

## **Model No. SAE-F10P**

**Chain drive 2 post Lift  
Single Point Manual Release  
Lifting Capacity 10,000 lbs**

## **Installation & Operation & Maintenance Instructions**



### **Important Note**

- 1. This equipment can not be installed, operated or repaired without reading instructions.**
- 2. Electricity must be hooked up by certified electrician.**
- 3. Do not use this equipment beyond its rated capacity.**

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## Foreword

Notes on the operating instructions

The present ORIGINAL OPERATING INSTRUCTIONS are designed to provide sufficient instruction for the safe operation of the product. The information is provided clearly and concisely. The chapters are arranged by letter and the pages are numbered continuously.

Our products are subject to ongoing development. Our company reserves the right to alter the design, equipment and technical features of the system. No guarantee of particular features of the product should therefore be assumed from the present operating instructions.

Safety notices and text mark-ups

Safety instructions and important explanations are indicated by the following graphics:



**DANGER!**

Indicates an extremely hazardous situation. Failure to comply with this instruction will result in severe irreparable injury and even death.



**WARNING!**

Indicates an extremely hazardous situation. Failure to comply with this instruction may result in severe irreparable injury and even death.



**CAUTION!**

Indicates a hazardous situation. Failure to comply with this instruction may result in slight to medium injury.

**NOTE**

Indicates a material hazard. Failure to comply with this instruction may result in material damage.

## 1. Packing, transport and storage

All packing, lifting, handling, transport and unpacking operations are to be performed exclusively by expert personnel with knowledge of the lift and the contents of this manual.

### 1.1 Packing

The packing of the lift is delivered in following components:

- 1 base unit packed in a steel frame, wrapped up in non-scratch material, including all the accessories.
- 1 power unit packed in a carton box.

### 1.2 Transport

See Fig 1, packing can be lifted or moved by lift trucks, cranes or bridge cranes. In case of slinging, a second person must always take care of the load, in order to avoid dangerous oscillations.

During loading and unloading operation, goods must be handled by vehicles or ships.

At the arrival of the goods, verify that all items specified in the delivery notes are included. In case of missing parts, possible defects or damage due to transport operations.

If finding missing parts, possible defects or damage due to transport, one should examine damaged cartons according to <<Packing List.>> to verify the condition of damaged goods and missing parts, also the person in charge or the carrier must be immediately informed.

The machine is heavy goods! Don't take manpower load and unload and transporting way into consideration, the safety of working is important.

Furthermore, during loading and unloading operation goods must be handled as shown in the picture. (Fig 1)



Fig 1

### 1.3 Storage

The machine equipment should be stocked in the warehouse, if stocked outside should do the disposal well of waterproof.

Use box truck in the process of transport, use container storage when shipping.

The control box should be placed perpendicularly during the transport; and prevent other goods from extrusion.

The temperature for machine storage: -10°C-- 40°C

## 2. Description of the machine

The electro-hydraulic 2-post lift is a fixed installation. This means that it is anchored to the ground and built for lifting and positioning automobiles and vans at a certain height off the ground.

The lift consists of the following main parts(see Fig.2):

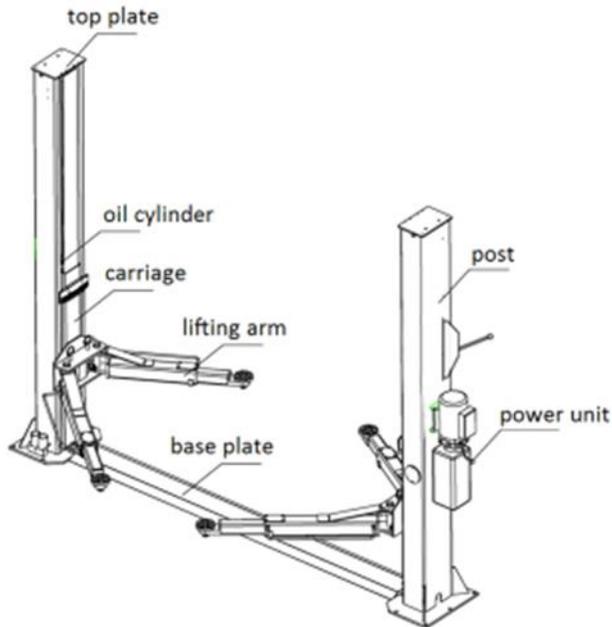


Fig.2

### 2.1 Fixed structure

Posts and steel plate:

2 posts and command built with bent steel plate. The base is welded to a drilled plate to be anchored to the floor. The hydraulic power unit are attached to the command post. Inside each post are the moving parts to lift the vehicles.

The column set on the base.

### 2.2 Moving units

Carriages + arms:

1. Both carriages built with welded steel plate. It joints by chain and the cable, and at the bottom to the lift arms by means of pins.
2. The carriage moves along the post, guided by plastic sliding pads. Located inside the post itself.
3. Two telescopic arms, one long and one short, built wit tubular steel with a pad at each end that can be height adjusted to hold the car and on the opposite side the carriage connection hole.

### 2.3 Lift unit

Hydraulic cylinders + power unit:

2 hydraulic cylinders, the carriages run by chains and synchronized by steel cables.

1 hydraulic unit, on the command side, to set the cylinders run

The hydraulic power unit consists of:

1. An electric motor
2. A geared hydraulic pump
3. Descent hand-valve equipped with a manual oil drain valve (see the use and maintenance chapter)

4. A maximum pressure valve.
5. Oil tank
6. An oil delivery and return flexible pipe to the cylinders feeding circuit

Note: The oil delivery pipe may be under pressure.

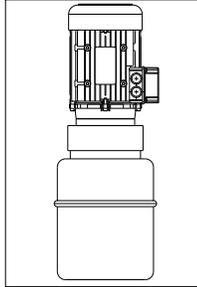


Fig.3

## 2.5 Safety device

The safety devices include:

- 1 Mechanical safety device for carriage
- 2 Arms locking system
- 3 A synchronous device to control the carriages movement.
- 4 End limit switches
- 5 General hydraulic safety devices

These safety devices will be described in further detail in the following chapters.

### 3. Technical specifications

<b>CAPACITY</b>	<b>10,000 lbs (4,500kg)</b>
Max. lifting height with no pad extension	74 7/8" (1900mm)
Min. adaptor height	3 15/16" (100mm)
Overall height	111 1/4" (2824mm)
Overall width	134 1/4" (3410mm)
Drive through width	103 1/4" (2622mm)
Lifting time	≤50 S
Lowering time	≤40 S
Noise level	<85 dB(A)/1m
Working temperature	41°F - 104°F
Voltage	220V/60Hz/1PH
Power	2.2KW /3HP
Breaker	30A
Hydraulic Fluid Requirement	3-5 Gallons AW32/AW46
Average weight of package	1411 lbs (640kg)

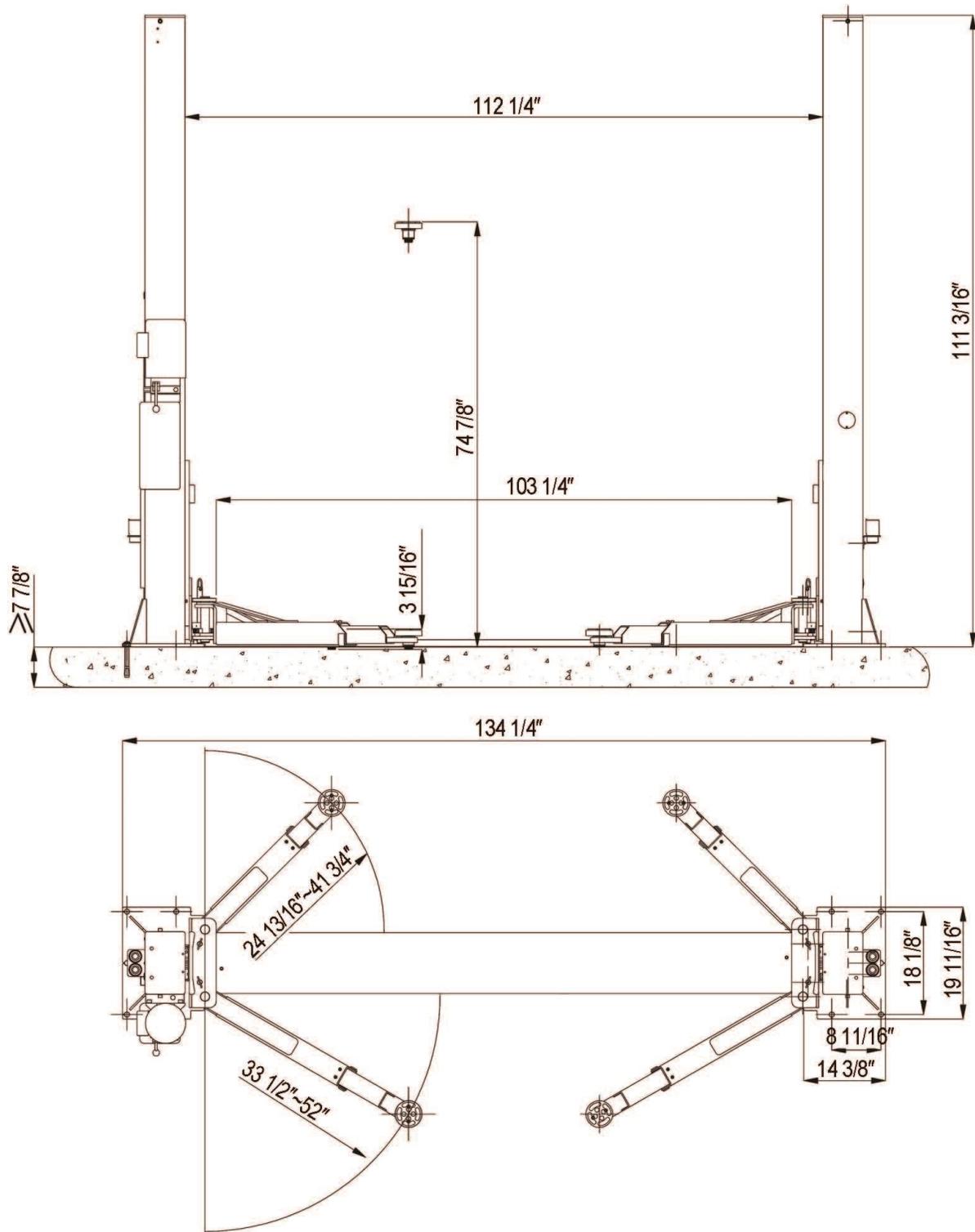


Fig. 4

## 4. Safety

### 4.1 Important notices

This 2-posts lift is specially designed for lifting motor vehicles that weighs within its outmost lifting capacity. Users are not allowed to use it for any other purposes. Otherwise, we, as well as our sales agency, will not bear any responsibility for accidents or damages of the lift. Make sure to pay careful attention to the label of the lifting capacity attached on the lift and never try to lift cars with its weight beyond.

Read this manual carefully before operating the machine so as to avoid economic loss or personnel casualty incurred by wrong operation. Without professional advice, users are not permitted to make any modification to the control unit or whatever mechanical unit.

### 4.2 Qualified personnel

- Only these qualified staff, who have been properly trained, can operate the lift.
- Electrical connection must be done by a competent electrician.
- People who are not concerned are not allowed in the lifting area.

### 4.3 Danger notices

- Do not install the lift on any asphalt surface.
- Read and understand all safety warnings before operating the lift.
- The lift, if is not specially designed upon customer's request, is not fit for outdoor use.
- Keep hands and feet away from any moving parts. Keep feet clear of the lift when lowering.
- Only these qualified people, who have been properly trained, can operate the lift.
- Do not wear unfit clothes such as large clothes with flounces, tires, etc, which could be caught by moving parts of the lift.
- To prevent evitable incidents, surrounding areas of the lift must be tidy and with nothing unconcerned.
- The lift is simply designed to lift the entire body of vehicles, with its maximum weight within the lifting capacity.
- Always ensure the safety latches are engaged before any attempt to work near or under the vehicle.
- Make sure to place the lifting pads to the positions as suggested by vehicle makers and when gradually lift the vehicle to the desired height, operators should be certain that the vehicle will not slant, roll-over or slide in lifting process.
- Check at any time the parts 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.
- Lower the lift to its lowest position and do remember to cut off the power source when service finishes.
- Do not modify any parts of the lift without manufacturer's advice.
- If the lift is going to left used for a long time, users are required to:
  - a. Disconnect the power source;
  - b. Empty the oil tank;
  - c. Lubricate the moving parts with hydraulic oil.

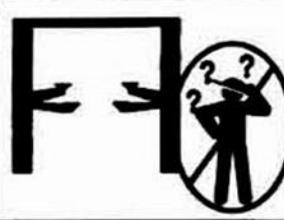
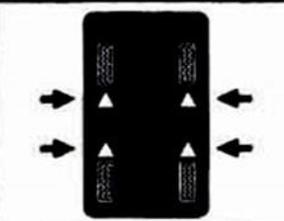
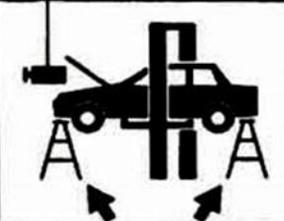
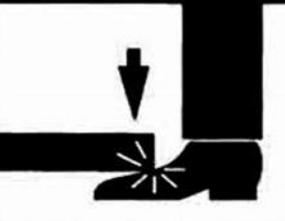
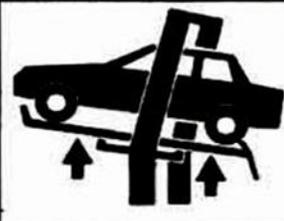
### 4.4 Training

Only these qualified people, who have been properly trained, can operate the lift. We are quite willing to provide professional training for the users when necessary.

Attention: For environment protection, please dispose the disused oil in a proper way.

### 4.5 Warning signs

All safety warning signs attached on the machine are for the purpose of drawing the user's attention to safety operation. The labels must be kept clean and need to be replaced when they are worn-out or have dropped. Read the explanations of the labels carefully and try to memorize them.

<p><b>⚠ CAUTION ⚠</b></p>  <p><i>Lift is only allowed to be used by trained operator.</i></p>	<p><b>⚠ CAUTION ⚠</b></p>  <p><i>Only authorized personnel allowed in lift area.</i></p>	 <p><i>Remain clear of lift when lowering or lifting vehicle.</i></p>	 <p><i>Clear area if vehicle is in danger of falling.</i></p>
<p><b>⚠ CAUTION ⚠</b></p>  <p><i>Lift vehicle at the manufacturer's points</i></p>	<p><b>⚠ CAUTION ⚠</b></p>  <p><i>Always use safety stands when removing/installing heavy components</i></p>	 <p><i>Locate the vehicle with center gravity right between two adapters.</i></p>	 <p><i>Keep feet away from adapter while lift lowering.</i></p>
<p><b>⚠ CAUTION ⚠</b></p>  <p><i>Use height extenders when necessary to ensure good contact.</i></p>	<p><b>⚠ CAUTION ⚠</b></p>  <p><i>Auxiliary adapters may reduce load capacity.</i></p>	 <p><i>Do not override self-closing lift controls</i></p>	 <p><i>Avoid excessive rocking of vehicle while on lift.</i></p>

## 5. Installation

Only skilled technicians, appointed by the manufacturer, or by authorized dealers, must be allowed to carry out installation. Serious damage to people and to the lift can be caused if installations are made by unskilled personnel.

Always refer to the exploded views attached during installation.

### 5.1 Tool required

<p>Rotary Hammer Drill D.20</p> 	<p>Carpenter's Chalk</p> 
<p>Hammer</p> 	<p>Screw Sets</p> 
<p>Level Bar</p> 	<p>Tape Measure (7.5m)</p> 
<p>English Spanner (12")</p> 	<p>Pliers</p> 
<p>Ratchet Spanner With Socket (28#)</p> 	<p>Socket Head Wrench (3#, 5#, 8#)</p> 
<p>Wrench set (10#, 13#, 14#, 15#, 17#, 19#, 24#, 27#, 30#)</p> 	<p>Lock Wrench</p> 

## 5.2 Checking for room suitability

The lift has been designed to be used in covered and sheltered places free of overhead obstructions.

The place of installation must not be next to washing areas, painting workbenches, solvent or varnish deposits. The installation near to rooms, where a dangerous situation of explosion can occur, is strictly forbidden. The relevant standards of the local Health and Safety at Work regulations, for instance, with respect to minimum distance to wall or other equipment, escapes and the like, must be observed.

## 5.3 Lighting

Lighting must be carried out according to the effective regulations of the place of installation. All areas next to the lift must be well and uniformly lit.

## 5.4 Floor requirement

The lift **MUST** be installed on 3000 PSI concrete with the minimum thickness 6" and an extension of at least 4' from anchoring points. New concrete must be adequately cured by at least 20 days minimum.

**Specifications of concrete must be adhered to. Failure to do so could cause lift failure resulting in personal injury or death.**

**A level floor is suggested for proper installation. Small differences in floor slope may be compensated for by proper shimming. Any major slope change will affect the level lifting performance. If a floor is of questionable slope considering to pour the new concrete slab.**

## 5.5 Site layout

- Now locate the lift according to the floor plan the figure 24, use a carpenters chalk line to layout a grid for the column locations.
- After the column locations are properly marked, use a chalk or crayon to make an outline of the columns on the floor at each location using the column base plates as a template.
- Double check all dimensions and make sure that the bases of each column are square and aligned with the chalk line.

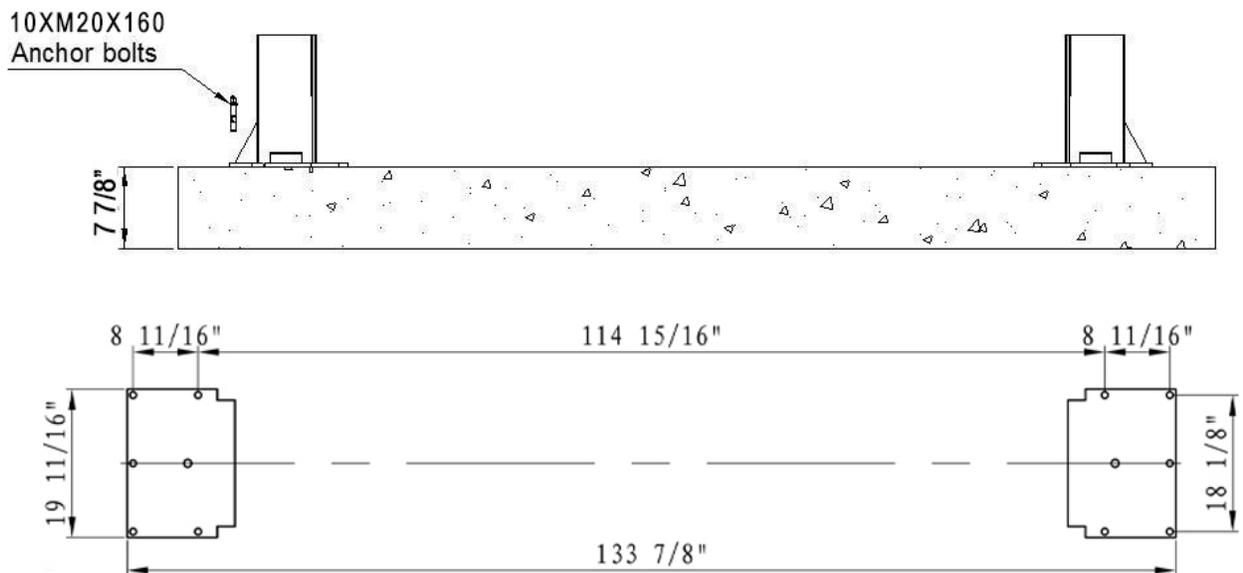


Fig. 5 – Floor Plan

## 5.6 Anchoring columns

- Use the base plate on the column as a guide, drill each hole in the concrete approximately 6" deep with rotary hammer drill D.20. To assure full holding power, do not ream the hole or allow drill to wobble;
- After drilling, remove dust thoroughly from each hole using compressed air and/ or wire brush. Make certain that the column remains aligned with the chalk line during this process;
- Assemble the washers and nuts on the anchors then tap into each hole with a hammer until the washer rests against the base plate. Be sure that if shimming is required that enough threads are left exposed;
- If shimming is required, insert the shims as necessary under the base plate so that when the anchor bolts are tightened, the columns will be plumb;
- With the shims and anchor bolts in place, tighten by securing the nut to the base. **DO NOT** use an impact wrench for this procedure;
- Anchor another column as outlined in above steps;
- Check to make sure that the columns for square-ness and plumb are as shown in the figure 28.

**The requirements for column's square-ness and plumb must be adhered to. Failure to do so could cause lift failure resulting in personal injury or death.**

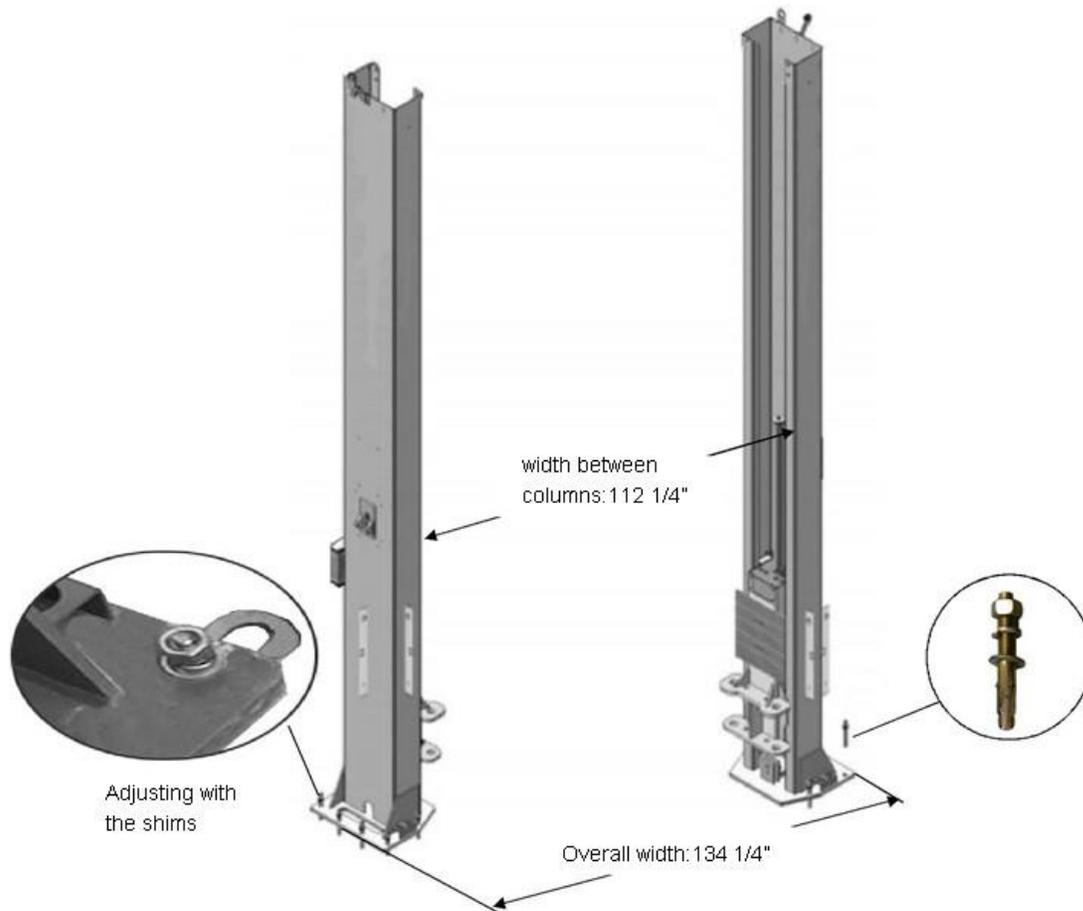


Fig.6

**Note: Anchor bolts driven into the ground at least 150mm.**

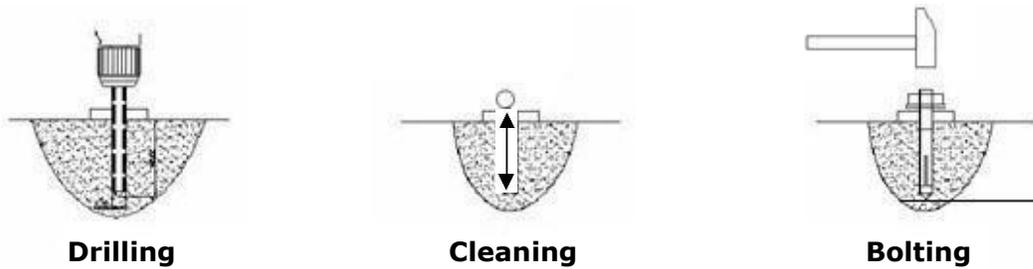


Fig. 7

### 5.7 Routing the equalizer cables

**The equalizer cables should be checked weekly for equal tension. Failure to do this will cause uneven lifting. The cables should always be adjusted so that they are equal tension when resting on the safety locks.**

- Use an appropriate lifting equipment to raise the carriage to the first latch position. Be sure the carriage is engaged securely before attempting to route the equalizer cables. Carriages must be equal height from the floor before proceeding;
- With the carriages in equal height, fit the cable end-ups through the small holes of the carriages (ref. fig. 8);
- Route the equalizer cables referring to the diagram (fig. 8). Make sure the cables in the place on the pulleys. Make sure the cables routed properly;
- After the equalizer cables have been routed, adjust the nuts M12 to make each cable in equal tension;

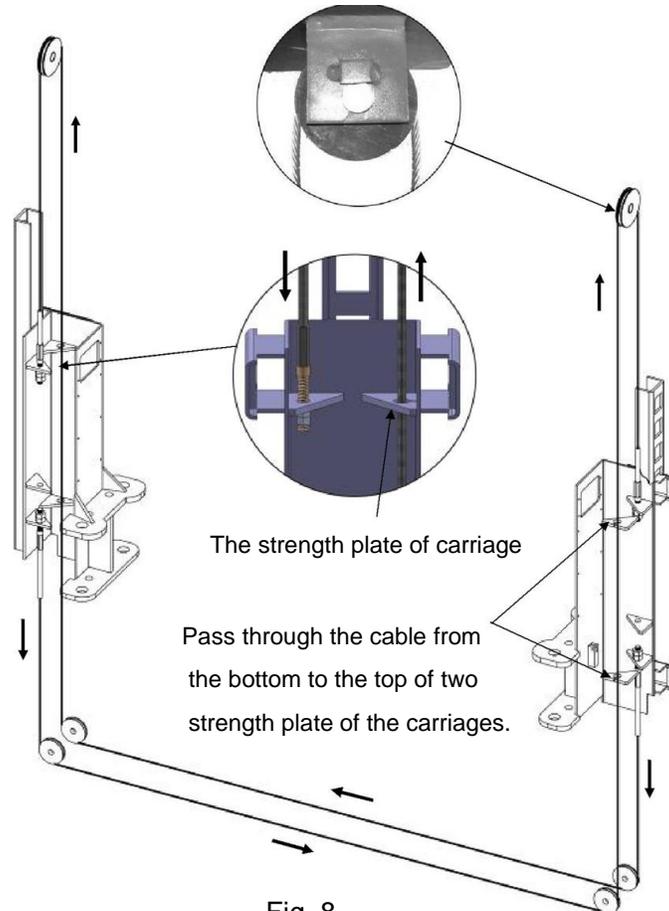


Fig. 8

## 5.8 Install limit switch

1. View of the limiter switches (Fig.9):

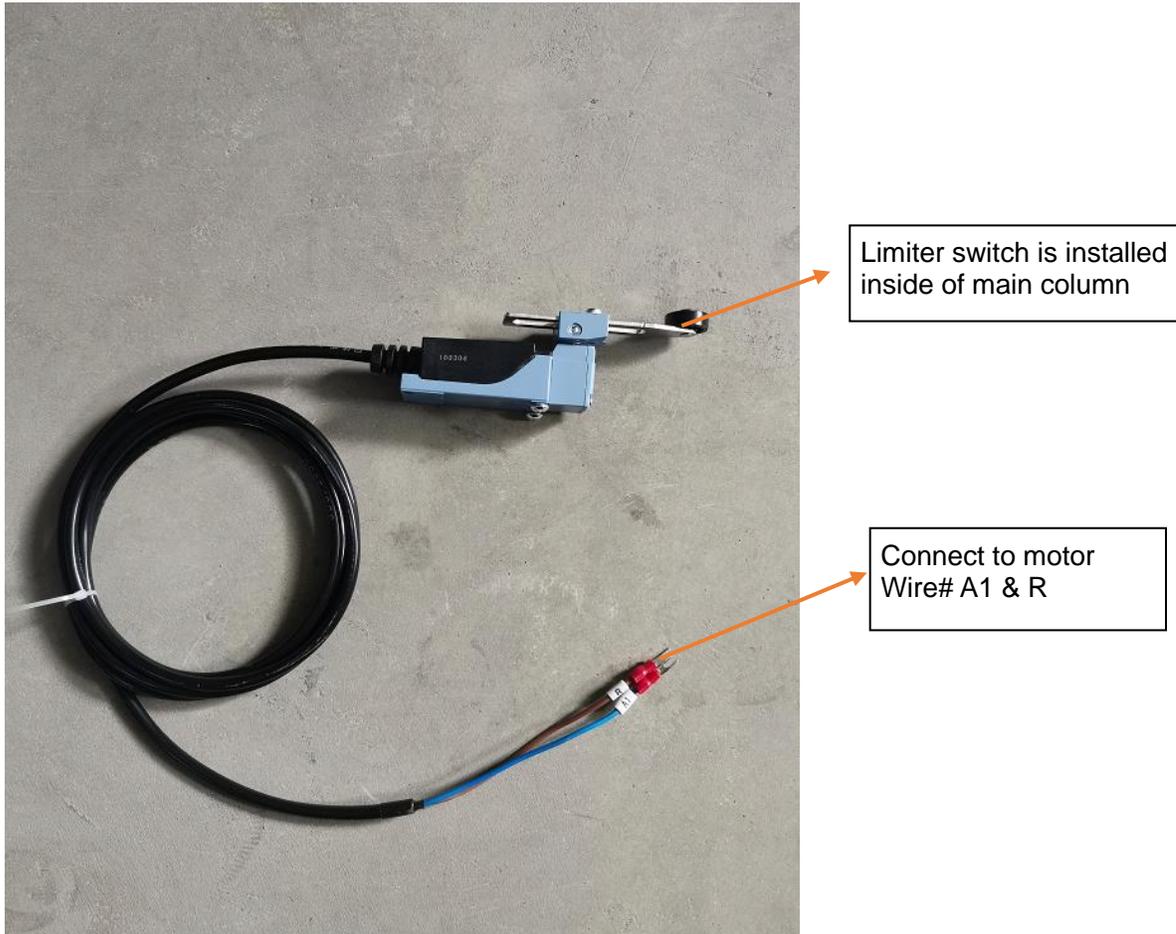


Fig. 9

2. Install the limiter switch inside of the main column (Fig.10):



Fig. 10

3. Connect the limiter switch wire to the motor:

3.1 Open the cover of the motor (Fig. 11)



Fig. 11

3.2 Disconnect the ground wire, take out the AC contactor (Fig. 12).

**Note: Recommend to change the direction of the AC contactor to make limiter switch wire get out from the left side of the motor and the power cord get out from the right side of the motor.**

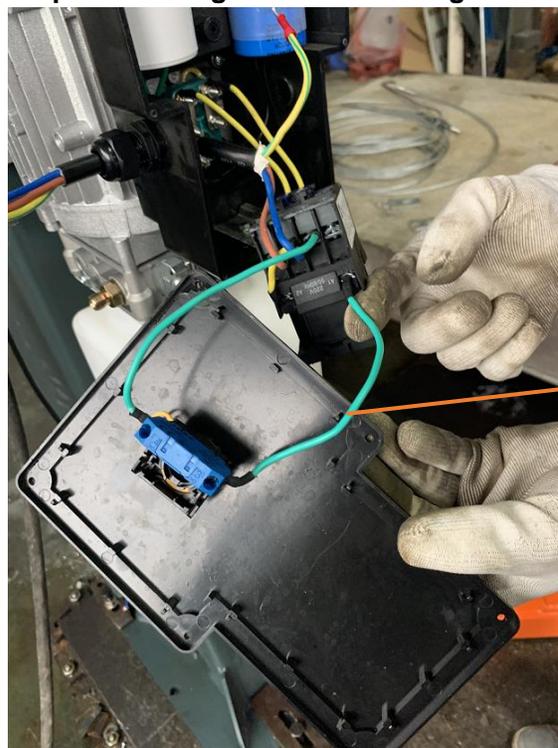


Fig. 12

3.3 Remove the wire between A1 and No.3 shows as above picture (Fig. 13).



Fig. 13

3.4 Replace the original short power cord with your own power cord if necessary (Fig. 14).



Fig. 14

3.5 Connect the ground wire on the ground stud located at lower right corner (Fig. 15).

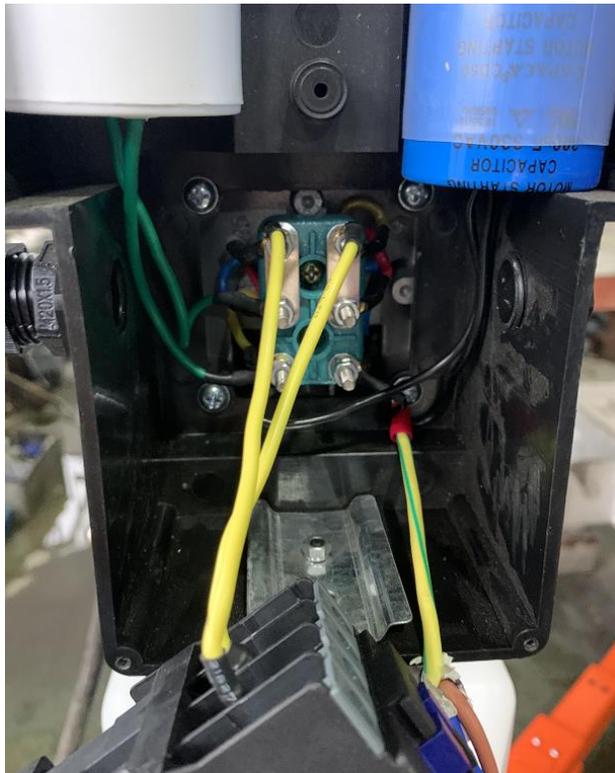


Fig. 15

3.6 Remove the white wire sleeve on the right side of the motor (Fig. 16).



Fig. 16

3.7 Put the limiter switch wire sleeve on the left side of the motor (Fig.17).



Fig. 17

3.8 Connect limiter switch wire# A1 to the A1 point of the AC contactor (Fig. 18).

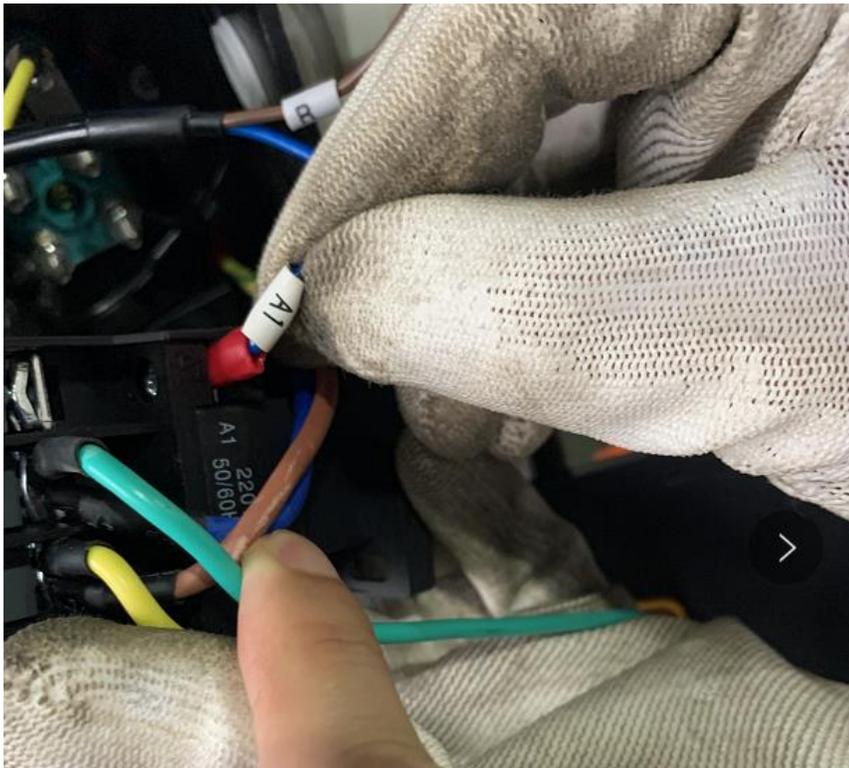


Fig. 18

3.9 Connect the limiter switch wire# R to the NO.3 point of the power switch (Fig. 19).



Fig. 19

3.10 Power cord from right side of the motor (Fig. 20).



Fig. 20

3.11 Install the AC contactor and the cover of the motor back on (Fig. 21).



Fig. 21

### 5.9 Routing the safety release cable

1. The safety lock has been pre-installed.
2. Install safety lock release cable to connect the safety lock on the main column and vice column. (Fig 22)
3. Install safety lock cover.

**NOTE:** Press the single point lock release lever on the main column to check if this lever can release the mechanisms in both columns at the same time. Adjust the safety lock release cable adjustment screw if necessary, until the lever can release the mechanisms in both columns at the same time.

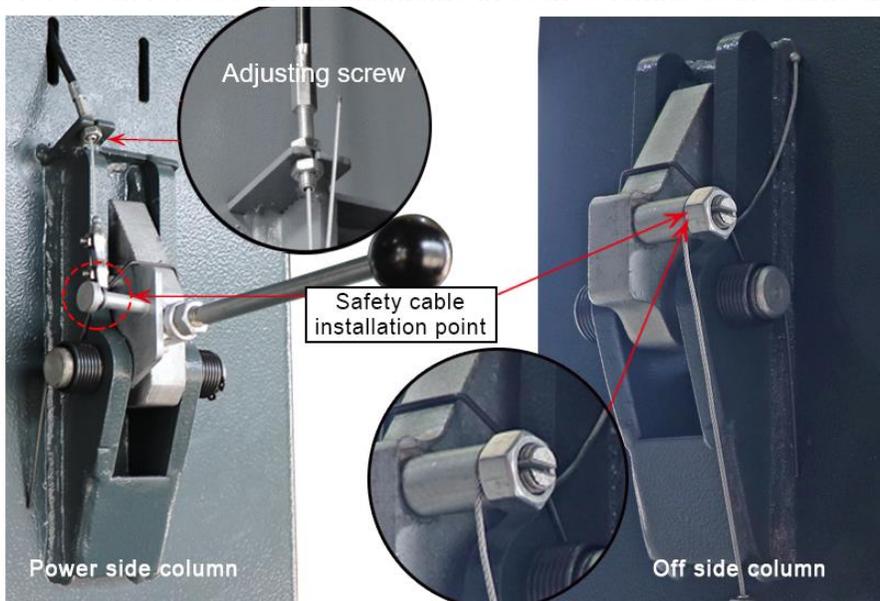


Fig. 22

### 5.10 Installation of power unit

- Attach the power unit onto the bracket on the power side column;
- Secure it using nuts M10X20, the locking washers D.10 and washers D. 10.



Fig.23

### 5.11 Connection of hydraulic hoses

Connect the longer hose in between the 2 cylinders, connect the short hose in between the cylinder and the power unit. Please hand tighten to avoid thread damage, then use hand wrench to fasten completely. (Fig 24)

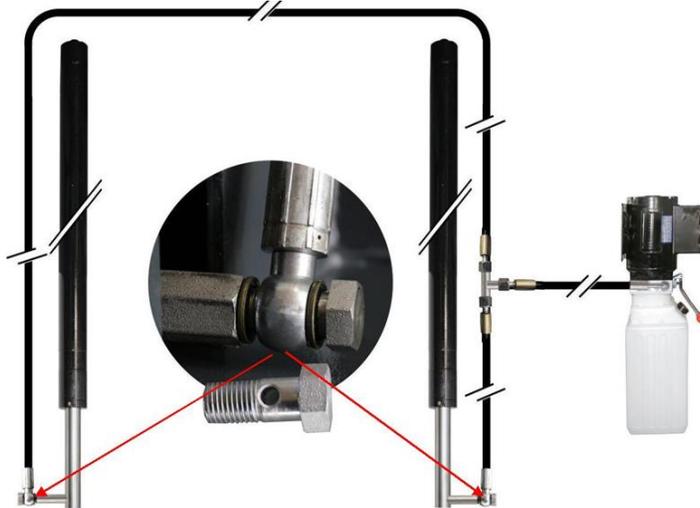


Fig.24

### 5.12 Make the electrical connection

Make sure all wiring are same as below circuit diagram (Fig 25).

**Attention:** electrical system connection must be done by licensed electrician.

**Warning:** When installing the power cord for the first time, remove the test cable (short wire) from the motor and replace it with a cable(wire) less than #12 gauge. The time interval between motor starts is at least more than 2 seconds. Otherwise the motor or AC contactor may be burnt out.

Suggest to use min 30A breaker (not higher than the wire load).

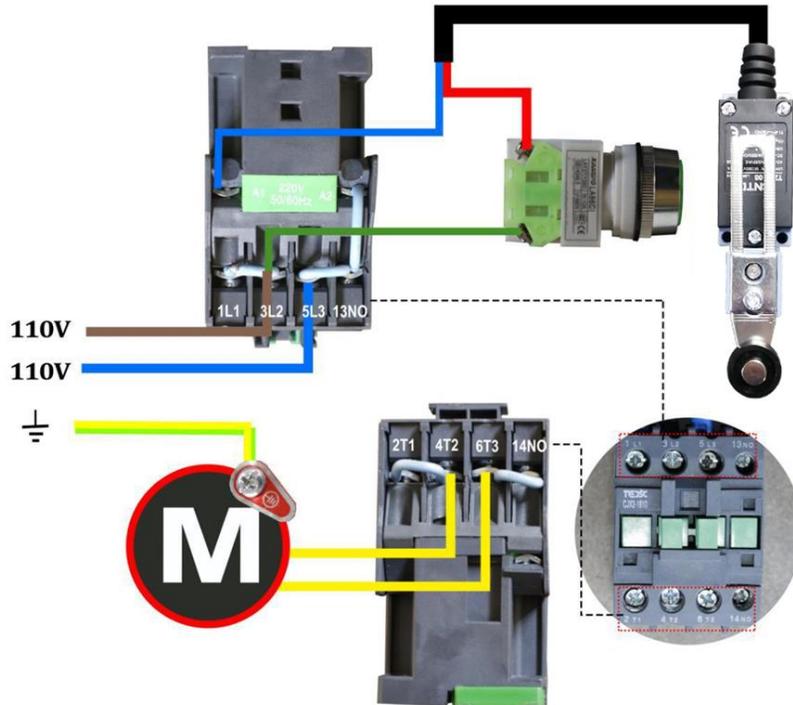


Fig 25 Power Unit Wiring Diagram (Voltage: 220V)

### 5.13 Oil filling and bleeding

**DO NOT** run power unit without oil. Damage to pump can occur. If motor gets hot or sounds peculiar, stop immediately and recheck the electric connection.

**If the vented cap is lost or broken, order the replacement. The oil tank must be vented well.**

Add about 2.5 gallons of hydraulic oil to the hydraulic fluid reservoir, AW32 during winter time (cold weather), and AW46 during summer time (hot weather).

Make sure there is no oil leak.

Repeatedly raise and lower the lift to bleed trapped air from the cylinders.

Power unit testing (Fig 26)

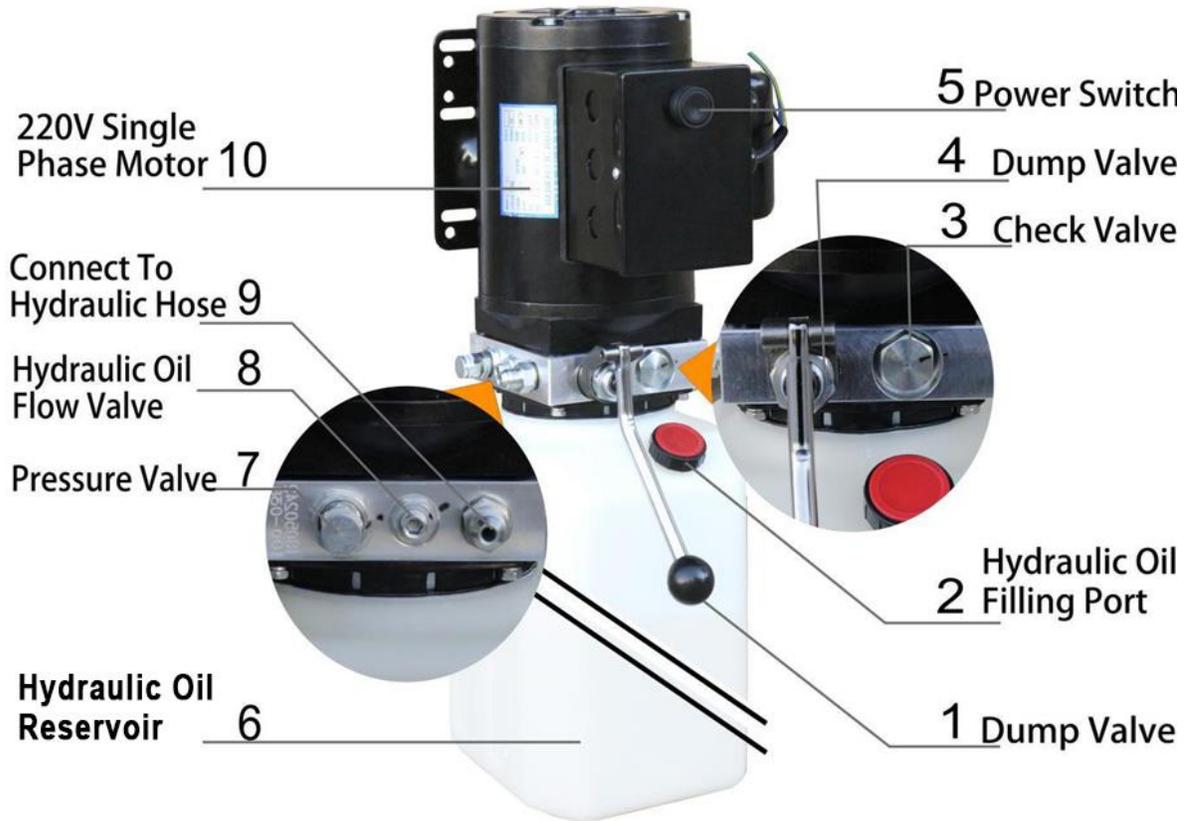


Fig 26

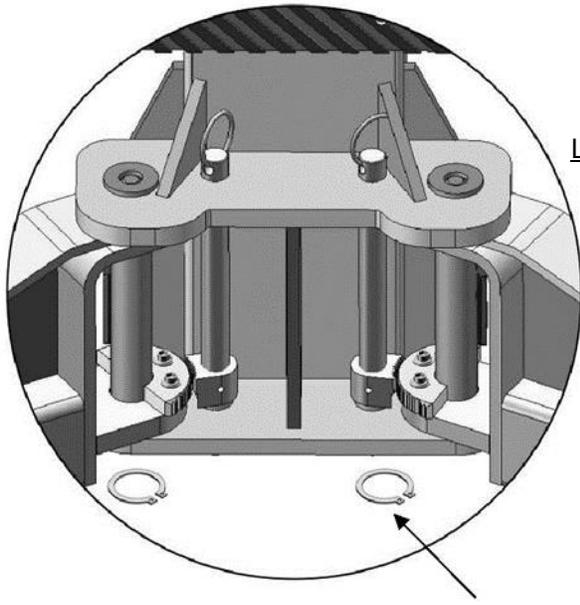
**\*\*Important Information\*\***

7 Pressure Valve: Clockwise adjustment increases pressure to make the power unit to have more power, counterclockwise adjustment decreases pressure to make the power unit to have less power.

8 Hydraulic oil Flow Valve: Clockwise adjustment to speed up, counterclockwise adjustment to slow down.

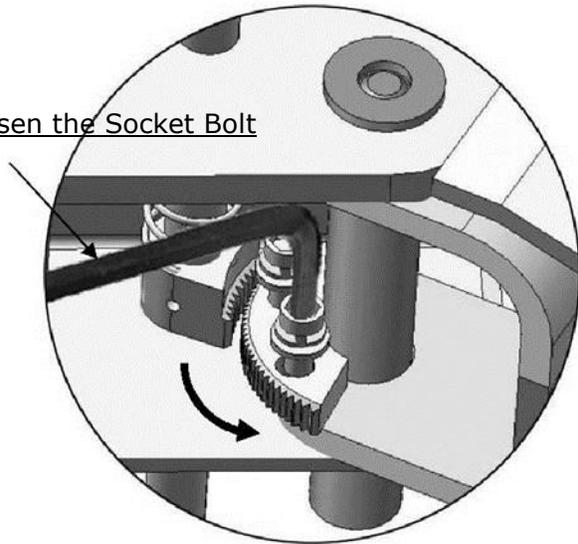
**5.14 Installation of lifting arms and adjustment of arm locks**

1. Install lifting arms (Fig. 27).
2. Lower the carriages down to the lowest position, use the 8# socket head wrench to loose the socket bolt (Fig.28).
3. Adjust moon gear as direction of arrow (Fig.29).
4. Adjust the moon gear and arm lock to make it to be meshed, then tighten the socket bolts of arm lock (Fig.30).



**Fig. 27** Snap ring

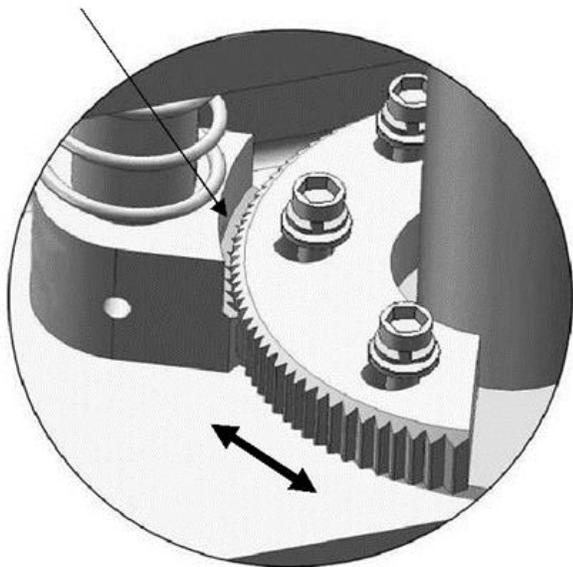
Install lifting arms



**Fig. 28**

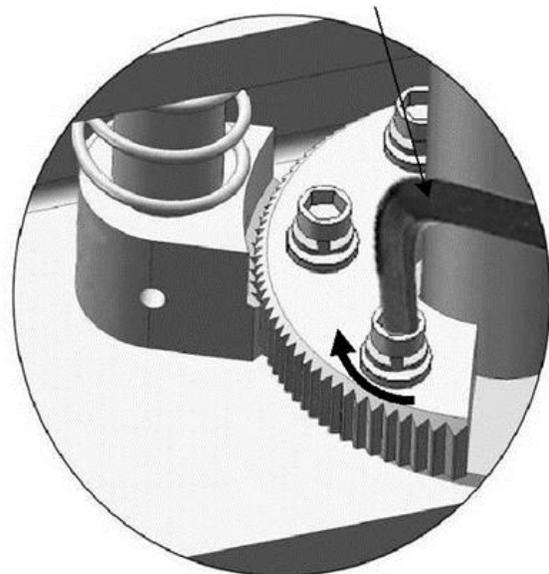
Use the 8# socket head wrench to loosen the socket bolt

Moon Gear



**Fig. 29**

Adjust moon gear and arm lock to make it to be engaged



**Fig. 30**

Locking the bolts after the moon gear and arm lock engaged well

## 5.15 Check before start-up

### 5.15.1 General checks

- Make sure that the columns are plumb;
- Make sure the lift anchored to the ground and all anchor bolts tightened.
- Make sure the electrical system feeding voltage is equal to that specified in the nameplate on the motor;
- Make sure the electric system connection in conformity of the electric plan shown as the electric diagram and for proper grounding.

### 5.15.2 Mechanical safeties for proper installation

- Check to make sure that safety latches will properly engage and disengage by manual release;
- If latches click out of synchronization, tighten the cable on the one that clicks later.

### 5.15.3 Equalizer cable for proper installation

**The equalizer cables should be checked weekly for equal tension. Failure to do this will cause uneven lifting. The cables should always be adjusted so that they are equal tension when resting on the safety locks.**

- Raise the carriages to check the equalizer cable tension by grasping the adjacent cables between the thumb and the forefinger so that you can just pull the cables together (ref. fig. 31);
- Adjust the cable tensions if necessary.

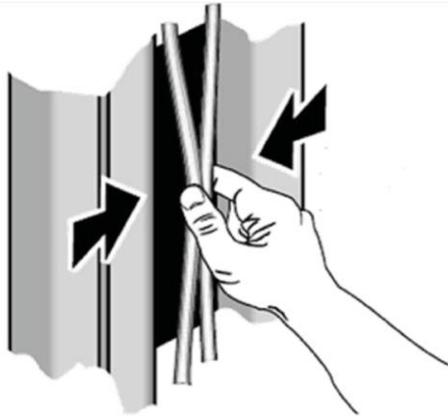


Fig. 31

### 5.15.4 Hydraulic system for proper operation

- Make sure that the cylinder is located in the center hole in the base of column;
- Proper oil level in the tank, refill if needed;
- Raise the lift to the full height and keep the motor running for 5 seconds and check all hoses connections to make sure no leakage. Tighten the connections or reseal if necessary;
- Check the lift for reaching its maximum height;
- Repeat the air bleeding of cylinders if necessary.

## 5.16 Check with load

**WARNING: please follow carefully the instructions in the coming paragraph for avoiding damages on the lift. Carried out two or three complete cycles of lowering with the vehicle loaded:**

- Repeat the checks provided for by 5.14.
- Check no strange noise during lifting and lowering.

## 6. Operation and use

**NEVER** operate the lift with any person or equipment below. **NEVER** exceed the rate lifting capacity.

**NEVER** lift a vehicle in any manner with less than four arms. Always ensure that the mechanical locks are engaged before any attempt is made to work on or near the vehicle.

Always lift a vehicle on the lifting pads.

**NEVER** leave the lift in an elevated position unless the safeties are engaged.

If an anchor bolt becomes loose or any component of the lift is found to be defective, **DO NOT USE THE LIFT** until repairs are made.

### 6.1 Controls

Controls for operating the lift are:

#### Lifting button (1):

When pressed, the power unit is running and the lift can be raised to a desired height until the button is released.

#### Lowering lever (2):

- If the mechanical locks are not released, the lift will lower to the nearest lock position.
- If both mechanical locks are released, press the lower lever, the lift will lower to the desired height under its weight and the load lifted until the lever is released.
- Locks will automatically reset once the lift ascends approximately 15" from base.

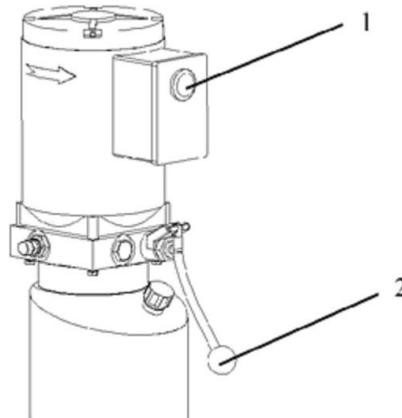


Fig. 32

Lift operation can be summarized into four steps:

### 6.2 Vehicle positioning

- Positioning the vehicle between columns;
- Adjust lift arms so that the vehicle is positioned with the center gravity between the pads. Make sure the arm safeties are engaged;
- Raise the lift by pressing the lifting button until the lifting adaptors contact underside of the vehicle;
- Make sure the vehicle is secured.

### 6.3 Lifting

- Raise the lift by pushing the lifting button until reaching the desire height.

## **6.4 Standing**

- Press the lowering lever to engage the nearest lock position;
- Always ensure that the lock in each column is engaged before any attempt is made to work on or near the vehicle.

## **6.5 Lowering**

- Raise the lift a little bit by pushing the lifting button to clear off the mechanical locks;
- Release the locks manually;
- Lower the lift by pressing the lowering lever;
- Before removing vehicle from the lift area, position the lift arms to and pads to provide an obstructed exit;
- Never drive over the lift arms.

## 7. Maintenance

**Only trained people who know how the lift works, can be allowed to service the lift.**

To service properly the lift, the following has to be carried out:

- use only genuine spare parts as well as equipment suitable for the work required;
- follow the scheduled maintenance and check periods shown in the manual;
- discover the reason for possible failures such as too much noise, overheating, oil blow-by, etc.
- refer to documents supplied by the manufacture or dealer to carry out maintenance.

**Before carrying out any maintenance or repair on the lift, disconnect the power supply.**

### 7.1 Ordinary maintenance

The lift has to be properly cleaned at least once a month using self-cleaning clothes.

**The use of water or inflammable liquid is strictly forbidden.**

Be sure the rod of the hydraulic cylinders is always clean and not damaged since this may result in leakage from seals and, as a consequence, in possible malfunctions.

### 7.2 Periodic maintenance

Daily pre-operation	<ul style="list-style-type: none"> <li>• Check hydraulic connections and hoses for leaks</li> <li>• Check mechanical locks audibly and visually while in operation</li> <li>• Check arm locks</li> <li>• Check bolts, nuts and screws are tight</li> </ul>
Every 1 month	<ul style="list-style-type: none"> <li>• Check all cable connections, pins and bolts to insure proper mounting</li> <li>• Inspect all anchor bolts and retighten if necessary</li> <li>• Check columns for square-ness and plumb</li> <li>• Check equalizer cable tension, adjust if necessary</li> <li>• Check safety cable, adjust it if necessary</li> <li>• Check all arm pivot pins. Make sure they are properly secured</li> <li>• Check all lifting pads, replace if necessary</li> <li>• Lubricant columns with grease</li> <li>• Check the hydraulic oil, fill or replace if necessary</li> <li>• Check hydraulic systems for proper operation</li> </ul>
Every 12 months	<ul style="list-style-type: none"> <li>• Verify that all components and mechanisms are not damaged</li> <li>• Verify the equalizer cables are not worn, change if necessary</li> <li>• Check the electrical system to verify that the motors operate properly (this work must be carried out by skilled electricians)</li> <li>• Empty the oil tank and change the hydraulic oil</li> </ul>

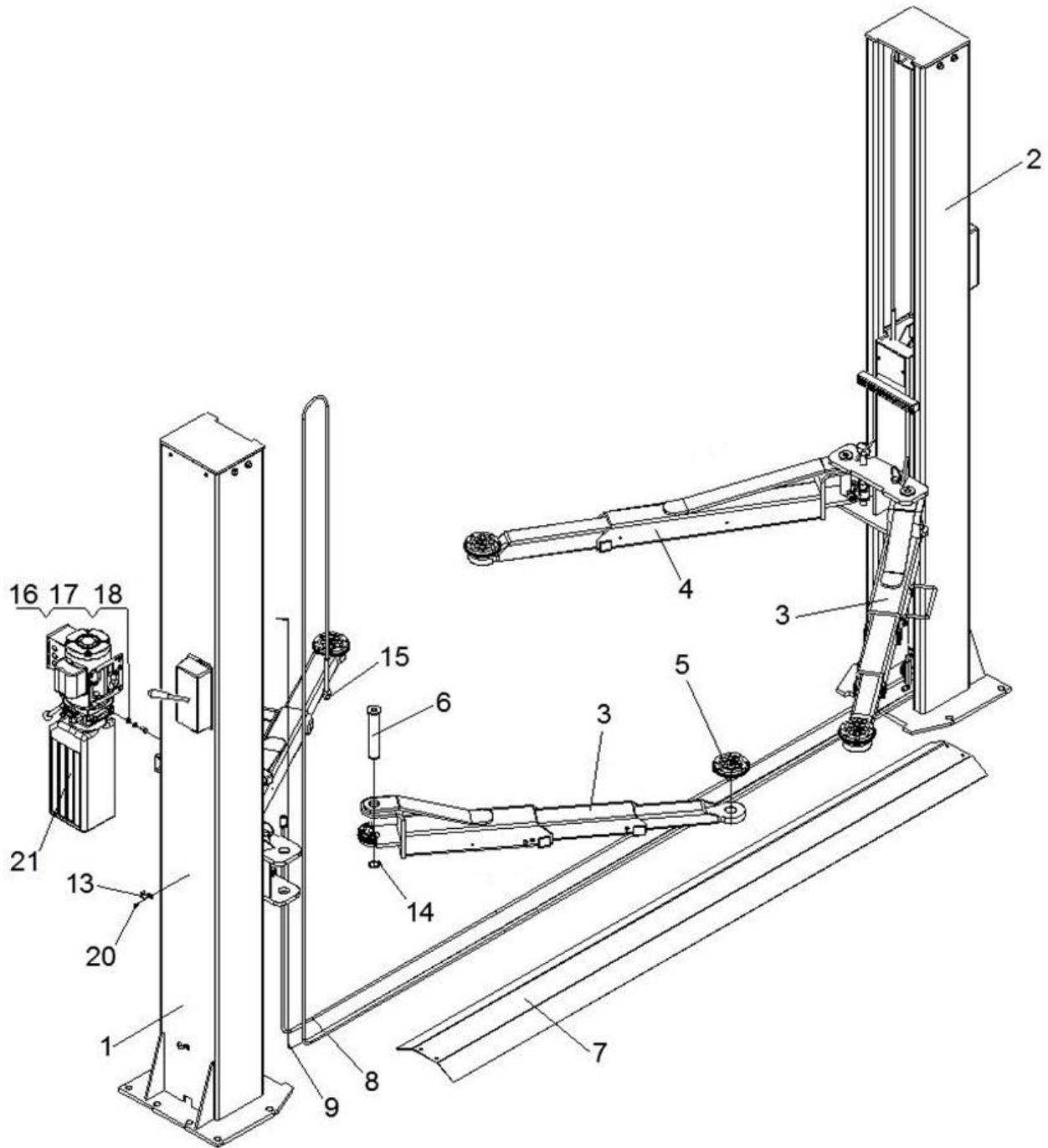
## 8. Troubleshooting

Troubleshooting and possible repairs require absolute compliance with **ALL THE SAFETY PRECAUTIONS** indicated in chapter 7 **"MAINTENANCE"** and chapter 4 **"SAFETY"**.

Problem	Possible cause	Solution
The lift does not rise when the pushbutton is pressed (motor does not run)	Burnt fuse Line current does not arrive Malfunction in the electric plant: -Broken limit switch -burnt motor	Replace fuse Connect again Call Service Center
The lift does not rise when the pushbutton is pressed (motor runs)	Not enough oil Drain solenoid valve opened Max pressure valve working Leaks in the hydraulic circuit	Top up oil level Check electric connections or change it Take load down Repair the hydraulic circuit
Lift continues to rise after having released the up pushbutton	Faulty pushbutton	Unplug the lift and call Service Center
Lift does not descend	Forging object Solenoid valve blocked Malfunction in the electric plant Carriages still lean on security devices Block valves have tripped	Remove object Change it (call Service Center) Call Service Center Make the correct descent sequence Repair the hydraulic circuit damage
The lift does not rise to the maximum height	Oil is not enough Vehicle has tripped the end of-stroke bar	Add oil into the power unit oil tank This working is correct
After having released the up push button, the lift stops and lowers slowly	Drain valve does not close because it is dirty Defective drain valve	At the same time set the rise and descent movements, to clean the valve Change (call Service Center)
The power unit motor overheats	Motor malfunction Wrong voltage	Call Service Center Check voltage
Power unit pump is noisy	Dirty oil Wrong assembling	Change oil Call Service Center
Oil leakage from cylinder	Damaged gaskets Dirt in the plant	Change the damaged gaskets Clean all parts Check the valves are not damaged

## 9. Parts list

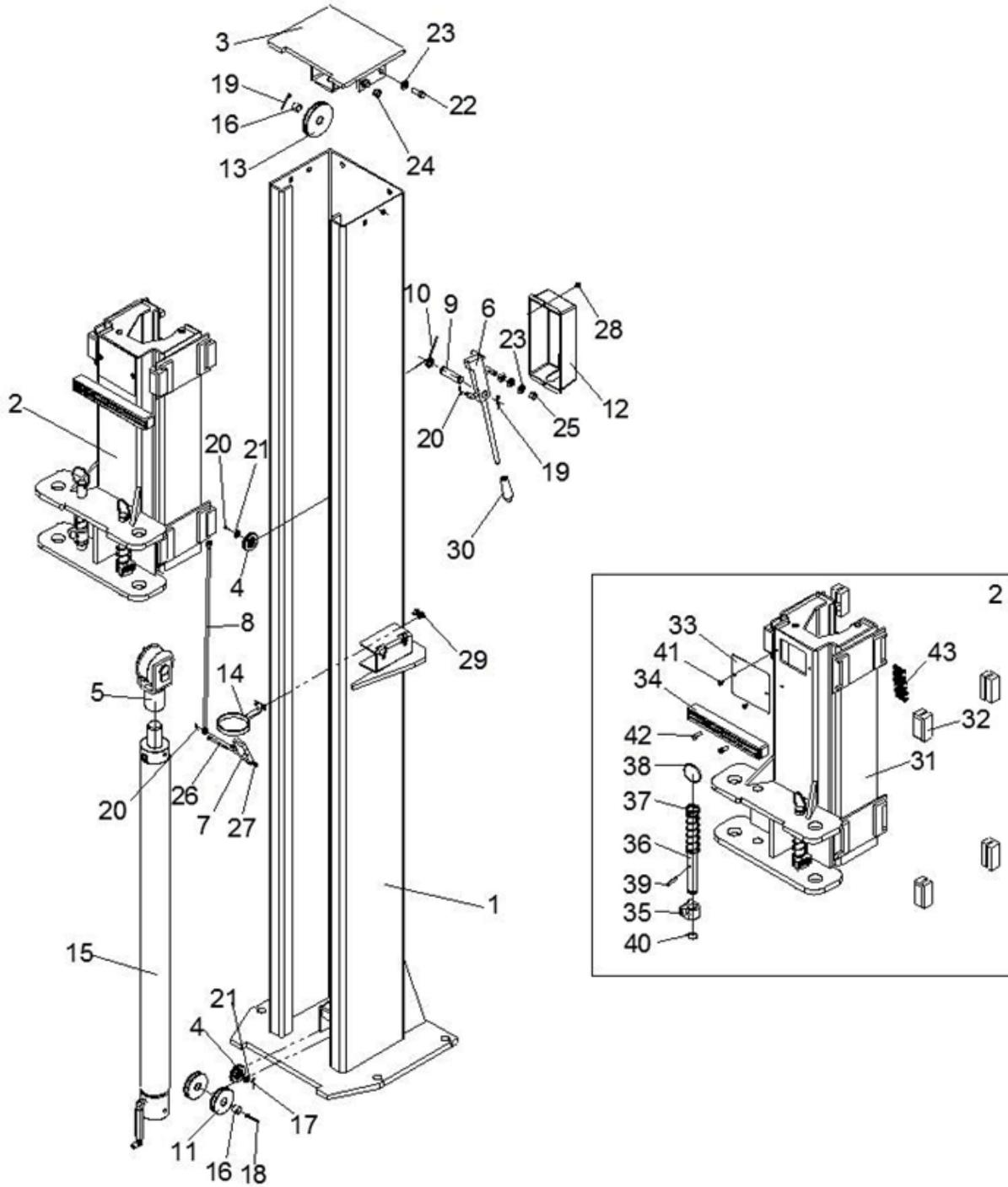
### 9.1 Explode drawing and parts list



## STRATUS Floor Plate 2 post Lift Installation &amp; Operation &amp; Maintenance Instructions

Item	Part No.	Description	Qty
1	Z11G101000	Power-side column	1
2	Z11G102000	Off-side column	1
3	Z11G320000	Short arm assembly	2
4	Z11G310000	Long arm assembly	2
5	Z31B330000	Lifting adaptor	4
6	Z11G500100	Arm shaft	4
7	Z11G410101	Base plate	1
8	Z11G510100	Equalizer steel cable	2
9	Z11G510200	Safety release wire	1
13	Z11B503101	Pipe clamp	2
14	0212023	Seeger D.38	4
15	0203025	Nut M16 - GB/T6170	4
16	0201062	Screw M10X20 - GB/T5783	2
17	0208007	Locking washer D.10 - GB/T93	2
18	0205011	Washer D.10 - GB/T97.1	2
20	0206036	Screw M6X8 - GB/T818	2
21	0302014	Hydraulic power unit	1

## 9.2 Power side column and parts list

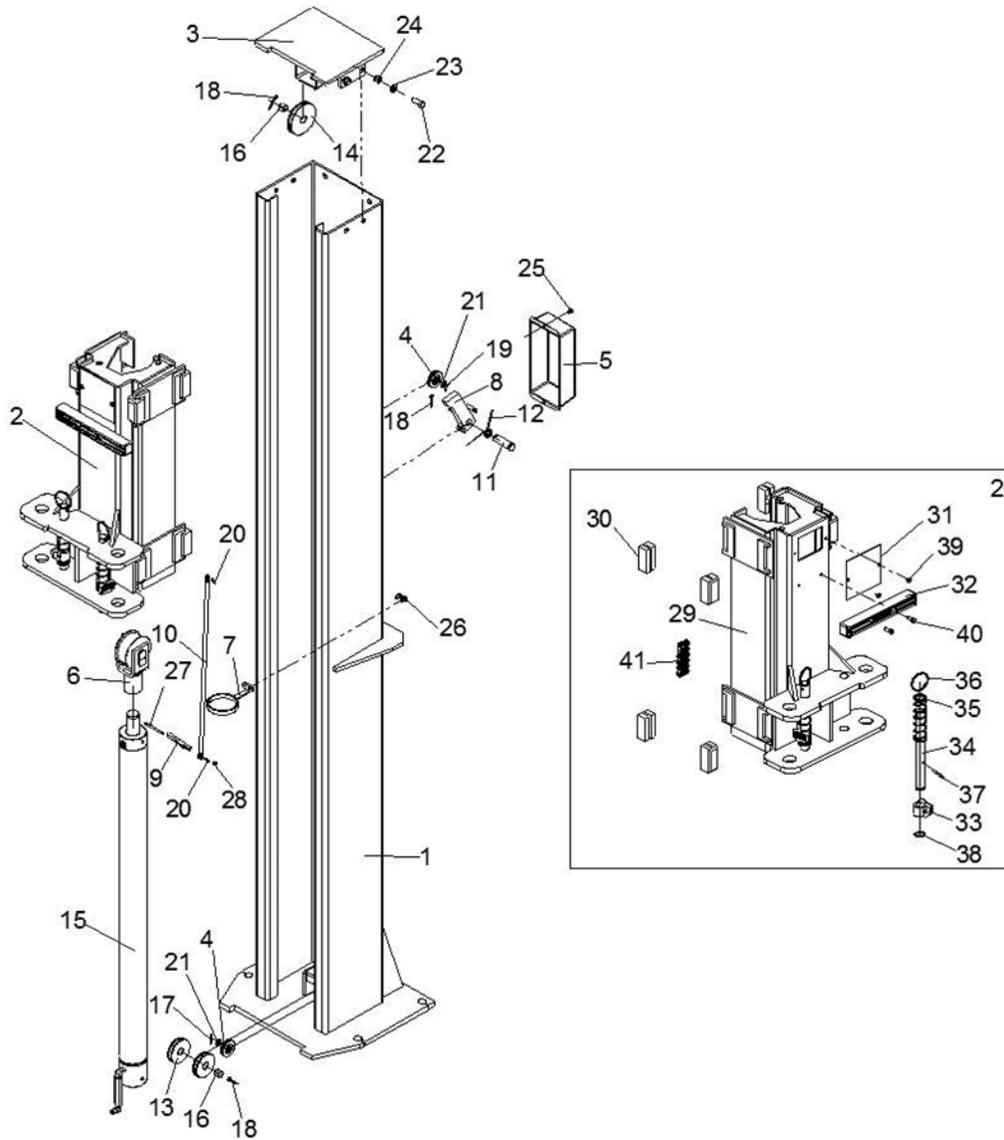


<b>Power-Side Column</b>			
<b>Item</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
1	Z11G111000	Main Column	1
2	Z11G210000	Main carriage assembly	1
3	Z11G131100	Top cover	1
4	Z31A110004	Roller	2
5	Z11G520000	Pulley base	1
6	Z11B113000	Safety rack	1
7	Z11B114000	Safety hook	1
8	Z11B110002	Connection rod	1
9	Z31A110001	Shaft	1
10	Z31A110002	Spring	1
11	Z31A110005	Lower pulley	2
12	Z31A110003	ABS cover with hole	1
13	Z11B110004	Upper pulley	1
14	Z11G161100	Support	1
15	Z11GY70000	Hydraulic cylinder	1
16	0210112	Bush SF-1	3
17	0213038	Pin 2.5X26	1
18	0213075	Pin 4X50	2
19	0213035	Pin 4X30	2
20	0213044	Pin 2X20	3
21	0205011	Washer D.10 - GB/T97.1	2

## STRATUS Floor Plate 2 post Lift Installation &amp; Operation &amp; Maintenance Instructions

22	0201061	Screw M12X30 - GB/T5783	4
23	0205013	Washer D.12 - GB/T97.1	6
24	0204007	Nut M12 - GB/T889.1	4
25	0203023	Nut M12 - GB/T6170	2
26	0202136	Screw M5X65 - GB/T70.1	1
27	0204002	Nut M5 - GB/T889.1	1
28	0206036	Screw M6X8 - GB/T818	2
29	0206001	Screw M8X12 - GB/T818	2
30	0606216	Handle cover	1
31	Z11G211000	Main carriage	1
32	Z11G210001	Slider	8
33	Z11G210002	Cover	1
34	Z23B711001	Rubber pad	1
35	Z23A200003	Toothed gear	2
36	Z11G200004	Safety release pin	2
37	Z23A200005	Spring	2
38	Z23A200006	Release ring	2
39	0213052	Elastic pin 6X40	2
40	0212004	Seeger D.25 - GB/T894.1	2
41	0206036	Screw M6X8 - GB/T818	2
42	0202045	Screw M8X20 - GB/T70.1	2
43	0215134	Chain BL646X75	1

### 9.3 Off side column and parts list

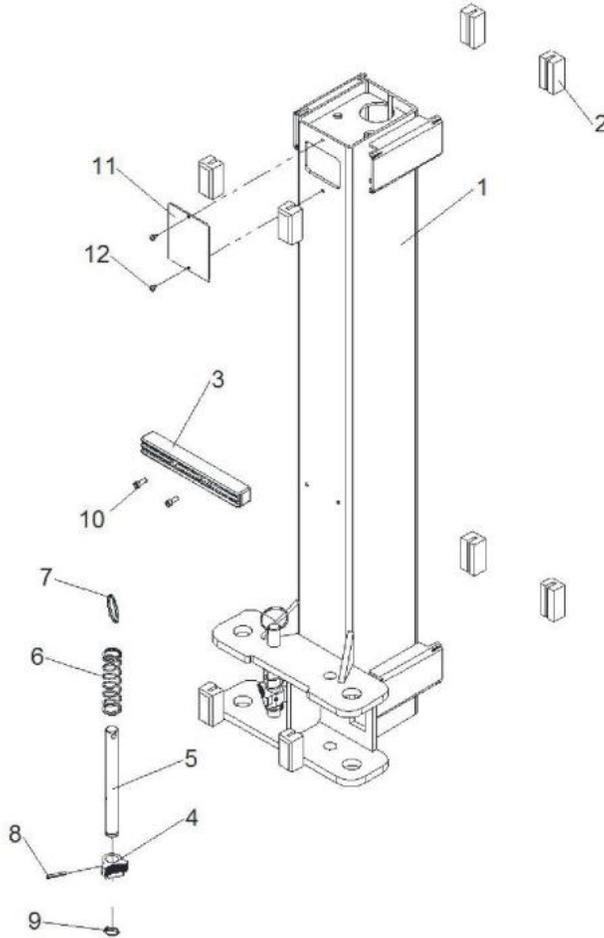


<b>Off-Side Column</b>			
<b>Item</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
1	Z11G121000	Slave Column	1
2	Z11G220000	Slave carriage assembly	1
3	Z11G131100	Top cover	1
4	Z31A110004	Roller	2
5	Z31A110003A	ABS cover	1
6	Z11G520000	Pulley base	1
7	Z11G161100	Support	1
8	Z11B122000	Safety rack	1
9	Z11B123000	Safety hook	1
10	Z11B110002	Connection rod	1
11	Z31A110001	Shaft	1
12	Z31A110002	Spring	1
13	Z31A110005	Lower pulley	2
14	Z11B110004	Upper pulley	1
15	Z11GY70000	Hydraulic cylinder	1
16	0210112	Bush SF-1	3
17	0213038	Pin 2.5X26	1
18	0213035	Pin 4X30	4
19	0213044	Pin 2X20	1
20	0213054	Pin 2X16	2
21	0205011	Washer D.10 - GB/T97.1	2

## STRATUS Floor Plate 2 post Lift Installation &amp; Operation &amp; Maintenance Instructions

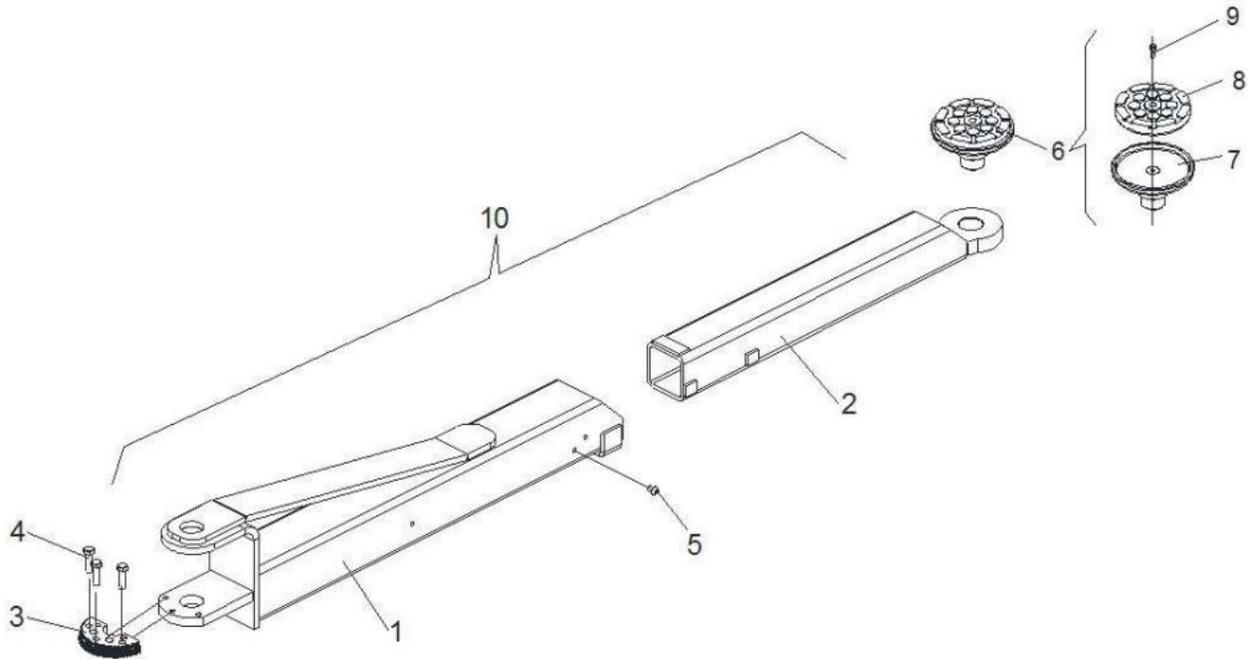
22	0201061	Screw M12X30 - GB/T5783	4
23	0205013	Washer D.12 - GB/T97.1	4
24	0204007	Nut M12 - GB/T889.1	4
25	0206036	Screw M6X8 - GB/T818	2
26	0206001	Screw M8X12 - GB/T818	2
27	0202136	Screw M5X65 - GB/T70.1	1
28	0204002	Nut M5 - GB/T889.1	1
29	Z11G221000	Slave carriage	1
30	Z11G210001	Slider	8
31	Z11G210002	Cover	1
32	Z23B711001	Rubber pad	1
33	Z23A200003	Toothed gear	2
34	Z11G200004	Safety release pin	2
35	Z23A200005	Spring	2
36	Z23A200006	Release ring	2
37	0213052	Elastic pin 6X40	2
38	0212004	Seeger D.25 - GB/T894.1	2
39	0206036	Screw M6X8 - GB/T818	2
40	0202045	Screw M8X20 - GB/T70.1	2
41	0215134	Chain BL646X75	1

### 9.4 Carriage and parts list



Item	Part No.	Description	Qty
1	Z33A211000	Carriage	1
2	Z11G210001	Slider	8
3	Z23B711001	Rubber pad	1
4	Z23A200003	Toothed gear	2
5	Z11G200004	Arm lock release pin	2
6	Z23A200005	Spring	2
7	Z23A200006	Release ring	2
8	0213052	Elastic pin 6X40	2
9	0212004	Seeger D.25 - GB/T894.1	2
10	0202045	Screw M8X20 - GB/T70.1	2
11	Z31A210002	Front cover	1
12	0206036	Screw M6X8 - GB/T818	2

### 9.5 Arm assembly and parts list



Arm Assembly + Adaptor			
Item	Part No.	Description	Qty
1	Z11G311000	Long arm frame – single extension	1
2	Z11G312000	Long arm outer extension	1
3	Z23A310001	Anti-rotating gear	1
4	0201050	Screw M10X35 - GB/T5783	3
5	0206061	Screw M8X12 - GB/T70.2	1
6	Z23N330000	Adaptor assembly	1
7	Z23N331000	Pad support	1
8	Z31B330001	Rubber pad	1
9	0202032	Screw M6X16 - GB/T70.1	1
10	Z11G310000	Long arm assembly	1

## **10. Special notes**

### **10.1 Environmental damage**

Only appropriately trained personnel may dismantle and dispose of the unit.

### **10.2 Dismantling**

To dismantle the product, proceed as follows:

#### **ELECTRICAL HAZARD!**

When carrying out any decommissioning and dismantling work on the unit, switch off all power supply connections, ensure they cannot be switched on unintentionally and verify that they have been disconnected. Earth and short-circuit them, and cover or otherwise isolate any neighboring live parts. Failure to do so may lead to serious injuries or death.

#### **HIGH PRESSURE HAZARD.**

When carrying out any unit decommissioning and dismantling work, close off and empty all the connection pipes until the pressure is the same as the ambient air pressure. Failure to do so may lead to injury.

Make sure that the hydraulic circuit has been switched off.

Close all hydraulic shut-off valves.

Disconnect all connections, making sure at the same time, that no operating materials escape, such as oil, refrigerant and water-glycol mixture.

Loosen the connection to the base.

#### **PERSONAL INJURY!**

Secure the unit against slipping.

The unit is ready for transporting.

It is important that all transport information is observed .

### **10.3 Disposal**

A specialist company with the appropriate competence must dispose of the unit and individual components. This technical services department must ensure that:

- the components are separated according to material types
- that the operating materials are sorted and separated according to their properties.

#### **ENVIRONMENTAL DAMAGE.**

Dispose of all components and operating materials (such as oil, refrigerant and water-glycol mixture)

separately according to material and in line with local laws and environmental regulations.

#### **10.4 Noise declaration**

Sound power level: LWA<85dB

Accompanied uncertainly K=4 dB

This measurement made in according with EN ISO 3746:1995

Applied operating conditions are:

With the rated load, the pump motor rotate.

According the test report, the operating position have the max noise value, but the noise risk is not the obvious hazard of the lift and the noise value is not big more to hurt operator.

If the noise is higher than the value, the lift must be stopped and check the trouble and repair.

“The figure quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this can't be used reliably to determine weather or nor further precautions are required. Factors that influence the actual level of exposure of the workforce include the characteristics of the working room, the other source of noise etc. i.e. the number of the machines and other adjacent processes. Also the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.”