

# TWO POST LIFT



## CJ AUTOS MAXI LIFT



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## ***Declaration of Conformity***

## **Packing, Transport and Storage**

ALL PACKING, LIFTING, HANDLING, TRANSPORT AND UNPACKING OPERATIONS MUST BE PERFORMED BY COMPETENT PERSONNEL WITH KNOWLEDGE OF THE VEHICLE LIFT AND THE CONTENTS OF THIS MANUAL

### **Packing**

The 2-post lift is shipped disassembled into following parts:

1. Complete command post, complete with carriage, hydraulic cylinder, upper arm, short arm, lower cover board, and so on.

The gross weight is 450kg. (Net weight is 425kg)

### **Lifting and Handling**

The packed boxes may be lifted and moved with a lift truck (Fig.1). If any other lift is used, then boxes must be harnessed with at least 2 slings.

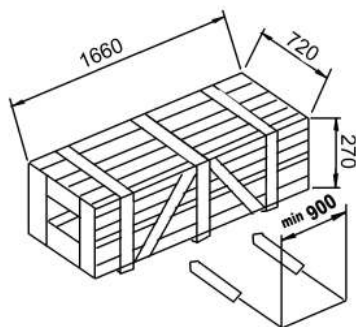


Fig.1

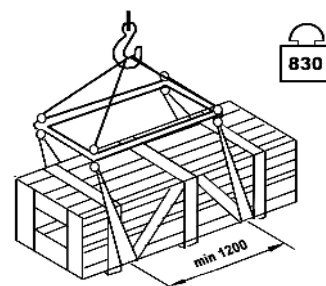


Fig.2

### **Storage**

Pack boxes always be kept in a covered, protected place, at a temperature between -10° And +40°

And must not be exposed to the weather.

### **Stacking**

The type of packing allows the possibility of stacking up to 3 crates.

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Up to 3 crates may be stacked one upon the other on lorries for transport if properly positioned and provided they are restrained to prevent falling.

## Opening

When the crates arrive, check that the machine has not been damaged during transport and that all parts listed are present. The crates must be opened using all possible precautionary measure to avoid damaging the machine or its parts. Make sure that parts do not fall from the crate during opening.



## INTRODUCTION WARNING

This manual has been prepared for workshop personnel familiar with the use of the lift (operator) and technicians responsible for routine maintenance (maintenance fitter): read the manual before carrying out any operation with the lift and /or the packing. This manual contains important information regarding:

**THE PERSONAL SAFETY OF** operators and maintenance workers

THE SAFETY OF LIFTED VEHICLES

## Conserving the manual

The manual is an integral part of the lift, & should be transferred with the unit when sold .The manual, must be kept in the vicinity of the lift in an easily accessible place so that the operator and maintenance staff can locate and consult the manual quickly at any time.

The Lift rack has been designed and built in compliance with the following:

## Laws

**Machinery Directives: 2006/42/EC, applicable standards: EN 60204-1: 2006+ A1:2009**

**EN1493:2010.**

The lifting, transport, unpacking, assembling, installation, starting up, initial adjustment and testing, and any work relating to EXTRAORDINARY maintenance, repair, overhauls, transport and dismantling of the lift must be performed by specialist personnel from the LICENSED DEALER or an SEVICE CENTRE authorized by the manufacturer (see authorized dealer on front page).

The manufacturer declines all responsibility for injury to persons or damage to vehicles or objects when any of the above-mentioned operations have been performed by unauthorized personnel or when the rack has been subject to abuse.

This manual indicates only the operative and safety aspects that may prove useful to authorized

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personnel for better understanding of the structure and operation of the lift and for best use of the lift.

In order to understand the terminology used in this manual, the operator must have specific experience in workshop, service, maintenance and repair activities, the ability to interpret correctly the drawings and descriptions contained in the manual and be acquainted with the general and specific safety rules relevant to the country in which the machine has been installed.

The same applies to the maintenance fitter, who must also possess specific and specialized knowledge (mechanical, engineering) needed to perform the operations described in the manual in complete safety.

The words “operator” and “maintenance fitter” used in this manual are construed as follows:

**OPERATOR:** person authorized to use the lift.

**MAINTENANCE FITTER:** person authorized for routine maintenance of the lift.

The end user **MUST** only use the machine in the correct way as defined in instructions.

Loose clothes shall not be used & protective headgear should be worn.

Lubricate the machine periodically according to the manual.

***We continually strive to improve our quality and update our technical standards. This may result in slight changes in specification to those shown in this manual .***

## 1 Abstract

The 2 post lifts are products of our research and development division: a two-cylinder steel-balanced hydraulic lift. Its special features include a lifting capacity of 3000kg; a hydraulic pulling system with a hydraulic control activator providing power; power supplied by oil cylinders installed in its columns; a chain system connected through the columns on a slide unit allowing free action of the slide unit and giving the lift the capacity to reach relatively high;

2-passage exchange valves in the hydraulic system; and a hydraulic cylinder that freely positions and locks itself. The entire machine features good width capacity with a flexible space between columns. The lifting arms go as low as 110mm for convenience in the lift and repair of low-slung vehicles.

Our company specializes in manufacturing and works to quality standard: ISO9001:2000

## 2 Uses

The two kinds of products are used to lift all types of small vehicles, and to aid in the maintenance and repair of these vehicles. The maximum total weight of 2 Post lift is 3000kgs. ***The lift must be only used for lifting cars, or motorcycles, other usages are prohibited.***

### 2.1 Important Technical Reference

Model type	QJY3.0-E
Type	bottom bar
Capacity	3000kg
Lifting time	< 55s
Descent time	> 20s
Max. lifting height	1500mm
Min. lifting height	110mm
range of rubber pad	110~160mm
adjustable scope for arm	R750~R1130
size of outside column	<3400mm
size of inside column	>2400mm
Power supply	3/N/PE~400V, 50/Hz, 6.6A 1/N/PE~230V, 50Hz, 16A
Power	2.2 KW
Noise	≤70dB
Safety catch type	handle release

### 2.2 Working conditions:

The machine should only be used in the below conditions.

- Temperature limit of air should be between 0°C—40°C.
- Air humidity: ≤80% at 30°C
- Transportation and storage temperature: -25°C~+55°C
- Height above sea level: ≤2000m.

3000kg

Maximum lift load, DO NOT EXCEED



This symbol expresses caution should be taken for possible electrical hazards



This symbol expresses the earth connecting point.

## 2.3 Basic Structure of the Product

Three parts of the product:

- ★The machine is comprised of main columns, supporting columns, cradle, lubricant stand, safety system and fixed skeleton, etc. (Diagram 1, page 16)
- ★The electric control system is comprised of various electrical components that control the various movements of the lift. (Diagram 3) page 18
- ★The hydraulic control system is comprised of a hydraulic pump activator, hydraulic cylinder, pipes, and other various components to aid in the various functions of the lift. (Diagram 4) page 17

## 3 Installation of the Safety Features

### 3.1 Safety Stop Mechanism

Inside each of the main and support columns is a safety stop feature. It is comprised of self locking steel, plate, lubricated lift collar safety plate, and support blocks on each column. (See Diagram 4)

### 3.2 Safety Stop Movement Fundamentals

The locking plate relies on the weight and angle of each of the end faces, the entire top face adhering to mounting plate. When the hydraulic cylinders rise, the angled mounting plate pushes open the locking plate to ascertain a certain height. When the collar becomes stuck in operation, or when the speed of descent produces unsafe circumstances, the locking plate block fits inside the aperture in the mounting plate, stopping the lift from further descent and activating the safety mechanism (see Diagram 4).

### 3.3 Adjustment of the Safety Mechanism

3.3.1 With an empty load, ensure that the block can insert into the base of the groove of the mounting plate. When the lubricated stand is rising, you will be able to clearly hear a clacking noise inside the two columns.

3.3.2. Ensure that the main release cables on both posts are pulled to separate the locking device before the lift is to be lowered

if the cables do not move raise the lift a little ,then pull the cables again on both posts and lower

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Make sure both sides are released otherwise this could prove very unsafe.

## 4. Installation and Adjustment of the Equipment

4.1 Installation should be carried out by competent person

4.2 The installation site should have 240V and single-phase power supply and reliable ground wires.

4.3 The incoming line should have 13A safety fuse at the power supply switch. The minimum wire section area is 2.5 square millimeters.

4.4 The lift's foundation has the following requirements: the concrete should not be lower than 250 grades; the area of the foundation should be 3645mm long × 800mm wide × >250mm thick.

### 4.5 Installation Steps

4.5.1 When the concrete has solidified at the proper thickness, install the two columns into the floor of the installation site. Check and measure the dimensions and move into the user required place. After ensuring that the columns and floor are perpendicular, use steel plates and concrete to fill in any gaps between the base plate and floor.

Drill holes to suit the position of the lift base plate Use M16\*160 anchor bolts to secure the base plate.

4.5.2 Lift and lock the two slide units into the first locking position. This will make it easy to drill and fix

4.5.3 Connect the hydraulic system pipeline. (Diagram 2)

4.5.4 Add the oil: 10 Liters of Hydraulic Oil #46 in summer, # 32 in winter.

4.5.5 Affix the flat-ranged chain in the most logical position. Bring the slide blocks as low as they can go giving the cradle room to sway unobstructed but not sliding across the ground. When the product comes out of the factory, this first step should have already been set. (Diagram 5)

4.5.6 Lubricate the sliding blocks and grooves. (Use Formula 2 Grease) some grease already applied at factory

4.6 Test for problems.

4.6.1 Preparing the vehicle.

Before trying a vehicle on the lift, give the equipment a thorough check. Check that all connections are tight and reliable. Make sure the levers operate smoothly and that the ends of the hydraulic pipes are fastened securely. Check that the power source is adequate, and that the ground wire is reliable. The motor should turn in a direction consistent with that of the gear pump.

4.6.2 Operation with an Empty Load

. The hydraulic pipeline should be free of leakage. The locking installation should be normally regulated, without any obstructions. Raise and lower twice. When lowering, release the locking mechanism if engaged, by pulling on the release cable until it locks out and then apply pressure to the release control on the pump.



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## 4.6.3 Loading operation:

If all is in correct working order with an empty load, move a car onto the lift. Repeatedly raise and lift the

Vehicle, first bringing it to about 500mm about 3 times then 1000mm 3 times, to balance the system and post heights, checking each working part of the lift and adjusting lifting points as needed. If everything is up to standard, raise the lift to a fixed height and lower, and then repeat.

***NOTE: After the lift has been installed & checked, it can then be used for normal operation.***

## 5. Safety Instruction

### 5.1 Safety Rules

Do not attempt to operate until you have read thoroughly and understand completely all instructions, rules, etc. contained in this manual. Failure to comply can result in accidents involving fire, electric shock, or serious personal injury. Keep owner's manual and review frequently for continuous safe operation.

#### 1. Know your machine.

For your own safety, read the owner's manual carefully. Learn its application and limitations as well as specific potential hazards pertinent to this machine.

#### 2. Keep work area clean.

Disorderly work area and/or working table can cause accidents.

#### 3. Do not use in dangerous environments.

Do not use power tools in damp or wet locations or expose them to rain. Keep the work area well illuminated. .

#### 4. Keep unauthorized people away.

All visitors should be kept at a safe distance from work area.

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5. Wear appropriate safety apparel.

Avoid loose clothing, gloves, neckties, rings, bracelets, or jewelry, which could be caught in moving parts.

Non-slip footwear is recommended. Wear protective headgear.

7. Do not carry out maintenance whilst the lift is running.

The lift should be regularly maintained especially the lubrication, & adjustments made, as necessary.

8. Always disconnect the power supply before carrying out maintenance, accessory changing or assembling and reassembling the motor.

9. Never leave the machine running unattended.

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## 5.2 Warning Logo

<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>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>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>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>Height extensions will help ensure good contact.</p>	<p><b>CAUTION</b></p>  <p>Lift capacity may be reduced by auxiliary adapters.</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>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>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>		

## 6. Use and Operation

### 6.1 Preparation

Swivel the arms back against the slides of the columns; drive the car into the lift and into a suitable position. Move the adjustable arms and alter the height of the pads to meet the chassis. Make sure the vehicle's weight is evenly dispersed when lifting.

### 6.2 Raising

With the power source connected, push the green button on the power unit to raise the vehicle. When the vehicle has risen 110-150mm off the ground, release the button to stop the lift. Rock the car to check that it is resting firm and steady on the cradle. Then push the green button again and raise the car to the required position.

### 6.3 Stopping

Release the lift 'green' button and allow the lift to stop.

### 6.4 Locking

When the sliding blocks have been locked, there is no need to hold down the button for a long period of time. To avoid the chain wheels from dropping too much, lower onto locking mechanism.

### 6.5 Lowering

Pull both cables on the post to release the locking mechanisms. if the locking mechanisms will not release raise the lift slightly then pull the release cables to release.

Lower with the release lever on the pump by pressing it inwards, the lift is now lowering.

### 6.6 Lowering from limited height to the lowest:

User must check around lift and make sure everything is normal and in a secure condition, and no objectives in the way

## **Pay Attention during Operation:**

Before lifting the vehicle, be sure to adjust the height of the arms and pads to the chassis, making sure the contact points are propping the appropriate area.

You must support the car on its jacking points by positioning the arms and pads to the chassis, so that the support area is perfectly centered. When the vehicle leaves the ground (100-150mm), rock the car a bit checking that lift is safe to operate.

No one should be allowed underneath the car when the lift is in operation.

When the lift has reached the required height, it must then be set in the safety position., before any work can be carried out on the vehicle.

Before the car is lowered, make sure everything is cleaned up below the car, the arms, and on the ground below the cradle. The entire work area should be obstacle free.

Each week check each of the movable parts, lubricate the sliding blocks and ensure that the operating parts are lubricated and positioned properly.

Bring the lift to its lowest position, checking the oil in the oil tank. Make sure the tank is filled 80% of the way.

Any problems please contact the after-sales service department of our company or our local agency.

## **7 Maintenance and Care**

### **7.1 Maintaining Cleanliness**

The lift should be frequently wiped down to maintain cleanliness. Before wiping, first cut the power supply.

The work area about the lift should be kept clean. If large amounts of dirt should accumulate, this will accelerate the rate of wear-and-tear on the machine and reduce its natural life span.

### **7.2 Regular Check-ups**

7.2.1 Check the safety features of the lift every day before work. The locking plate should be in position, the mounting plate of the lift collar should be free of damage, etc. If you discover something abnormal, make prompt adjustments, repairs, or changes.

7.2.2 Every day, check that the space between the collar chain and the hydraulic cylinders is correct.

### **7.3 Maintenance of the Hydraulic System**

#### **7.3.1 Cleaning, Oil Change**

Three months after the first full usage of the lift, clean out the oil tank and change the oil. Repeat every six months afterwards, cleaning the hydraulic system and changing the oil.

#### **7.3.2 Replacing the Seals**

After the lift has been used for a period of time, if you discover any oil leakage, make a thorough inspection. If the leakage is due to wear of the seals, then replace parts immediately following regulations.

## 8. Common Problems and Solution Methods

Trouble	Cause	Solution
Motor does not work	The power source or power equipment is malfunctioning	Check the power source and other electrical components, check fuses
In working mode, the collar automatically lowers	Pistons have lost effectiveness	Fix the pistons
	Pipes are leaking oil	Change the seals and tighten the nuts on the connection
	Seals on the hydraulic cylinders have lost effectiveness	Change the seals
The hydraulic system makes abnormal sounds	The oil filter is blocked	Clean the oil filter
	Air has entered the hydraulic system	Lift the collar to max height, keep it there for 2-3 seconds
	The space between the sliding blocks and columns are not lubricated	Add lubrication
The cylinder creeps when raising and lowering	The space between the sliding blocks and the columns is too narrow	Select sliding blocks that will leave between a 1.5 and 2.5mm gap between the blocks and column
The main and supplementary lift support mechanisms don't move together	Lift requires balancing	Raise and lower the lift several times so both post raise and lower at the same time

## 9 Important Information for the User

### 9.1 Important Information Regarding Purchase of the Machine

Before using this lift, make sure you clearly understand the product's use, feature, safety conditions, operation adjustments, etc. If there are any quality problems during shipping, installation or maintenance, please promptly contact the manufacturing company or a specializing agency.

### 9.2 Quality Assurance after Opening the Product

If after opening the packaging, you notice that the product and accessories and the installation list do not match, please promptly contact the purchasing department.

## 9.3 Foundation

The dimensions for the foundation of this product must be in accordance with those outlined by the manufacturing factory. The cement grade should be no less than #500. Concrete strength should be no less than 250 grades. ***If you cannot meet this company's requirements for foundation strength, any problems resulting are the user's responsibility.***

## 9.4 Returning Documents

Once the customer has purchased the equipment, they should promptly fill out the warranty card and return to the manufacturing company. The company will enter information into the computer for prompt service should the need arise. This has already been done before dispatch

## 10 Important Items

13.1 Before using this product, please carefully read the operating instructions in this manual.

## 11 Noise Declaration

We hereby certify that the noises of lifts we produce should not exceed 70db when loading.

## 12 DISPOSALS OF USED OIL

Used oil, which is removed from the power unit and the plant during an oil change, must be treated as a polluting product, in accordance with the legal regulations applicable to the country in which the lift is installed.

## 13 MACHINE DEMOLITION

The machine must be demolished by authorized technicians, just like for assembling. The metallic parts can be scrapped as iron. In any case, all the materials deriving from the demolition must be disposed of in accordance with the current regulations of the country in which the rack is installed. Finally, it should be recalled that for tax purposes, demolition must be documented; submitting claims and documents according to the current laws in the country in which the rack is installed at the time the machine is demolished.

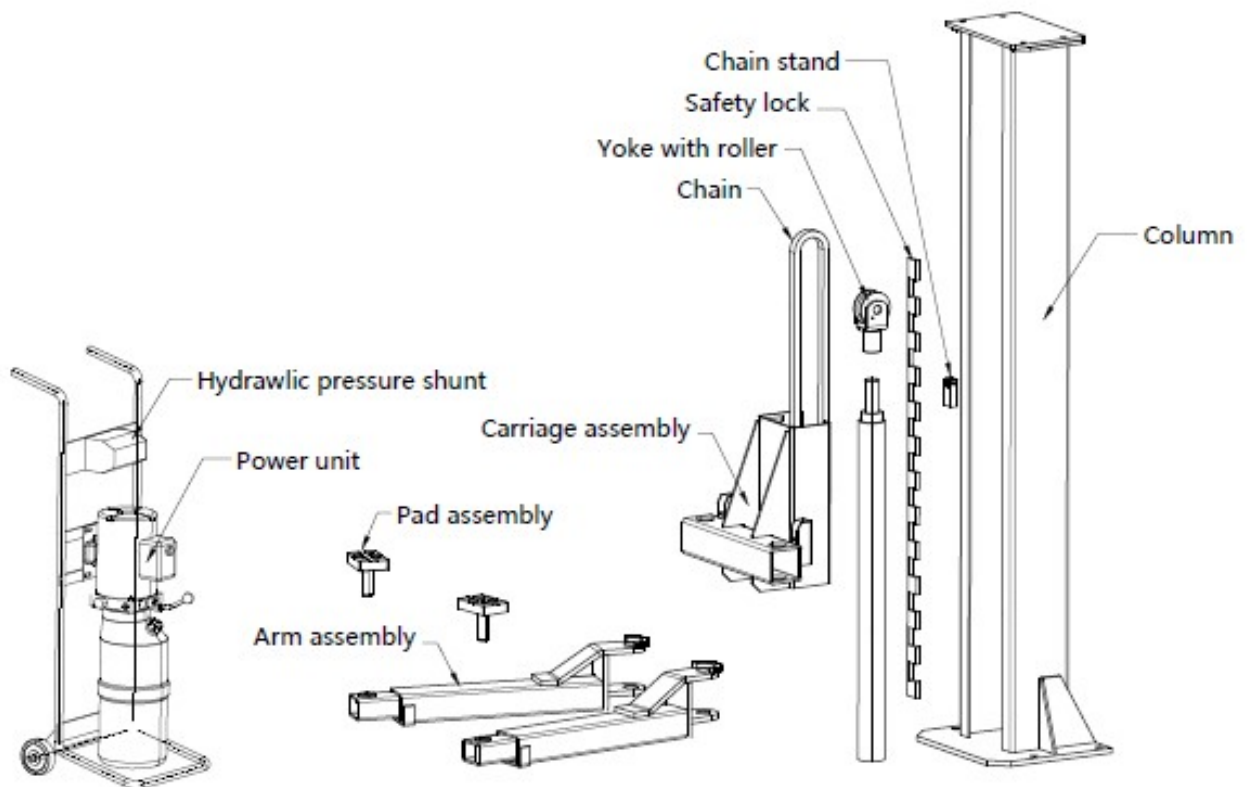
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## 14. Components chart:

*The chart is only used for maintenance and after-sales service, other usage is not allowed.*

DIA 1



**SEE TO**

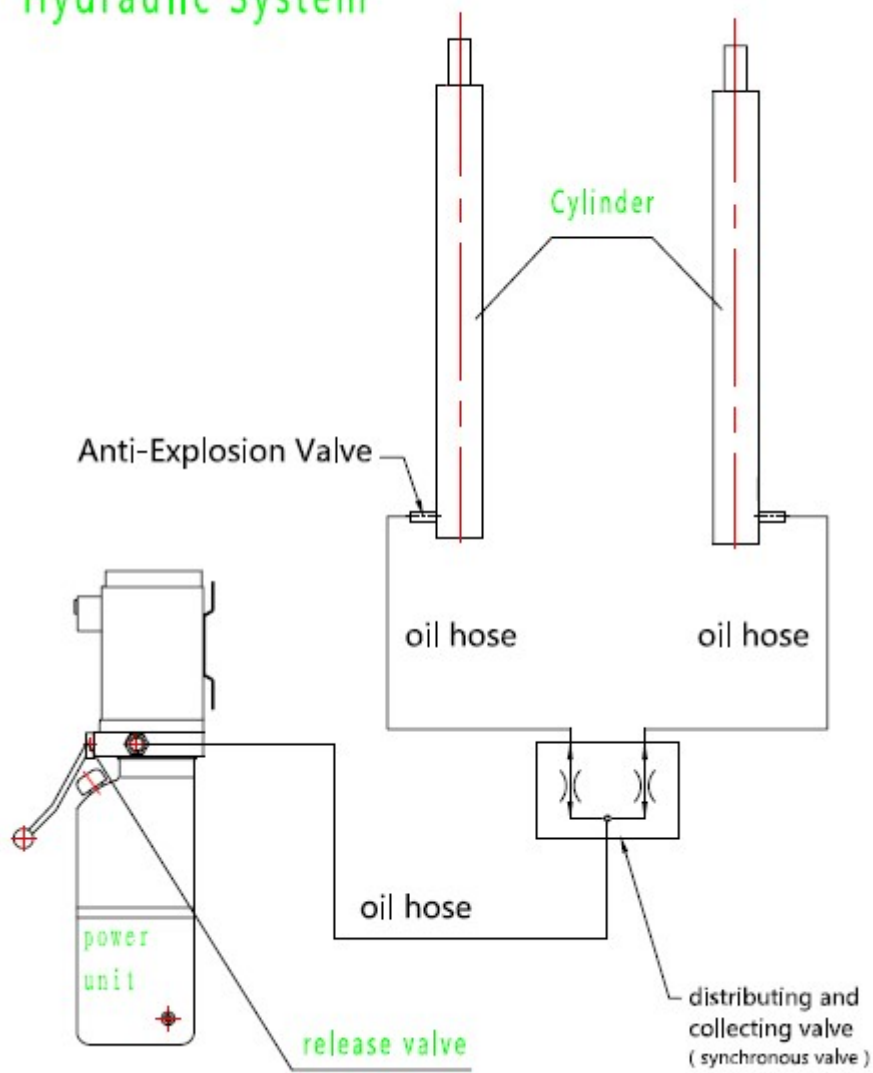


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15. DIA 4

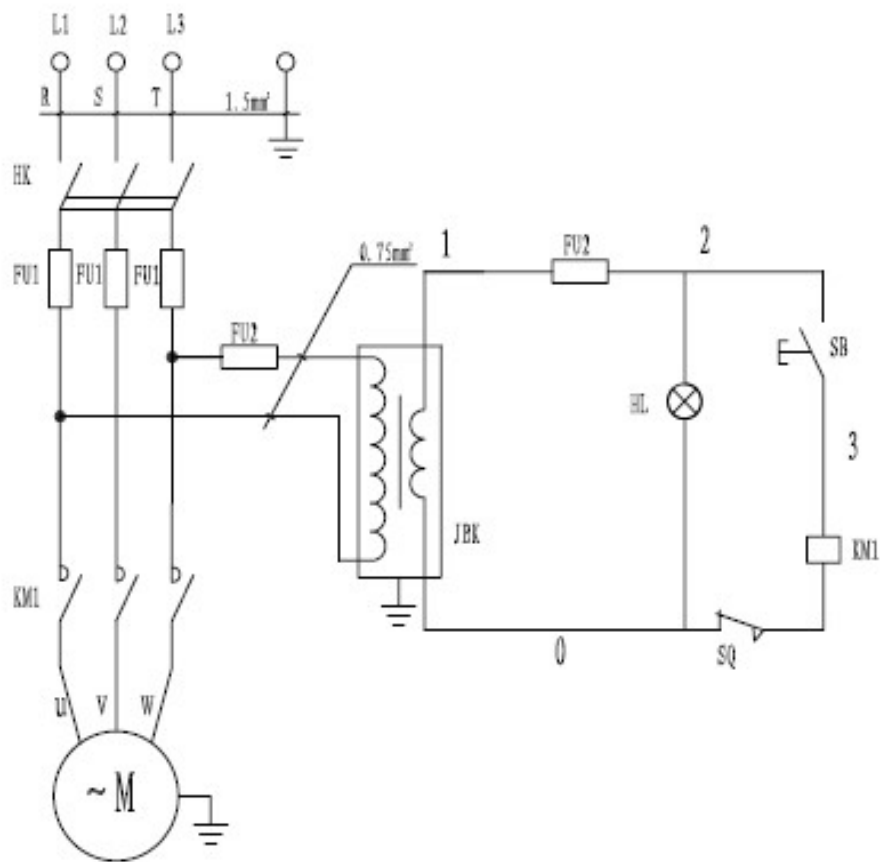
## QJY3.0-E Hydraulic System

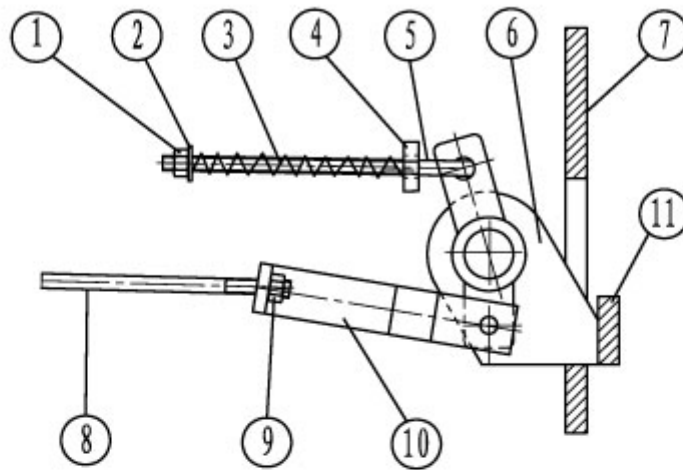


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## 16.1 DIA 3 Circuit diagram





lock system

- ① nut
- ② washer
- ③ compression spring
- ④ retaining plate
- ⑤ tie rod spring
- ⑥ safety lock
- ⑦ insurance orifice plate
- ⑧ pull rod
- ⑨ nut
- ⑩ bumper
- ⑪ fixed block

## **Declaration of Conformity**



**The equipment which accompanies this declaration is in conformity with EU Directive(s):**

*2006/42/EC Machinery Directive*

*2004/108/EC Electromagnetic Compatibility Directive*

### **Manufacturer**

*Name: Shanghai Fanbao Auto Maintenance Co.,Ltd*

*Address: No. 1899 Xupan Road, Jiading District, Shanghai, China*

**A copy of the Technical file for this equipment is available from:**

*CCQS UK Ltd., Level 7, Westgate House, Westgate Rd., London W5 1YY UK*

### **Description of Equipment**

*QJY3.0-E, capacity 3000kg, two post movable lift*

### **For MD Annex IV machinery**

*A sample of this machinery has been presented to Notified Body number 1105.*

*CCQS UK Ltd., Level 7, Westgate House, Westgate Rd., London W5 1YY UK*

*Who have issued an EC type-examination certificate*

*Number CE-C-1115-11-79-04-5A, CE-C-1115-11-79-05-5A dated 2011.12*

*The equipment in respect of which this declaration is made conforms to the example to which that certificate relates, and that certificate remains valid.*

### **The following harmonised standards have been used:**

*EN60204-1:2006 +A1:2009 MD Electrical Equipment of Industrial machines*

*EN1493:2010 Vehicle Lifts*

*EN61000-6-2:2005 Electromagnetic compatibility (EMC) — Part 6-2: Generic standards — Immunity for industrial environments*

*EN61000-6-4:2007 Electromagnetic compatibility (EMC) — Part 6-4: Generic standards — Emission standard for industrial environments*

### **Authorised signatory of manufacturer**

Signature Name of signatory:

Position in company: General manager

Place signed: Shanghai

Date signed: 2011-12