User Manual for Elite JL30A-M 2 post base type hoist

2 POST HOISTS * INSTALLATION manual

Index

1.0 Introduction

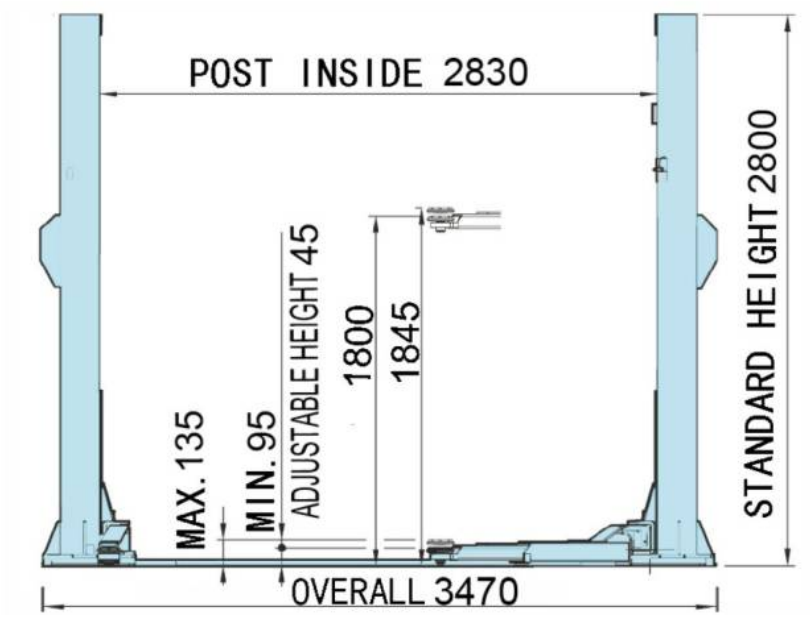
Thank you for purchasing the Elite JL30A-M 2 post base type lift.
The lift has been constructed to the best quality safety principles. This guide has been made in order to supply the owner as well as the user with the basic instructions for a correct use of the lift. That's the only way to grant the respect of the conditions necessary to work safely and also grant the best efficiency and a long life of your lift.
Read this guide with the utmost care before using the lift. This guide contains the instructions for installation, use and maintenance of lifting system
The lift is composed by two symmetric vertical posts, which must be safely anchored to the ground. The posts are equipped with lifting carriages with electro -hydraulic control system.
The lift is operated by a Italian electric motor controlling a hydraulic pump, which delivers the hydraulic fluid to the cylinders at the bottom of the posts for lifting carriages with the sole purpose of performing motor vehicle service, repairing and inspection.
Any other use not described is to be considered as improper and irrational, and thus it will be under the whole responsibility of the operator.
Follow the instructions given by this guide carefully to grant the lift its correct function, efficiency and long working life. Keep this guide as well as all the supplied technical literature in a safe place close to the lift in order to help the users to consult it whenever necessary. The technical literature is an integral part of the lift and it must always follow the product, even in case of sale.
Follow the directions given by this guide with the utmost attention: the Constructor declines all responsibility for any damage due to negligence and non-observance of the herewith-contained instructions.
The non-observance of herewith-contained instructions will automatically involve the immediate lapse of warranty.
The two-post lift is suitable for lifting motor vehicles having maximum total weight of 4000kg.
It is necessary to respect the parameters given by the "LOAD DISTRIBUTION CHART" (as foreseen by standard, EN 1493/98)
This lift must only be used for which it is expressly designed. It is forbidden to lift people or others not specified in this guide.
Any other use is to be considered improper and irrational and thus highly forbidden. The constructor cannot be held responsible for any damage or injury caused by an improper use or by the non-observance of the following instructions:
The technical literature is an integral part of the lift. Read this guide carefully before using the lift, because it contains very important safety rules for use and maintenance.

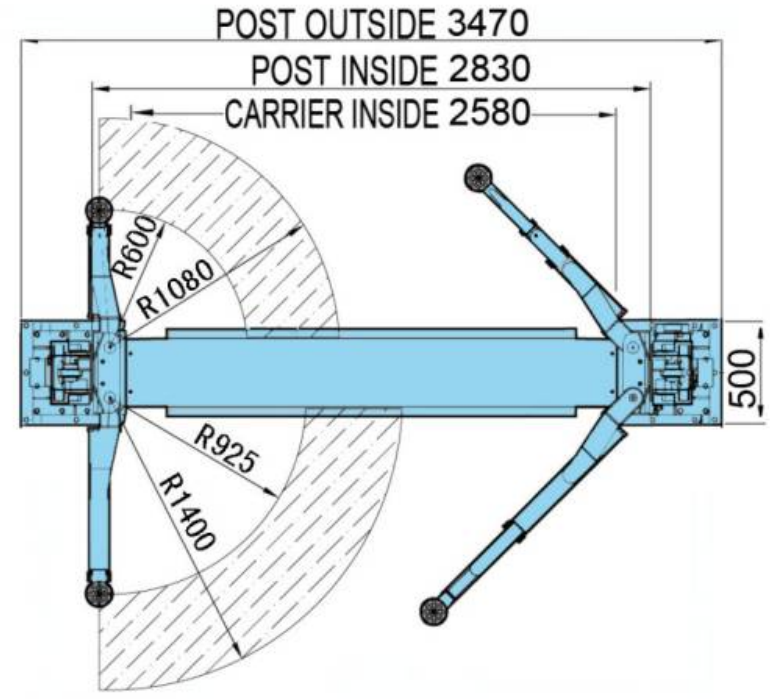
1.1 Intended Use

DO NOT INSTALL the lift in windy sites or potentially explosive room.
The lift, in its standard version, is not intended for outdoor use. In this case it is necessary to ask the constructor for a special version.
For any installation to be made in a site different from that specified, ask the constructor's advice.
!
KEEP THIS AS WELL AS THE SUPPLIED TECHNICAL LITERATURE IN A SAFE PLACE AND CONSULT WHENEVER NECESSARY.

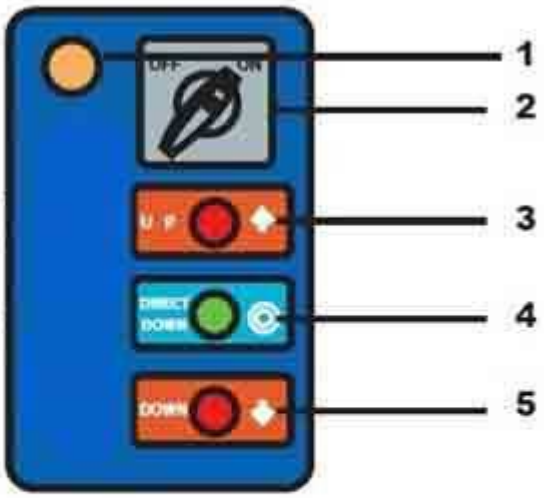
1.2 Dimention Diagrams

DIMENSIONS

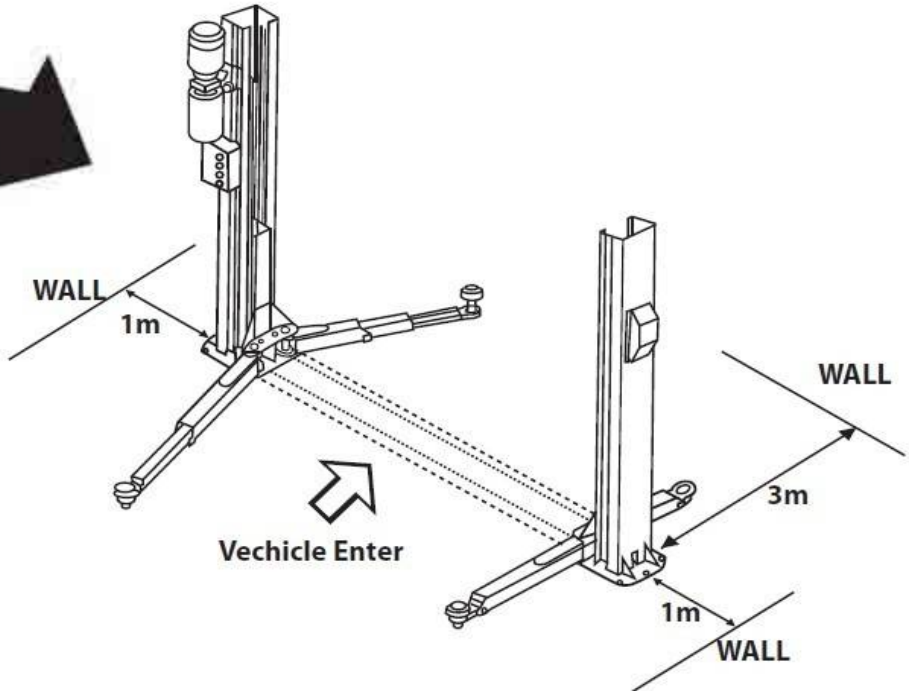




1.3 Control Box



1. Power Lamp : Light is on when the power switch is turned on.
2. Rotary Switch : Turns power on and off.
3. Up Button : Raises the lift.
4. Lock Button : Make sure press this button for safety lock the lift before go under the lift to maintain car, otherwise unsafety may cause danger.
5. Down Button : Press this button for lowering the lift, it raises it self a little for disengage locks, and get down directly.



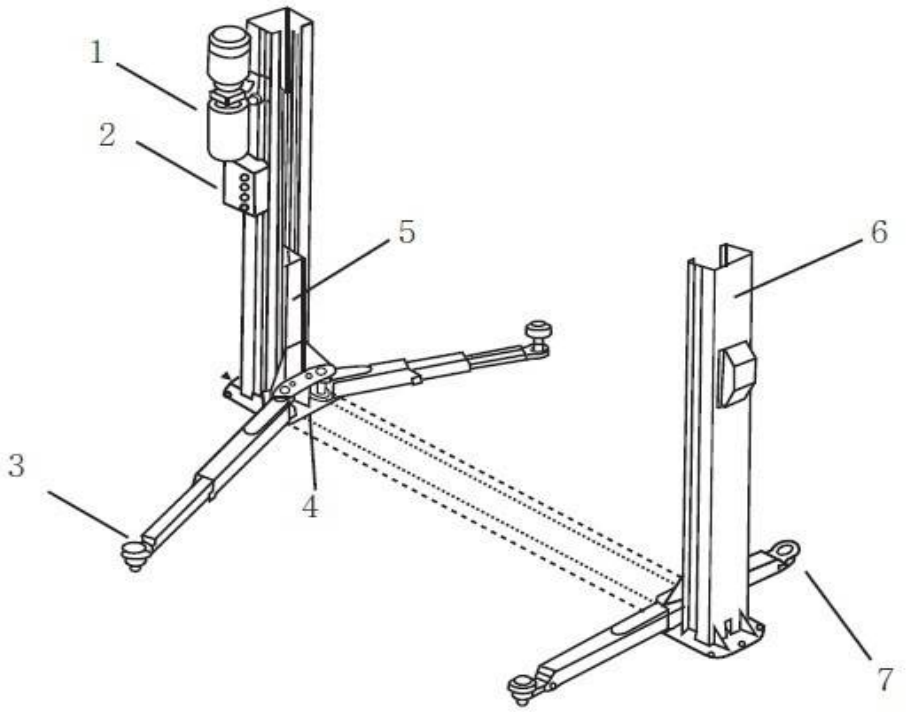
Remote Control Unit

1. Up
2. Down

Caution : Never use cable remote control while working under hoist remote control is a safety feature when used outside of hoist area.
Never take eye off the hoist while operating.

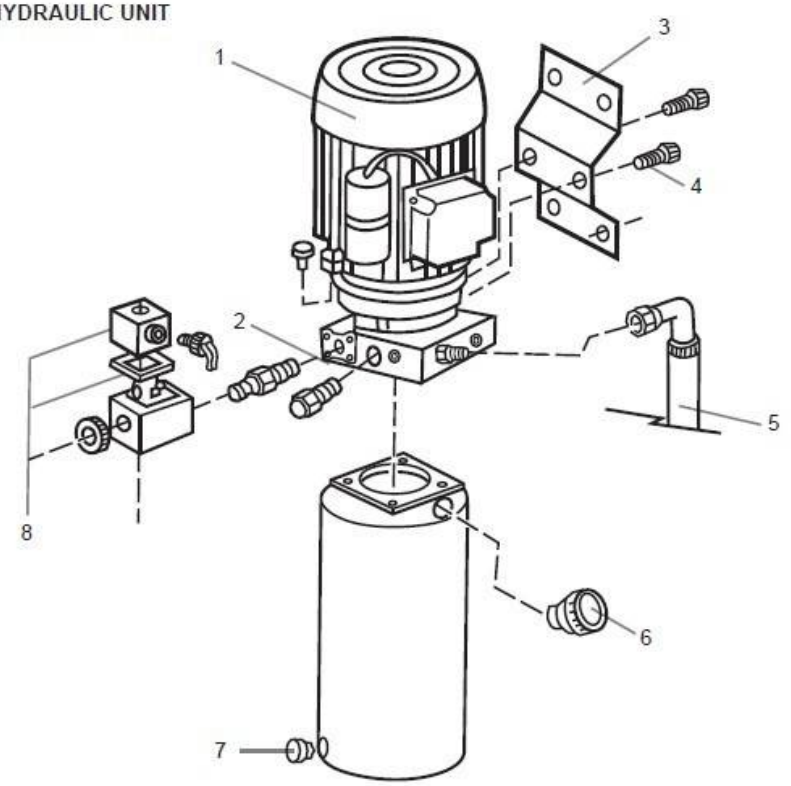
1.4 Parts List Reference

1.4 Parts List

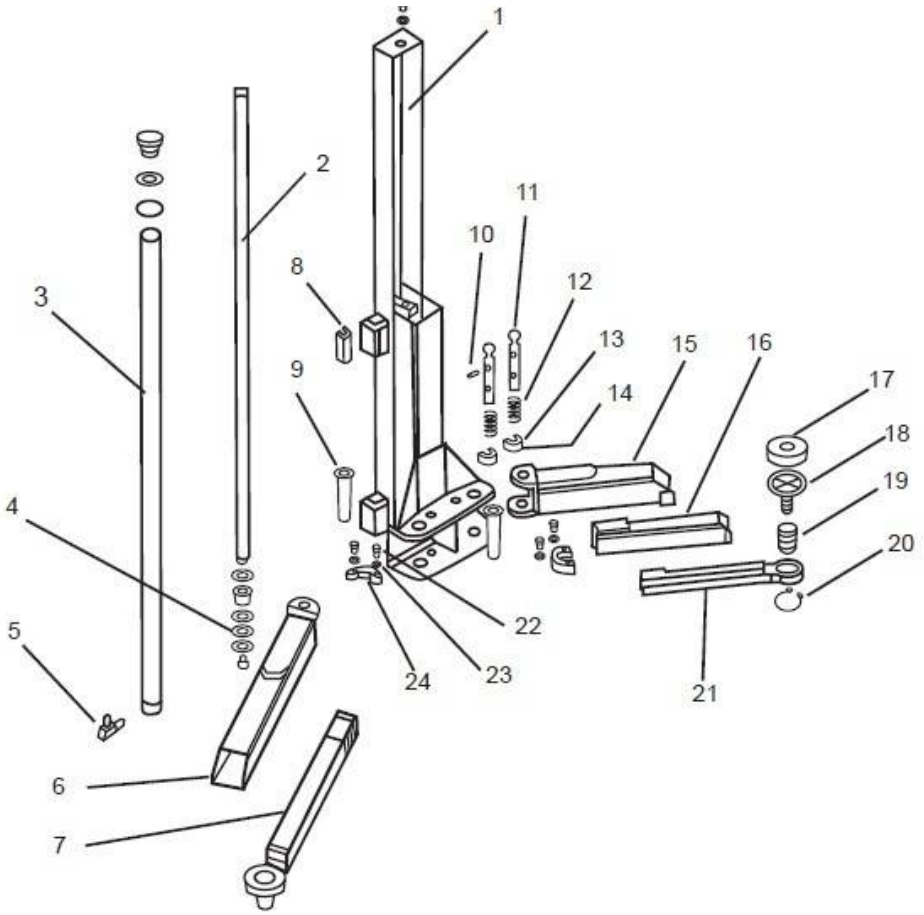


1 .Power Pack
2. Control Box
3 .Rear Arm
4. Base Plate Cover
5. Carriage
6. Post
7. Front Arm

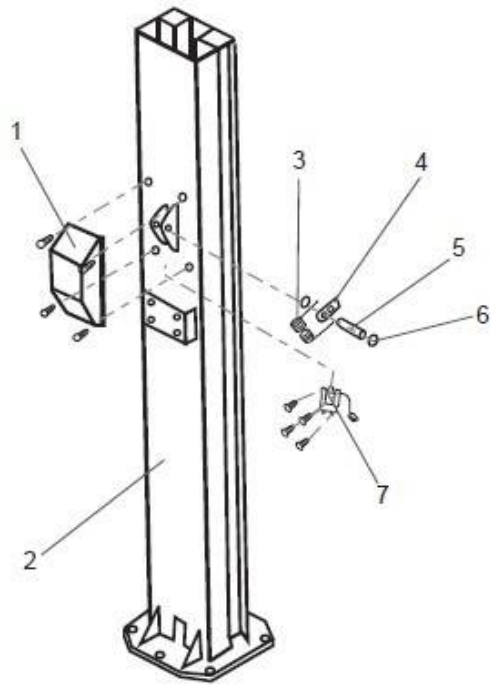
HYDRAULIC UNIT



1. MOTOR
2. RELIEF VALVE
3. SUPPORT
4. SUPPORT BOLT
5. MAIN HYDRAULIC HOSE
6. BREATHER/OIL FILLER CAP
7. DRAIN PLUG
8. DESCENT SOLENOID



1. Carriage
2. Cylinder Load Pipe
3. Cylinder Honing Pipe
4. Cylinder Seal
5. Cylinder Block
6. 1st Rear Arm
7. 2nd Rear Arm
8. PE Guide
9. Arm Fix Pin
10. Spring Pin(long)
11. Arm Lock Gear Pin
12 Arm Lock Gear Pin Spring
13. Arm Lock Gear
14. Spring Pin(short)
15 1st Front Arm
16 2nd Front Arm
17. Rubber lift pad
18. Load Pad Stool
19. 2nd Stage Screw
20. Circlip
21. Inner Front Arm
22. Bolt
23. Spring Washer
24. Half Round Gear



1. Safety Lock Cover
2. Post
3. Safety Lock Return Spring
4. Lock Pawl
5. Lock Pin
6. Circlip
7. Electro-lock Solenoid

2.0 General Safety Rules

2.1 Level of Danger

Whenever you find the following warning sign in this guide, pay the utmost attention and follow the relevant safety rules.

!

ATTENTION: Read the following directions with the utmost attention. The non-observance of what described can cause serious damages to bystanders.

2.2 Hazard and Forbidden Operation WARNINGS

IN THE EVENT OF RAISED VEHICLE FALLS FROM THE LIFT, RUN AWAY TO A SAFE DISTANCE.

DO NOT STAND UNDER THE VEHICLE ON THE LIFT WHILE LIFT IS OPERATING.

DEATH OR SERIOUS INJURY MAY OCCUR.

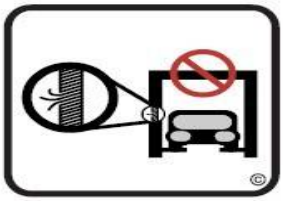
DO NOT LIFT ONE SIDE OF THE VEHICLE

POSSIBILITY OF VEHICLE OVERTURN AND/OR DAMAGE TO LIFT MAY HAPPEN

DO NOT PLACE ANY POLES UNDER THE VEHICLE AND LOWER IT TO DISMANTLE THE PART FROM THE RAISED VEHICLE

DO NOT MODIFY ANY SAFETY SYSTEMS OF HOIST

IF SAFETY DEVICE MALFUNCTIONS, SERIOUS ACCIDENT MAY OCCUR



DO NOT OPERATE LIFT WHEN WIRE ROPE DAMAGE IS DETECTED

DO NOT SHAKE A RAISED VEHICLE EXCESSIVELY

DANGER OF VEHICLE FALL FROM LIFT MAY OCCUR

POSITION VEHICLE WITH CENTER OF GRAVITY MIDWAY BETWEEN ADAPTERS

DO NOT PLACE FEET UNDER ANY MOVING PART OF LIFT WHILE LOWERING

DO NOT OPERATE LIFT WITH PEOPLE ON IT

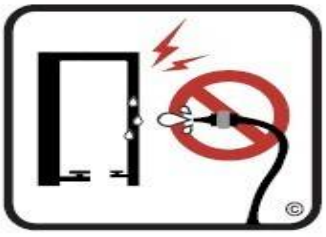
2.2 Caution

LIFT TO BE USED BY TRAINED OPERATOR ONLY

ELECTRICAL SHOCK MAY EXIST WHEN OPENING CONTROL BOX

AUTHORIZED PERSONNEL ONLY IN LIFT AREA

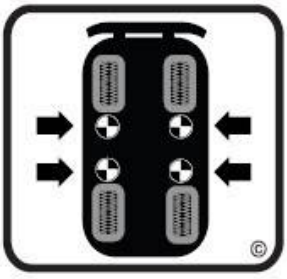
ALWAYS USE SAFETY STANDS WHEN REMOVING OR INSTALLING HEAVY COMPONENTS



DO NOT HOSE WATER DIRECTLY ON TO LIFT

STOP RAISING LIFT WHEN IMBALANCE IS DETECTED

2.2 Caution



USE VEHICLE MANUFACTURER'S LIFT POINTS

USE HEIGHT EXTENDERS WHEN NECESSARY TO ENSURE GOOD CONTACT

DO NOT OPERATE LIFT WHEN HYDRAULIC OIL LEAK IS DETECTED

AUXILIARY ADAPTERS MAY REDUCE LOAD CAPACITY

2.3 Safety Instruction

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotives lifts regardless of specific style.
Warning Labels for 2-Post surface mounted lifts. Daily review of these Safety Messages and Warnings is suggested.

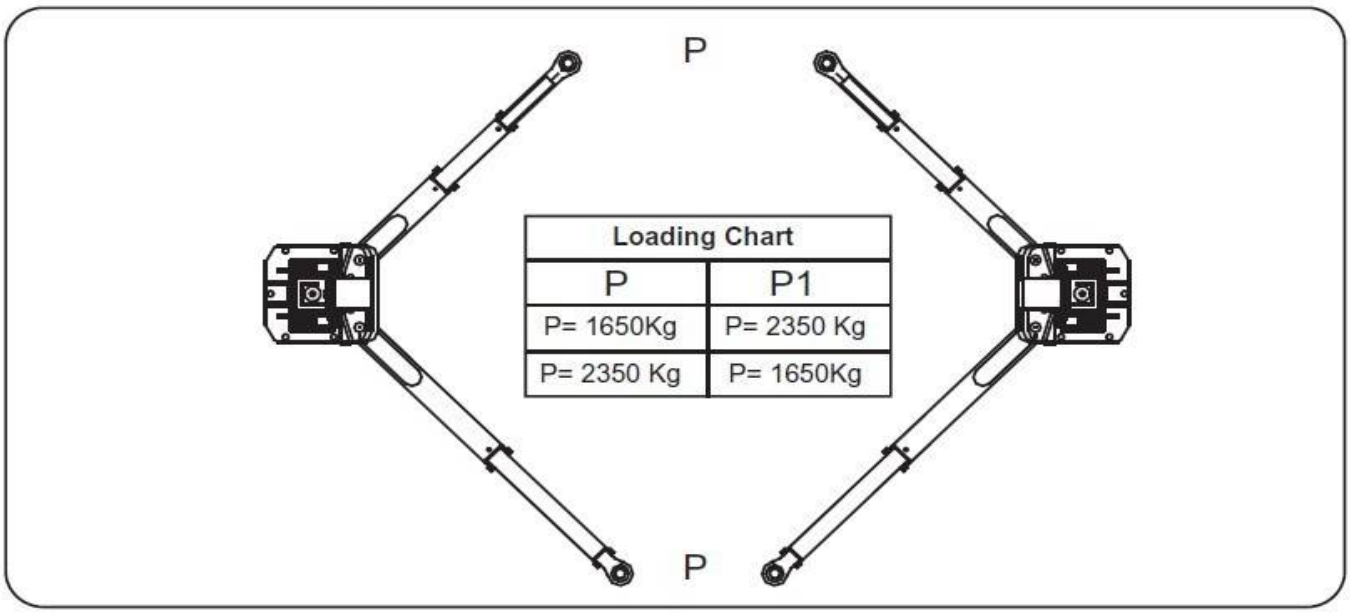
READ OPERATING AND SAFETY MANUALS BEFORE USING LIFT

DO NOT OPERATE A DAMAGED LIFT

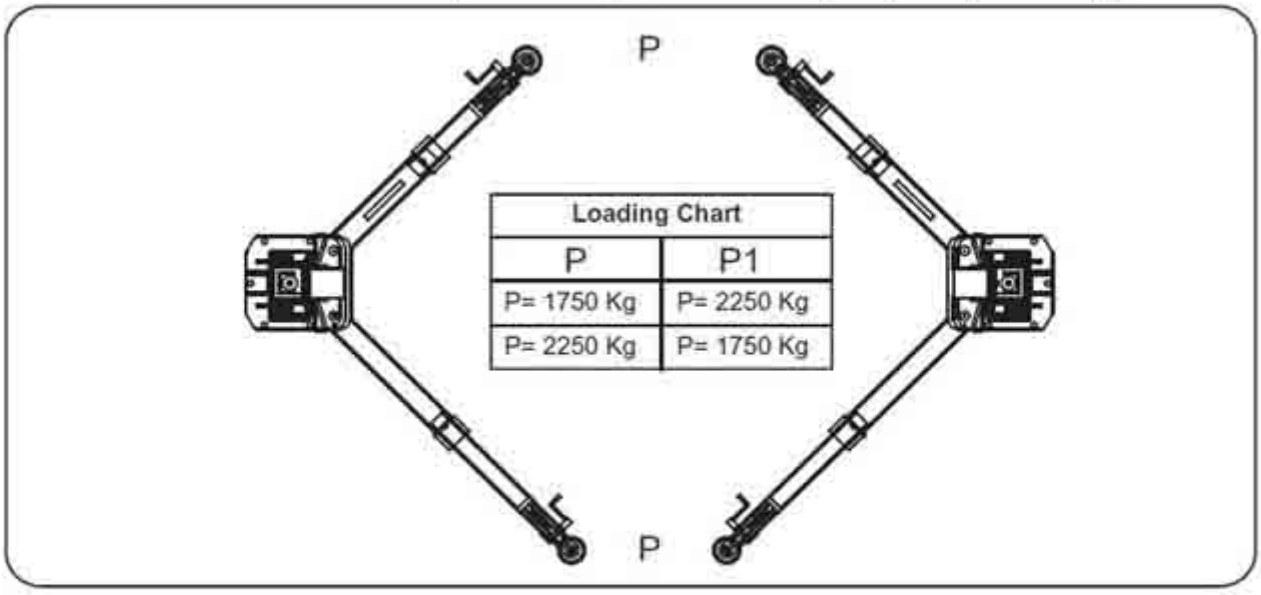
PROPER MAINTENANCE AND INSPECTION IS NECESSARY FOR SAFE OPERATION

2.4 Load distribution.

Max loading capacity 4000kg



RATCHET ARM ( ) Max loading capacity 4000kg



The LOADING DISTRIBUTION CHART (fig.4) placed at post side gives the max. admitted load according to standard EN 1493/98. The values in charts are:

P Max. admitted vehicle total weight.
P Max. admitted load side 1
P1 Max. admitted load side 2

3.0 Transport & moving

3.1 Transport and package removal

! ATTENTION: moving and positioning operations can be very dangerous if not performed with the utmost caution. Send bystanders away; clean, clear and delimit the installation site; check the integrity and suitability of the available means; do not touch the suspended loads and stay at a safe distance from them; move the suspended loads at not more than 20cm height from ground; carefully follow the instructions given below; in case of doubt do not persist.

For transport and volume reasons, the lift is supplied partially disassembled. The different parts are joint together to allow a safe transport and handling. Transport of the lift must be performed by suitable means. Avoid any damage during handling.

3.2 Installation

! Install the lift in a site having temperature between 10 and 55 C.

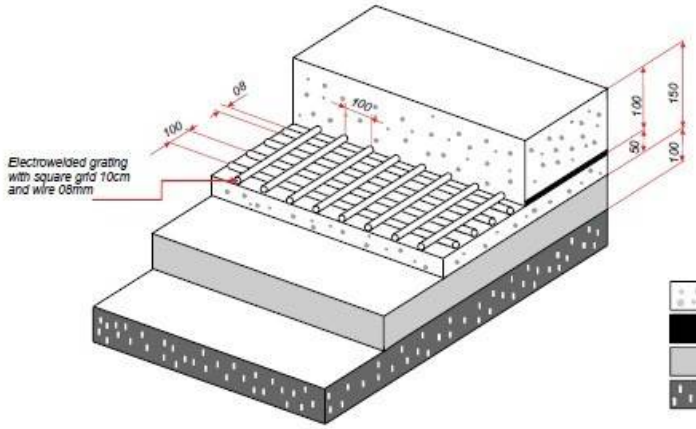
For lower temperatures it is necessary to install a compressed air dehumidification system.

! ATTENTION: Installation, adjusting and testing operations are to be performed by qualified staff only.

! DANGER: Installation, adjusting and testing operations are to be performed by qualified staff only.

3.3 Foundations

The lift must be installed on a level concrete floor class 25MPA, having min. thickness of 125mm(5") and an extension of at least 1.5m from anchoring points (see chart at page 18). The lift installation concrete surface must be perfectly smoothed, levelled in all directions and casted on compact ground. (Consult with structural engineer if concrete floor condition is in doubt)
* We cannot be responsible for installation on bad foundation although duty of care will be given when drilling a floor.



FOUNDATION DEIMENSIONS IN CM			QUALITY OF CONCRETE	MIN. PRESSURE RESISTANCE OF SURFACE	MAX. REACTION ON EACH BEARING POINT
Length	Width	Thickness	25MPA	425 Kg/cm²	0.9 Kg/cm²
1500	1500	10			

GROUND
REINFORCED CONCRETE
ELECTROWELDED GRATING
PEBBLE GRAVEL SHEETING

(Exalple of good concrete foundation)

3.4 Structure positioning and installation

To install the lift, set some supports under the post upper ends, remove the pallets and position the posts, one at a time, according to the diagram. Use a lifting system having minimum 500kg capacity.

Operations to be executed for mounting and installation:

Once you have positioned the two posts, mark the position of their anchor holes on the floor at the correct distance and in a way that they are perfectly aligned.

Use a bit of 20mm to drill 10 anchor holes at a depth of 100mm minimum. Clean both holes and floor from dust. (Fig. 6)

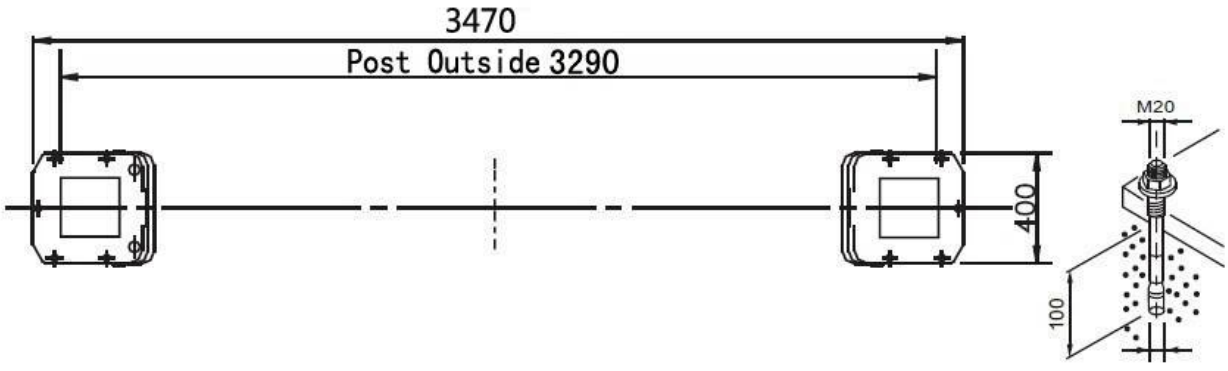
Introduce the anchor bolts M20 by hammering slightly. Set the anchor bolts at the other post checking their positioning and alignment. Then introduce them by hammering slightly.

Before tightening the bolts by nuts, check that the two posts are well levelled.

Tighten the nuts by torque wrench setting at 150 Nm. If the bolts idle, they must be replaced by bigger ones.

Only after having performed the above mentioned. operations you can go on mounting and connecting the hydraulic and electric circuits.

Levelling the posts by means of a spirit level allows a correct installation of the different parts as well as correct connections.



3.5 INSTALLATION PROCEDURE

1) Unpack lift, attach control box and powerpack to main power post.

2) Attach pulley brackets to the top of both posts. Be careful install bracket with pulley offset to the left, fit to power post.

3) Stand up and position both posts. Route balance wire ropes, do not tighten at this stage. Connect hydraulic hose between posts, and main hose from manifold to bottom of power post hydraulic ram fitting.

4) Using base plate cover, move posts in or out for best fitment. Internal post and external post dimensions supplied are a guide only.

5) Drill, bolt and shim level both posts, using M20 tru-bolts supplied. Tighten to a minimum 150nm of torque.

6) Attach electrical cables: From control box to motor refer 3.6, to power post limit switch, safety lock solenoid cable.

7) Electrician to connect to mains supply.

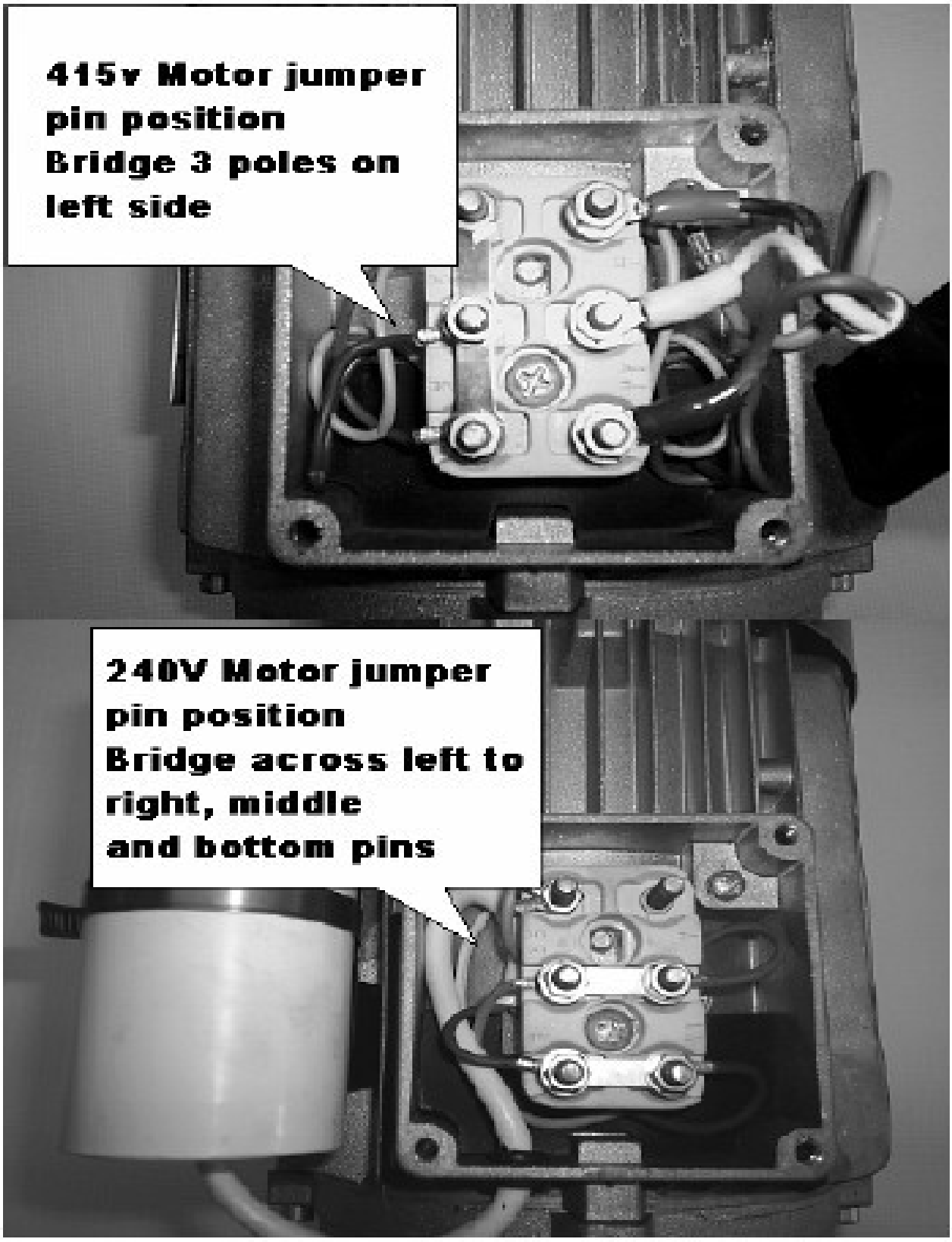
8) Bleed air from hydraulic system ie: Loosen hydraulic hose on slave post, press up button and bleed into container.

9) Adjust balance cables, so both carriage locks engage at the same time.

10) Adjust hydraulic pressure valve to 120-150bar refer page 21.

11) Hoist is ready for use.

3.6 Electric motor jumper pins reference



3.7 Connection to the power sources

! Any work on the electrics, however small, must be carried out by qualified personnel only.

The lift power supply is AC, unless otherwise required by the user.

The power lead must be protected against the over current by means of fuses or by means of a magneto-thermal automatic switch with nominal values as indicated by the chart here below:

FEEDING VOLTAGE	FUSE NOMINAL VALUE
220V-3Ph-50/60Hz	10 A
240V-3Ph-50/60Hz	10 A
380V-3Ph-50/60Hz	6 A
415V-3Ph-50/60Hz	6 A

The user must lay a power lead of suitable gauge between the mains socket and the console, in accordance with the relevant national standards.

A differential security breaker set at 10 mA must be fitted on the power supply line.

The hydraulic unit contains synthetic fluid, which is highly polluting for the environment. When filling the tank pay attention not to spill it.

Procedure
Connect the feeding cable, coming out from the post, to the supply mains respecting all the rules in force in the Country of installation.

_ Turn switch once briefly and push "UP" button then release. Check that the motor run direction is correct (the lift shall go up), otherwise turn off the power on electrical board and reverse one phase on the electric plug.
_It is recommended to perform some complete lifting/lowering cycles to bleed the hydraulic circuit from residual air.

4.0 Instruction for use

!ATTENTION: Read the instructions in chapter "GENERAL SAFETY RULES" with the utmost attention

!ATTENTION: Before operating on the control board, make sure that there are no bystanders around the lift

4.1 Control board

The operations controlled by control board are described below:

4.1.1 Lifting / Lowering

Push the "UP" button until the lift reaches the desired height.

Push the "LOCK" button for safety locking the lift before go under the lift to maintain car. Push “DOWN" button and "DIRECT DOWN" to let the lift go down until it reaches the desired height. In case the lift has been previously secured on the locks, it is first necessary to lift the machine a little bit to enable the locks to release.

Push the "LOCK" button to lower both carriages on to the safety locks.

4.1.2 Locking on to safety lock

!ATTENTION: This operation shall be always performed before entering the working area when the machine is lifted up.

The lift is equipped with two wire cables to prevent a possible misalignment between the carriages. This can happen, e.g, when the lift descends on an object left in its area.

!ATTENTION: If carriages are out of misalignment, wire ropes must be adjusted. Contact agency or installer to rectify.

! ATTENTION: This operation must always be performed before entering the work area.

4.2 Lifting procedure

To lift the vehicle, proceed as follows:

- Check that the lift is in its lowest position
- Check that the arms are turned in a way not to hamper the vehicle when driving between posts.
- Turn the arms and pull the extensions in a way that the pads are positioned at the points foreseen for lifting as indicated by vehicle manufacturer.
- Push "UP" button to let the lift go up about 10cm.
- Check the correct positioning of the rubber pads
- Check the vehicle stability
- Lift the vehicle at the desired height
- Press the " LOCK" button to secure the lift on mechanical safety racks.

4.3 Lowering procedure

- Push "DOWN" button for carriages to raise for some seconds disengage from safety racks and lower it.
- Hold "DOWN" button until carriages descend to minimum height.
- Turn the arms in a way not to hamper the vehicle when driving out and set the extensions back in original position.
- Drive the vehicle out of the working area.

5.0 Check of safety devices

! ATTENTION: The following devices shall not be tampered or cut out. They must be kept in a perfect condition of efficiency:

5.1 Check of rubber pads

Check their conditions and, if worn or broken, replace them.

5.2 Safety lock engagement button

Turn lifting/lowering selector to let the lift go up at any height, press the locks engagement button and check that the carriages reach the first available position; otherwise get in touch with after-sale service and DO NOT use the lift for any reason.

Technical Data

Lifting Capacity	4000kg
Lifting Height	1800-1845mm (option 1900-1945mm)
Min. Height	Min.95mm- Max.135mm
Column Inside	2830mm
Packing Size	2900(H)x980(W)x515(H)mm
Power & Motor	1Phase(4P, 220V, 50/60HZ) 3Phase(220V/380V, 50/60Hz)

6.0 Lowering in emergency case

! ATTENTION: When performing the "emergency lowering" of the lift, the carriage safety locks must be disengaged first.

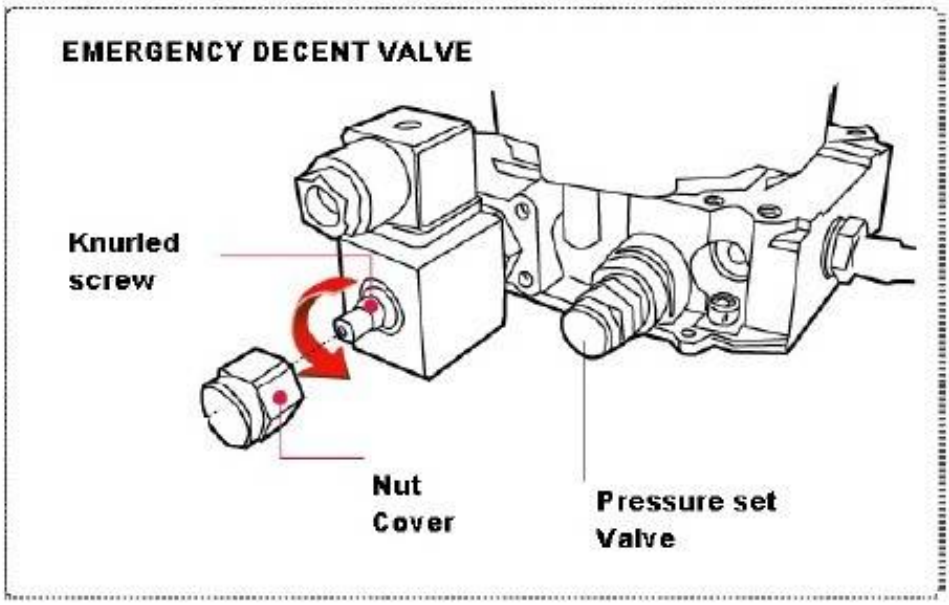
The following operations shall therefore be performed only when:

-The lift won't descend due to electrical power cut.
-In case of absolute need.
-By a sole qualified person.
-Delimiting the lifting area and making it reachable only to the qualified person in
-charge of operations.

2- Optional Reference: Post hoist lowering procedure in case of emergency

-If the lift has been lowered onto the safety locks, remove lock covers on both posts, Jack up individual carriages with a trolley jack and suitable timber just enough to manually lift up locks. lift up locks manually, wedge a screwdriver through the lock pawls to stop locks re-engaging. Remove trolley jack.
Refer picture below of emergency descent valve, located on hydraulic manifold just below motor.
-Undo cover cap, underneath cap is a knurled screw, which when wound out all the way will allow lift to descend at normal speed. Tighten knurled screw, replace cap, remove screwdrivers from lock pawls. Replace lock covers.

Reference Option:



7.0 Maintenance

The several maintenance operations to be carried out are described below. A low operation cost and a long life of the machine depends from constant observation of the operations.

!CAUTION: 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 (more or less dusty), frequency of use, etc.
In case of heavier conditions, servicing must be increased.
When filling up or changing the hydraulic fluid, use the same kind of oil used previously.

7.1 Periodical maintenance operations

7.2 Every week

-Check the cleanness of the mobile parts.
-Check the safety devices as previously described.
-Check hydraulic fluid levels as follows:
If maximum lift height is not acheived, check limit switch position, if ok check oil level. add oil.
Fill up through the filler cap using 32-45 viscosity hydraulic oil.
Check tension of foundation bolts (dynabolts).

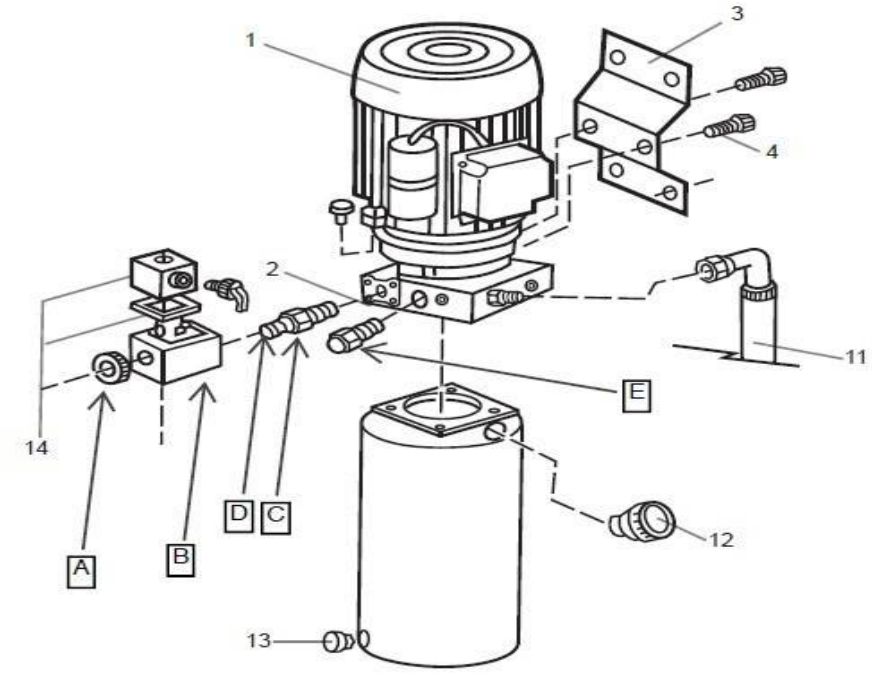
7.3 Every month

-Check tightening of screws
-Check the hydraulic system seal and tighten the loose unions, if necessary.
-Check the hydraulic hoses condition; in case they are worn, replace them by new hoses of the same kind.
-Check the greasing and wear condition of pins, rollers, bushes of trolleys structure as well as arms and relevant extensions; if necessary, replace the damaged parts by original spare parts.

7.4 Every 200 hours running

-Empty the tank and check the condition of the hydraulic fluid. Clean the oil filter.
If the a.m. operations are carried out with care, there will be an advantage for the user, who will find the equipment in perfect condition each time he restarts work.

7.5 Instructions for adjusting hydraulic pressure

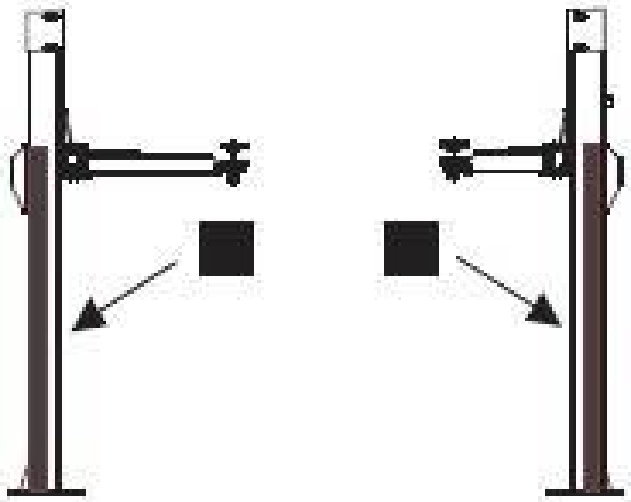


1. Raise lift up to maximum height.
2.Lower lift to rest using down button NOTE: DO NOT REMOVE FINGER FROM DOWN BUTTON FOR AT LEAST 20 SECONDS AFTER LIFT HAS REACHED GROUND LEVEL THIS RELEASES OIL PRESSURE FROM HYDRAULIC HOSES.
3 Remove main hydraulic hose from fitting (refer no:11).
4 Attach and tighten hydraulic oil pressure guage to main fitting on manifold.
5 Press up button and check pressure reading on gauge.
6 Recommended pressure setting is 150 - 180 bar.
7 If required adjust pressure valve (refer pic E).
8 There are (2) different types of pressure valves. (1) Allen key type wind in clockwise to adjust.
(2) same as pic E. Remove outer cap nut. Loosen outer nut, wind in flat blade inner screw.
9 After adjustment is made press the down button for 10-15 seconds to release pressure.
remove pressure gauge, r.e-fit and tighten main hose.
10 NOTE: IF VALVE ADJUSTED IS THE (2) TYPE MAKE SURE YOU TIGHTEN OUTER LOCKING NUT AND REPLACE NUT COVER.

8.0 Lubrication Points

GREASE THE LIFT EVERY 500 WORKING CYCLES

■ Brush Grease

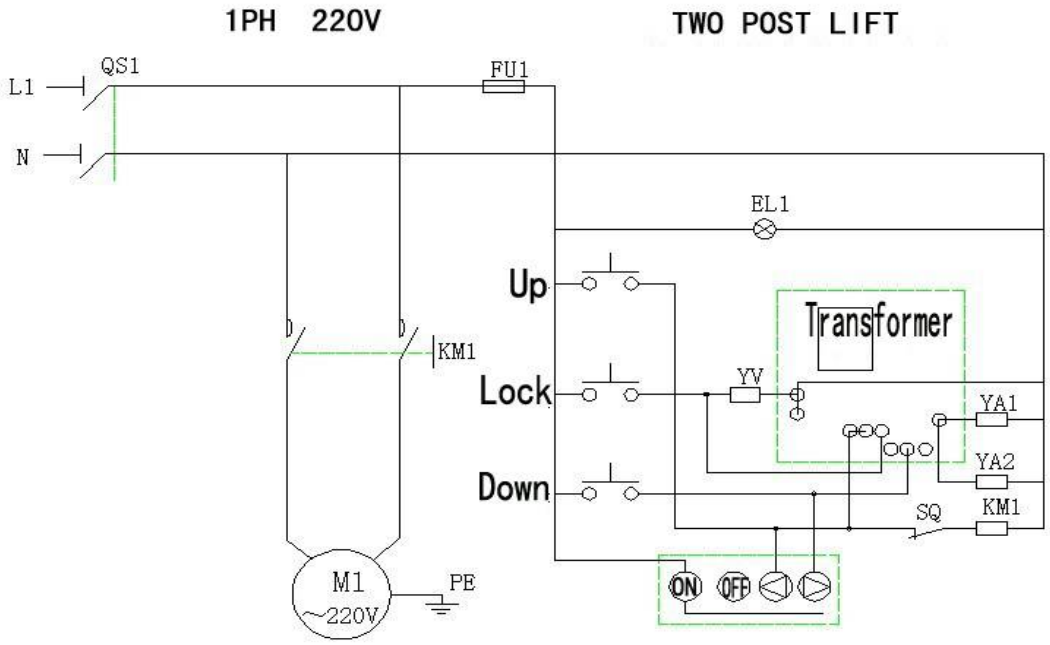


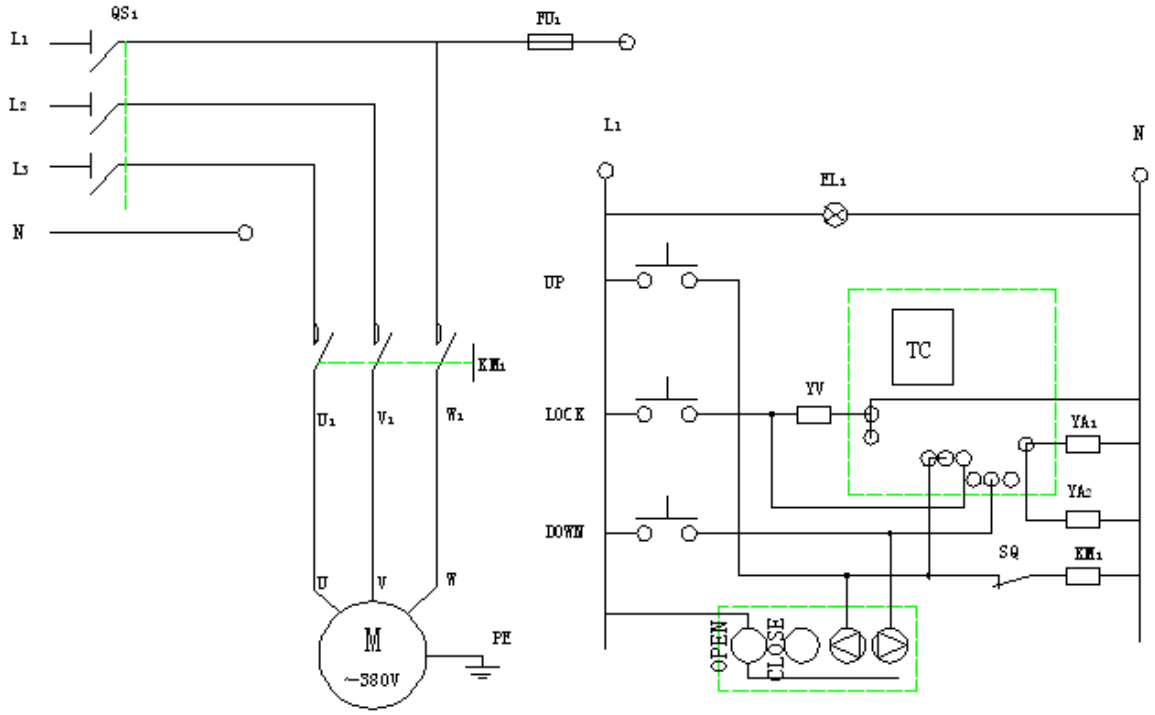
Note : The given points refer to both left and right post : (Internal) sides of each runway

it is advisable to use Lithium or EP Calcium grease.

9.0 Power system diagram

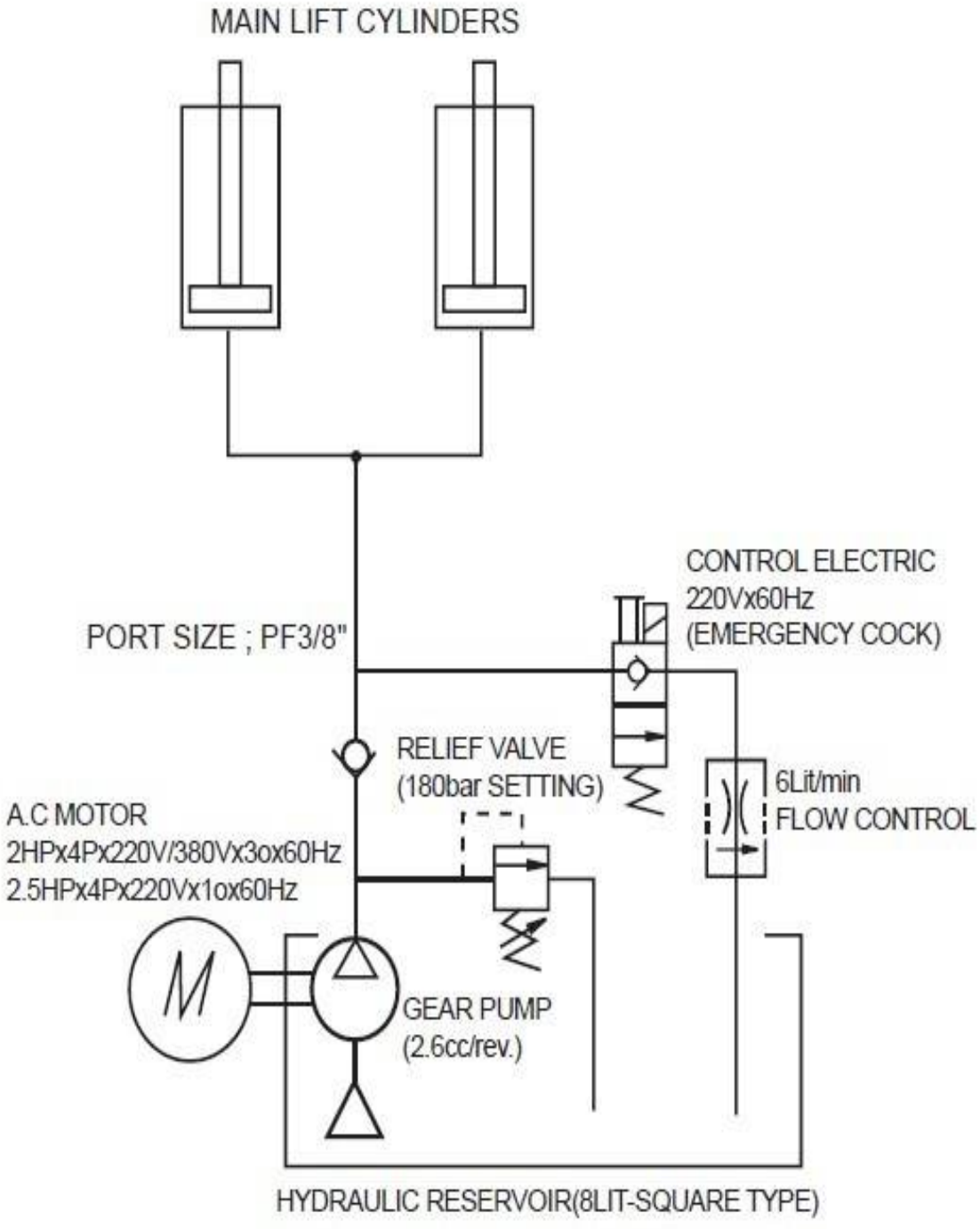
Electronic System diagram





10.0 Hydraulic circuit diagram

Hydraulic System diagram



11.0 Record of interventions

Check record of intervention

All the operations made on the machine in the course of time must be reported here below so as to have an updated situation of the efficiency of the machine.
The user must carry out both cleaning and greasing operations according to the instructions give in this manual. any operation concerning the replacement of parts is strictly reserved to authorised and trained staff.

DATE	OPERATION	PART EVENTUALLY REPLACED

DATE	OPERATION	PART EVENTUALLY REPLACED

DATE	OPERATION	PART EVENTUALLY REPLACED

DATE	OPERATION	PART EVENTUALLY REPLACED

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