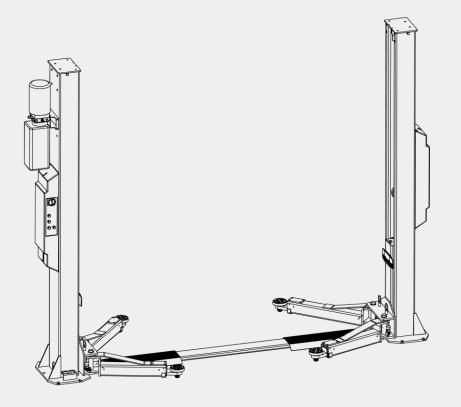
# **E**AE

# Installation, Operation and Parts Manual

# Model No. EE62B-35T-E / EE62B-42T-E

Two Post Lift Electrical Release Lifting Capacity 3500KG/4200KG



Please read this entire manual carefully and completely before installation or operation of the lift. 2017.08.05 - 540104111



# **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:

#### Copy right

The enclosed instructions are the property of EAE or its supplier, and are protected against duplication and reproduction by copyright laws, international agreements, and other domestic legislation. The reproduction or disclosure of instructions or an extract thereof is prohibited and offenders are liable to prosecution; EAE reserves the right or initiates criminal proceedings and asserts claims for damages in the event of infringements.

#### Warranty

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

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

#### Liability

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

All information in this manual is believed to be correct at time of publication. EAE reserves the right to amend and alter technical data and composition without prior notice. Please confirm at time of ordering.



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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 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.





#### 1.5 Potential safety risks

#### 1.5.1 Main voltage



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

#### Safety measures:

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

#### 1.5.2 Risk of injury, danger of crushing

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

#### Safety measures:

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

#### 1.6 Noise level

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



# PACKING, STORAGE AND TRANSPORTATION

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

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

Name	Packed by	Dimension(mm)	Weight(kg)	Quantity
Lift(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 and transportation

The packs must be kept in a covered and protected area in a temperature range 0f -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:

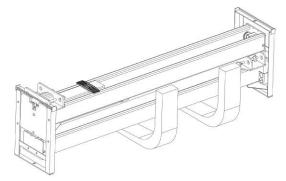
-never stack to more than 2 meters in height.

-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.** 



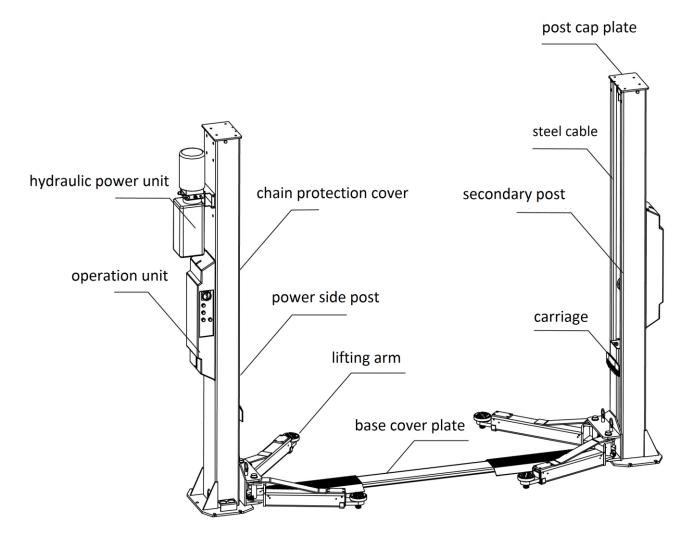
# **PRODUCTS DESCRIPTIONS**

#### 3.1 General descriptions

This lift is mainly composed of posts, carriages, lifting arms, cylinders and hydraulic power unit.

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

## **3.2** Construction of the lift

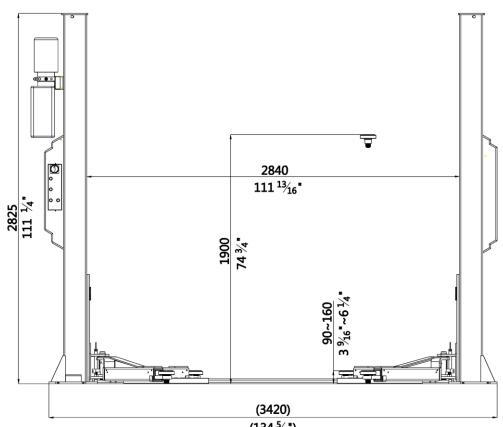


## 3.3 Technical data

Model	Lifting capacity	Full rise time (3.0kW motor )	Full rise time (2.2kW motor )	Full rise
EE62B-35T-E	3500kg	45\$	555	1900mm
EE62B-42T-E	4200kg	45S	55\$	1900mm

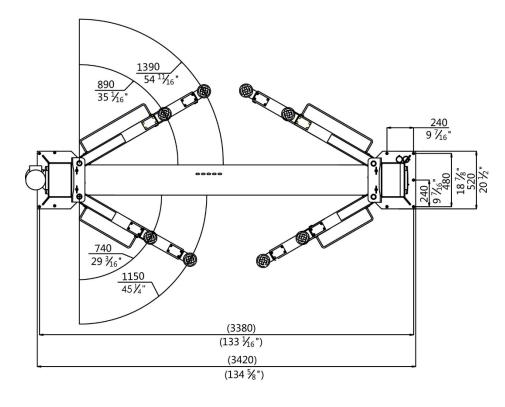


## 3.4 Dimensions



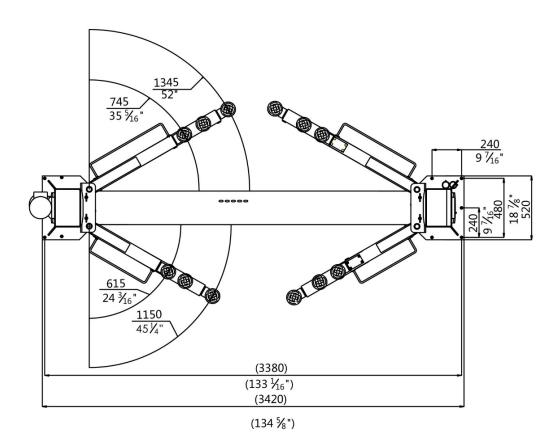


Four pieces of two-stage arm

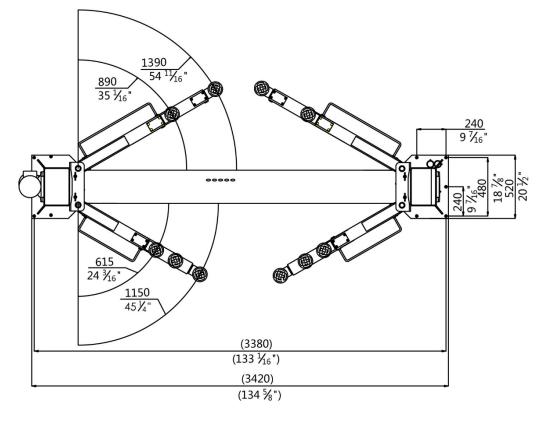




#### Four pieces of three-stage arm

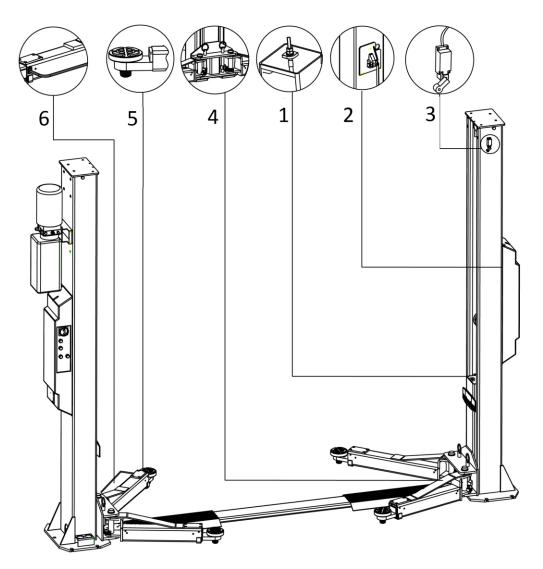


#### Two pieces of three-stage arm and two pieces of two-stage arm





# 3.5 Safety devices descriptions



POS.	Name	Function
1	Steel cable	Ensure sure the synchronization for both carriages
2	Mechanical safety catch	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.

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 2.5mm<sup>2</sup> wire core for 3Ph power and 4.0mm<sup>2</sup> 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 (see Annex 1, floor plan)

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

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

Newly built concrete ground must be older than 20days.

#### 4.1.4 Tools and equipment needed for installation

Tool name	Specification	Quantity needed
Electrical drill	With D16 and D18 drill bit.	1
Open spanner	D17-19mm	2
Adjustable spanner	bigger than D30mm	1
Cross socket screw driver	PH2	1
Quick spanner handle adapter/ Ratchet	REB-310	1
Levelling device	1mm accuracy	1
Hammer	10 pounds	1
Truck lift	Capacity more than1000KG	1
Torque spanner	MD400	1

#### 4.2 Installation attentions

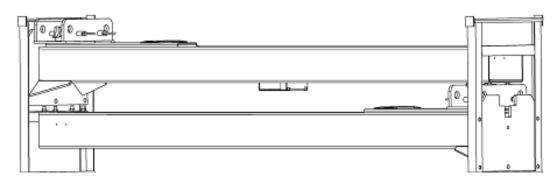
4.2.1 Joints of oil hose and wiring must be firmly connected so as to avoid leakage of oil hose and looseness of electrical wires.

4.2.2 All bolts should be firmly screwed up.

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



#### 4.3 General Installation Steps



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

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

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

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

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

1. Unfold the package and decide on which post the power unit will be mounted.

2. Draw an outline of the base plate on the ground with chalk and ascertain the position for the post.

#### Step 5: Erect and secure the posts.

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

2. Check the position of the base plates again.

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

4. Use a spirit level to check the vertical alignment of the lifting posts. If necessary, place equalizing plates under the base plates. The equalizing plates must be of the same length as the side of the base plate resting on them. Otherwise the load of the base plate will not be transferred evenly to the foundation.

5. Erect and secure the other post similarly.





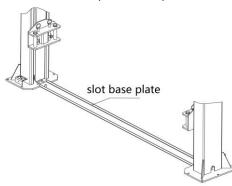






#### Step 6: Install the slot base plate.

Manually raise two carriages about 800mm from the ground to have them locked by safety locks and then place the slot base plate between two base plates of the post.



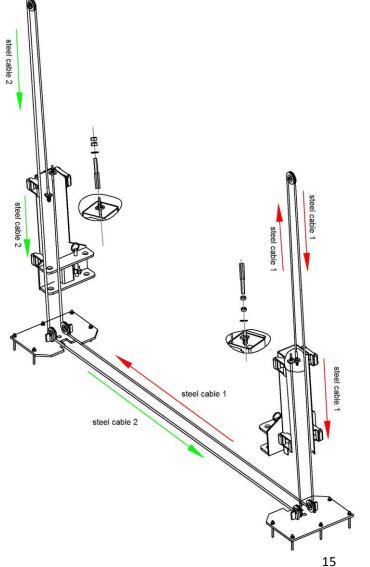
#### Step 7: Connect steel cables.

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

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

3. After the 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.)

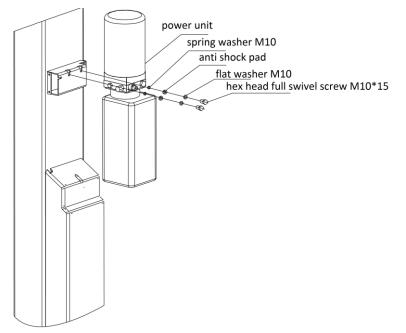




#### Step 8: Connect the hydraulic system;

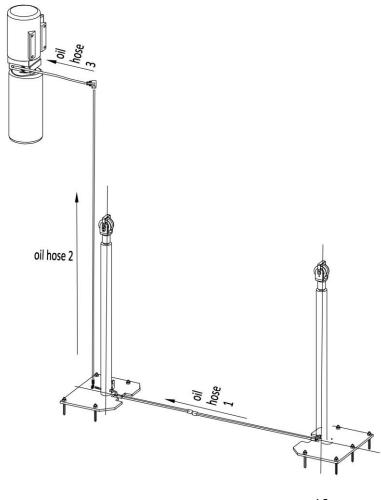
Attention: Do not contaminate the hydraulic system when do the connection.

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



2. Connect oil hoses according to the following diagram.

NOTE: make sure the connectors and hoses are clean.



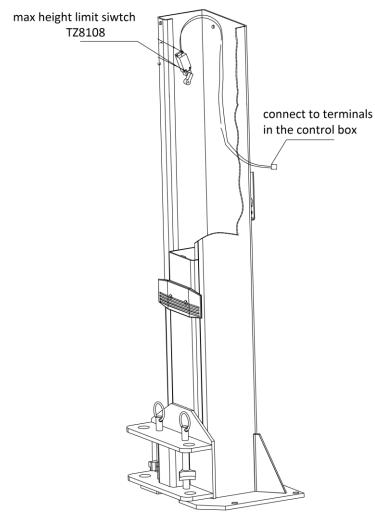


Step 9: Connect the electrical system.

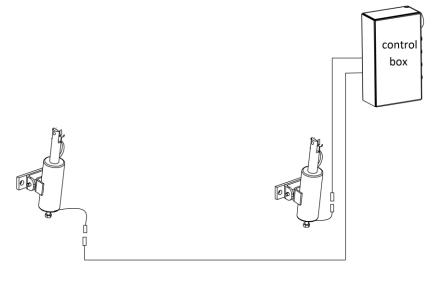
Refer to electrical connection diagram before making the connection.

Attention: electrical system connection must be done by licensed technicians.

1. Connect wires of max height limit switch to reserved terminals in the control box.

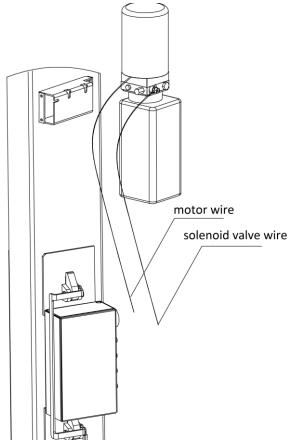


2. Connect wires of electromagnets.

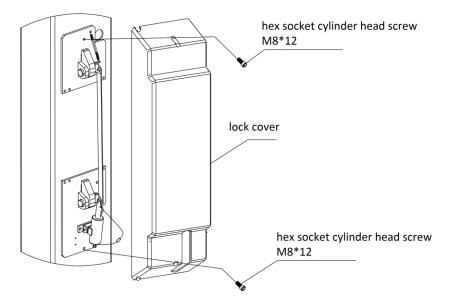




3. Connect the wires of solenoid valve and motor.



Step 10: Fix covers for mechanical locks.

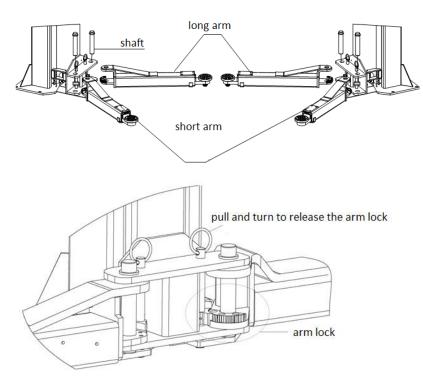


#### Step 11: Install lifting arms.

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.





#### 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 HM32 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.

**Note:** As the viscosity of hydraulic oil may have influence on the running speed of the lift, it is suggested using NO.46 hydraulic oil when average temperature of the location is above 18 degree Celsius and using NO.32 hydraulic oil when temperature is below 18 degree Celsius. **Change the oil 6 months after initial use and change once per year thereafter.** 

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

Raise and lower lift several times. The cylinder is self-bleeding. After bleeding system, fluid level in power unit reservoir may be down. Add more fluid if necessary to raise lift to full height. It is only necessary to add fluid to raise lift to full height.

#### 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 mechanical safety locking unit.

Check if mechanical locks can be well engaged or released in the running process.

#### Check the synchronization of both 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.

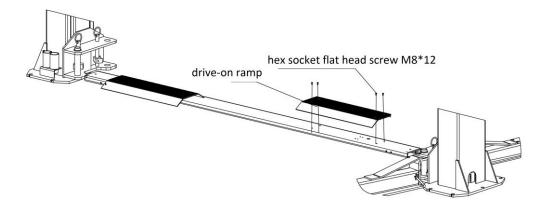
#### If the lift doesn't raise, the motor may turn in the wrong direction. In such event, interchange wires U, V in the connection box.



Step 14: Fix feet protection fenders, chain protection clothes, and lifting trays. feet protection fender 0 lifting tray hex socket button head screw M8\*12 <u>hex n</u>ut M6 flat washer M6 hook 3) chain protection cloth flat washer M6 cross socket cap head screw M6\*8



Step 15: Fix base cover plate.



#### 4.4 Items to be checked after installation

S/N	Check items	YES	NO
1	Screw torque of expansion bolts : 60-80N•m;	V	
2	Rising speed ≥20mm/s;	V	
3	Noise with rated load ≤75db;	V	
4	Grounding resistance: not bigger than $4\Omega$ ;	v	
5	Height difference of the two carriages ≤5mm;	v	
6	Mechanical catch unit is robust and synchronized when running with rated load ;	V	
7	If the control button works as "hold to run"?	v	
8	If limit switches work well?	V	
9	If grounding wire is connected?	٧	
10	If rising and lowering smoothly?	v	
11	If there is no abnormal notice during running with rated load?	v	
12	If there is no oil leakage when running with rated load?	v	
13	If expansion bolts, nuts or circlips are well secured?	V	
14	If the max lifting height is 1900mm?	v	
15	If Safety advices, name plate and logos are clear?	V	

# **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.

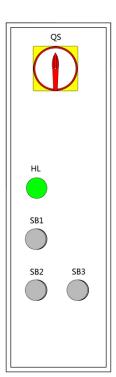
5.1.3 The machine shall not lift or lower an automobile if its center of gravity is not positioned midway of the swing arms.

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

5.1.5 When lifting arms rise to the expected height, switch off the power at once to prevent any mal-operation done by unconcerned people.



#### 5.2 Operation instructions



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

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

#### Raise the lift

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

1. Park the vehicle between two posts.

2. Adjust the lifting arms until lifting trays are under the pick-up positions of the vehicle and make sure the gravity of vehicle located over the center of four lifting arms.

3. Turn on the main power switch.

4. Push the UP button on the control box until lifting trays have touched the pick-up positions of vehicle.

5. Keep on raising the vehicle making its wheels have a bit clearance off the ground and check again the stability.

6. Raise the vehicle to expected height, 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.

Push Direct Lowering button and DOWN button for direct lowering.

1. Push the "DOWN" button on the control box. Initially the carriage will automatically go upwards about 5CM and then starts lowering.

2. When the lift is fully lowered, position the lift arms and adapters to provide an unobstructed exit before removing vehicle from lift area.

3. Drive the vehicle away.



# **TROUBLE SHOOTING**

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

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

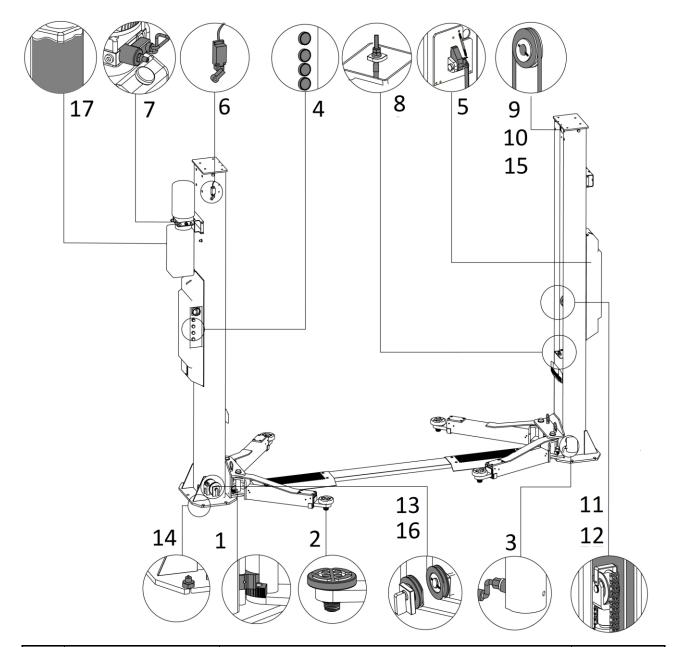
TROUBLES	CAUSES	SOLUTIONS
	Abrasion exists on insider surface of the posts.	Grease the inside of the post.
Abnormal noise	Trash in the post.	Clear the trash
Motor does not	Loose wire connection	Check and make a good connection.
run and will not	Burnt motor.	Replace it.
rise	Damaged limit switch or its wire connection is loose.	Adjust or replace the limit switch.
	The motor run reversely.	Check the wire connection.
	Overflow valve is not well screwed up or jammed.	Clean or make adjustment
Motor runs but	Damaged gear pump.	Replace it.
will not raise	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
	The oil hose leaks.	Check or replace it.
Carriages go down	Untightened oil cylinder.	Replace the seal.
slowly after being	The single way valve leaks.	Clean or replace it.
raised	Solenoid valve fails to work well.	Clean or replace it.
	Slack steel cable	Check and adjust the tightness.
	Jammed. Oil filter	Clean or replace it.
	Too low oil level.	Add oil.
Detational to a classic	The overflow valve is not adjusted to the right position.	Make adjustment.
Raising too slow	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.
	Jammed throttle valve	Clean or replace.
Laurantaa ka a alar	Dirty hydraulic oil	Change the oil.
Lowering too slow	Jammed anti-surge valve	Clean it.
	Jammed oil hose	Replace it.
The steel cable is abraded	No grease at installation or out of lifetime	Replace it.



# MAINTENANCE

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

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



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



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

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



#### Annex 1, Floor plan

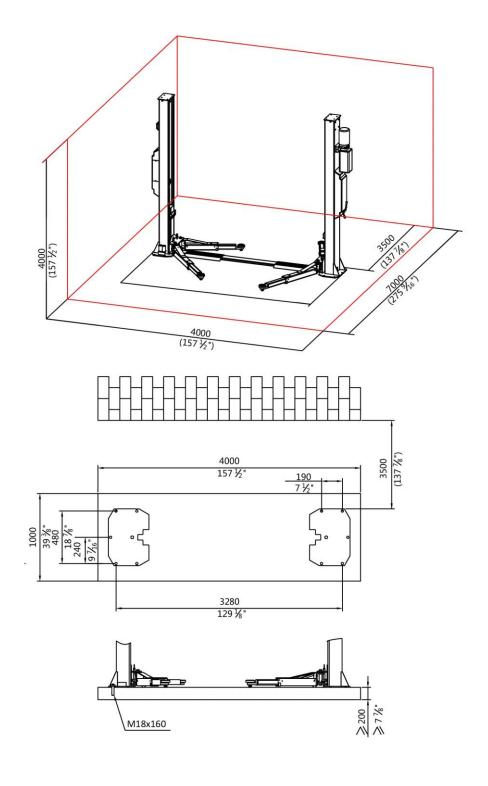
**Indoor installation only.** There must also be a clearance of at least 1 meter between the lifting platform and fixed elements (e.g. wall) in all lifting positions. There must be sufficient space for driving vehicles on and off.

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

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

Newly built concrete ground must be older than 20days.

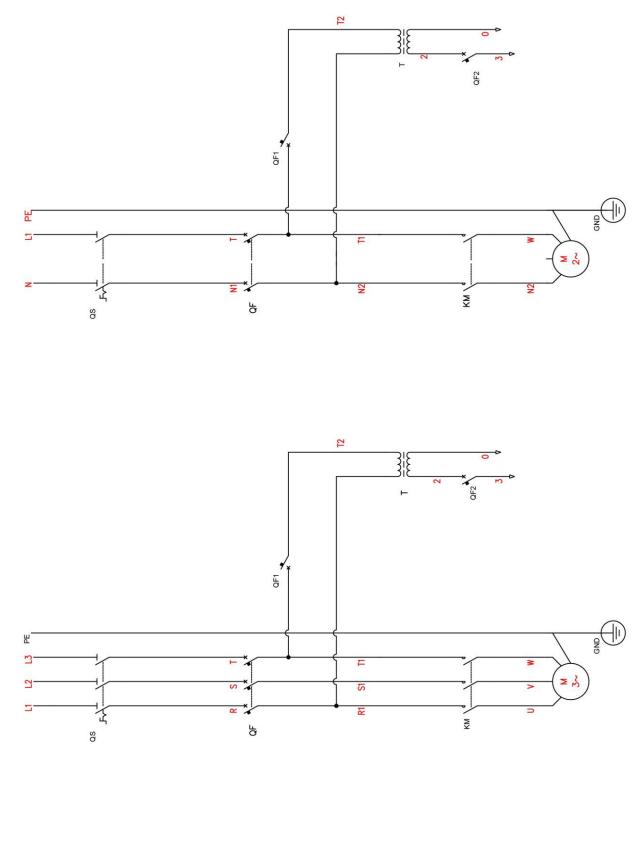
In mm.

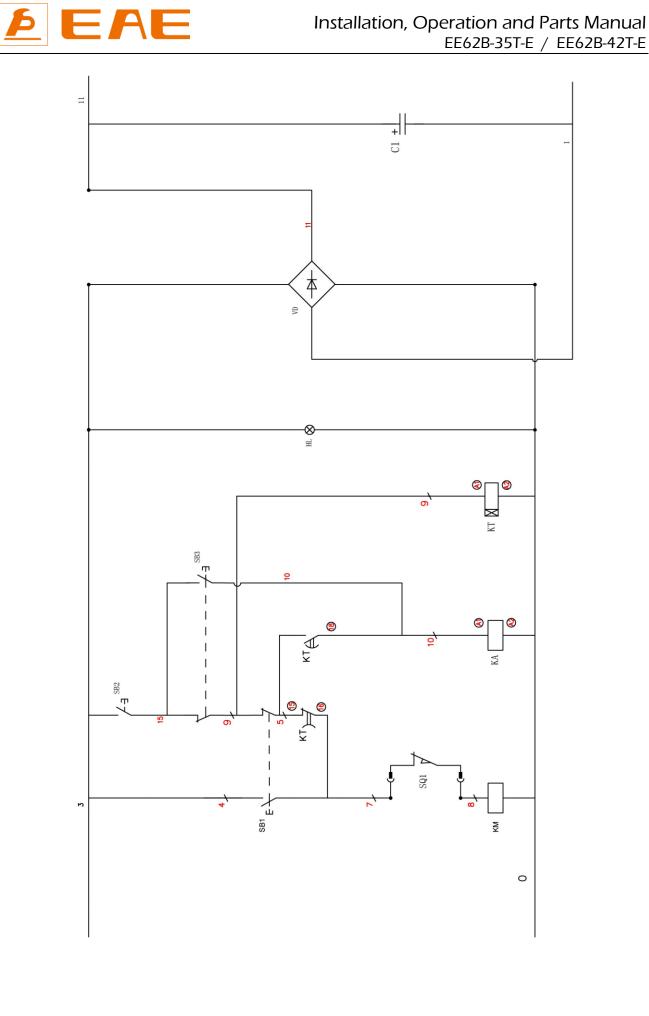




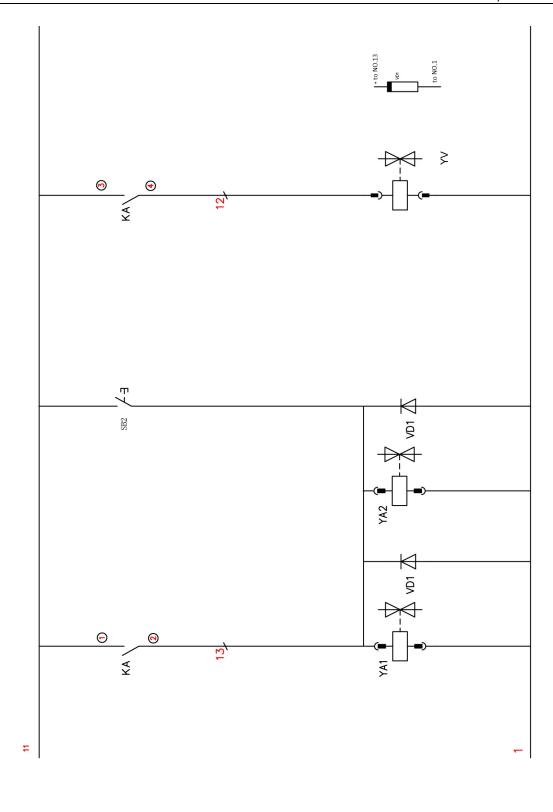
## Annex 2, Electrical schemes and parts list

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

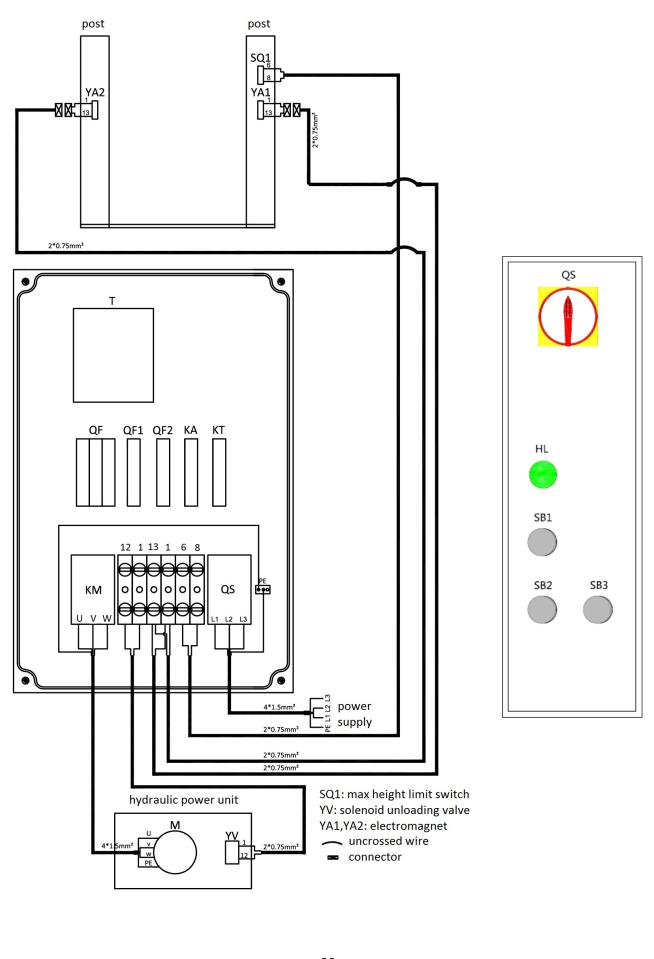














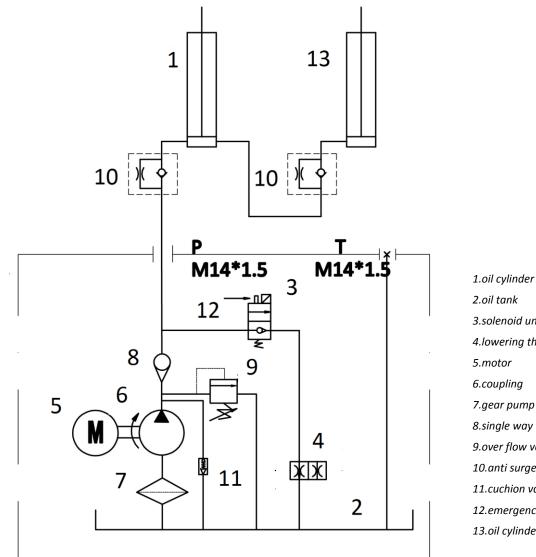
POS.	Code	Name	Specification	Qty
SQ1	320301011	Limit switch	TZ8108	1
YA1 YA2	410044350B	Electromagnet	6254E.V3-A14	2
т	320102004	Transformer (dual)	BK-100VA 380V220V-24V	1
Т	320102005	Transformer (dual)	BK-100VA 400V230V-24V	1
Т	320102006	Transformer (dual)	BK-100VA 415V240V-24V	1
KM	320901011	AC contactor	CJX2-1810/AC24V	1
QF	320801003	Circuit breaker	DZ47-63C25/3P	1
QS	320304001	Main switch	LW26GS-20/04	1
SB1/SB3	320401013	Button	AR22FOR-11-W	2
SB2	320401017	Button	AR22F0R-20-W	1
КА	320601026	Integrated relay	NCH8-20/20 AC24V	1
кт	320602009	Integrated time relay	ZYS11-A(AC24, 5S)	1
С	321001004	Capacitor	4700UF/50V	1
VD	321002001	Bridge rectifier	КВРС5А-35А	1
HL	321201001	Power indicator	AD17-22G-AC24	1
QF1	320803003	Circuit breaker	DZ47-63C3/1P	1
QF2	320803005	Circuit breaker	DZ47-63C6/1P	1

NOTE: For power supply of other voltages, the transformers are different.

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

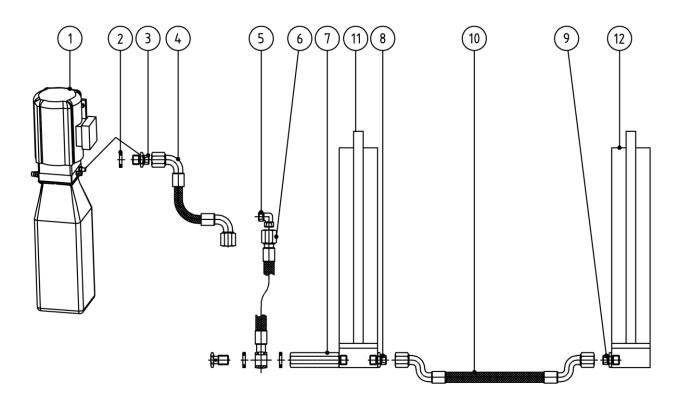


#### Annex 3, Hydraulic schemes and parts list



2.oil tank
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.anti surge valve
11.cuchion valve
12.emergency unloading valve
13.oil cylinder



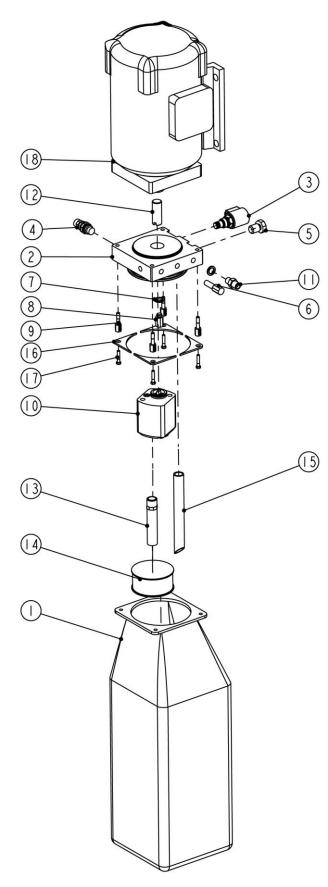


POS.	Code	Name	Specification	Qty
1		Power unit	2.2kW or 3.0kW	1
2	207103025	Composite washer	13.7*20.00*1.50(BS224)	3
3	310101028	Shift connector	G1/4M14x1.5,M14x1.5 with protective cap	1
4	624001042B	Rubber oil hose	L=400mm	1
5	615022014	Right angle connection	612E-A8	1
6	624001274	Rubber oil hose	L=2170mm	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=2880mm	1
11	615001007	Secondary oil cylinder	6254E-A5-B6	1
12	615001006	Main oil cylinder	6254E-A5-B5	1

#### **Seal Rings**

POS.	Code	Name	Specification	Qty
1	207106008B	Y seal ring	TTE 63*48*10	1
2	207102009B	Anti-abrasion ring	AGI 40/S1 40*45*5.6	1
3	207105005	Dust-proof ring	DHS40 (40*48*5/6.5)	1
4	207106006	Anti-abrasion ring	AGI 58/S1 58*63*5.6	1





POS.	Code	Name	Specification	Qty	
1	330405001	Oil tank	10L	1	
2	330101063B	Hydraulic block	YF-2D	1	
L					



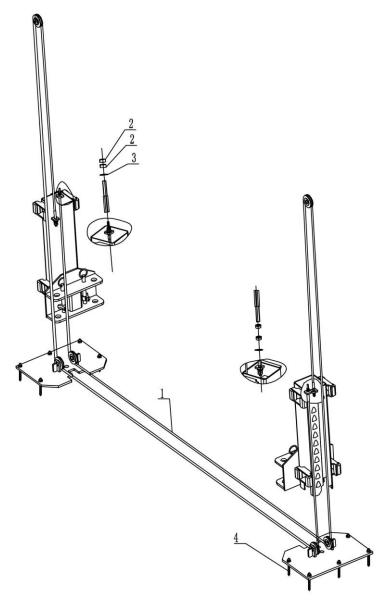
POS.	Code	Name	Specification	Qty
3	330308006	Solenoid unloading valve	DHF06-220H/DC24	1
4	330304001	Over flow valve	EYF-C	1
5	330302001	Single way valve	DYF-C	1
6	330305002	Throttle valve	TC-VF	1
7	207103019	Composite washer	M14	2
8	330301001	Cushion valve	HZYF-C1	1
9	202109064	Hex socket cylinder head screw	M6*30	4
10	330201006B	Gear pump assembly (for 2.2kW,3Ph motor)	CBK-F225/CBK-2.5F	1
10	330201005	Gear pump assembly (for 2.2kW,for 1Ph motor)	CBK-F220/CBK-2.1F	1
10	330201007	Gear pump assembly (for 3.0kW,3Ph motor)	СВК-F233	1
11	310101028	Shift connector	G1/4M14x1.5	1
12	330404001	Coupling	YL-A	1
13	330401005	Oil sucking tube	YX-BL-*	1
14	330403001	Oil sucking filter	YG-C	1
15	330402001	Oil back tube	YH-D	1
16	410010091	Reinforced plate for oil tank	6254E-A4-B12	4
17	201103001	Hex flange screw	M5*25	4
18	320201001	Motor	220V-2.2KW -1PH-50HZ-2P	1
18	320201004	Motor	380V-2.2KW -3PH-50HZ-2P	1
18	320201005	Motor	400V-2.2KW-3PH-50HZ-2P	1
18	320201002	Motor	230V-2.2KW -1PH-50HZ-2P	1
18	320201006	Motor	415V-2.2KW -3PH-50HZ-2P	1
18	320201003	Motor	240V-2.2KW -1PH-50HZ-2P	1
18	320204016	Motor	380V-3.0KW-3PH-50HZ-2P	1
18	320204017	Motor	400V-3.0KW -3PH-50HZ-2P	1
18	320204018	Motor	415V-3.0KW -3PH-50HZ-2P	1

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

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

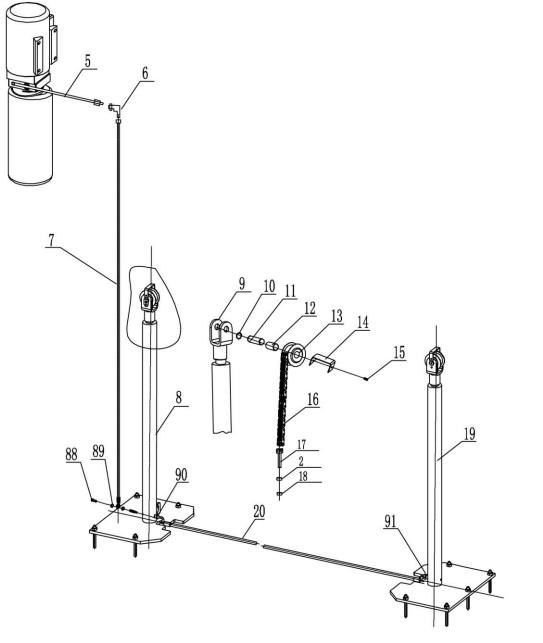


# Annex 4, Mechanical exploded drawings and parts list



POS.	Code	Name	Specification	Qty
1	615001010B	Steel cable L=8785mm	6254E-A6	2
2	203101009	Hex nut M16	M16	8
3	204101009	Class C flat washer M16	M16	4
4	201201007	Expansion bolt	M18*160	10

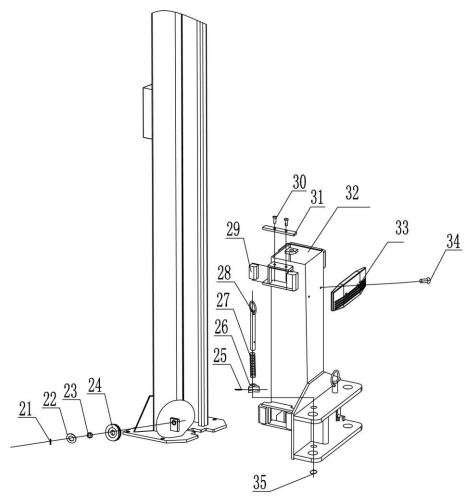




POS.	Code	Name	Specification	Qty
5	624001042B	Rubber oil hose	L=400mm	1
6	615022014	Right angle connector	612E-A8	1
7	624001274	Rubber oil hose	L=2170mm	1
8	615001007	Drive oil cylinder	6254E-A4-B6	1
9	612001001	Chain wheel bracket	6254E-A4-B2	2
10	204301009	Type B circlip 25	M25(23.2)	4
11	410010101	Shaft for chain wheel	6254E-A4-B3	2
12	205101013	Bearing 2548	2548	2
13	410130071	Chain wheel (42T)	6255E-A7-B5	2
13	410010111	Chain wheel (35T)	6255E-A4-B4	2
14	410130081	Retain plate	6255E-A7-B6	2



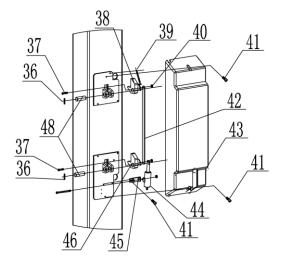
POS.	Code	Name	Specification	Qty
15	202109017	Hex socket cylinder head screw M6*8	M6*8	4
16	208108003	Chain (42T)	LH1244-127	2
16	208108001	Chain (35T)	LH1234-127	2
17	410047360B	Chain holder	62B-A3-B4-42T	2
17	410047350C	Chain holder	62B-A3-B4-35T	2
18	203204001	Locking nut M16	M16 GB/T6178	2
19	615001006	Oil cylinder	6254E-A4-B5	2
20	624001025	Rubber oil hose	L=2880mm	1
88	615006004	Connector	6254E-A4-B8	1
89	207103025	Composite washer	13.7*20.00*1.50(BS224)	2
90	615001009	Connector	6254E-A4-B11	1
91	615001008	Short connector	6254E-A4-B10	1

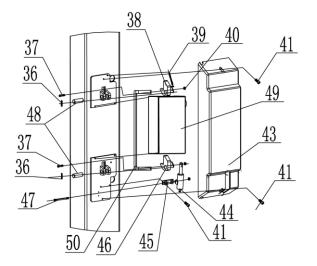


POS.	Code	Name	Specification	Qty
21	206201004	Cotter pin 3*45	3*45	2
22	410010031	Washer	6254E-A1-B3	8
23	205101007	Bearing 2512	2512	6
24	410044260	Pulley	62B-A1-B2	6



POS.	Code	Name	Specification	Qty
25	206102008	Elastic pin 5*50	5*50	4
26	410150891	Semi-teeth block	6254E-A2-B3	4
27	410150121	Pressure spring	6254E-A2-B4	4
28	612004006C	Pulling rod	6254E-A2-B1	4
29	420010010	Slider	6254E-A2-B5	16
30	202109041	Hex socket cylinder head screw M10*20	M10*20	16
31	410047111	Retain plate for sliders	62B-A3-B2	4
32	614004803C	Carriage	62B-A3-B1	2
33	420010020B	Protection rubber pad	6254E-A2-B6	2
34	202103021	Cross sunken head screw M8*16	M8*16	4
35	204301008	Type B circlip 22	GB/T894.2-1986	4





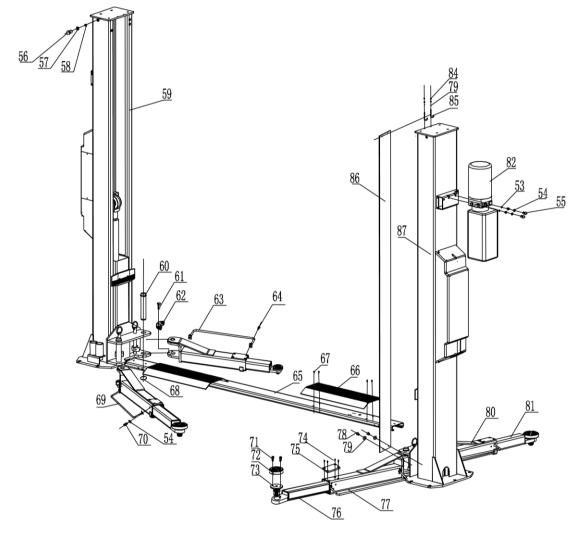
POS.	Code	Name	Specification	Qty
36	206201004	Cotter pin 3*45	3*45	8
37	202109023	Hex socket cylinder head screw M6*40	M6*40	4
38	614004806	Safety hook	62B-A1-B4	2
39	410047530B	Pull spring	62B-A10-B9-M	2
40	203103005	Hex locking nut	M6	5
41	202110004	Hex socket cylinder head screw M8*12	M8*12	8
42	410047201B	Connection plate for lock in the secondary lift	62B-A2-B2	1
43	420047010	Safety hook cover for the main lift	62-A23-B1-C1	2
44	410044350B	Electromagnet	62B-A14-E	2
45	614004809B	Connection bracket for electromagnets	62B-A1-B6-E	2
46	614004807	Safety hook B	62B-A1-B5	2
47	202109132	Hex socket cylinder head screw M6*65	M6*65	2
48	410044340	Safety shaft	62B-A1-B6	4
49		Control box		1



21

POS.	Code	Name	Specification	Qty
50	612004220	Connection plate for lock in the main lift	62B-A1-B3	1
		51 24 23 0 21 22		

POS.	Code	Name	Specification	Qty
21	206201004	Cotter pin 3*45	3*45	2
22	410010031	Washer	6254E-A1-B3	8
23	205101007	Bearing 2512	2512	6
24	410044260	Pulley	62B-A1-B2	6
51	614004804	Top plate assembly	62B-A4-B1	2



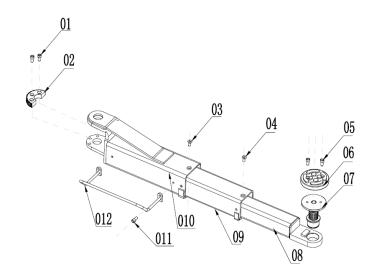


POS.	Code	Name	Specification	Qty
53	204201005	Spring washer M10	M10	4
54	204101006	Class C flat washer M10	M10	4
55	201103014	Hex head full swivel bolt M10*15	M10*15	4
56	201102027	Hex head full swivel bolt M12*30	M12*30	4
57	204201006	Spring washer M12	M12	4
58	204101007	Class C flat washer M12	M12	4
59	614004812	Secondary post (42T)	62B-A2-B1-42T	1
59	614004802	Secondary post (35T)	62B-A2-B1-35T	1
60	410049031	Shaft	6254E-A12	4
61	202109085	Inside hex cap screw M12*30	M12*30	12
62	410150901	Semi-Teeth wheel	6215-A4-B3 (6254E-A7-B6)	4
63	614004013B	Fender for the short arm	6254E-A8-B5	2
64	202110004	Inside hex cap screw M8*12	M8*12	8
65	614004805B	Slot base plate	62B-A5-B1	1
66	410047153B	Drive-on plate	62B-A5-B2	1
67	202111004	Hex socket flat head screw M8*12	M8*12	8
68	204301013	Type B circlip 38	38	4
69	614004014B	Fender for the long arm	6254E-A7-B5	2
70	202109040	Hex socket cylinder head screw M10*15	M10*15	4
71	202110004	Hex socket button head screw M8*12	M8*12	8
72	420040050B	Round pad	6254E-A7-B4-C4	4
73	615004003D	Lifting tray	6254E-A7-B4	4
74	202103008	Cross sunken head screw M5*10	M5*10	16
75	420040040	Square pad	6254E-A7-B2(125*75*10)	4
76	614004006C	Long tensile arm	6254E-A7-B3	2
77	614004005B	Long support arm	6254E-A7-B1	2
78	202101027	Cross cap screw M6*8	M6*8	4
79	204101004	Class C flat washer M6	M6	8
80	614004008B	Short support arm	6254E-A08-B01	2
81	614004010C	Short tensile arm	6254E-A08-B02	2
82		Power unit	2.2kW	1
84	203101004	Hex nut M6	M6	8
85	410010051	Pulling rod	6254E-A1-B5	4
86	615001002	Protection cloth	6254E-A1-B4	2
87	614004811	Main post (42T)	62B-A1-B1-42T	1
87	614004801	Main post (35T)	62B-A1-B1-35T	1



# **Optional 3-stage arm**

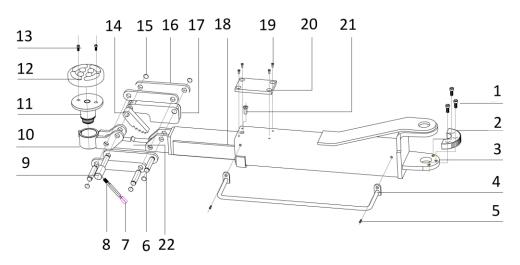
(615-1150,745-1345)



Pos.	CODE	Name	Specification	Qty
01	202109085	Hex socket cylinder head screw M12*30	M12*30	3
02	410150901	Teeth block	6254E-A7-B6	1
03	202109040	Hex socket cylinder head screw M10*15	M10*15	2
04	202109040	Hex socket cylinder head screw M10*15	M10*15	2
05	202111007	Inside hex sunken head screw M8*20	M8*20	2
06	420040050B	Round lifting pad	6254E-A7-B4-C4	1
07	615004003D	Lifting tray assembly	6254E-A7-B4	1
08	614004028B	Third stage of the short triple arm	6254E-MDN-A10-B3	1
09	614004027B	Mid stage of the short triple arm	6254E-MDN-A10-B1	1
010	614004027B	First stage of the short triple arm	6254E-MDN-A10-B1	1
011	202111007	Inside hex sunken head screw M8*20	M8*20	2
012	614004030B	Fender for the short triple arm	6254E-MDN-A10-B4	1



# **Optional quick arm**



POS.	Code	Name	Specification	Qty
1	202109085	hex socket cylinder head screw M12*30	GB/T70.1-2000	3
2	410150901	teeth block	6254E-A7-B6	1
3	614004005	long arm	6254E-A7-B1	1
	614004008	short arm	6254E-A08-B01	1
4	614004014B	long arm fender	6254E-A7-B5	1
5	202110004	hex socket button head screw	M8*12	2
6	410040101	quick arm connection shaft	6254E-A25-B1-C6	3
7	420170030	rubber cap	6264-A7-B1	1
8	410040091	release handle	6254E-A25-B1-C7-D2	1
9	410040111	release shaft	6254E-A25-B1-C7-D1	1
10	612004005	lifting tray holder	6254E-A25-B1-C5	1
11	615004003D	lifting tray	6254E-A7-B4	1
12	420040050B	round rubber lifting pad	6254E-A7-B4-C4	1
13	202111007	hex socket flat head screw	M8*20	2
14	410040081	quick locking teeth	6254E-A25-B1-C4	1
15	204301005	circlip	M16	7
16	410040161	connection plate	6254E-A25-B1-C2	4
17	615004002	protection cover for locking teeth	6254E-A25-B1-C8	1
10	614004015	long tensile arm	6254E-A25-B1-C3	1
18	614004016	short tensile arm	6254E-A26-B1-C1	1
19	202103008	cross socket flat head screw	M5*10	4
20	420040040	square lifting pad	6254E-A7-B2(125*75*10)	1
21	202103019	cross socket flat head screw	M8*10	1
22	410040151	quick locking rod	6254E-A25-B1-C1	1

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