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Please read and understand the manual before operation

Warning

- This manual is an important part of the product. Please read and understand it thoroughly.
- Keep the manual for future use in inspection and maintenance.
- Do not use the product for any other purposes.
- The manufacturer is not responsible for any damage caused by improper use or uses other than the designed purpose.

Precautions

- Only well-trained personnel can operate the lift. Any changes to the components or use for other purpose without the consent of the manufacturer may cause direct or indirect damage to the product.
- Do not expose the lift to extreme temperature or humidity. Keep it away from heating device, faucet, humidifier or furnace.
- Do not install the lift outdoors or expose it to rain. If it is really necessary to do so, a special order should be made from the manufacturer.
- Keep the lift away from the dust, ammonia, alcohol, thinner and spray adhesive.
- Keep away from the lift when it is in operation.
- Inspection of the lift should be carried out regularly. Do not operate a damaged lift or a lift with broken parts. All the parts are only replaceable with the parts provided by the manufacturer.
- Do not overload the lift. The maximum lifting weight is clearly marked on the nameplate.
- Do not operate the lift when there are personnel in the vehicle.
- Keep the lifting area clear of obstacle, grease, oil, garbage and other substances.
- Use the lifting point recommended by the auto manufacturer. Keep the support in close contact with the vehicle.
- Use appropriate tools and safety protection equipments such as overall and working boots.
- Pay special attention to the safety labels on the control desk.
- Keep hands and other body parts away from the moving parts of a lift in operation.
- Do not remove or override safety protection of the lift.
- Hydraulic oil for the lift is N32 or N46 mechanical oil. Pay attention to the safe data as described in this manual.
- For the sake of technical improvements, Launch (Shanghai) Machinery Co., Ltd reserves the right to change the specifications without prior notice

Contents

1 General Information

1.1 Application

This lift is designed for the purpose of lifting light vehicles under 3.0 tons for vehicle test, service and cleaning.

This machine can also be used as a lifting devise in production lines, for material transportation and work piece assembly.

1.2 Features

- The lift features advanced design, durability, compact layout.
- The installation of base frames in the pits can save space in the workshop.
- Hydraulic system keeps both platforms level.
- Mechanical protection device throughout the travel distance.
- Automatic height limiting device.
- Automatic lubricating system and oil-less bearings.

1.3 Specifications

Electric specifications:

Motor (Optional): 2.2kw 2850 r/min

Voltage options:

Single-phase/3-phase110v/220v 60Hz

Single-phase/3-phase220v/380v 50Hz

Noise

Noise emission at workstations < 70dB(A)

Hydraulic System

Max. Working Pressure: 28 MPa, Flow rate: 5-6L/min.

Pneumatic System

Working Pressure: 5 kg/cm^2

！Notice: At the bottom position, the max load of the lift is 2T。

Max. Lifting Weight (kg)（lb）	3000(6614)
Max. Lifting Height (mm)（ " ）	1750(69)
Lifting Time (sec)	≤50
Lowering Time (sec)	≥20
Power (kw)	2.2
Number of Platforms	2
Platform Size (mm)（ " ）	1580×520(62.2×20.5)
Overall Weight (kg)(lb)	630(1389)
Synchronization Precision (mm)（ " ）	≤40(1.6)
Height difference (mm)	≤8(0.3)

1.4 Environment requirements

Temperature: 0℃ ~ +40℃

Relative Humidity: ≤80% at 30℃

Transportation/Storage Temperature: -25℃～+55℃

Altitude: ≤2000m(78740")

2 Structure

2.1 Layout

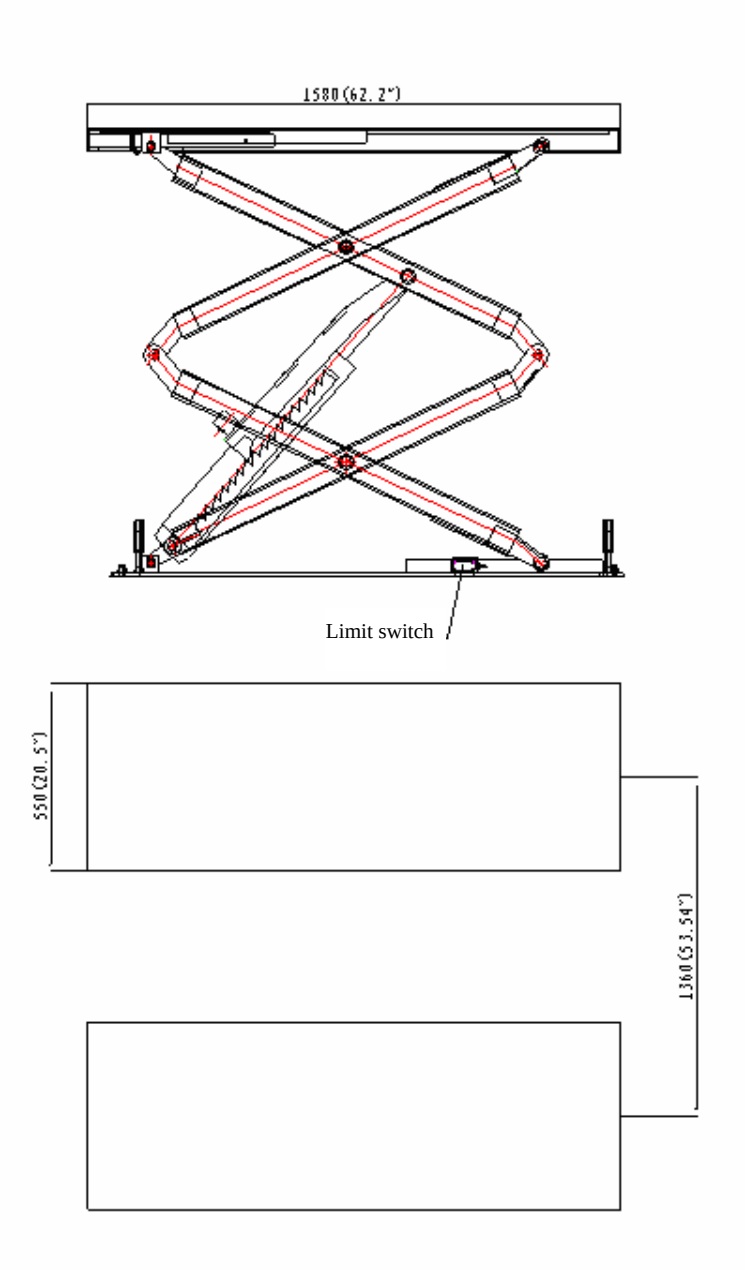


Fig.1

2.2 Electrical Diagram

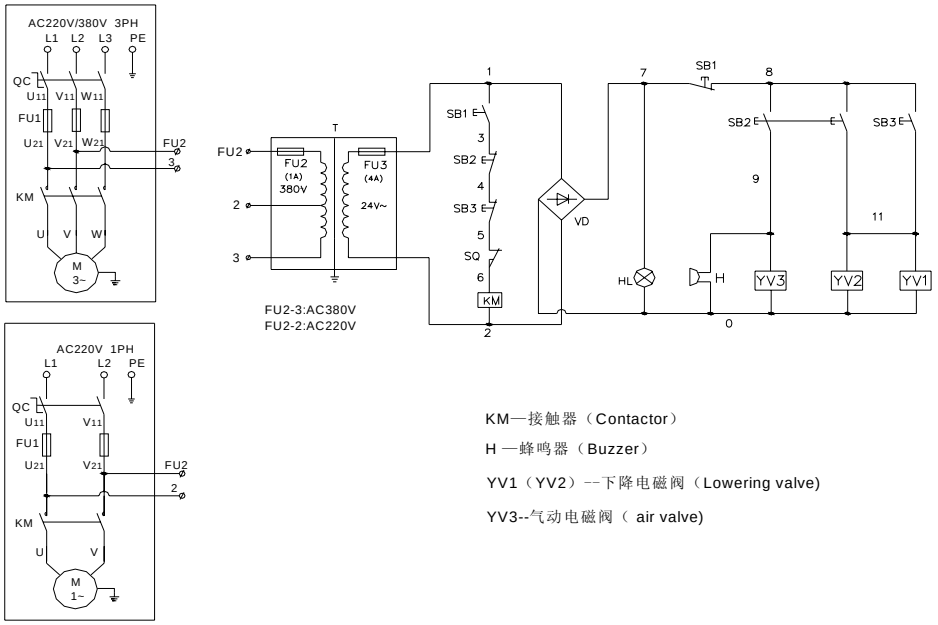
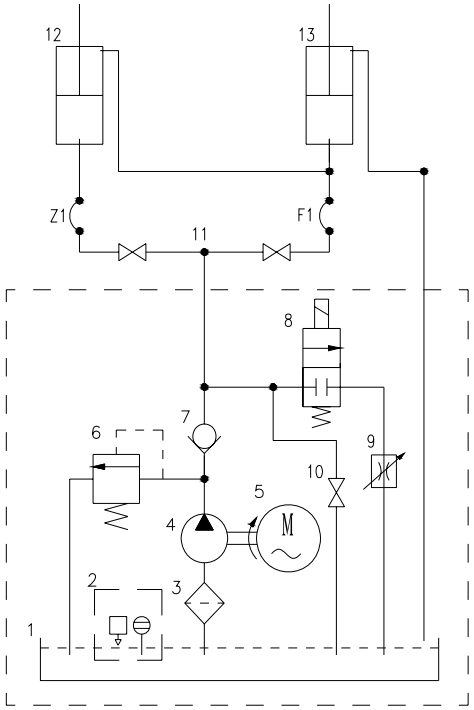


Fig.2

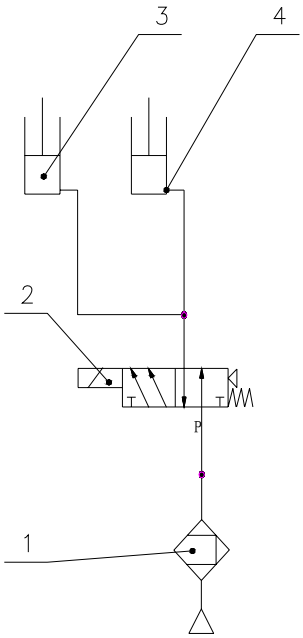
2.3 Hydraulic Diagram



F1、Slave cylinder hydraulic hose
Z1、Master cylinder hydraulic hose
13、Slave cylinder
12、Master cylinder
11、High pressure stop valve
10、Emergency lowering valve(manual control)
9、Lowering speed control valve
8、Lowering solenoid valve
7、Check-valve
6、Relief valve
5、Motor
4、Gear pump
3、Oil filter
2、Oil gauge/ Air blowhole
1、Oil tank

Fig.3

2.4 Pneumatic Diagram



1. Air filter and lubricator
2. Solenoid air valve
3. Air cylinder on slave platform
4. Air cylinder on master platform

Fig.4

2.5 Operation Panel

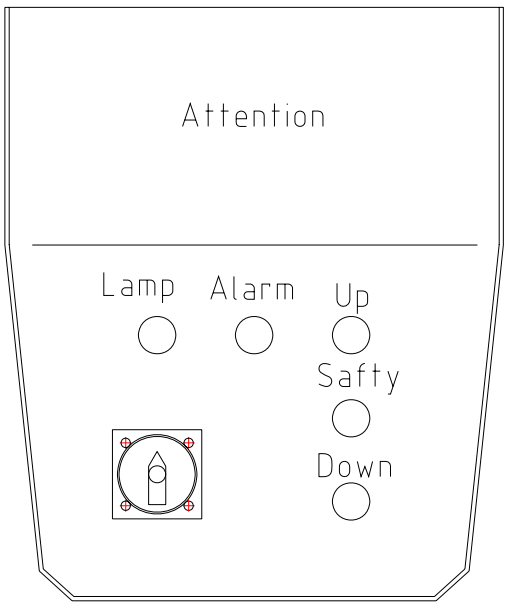


Fig.5

3 Operation

3.1 Preparatory Inspections

- Check for the synchronized and steady movement of the platforms.
- Check the sensibility and reliability of safety ratchet.
- Make sure the platforms would automatically stop when they reach the max lifting height (2000mm/79inches)
- 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.
- Check if the Emergency Stop button works properly.

3.2 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.
- Place rubber pads on the platforms where the lifting points will contact and press UP button to lift the vehicle to 200mm~300mm (9 to 12 inches) 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.
- Press SAFETY LOCK button to lower the lift and engage the safety ratchet so that the platforms are leveled with one another.
- After the maintenance is done, keep the work area clear and safe before lowering lift. Press UP button for a while, when disengage the safety ratchet, press the DOWN button.

3.3 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.
- Check the safety lock ratchets are engaged before going about any under-car jobs.
- 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.

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4 Troubleshooting

Symptoms	Reasons	Solutions
The motor does not work.	Check the fuse and limit switch. Voltage is not correct. Electrical wiring is wrong. Motor is broken.	Repaire or change the fuse or limit switch. Supply power of correct voltage. Fix the wiring. Change motor.
The motor works, but the platforms do not move, or can only go up slowly.	The motor rotates in the wrong direction. Oil level is too low. Height limit switch is stuck or damaged.	Exchange wiring of motor to change direction. Add oil. Repair or replace the height limit switch.
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.
The lift is too slow in lowering.	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.
The platforms are not synchronized.	There is air in upper chamber of Master Cylinder or Slave Cylinder. The oil supply can not be cut off because of the leakage of stop valve. Leakage in hydraulic system	Air bleeding performance is needed. The air in the master and slave cylinder can be bled after the platform goes up and down several times. Replace stop valve. Replace the seal or the cylinder.
Safety ratchets cannot be separated from serration.	The air pressure regulating valve is closed or too low. The Solenoid air valve is damaged. The LOCK button is pressed for too long time.	Adjust air pressure to 5kg/cm^2 Replace the solenoid air valve. Release the LOCK button immediately after the safety ratchets are fully engaged.

5 Maintenance

5.1 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.

5.2 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 roller slide is well-lubricated with high-quality #2 lithium lubricant.
- Apply #2 lithium lubricant on a monthly basis.

5.3 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.

5.4 Maintenance for 3 Years or 5000 Times Operations

- Replace the bushings at all joints.
- Replace all seals
- Replace the rollers.

6 Storage and Scrapping

6.1 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.

6.2 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.

Hydraulic Oil Data

#2 Lithium Lubricant

Item	Specifications
Conical degree（1/10mm）	278
Dropping point ℃	185
Erosion（T2 Copper Plate，100 ℃，24h）	No Change
Copper Screening（100℃，22h）%	4
Evaporation（100℃，22h）%	2
Oxidizing Stability （99℃，100 h）	0.2
Non-corrosibility（52℃，48）	Grade 1
Foreign substance（Microscopic method）/（number/cm³） Above 10μm Above 25μm Above 75μm Above 125μm	 Fewer than 5000 Fewer than 3000 Fewer than 500 0
Relative Viscosity（-15℃，$10s^{-1}$ ）,/(Pa·s)	＜800
Humidity Loss（38℃，1h）(%)	≥8

N32 Mechanic Oil (for winter)

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

N46 Mechanical Oil (for summer)

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