# Mid rise scissor lift



# CONTENTS

1.	Important Safety instructions3-5
2.	Overview of the lift5-6
	Technical date
	Technical date
	Construction of the lift
3.	Installation instructions6-8
	Preparations before installation
	Precautions for installation
	Installation
	Items to be checked after installation
4. (	Operation instructions9-10
4.1	Precautions
4.2	2 Descriptions of the control box
4.3	Flow chart for operation
4.4	Operation instructions
4.5	Emergency lowering in case of no power
5	Trouble shooting11
6. I	Maintenance12
7.7	Annex14
An	nex 1, Overall diagram
An	nex 2, Hydraulic working system
An	nex 3, Wiring diagram
An	nex 4, Exploded drawing

# **IMPORTANT SAFETY INSTRUCTIONS**

#### **USAGEAND OPERATION**

Read this manual carefully before operating the machine so as to avoid economic loss or personnel casualty incurred by wrong operation.

This model is specially designed for lifting motor vehicles that weights 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 morel attention to the label of the lifting capacity attached on the lift and never try to lift cars with its weight beyond.

#### WARRANTY

We will offer one-year's quality warranty for the whole machine, during which any quality problem will be properly solved to the user's satisfaction. However, we will not take any responsibility for whatever bad consequence resulted from improper installation and operation, overload running or unqualified ground condition.

#### MAINTENANCE

Without our professional advice, users are not permitted to make any modification to the control unit or whatever mechanical unit.

These works must only be carried out by expert personal.

After maintenance and repair works losses screw connections must always be firmly tightened!

#### **QUALIFIED PERSONNEL**

1.2.1 Only these qualified staff, who have been properly trained, can operate the lift.

1.2.2 Electrical connection must be done by a competent electrician.

1.2.3 People who are not concerned are not allowed in the lifting area.

#### SAFETY NOTICE

Do not install the lift on any asphalt surface.

Read and understand all safety warnings before operating the lift.

Do not leave the controls while the lift is still in motion.

Keep hands and feet away from any moving parts. Keep feet clear of the lift when lowering.

Only these properly trained personnel 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 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.

Do not rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.

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.

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 be left unused 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.

#### SOUND LEVEL

The sound emitted from the lift should not exceed 75DB. For the sake of your health, we suggest putting a noise detector in your working area.

#### TRAINING

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

#### WARNING SIGNS

All safety warning labels are clearly depicted on the lift to ensure that the operator is aware of and avoids 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 memorise them for future operation.



# **OVERVIEW OF THE LIFT**

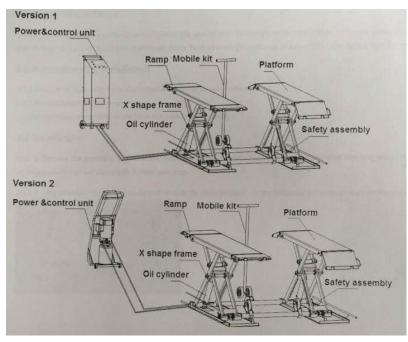
#### 2.1 General descriptions

The lift is driven by an electro-hydraulic system. The gear pump delivers hydraulic oil to oil cylinders and pushes upwards their pistons to raise the platforms.

#### 2.2 Technical date

Model	capacity	Lifting time	Lifting height	Power supply
Scissor	3500kg	30S	1000mm	110V
Lift				

#### 2.3 Construction of the lift



# INSTALLATION INSTRUCTIONS

- 3.1 Preparations before installation
- 3.1.1 Tools and equipments needed
- Electrical drill
- Open wrenches
- Screw drivers
- Adjustable spanners

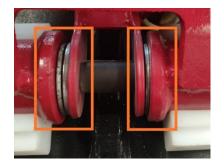


3.1.2 List for parts checking ---Annex 1 (Packing list)

Unfold the package and check if any parts missed as per Annex 1. Do not hesitate to contact us in case any parts missed, but if you do not contact us and insist installing upon the lack of some parts, we will not bear any responsibility for this and will charge for any parts subsequently demanded by the buyer.

#### 3.1.3 Ground conditions

The lift should be fixed on a smooth and solid concrete ground with its strength more than 3000psi, tolerance of flatness less than 5mm and minimum thickness of 200mm. In addition, newly built concrete ground must undergo more than 28 days' cure and reinforcement.Please ensure the base plate are parallel before anchoring bolt. If the lock parts are still not parallel, please adjust the gasket as blew picture



#### 3.2 Precautions for installation

- 3.2.1 Joints of oil hose must be firmly connected in order to avoid leakage.
- 3.2.2 All bolts should be firmly screwed up.
- 3.2.3 Do not place any vehicle on the lift in the case of trail running.

#### 3.3 Installation

Step 1: Remove the packaging and take the mechanical and hydraulic assembly to the designated installing place. Please do read and understand this manual thoroughly before next step.

- 3.3.1.1 Pay attention to shipping marks and remove the parts showed in the following picture to desired installation spot.
- 3.3.1.2 Open the wooden case and take out the power unit, oil hose and cables.

Step 2: Connect the oil hose to the pump assembly with a proper wrench. (Make sure the hose end is clean).

3.3.2.1 Connect the fitting of oil hose on the hydraulic block firmly.

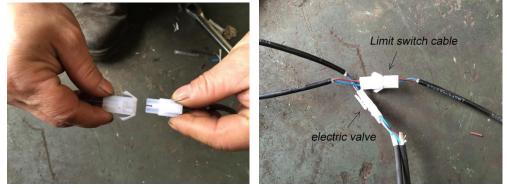


3.3.2.2 Connect the other side of the oil hose to the T fitting.



#### 3.3.2.3

Connect the cables between the lift and its power system by the white plug. (There are two cables, one is for the limit switch, and the other for the electric valve).





NOTE: As running speed of the lift is mainly decided by the density hydraulic oil, we suggest 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. It is not allowed to fill tank to its full volume. Fill until 80% full and usually it needs 10 liters of hydraulic oil.

#### **OPERATION INSTRUCTIONS**

### 4.1 Precautions

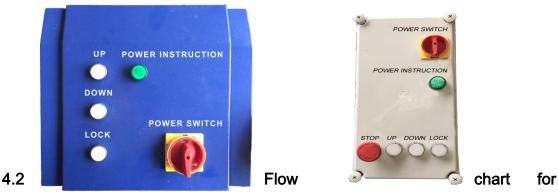
4.1.1 Check all the joints of oil hose. Only when there is no leakage, the lift can start work.

4.1.2 The lift, if its safety device malfunctions, shall not be used.

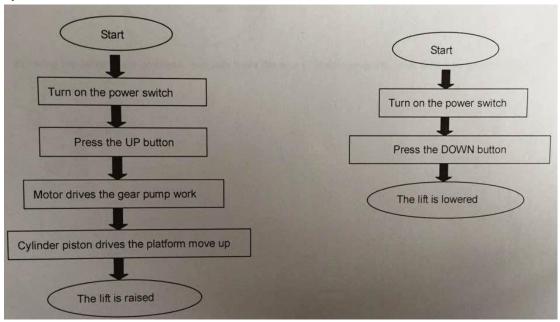
4.1.3 The machine shall not lift or lower an automobile if its center of gravity is not positioned midway of the rising platforms Otherwise, we as well as our dealers will not bear any responsibility for any consequence resulted thereby.

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

## 4.2 Descriptions of control box



operation



### 4.4 Operation instructions

Raise the lift

- 1. Make sure that you have read and understand the operation manual before operation.
- 2. Drive and park the vehicle midway between two platforms.
- 3. 3. Place the four rubber pads under the prop-points of the vehicle and ensure car's gravity have fallen on the rubber pads.
- 4. Press the UP button on the control box until rubber pads have touched the prop-points of vehicle.
- 5. Keep on pressing the UP button to lift the vehicle a bit higher from the ground and check again if the vehicle is in a safe position
- 6. Having raised the vehicle to the required height, press the "Emergency stop" button before performing maintenance or repair work.

#### Lower the lift

- 1. Switch on (press the "emergency stop" button until the power indicator is on).
- 2. Press the DOWN button to lower the lift.
- 3. Drive away the vehicle.

#### Move the lift

While in lifting height, installed clamp as below pic 1, then lower to the mix height, add the wheel as pic 2 and pic 3 for moving.







Pic 3

**Warning** :The lift can be locked and work properly only when the last 2 lock teeth are hoodked by lock. Otherwise damage of lock will be caused by the mis-operation.

# **TROUBLE SHOOTING**

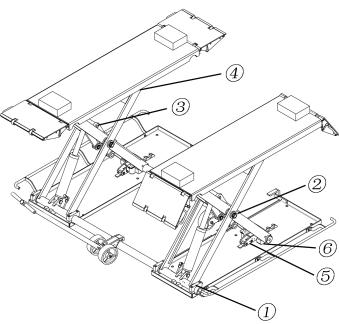
ATTENTION: If the trouble could not be fixed by yourself, please do not hesitate to contact us for help. We will offer our service at the earliest time we can. By the way, your troubles will be judged and solved much faster if you could provide us more details or pictures of the trouble.

TROUBLES	CAUSE	SOLUTION	
	The wire connection is loose.	Check and make a good	
Motor does not run		connection.	
and will not raise	The motor is burnt.	Replace it.	
	The limit switch is damaged or the	Connect it or adjust or	
	wire connection is loose.	replace the limit switch.	
	The motor run reversely.	Check the wire conncection.	
	Overflow valve is loose or jammed.	Clean or adjust it.	
	The gear pump is damaged.	Replace it.	
Motor runs but will	Oil level is too low.	Add oil.	
not rise.	The oil hose became loose or	Tighten it.	
	dropped off.		
	The cushion valve became loose or	Clean or adjust it.	
	jammed.		
Platforms go down	The oil hose leaks.	Check or replace it.	
slowly after being	The oil cylinder is not tightened.	Replace the seal.	
raised.	The single valve leaks.	Clean or replace it.	
	Electrical unloading valve leaks.	Clean or replace it.	
	The oil filter is jammed.	Clean or replace it.	
	Oil level is too low.	Add oil.	
	The overflow valve is not adjusted to	Adjust it.	
Rising too slow.	the right position.		
	The hydraulic oil is too hot(Above	Change the oil.	
	45°)。		
	The seal of the cylinder is abraded.	Replace the seal.	
	The throttle valve jammed.	Clean or replace.	
Lowering too slow.	The hydraulic oil is dirty.	Change the oil.	
	The oil hose jammed.	Replace it.	

# MAINTENANCE

Easy and low cost routine maintenance can ensure the lift work normally and safety. Following are requirements for routine maintenance. You may choose the frequency of routine maintenance by consulting your lift's working conditions and time.

NO	DESCRIPTION
1	U-shape block
2	Rotor shaft
3	Starting helper
4	Nylon block
5	Safety shaft
6	Nylon block



### 6.1 Daily checking items before operation

The user must perform daily check. Daily check of safety lock system is very important – the discovery of device failure before action could save your time and prevent you from great loss, injury or casualty.

- Check whether oil hose well connected and whether it leaks or not.
- Check the electrical system.
- Check whether plug bolts firmly screwed.
- Check if safety teeth and safety block matched well or not.

#### 6.2 Weekly checking items

- Check the flexibility of moving parts.
- Check the working conditions of safety parts.
- Check the amount of oil left in the oil tank. Oil is enough if the platforms can be raised to highest position. Otherwise, oil is insufficient.
- Check whether plug bolts firmly screwed.

#### 6.3 Monthly checking items

- Check whether plug blots firmly screwed.
- Check the tightness of the hydraulic system and screw firm the joints if it

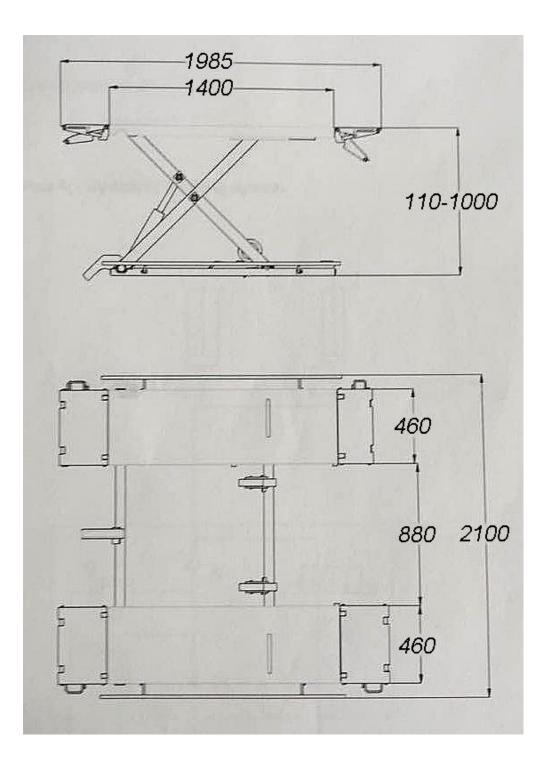
leaks.

### 6.4 Yearly checking items

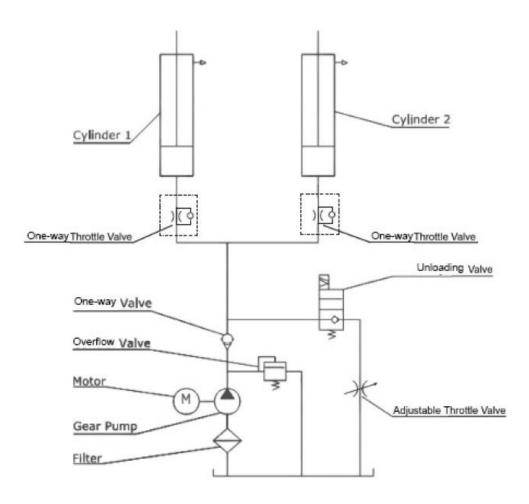
- Empty the oil tank and check the quality of hydraulic oil.
- Wash and clean the oil filter.

If users strictly follow the above maintenance requirements, the lift will keep in a good working condition and meanwhile accidents could be avoided to a large ext

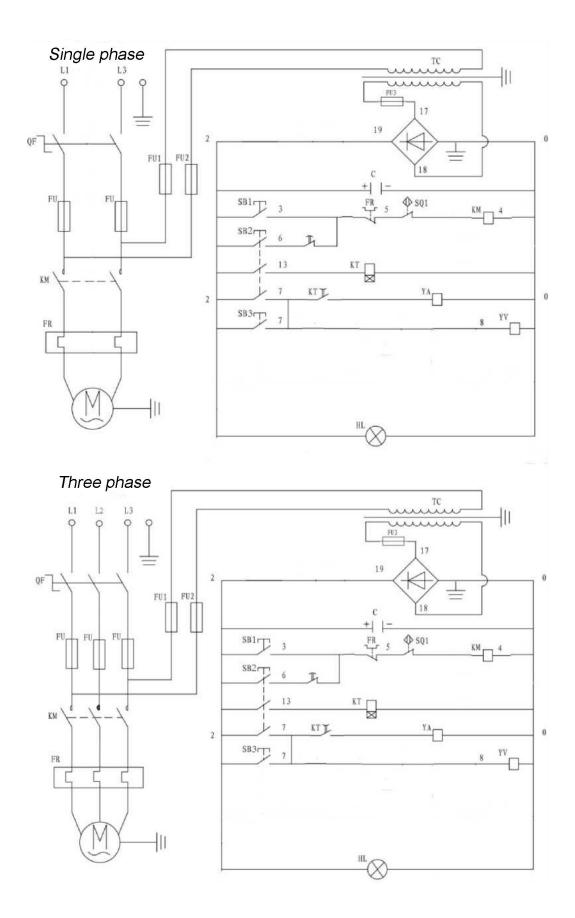
Annex 1, Overall diagram



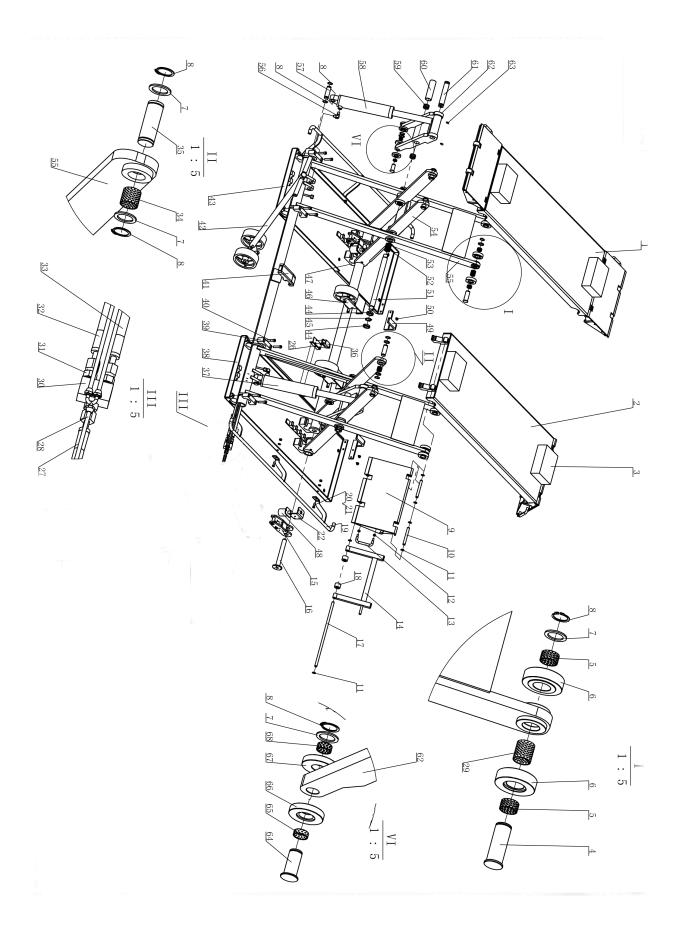
Annex 2, Hydraulic working system



Annex 3, Wiring diagram



Annex 4, Separate diagrams for the lift



NO.	NAME	QTY.	NO.	NAME	QTY.
1	left ramp	1	31	Hose fitting	3
2	right ramp	1	32	Hose L=1740mm	1
3	rubber pad	4	33	Hose L=510mm	1
4	outer scissor pin	4	34	Oilless bearing	4
5	Oilless bearing	8	35	Top connecting pin	4
6	outer scissor wheel	8	36	Limit switch	1
7	washer	8	37	Cylinder	1
8	Snap ring	20	38	Right base plate	1
9	Ramp assembly	4	39	Outer scissor top fixing plate	4
10	Short pin	8	40	Inside hexagon bolt	8
11	Snap ring	24	41	Handle connecting piece	1
12	Hexagon nut	8	42	Handle assembly	1
13	Handle	4	43	Left base plate	1
14	Ramp support	4	44	Nut	8
15	Safety lock assembly	2	45	Fixing plate	4
16	Pin assembly	2	46	Rear wheel assembly	2
17	Wheel pin	4	47	Nylon block	4
18	Wheel	8	48	Electric valve	2
19	Foot protector	2	49	Connect piece for top and bottom plate	2
20	M8 *25 hexagon bolt	6	50	M8*16 screw	4
21	M8 hexagon nut	6	51	Outer scissor connecting pin	2
22	Electric valve socket	2	52	Oilless bearing	4
26	Limit switch socket	1	53	Oilless bearing	4
27	Hose L=3300mm	1	54	Outer scissor assembly	1
28	Electric valve cable	1	55	Inside scissor assembly	1
29	Oilless bearing	4	56	Throttle valve	2
30	T-fitting	1	57	Cylinder connecting pin	2