

# FORCE CANADA

Two Post One Side Handle Release Hydraulic Lift

## **5 Ton Over-Head (11000 Lbs)**

**FC-5T-OH**





## Special Instruction

- Buyer should claim compensation from the carrier if any damage happens to the equipment during shipping.
- Though we have taken safety into consideration during designation and production, some training is reasonably necessary. Without reading this manual, please don't operate and maintain the lift.
- Read the requirement for power source and electric current on the nameplate of motor, and make sure that the wire should be connected by specialized electrician.
- The manufacturer is not responsible for giving notice of any further change on the partial structure of the lift after selling the lift.
- Any vehicle whose weight is above 5000kg (≈11,000 Lbs) is not allowed to be raised on this machine.

Read the warning signal on the equipment carefully.

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# 1. Security Information and Notice Points

## 1.1 Text Tips Signal

In this instruction manual, contents about safety should be paid special attention. Here are some signals with the explanation on the right hand.



If there is this signal before any passage, it means that operation like this is wrong and will lead to big casualty or heavy damage to the device.



The figure appearing before passage shows that it is not allowed to operate according to the passage, or the potential risk will develop into big casualty and heavy damage to the lift.



The passage besides this signal lists the notice points and security requirements during the process of normally using, maintenance and care of the lift.

## 1.2 Safety Warning Signals

Please read Safety Signage carefully, understand and remember them.

<p><b>⚠ WARNING</b></p> <p>Clear area if vehicle is in danger of falling.</p>	<p><b>⚠ WARNING</b></p> <p>The vehicle's center of gravity should always be midway between the center points.</p>	<p><b>⚠ CAUTION</b></p> <p>Only those authorized and qualified personnel should operate the lifts.</p>	<p><b>⚠ CAUTION</b></p> <p>Exclude non-essential personnel from the lift area.</p>	<p><b>SAFETY INSTRUCTIONS</b></p> <p>Read all safety, caution and warning instructions before operating lifts.</p>	<p><b>SAFETY INSTRUCTIONS</b></p> <p>Use applicable care and inspection for safe operation.</p>
<p><b>⚠ WARNING</b></p> <p>Away from the lift while raising and lowering it.</p>	<p><b>⚠ WARNING</b></p> <p>Avoid large weaving when the vehicle is raising and lowering.</p>	<p><b>⚠ CAUTION</b></p> <p>Always use vehicle lifting points specified by the manufacturer.</p>	<p><b>⚠ CAUTION</b></p> <p>Use safety stands when handling heavy items.</p>	<p><b>SAFETY INSTRUCTIONS</b></p> <p>Do not use if any part is damaged or malfunctioning.</p>	<p>The sketch is same to the information words, also has mostly described the accidents all kinds of lifts maybe occur.</p>
<p><b>⚠ WARNING</b></p> <p>Do not override safety devices.</p>	<p><b>⚠ WARNING</b></p> <p>Keep hands and feet away from lift when descending.</p>	<p><b>⚠ CAUTION</b></p> <p>Height extensions will help ensure good contact.</p>	<p><b>⚠ CAUTION</b></p> <p>Lift capacity may be reduced by auxiliary adapters.</p>		

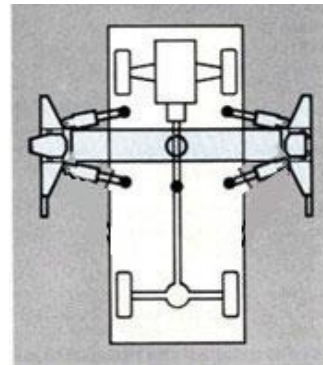
### 1.3 Using Purpose

The lift is used to lift vehicles whose weight is less than 5ton. Other usages are not allowed.

### 1.4 Expected Rated Load Distribution

	Rated Load	Load Distribution		Former part : Latter part
		Minimum		
FC-5T-OH	11,000 Lbs	2:3		Maximum 3:2

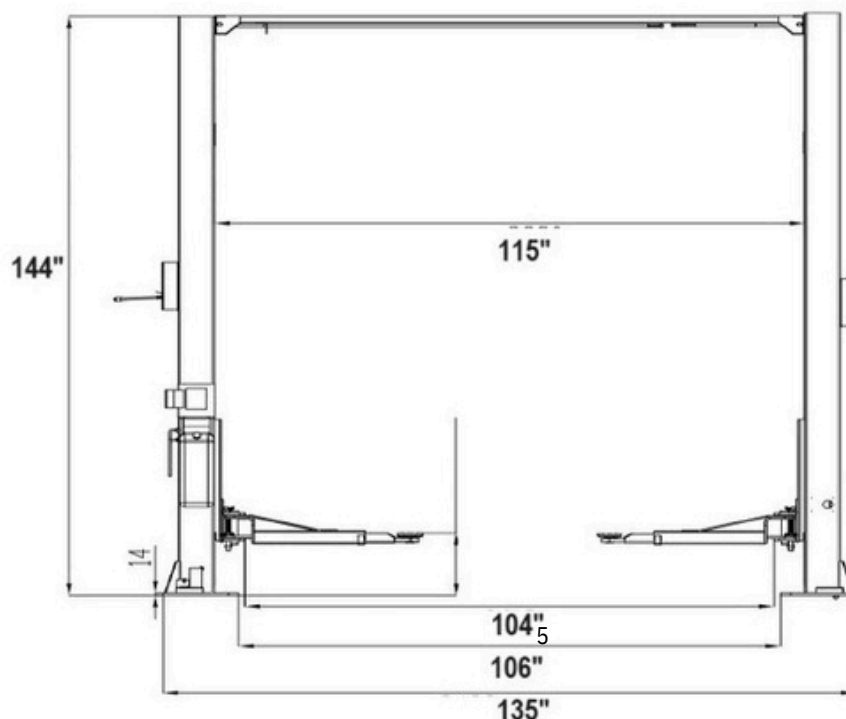
In principle, the lift we design supports double direction placement of the car.

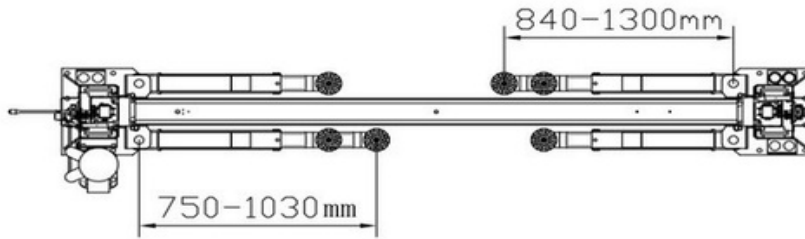


### 1.5 Safety Notice Points

- . Operators should read the manual carefully to avoid accidents.
- . Operators should be familiar with all functions and operating methods of the lift.
- . Check before operating and regular check must be carried out too.
- . If there is any abnormal sound during rising and lowering, stop to use the lift.
- . Never use the lift to raise the vehicle whose weight is above 4ton

## 2. Basic Parameters of the Equipment





#### Technical Specification

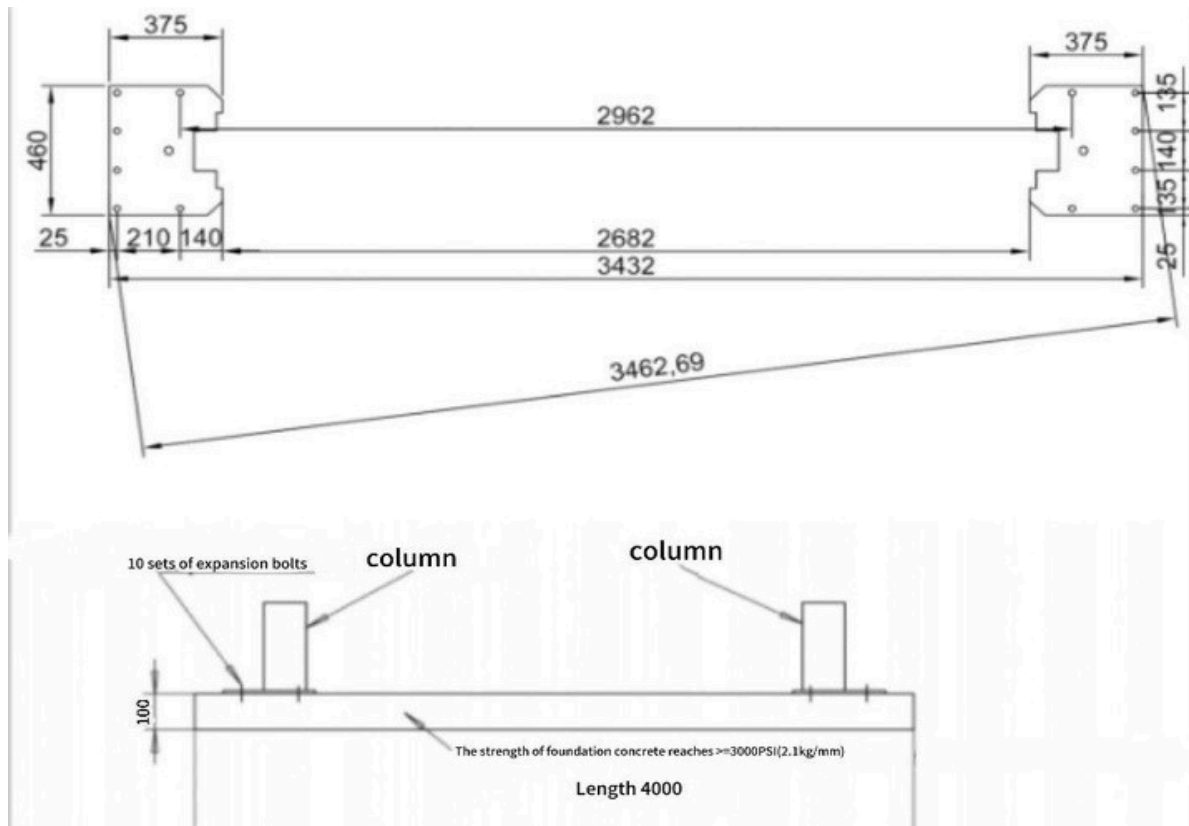
Model	FC-5T-OH
Total Height	144" (12 Ft)
Lifting/Dropping Time	≈50s
The Maximum Lifting Height	75" (6.25 Ft)
Minimum Height of Rubber Pad	110MM (4.3")
Adjusting Range of Arm	750~1030mm,840~1300mm
Width Between Pillars	115" (9.6 Ft)
Width of the Rack	135" (11.25 Ft)
The Biggest width for passing the vehicle	104" (8.6 Ft)
Rated Load	5000 Kg (≈11,000 Lbs)
Motor Power	2.2 kw
Working Voltage	1~220V+N+PE
Noise Level	≤75dB(A)
Oil Pressure	20MPa

New change on technical Parameter will not be informed of again.

### 3. Installation of Equipment

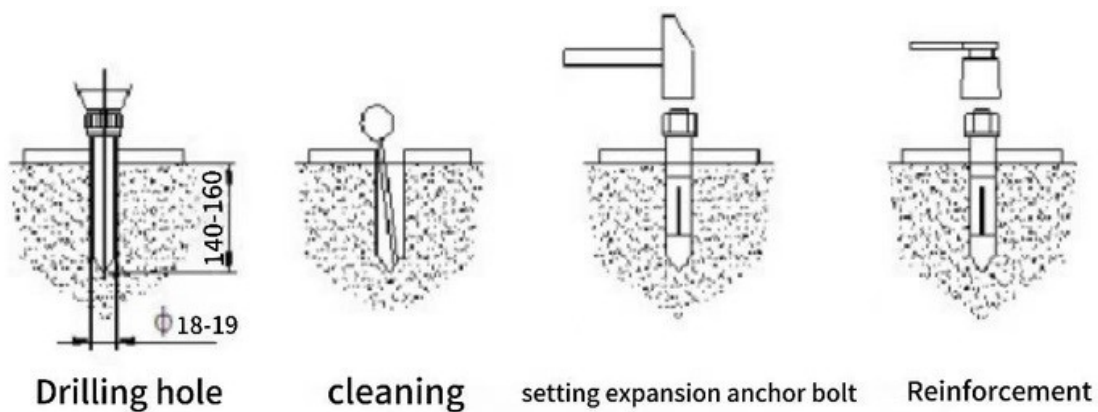
#### Step1. The Preparation before Installation

- i . Necessary Tool: lifting equipment, churn drill, marking pen, spanner, measuring tape, sinker.
- ii .Installation area picture (See figure below.)



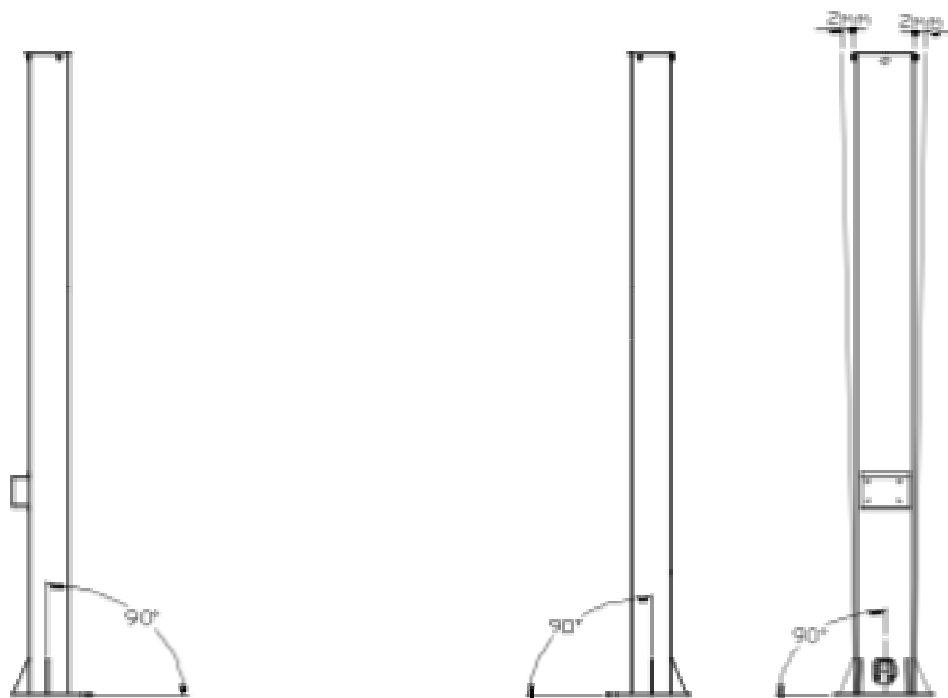
## Step2. Installation of main and supplementary columns

Set up the two columns, mark with the marking pen according to the dimension of the foundation, and fix the two columns with expansion anchor bolt as the following shows. (See figure below)



Attention:

Check to make sure that it is vertical between columns and ground, and the installation dimension should be as follows. (See figure below)



Step3. Fix the power unit to the main column.

Step4. Install the over beam.

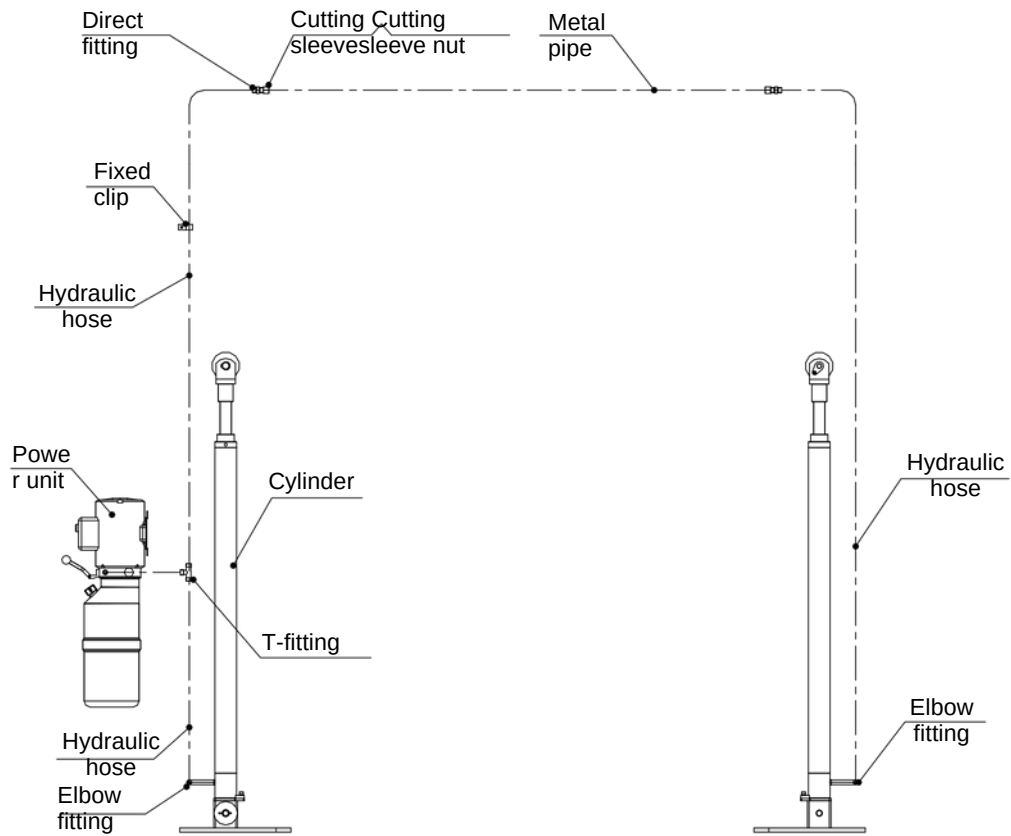
Raise the sliding collar to the height about 600 to 800 mm, then drop it to the safe state to make sure it will not fall again.

Step5. Installation of oil hose and chain

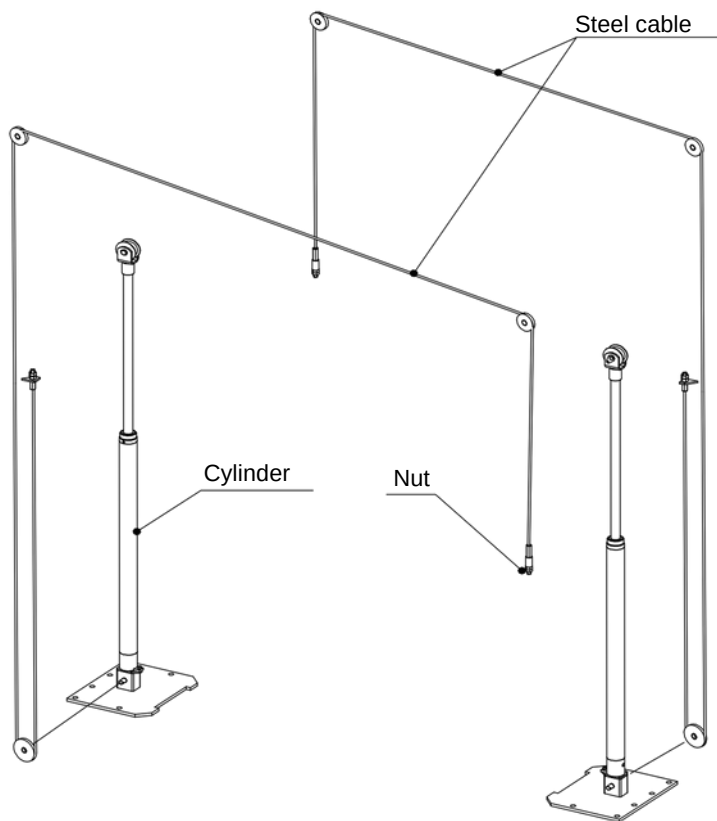
Please install oil pipeline and chain as the following picture shows.



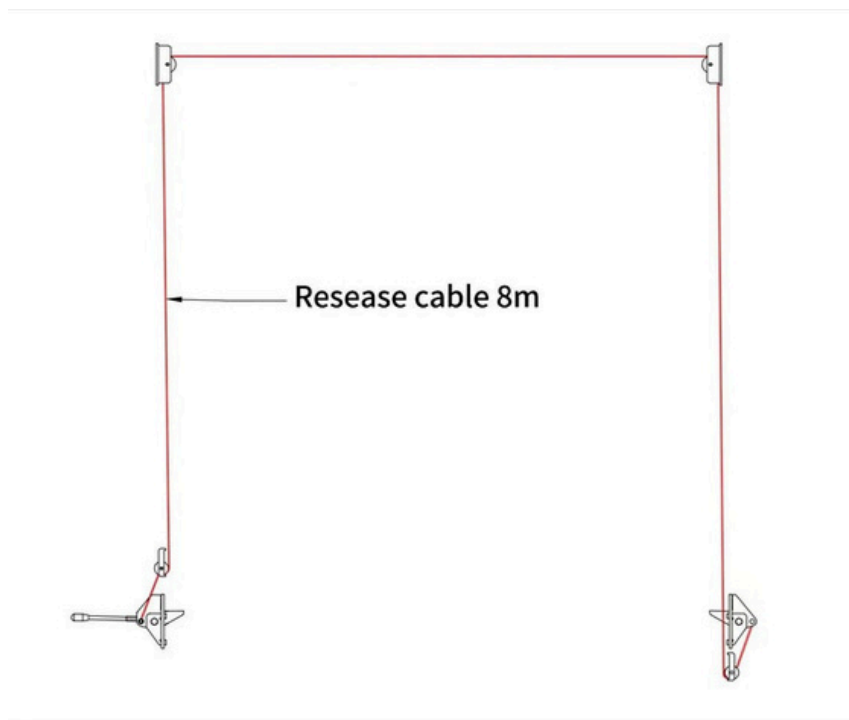
## Oil pipeline connecting picture



## Chain Connecting Picture



## Release Cable Connecting Picture



Step6. Installation of bracket arms

Install four arms on two columns respectively, and rock the arms to make sure they are installed properly.

Step7. Install the arm locking parts.

Step8. Fill hydraulic oil.

Fill the N46 hydraulic oil about 10 liters.

Step9. Connect the power.

Connect the power according to the pictures on the nameplate. It is required to set a power switch besides the lift, to cut off the power to maintain the equipment or cope with emergency.

Step10. Lubricate the slide rails inside the two columns.

Step11. Test the lift with empty load.

Check the tension in the chains and make sure the two columns are moving together.

Step12. Test the lift with heavy load.

Check whether the hydraulic system is working normally.

Don't install the lift if the foundation strength is not up to the standard.

Only trained electric technician can operate the electrical system.

## 4. Checking points before using

### 5.1 General checking points

Item	Possible problems	Method	Solution
1	Abnormal sounds when the lift rise or drop.	Seeing and listening	Add lubricating oil, clean and replace the parts.
2	Damage or deformation of the lift.	Seeing	Maintain and replace for the new parts
3	Deformation attrition of rubber pad and chain sheave	Seeing	
4	Abnormal sound of the oil pipeline system when the lift is rising and falling	Seeing and listening	
5	Foreign material inside the columns	Seeing	Clean, maintain, or replace for the new parts

## 5.2 key checking points

Item	Checking content	Method	Solution
1	Check if there is any damage on chain.	Seeing	Replace for new parts.
2	Check if bolts are loose or not.	Seeing	Tighten the bolts and nuts.
3	Check if the chain sheave is normal or not.	Operating and seeing	Replace for new parts.
4	Check whether the chain sheave is working normally.	Operating and seeing	Add the lubrication, clean the chain sheave and replace for new parts.
5	Check if the bracket arm and its extension part are normal or not.	Seeing	Maintain and replace for new parts.
6	Check if the two collars are rising or dropping normally.	Operating	Clean the foreign material and add the lubrication.
7	Check if the magnet and safety hook are working normally.	Operating and seeing and listening	Change the magnet road and replace for new parts.
8	Check if the lift stops automatically when it rise to its top level.	Operating	Maintain and replace for new parts.
9	Check when the power unit is working, if there is any abnormal sound.	Operating and listening	Maintain and replace for new parts.
10	Check if the cylinder, pipeline, and the seals are leaking oil.	Operating and seeing	Maintain and replace for new parts.

## 5. Operating Instruction

i . Before driving the car to the lift, repeatedly raising and dropping arms to make sure that security locking system is normal. Check all connecting parts, especially the security parts. After checking all parts and being sure that there is no problem of the lift, people can use the lift.

ii . Before using the lift, adjust the height of the four rubber pads to make all supporting points in the same flat level, and separate the arms as open as possible so that it's easy for the vehicle to drive in, and it's better to use the short bracket arms to support the motor end.

iii. The center of lifting area should be the gravity center of the vehicle that needs maintaining. When the car is raised to 100 mm high, stop and swing the car a little to check whether lifting support is reasonable, and whether the lift is working normally, if everything is normal, go on to use the lift.

iv . When lift is rising, operator and other people should stand in the safety area. When the vehicle is raised to the required height, press the locking button to lock the lift, then the maintainer can start his work to repair the vehicle.

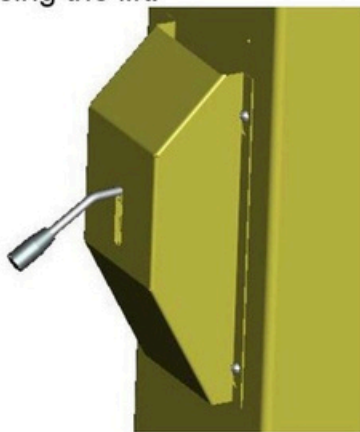
v . Cut off the power when the maintainer is not in the working area to avoid any accident caused by the wrong operations by non-operators.

vi. Remain clearance under the bracket arms when the lift is dropping, or the lift will be damaged.

vii. Fill the oil tank of hydraulic cylinder with approximately 10 liters of N46 hydraulic oil, or diesel oil of No.8 in winter and No.11 in summer. Half a year afterwards add hydraulic oil again.

viii. After pressing the down button the lift will rise a bit then drop.

ix. Cut off the power when repairing the vehicle and there is no operator or nobody using the lift.



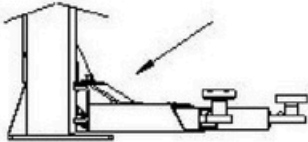
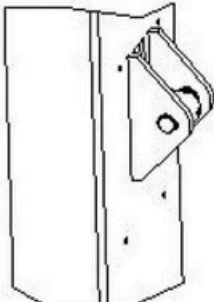
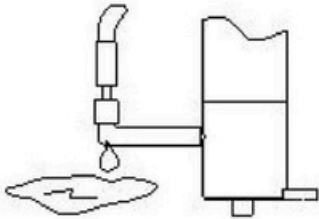
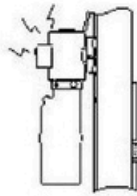
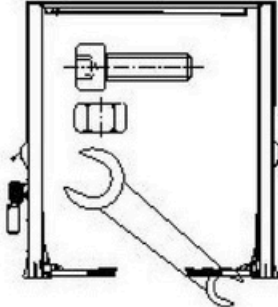
Lock Release Handle



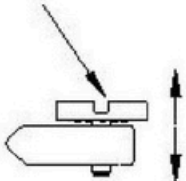
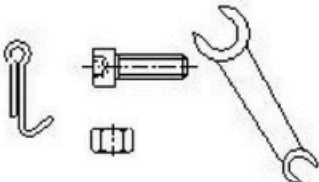
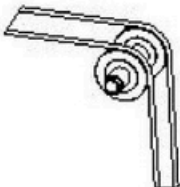
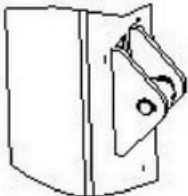
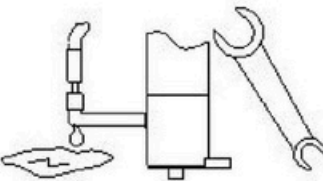
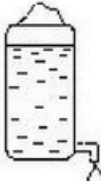
Down Handle

## 6. Maintenance and care of the equipment

### 7.1 Day care

Item	Maintenance Contents	Solution	picture
1	Check if there are any damages on the rubber pad of four bracket arms.	Replace for new parts.	
2	Check if there is any problem on the bolts, nuts, and cotter pin of all spare parts.	Tighten, clean or replace for new parts.	
3	Check if the pivot chain sheave and chain are in their position.	Add lubrication or adjust again.	
4	Check if the sliding parts are clean, how is the elastic condition of torsional spring and is it safe enough of safety security system.	Add lubrication, adjust magnet roads or replace for new parts.	
5	Check the connection of oil pipeline to see whether it is leaking oil.	Find the leakage and tighten them with spanner and clean oil stains.	
6	Check if it is time to add or change hydraulic oil.	Add or change the oil.	

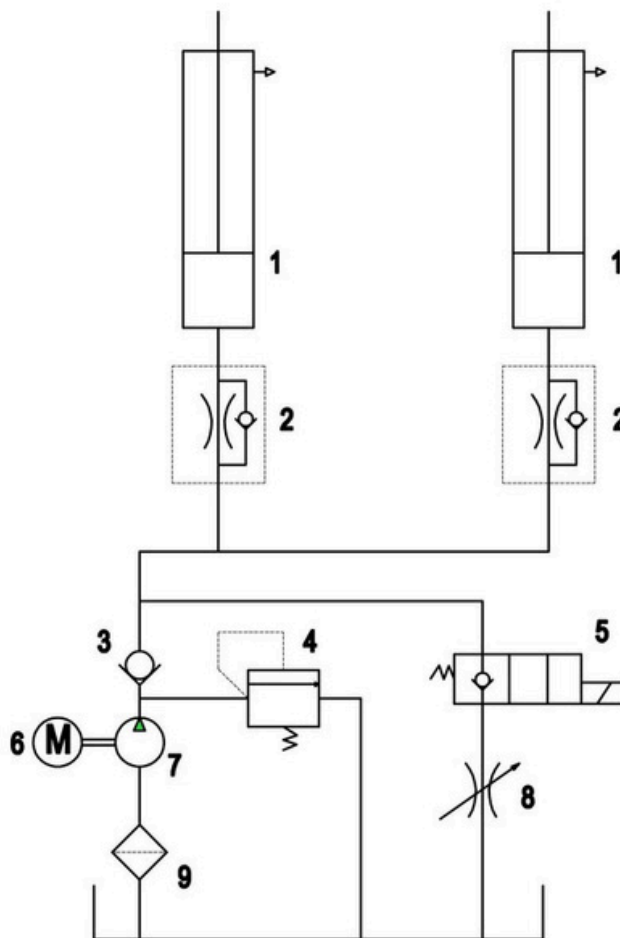
## 7.2 Month care

Item	Maintenance Contents	Solution	picture
1	Check if there are any damages on the rubber pad of four bracket arms.	Replace for new parts.	
2	Check if there is any problem on the bolts, nuts, and cotter pin of all spare parts.	Tighten, clean or replace for new parts.	
3	Check if the pivot chain sheave and chain are in their position.	Add lubrication or adjust again.	
4	Check if the sliding parts are clean, how is the elastic condition of torsional spring and is it safe enough of safety security system.	Add lubrication, adjust magnet roads or replace for new parts.	
5	Check the connection of oil pipeline to see whether it is leaking oil.	Find the leakage and tighten them with spanner and clean oil stains.	
6	Check if it is time to add or change hydraulic oil.	Add or change the oil.	
7	Check if there is any rusts on spare parts.	Remove the rust, add oil and repaint.	

## 7. Trouble Shooting

Malfunctions	Cause	Solution
Generator does not work.	The power source or power equipment is malfunctioning.	Check up the power fuse, the contact in the junction box of motor, micro switch, and the condition of up button, change the damaged part.
Generator roars and does not work.	a. The top of vane wheel is deformed. b. Capacitor is damaged. c. The voltage is too low. d. The equipment is used overload.	a. straightening b. replace for new parts c. check up by electric technicians
When the lift is rising, it creeps.	Air has entered the hydraulic system, and the oil box lack oil.	Rise repeatedly to remove the air, and add oil to oil box.
Two sliding collars don't rise tighter.	The adjusting chain is loose.	Adjust chains; twist the screw to tighten chains to make the two collars in the same flat level.
Noise is too loud when the lift is working.	The sliding and rotational part lack lubrication and or change the pin roll.	Add lubrication, change the pin roll.
The lift can't rise.	a. There is something wrong with the power unit. b. Spare parts of electric control box are damaged. c. Damage of limit switch d. Leakage of oil pipeline	a. Maintenance or change for new parts. b. Maintain or change for new parts. c. Change for new parts. d. Clean, tighten and change for new parts.
When lift is rising the speed is slow and heavy.	a. There is not enough hydraulic oil. b. Leakage of oil pipeline c. Oil filter is stopped up.	a. Add hydraulic oil b. Maintenance, tighten and change for new parts. c. Disassemble and clean.
The lift can't drop.	a. The security block is not open. b. Magnets are damaged heavily.	a. Rise first then drop, or maintain. b. Change for new parts.

## 8. Hydraulic drawing



No.	Name	No.	Name	No.	Name
1 2	cylinder	4 5	overflow valve	7	gear pump
3	one-way throttle valve	6	unloading valve	8	adjustable throttle valve
	one-way valve		electric motor	9	filter