



INSTRUCTIONS AND MAINTENANCE MANUAL
HYDRAULIC SCISSORS LIFT,
ON GROUND

Art. No. 0900705158

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1 General Information

1.1 Application

This lift is designed for the purpose of lifting light vehicles under 3.5 tons for vehicle test, service and cleaning.

1.2 Features

- The lift features advanced design, durability, compact layout.
- Surface installation and saving space.
- Hydraulic system keeps both platforms level.
- Mechanical protection device throughout the travel distance.
- Automatic lubricating system and oil-less bearings.

1.3 Specifications

Max lifting weight(kg)	Max lifting height(mm)	Up time(s)	Down time(s)	Power (kw)	Number of platform(pcs)	Size for platform (mm)	Dead weight(kg)	Synchronization Precision (mm)	Height difference (mm)
3500	1930	≤60	≥20	2.2	2	1485x2105x660	875	<40	≤8

Electric specifications:

Motor (Optional): 2.2kw

Voltage options according to different voltage

Single-phase/3-phase 220v/380v 50Hz

Noise

Noise: ≤70dB (A)

Hydraulic System

Max. Working Pressure: 28 MPa, Flow rate: ≥4.5L/min.

Pneumatic System

Working Pressure: 5 kgf/cm²

! Notice: At the bottom position, the max load of the lift is 1T.

1.4 Environment requirements

Temperature: 0°C ~ +40°C

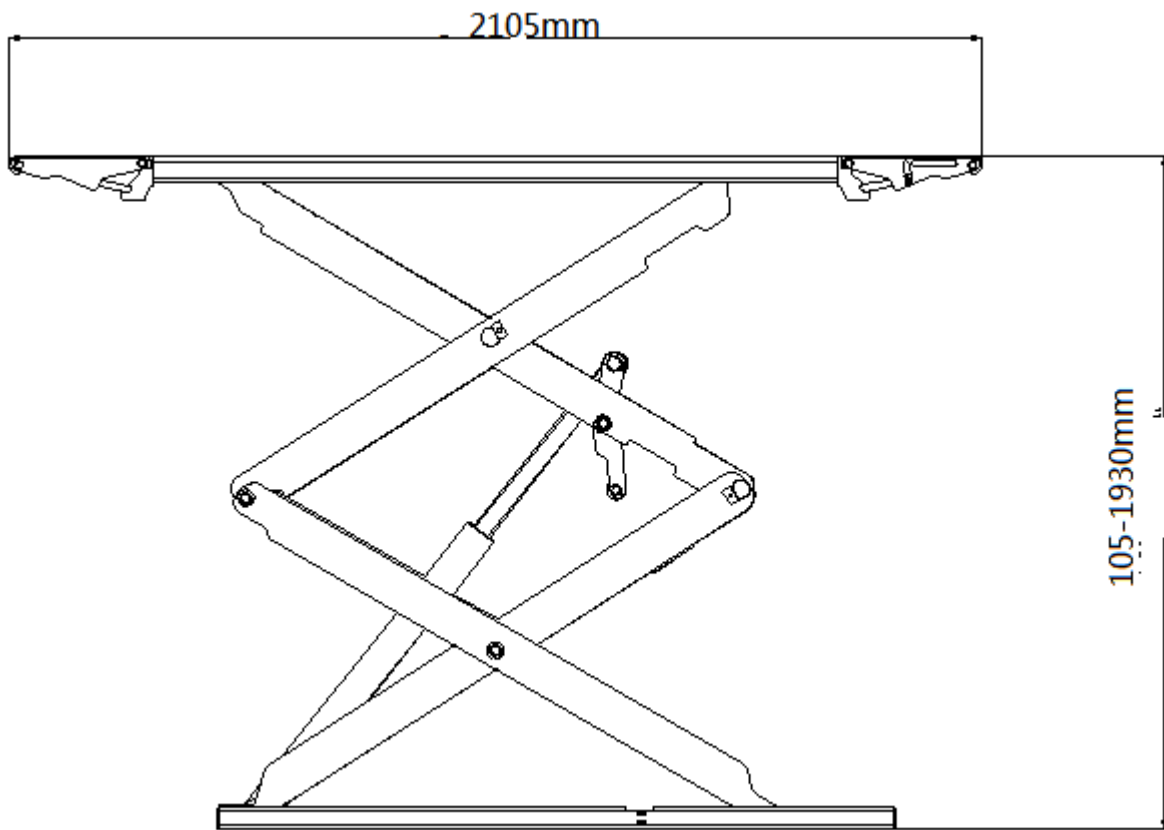
Relative Humidity: ≤80% at 30°C

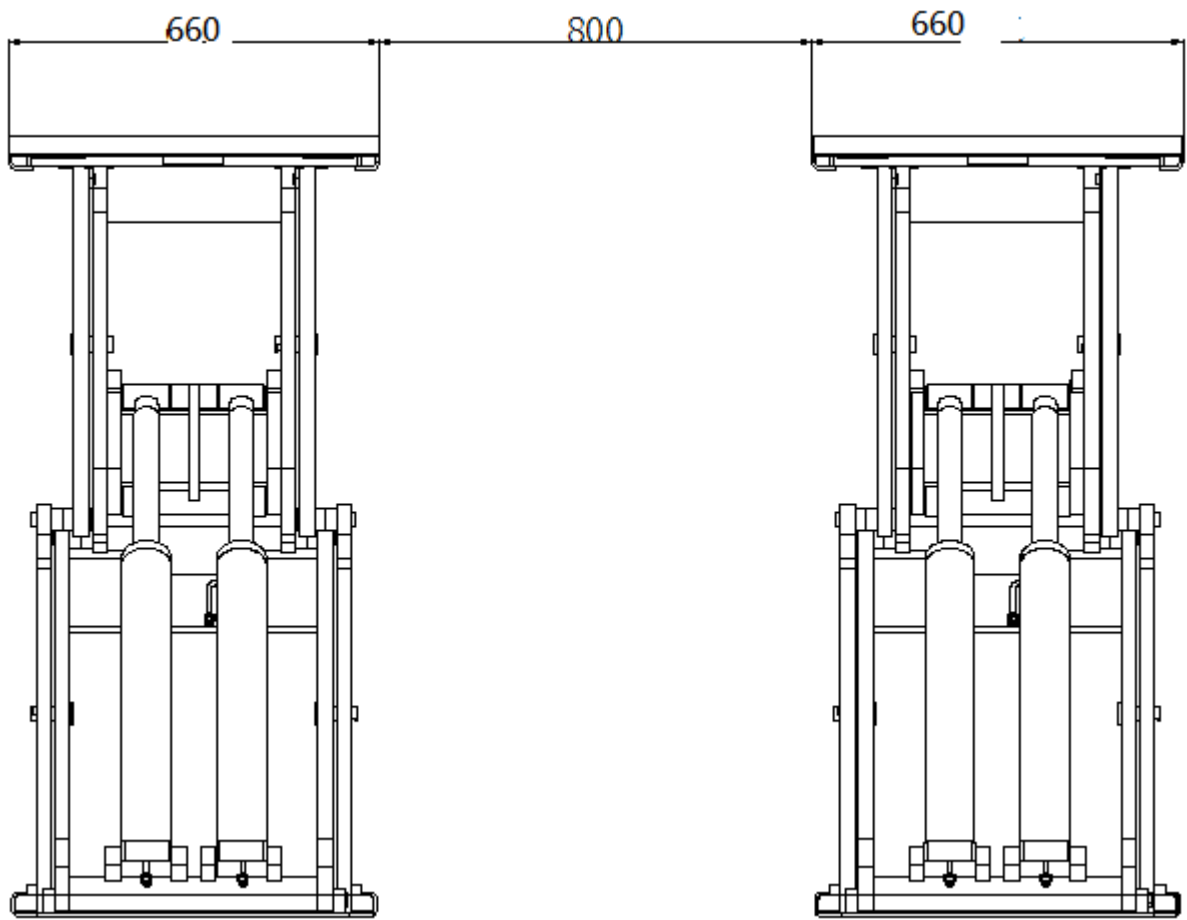
Transportation/Storage Temperature: -25°C~+55°C

Altitude:≤2000m(78740")

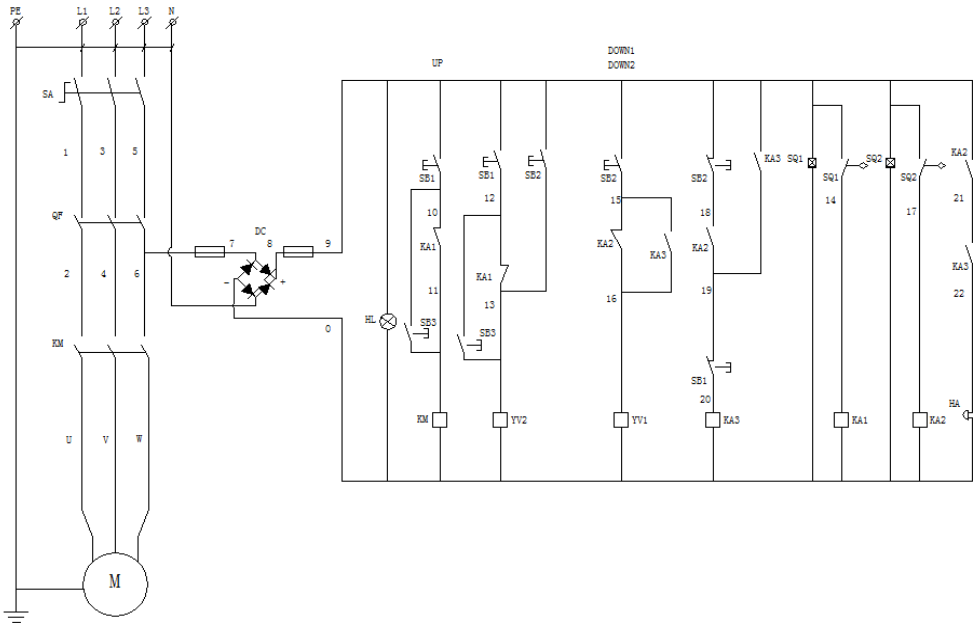
2 Structure

2.1 Layout





2.2 Electrical Diagram



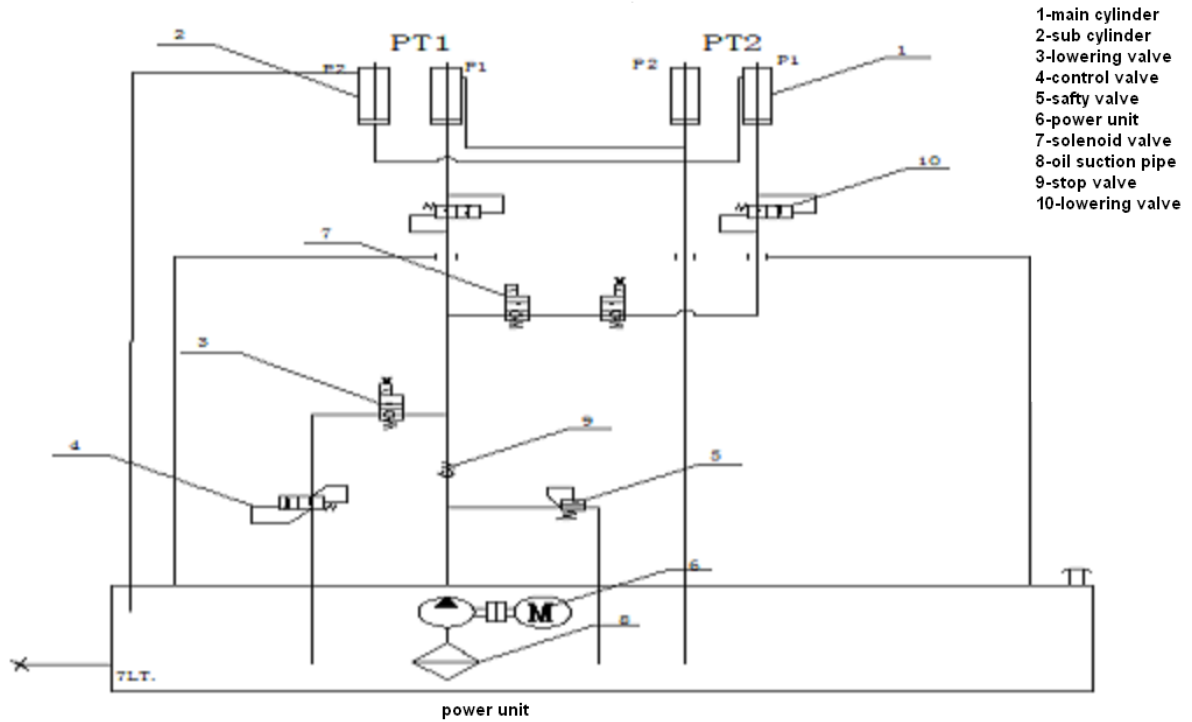
Pic.2

Lifting: press the up button SB1, the motor will drive the gear pump to provide the oil .and then the cylinder will push the lift up. Loosen the button SB1, the lift will stop going up. If continue press the SB1 button, the lift will raising to the Max height, the lift protect by the usage by the limit switch or lowering valve

Insurance procedure: Press the insurance button SB3 ,the solenoid valve combine the line YV1 and YV2, then the lift begin to go down.

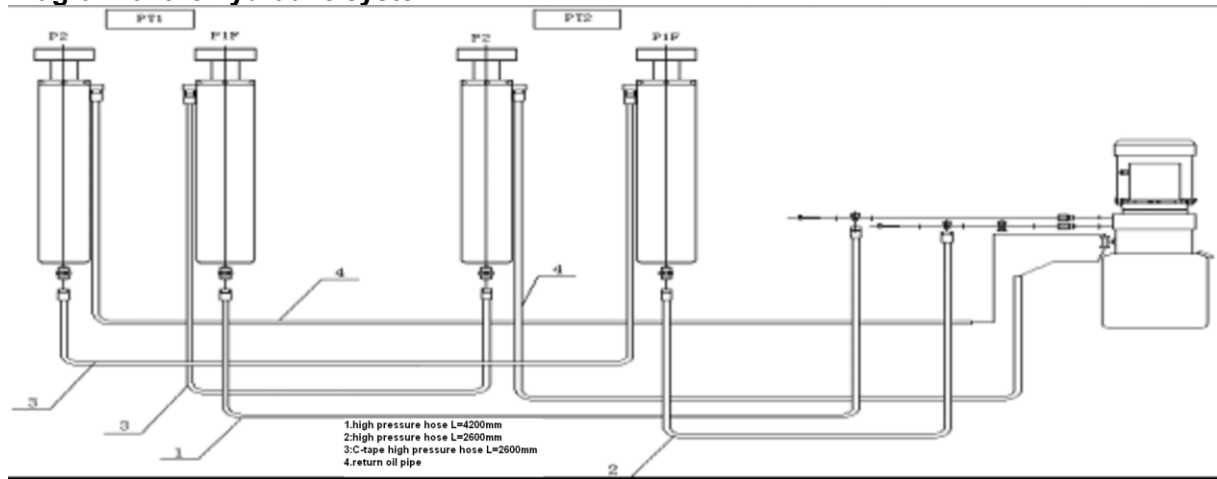
Lowering procedure: Press the up button SB1, the lift will be up, then press the down button SB2, solenoid valve combine the line YV1 and YV2, the lift begin to down

2.3 Hydraulic working principle



Pic.3

Diagram of the hydraulic system



Pic.4

Connect the hose as Pic.4

3 Install tools and unpacking

Please prepare the following regular tools to complete the installation and commissioning smoothly.

tools	Specification
Iron Level meter	L=400 (15.7")
Chalk line	10mm (0.4")
Rotary hammer drill	
Hammer	1.5 kg (3 lb)
Adjustable wrench	40mm (1.6")
Open-end wrench kit	11mm-23mm (0.43"-0.9")
Six square wrench set	2mm~12mm
Flat head screwdriver	150mm (5.9")
Rotary hammer	20mm (0.8")
Concrete drill-bit	Φ18mm (0.71")
frame level (JB3239-83)	LxWxH=300x40x300(11.8"x 0.16"x 11.8")

3.1 Open the box

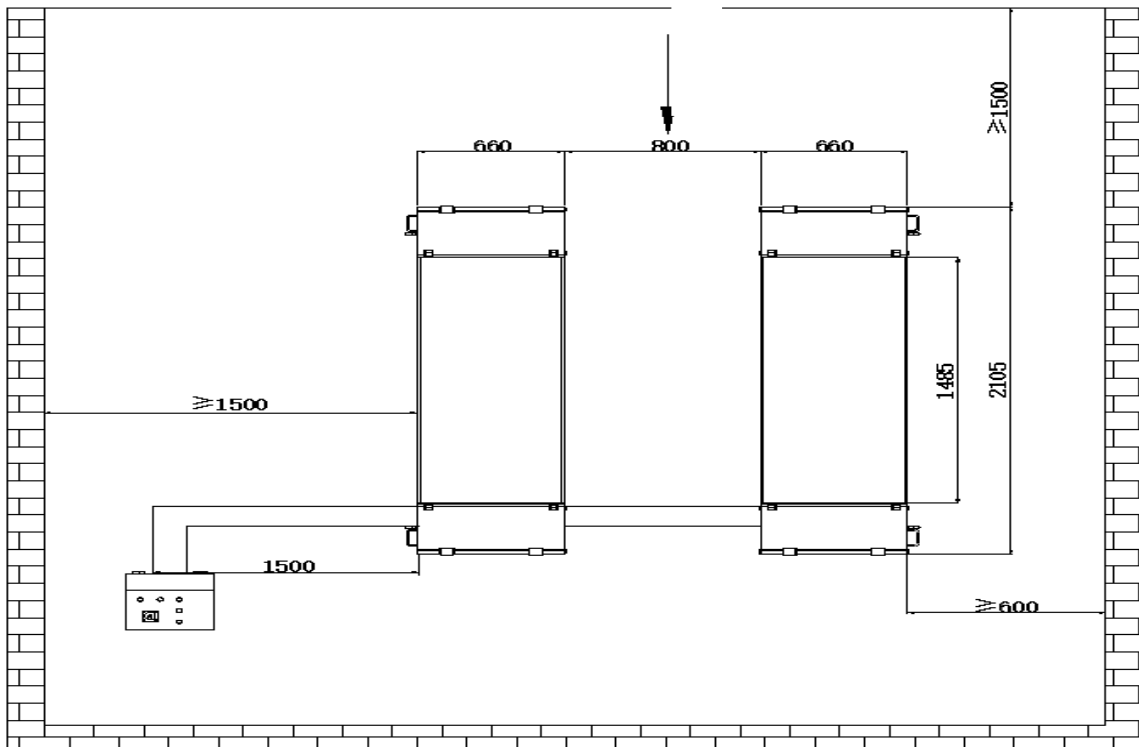
- Packed in one package,the control box ,oil hose ,and platform are all connected and tested.
- Open the package,remove the packing material to check the lift for any damage during the transportation
- Place the packing material away from children to prevent any danger. Properly dispose of the packing materials that may cause pollution

4 Installation

4.1 General Installation

Install the lift as the following steps

- The lifting machine can only be installed on the concrete floor, the minimum thickness of the concrete slab is 200mm, and the minimum curing time is 7 days.
- The strength of the concrete ground should exceed 3000PSI (2.1kgf/mm²).
- the tolerance of the concrete floor levelness should not exceed 5mm (0.2"). Slight slope can be corrected with shims. Excessive slope on the ground will greatly affect the performance of the lift. In this case, new concrete slab should be made
- Inspect for possible hindrance such as low ceiling, overhead pipelines in the work area, passageways and escapes. The working area of the lift should be 4.2m(165.4") high to give enough space.
- Allow enough space (1.5m/59") at the front electrician.
- Power should be prepared before install. Electrical wiring should be conducted by certified electrician.



Pic.5

- It is default installation, the control unit could be installed at the right side of lift as well. The installation should be performed by qualified people
- Program of ditch-type installation

4.2 Base Frame Installation

- Layout plan: Refer to the Total width 2120mm, drawing two parallel lines (1# and 2#) on the concrete floor, the tolerance should less than 3mm (0.1")
- Draw four parallel lines (a, b, c, d), vertical with 1# and 2#
- Follow the drawing, put two platforms into the frame. Pic.5



Attention:

- ◆ ***The base is the edge of Floor plate***
- ◆ ***The tolerance should less than 6mm (0.24")***
- ◆ ***Drawing the frame is very important. Poor drawing will cause many problems about assembly and operation***

4.3 Control Desk Installation

- Place the control desk in place according to the ground layout.
- Use cover plate to protect the wires if there is no wire channel on the concrete floor
- Fill hydraulic oil into the oil tank (using oil dipstick to check the level). Pay special attention to avoid dust and contaminants into the oil.

4.4 Control Desk Installation

- Open the control desk, connect the wires according to the electrical diagram. After check the connection, switch on the power. Turn on the power supply switch which is on the panel of control desk. The indict light will turn on.
- Power switch is needed, and installed near control desk. Cut the power when maintenance or emergency. The damage

which is caused by wrong wire connection is not covered by warranty.

- Make sure the oil level is above the standard level. DO NOT operate the lift if oil tank is empty
- Fix all the oil hoses and press UP button, test the electrical parts: if motor does not operate, abnormal sound, platform does not rise, motor is hot, STOP operating immediately and check the wire connection.

 **ATTENTION:**

High voltage in control desk, ground lead must be safe.

 **ATTENTION**

8L oil is needed in the first use, fill the oil and make sure the oil level is above the standard level.

4.5 Install anchor bolts

- Wrap the oil fittings, cable connections and joints of the lift to prevent dusts from getting in
- Raise the platforms to 1.5m, then install the anchor bolts
- Rotate the adjusting bolts, adjust the platform to same level, the equalization should be less than 3mm (0.1"). Choose a right shim and place it under frame. Insert the shims at both sides of anchor bolt
- Tighten out the nuts to fix the base frames on the floor

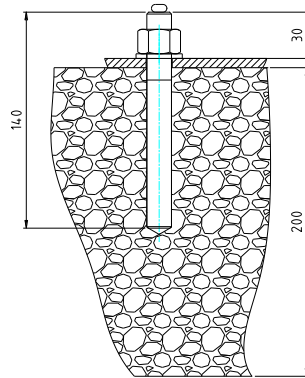
 **ATTENTION**

Cautions: To ensure safety and performance, follow the installation procedures step by step

- Wear safety goggles.
- Use strong alloy drill bit with a diameter of 18mm (0.71") . Do not use worn-out drill bit.
- Keep the hammer drill upright with the surface of the hole.
- Keep hammer drill going by itself. Do not apply extra pressure.
- The depth of the hole depends on the length of the bolt. It is advisable that the bolts be above

the base frames should be around 30mm (1.2”).

- Remove the dust from the holes.
- Tap the bolt into the hole, insert and hit the core until the bolt fully expands



Pic.9

- Adjust lever and height of platform,insert the right blots
- Tighten the nut using a torque wrench, and move the hand torque to 50n.m.

5 Test

5.1 Preparation before test

- Lubricate the moving surface of the roller with #2 lithium lubricant. Lubricant should be applied evenly from left to right.
- Lubricate the joints of the lifts with #2 lithium lubricant. Fill tank full with Oil N32 or N46

5.2 Test step

- Check if all the connection bolts are tightly fastened.
- Press UP button, the platforms are raising; release the UP button, the platforms stop raising. Press DOWN button, the platforms are lowering.
- If there is air in hydraulic system due to new installation, air bleeding performance is needed. The air in the master cylinder can be bled after the platform goes up and down several times. The air in the slave cylinder can be bled by following steps: lift Master Platform close to the maximal height; unscrew the two exhaust screws severally. Screw the exhaust screw when the all the air are ejected(Pic.9)



Attention:

- ◆ ***Attention should be paid to the position of oil pipes and hydraulic hose when the platforms move to the minimal height for the first time. Make sure they don not get stuck with platforms moving downward***

In order to clean up all the air in the cylinders, please raise the piston rod to the top line for several times, Then the left and right platform will be just flatted

6 Safety Rules for Electrical Control System

- Only personnel who are properly trained and have adequate knowledge and skill should undertake all electrical/electronic troubleshooting and repair.
- Do not alter or bypass protective interlocks.
- Before starting, read and observe all warning labels.
- When trouble shooting make sure the power source has been disconnected and main switch has been locked.
- Take extra precautions in damp areas to protect you from accidental grounding.
- Before applying power to any equipment it must be established, without a doubt, that all persons are clear.
- Do not open the electrical control panel unless it is necessary to check the electrical equipment.
- Do not alter the electrical circuits unless authorized to do so by the manufacturer.
- When replacing electrical components, make sure they conform to the manufacturer's specifications, including proper color coding.
- Do not wear metal frame glasses, metallic necklaces or chains while working on any electrical equipment. Also do not wear any ring, watch or bracelet while operating electrical equipment.

7 Operation

7.1 Operation panel

Operation Instruction

Lifting process: Press UP button ,left right platform raising , Release the button , the platform will stop raise. .If continue press the button, the lift will raising to the limited height then stop

Insurance procedure: Press the insurance button until reach to the limited height. The platform will fall some distance, the insurance gear meshing to make safe

Lowering process: Press UP button , platform raise a little, safety claw is unlocked, then press DOWN button , the platform begin to lower.

7.2 Preparatory Inspections

- Check for the synchronized and steady movement of the platforms
- Make sure the platforms would automatically stop when they reach the max lifting height
- Check two if two platform up and down movement are consistently and smoothly
- Check for possible leakage in the cylinder, hoses and fittings Check for possible air leakage in the solenoid valve, cylinder, pressure regulator valve and fittings
- Check for any abnormal action and sound in pump and motor

7.3 Operational Procedures

- Keep speed below 5km/h when driving on the platforms。
- Stop the vehicle when the platforms are between its front and rear wheels
- Press UP button to lift the vehicle to 200mm~300mm from the floor
- Make sure that the two platforms are leveled and nothing unusual is found
- Keep pressing UP button until the vehicle rises to the required height
- After the maintenance is done, keep the work area clear and safe before lowering lift

7.4 Safety Precautions

- The hydraulic relief valves are well-adjusted before leaving factory. The manufacturer will not be responsible for any damage caused by unauthorized adjustment。
- The lifts should be secured before personnel do under car job
- If the continuous rising height less than 1000 mm when raising, should be press the button interval 30 s to vehicle and fell to the ground, otherwise the hydraulic buffering device not to full effect.
- Place rubber pads on the platforms and spread them for maximal support
- In case of any leakage in the hydraulic system, fix the problem and refill the oil to the proper level 。
- In the mesa distance base about 450 mm in height, lifting machine in decline process will automatically stop once. This phenomenon is not lifting machine fault

8 Troubleshooting

Symptoms	Reasons	Solutions
The motor does not work.	Check the molten core is burned Voltage is not correct. Fuse burning. Motor is broken.	Reset molten core Supply power of correct voltage. Change Fuse. Change motor.
The motor works, but the platforms do not move.	The motor rotates in the wrong direction. Oil level is too low. Oil leak.	Change wiring of motor to change direction. Add oil. Check the oil hose.
The motor works, but the platforms can not lift the vehicle.	The voltage to the motor is too low. Pressure of relief valve is not right. The lift is overloaded The hydraulic pump is damaged.	Supply motor with correct voltage. Adjust the pressure of relief valve. Check the weight of the vehicle. Replace the hydraulic pump.
Lowering speed is slow.	There is foreign substance in the lowering solenoid valve. Lowering speed valve is turned too low.	Clean the lowering solenoid valve. Turn the lowering speed valve up.
Lifting speed is slow or oil spill.	Oil and air are mixed.	Change oil or eject air.
The platforms are not synchronized.	One cylinder has much more oil than another.	Adjust the oil in both cylinders according to manual.

9 Maintenance

9.1 Daily Maintenance

- Keep the lift clean. Make sure power is cut off before cleaning the lift.
- Keep the working area clean. Excessive dust in the work area will shorten the lifespan of the lift.
- Before operation, inspect and keep all the safety devices of lift in order. If any problems are found, adjust, maintain or replace the parts timely.
- Make sure that the pits are kept dry and clean.
- Inspect if there is leakage in the air valve and if it is well-lubricated

9.2 Monthly Maintenance

- Refasten the anchor bolts.
- Check all the hoses and fittings for possible wearing and leakage. If any leakage is found to be caused by worn sealing parts, replace with parts meeting the specifications.
- Check if the moving parts are well-lubricated with high-quality #2 lithium lubricant.
- Apply #2 lithium lubricant on a monthly basis

9.3 Biannual Maintenance

- Check all the moving parts for possible wearing, interference and damage.
- Inspect the lubrication of all the rollers. If the roller is dragged along in lifting or lowering, apply lubricant to the roller shaft.
- At the end of the first six months, clean the hydraulic system and replace the hydraulic oil. Replace the hydraulic oil with N32 hydraulic oil in winter and N46 in summer

9.4 Maintenance for 3 Years or 5000 Times Operations

- Replace the bushings at all joints.
- Replace all seals.
- Replace sliding blocks.

Hydraulic Oil Data

#2 Lithium Lubricant

Item	Specifications
Conical degree (1/10mm)	278
Dropping point °C	185
Erosion (T2 Copper Plate, 100 °C, 24h)	No Change
Copper Screening (100°C, 22h) %	4
Evaporation (100°C, 22h) %	2
Oxidizing Stability (99°C, 100 h)	0.2
Non-corrosibility (52°C, 48)	Grade 1
Foreign substance (Microscopic method) / (number/cm ³) Above 10µm Above 25µm Above 75µm Above 125µm	No more than 5000 No more than 3000 No more than 500 0
Relative Viscosity (-15°C, 10s ⁻¹) ,(Pa·s)	< 800
Humidity Loss (38°C, 1h) (%)	≤8

N32 Mechanic Oil (for winter)

Item	Specifications
Moving Viscosity 40°C	28.8~35
Pour /°C	≤-15
Flash point /°C	≥175

N46 Mechanical Oil (for summer)

Item	Specifications
Moving Viscosity 40°C	41.4~50.6
Pour /°C	≤-9
Flash point /°C	≥185

10 Storage and Scrapping

10.1 Storage

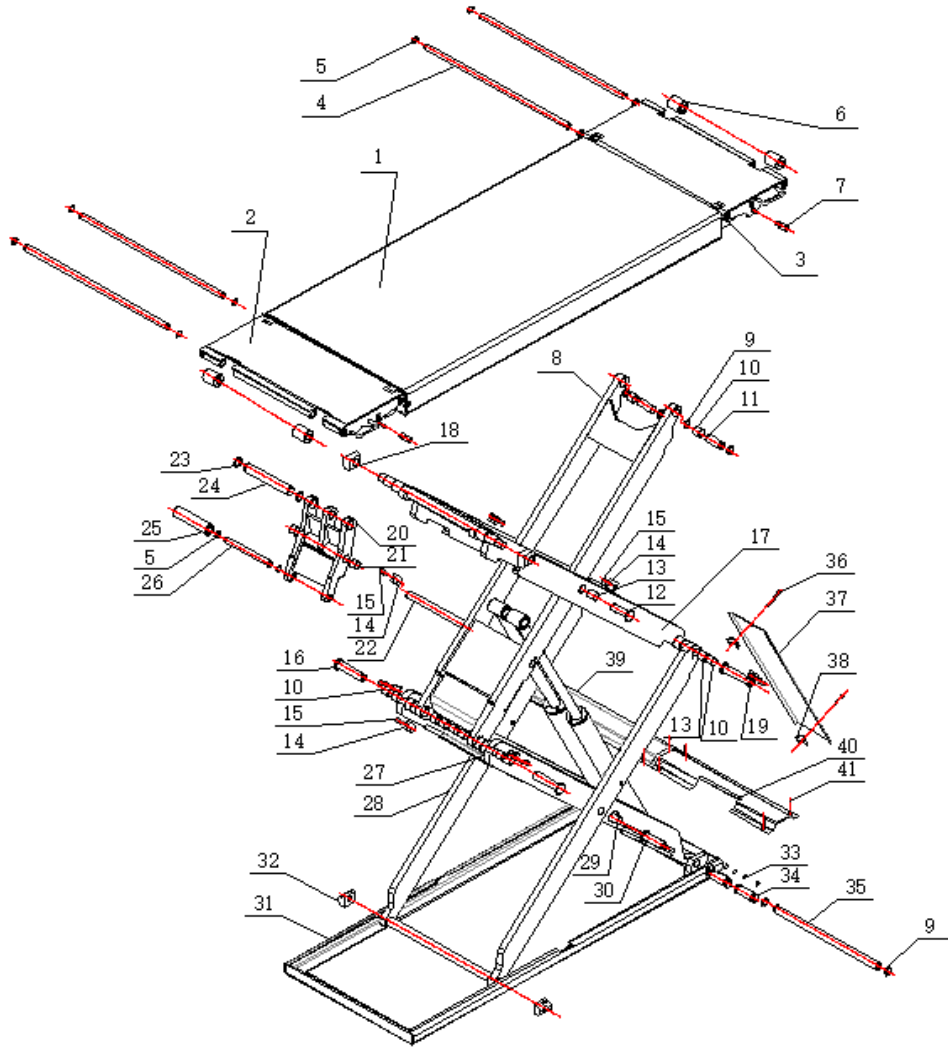
When the lift needs to be stored for a long time

- Unplug from power socket
- Lubricate all the parts, including all the contact surface of the rollers。
- Bleed oil from tanks。
- Cover the lift with plastic hood。

10.2 Scrapping

When the lift has exceeded its lifespan and can not be used any more, disconnect it from the electrical supply and dispose of as required by the local regulations

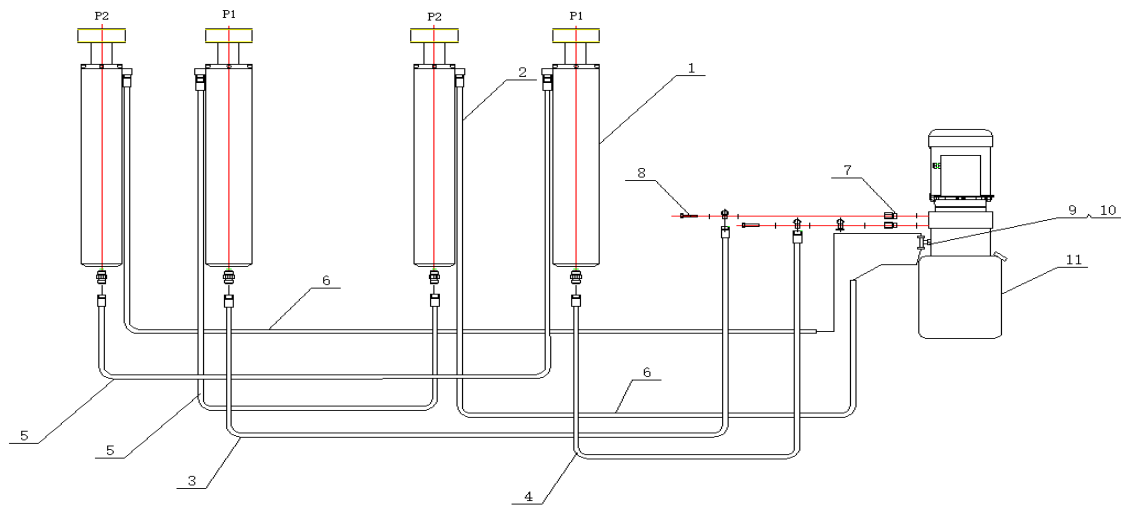
11 SPARE PARTS



NO,	FACTORY CODE	CODE	NAME
1	QWJ632WB-10-01-00	RT1001	Scissors platform
2	QWJ632WB-11-01-00	RT1002	Bridge table
3	QWJ632WB-11-04-00	RT1003	Bridge support
4	QWJ632WB-11-03	RT1004	Long support axle
5	GB/T894.1-1986	RT1005	Shaft ring ²⁰
6	QWJ632W-11-02	RT1006	roller
7		RT1007	handle

8	QWJ632W-20-00	RT1008	Upper internal shear
9	GB/T894.1	RT1009	Shaft ring25
10	GB/T12613-1990	RT1010	wrapped bearing bush P28x25x25
11	QWJ632W-00-01	RT1011	Pivot pin
12	QWJ632W-00-03	RT1012	connecting shaft
13	GB/T12613-1990	RT1013	wrapped bearing bushP28x25x32
14	QWJ632W-00-16	RT1014	Locking plate for shaft
15	GB/T 70.3	RT1015	Inner six angle head screw M8x16
16	QWJ632W-00-05	RT1016	connection shaft
17	QWJ632W-21-01-00	RT1017	The outer shear welding
18	QWJ632W-00-02	RT1018	Slid block
19	QWJ632W-00-04	RT1019	connecting shaft
20	QWJ632W-30-01-00	RT1020	arm frame
21	GB/T12613-1990	RT1021	wrapped bearing bushP30x25x20
22	QWJ632W-00-06	RT1022	connecting shaft
23	GB/T894.1-1986	RT1023	Shaft ring30
24	QWJ632W-00-08	RT1024	connecting shaft for cylinder
25	QWJ632W-30-01-05	RT1025	Roller for arm
26	QWJ632W-00-09	RT1026	Roller for arm
27	QWJ632W-22-01-00	RT1027	

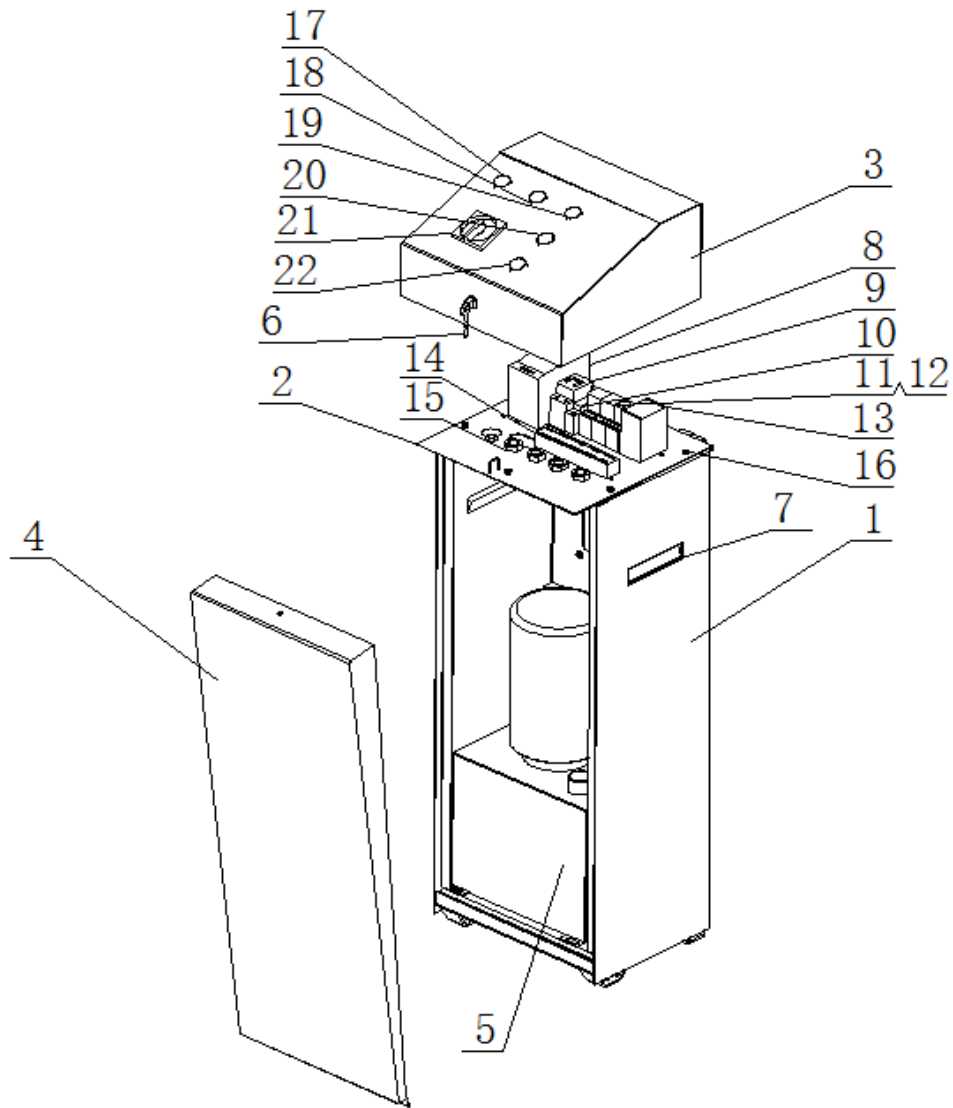
			Upper inner scissors frame
28	QWJ632W-23-01-00	RT1028	Upper down scissore frame
29	GB/T12613-1990	RT1029	wrapped bearing bush
30	QWJ632W-00-11	RT1030	connecting shaft
31	QWJ632W-50-01-00	RT1031	Basement
32	QWJ632W-00-12	RT1032	Slider block for basement
33	GB/T78-2000	RT1033	Six pyramid end set screwM8X12
34	QWJ632W-00-14	RT1034	Alex for cylinder
35	QWJ632W-00-13	RT1035	connecting shaft
36	GB/T 818	RT1036	cruciform slot screw M6x70
37	QWJ632W-00-20	RT1037	Cover for cylinder
38	QWJ632W-00-21	RT1038	fastener
39	QWJ632W-00-17	RT1039	Oil hose cover I
40	QWJ632W-00-18	RT1040	Oli hose cover II
41		RT1041	Expansion boltM16x140



NO,	FACTORY CODE	CODE	NAME
1	QWJ632W-600-00	RT2001	Main cylinder
1.1	QWJ632W-610-00	RT200101	Main cylinder
1.2	QWJ632W-600-01	RT200102	Oil pipe joint (including explosion proof valve)
1.3		RT200103	sealing washer 22
1.4	GB/T 6170	RT200104	nut M14x1.5
1.5	FP.K276000	RT200105	sealing washerx54x20.5
1.6	GB/T 3452.1	RT200106	O-ring $\phi 20.6 \times 2.65$
1.7	QWJ632W-620-00	RT200107	Piston
1.8	QWJ632W-600-02	RT200108	Oil hose connect
1.9		RT200109	Composition bush 1/4"
1.1	GB/T 3452.1	RT200110	O-ring $\phi 65 \times 2.65$
1.11	D2 36x44x5.7	RT200111	Seals for piston
1.12	C18-002-0360S-47	RT200112	T47wear ring
1.13	GB/T 3452.1	RT200113	O-ring $\phi 69 \times 2.65$

1.14	DH 36×44×5	RT200114	Dustproof ring
1.15	GB/T 3452.1	RT200115	O-ring φ35.5×2.65
1.16	QWJ632W-600-03	RT200116	Guide sleeve
1.17	QWJ632W-600-04	RT200117	Piston
1.18	SF-1	RT200118	bush 3020
1.19	SF-1	RT200119	bush 3025
1.2	QWJ632W-600-05	RT200120	bush
2	QWJ632W-700-00	RT3001	Sub cylinder
2.1	QWJ632W-710-00	RT300101	Sub cylinder
2.2	QWJ632W-600-02	RT300102	Oil hose connect
2.3		RT300103	Composition bush 1/4"
2.4	GB/T 6170	RT300104	Nut M14x1.5
2.5	FP.K236000	RT300105	Seals 60x44x20.5
2.6	GB/T 3452.1	RT300106	O-ring φ 20.6×2.65
2.7	QWJ632W-620-00	RT300107	piston
2.8	φ8 PU	RT300108	Air tube connection (1/4")
2.9	GB/T 3452.1	RT300109	O-ring φ 54.5×2.65
2.1	QWJ632W-700-01	RT300110	Guide sleeve
2.11	DH 36×44×5	RT300111	Dustproof ring
2.12	C18-002-0360S-47	RT300112	T47wear ring
2.13	D2 36x44x5.7	RT300113	Seals for piston
2.14	QWJ632W-700-02	RT300114	

			piston
2.15	SF-1	RT300115	bush 3020
2.16	SF-1	RT300116	bush 3025
2.17	QWJ632W-600-05	RT300117	bush
3	QWJ632W-80-02	RT4001	High pressure hose L=4200mm
4	QWJ632W-80-03	RT4002	High pressure hose L=2900mm
5	QWJ632W-80-01	RT4003	C-tape high pressure hose L=2600mm
6	QWJ632W-80-05	RT4004	oil return pipe
7	QWJ203-000-11	RT4005	Transition joint
8	QWJ209B-000-07	RT4006	Short pressing bolt
9	QWJ632W-000-06	RT4007	Pump station pipe joint
10	φ8 PU	RT4008	Y-tape Air tube connection 头
11	YS79L-2F	RT4009	Pump



NO,	FACTORY CODE	CODE	NAME
1	QWJ635-310-00	RT5001	Control box
2	QWJ635-330-00	RT5002	Install plate for Control box
3	QWJ635-320-00	RT5003	Up cover
4	QWJ635-300-17	RT5004	Cover
5	YS79L-2F	RT5005	Power unit 380V/220V
6		RT5006	16#lock
7		RT5007	130x40ABS handle
8	DR-120-24	RT5008	

			DC 24V power supply
9	DZ47-60	RT5009	Breaker; 380V/220V
10	RT28N-32	RT5010	Fuse
11		RT5011	24V time relay
12		RT5012	Time relay
13	NC1-1210Z DC24V	RT5013	Contactator
14	TB1520	RT5014	20 wiring board
15		RT5015	Tight line device PG13.5
16	GB/T 818	RT5016	cruciform slot screw M6x10
17	ND16-22DS/Z DC24	RT5017	Power light DC24V
18	ADY16-22SM DC24	RT5018	Buzzer DC24V
19		RT5019	Up switch
20		RT5020	Down switch
21	LW26-20 GS-20/04-2	RT5021	Transform switch
22	LA39-03ZS	RT5022	Emergency stop switch
23	BD4-S3S1-M12-12M	RT5023	Inductive sensor