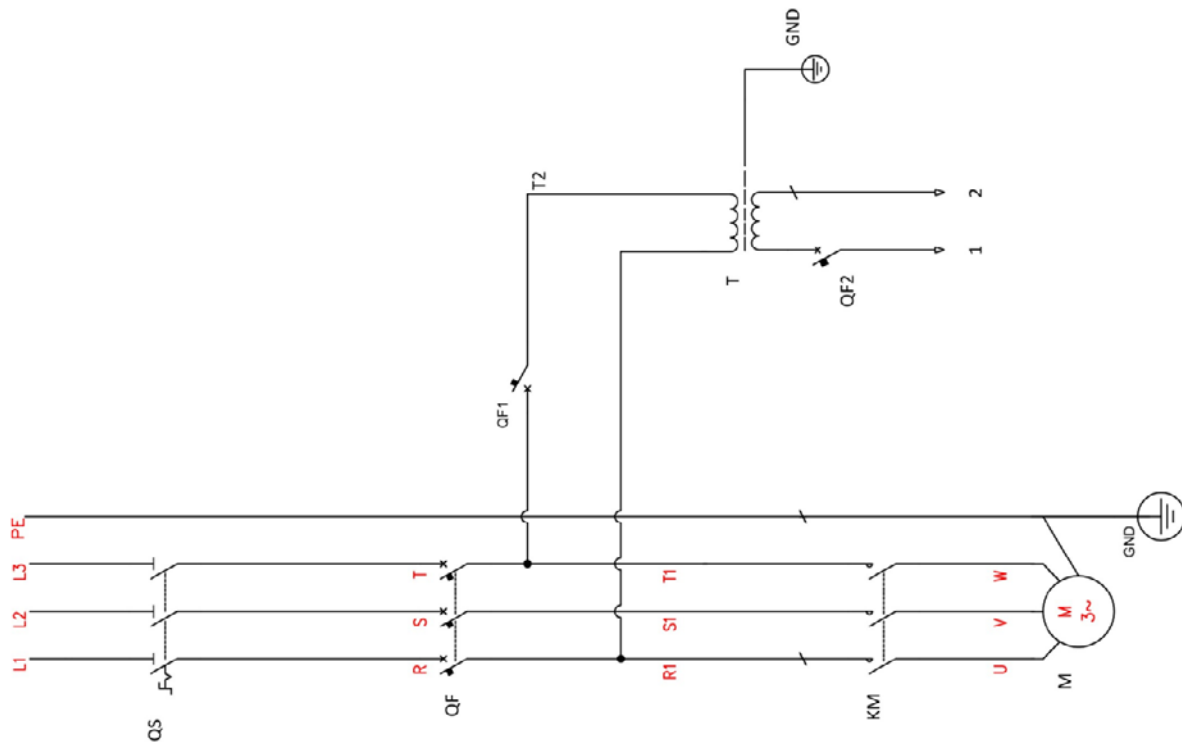
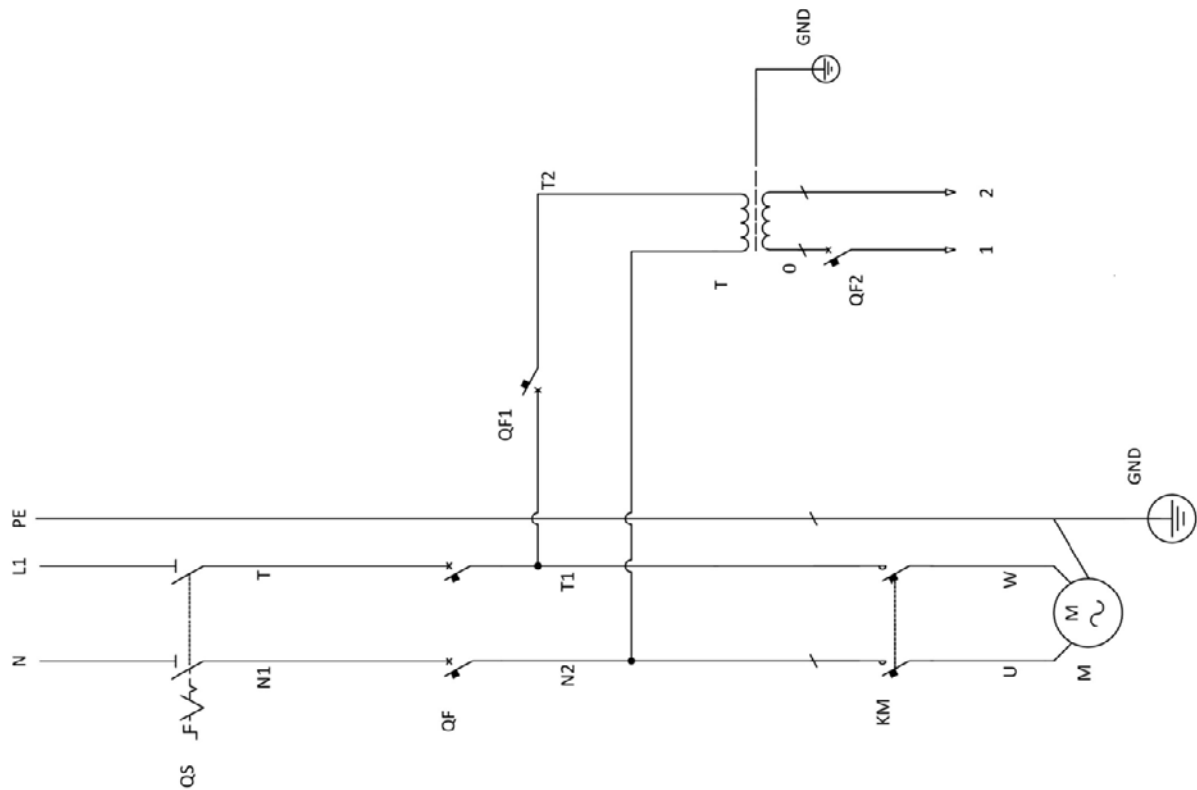
Newly built concrete ground must be older than 20days.

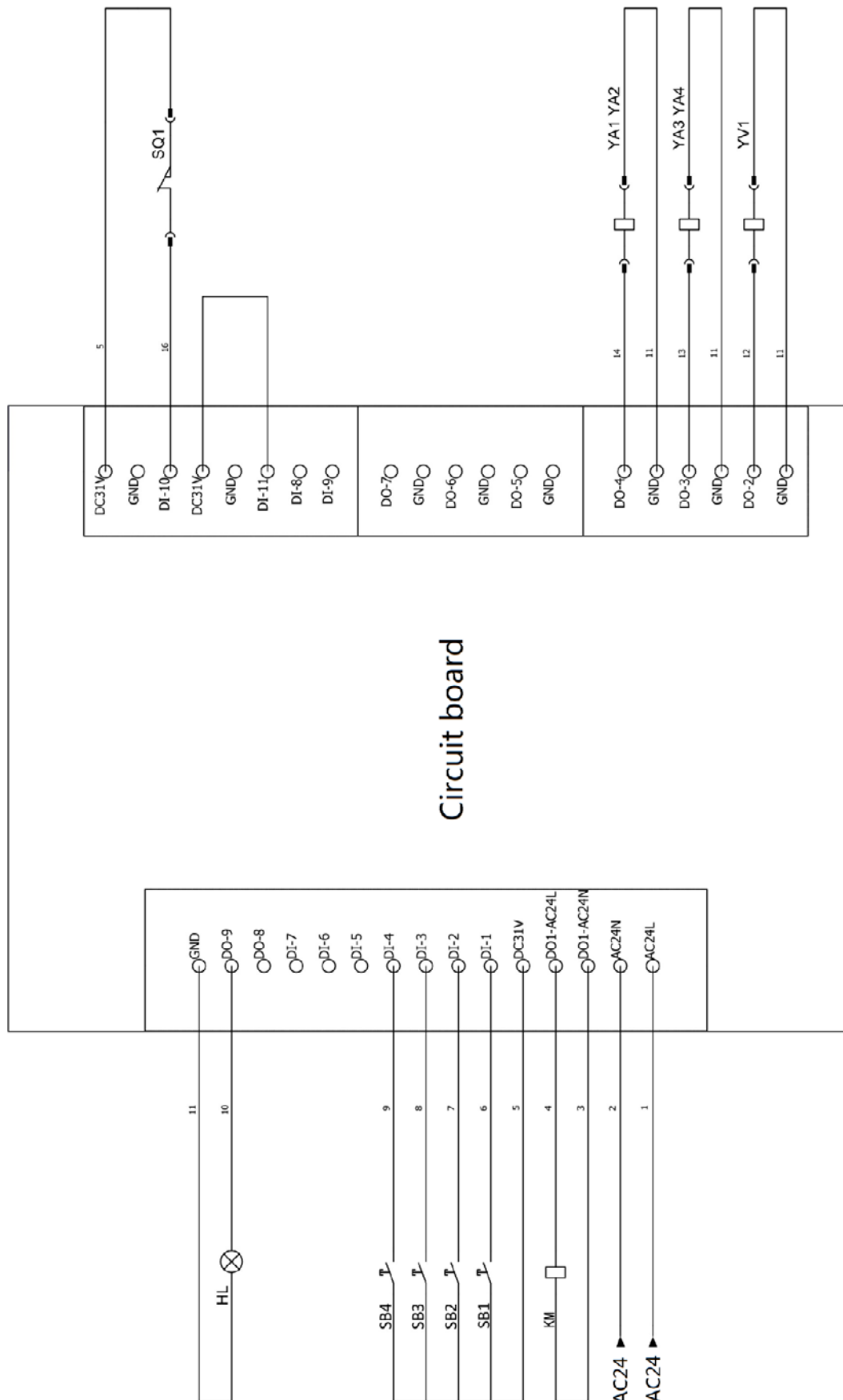
The concrete strength shall at least be C25 for a standard lift structure.

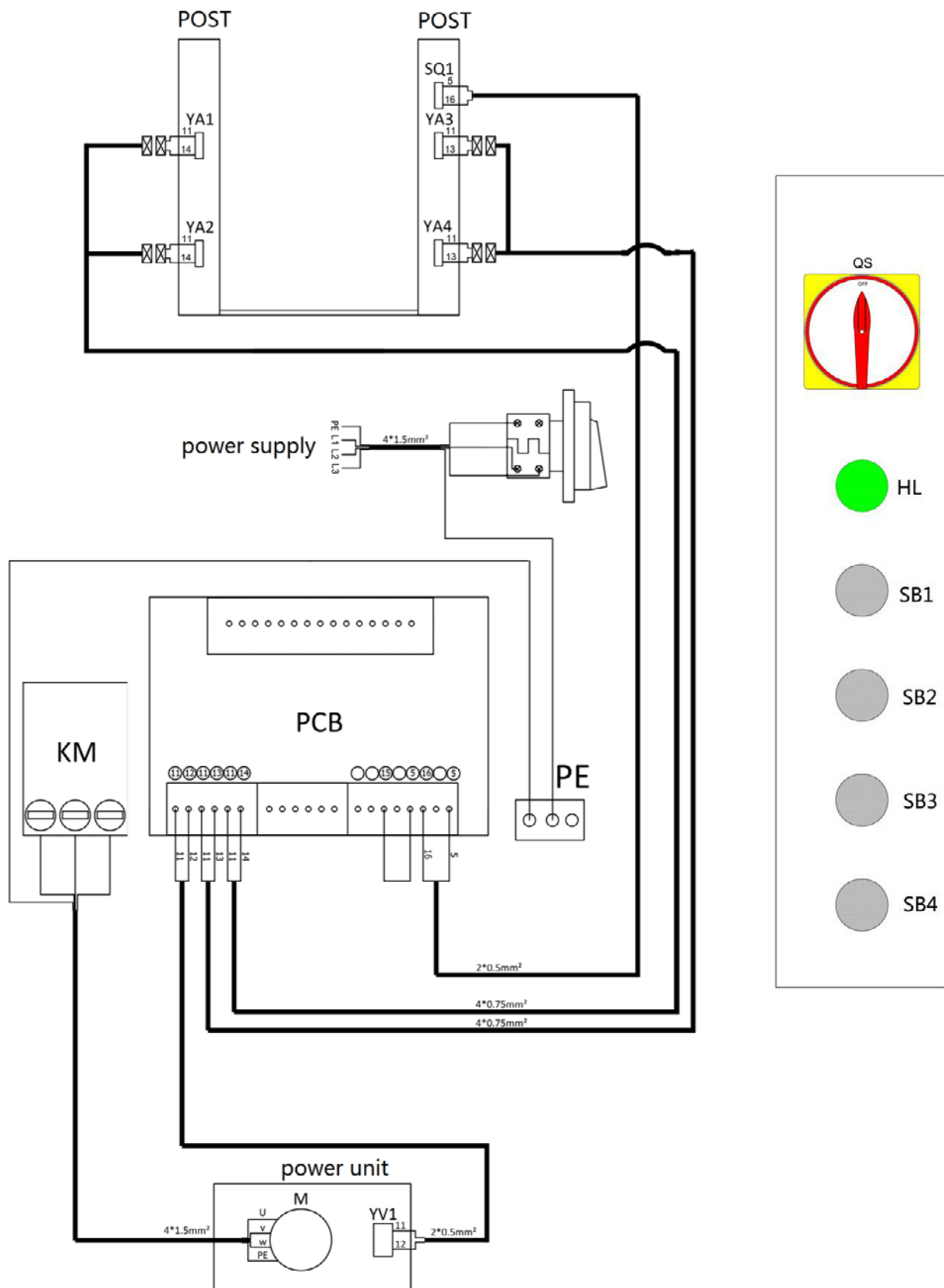


Annex 2, Electrical diagrams and parts list

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







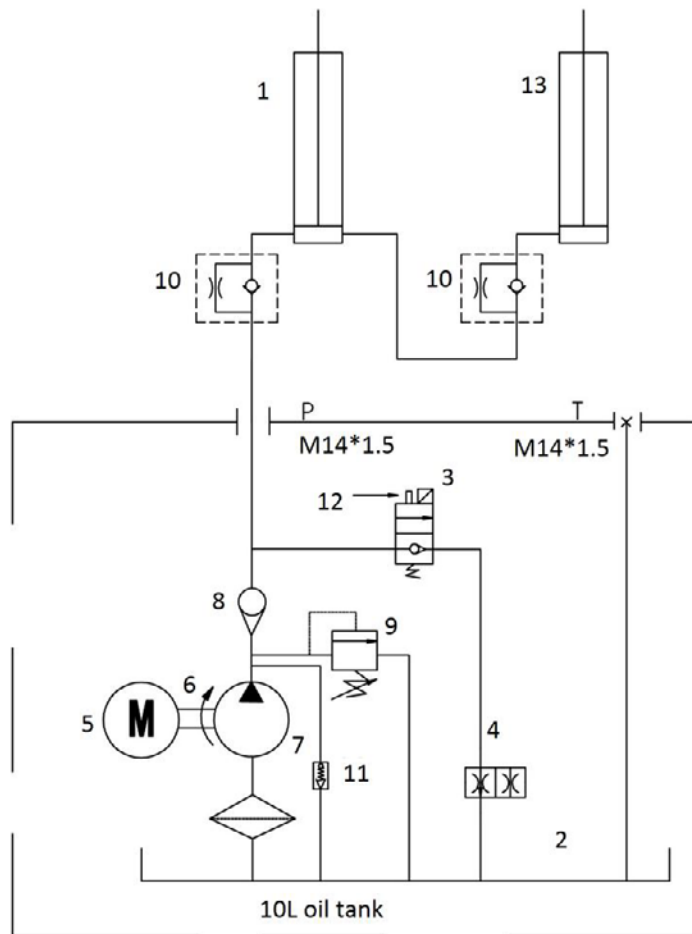
Power supply (1ph)	Line quantity	Yellow-Green	Blue	Other colors
	3 lines	Earth line	Neutral line	Phase wire
Power supply (3ph)	Line quantity	Yellow-Green	Other colors	
	4 lines	Earth line	Phase line	

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
YA1, YA2, YA3, YA4	330310005	Electromagnet	4
HL	321800001	Power indicator	1
	791130035	Circuit board	1

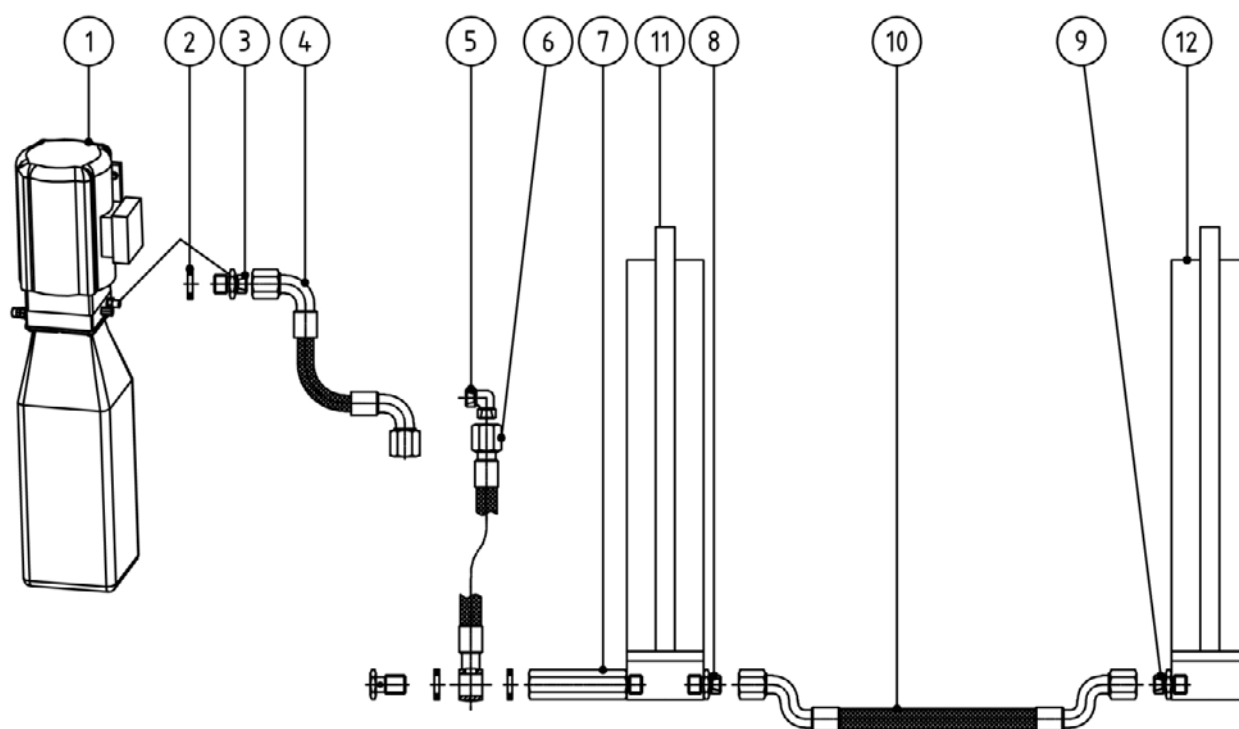
NOTE: For power supply of other voltage, the transformer is different.

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

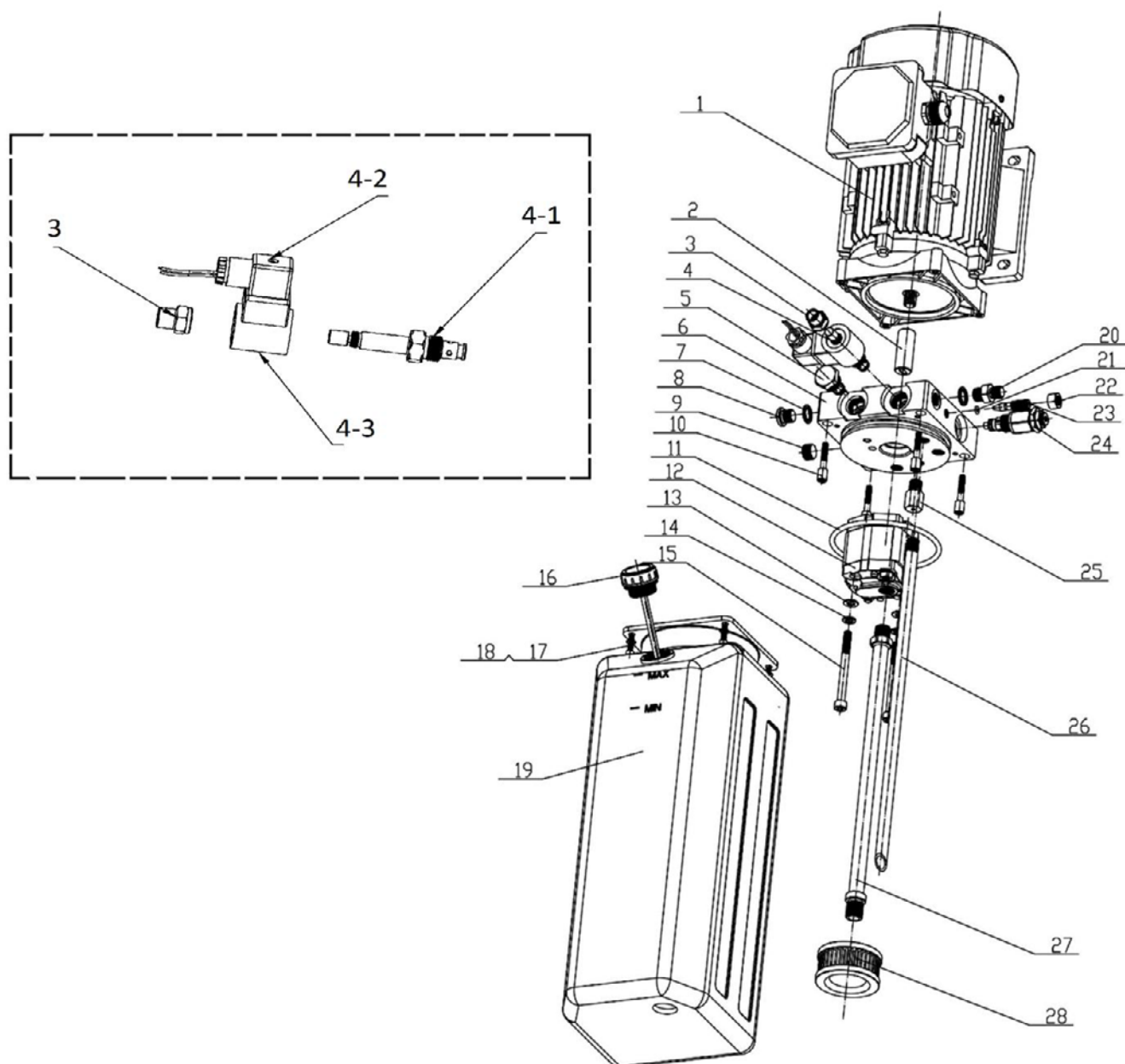
Annex 3, Hydraulic diagrams and parts list



- 1.main oil cylinder
- 2.oil tank
- 3.solenoid unloading valve
- 4.lowering throttle valve
- 5.motor
- 6.coupling
- 7.gear pump
- 8.single way valve
- 9.over-flow valve
- 10.hose leakage protective valve
- 11.cushion valve
- 12.emergency unloading valve
- 13.secondary cylinder



Pos.	Code	Description	Specification	Qty
1		Power unit	2.2kW/3.5kW	1
2	207103025	Composite washer	13.7*20*1.5	3
3	310101008	Shift connector	M14*1.5-G1/4 inside cone	1
4	624008046	Rubber oil hose	L=320	1
5	615022014	Right angle connection	612E-A8	1
6	624002004B	Rubber oil hose	L=2265	1
7	615006004	Composite connector	6254E-A4-B8	1
8	615001009	Connector	6254E-A4-B11	1
9	615001008	Short connector	6254E-A4-B10	1
10	624001025	Rubber oil hose	L=2880	1
11	615001007	Main oil cylinder	6254E-A4-B6	1
12	615001006	Secondary oil cylinder	6254E-A4-B5	1



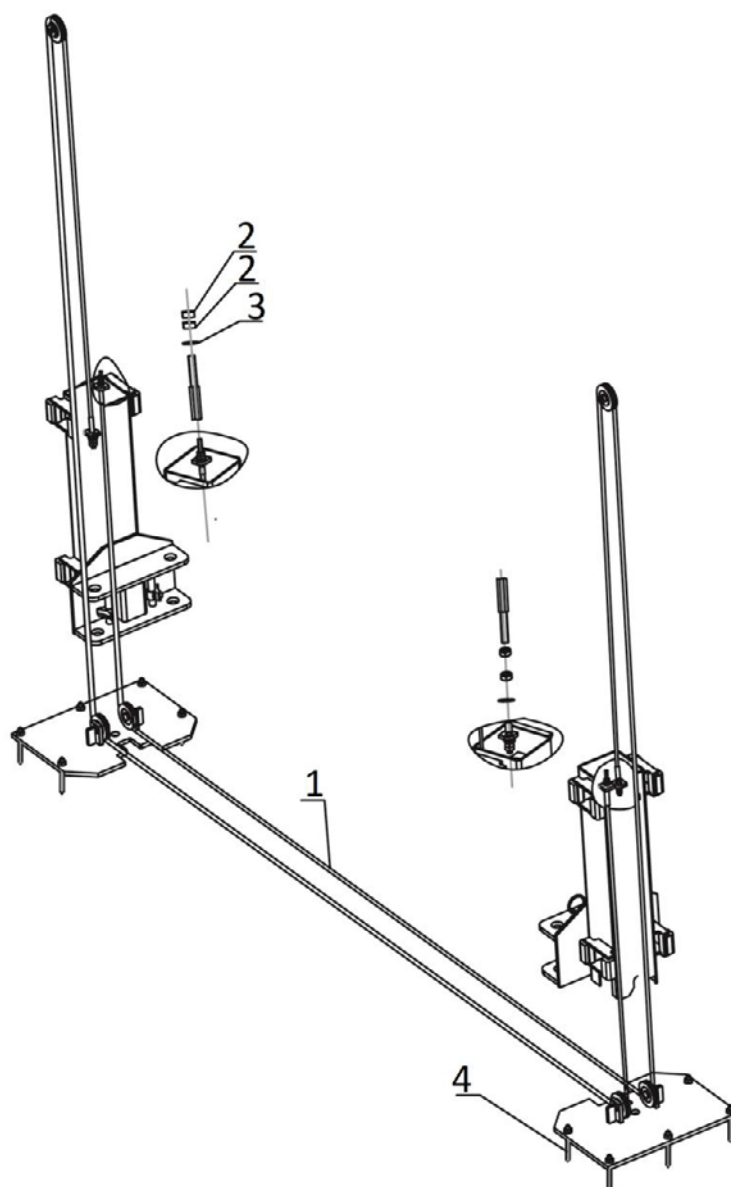
Pos.	Code	Descriptions	Specification	Qty
1	320201001	Motor	220V-2.2KW -1PH-50HZ-2P	1
1	320204302	Motor	380V/220V-3.5KW-3PH-50HZ-2P	1
1	320204304	Motor	400V/230V-3.5KW-3PH-50HZ-2P	1
1	320204306	Motor	415V/240V-3.5KW-3PH-50HZ-2P	1
2	330404006	Coupling	48mm (YBZ-F2.1D4H1/1-03)	1
3	203204102	Locking nut	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	LC2-08-C-2H,24VDC	1
5	330302008	Non-return valve	YBZ-E2D311/1-03	1
6	330101113	Hydraulic block	LBZ-T2BK-8	1
7	207103025	Composite washer	13.7*20*1.5	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	330201006	Gear pump (for 2.2kW motor)	CBK-F225/CBK-2.5F	1
12	330201008	Gear pump (for 3.5kW motor)	CBK-F242	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	330405051	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-E2D311/1-11A	2
24	330304007	Relief valve	YF08-40	1
25	330301003	Buffer valve	HCF-Z1/4	1
26	330402006	Oil-returning pipe	YBZ-E2D311/1-09	1
27	330401013	Oil-sucking pipe	YBZ-SJYG350	1
28	330403007	Oil-sucking filter	YBZ-E2D311/1-10	1

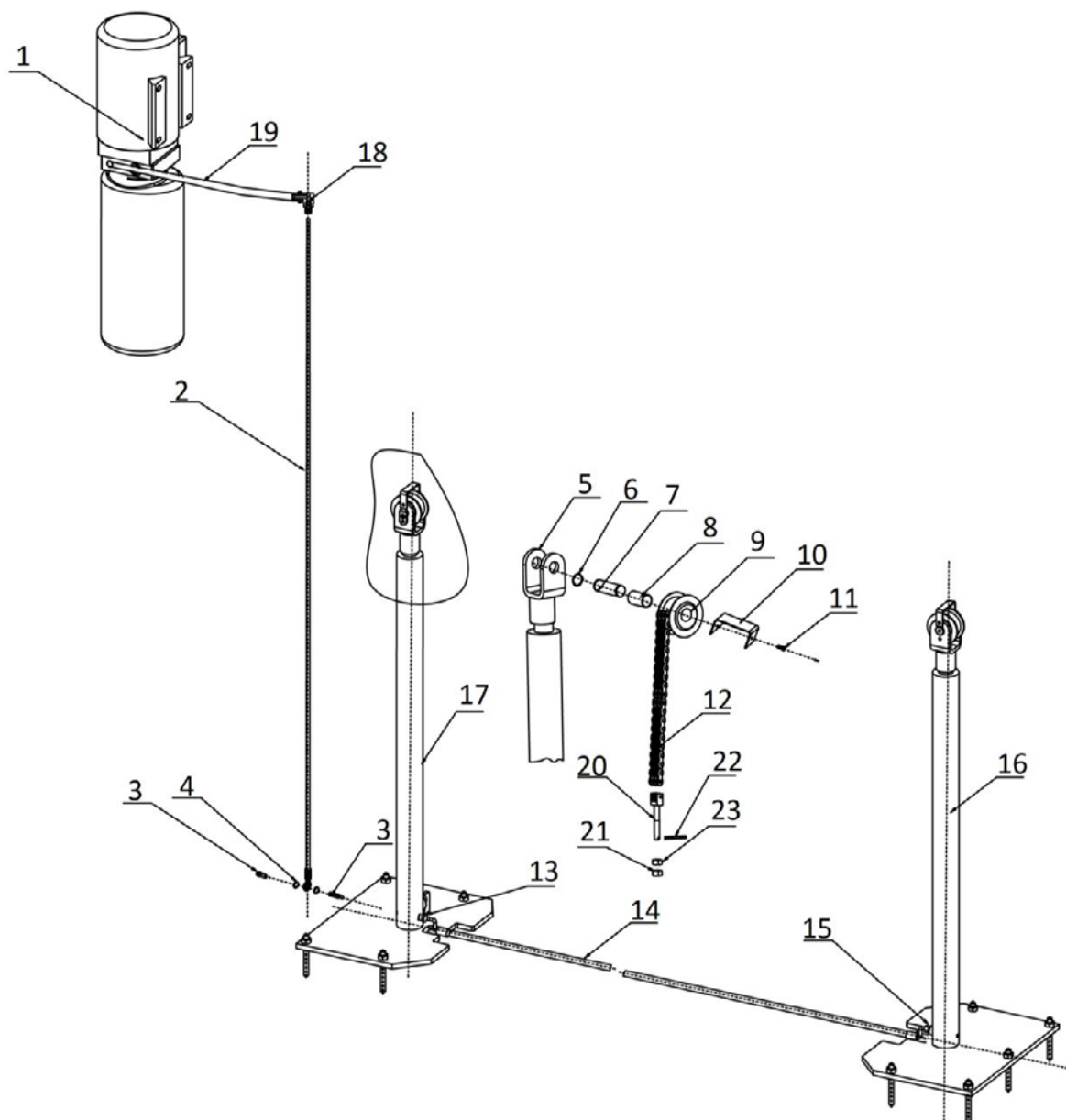
NOTE: The motor is different for different voltage or capacity.

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

Annex 4, Mechanical exploded drawings and parts list

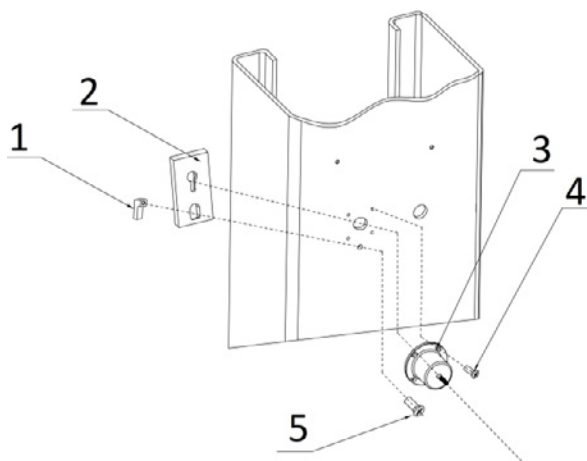


Pos.	Code	Description	Specification	Qty
1	615001010B	Steel rope	L=8785	2
2	203101009	Hex nut	M16	8
3	204101009	Flat washer	φ16	4
4	201201007	Anchoring bolt	M18*160	10

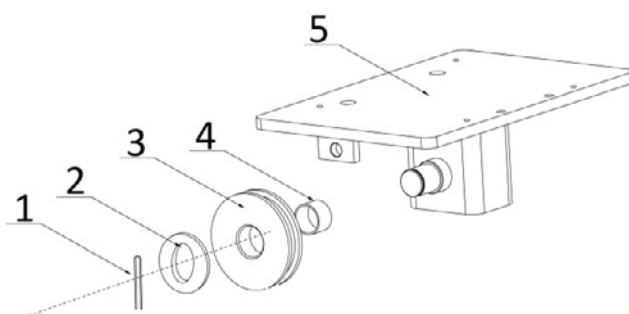


Pos.	Code	Description	Specification	Qty
1		Power unit	2.2kW/3.5kW	1
2	624002004B	Rubber oil hose	L=2265	1
3	615006004	Composite fitting	6254E-A4-B8	2
4	207103025	Composite washer	13.7*20.00*1.50(BS224)	2
5	612001001	Chain wheel holder	6254E-A4-B2	2
6	206201011	Cotter pin	M4*50	2
7	410011221	Shaft for the chain wheel	6254E-A4-B3	2
8	205101013	Bushing	2548	2
9	410010111	Chain wheel (35T)	6254E-A4-B4(6254A-A5-B3 ϕ 93 L=48)	2
	410130071	Chain wheel (42T)	6255E-A7-B5	2
10	410010313	Retaining plate (35T)	6254E-A4-B7	2
	410011233	Retaining plate (42T)	6255E-A7-B6	2

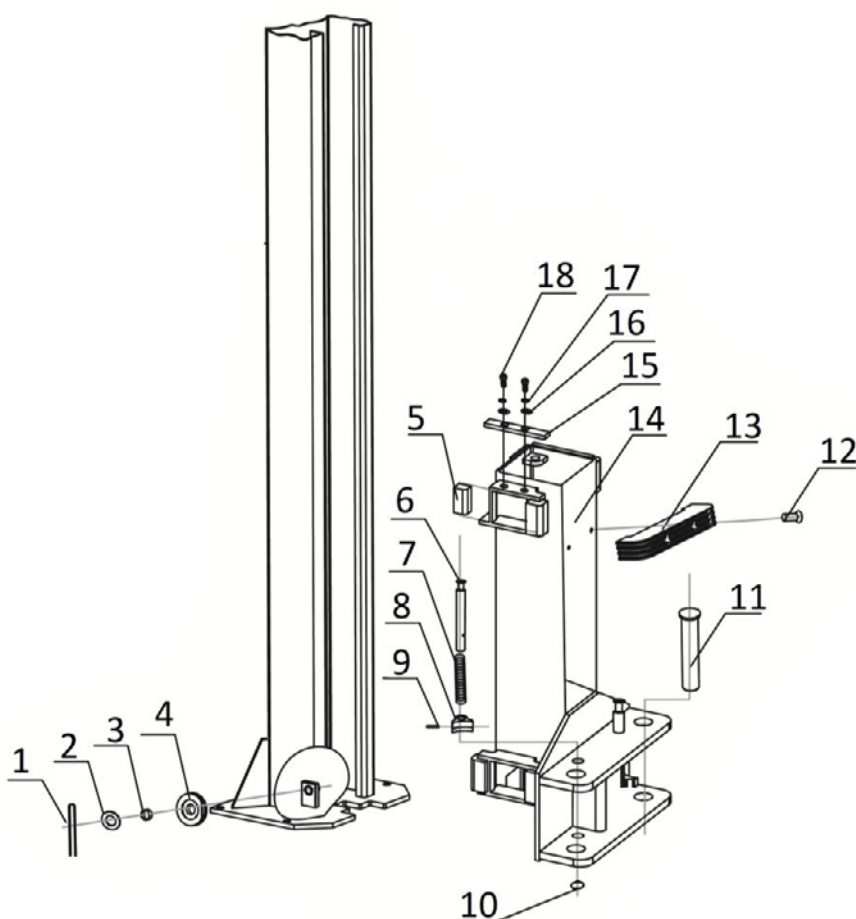
Pos.	Code	Description	Specification	Qty
11	202109017	Hex socket cylinder head screw	M6*8	4
12	208108001	Chain (35T)	LH1234-127LGB/T6074-1995	2
	208108003	Chain (42T)	LH1244	2
13	615001009	Main fitting	6254E-A4-B11	1
14	624001025	Oil hose	L=2880	1
15	615001008	Short fitting	6254E-A4-B10	1
16	615001006	Slave cylinder	6254E-A4-B5	1
17	615001007	Master cylinder	6254E-A4-B6	1
18	615022014	90°Right angle fitting	612E-A8	1
19	624008046	Rubber oil hose	L=320	1
20	410010040	Chain holder(35T)	6254E-A1-B1-C8(6254A-A1-B3-C2)	2
	410047330	Chain holder(42T)	62B-A1-B1-C2-42T	2
21	203204001	Hex open slot nut	M16 GB/T6178	2
22	206201008	Cotter pin	M4*30	2
23	203101009	Hex nut	M16	2



Pos.	Code	Description	Specification	Qty
1	410040071	Orientation block	6254E-A17	4
2	615068208	Safety locking plate	6254E-A13-V1	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

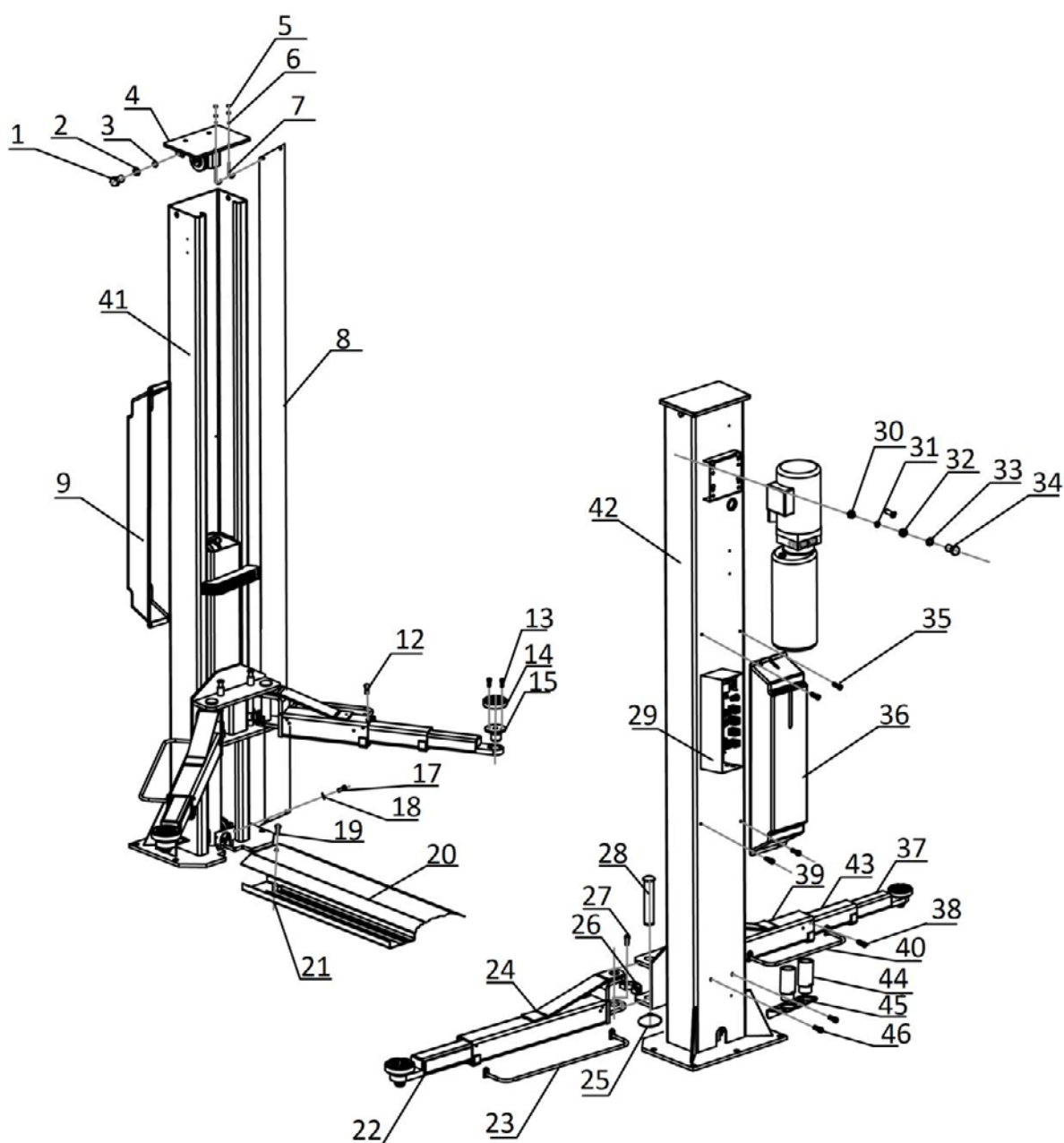


Pos.	Code	Description	Specification	Qty
1	206201004	Cotter pin	M3*45	2
2	410010031	Washer	6254E-A1-B3	4
3	410044260	Pulley	62B-A1-B2	2
4	205101007	Bushing	2512	2
5	614004912	Top plate assembly	62B-A4-B1	2



Pos.	Code	Description	Specification	Qty
1	206201004	Cotter pin	M3*45	4
2	410010031	Washer	6254E-A1-B3	4
3	205101007	Bushing	2512	4
4	410044260	Pulley	62B-A1-B2	4

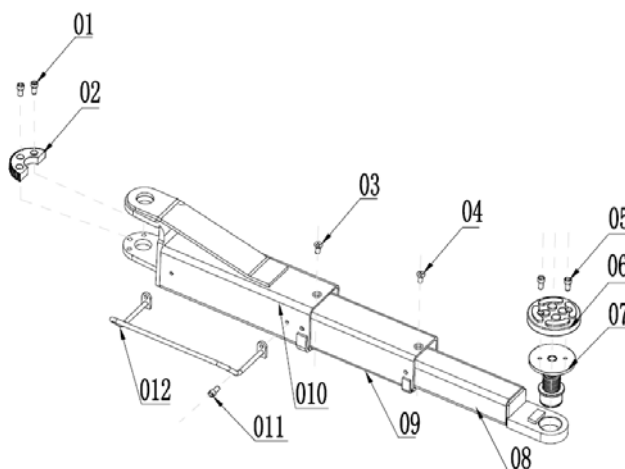
Pos.	Code	Description	Specification	Qty
5	420010010	Sliding block	6254E-A2-B5	16
6	410902001B	Pulling rod	6254E-A2-B1-C1-1	4
7	410150121	Pressed spring	6254E-A2-B4	4
8	410901075	Teeth block	6254E-A2-B9	4
9	206102013	Elastic post pin	D6X40-GB879_4	4
10	204301009	Circlip	D25-GB894_2	4
11	410049031B	Pin shaft	6254E-A12	4
12	202109031	Hex socket cylinder head screw	M8×30-GB70_1	4
13	420680124	Rubber protective pad	62B-A3-B11	2
14	614901811	Carriage	62B-A3-B1-V1	2
15	410047111	Retaining plate for the sliding block	62B-A3-B2	8
16	204101006	Flat washer	M10	16
17	204201005	Spring washer	M10	16
18	202109041	Hex socket cylinder head screw	M10*20	16



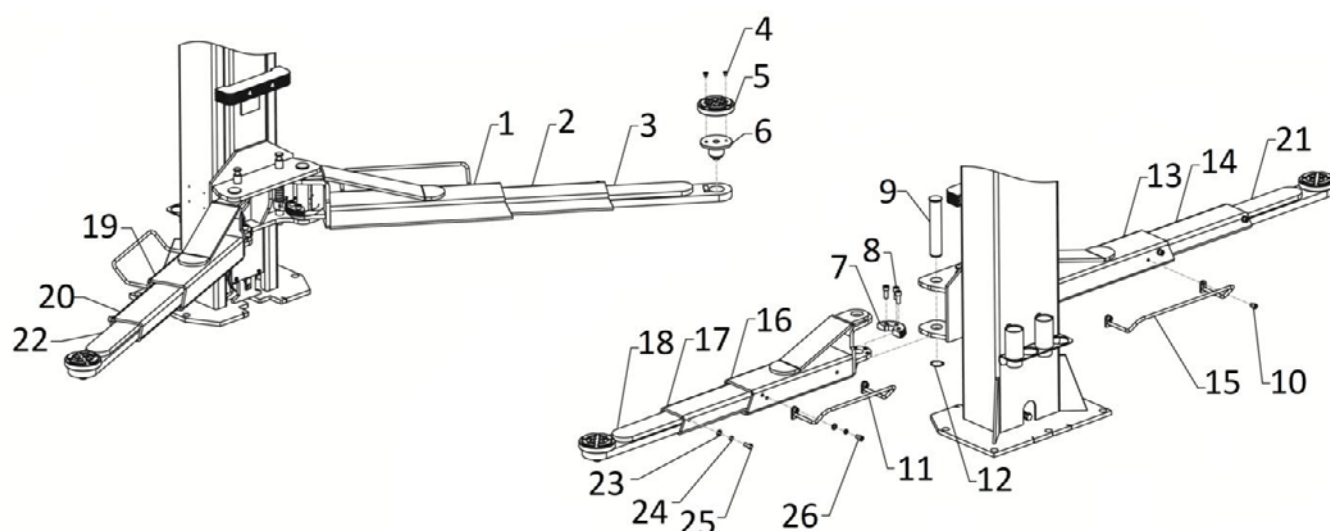
Pos.	Code	Description	Specification	Qty
1	201102026	Hex head full swivel bolt	M12*25	4
2	204201006	Spring washer	M12	4
3	204101007	Flat washer	M12	4
4	614004912	Top plate assembly	62B-A4-B1	1
5	203101004	Hex nut	M6	8
6	204101004	Flat washer	M6	8
7	410010051	Hanging rod	6254E-A1-B5	2
8	615001002	Protective covering cloth	6254E-A1-B4	2
9	420047160B	Protective cover on the secondary post	62-A16	1
12	202109040	Hex socket cylinder head screw	M10*15	4
13	202111004	Hex socket flat head screw	M8X12-GB70_3	8

Pos.	Code	Description	Specification	Qty
14	420040250	Round pad	6254E-A7-B4-C4	4
15	615004003D	Supporting adapter	6254E-A7-B4	4
17	202101027	Cross socket cap head screw	M6*8	4
18	204101004	Flat washer	M6	4
19	202110016	Hex socket flat head screw	M12*20	2
20	410040013B	Base plate (not applicable to lift with stronger base frame)	6254E-A10	1
21	614004017B	Slot base plate (not applicable to lift with stronger base frame)	6254E-A9	1
22	614901362	Long retractable arm	6254E-A7-B3-1	2
23	614004014B	Fender for the long arm (for two stage arm)	6254E-A7-B5	2
24	614004005B	Long arm (two stage arm)	6254E-A7-B1	2
25	204301013	Circlip	M38	4
26	410901074	Teeth wheel (half circle)	6254E-A2-B8	4
27	202109085	Hex socket cylinder head screw	M12*30	12
28	410049031B	Pin shaft	6254E-A12	4
29		Control box		1
30	203101006	Hex nut	M10	4
31	204101006	Flat washer	M10	4
32	204201005	Spring washer	M10	4
33	420040010	Anti-shock proof	6254E-A23	4
34	201103004	Hex socket full swivel screw	M10*35	4
35	202109019	Hex socket cylinder head screw	M6*12	8
36	420680117	Protective cover on the power side post	62B-A17	1
37	614004011C	Short retractable arm (615-1150)	6254E-A27-B3	2
38	202110018	Hex socket culinder head screw	M10*12	8
39	614004007C	First stage of the short triple arm (615-1150)	6254E-A27-B1	2
40	614004012B	Fender for the short triple arm	6254E-A27-B4	2
41	614901287	Welded secondary post assembly (42T)	62B-A2-B1-42T-1	1
41	614901289	Welded secondary post assembly (35T)	62B-A2-B1-35T-1	1
42	614901286	Welded main post assembly (42T)	62B-A1-B1-42T-1	1
42	614901288	Welded main post assembly (35T)	62B-A1-B1-35T-1	1
43	614004009C	Mid stage of the short triple arm (615-1150)	6254E-A27-B2	2
44	612004003B	Height extender	6254E-A11	4
44	612005002	Short height-extension adapter(optional)	6254EB-A4 L=55	4
45	410901744	Holder for height adapter	6254E-A1-B1-C6-V0	2
46	202110004	Hex socket flat head screw	M8*12	4

Optinal 3-stage arm
(745-1345)



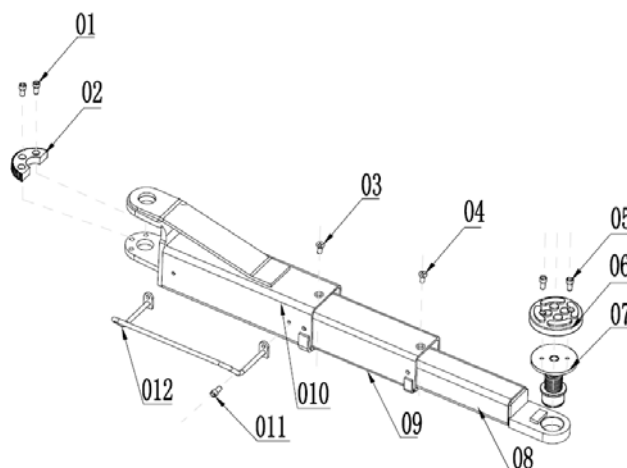
Pos.	Code	Description	Specification	Qty
1	202109085	Hex socket cylinder head screw	M12*30	3
2	410901074	Teeth wheel(semi-teeth)	6254E-A7-B8	1
3	202109040	Hex socket cylinder head screw	M10*15	2
4	202109040	Hex socket cylinder head screw	M10*15	2
5	202111004	Hex socket flat head screw	M8*12	2
6	420040250	Round pad	6254E-A7-B4-C4	1
7	615004003D	Lifting tray assembly	6254E-A7-B4-C4	1
8	614004028B	Retractable arm of the long triple arm (745-1345)	6254E-MDN-A10-B3	1
9	614004029B	Mid arm of the long triple arm (745-1345)	6254E-MDN-A10-B2	1
10	614004027B	Support arm of the long triple arm (745-1345)	6254E-MDN-A10-B1	1
11	202110018	Hex socket cylinder head arm	M10*12	8
12	614004012B	Fender for the short triple arm	6254E-A27-B4	1
12	614004030B	Fender for the long triple arm	6254E-MDN-A10-B4	1

Optional four low-profile 3-stage arms (615-1150, 745-1345)
Four low-profile 3-stage arm, its pick-up clearance as low as 85mm.


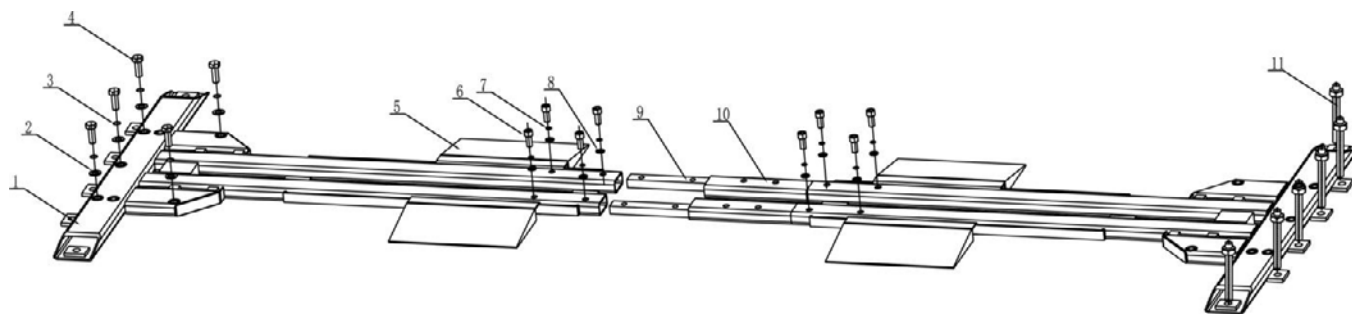
Pos.	Code	Description	Specification	Qty
1	614901971	Lifting arm of long 3-stage arm (Right)	62CV3-A10-B1	1
2	614901972	Mid arm of long 3-stage arm (Right)	62CV3-A10-B2	1
3	614901973	Retractable arm of the long 3-stage arm (Right)	62CV3-A10-B3	1
4	202111004	Hex socket flat head screw	M8X12-GB70_3	8
5	420040250	Round pad	6254E-A7-B4-C4	4
6	610004547	Low-profile Lifting tray(no contact pad)	6254E-A7-B4-V1	4
4+5+6	610004517	Low-profile Lifting tray assembly	6254E-A7-B4-V2	4
7	410901074	Teeth block (semi-teeth)	6254E-A7-B8	4
8	202109085	Hex socket cylinder head screw	M12X30-GB70_1	12
9	410049031B	Pin shaft	6254E-A12	4
10	202110018	Hex socket cylinder head screw	M10X12-GB70_1	8
11	614004012B	Fender for the short 3-stage arm	6254E-A27-B4	2
12	204301013	Circlip	D38-GB894_1	4
13	614901976	Lifting arm of long 3-stage arm (left)	62CV3-A12-B1	1
14	614901977	Mid arm of the long 3-stage arm (left)	62CV3-A12-B2	1
15	614004030B	Fender for the long 3-stage arm	6254E-MDN-A10-B4	2
16	614901974	Lifting arm of short 3-stage arm (left)	62CV3-A11-B1	1
17	614901975	Mid arm of the short 3-stage arm (left)	62CV3-A11-B2	1
18	614901978	Retractable arm of the short 3-stage arm (left)	62CV3-A11-B3	1
19	614901968	Lifting arm of short 3-stage arm (Right)	62CV3-A9-B1	1
20	614901969	Mid arm of short 3-stage arm (Right)	62CV3-A9-B2	1
21	614901979	Retractable arm of the long 3-stage arm (left)	62CV3-A12-B3	1
22	614901970	Retractable arm of the short 3-stage arm (Right)	62CV3-A9-B3	1
23	204101006	Flat washer	D10-GB95	8
24	204201005	Spring washer	D10-GB93	8

Pos.	Code	Description	Specification	Qty
25	202109041	Hex socket cylinder head screw	M10X20-GB70_1	4
26	202109040	Hex socket cylinder head screw	M10X16-GB70_1	4

Optional 3-stage arm for lift with stronger base frame
 (615-1150,745-1345)

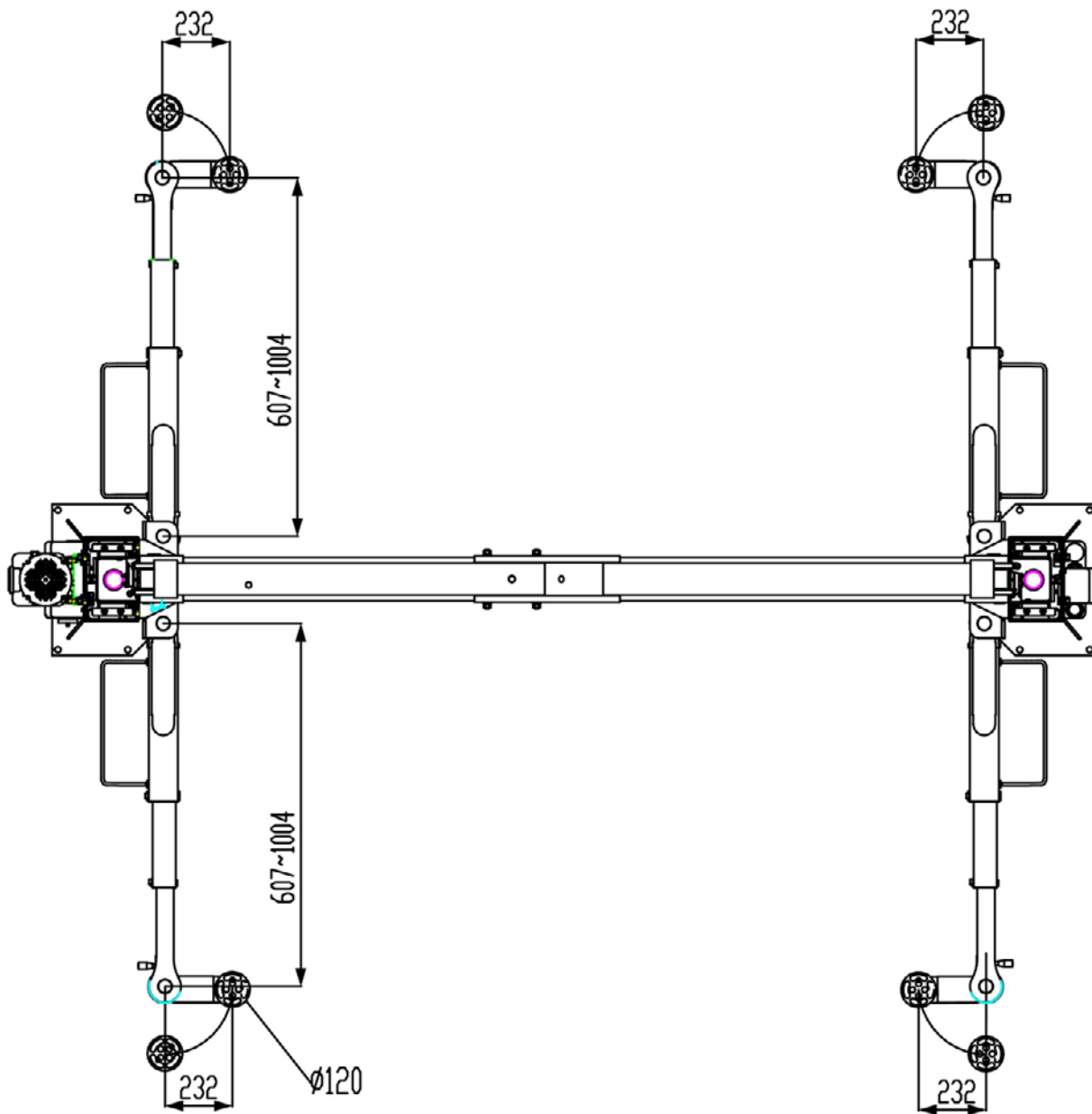


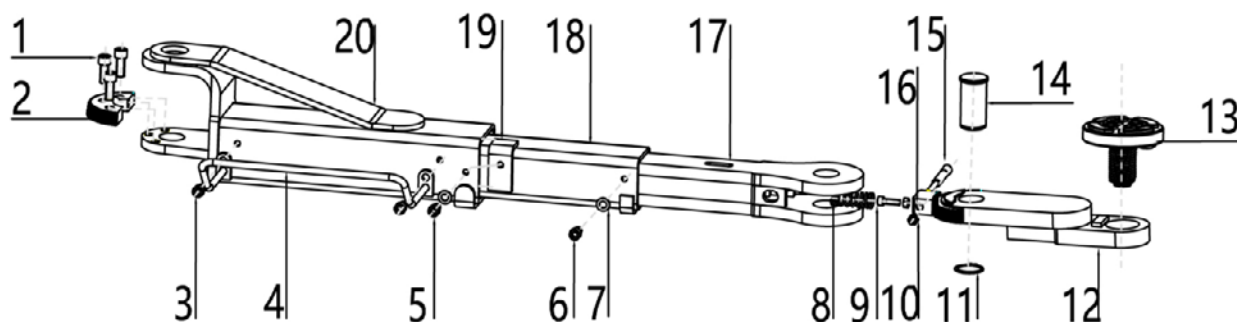
Pos.	Code	Description	Specification	Qty
1	202109085	Hex socket cylinder head screw	M12*30	3
2	410901074	Semi-teeth wheel	6254E-A7-B6	1
3	202109040	Cross socket flat head screw	M10*15	2
4	202109040	Cross socket flat head screw	M10*15	2
5	202111004	Hex socket flat head screw	M8*12	2
6	420040250	Round pad	6254E-A7-B4-C4	1
7	615004003D	Lifting tray assembly	6254E-A7-B4-C4	1
8	614004011C	Third stage of the short triple arm	6254E-A27-B3	1
9	614004009C	Mid stage of the short triple arm	6254E-A27-B2	1
10	614004866	First stage of the short triple arm	6254E-A27-B1	1
8	614004028B	Third stage of the long triple arm	6254E-MDN-A10-B3	1
9	614004029B	Mid stage of the long triple arm	6254E-MDN-A10-B2	1
10	614004099	First stage of the long triple arm	6254E-A10-B1	1
11	202110018	Hex socket cylinder head screw	M10*12	2
12	614004012B	Fender for the short triple arm	6254E-A27-B4	1
12	614004030B	Fender for the long triple arm	6254E-MDN-A10-B4	1



Pos.	Code	Description	Specification	Qty
1	614004845C	Reinforced base frame	6254EB-A36-B2	2
2	204101010	Flat wahser	D18-GB95	10
3	204201008	Spring washer	D18-GB93	10
4	201102051	Hex head full threaded screw	M18x50-GB5783	10
5	614004868	Drive-on plate	62EB-A35-B4	4
6	202109066	Hex socket cylinder head screw	M16X35-GB70_1	12
7	204201010	Spring washer	D16-GB93	12
8	204101009	Flat wahser	D16-GB93	12
9	410048103B	Steel tube	62EB-A35-B2	2
10	410048443	Extending tube	62EB-A35-B10	2
11	201201007	Expansion bolt	M18x160	12

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