

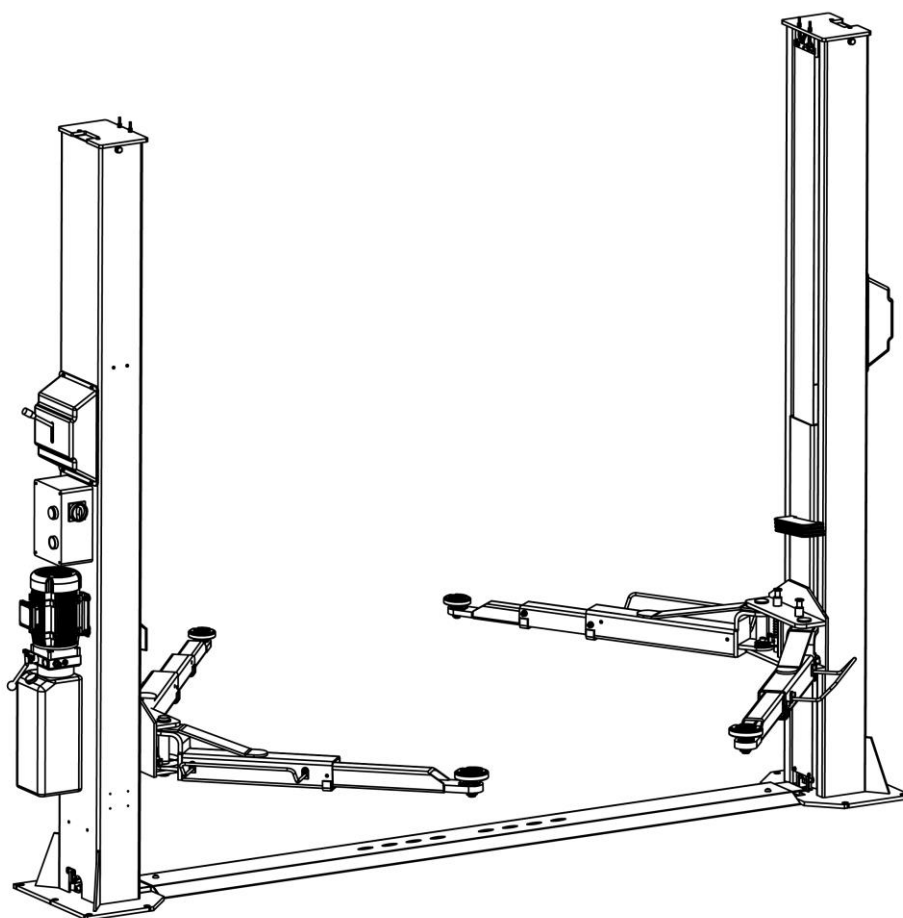
Model No. EE-F9M

Two Post Lift,
Manual Release
Lifting Capacity 3500kg

**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: 08/09/2023
www.eae-ae.com

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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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.

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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.

IMPORTANT NOTES	2
SAFETY NOTES	4
1.1 Operation of lifting platforms.....	4
1.2 Checking of the lifting platforms	4
1.3 Important safety notices.....	5
1.4 Warning labels.....	6
1.5 Potential safety risks.....	7
1.6 Noise level.....	7
PACKING, STORAGE AND TRANSPORTATION	8
2.1 The lift was dismantled into the following 3 parts for transportation	8
2.2 Storage	8
2.3 Opening the packs	8
PRODUCTS DESCRIPTIONS	9
3.1 General descriptions.....	9
3.2 Construction of the lift.....	9
3.3 Technical data	9
3.4 Dimensions	10
3.5 Safety devices descriptions.....	12
INSTALLATION INSTRUCTIONS	12
4.1 Preparations before installation.....	12
4.2 Installation attentions	13
4.3 General installation steps.....	13
4.4 Items to be checked after installation	21
OPERATION INSTRUCTIONS	21
5.1 Precautions.....	21
5.2 Operation instructions.....	21
TROUBLE SHOOTING	23
INSPECTION AND MAINTENANCE	24
Annex 1, Floor plan.....	26
Annex 2, Electrical schemes and parts list.....	27
Annex 3, Hydraulic schemes and parts list	29
Annex 4, Mechanical exploded drawings and parts list	31

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 requirement
- 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.




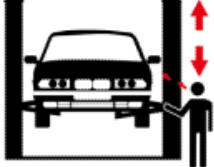



WARNING: The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the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

SAFETY ADVICE

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	<p>Only trained personnel are allowed to operate the lift.</p>
	<p>Always keep lift area clear when lowering or raising vehicle.</p>
	<p>Do not try to raise a vehicle exceeds the rated capacity.</p>
	<p>Always raise a vehicle with four swing arms.</p>
	<p>Position and adjust pads to lifting points recommended by vehicle manufacturers.</p>
	<p>Stop and check lift arm locks and stability of vehicle after short raising, then to desired height.</p>
	<p>Watch closely the vehicle during raising or lowering.</p>
	<p>Always use safety stands when moving/ installing heavy components.</p>
	<p>Avoid excessive rocking of vehicle while on lift.</p>
	<p>Do not climb onto the lift or raised vehicle during lifting or lowering.</p>

1.5 Potential safety risks

1.5.1 Mains 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

<i>Description</i>	<i>Packed by</i>	<i>Quantity</i>
<i>Lift</i>	<i>Steel brackets</i>	<i>1</i>
<i>Power unit</i>	<i>Carton</i>	<i>1</i>

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.

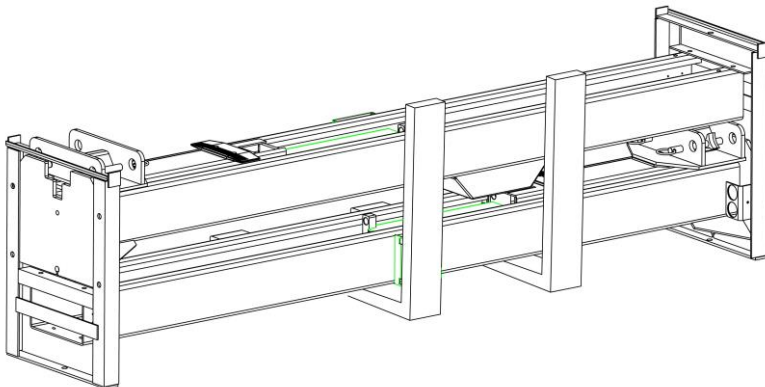
If stacking is unavoidable, use all appropriate precautions:

- 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 Opening the packs

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



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

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

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

PRODUCTS DESCRIPTIONS

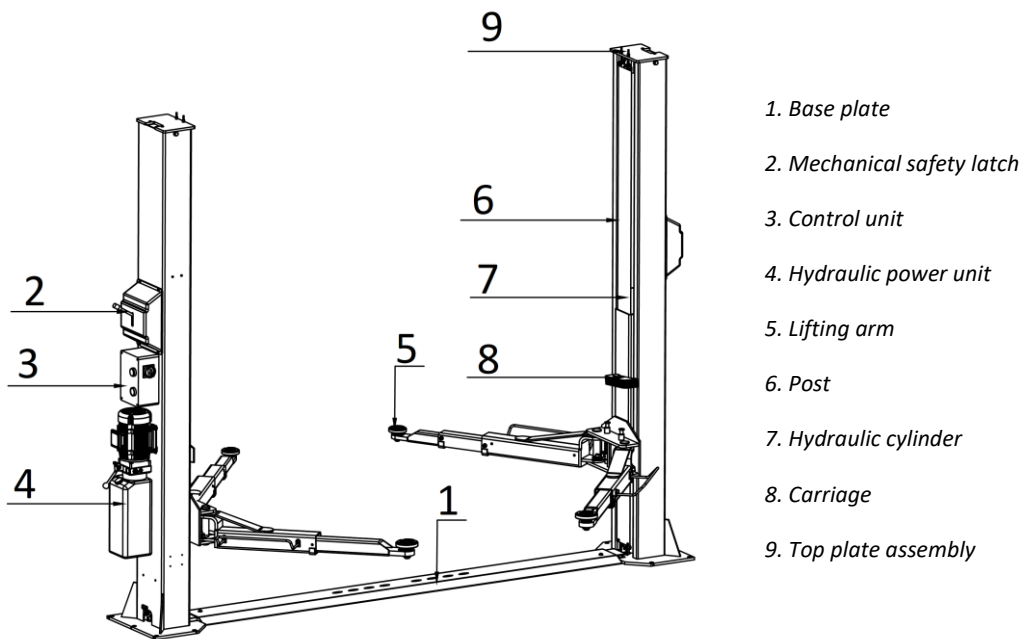
3.1 General descriptions

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 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

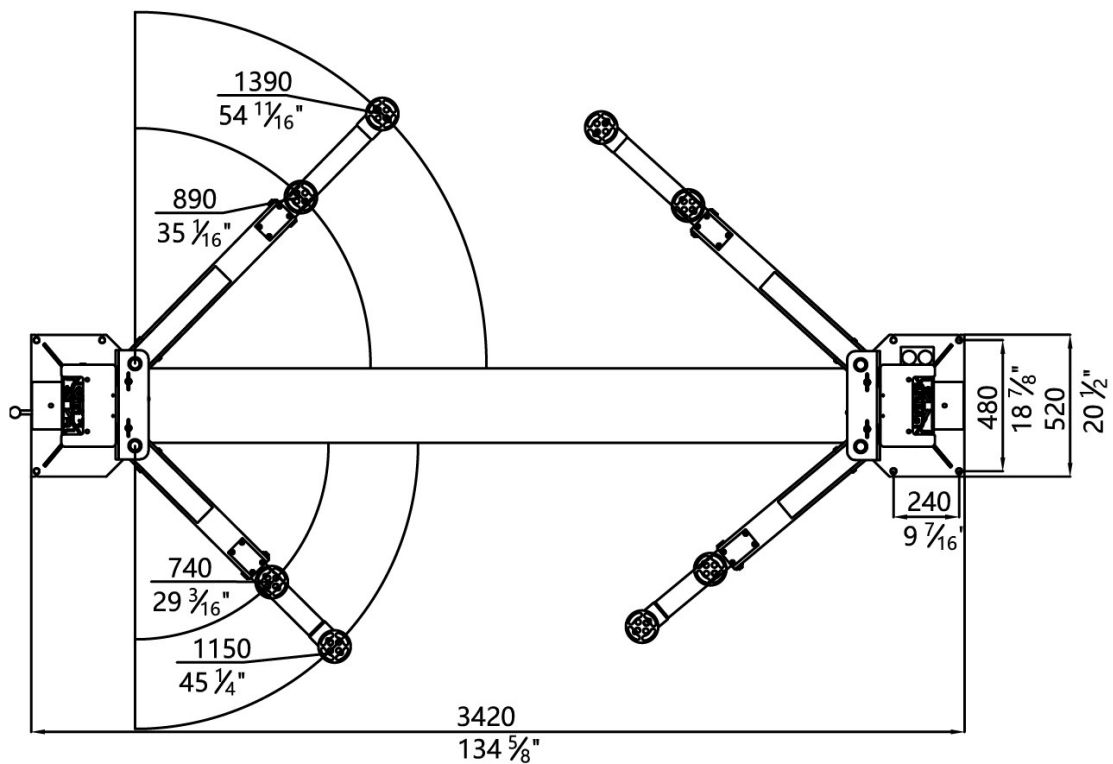
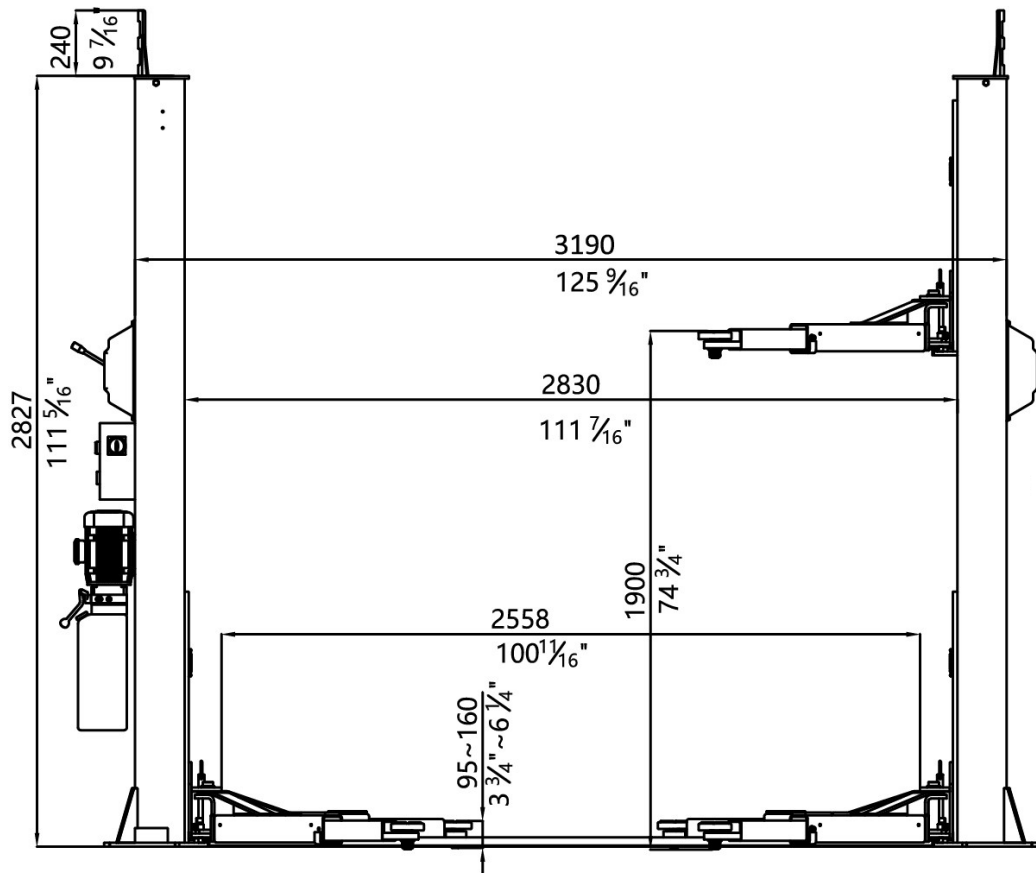


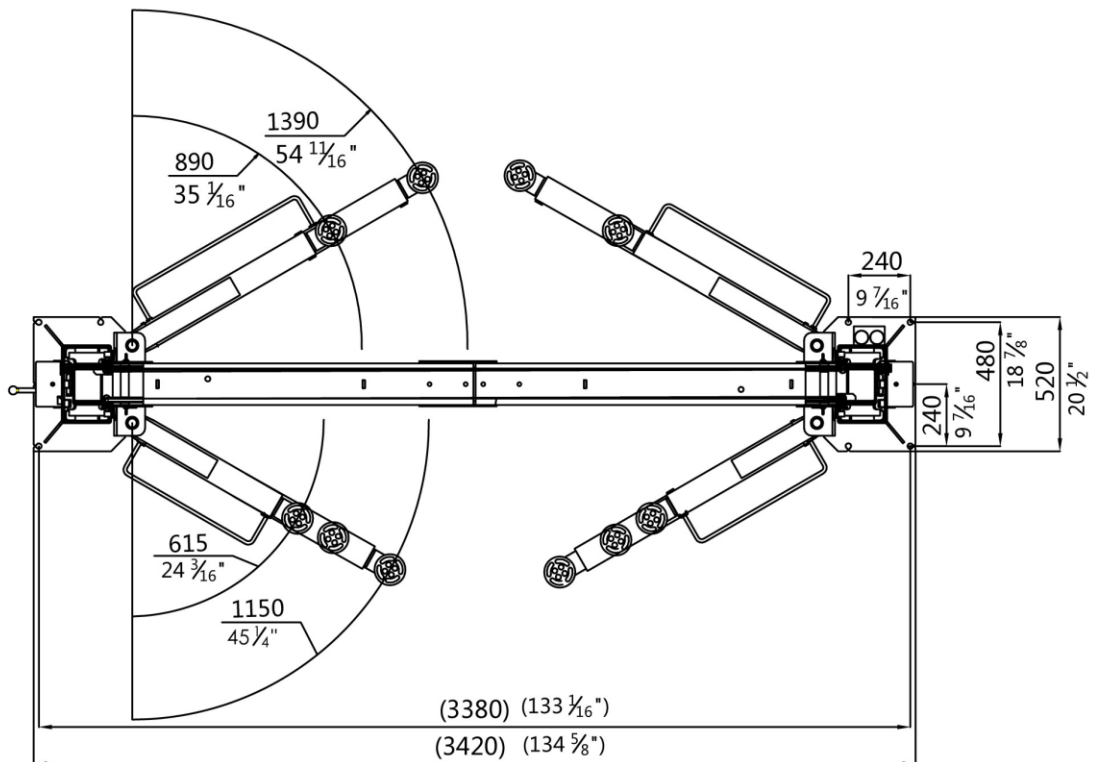
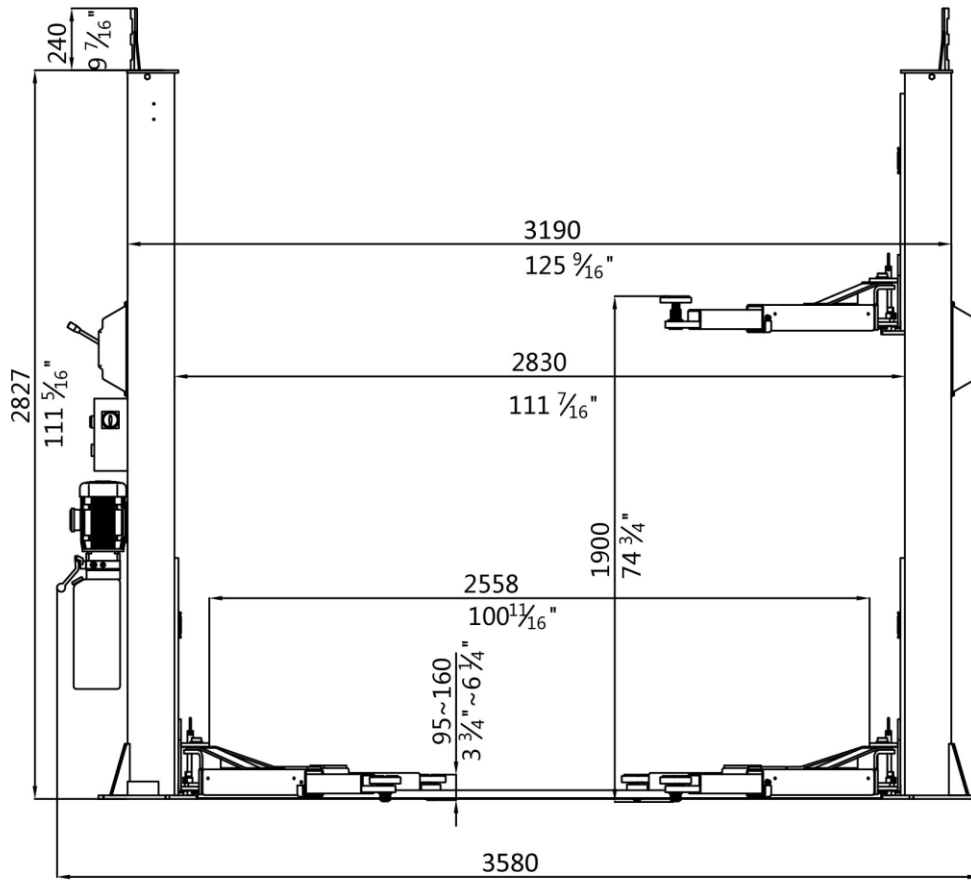
3.3 Technical data

Lifting capacity	3500kg
Max. height of the pick-up adapter	1900mm
Min. height of the pick-up adapter	95mm
Full rise time (with rated load)	Approx.60
Full descent time (with rated load)	Approx.50s
Power Supply	380V/400V/415V-3ph-50Hz/60Hz 220V/230V/240V-1ph-50Hz/60Hz
Oil tank volume	10L

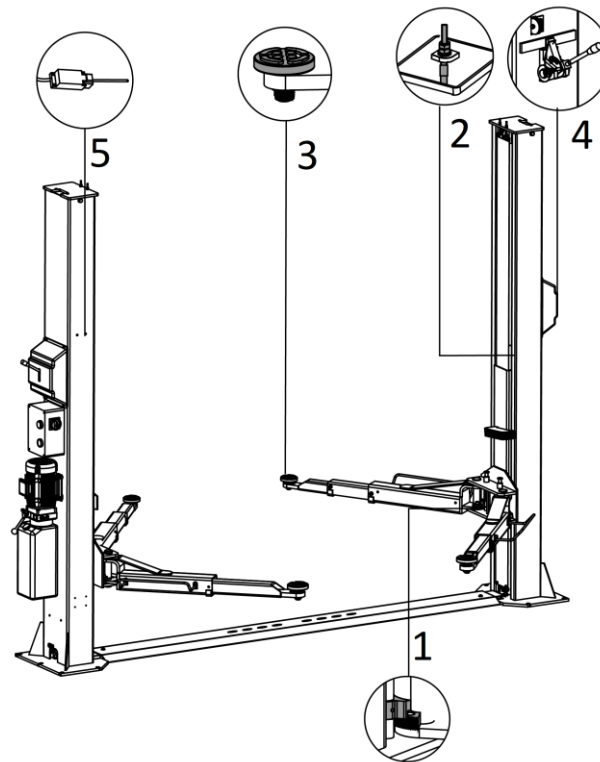
3.4 Dimensions

Dimension scheme with four 2-stage arms



Dimension scheme with two 3-stage arms and two 2-stage arms


3.5 Safety devices descriptions



POS.	Description	Function
1	Arm lock	Ensure the supporting arms are locked and avoid swinging during lifting process
2	Steel rope	Balance carriages at both sides.
3	Rubber pad	Safe contact with the wheelbase
4	Mechanical safety locking unit	Catch the carriages in case of hydraulic failure
5	Max height limit switch	Stop rising at max height

INSTALLATION INSTRUCTIONS

4.1 Preparations before installation

4.1.1 Space requirements

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

4.1.2 Foundations and connections

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

Construction of the foundation following consultation with the manufacturer's customer service or an authorized service agent. Routing of the wiring to the installation location. **The user must provide fuse protection for the connection. Electrical system connection must be done by licensed technicians.** Requirements for power supply cable of the installation site: at least 2.5mm² wire core for 3Ph power and 4.0mm² wire core for 1Ph power.

Refer also to the corresponding information on the name plate and in the operation instructions.

Before doing electrical connection, make sure the lift is electrically adapt to the local power supply.

4.1.3 Foundations preparations

Refer to Annex 1 for footing.

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 (7 7/8") (continuous footing).

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

Newly built concrete ground must be older than 20days.

4.1.4 Tools and equipment needed for installation

Tool name	Specification	Quantity
Electrical drill	D18 drill bit	1
Open spanner	D17-19	2
Adjustable spanner	bigger than D30	1
Cross socket screw driver	PH2	1
Quick spanner handle adapter/ Ratchet	REB-310	1
Socket spanner	D24	1
Levelling device	Accuracy: 1mm(1/16")	1
Hammer	10 pounds	1
Truck lift	Capacity, 1000kg (2200 lbs.)	1
Lifting string	Capacity, 1000kg (2200 lbs.)	2
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.

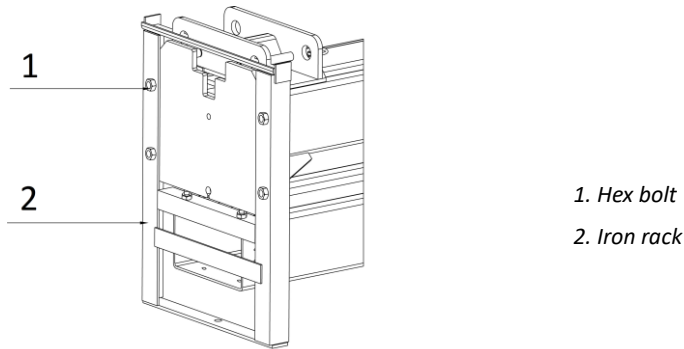
4.3 General installation steps

ONLY TRAINED AND QUALIFIED INSTALLERS CAN PERFORM LIFT INSTALLATION DUTIES.

Step 1: Remove the packaging and take out the accessories attached.

Attention : The 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).

Use proper means (put something supporting under the post or suspend the post by a crane) to suspend the post, unscrew and remove the bolts fixed on the iron rack.



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

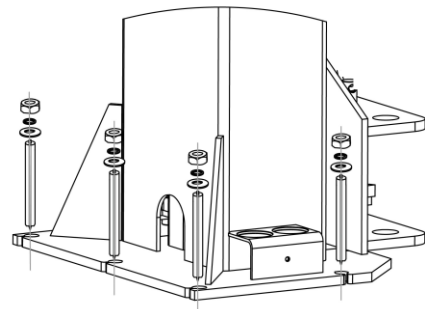
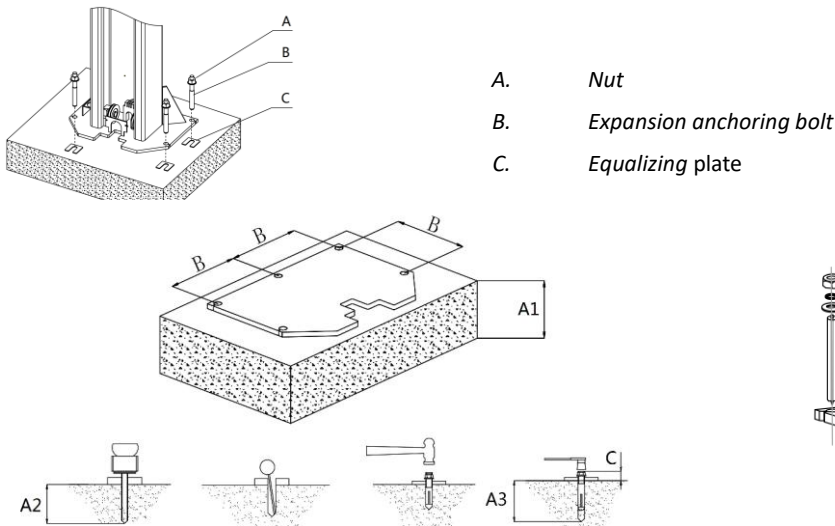
Step 2: Fix the standing position for the two posts. (See Annex 1, floor plan)

1. Decide on which post the power unit is going to be mounted.
2. Draw an outline of the base plate on the installation ground with chalk and ascertain the position for the two posts.

Step 3: Erect and secure the post.

Screw torque (63-74b.ft) 80-100Nm

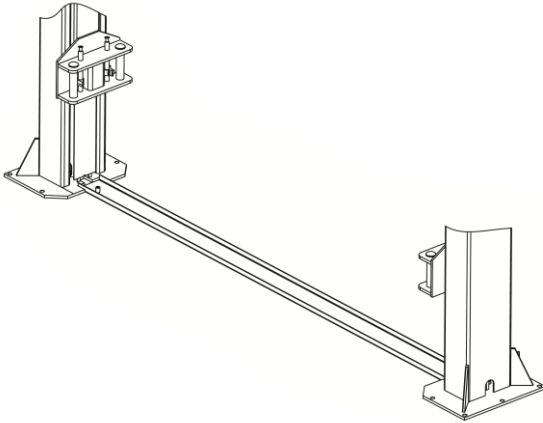
1. Make the posts face to each other and the distance between the posts equals to the length of the base plate. Use proper means to erect the post.
2. Use suitable means to raise the lifting carriage to the first latching position. All the mounting holes in the base plate are then accessible. Make sure 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.



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

Step 4: 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.

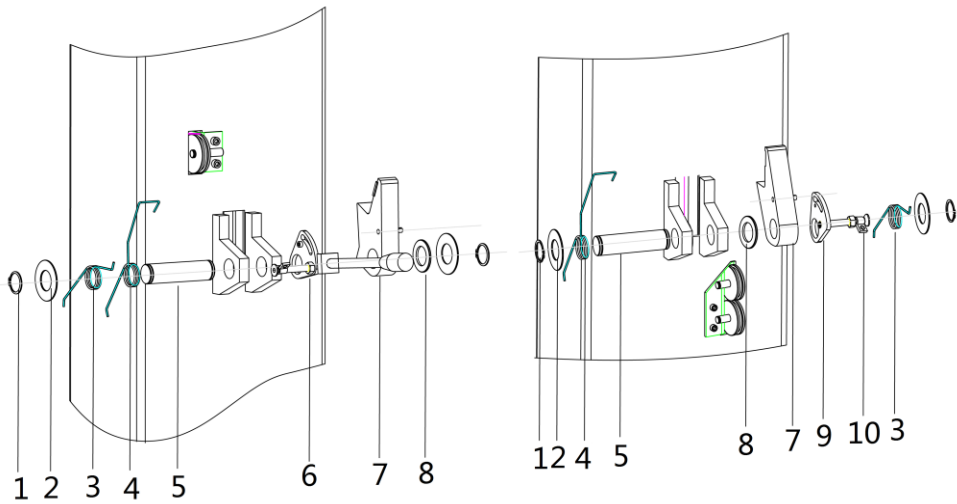


Step 5: Assemble and fix the mechanical safety locking unit.

1. Assemble the mechanical locking unit.

locking device on power side post

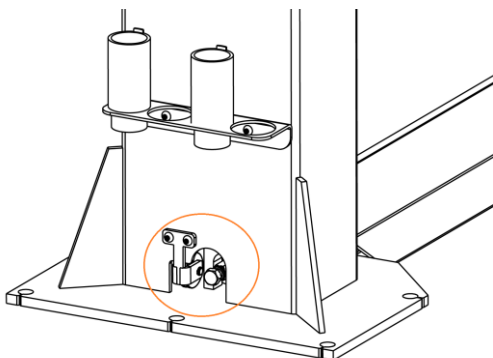
locking device on the secondary post



- 1.circlip
- 2.washer
- 3.spring 1
- 4.spring 2
- 5.shaft
- 6.handle bar
- 7.hook
- 8.nylon spacer
- 9.release plate
- 10.rope installation fitting

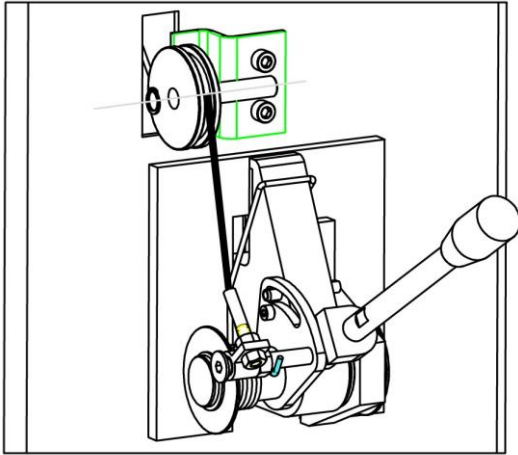
2. Route and fix the release rope for mechanical safety locking assembly.

It shall be noted that the holder for the bottom pulley shall be fixed outside the column.



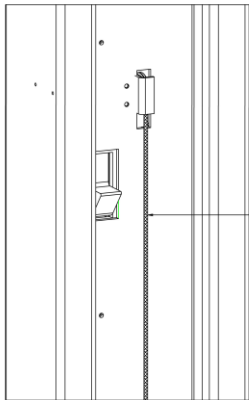
Fix the release rope

Release rope fixed at the operative side.

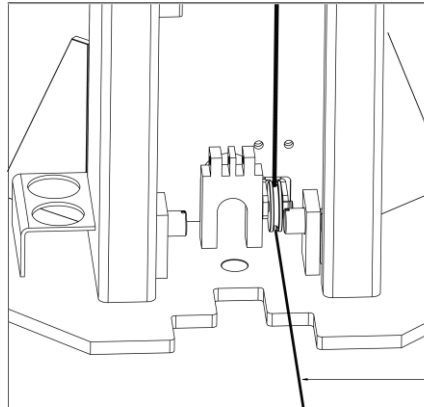


The release rope goes through pulleys at the bottom of the column.

inside column

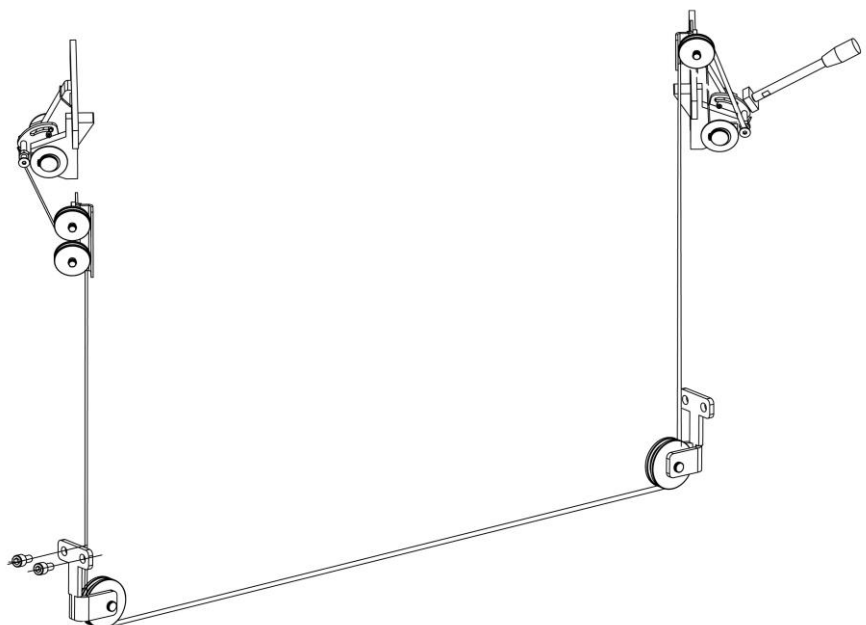
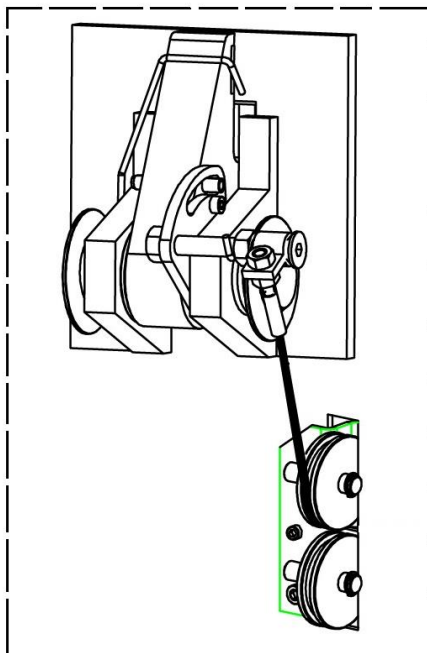


at the bottom of the column

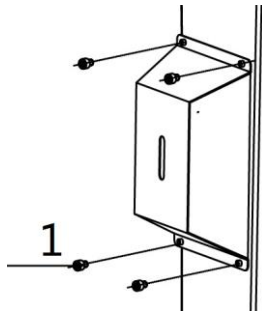


1. Release rope

Fix the other end of the rope to the locking unit at the other post.



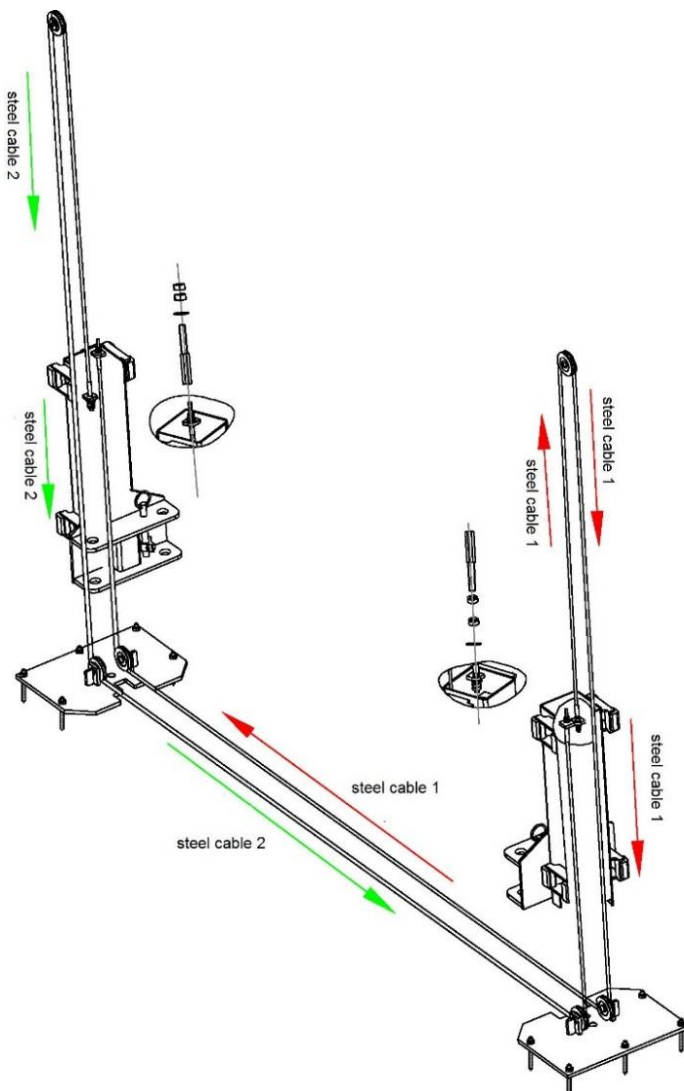
c. Fix the protective cover.



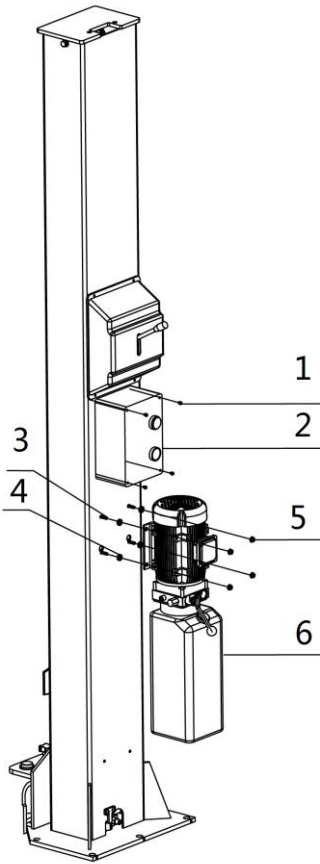
1.Hex socket cylinder head screw M6*8

Step 6: Connect the synchronization steel rope.

1. Route and fix according to the following scheme.
2. Before attempting to route the cables, raise the lifting carriage at both sides to the first latching position making sure that the mechanical safety locking units in each post are fully engaged.
3. After fixed the cables, adjust and make the cables at both sides be under the same tension which could be judged by the sound emitted during lifting process.
4. Grease the cable after being fixed. (It is a must.)



Step 7: Install the power and control unit.

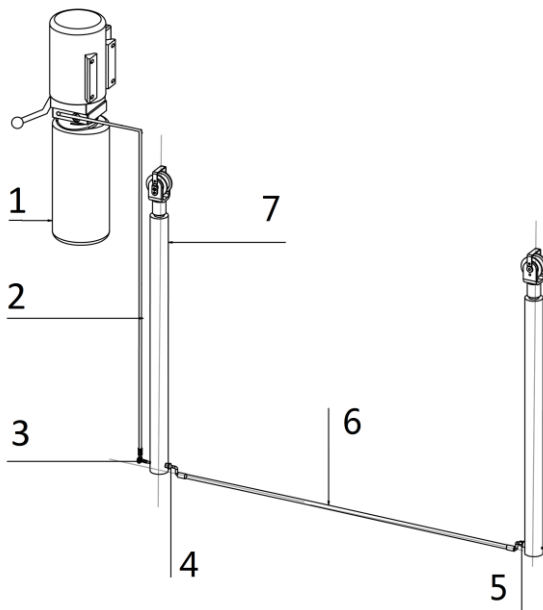


- 1. Cross socket cap head screw M5x8
- 2. Control box
- 3. Hex head flange screw M8x30
- 4. Anti-vibration pad
- 5. Hex flange nut M8
- 6. Hydraulic power unit

Step 8: Connect the hydraulic hoses

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.



- 1. Power unit
- 2. Oil hose 1
- 3. Composite connector
- 4. Connector
- 5. Connector
- 6. Oil hose 2
- 7. Cylinder

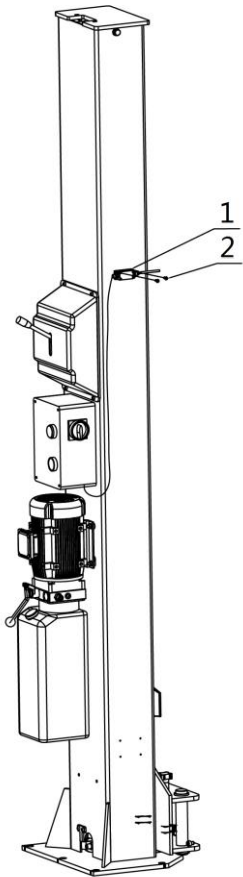
Step 9: Make the electrical connection.

ONLY qualified electricians are permitted doing the electrical connection.

Read the name plate and check that the supply voltage is adapted to the voltage of the lift.

Read the electrical scheme in Annex 2 for reference and connect wires to the corresponding terminals in the control box.

Fix max height limit switch onto the power side post and connect its wire to the terminals reserved in the control box.



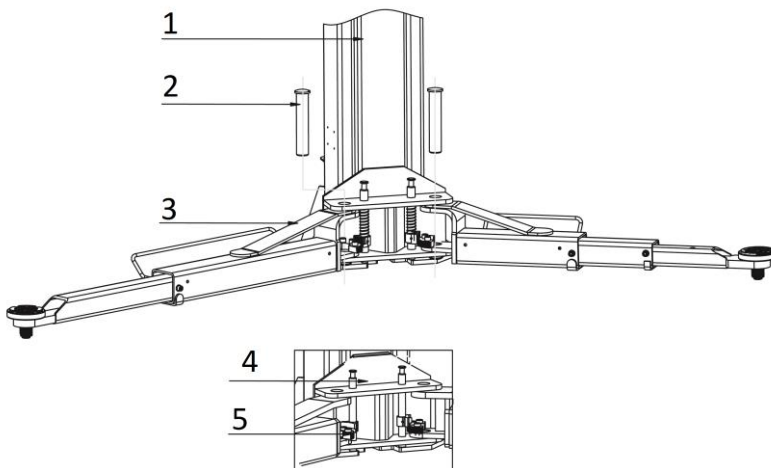
1. Limit switch
2. Cross socket flat head screw M5x10

Step 10: Install lifting arms.

The arm pin shafts (No. 2) must be greased at the installation.

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

Attention: Install Lifting arms 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 11: Fill with hydraulic oil.

ONLY CLEAN AND FRESH OIL ONLY

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

Prepare 10 liters anti-abrasive hydraulic oil. Fill about 8 liters into the oil tank to run the lift up and down for 2 or 3 times after the electrical system is connected.

Add more oil after running the lift for several cycles until the lift can rise to the maximum height.

Note: It is suggested to use HM NO.46 hydraulic oil .It is advised to use HM NO.32 hydraulic oil when temperature is below 10 degree Celsius. Change the oil 6 months after initial use and once per year thereafter.

Step 12: Trial running.

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

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.

Check the synchronization of both lifting carriages.

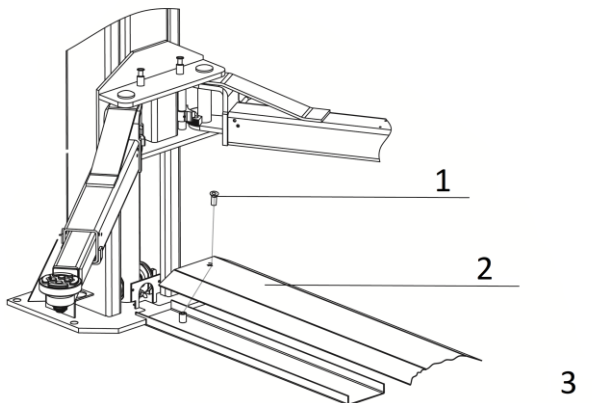
Ensure the synchronization by adjusting the balance steel ropes at both sides. Make both cables be of the same tension.

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

Check the mechanical safety locking unit.

Check and ensure both safety locking hooks can be effectively engaged or released.

Step 13: Install the base cover plate.

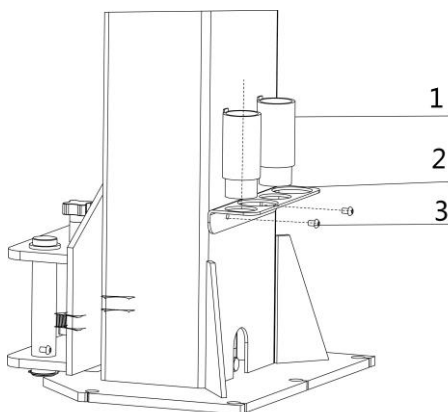


1.Hex socket flat head screw M12x20

2.Base cover plate

3.Slot base plate

Step 14: Install the height adapter holder. (Optional)



1.Height adapter

2.Holder

3.Hex socket button head screw M8x12

4.4 Items to be checked after installation

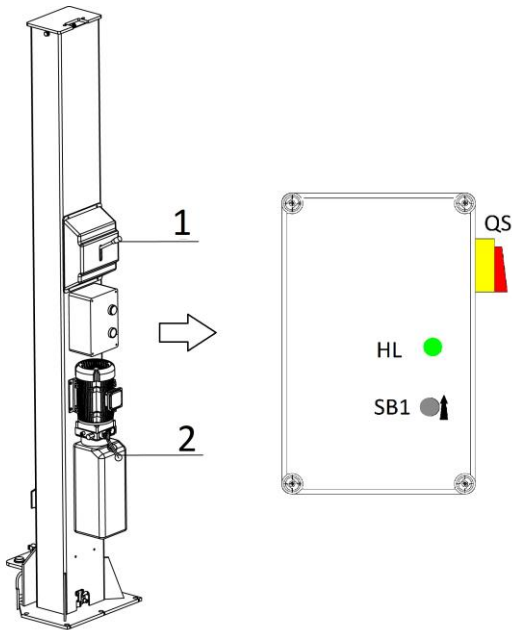
S/N	Check items	YES	NO
1	Screw torque of expansion bolts : 80-100Nm;	√	
2	Rising speed ≥ 20 mm/s;	√	
3	Noise with load ≤ 75 dB(A);	√	
4	Grounding resistance: not bigger than 4Ω ;	√	
5	Height difference of the two carriages ≤ 5 mm;	√	
6	Mechanical catch unit is robust and synchronized when running with 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

- 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 mechanism before entering under the raised vehicle.
- Avoid excessive rocking of vehicle while on the lift
- Do not climb onto the load or load carrying device when they are raised.

5.2 Operation instructions



POS.	Description	Function
1	Unlocking handle	Release the mechanical locking unit.
2	Lowering handle	Control descending movement. Engage the mechanical locking unit.
QS	Power switch	Turn on or off the power supply
HL	Indicating light	Indicate if power is on
SB1	UP button	Control the rising movement

To avoid personal injury and/or property damage, permit only trained and qualified 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.

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

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 adapters 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. Push the "UP" button until lifting adapters have touched the pick-up positions of vehicle.
4. Keep on raising the vehicle making its wheels have a bit clearance off the ground and check again the stability.
5. Raise the vehicle to the expected height, push the "Lowering handle" to engage the mechanical safety locking unit. Check again the stability before doing maintenance or repair work underneath.

Lower

Pay careful attention that all personnel and objects are kept clear before lowering.

1. Push the "UP" button to disengage the mechanical locking unit.
2. Push down the unlocking handle to release mechanical locking unit and meanwhile push down the lowering handle.
3. When the lift is fully lowered, position the lift arms and adapters to provide an unobstructed exit before removing vehicle from lift area.
4. Drive the vehicle away.

TROUBLE SHOOTING

ATTENTION: If the trouble could not be fixed by yourself, please do not hesitate to contact us for help. We will offer our service at the earliest time we can. Troubles could be judged and solved much faster when more details or pictures could be provided.

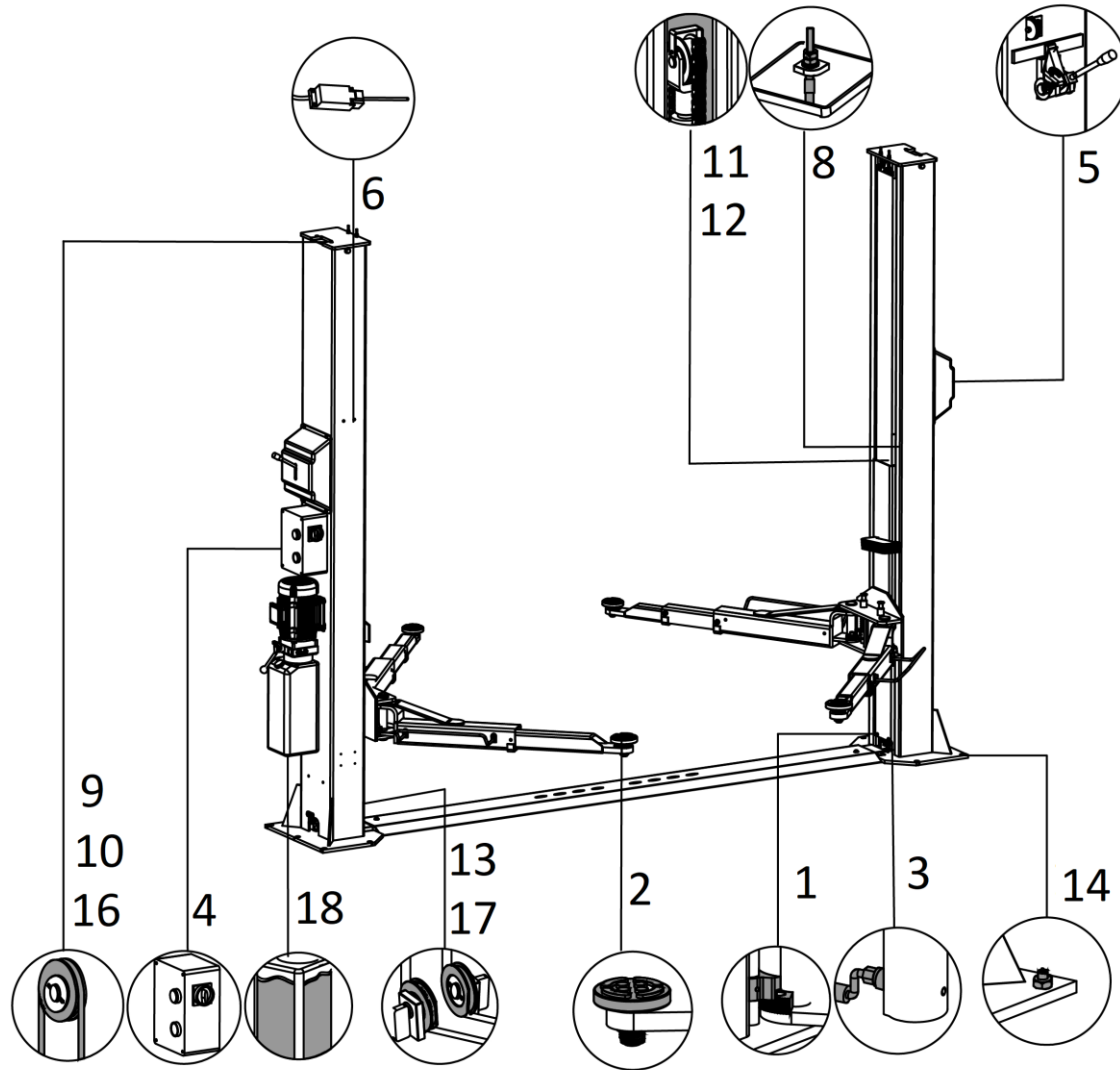
TROUBLES	POSSIBLE CAUSES	SOLUTIONS
Abnormal noise	Abrasion exists on insider surface of the posts.	Grease the inside of the post.
	Trash in the post.	Clear the trash
Motor does not run and will not rise	Loose wire connection	Check and make a good connection.
	Burnt motor.	Replace it.
	Damaged limit switch 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.
	Relief 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 tension.
Raising too slow	Jammed oil filter	Clean or replace it.
	Too low oil level.	Add oil.
	The relief valve is not adjusted to the right position.	Make proper 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.

INSPECTION AND MAINTENANCE

Easy and low cost routine inspection and maintenance can ensure the lift work normally and safely.

Follow the below routine inspection and maintenance schedule with reference to the actual working condition and frequency of your lift.

Lubricate moving parts with NO.1 lithium based grease.



S/N	Components	Methods	Period
1	Swing arm locking units	Push the UP button to raise the lifting arms and check if four swing arms are locked into position. Add grease in case necessary.	Every day
2	Lifting adapter	Check if it can screw UP and DOWN smoothly. Add grease onto the swivel when necessary. Inspect the rubber pads and clean off any objects that may cause sliding or damage.	Every day
3	Cylinder and oil hose connector	Inspect to ensure no leakage before using the lift.	Every day
4	Push button	Check if the button work as "hold- to -run ".	Every day

S/N	Components	Methods	Period
5	Mechanical safety locking unit	Check if mechanical locking hooks can engage or disengage simultaneously.	Every day
6	Max lifting height limit switch	Use proper means to activate the switch and push UP button to check if the carriage stop rising.	Every 30 days
8	Steel ropes	Check the synchronization of both carriages and adjust the tension of the rope when desynchronization is unacceptable.	Every day
9	Bushing of the upside pulley and circlip of the shaft	Lubricate the bushing with NO.1 lithium based grease. Check if the circlip is in its original position.	Every 3 months
10	Steel ropes	Lubricate the cables with NO.1 lithium based grease. It is advised to change with new steel ropes 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 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. 80-100Nm.	Every 3 months
16	Bushing of the upside pulley and circlip of the shaft	Slacken the steel rope and dismantle the pulley. 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. 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.

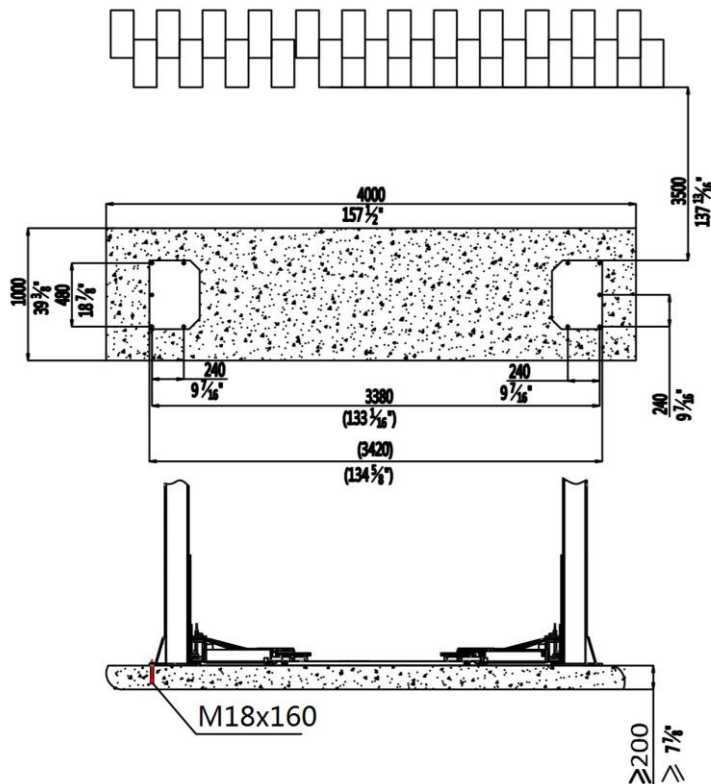
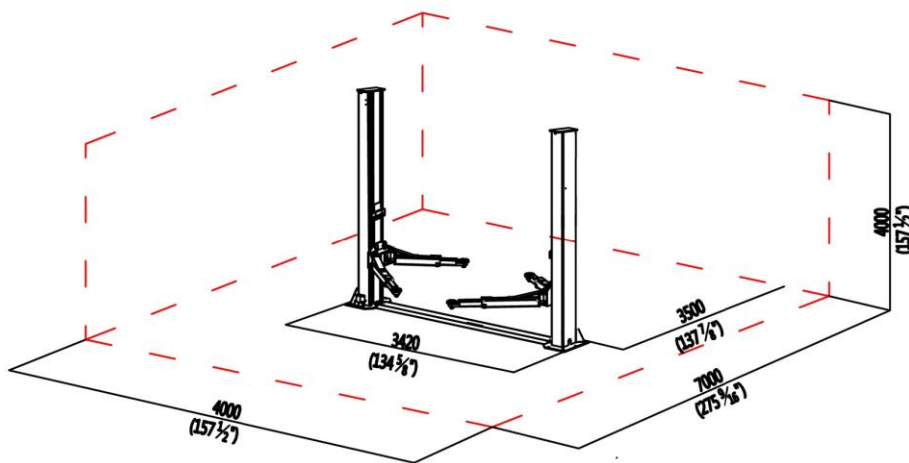
There must be sufficient space for driving and lifting vehicles and enough safety distance shall be reserved according to the regulations of the local authorities. It is advised to reserve a clearance of at least 1 meter between the lift and fixed elements (e.g. wall) in all lifting positions.

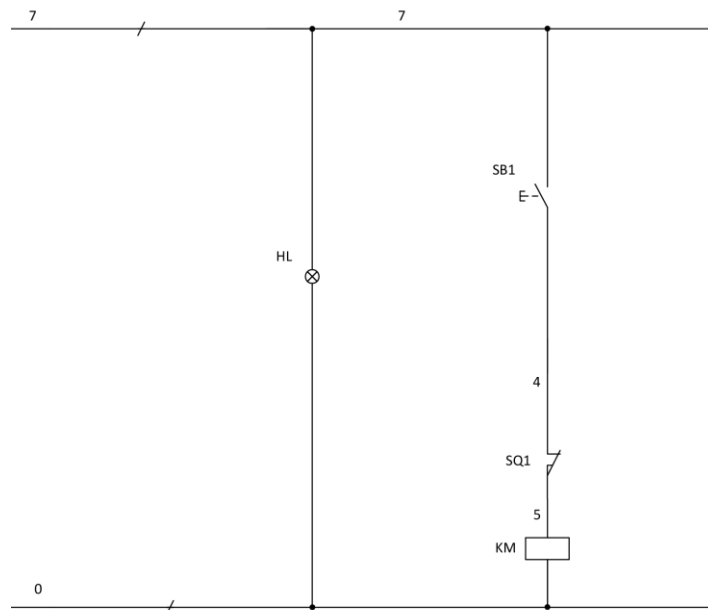
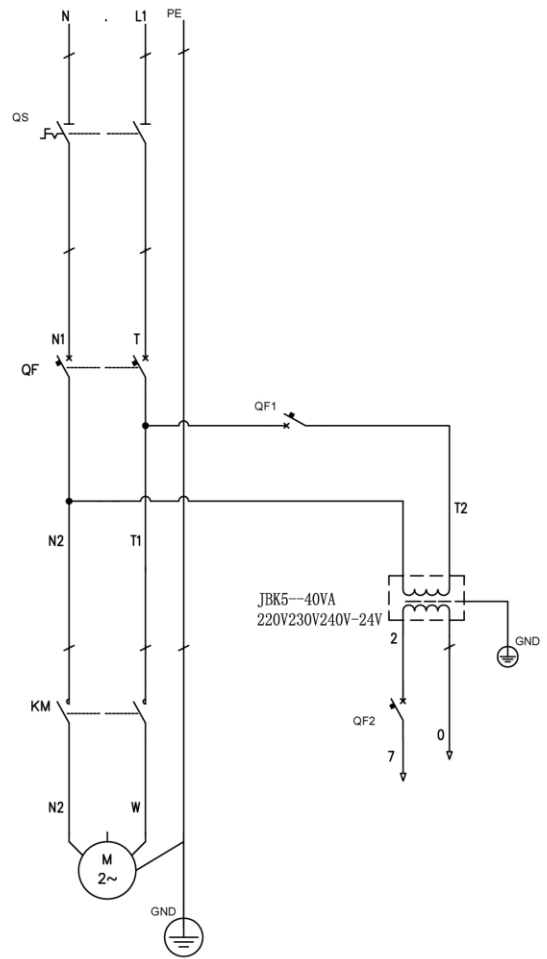
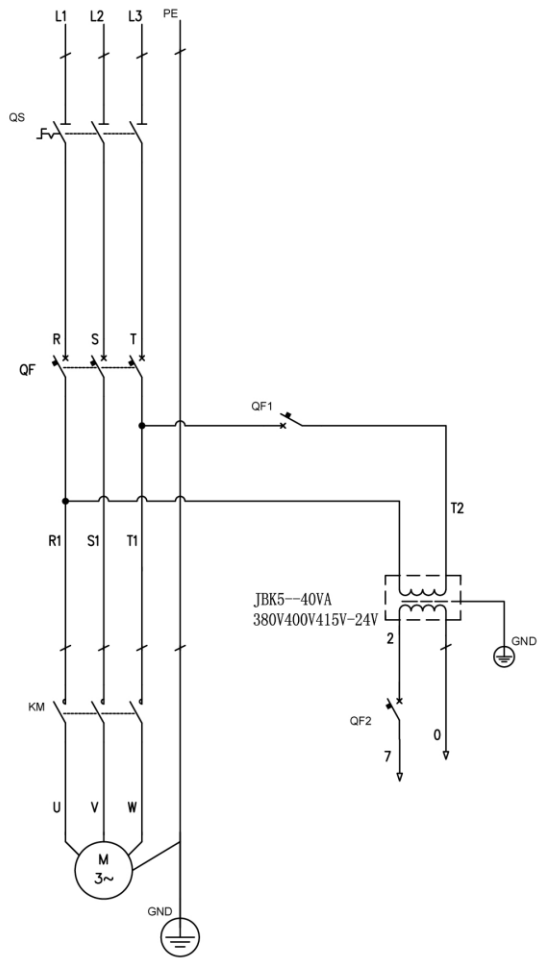
C25 concrete foundation with a minimum thickness of 200mm (7 7/8").

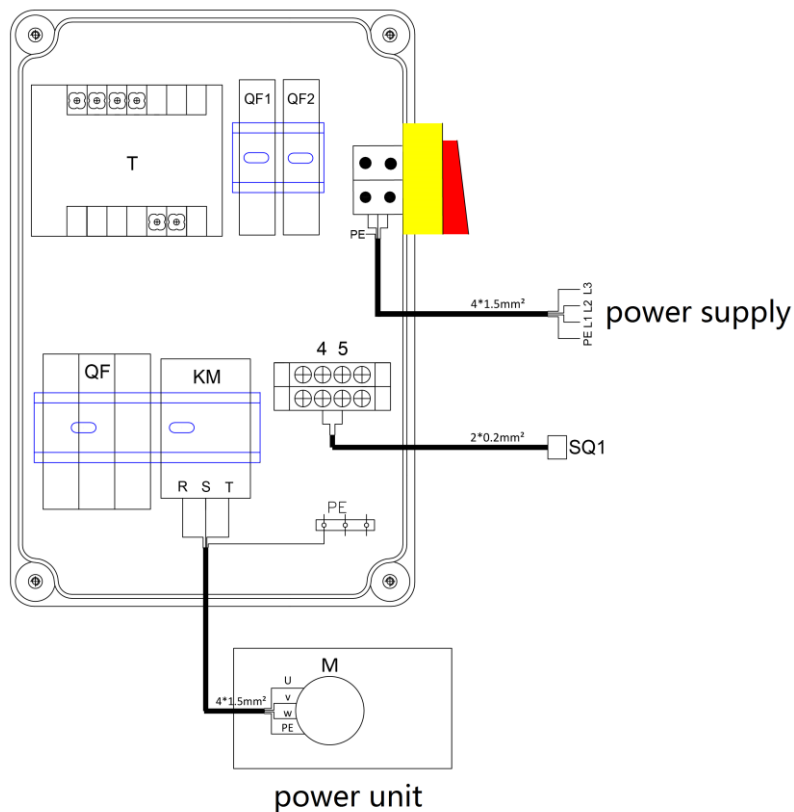
Surface (under the base plate): Horizontal and even (Gradients max. 0.5 %)

Newly built concrete ground must be older than 20days.

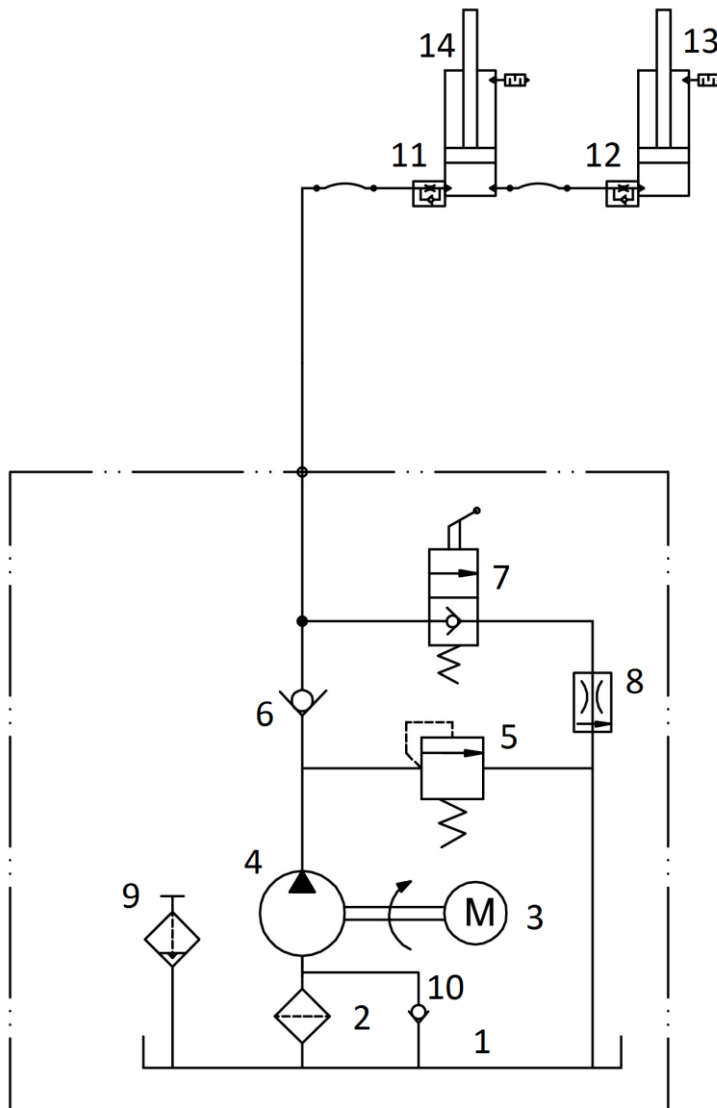
All dimensions are in millimeters unless specified otherwise.



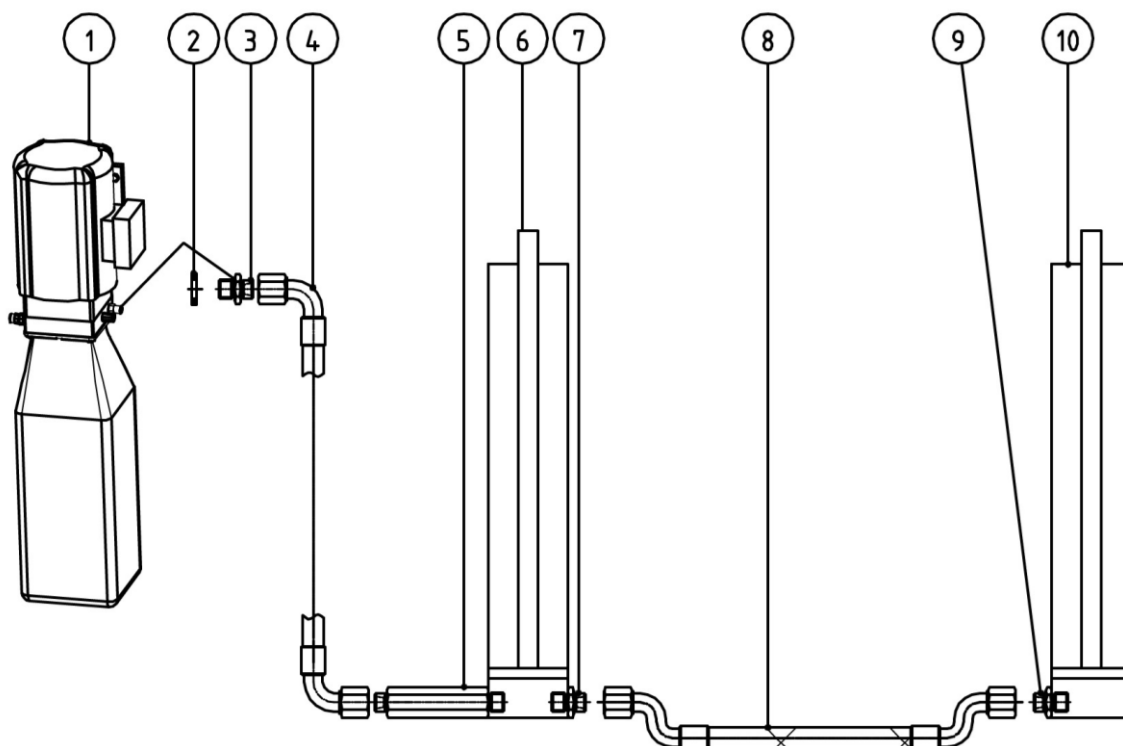
Annex 2, Electrical schemes and parts list




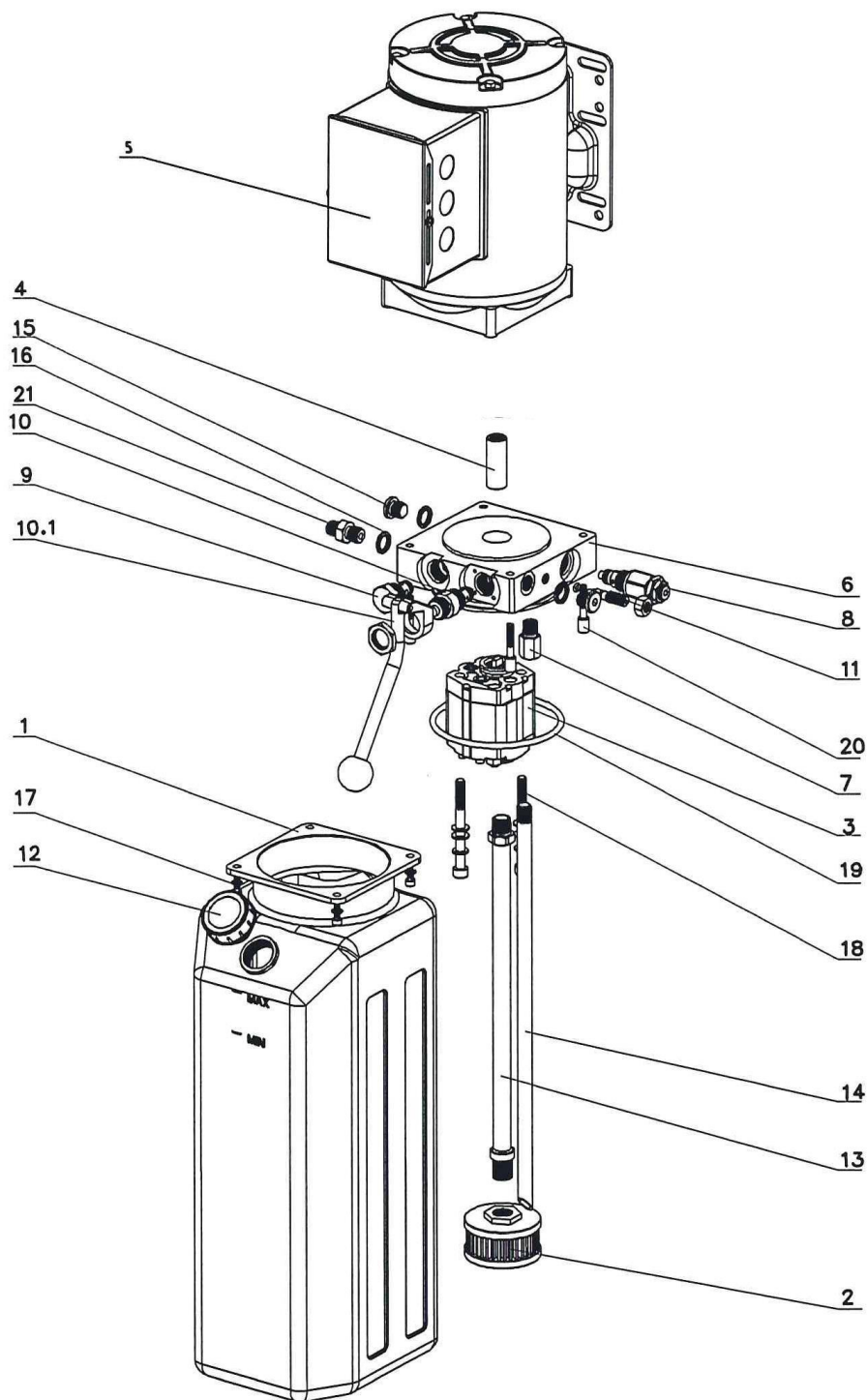
POS.	Code	Descriptions	Specification	Qty
T	320104002	Transformer	JBK5-40VA 380V400V415V-24V	1
	320104001	Transformer	JBK5-40VA 220V230V240V-24V	1
SQ1	320301029	Limit switch	TZ-8168	1
QS	320304001	Main switch	LW26GS-20/04	1
SB1	320401042	Push button	NP2-EA11 (LAY5S-EA11)	1
	320505020	Wire terminals	TB-1504	8
QF	320801001	Circuit breaker (3Ph)	CDB6iC16/3P (CB-60A C16)	1
	320802001	Circuit breaker (1Ph)	CDB6iC32/2P (CB-60A C32)	1
QF1	320803001	Circuit breaker	DZ47-63C1/1P	1
QF2	320803003	Circuit breaker	DZ47-63C3/1P	1
KM	320901001	AC contactor (3Ph/1Ph)	CJX2-1210/AC24	1
HL	321201001	Indicator light	AD17-22G-AC24	1

Annex 3, Hydraulic schemes and parts list


- 1.oil tank
- 2.oil sucking filter
- 3.motor
4. gear pump
5. relief valve
- 6.non-return valve
- 7.manual unloading valve
- 8.pressure compensating valve
- 9.oil tank cover
- 10.cushion valve
11. flow control connector
- 12 flow control connector
- 13.master cylinder
14. slave cylinder

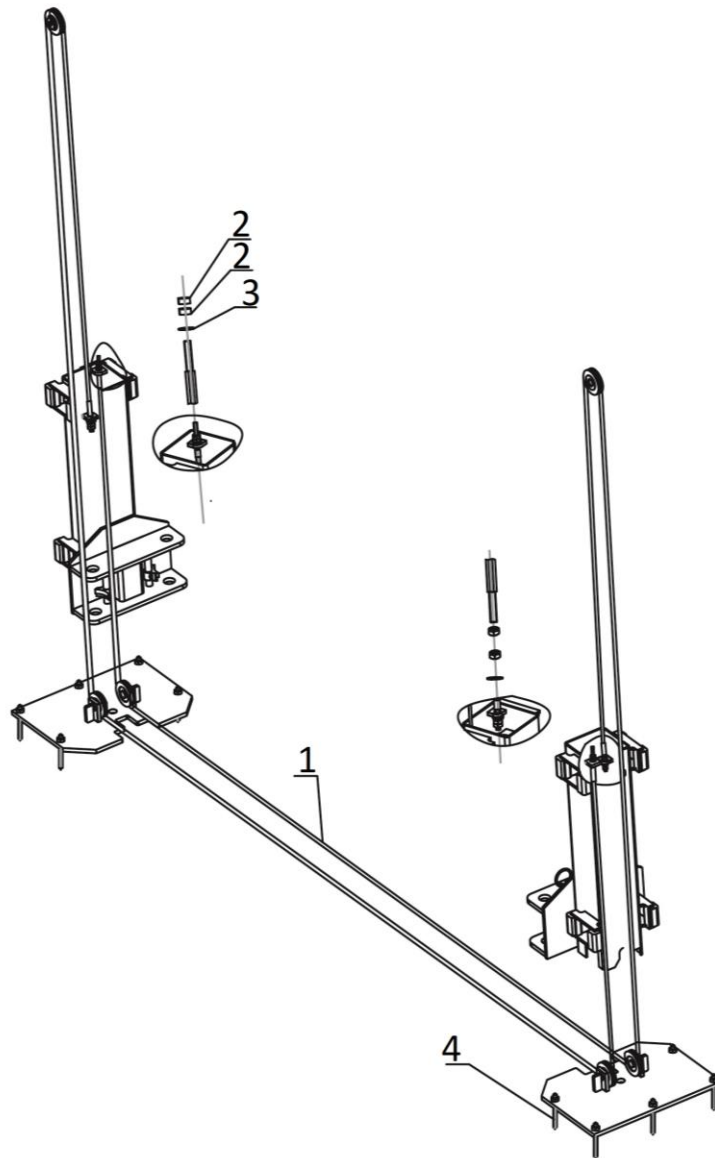


POS.	Code	Description	Specification	Qty
1		Power unit	2.2KW	1
2	207103025	Composite washer	13.7*20*1.5	3
3	310101008	Connector	M14*1.5-G1/4	1
4	624008101	Oil hose	L=1000	1
5	410902269	Long connector	F9MV2-A7-B1	1
6	615001007	Master cylinder	6254E-A4-B6	1
7	615001009	Main connector	6254E-A4-B11	1
8	624001025	Oil hose	L=2880	1
9	615001008	Short connector	6254E-A4-B10	1
10	615001006	Slave cylinder	6254E-A4-B5	1

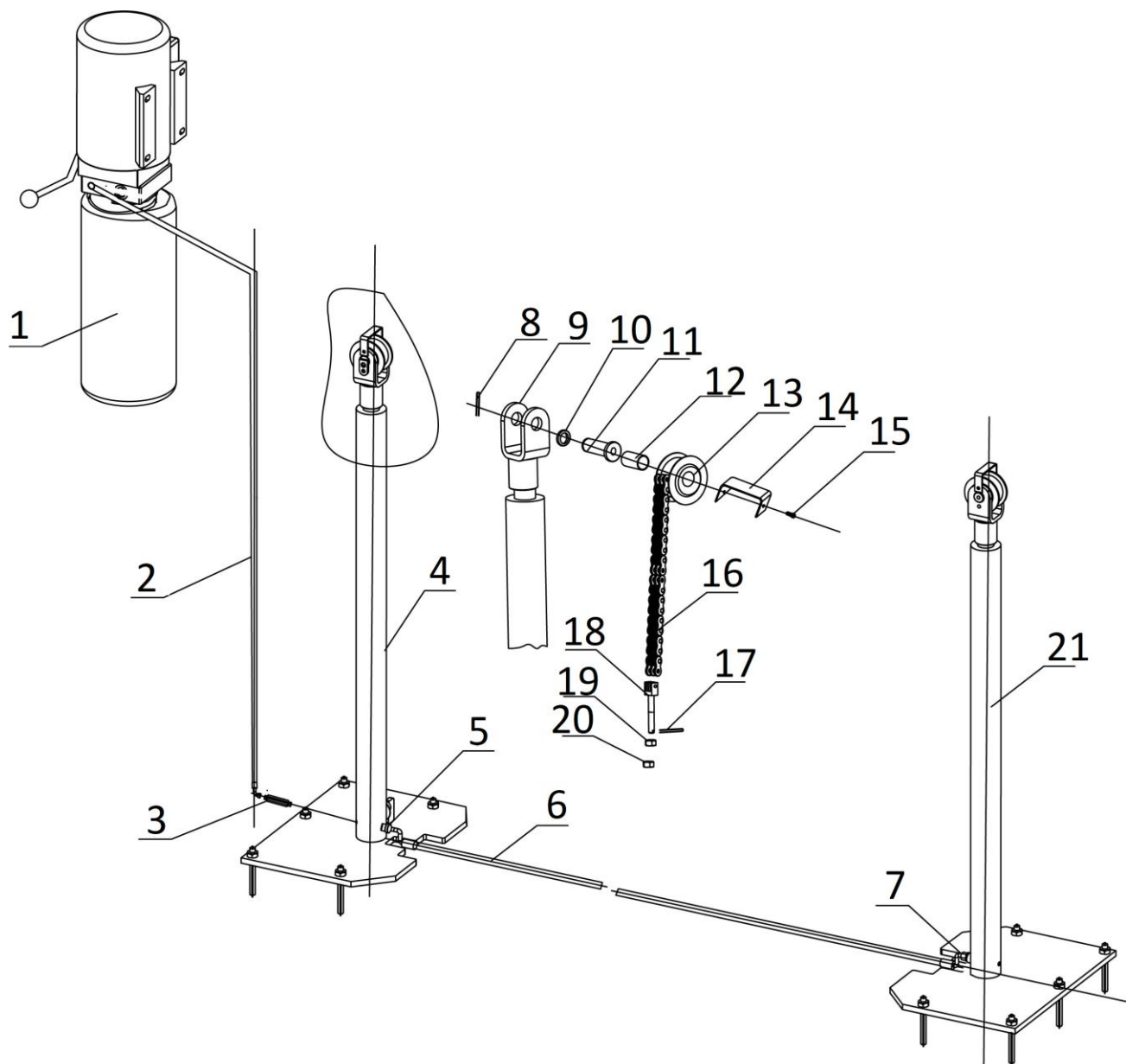


POS.	Code	Description	Specification	Qty
1	330405047	Oil tank	SLYX-10L-L-BX	1
2	330403003	Oil filter	YBZ-E2D3I1/1-10	1
3	330201025	Gear pump (3Ph)	CBKA-F2.5F	1
3	330201005	Gear pump (1Ph)	CBK-F220/CBK-2.1F	1
4	330404015	Coupling	YBZ-E0.963Z0/1-02, 46mm	1
5	320201020	Motor	220V-2.2KW-1PH-50HZ-2P	1

POS.	Code	Description	Specification	Qty
5	320201023	Motor	380V-2.2KW-3PH-50HZ-2P	1
5	320201030	Motor	220V-2.2KW-1PH-60HZ-2P	1
5	320201036	Motor	220V-2.2KW -3PH-60HZ-2P	1
5	320201021	Motor	230V-2.2KW-1PH-50HZ-2P	1
5	320201024	Motor	400V-2.2KW-3PH-50HZ-2P	1
6	330105017	Hydraulic block	LBZ-T1BK-2	1
6	330105027	Hydraulic block (replace 330105017 since 30 th May,2023)	YLBZ-T1KK-3	1
7	330301003	Cushion valve	HCF-Z1/4	1
8	330304010	Relief valve	DANRV-08-50	1
8	330304007	Relief valve (replace 330304010 since 30 th May,2023)	YF08-40	1
9	330302008	Non-return valve	YBZ-E2D3I1/1-03	1
10	330303016	Valve spool of the manual valve	YBZ-E2D3I1/1-02-C	1
11	330305015	Restrictive valve	YBZ-E2D3I1/1-11A	1
12	330502013	Breather	YBZ-BT-M30*2-B	1
13	330401013	Oil sucking pipe	YBZ-SJYG350	1
14	330402006	Oil returning pipe	YBZ-E2D3I1/1-09	1
15	210101013	Fitting	M 14*1.5	2
16	207103025	Composite washer	13_7X20X1_5	3
17	202109144	Bolt	M5x18	4
18	202109072	Hex socket cylinder head screw	M8x85-GB70_1	2
19	207101098	O seal ring	109*5.3	1
20	202109145	Bolt	YBZ-E3D4H1/10-02	4
21	330600005	Pipe joint	YBZ-F2.51/OOOOT1-02	1
10.1	330303015	Handle of the manual valve	YBZ-E2D3I1/1-02-B	1

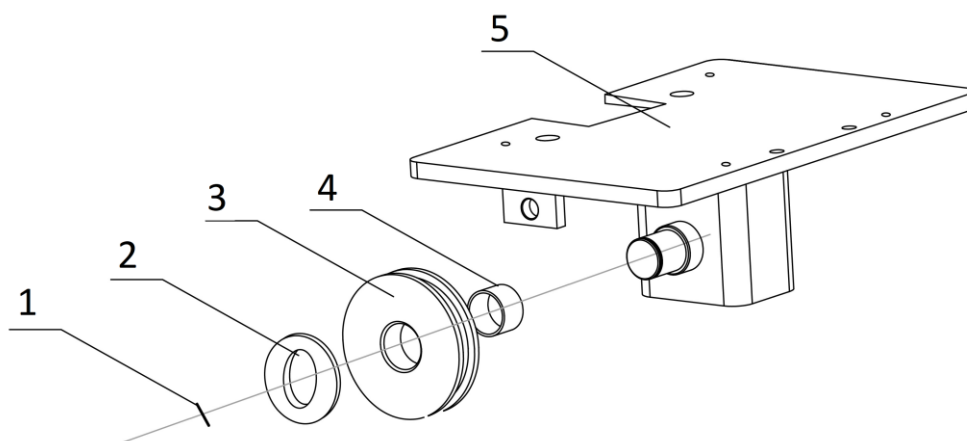
Annex 4, Mechanical exploded drawings and parts list


POS.	Code	Description	Specification	Qty
1	615001010B	Steel rope	6254E-A6	2
2	203101009	Hex nut	M16	8
3	204101009	Flat washer	φ16	4
4	201201007	Expansion bolt	M18x160	10

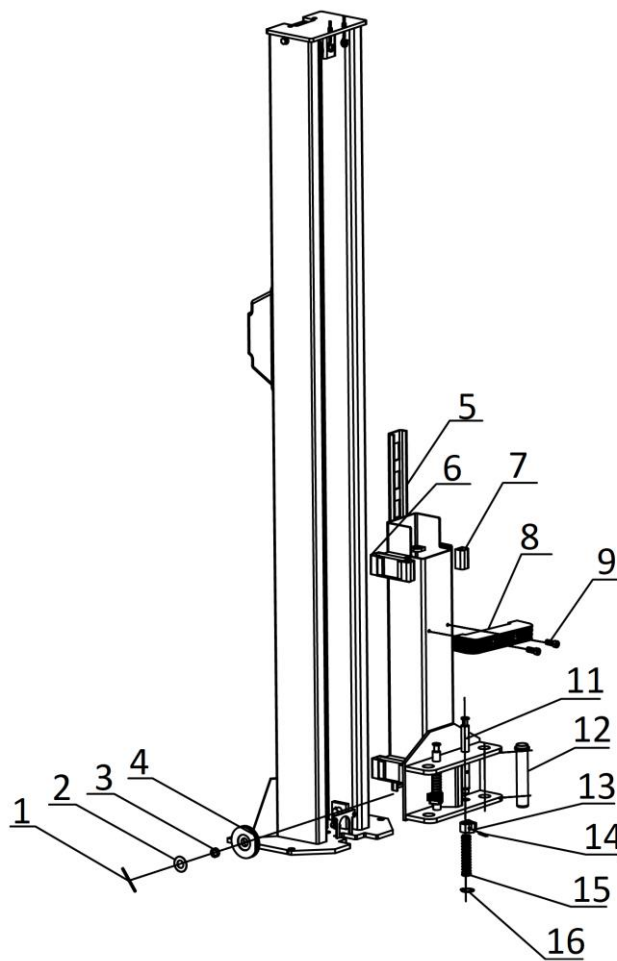


POS.	Code	Description	Specification	Qty
1		Power unit		1
2	624008101	Oil hose	L=1000	1
3	410902269	Long connector	F9MV2-A7-B1	1
4	615001007	Main cylinder	6254E-A4-B6	1
5	615001009	Main connector	6254E-A4-B11	1
6	624001025	Oil hose	L=2880	1
7	615001008	Short connector	6254E-A4-B10	1
8	206201011	Cotter pin	M4*50	2
9	612001001	Support bracket for chain wheel	6254E-A4-B2(6254A-A5-B1)	2
10	410011211	Spacing sheath	6254E-A4-B12	2
11	410011221	Shaft of chain wheel	6254E-A4-B3	2
12	205101013	Bushing	2548	2

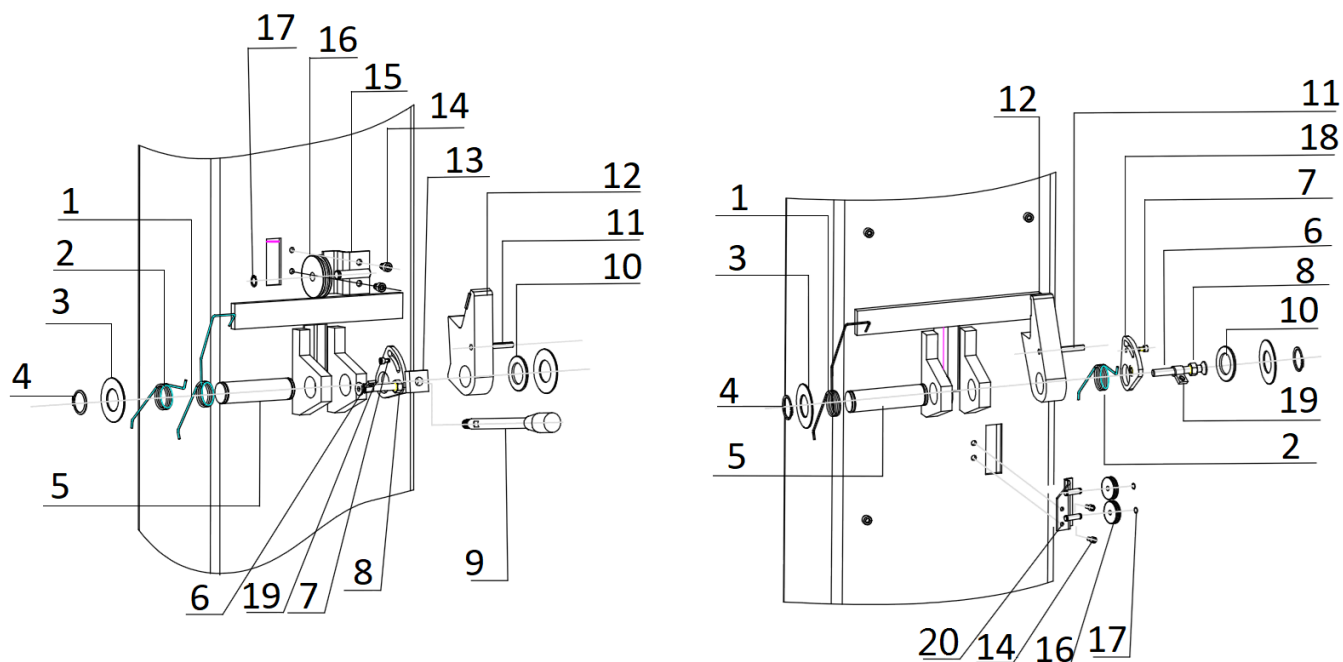
POS.	Code	Description	Specification	Qty
13	410010111	Chain wheel	6254E-A4-B4	2
14	410010313	Stop plate	6254E-A4-B7	2
15	202109017	Hex socket cylinder head screw	M6*8	4
16	208108001	leaf chain	LH1234-127LGB/T6074-1995	2
17	206201008	Cotter pin	D4X30-GB91	2
18	410047350C	Chain holder	62B-A3-B3-35T	2
19	203101009	Hex nut	M16-GB6170	2
20	203204001	Hex open slot nut	M16-GBT6178	2
21	615001006	Slave cylinder	6254E-A4-B5	1



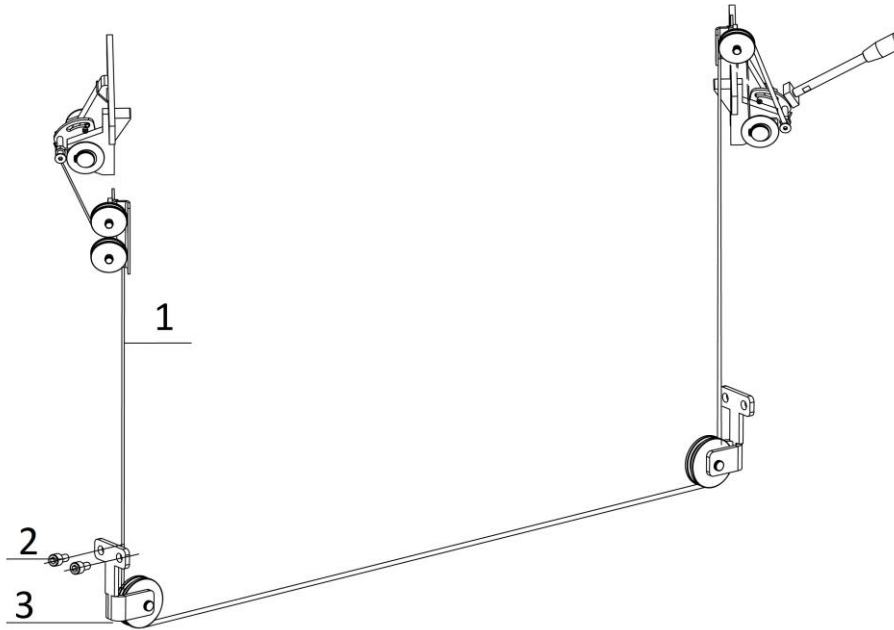
POS.	Code	Description	Specification	Qty
1	206201004	Cotter pin	M3*45	2
2	410010031	Washer	6254E-A1-B3(6254A-A1-B2 62*62*1.5)	4
3	410010061	Upside pulley	6254E-A5-B1(6254A-A3-B1 Φ 88 L=19)	2
4	205101008	Bushing	2518	2
5	614901474	Top plate assembly	F9MV2-A4-B1	2



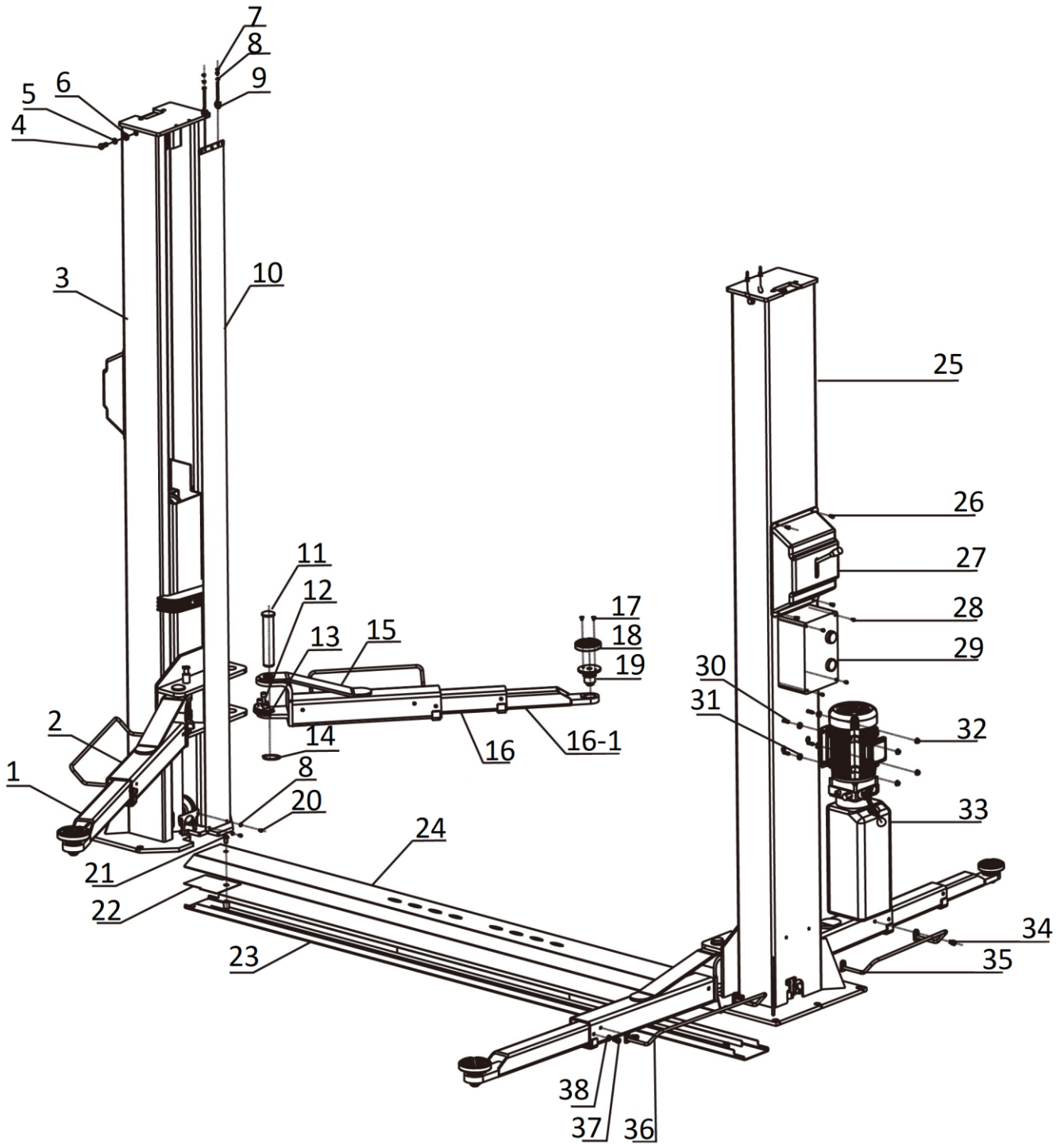
POS.	Code	Description	Specification	Qty
1	206201004	Cotter pin	M3*45	4
2	410010031	Washer	6254E-A1-B3	4
3	205101007	Bushing	2512	4
4	410044260	Pulley	62B-A1-B2	4
5	614901473	Carriage	F9MV2-A3-B1	2
6	420680083	Sliding block	C9Z-A3-B5	4
7	420680099B	Sliding block	F9MV2-A3-B3-1	4
8	420680124	Rubber protective pad	62B-A3-B11	2
9	202109031	Hex socket cylinder head screw	M8X30	4
11	410902001B	Pull rod	6254E-A2-B1-C1-1	4
12	410049031B	Pin shaft	6254E-A12	4
13	410901075	Teeth block	6254E-A2-B9	4
14	206102013	Elastic post pin	D6X40-GB879	4
15	410150121	Pressure spring	6254E-A2-B4	4
16	204301009	Circlip	M25	4



POS.	Code	Description	Specification	Qty
1	410902013	Spring	C9Z-A1-B10	2
2	410902014	Spring	C9Z-A1-B11	2
3	410010031	Washer	6254E-A1-B3	4
4	204301009	Circlip	D25-GB894_2	4
5	410902031	Shaft	C9Z-A1-B6	2
6	202111033	Hex socket flat head screw	M8x65-GB70_3	2
7	202109152	Hex cylinder head screw	M4X5-GB70_1	2
8	203101005	Hex nut	M8-GB6170	4
9	615068400	Handle	C9Z-A1-B12	1
10	420680066	Nylon spacer	25X41X25	2
11	206102013	Post pin	D6X40-GB879	2
12	410902012	Hook	C9Z-A1-B4-C1	2
13	612901742	Release plate	C9Z-A1-B5-V1	1
14	202109017	Hex socket cylinder head screw	M6X8-GB70_1	8
15	614006012B	Guiding bracket for lock release device	6214DS-A9	1
16	420080030	Pulley II	6214DS-A7	3
17	204301001	Circlip	D10-GB894_1	2
18	410540530	Release plate	C12-A1-B5-C1	1
19	410902484	Rope installation fitting	C9ZV2-A1-B13	2
20	614066305	Installation bracket for the two guiding wheels	F10-A6-B1	1

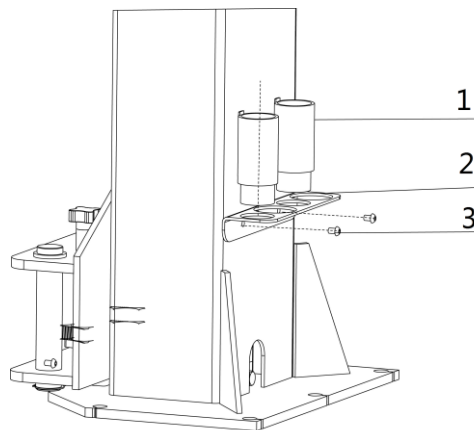


POS.	Code	Description	Specification	Qty
1	410902491	Release steel rope	L=6955mm	1
2	202110004	Hex socket button head screw	M8x12	4
3	615068210B	Support bracket for the upside pulley	6214DS-A10-2	2



POS.	Code	Description	Specification	Qty
1	614004005B	Long support arm	6254E-A7-B1	2
2	614901362	Retractable arm	6254E-A7-B3	2
3	614901472	The secondary post	F9MV2-A2-B1	1
4	201102026	Hex head full swivel bolt	M12*25	4
5	204201006	Spring washer	M12	4
6	204101007	Flat washer	M12	4

POS.	Code	Description	Specification	Qty
7	203101004	Hex nut	M6	8
8	204101004	Flat washer	M6	8
9	410010051	Hook for the covering cloth	6254E-A1-B5(6254A-A1-B6)	4
10	615001002	Curtain	6254E-A1-B4 2700*140	2
11	410049031B	Pin shaft	6254E-A12	4
12	202109085	Hex socket cylinder head screw	M12*30	12
13	410901074	Teeth block	6254E-A7-B8	4
14	204301013	Circlip	M38	4
15	614004007C	Short support arm	6254E-A27-B1	2
16	614004009C	Mid arm	6254E-A27-B2	2
16-1	614004011C	Retractable arm(3-stage)	6254E-A27-B3	2
17	202111004	Hex socket flat head screw	M8*12	8
18	420040250	Round rubber pad	6254E-A7-B4-C4	4
19	615004003D	Lifting tray	6254E-A7-B4	4
20	202101027	Cross socket cap head screw	M6*8	4
21	202110016	Hex socket button head screw	M12*20	2
22	410011163B	Dust-proof plate	6254E-A10-B1	2
23	614004017B	Slot base plate	6254E-A9	1
24	410040013B	Base covering plate	6254E-A10	1
25	614901471	Power side post	F9MV2-A1-B1	1
26	202109018	Hex socket cylinder head screw	M6X10-GB70_1	8
27	420680096	Cover	C9Z-A1-B9-1	2
28	202101020	Cross socket cap head screw	M5X8-GB818	4
29		Control box		1
30	201101103	Bolt	M8X30-GB12	4
31	420040010	Anti-shock ring	6254E-A23	4
32	203204103	Flange nut	M8-GB6177	4
33		Hydraulic power unit	2.2kW	1
34	202110018	Hex socket cylinder head screw	M10X12-GB70_1	8
35	614004012B	Short fender	6254E-A27-B4	2
36	614004014B	Long fender	6254E-A7-B5	2
37	202109040	Hex socket cylinder head screw	M10X16-GB70_1	4
38	204101006	Flat washer	M10	4

Optional height-extension adapter and holder


POS.	CODE	Description	Specification	Qty
1	612004003B	Height-extension adapter	6254E-A11	4
2	410901744	Holder	6254E-A1-B1-C6-V0	2
3	202110004	Hex socket button head screw	M8X12-GB70_2	4