# *Installation, operation and maintenance manual*

# TWO POST LIFT

**HCT2.1AL30**

**HCT2.1AL40**

**HCT2.5AL30**

**HCT2.5AL40**

**READ THIS ENTIRE MANUAL BEFORE INSTALLATION TO ENSURE A CORRECT OPERATION AND LONG SERVICE LIFE**

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# TABLE OF CONTENT

# USER'S RECORD

**RECORD BELOW INFORMATION WHICH LOCATED ON THE NAME PLATE**

**ITEM NO _____**

**SERIES NO_____**

**DATE OF MFG _____**

**The here blow listed persons have been qualified to use the machine after installation. The course for use and maintenance has been carried out by a qualified technician.**

**1.**

**2.**

**3.**

**4.**

**…….**

# RECORD OF INSTALLATION

**MODEL NO _____**

**SERIES NO _____**

**CUSTOMER _____**

**DATE OF INSTALLATION _____**

**WE HEREBY DECLARED THAT THE ABOVE MENTIONED MACHINE HAS BEEN INSTALLED CORRECTLY. ALL FUNCTIONS HAVE BEEN CHECKED AS WELL AS CORRECT OPERATING OF ALL SAFETY DEVICES.**

**WE CONSIDER THEREFORE THE MACHINE WORK IN GOOD CONDITIONS IN ALL RESPECTS.**

**Date of Installation** **The authorized technician**

**----------** **----------**

**The customer**

**----------**

# SAFETY INSTRUCTIONS

( READ THE INSTRUCTIONS ENTIRELY BEFORE OPERATING)

1. Do not install the lift on any asphalt surface

2. Read and understand all safety warning procedures before operating the lift.

3. The lift, in its standard version, is not designed for outdoor use.

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

5. The lift may only be used by qualified staff, properly trained for the specific use of the machine.

6. Do not wear unfit clothes such as large clothes with flounces, tires, etc, which could get caught by moving parts of the machine.

7. The lift surrounding area must be free from people or objects which could be a danger for lifting operations.

8. The lift is only designed to lift the entire body of vehicle, having maximum weight not more than the lift capacity.

9. Always insure the safety devices are engaged before any attempt to work on or near vehicle.

10. The vehicle must be centered and positioned in a stable correct way with respect to the posts and following the instructions given by manufacturer.

11. Make sure that the machine and its devices are working correctly, according to the specific instructions for maintenance.

12. Lower the lift to its lowest position when service finish.

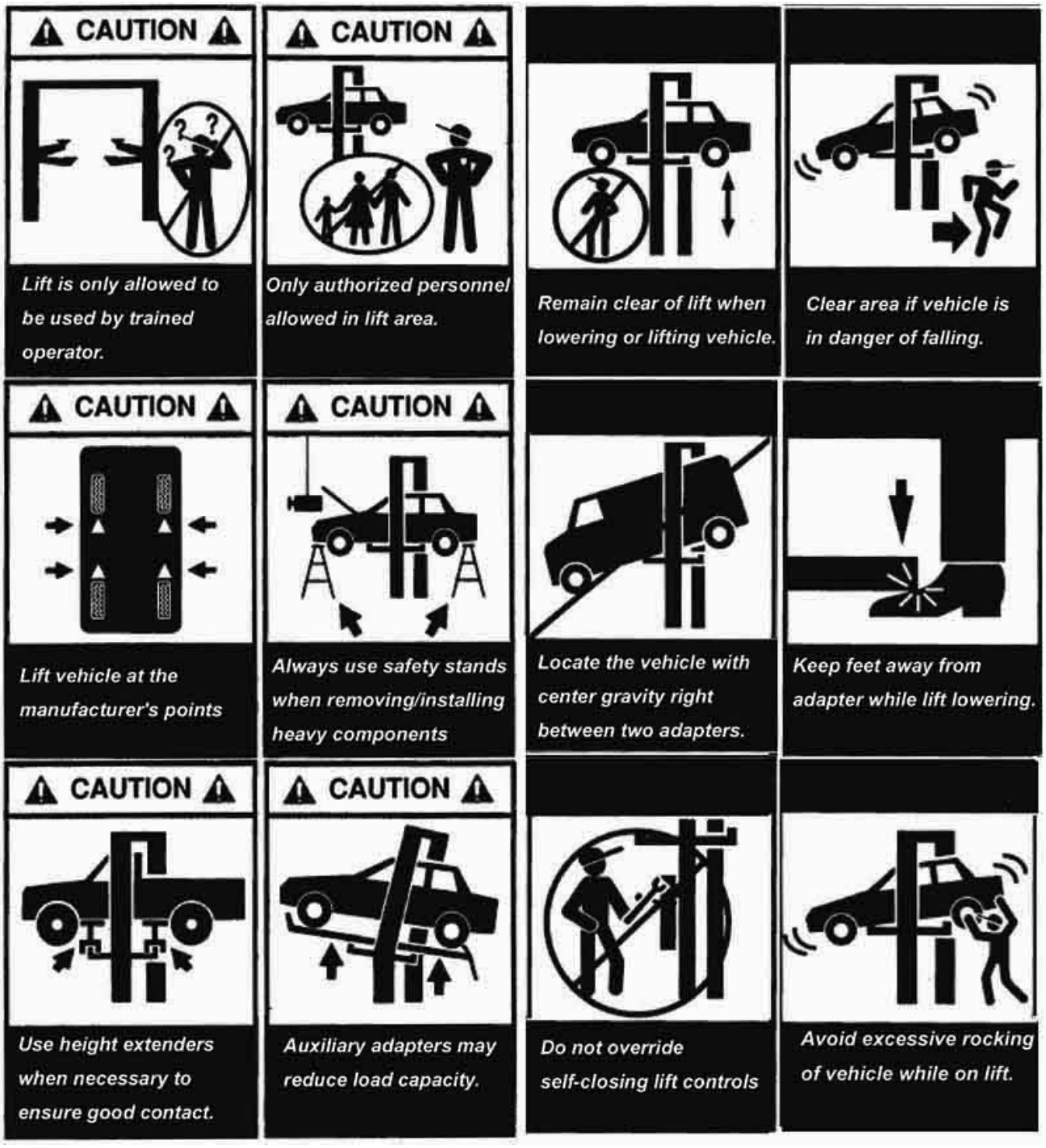
13. Do not modify the machine without manufacturer's advice.

14. If the machine is not to be used any more, owners are suggested to make it unusable by removing the power supply connections, emptying the oil tank and disposing the liquids by right way.

15. If the lift is to be left unused for a long period, proceed as follows:
    a. Disconnect the energy source;
    b. Empty the control unit tank.
    c. Grease the moving parts which might be damaged by dust or drying out.

# WARNING SIGNS

All safety warning signs presented on the machine with the purpose to draw the operator's attention from dangerous or unsafe situations. The labels must be kept clean and they have to be replaced if detached or damaged. Read the meaning of the labels carefully and memorize it.

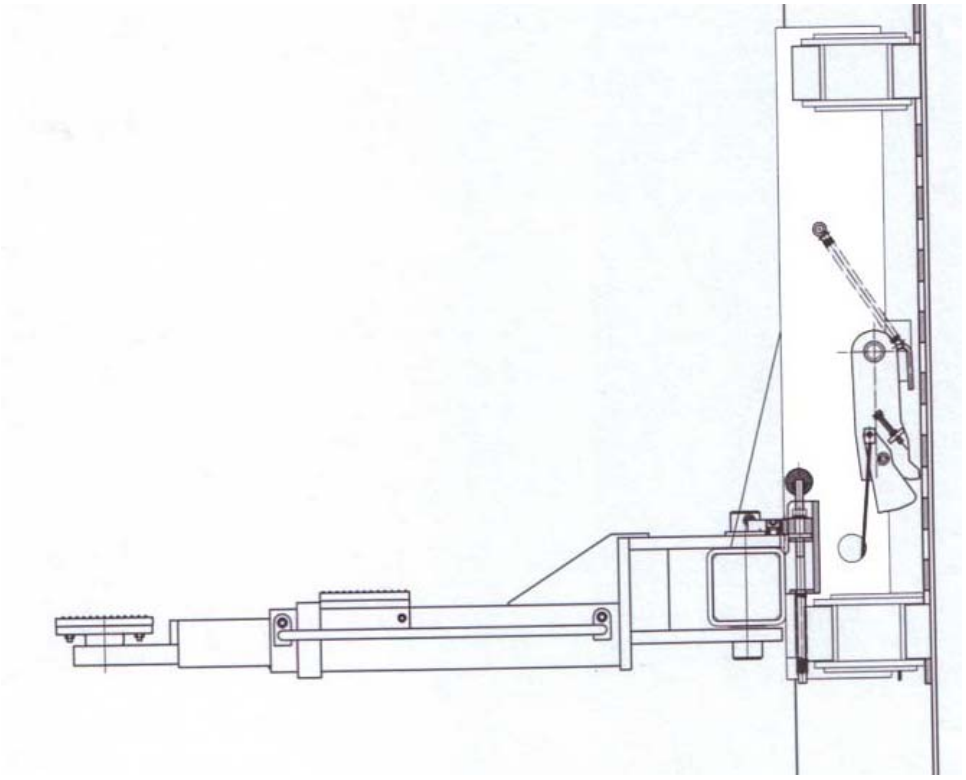


# INTRODUCTION

This guide has been made to supply the owner as well the user with the basic instructions for a correct use of the machine. Read this guide carefully before using the machine and follow the instructions given by this guide to grant the machine a correct function, efficiency and a long service life.

The electro/hydraulic lift is composed by two symmetric vertical columns which must be safely anchored at ground. Trolley is equipped inside each column.
The lift is operated by an electric motor controlling a hydraulic pump, which delivers the hydraulic fluid to cylinders inside the columns for lifting two trolleys.
The 2-post lift is suitable for lifting motor vehicles having maximum weight as described below:
Any other use is to be considered improper and irrational and thus highly forbidden. The constructor cannot be held responsibilities for any damage or injuries caused by an improper use or by the non-observance of the following instructions:

## SAFETY STRUCTURE



## TECHNICAL DATA

| | | | |
|---|---|---|---|
| Lifting height | 1900mm without adapters | Minimum height | 100mm |
| Lifting capacity | 3200kg (see instruction label on the top of post) | | |
| | 4000KG (see instruction label on the top of post) | | |
| Lifting time | 50S | | |
| Power supply | 220V, single phase | 380V, three phase | (Please see nameplate before connecting) |

# INSTALLATION

## TOOLS AND EQUIPMENTS NEEDED

Appropriate lifting equipment
AW 32. 46 or other good quality garage hydraulic oil.
Chalk line and tape measure.
Rotary Hammer Drill with 3/4'' drill bit.
Sockets and Open wrench set.
Vise Grips.

## BEFORE INSTALLATION

1. Identify the components and check for shortages. Contact us immediately if shortage discovered.
2. Installation, adjusting and testing operations are to be performed by qualified staff only.
3. The lift must be installed on a level concrete floor, having minimum thickness of 15cm and an extension of at least 1.5m from anchoring points.
4. The lift installation concrete surface must be relatively smoothes, leveled in all directions
5. After unloading the lift, place it near the intended installation location.
   Remove the shipping brands and packing materials from the unit.
   Remove the packing brackets and bolts holding the two columns together.

### SPACE REQUIRED

Please refer to the drawing for detailed installation size.

## INSTALLATION STEPS

**PLEASE READ THE FOLLOWING INSTRUCTIONS BEFORE ASSEMBLING THE LIFT.**

### STEP ONE: DETERMINE LOCATION AND MARKS WITH CHALK ON THE FLOOR

1. Determine which side will be the approach side and which side the power unit to be mounted.
2. Once the location is selected, use a chalk line to layout a grid for the post locations and make an outline of the posts on the floor at each location.
3. Before proceeding, double check measurements and make certain that the bases of each column are square and aligned with the chalk line.

### STEP TWO: MOUNTING TWO COLUMNS, POWER UNIT COLUMN FIRST THEN THE OTHER.

1. Drill each anchor hole in the concrete using a rotary hammer drill. To assure full holding power, do not ream the hole or allow drill to wobble.
2. After drilling, remove dust thoroughly from each hole and make certain that the column remains aligned with the chalk line during this process.
3. If shimming is required, insert the shims as necessary under the base plate so that when the anchor bolts are tightened, the columns will be plumb.
4. With the shims and anchor bolts in place, tighten by securing the nut to the base then turning
   2 -3 full turns clockwise. DO NOT use an impact wrench for this procedure.
5. Position the other column at the designated chalk locations and secure to the floor following the same

procedures as outlined in step 1, 2, 3, 4.

**STEP THREE: MOUNTING THE OVERHEAD BEAM (FOR CLEARFLOOR LIFT)**

1. Using a lifting device to raise the overhead beam into position on top of the columns. Bolt the beam to columns with bolt and nut and washer supplied with the product.

**STEP FOUR: MOUNTING POWER UNIT and CONTROL BOX.**

Attach the power unit to the power unit column with supplied tools and parts.
Fill the reservoir with hydraulic oil.

**STEP FIVE: INSTALLING HYDRAULIC HOSE**

Install the hydraulic lines as shown in page 19, paying careful attention to keep the hoses clean and free of debris.

**STEP SIX: ROUTING THE EQUALIZER CABLES**

1. Raise and lock each carriage approximately 800mm high above the ground.
2. Make sure that the safety locks on each column are fully engaged before attempting to route equalizer cables.
3. Carriages must be equal height from the floor before proceeding.
4. With the carriages in equal position from the floor, route the equalizer cables as shown
5. After the equalizer cables have been routed, adjust each cable so that they are equal tension.

**STEP SEVEN: MOUNTING THE COVER**

**STEP EIGHT: INSTALLING THE LIFTING ARMS**

Install the swing arms on the carriages using the included pins. Check for proper engagement of the arm lock.

**STEP NINE: FILL THE RESERVOIR**

**STEP TEN: MAKE THE ELECTRICAL HOOKUP TO POWER UNIT.**

**WARNING: THE WIRING MUST COMPLY WITH LOCAL CODE. HAVE A CERTIFIED ELECTRICIAN MAKE THE ELECTRICAL HOOK UP TO THE POWER UNIT.**

# OPERATION

**WARNING: DO NOT PLACE ANY VEHICLE ON THE LIFT BEFORE TRIAL OPERATION. CYCLE THE LIFT UP AND DOWN SEVERAL TIMES TO INSURE LATCHES CLICK TOGETHER AND AIR IS REMOVED FROM THE CYLINDERS.**

## BEFORE OPERATION

a. Check all the pipelines and joints before use. The machine only can be used after there is not any leakage.

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

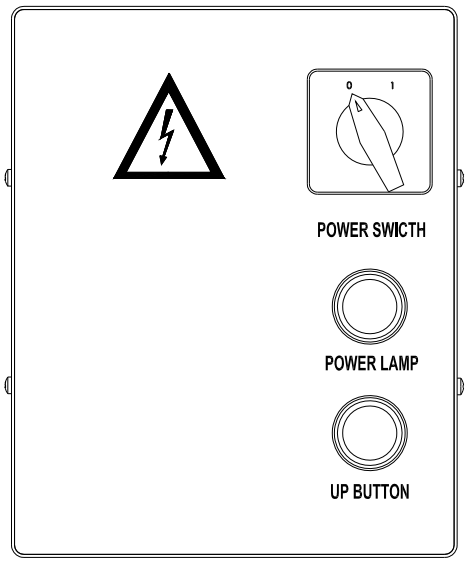
c. The machine shall not lift or lower an automobile if the center of gravity of automobile is not within the supporting range of the supporting device. Otherwise, the manufacturer will not bear any responsibility for the consequence resulted from the operation above mentioned.

d. The staff or operators shall be in a safe position when the machine lift or lower.

e. When the lift with vehicle on reaches a desired height, first of all, the main switch must be turned off before the automobile is repaired so as to prevent non-operator or unauthorized person from pressing the start switch.

f. Always lock the lift before going under the vehicle. Never allow anyone to go under the lift when raising or lowering.

## INSTRUCTIONS FOR USE




### RAISING THE LIFT

1. Make sure that you have read the operation manual before operation.
2. Always lift the vehicle at the manufacturer recommended points.
3. Position the vehicle between columns.
4. Adjust the swing lift arms so that the vehicle is positioned with the center of gravity of midway between pads
5. Raise the lift by pressing the push button on control box until the pads touch firmly the right points and recheck if the vehicle is secure.
6. Check the security of vehicle, then perform maintenance or repair work.

### LOWERING THE LIFT

1. Pulling the wire rope of each column to release the safety lock before lowering.
2. Lowering the lift by press the oil drain handle.
3. Before driving away the vehicle, position the arms and clear all the obstacles.

# MAINTENANCE

Ever-Eternal will give the user one-year warranty of quality for the machine. If something wrong with the machine within the term of service, we will repair or replace the product according to the user's demand. The manufacturer will not take any responsibility for improper installation and operation, overload running, wrong concrete ground (that can not meet the requirements in the manual), normal mechanical abrasion and insufficient maintenance. The warranty will be carried out on the basis of the type and serial number of the equipment. Therefore, the users shall provide them to the manufacturer without fail.

The several pieces of maintenance operations to be carried out are described below. A low operating cost and a long life of the machine are from routine observation of there operations.

The listed intervention times are given for information and they refer to normal operating conditions. They can change according to the kind of service, environment, frequency of use, etc.

1. **DAILY PRE-OPERATION CHECK**

   The user should perform daily check. Daily check of safety latch system is very important – the discovery of device failure before needed could save you from expensive property damage, lost production time, serious personal injury, even death.

   . Check safety lock audibly and visually while in operation
   . Check hydraulic connections, and hoses for leakage.
   . Check chain connections, cable connections, wiring and switch for damage.
   . Check bolts, nut and screws and tighten.
   . Check swing arm restraints.

2. **WEEKLY MAINTENANCE**

   . Check the cleanness of the mobile parts.
   . Check the safety device as previously described.
   . Check hydraulic fluid level as follow: let the trolleys go up completely and in case they do not reach maximum height, add oil.
   Check and tighten bolts, nuts and screws.

3. **MONTHLY MAINTENANCE**

   . Check the tightening of screws
   . Check the hydraulic system seal and tighten the loose unions, if necessary.
   . Check the greasing and wear condition of pins, rollers, bushes, of trolley structure as well as arms and relevant extensions, if necessary, replace the damaged parts by original spare parts.

4. **YEARLY MAINTENANCE**

   . Empty the tank and check the conditions of the hydraulic fluid. Clear the oil filter.

**If the above maintenance operations are carried out, there will be an advantage for the user, who will find the equipment in perfect condition each time he restarts work.**

# TROUBLE SHOOTING

**1. MOTOR DOES NOT RUN**

A. Breaker or fuse blown. – Replace it,

B. Motor thermal overload tripped. -- Wait for overload to cool.

C. Faulty wiring connections. -- Call electrician for checking.

**D.** Defective up button. – Call electrician for checking.

**2. MOTOR RUNS BUT WILL NOT RAISE**

A. A piece of trash is under check valve. -- Push handle down and push the up button at the same time. Hold for 10-15 seconds, which should flush the system.

B. Check the clearance between the plunger valves of the lowering handle.

C. Remove the check valve cover and clear the ball and seat.

D. Oil level too low. – Oil level should be just under the vent cap port when the lift is down.

**3. OIL BLOWS OUT BREATHER OF POWER UNIT.**

A. Oil reservoir overfilled.

B. Lift lowered too quickly while under a heavy load.

**4. MOTOR HUMS AND WILL NOT RUN**

A. Impeller fan cover is dented.—Take off and straighten.

B. Faulty wiring.—Call electrician for checking.

C. Bad capacitor.—Call electrician for checking.

D. Low voltage – Call electrician for checking

E. Lift overloaded

**5. LIFT JERKS GOING UP AND DOWN**

A. Air in hydraulic system. – Raise lift all the way to the top and return to floor. Repeat several times. Do not let this overheat the power unit.

**6. OIL LEAKS**

A. Power unit: If the power unit leaks hydraulic oil around the tank mounting flange—check the oil level in the tank. The level should be two inches below the flange of the tank. Check with a screwdriver.

B. Rod end of the cylinder. – The rod seal of the cylinder is out. Rebuild or replace the cylinder.

C. Breather end of the cylinder: the piston seal of the cylinder is out. Rebuild or replace the cylinder.

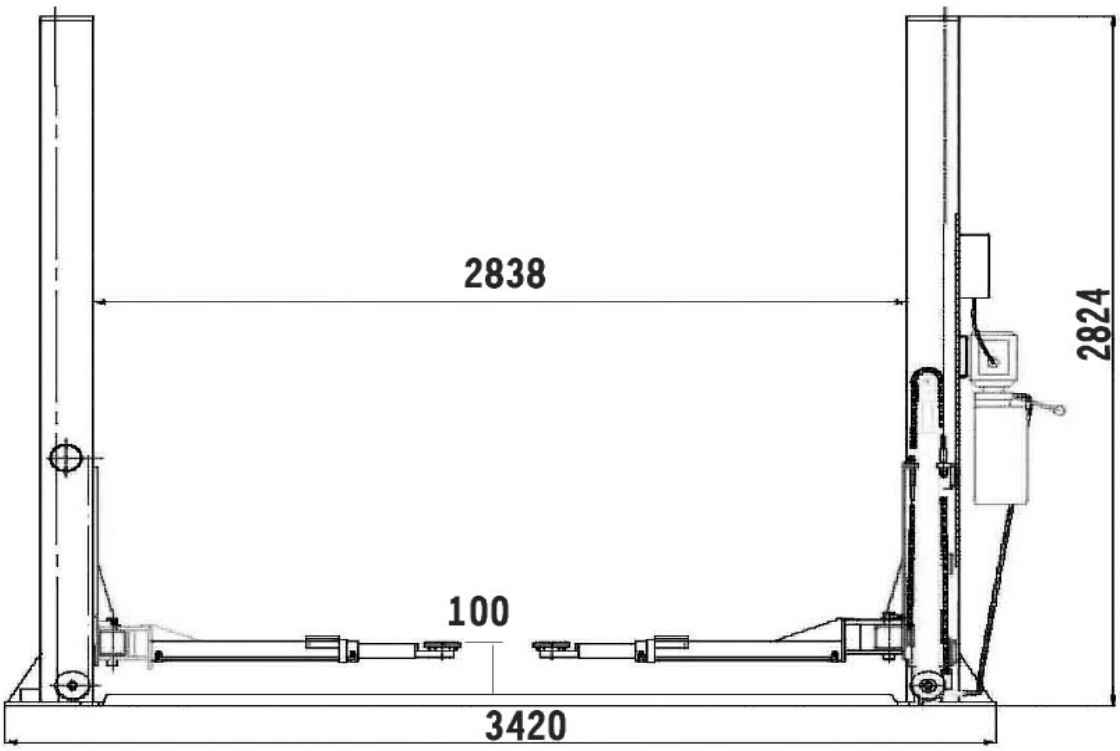
**7. LIFT MAKES EXCESSIVE NOISE.**

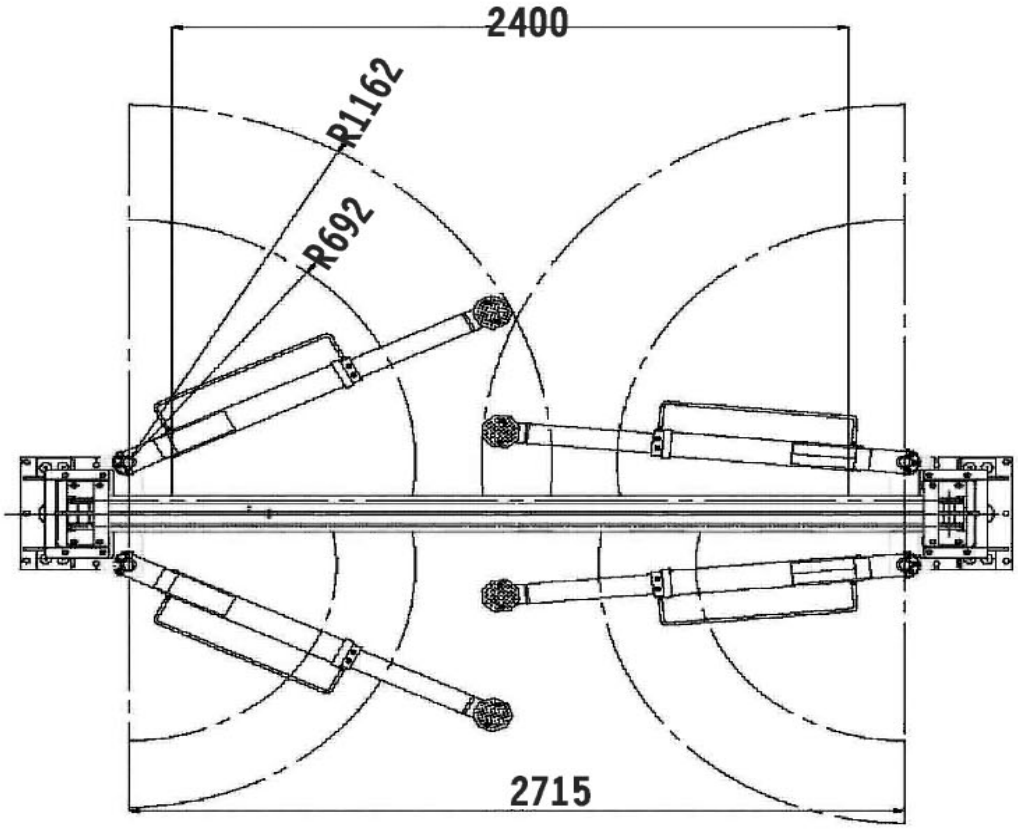
A. Leg of the lift is dry and requires grease.

B. Cylinder pulley assembly or cable pulley assembly is not moving smoothly.

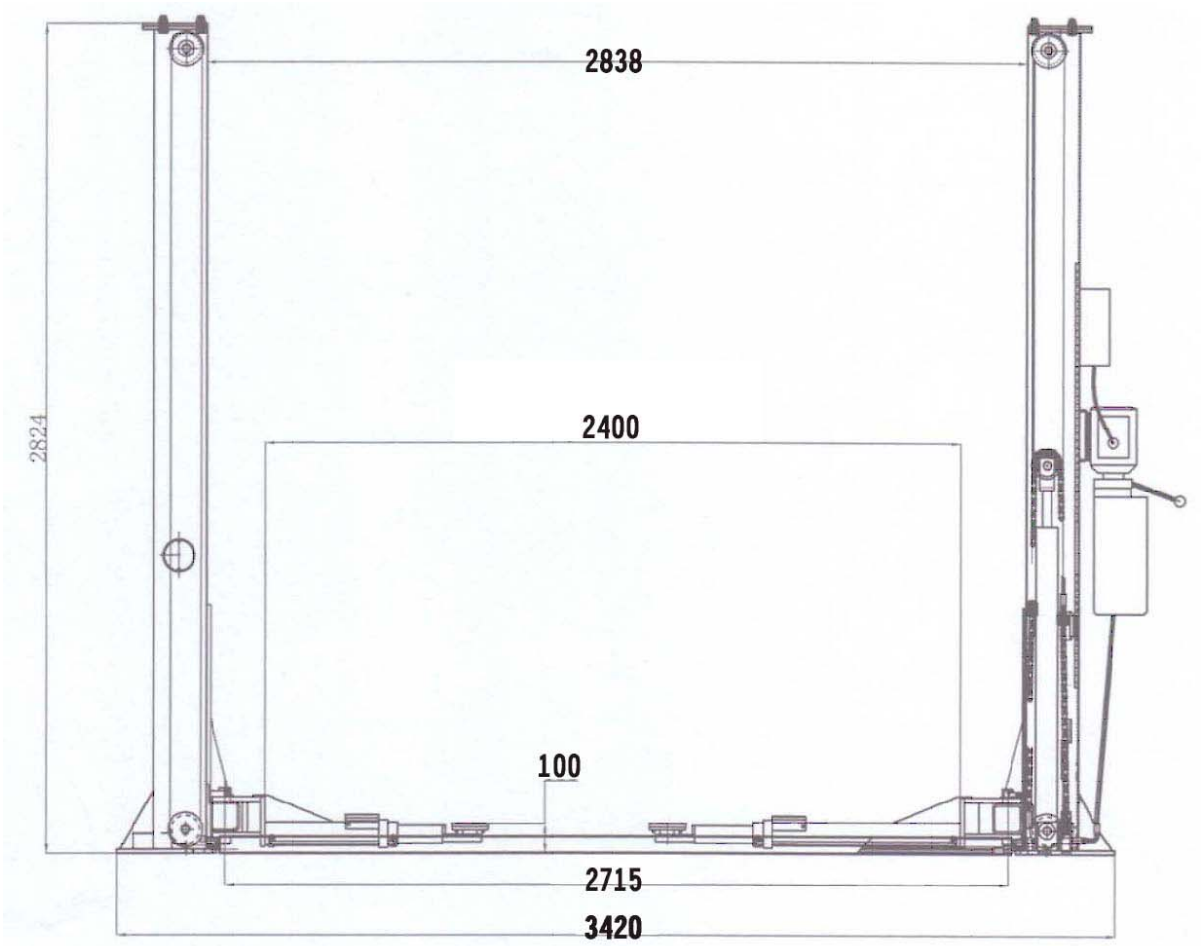
C. May have excessive wear on pins or cylinder yoke.

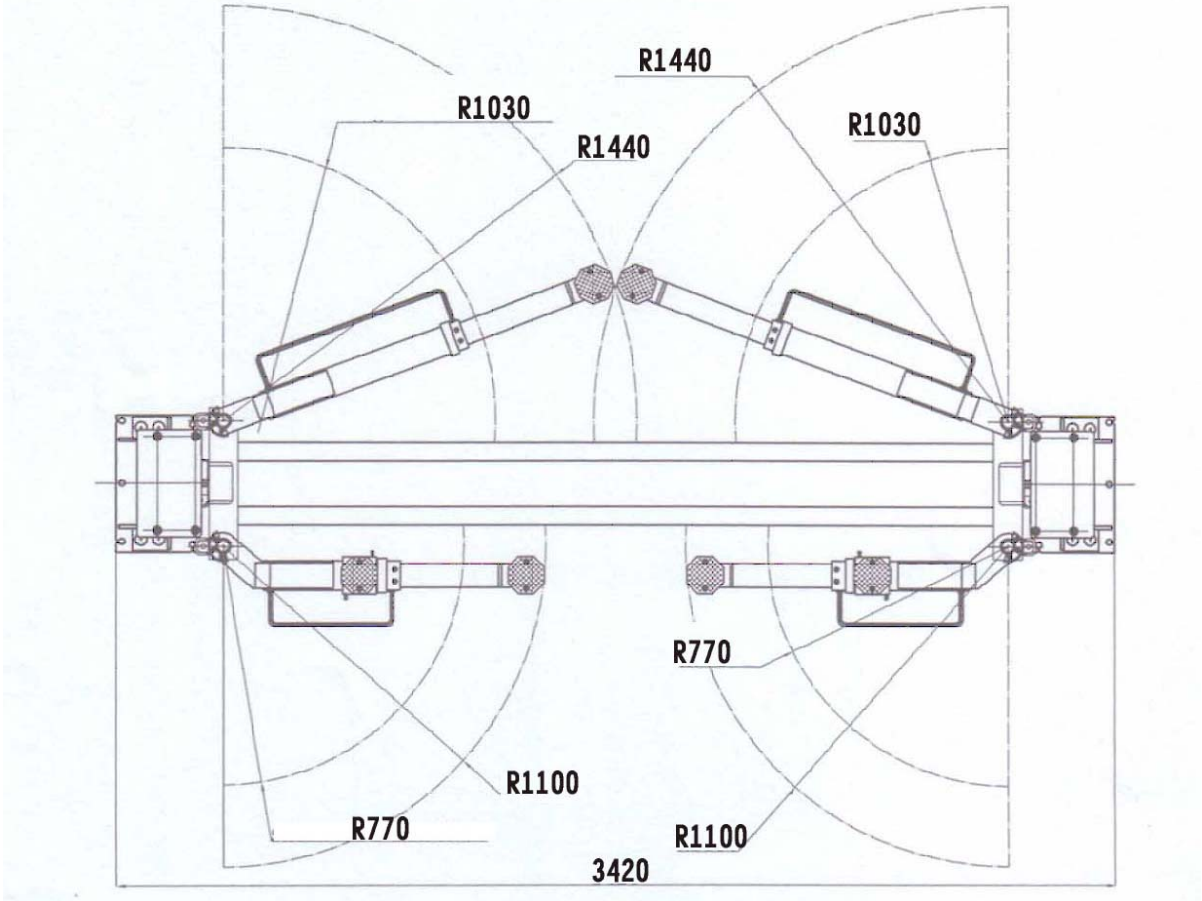
# OVERALL DIAGRAM



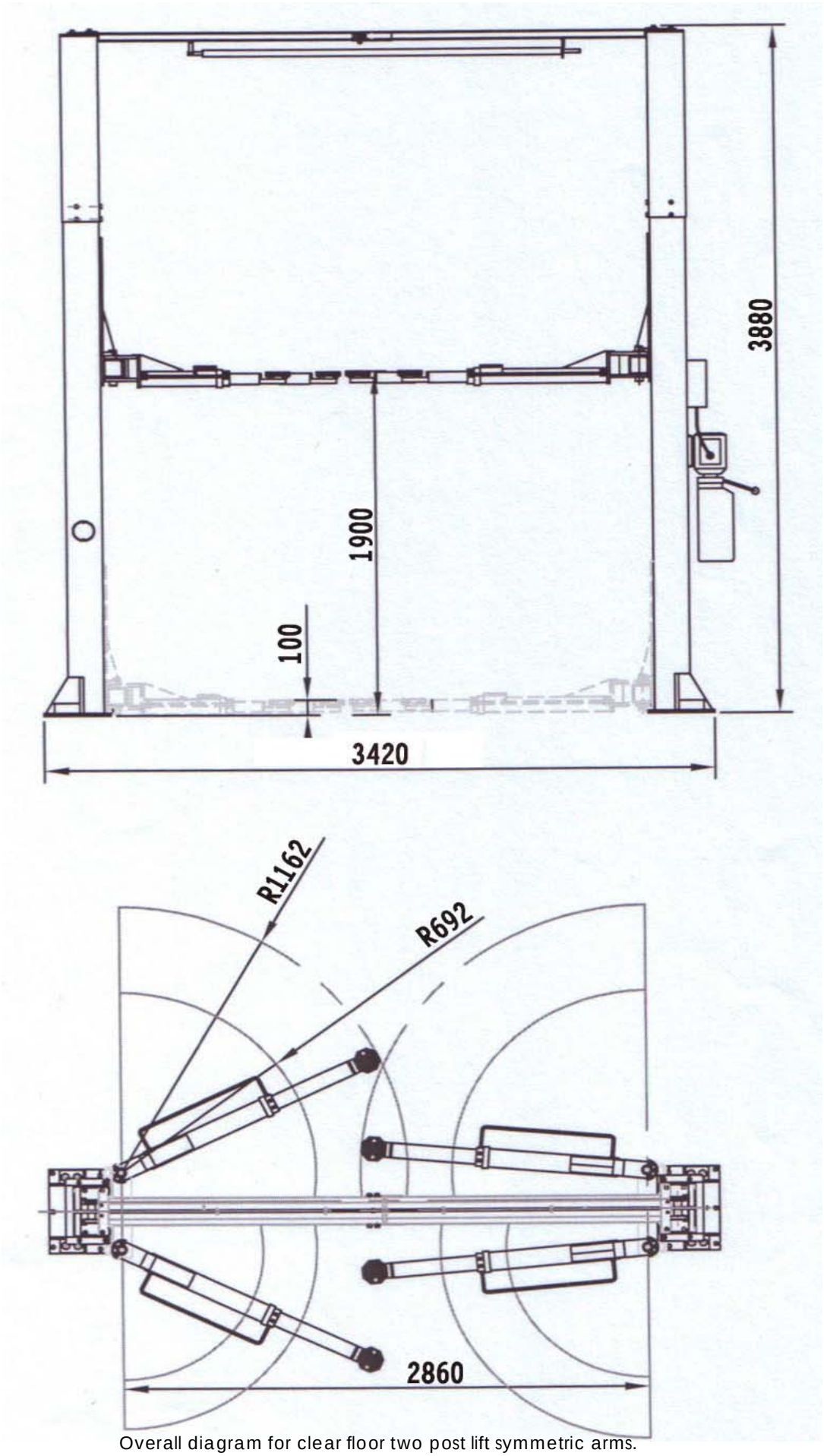




Overall diagram for base plate two post lift symmetric arms.

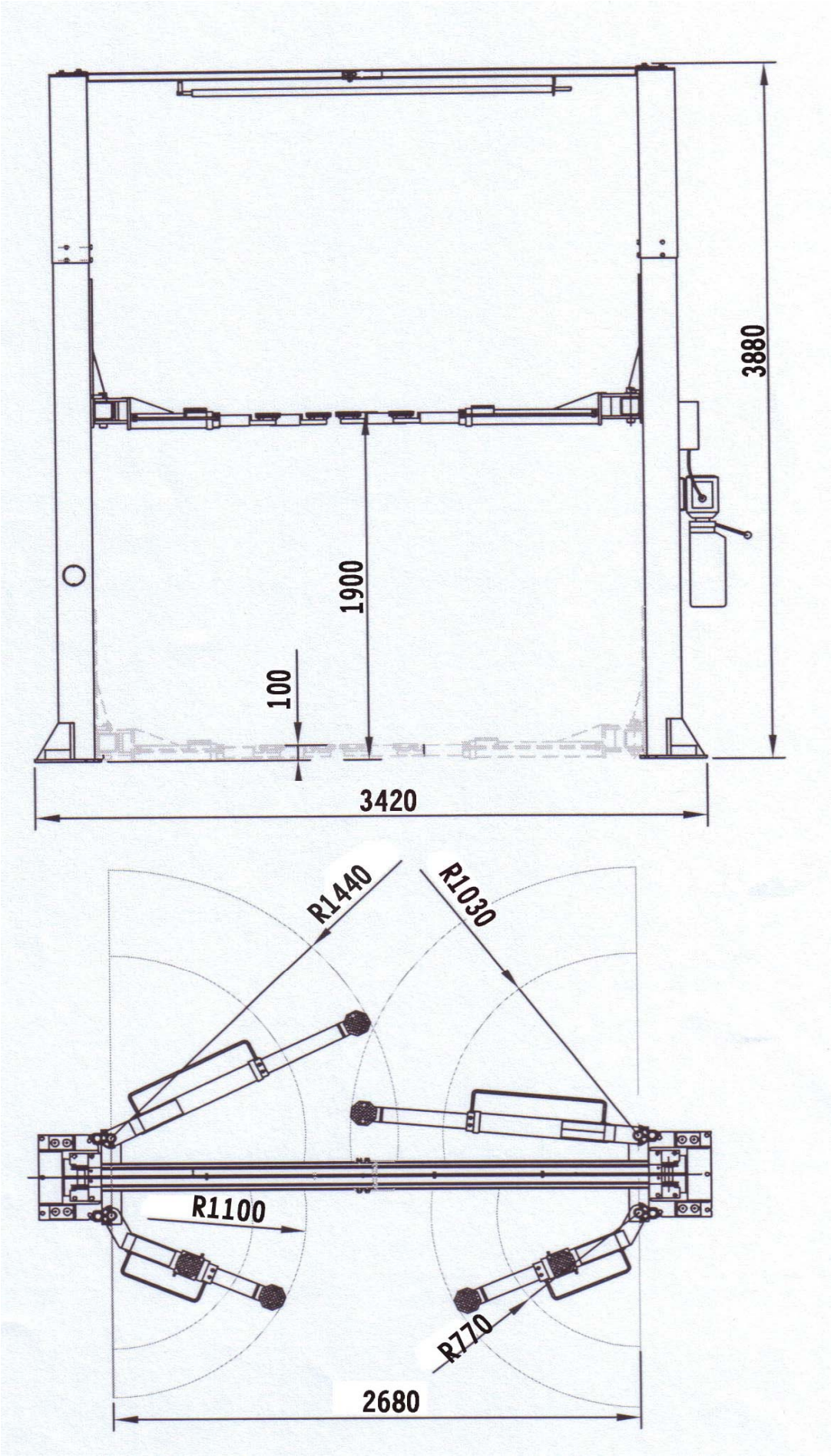



Overall diagram for base plate two post lift asymmetric arms.

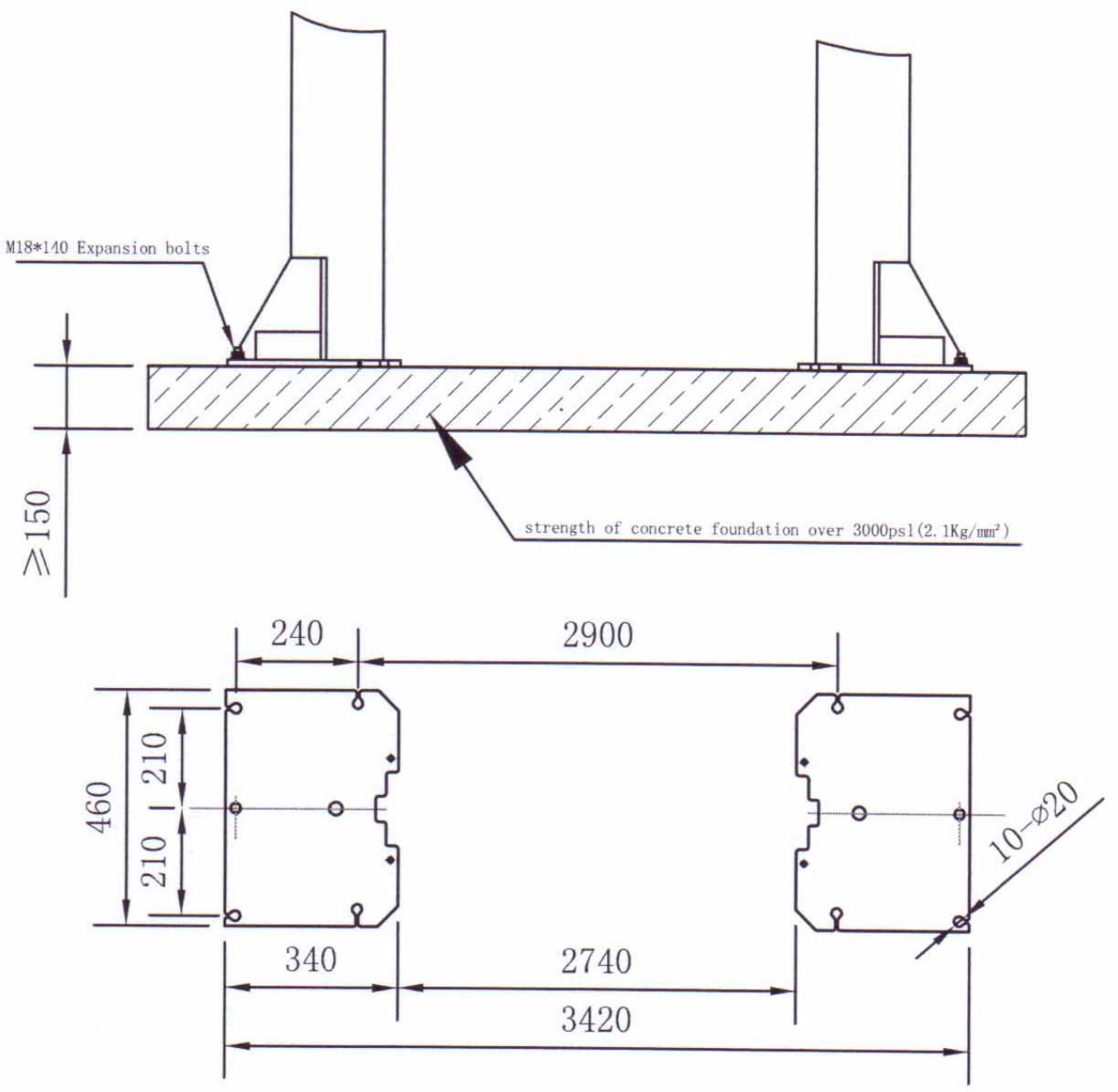



Overall diagram for clear floor two post lift symmetric arms.



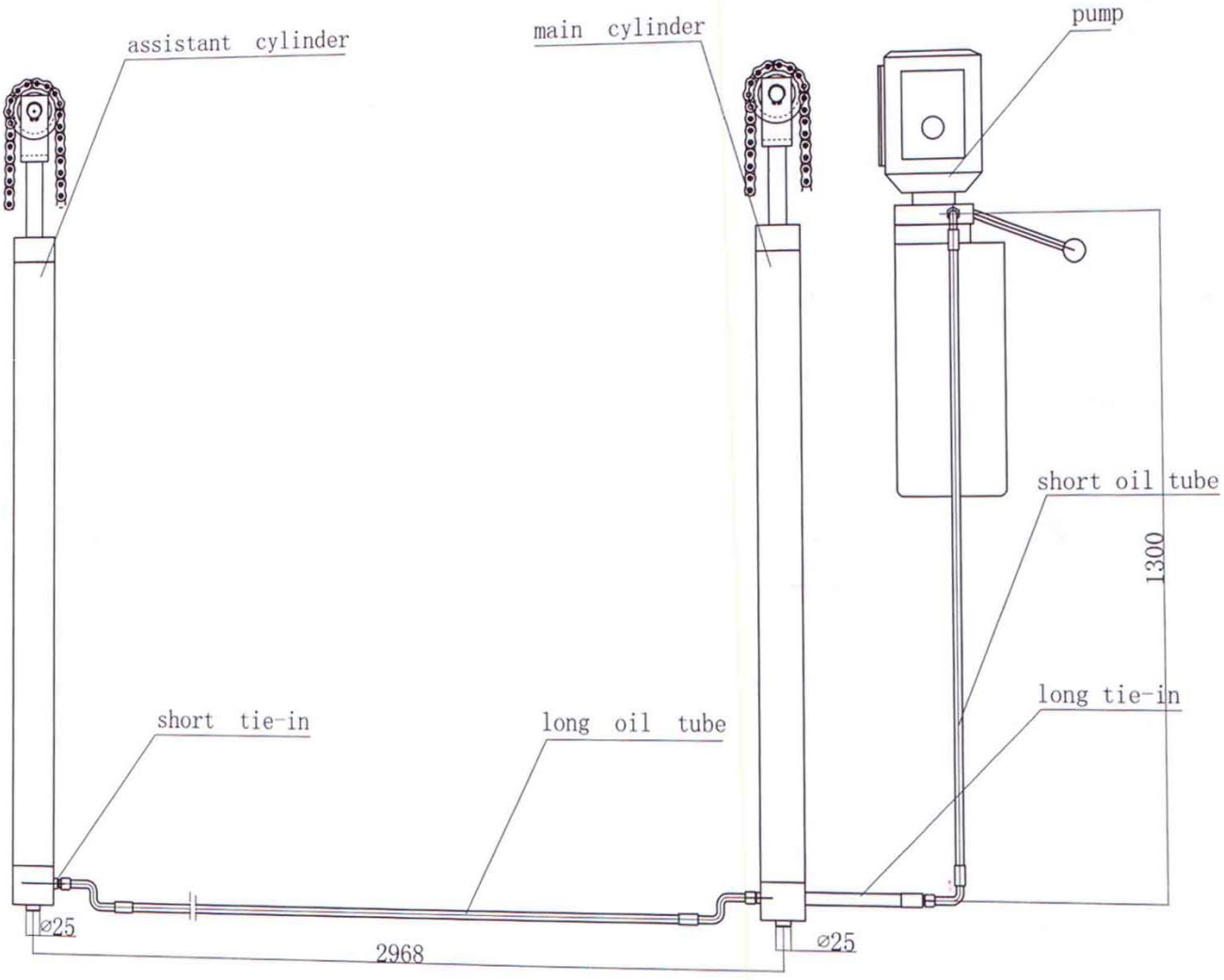

Overall diagram for clear floor two post lift asymmetric arms.

# SPACE REQUIRED

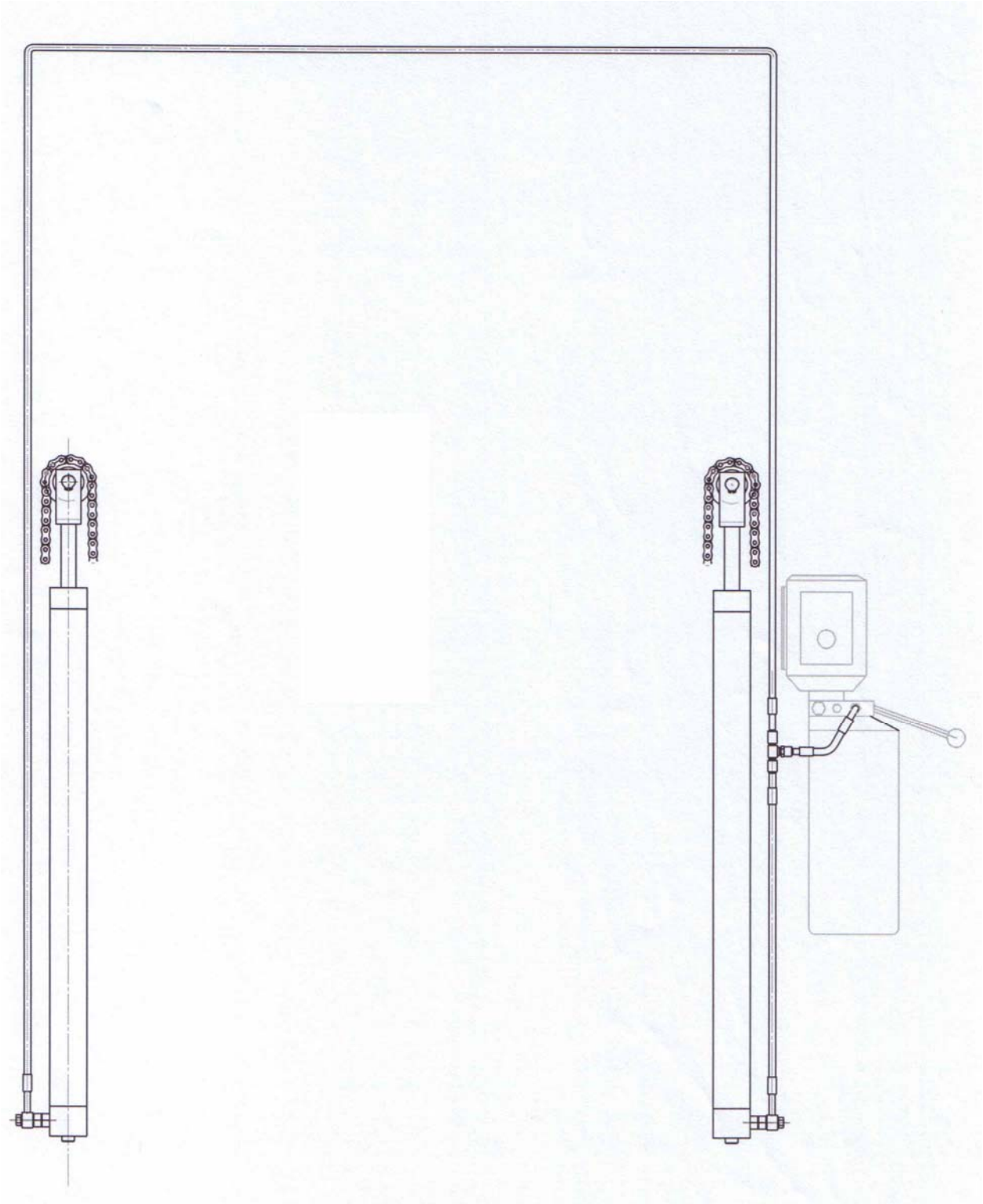



Above installation dimension is for base plate and clear floor two post lift.

# HYDRAULIC CONNECTION

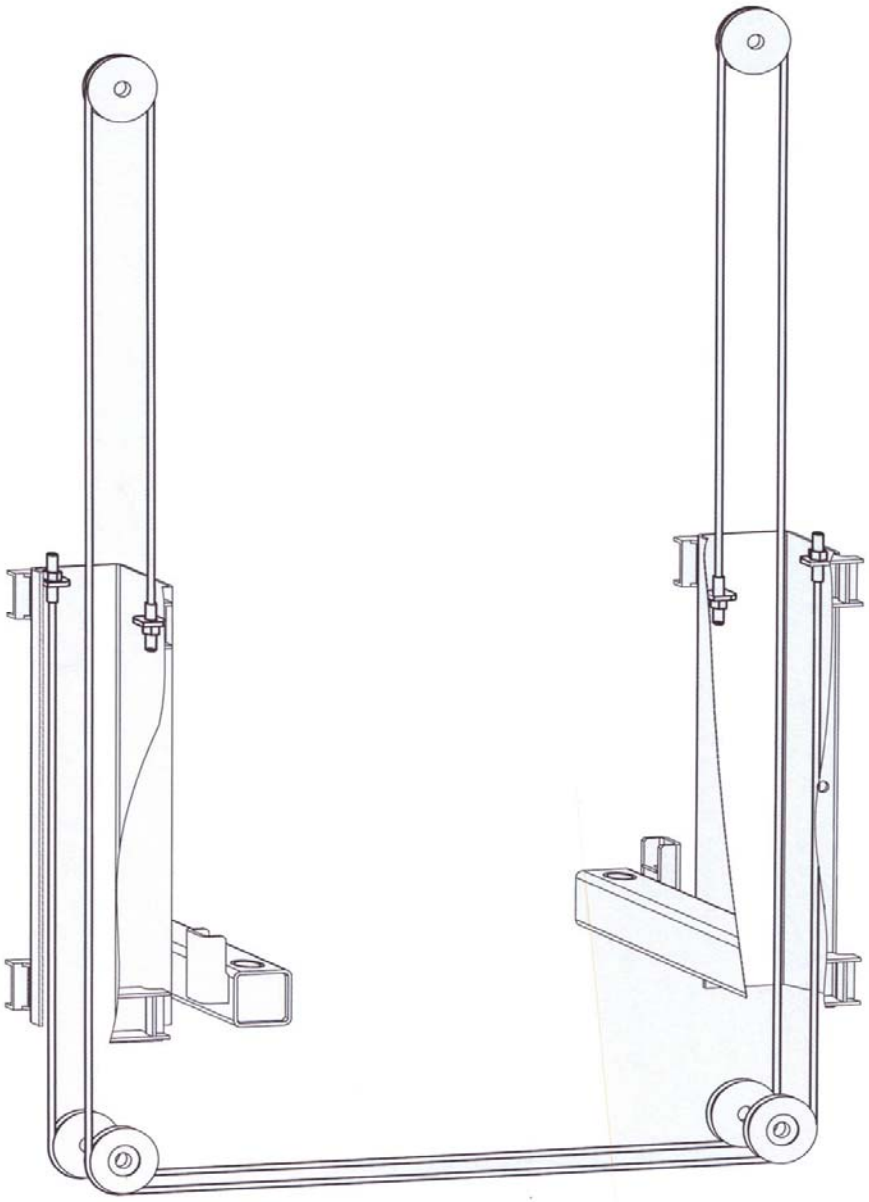



Oil hose connecting for base plate two post lift.

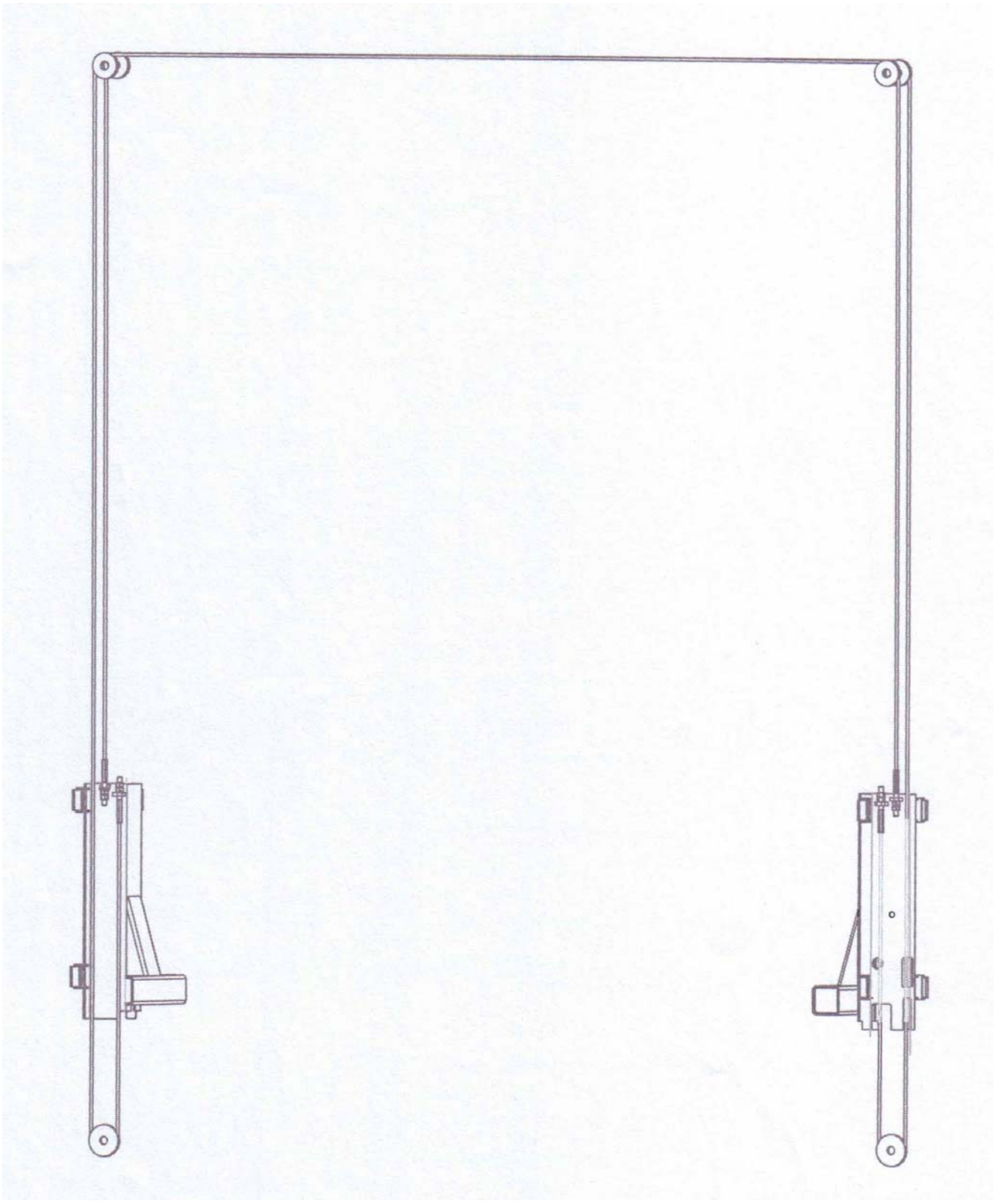


Oil hose connecting for clear floor two post lift.

# WIRE ROPE INSTALLATION

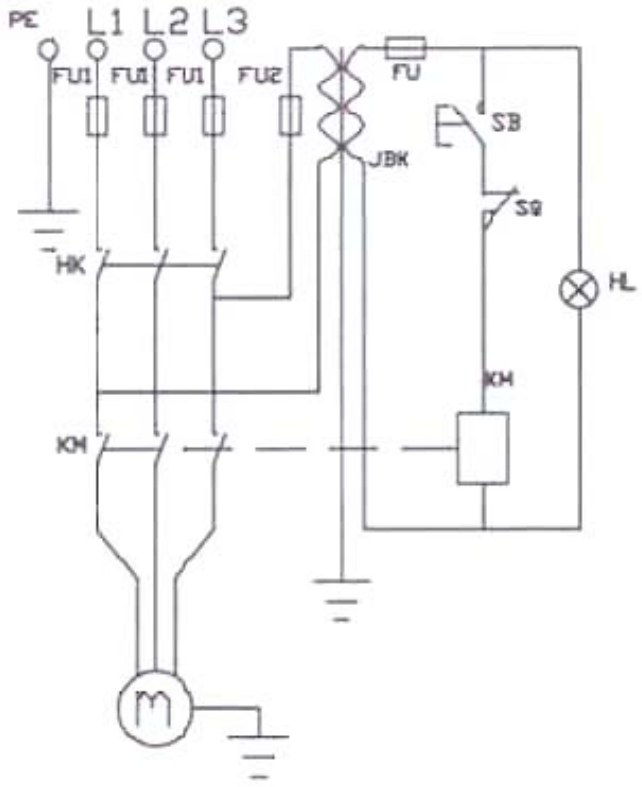


Wire rope connecting for base plate two post lift

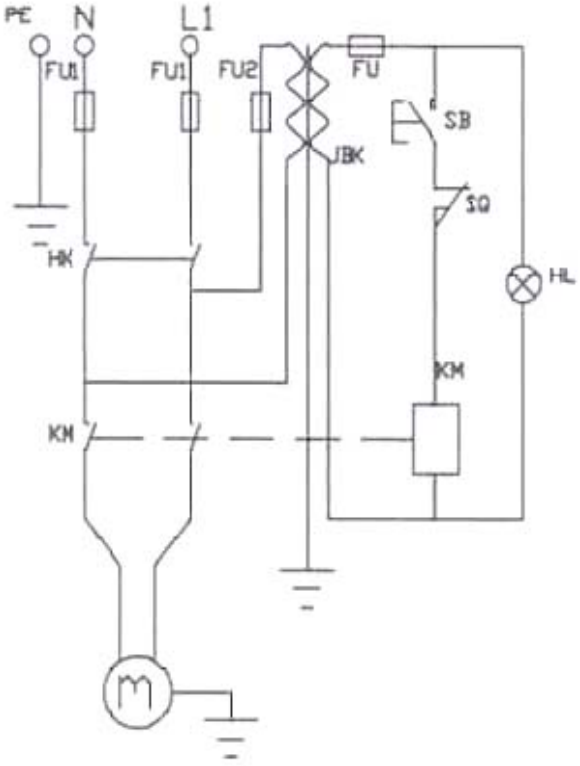


Wire rope connecting for clear floor two post lift

# WIRING DIAGRAM



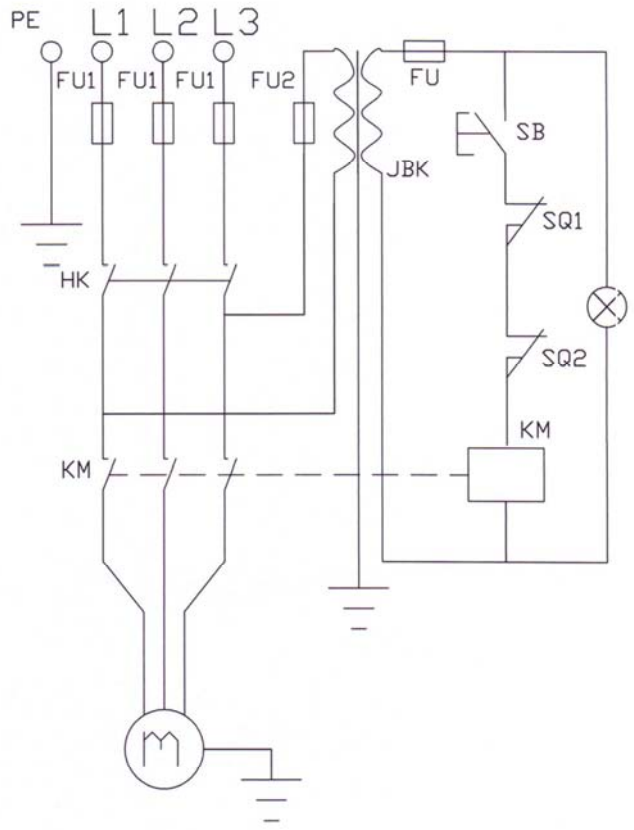

380V THREE PHASE



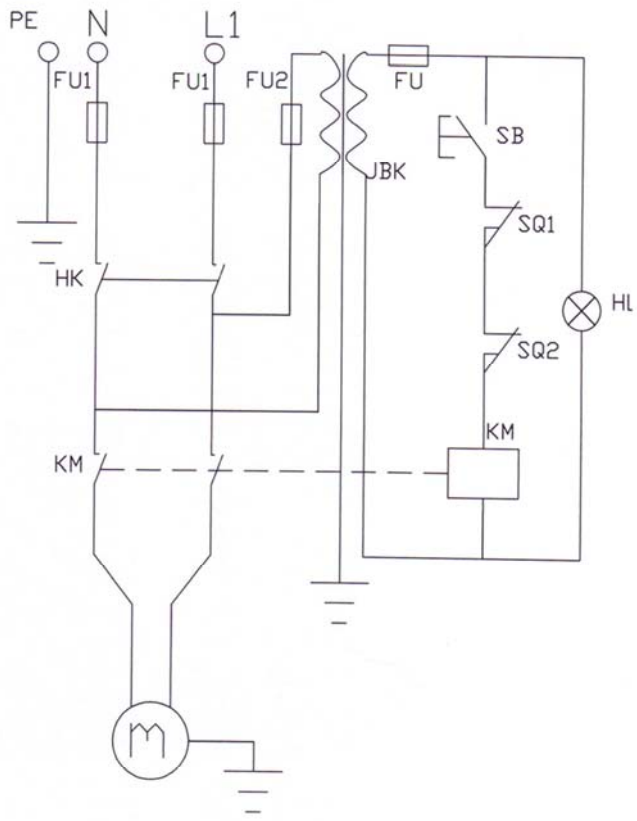

220V TWO PHASE

| NO | CODE | NAME | TYPE AND SIZE | Q'TY | REMARK |
|---|---|---|---|---|---|
| 1 | KM | RELAY | CJX-1210/AC24 | 1 | |
| 2 | SB | PUSH BUTTON | LA42 | 1 | |
| 3 | M | MOTOR | 380V, 220V, 2.2KW | 1 | |
| 4 | FU | FUSE | 2A | 1 | |
| 5 | FU1 | FUSE | 220V-32A, 380V-16A | 3, 2 | |
| 6 | FU2 | FUSE | 1A | 1 | |
| 7 | HK | SWITCH | LW26GS-20-04-2 | 1 | |
| 8 | SQ | LIMIT SWITCH | ME8104 | 1 | |
| 9 | HL | LAMP | AD17-22-AC24 | 1 | |
| 10 | JBK | TRANSFORMER | JBK3-63VA | 1 | |

WIRE DIAGRAM FOR BASE PLATE TWO POST LIFT




380V THREE PHASE




220V TWO PHASE

| NO | CODE | NAME | TYPE AND SIZE | Q'TY | REMARK |
|---|---|---|---|---|---|
| 1 | KM | RELAY | CJX-1210/AC24 | 1 | |
| 2 | SB | PUSH BUTTON | LA42 | 1 | |
| 3 | M | MOTOR | 380V, 220V, 2.2KW | 1 | |
| 4 | FU | FUSE | 2A | 1 | |
| 5 | FU1 | FUSE | 220V-32A, 380V-16A | 3, 2 | |
| 6 | FU2 | FUSE | 1A | 1 | |
| 7 | HK | SWITCH | LW26GS-20-04-2 | 1 | |
| 8 | SQ1 | LIMIT SWITCH | TZ8104 | 1 | |
| 9 | HL | LAMP | AD17-22-AC24 | 1 | |
| 10 | JBK | TRANSFORMER | JBK3-63VA | 1 | |
| 11 | SQ2 | LIMIT SWITCH | D4MC-1000 | 1 | |

WIRE DIAGRAM FOR CLEAR FLOOR TWO POST LIFT

We've tried to do our very best to provide complete and detailed information so that your installation and operation experience is free of problems. But, please feel free to contact us, if you should run into any problems in installation and operation your new lift, or have questions on some of the parts.