

HYDRAULIC SCISSOR LIFT



User manual for scissor lift

Model: JS3000A



HYDRAULIC SCISSOR LIFT

MANUFACTURER

Warranty & Liability

The original manufacturer has paid proper attention to the preparation of this manual. However, nothing contained herein modifies or alters, in any way, the terms and conditions of manufacturer agreement by which this lift was acquired, nor increase, in any way, manufacturer's liability to the customer.

TO THE READER: every effort has been made to ensure that the information contained in this manual is correct, complete and up-to date. The original manufacturer is not liable for any mistakes made when drawing up this manual and reserves the right to make any changes due the development of the product, at any time.

This lift is warranted by the original manufacturer to be of satisfactory quality, fit for its purpose and comply with applicable the original manufacturer's specifications for the period indicated in below

This warranty does not apply if the lift has:


- 1) been mishandled, misused, wilfully damaged, neglected, improperly tested, repaired, altered or defaced in anyway
- 2) a defect arising as a result of any failure to follow instructions either in the manual or product specification
- 3) a defect arising from the use of non- the original manufacturer approved parts or ancillary items attached to or in connection with the lift.
- 4) a malfunctioning or damage arisen out of natural disaster such as earthquake, flood and so on.
- 5) Been installed by unauthorized personnel.

Warranty does not affect your statutory rights as a consumer.

Warranty conditions may vary depending on the country in which you bought the lift.

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HYDRAULIC SCISSOR LIFT

PACKING, TRANSPORT AND STORAGE

ALL PACKING, LIFTING, HANDLING, TRANSPORT AND UNPACKING OPERATIONS ARE TO BE PERFORMED EXCLUSIVELY BY EXPERT PERSONNEL WITH KNOWLEDGE OF THE VEHICLE LIFT AND THE CONTENTS OF THIS MANUAL

PACKING

The lift is shipped disassembled into following parts:

Weight (kg)

1. Complete scissor lift, control cabinet , and mobile kit

520kg

The gross weight is 520kg.

LIFTING AND HANDLEING

The pack boxes may be lifted and moved with a lift truck (Fig.1).If either of the latter two are used , boxes must be harnessed with at least 2 slings.

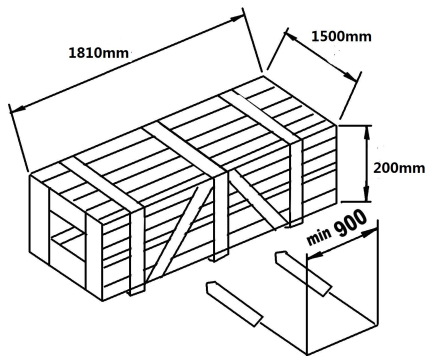


Fig.1

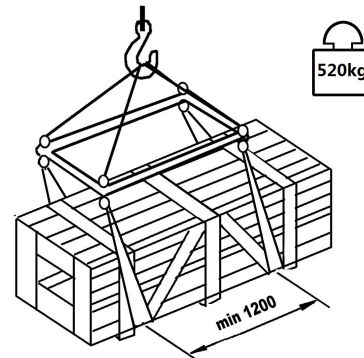


Fig.2

STORAGE

Pack boxes always be kept in a covered, protected place, at a temperature between -10° And $+40^{\circ}$ And must not be exposed to direct sunlight and must not be caught in the rain.

STACKING

The type of packing allows the possibility of stacking up to 8 crates.

Up to 8 crates may be stacked one upon the other on lorries or in containers if property 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.

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Fig.3



Fig.4



INTRODUCTION WARNING

This manual has been prepared for workshop personnel expert in 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

LIFT SATETY

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THE SAFETY OF LIFTED VEHICLES

3000kg

Express the rated load is 3000kg , don't allow the lift load weigh excess 3000kg.



This symbol express attention should be taken for electrical hazards



This symbol expresses the earth connecting point.

Operation instruction

This symbol is on the side of the main post

CONSERVING THE MANUAL

The manual is an integral part of the lift, which it should always accompany even if the unit is sold .The manual must be kept in the vicinity of the lift in an easily accessible place so that the operator and maintenance staff must be able to locate and consult the manual quickly at any time.

ATTENTIVE AND REPEATED READING OF CHAPTER 3, WHICH CONTAINS IMPORTANT INFORMATION AND SAFETY WARNINGS, IS PARTICULARLY RECOMMENDED.

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

LAWS

Machinery Directive 2006/42/EC , Low Voltage Directive 2014/35/EU and applicable standards:EN EN 60204-1:2006/AC:2010 , EN1493:2010

The lifting, transport, unpacking, assembling, installation, starting up, initial adjustment and testing, the work relate 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 frontispiece).

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 the operator and maintenance works better understanding 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

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(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: person authorized for routine maintenance of the lift.

The end user can only use the machine in correct way as defined in instruction.

Loose clothes shall not be used protection cap shall also be used for long hair person, etc.

Lubricate the machine periodically according to the manual.

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CHAPTER 1 DESCRIPTION OF THE MACHINE

The machine can move according to needs of users. It is simple and convenient.

The lift consists of the following main parts:

1. Lift
2. Control unit
3. Hydraulic units (hydraulic cylinders + power unit)
4. Safety devices

1.1 LIFT(FIG.4)

This lift consists of:

1. Top platform
2. Base plate
3. Safety lock

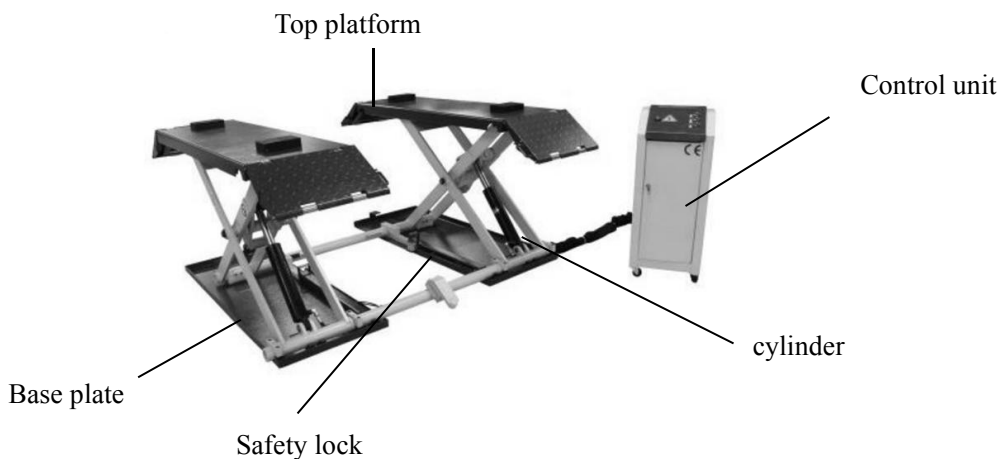


Fig.5

1.2 Control unit (SEE FIG.4)

It consists of:

1. An electric motor
2. A geared hydraulic pump
3. oil tank
4. Hydraulic pipes

Note: The pressure of the oil delivery pipe may be not less than 40Mpa

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1.3 CONTROL BOX

The panel that houses the electric control box contains the following:

- 1 Up button
- 2 Down button
- 3 Park button
- 4 Power switch

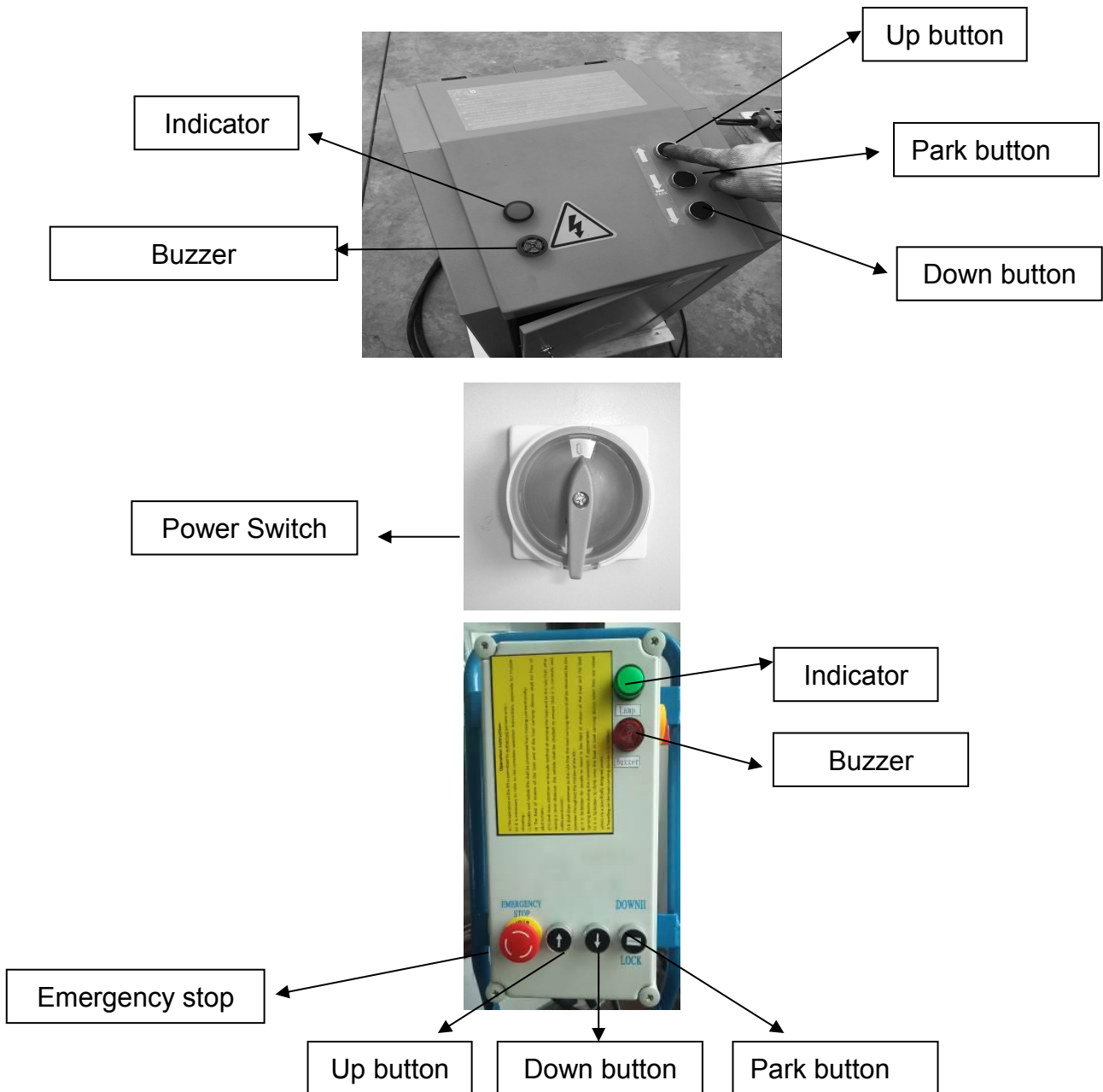


Fig.6

HYDRAULIC SCISSOR LIFT

CHAPTER 2 TECHNICAL SPECIFICATIONS

CAPACITY.....	3000 kg
Car max lifting height.....	1000mm
Lift min stand height.....	110mm
Clearance between vehicles.....	700mm
Total width.....	1790mm
Width of platforms.....	460mm
Rise time with three-phase motor.....	≤75sec
Rise time with single-phase motor.....	≤75sec
Descent time.....	18sec≤t≤60sec
Noise level.....	≤70 dB(A)
Operating temperature.....	-10/+50°C
Work environment:	closed room
Relative humidity.....	less than 90%
Gross weight.....	520 kg

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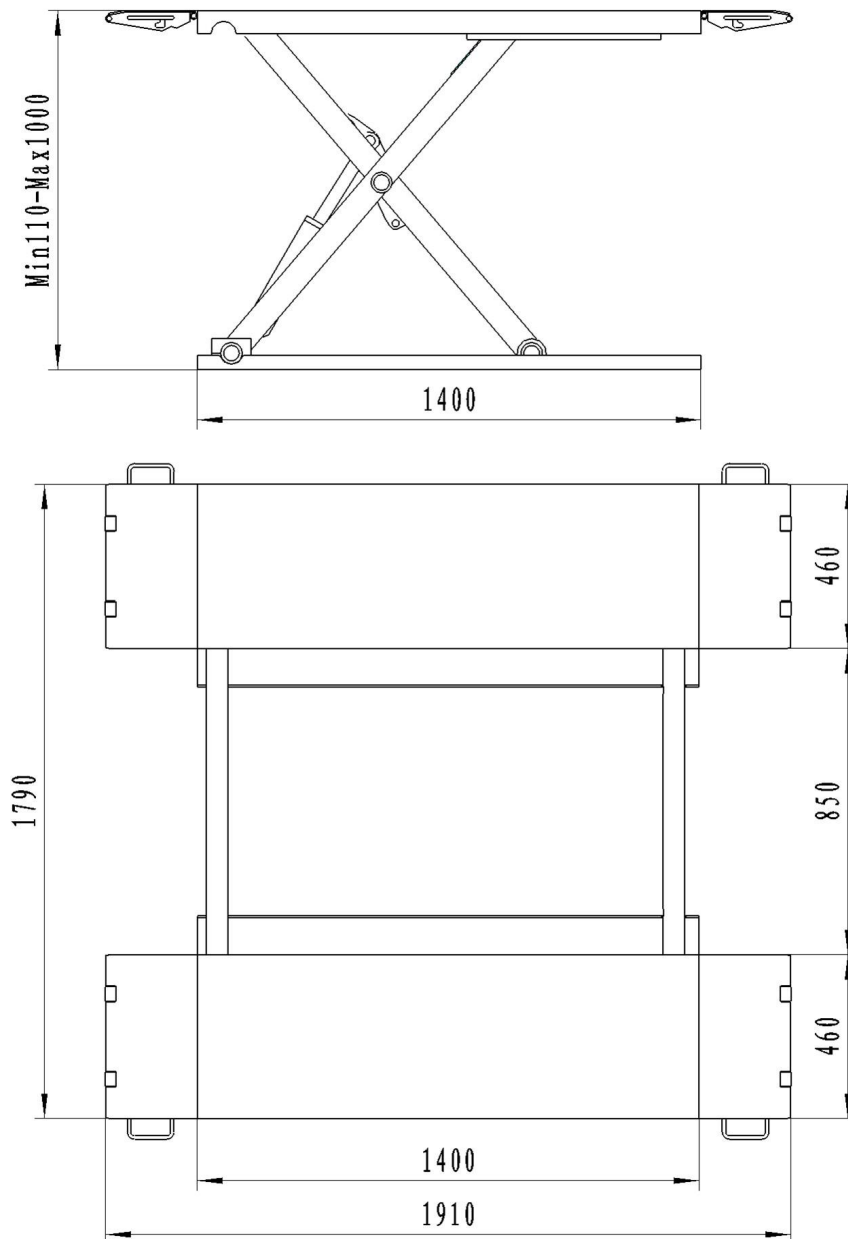
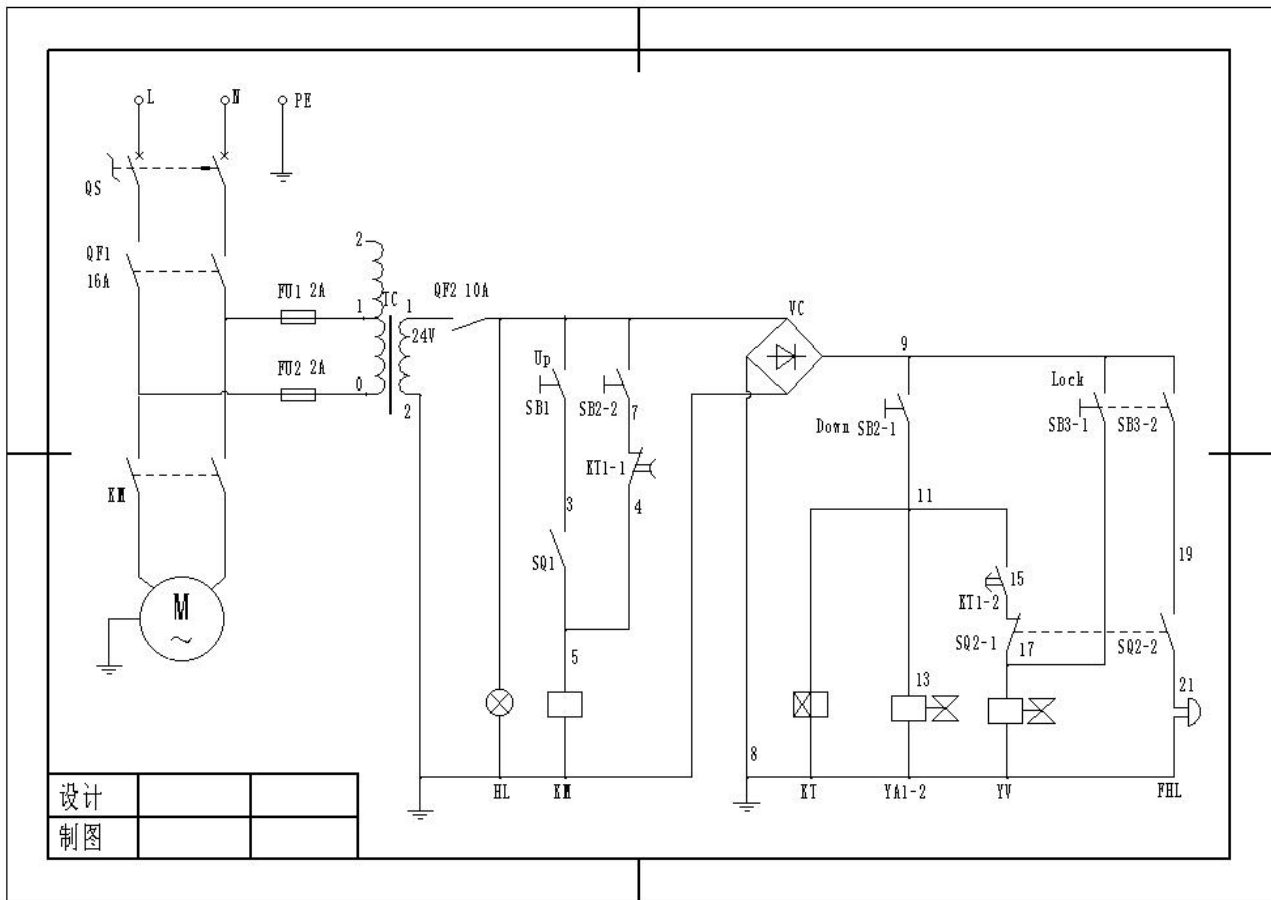


Fig.7 Dimensions and overall clearances

HYDRAULIC SCISSOR LIFT

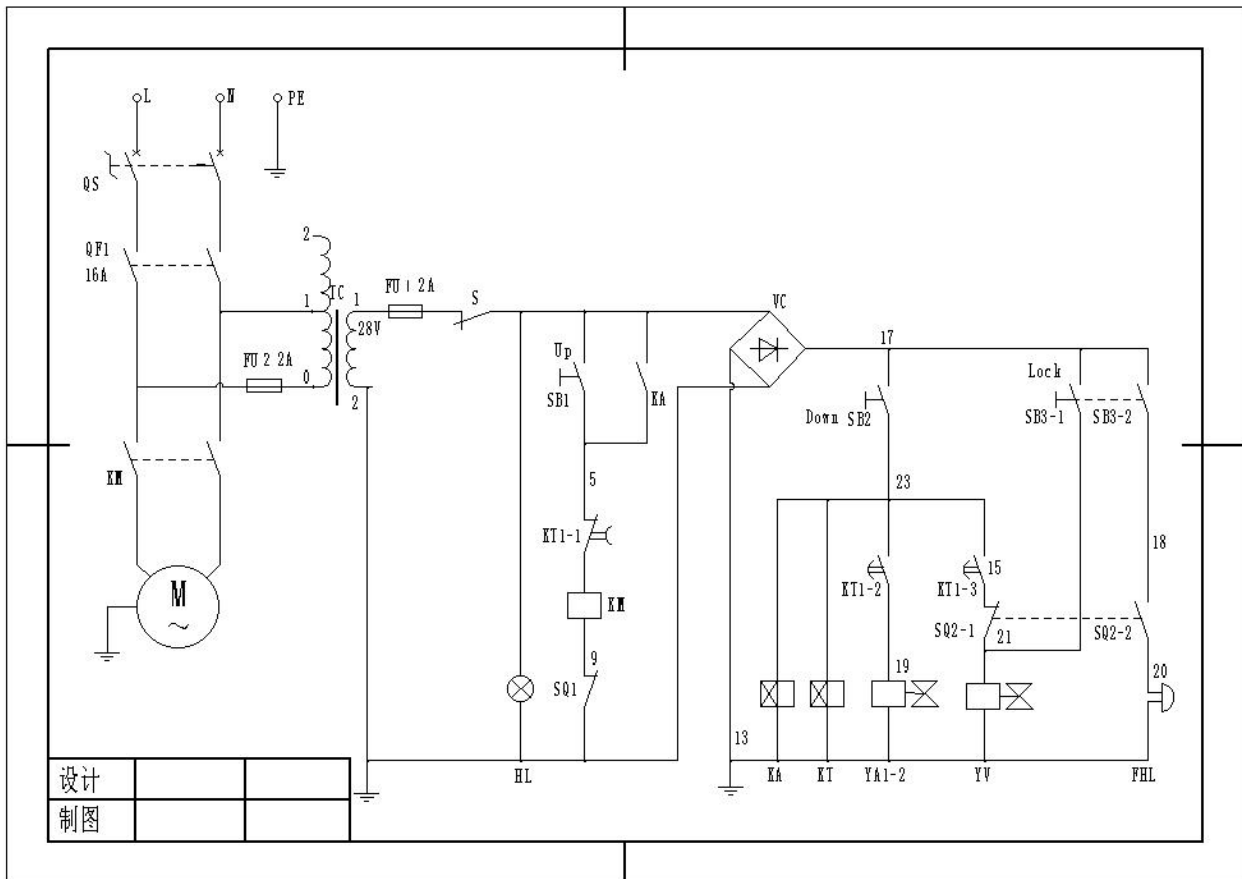
2.1 ELECTRIC PRINCIPLE DIAGRAM



QS	Power switch	QF	Circuit breaker
KM	Contactor	FU	Fuse
TC	Transformer	HL	Light
SB1	Up button	SB2	Down button
SB3	Lock/Down2 button	KT	Time relay
VC	Rectifier bridge	YV	Lower solenoid valve
YA	Electromagnet	FHL	Buzzer
SQ1	Top limit switch	SQ2	Lower limit switch
M	Motor		

Fig.8 circuit diagram for unmovable

HYDRAULIC SCISSOR LIFT



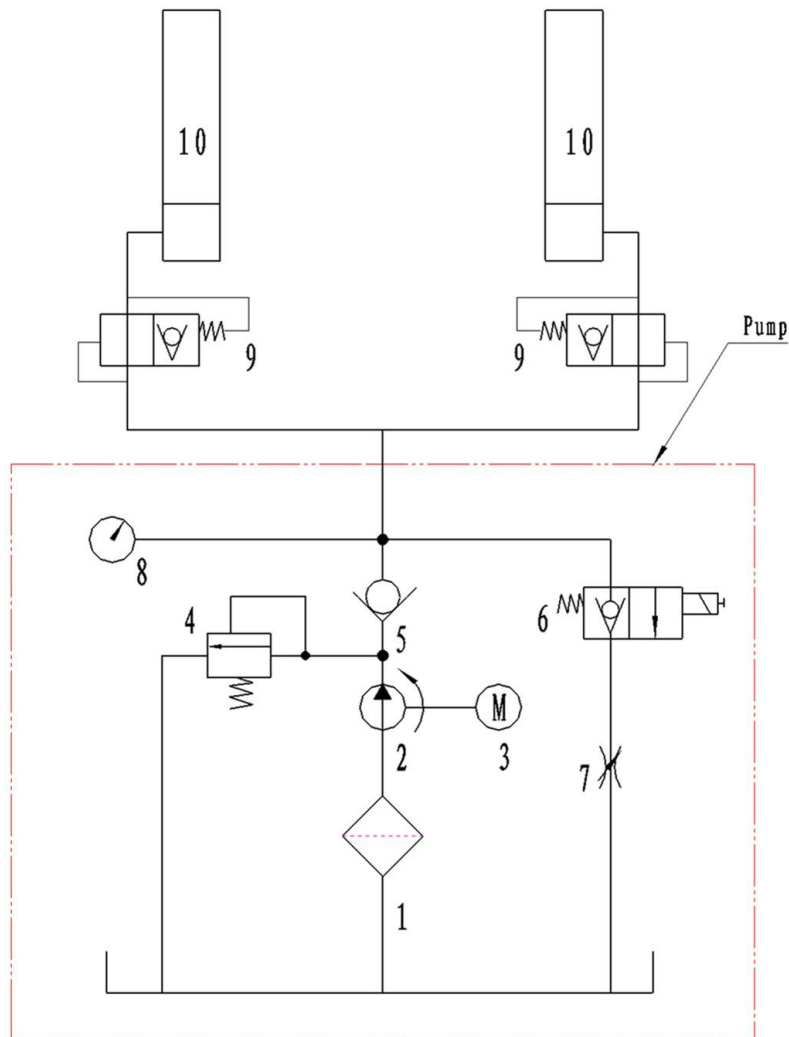
QS	Power switch	QF	Circuit breaker
KM	Contactor	FU	Fuse
TC	Transformer	HL	Light
SB1	Up button	SB2	Down button
SB3	Lock/Down2 button	KT	Time relay
VC	Rectifier bridge	YV	Lower solenoid valve
YA	Electromagnet	FHL	Buzzer
SQ1	Top limit switch	SQ2	Lower limit switch
M	Motor	S	Emergency stop button

Fig.9 circuit diagram for movable

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2.2 HYDRAULIC SYSTEM

HYDRAULIC PRINCIPLE DIAGRAM



1. Filter
2. Gear pump
3. Moter
4. Overflow valve
5. One-way valve
6. Solenoidvalve
7. Flowing control valve
8. Pressure gage
9. anti leakage valve
10. Cylinder

Fig.10

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2.3 OIL

The oil reservoir contains hydraulic mineral oil in accordance with ISO/DIN 6743/4 with a level of contamination according to ISO 4406, for example IP HYDRUS OIL 32; SHELL TELLUS OIL T32 or equivalent.

2.4 VEHICLE WEIGHT

Lift rack can be adapted to virtually all vehicles no heavier than 3000kg, the dimensions of which do not exceed the following , which stated in clause 2.5.

The lift capacity is **3000kg**.

2.5 MAXIMUM DIMENSIONS OF VEHICLES TO BE LIFTED

Max width: 2400mm

Max wheelbase: 3000mm

The underbody of cars with low ground clearance may interfere with the structure of the lift. Pay particular attention in the case of low body sports cars.

Always keep the capacity of the lift in mind in the case of vehicles with particular characteristics.

THE SAFETY area will be determined by the dimensions of the vehicle.

The diagrams below include the criteria for defining the limits of use of the carrack.

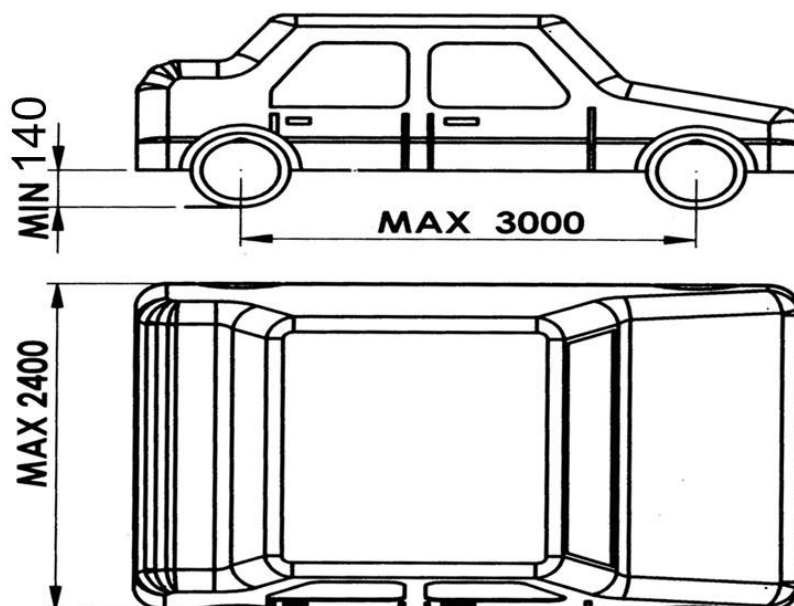


Fig.11 Minimum and maximum dimensions

CHECK MAXIMUM LOAD CAPACITY AND LOAD DISTRIBUTION IN CASE OF LARGER VEHICLES.

MAXIMUM WEIGHT OF THE VEHICLE TO BE LIFT

HYDRAULIC SCISSOR LIFT

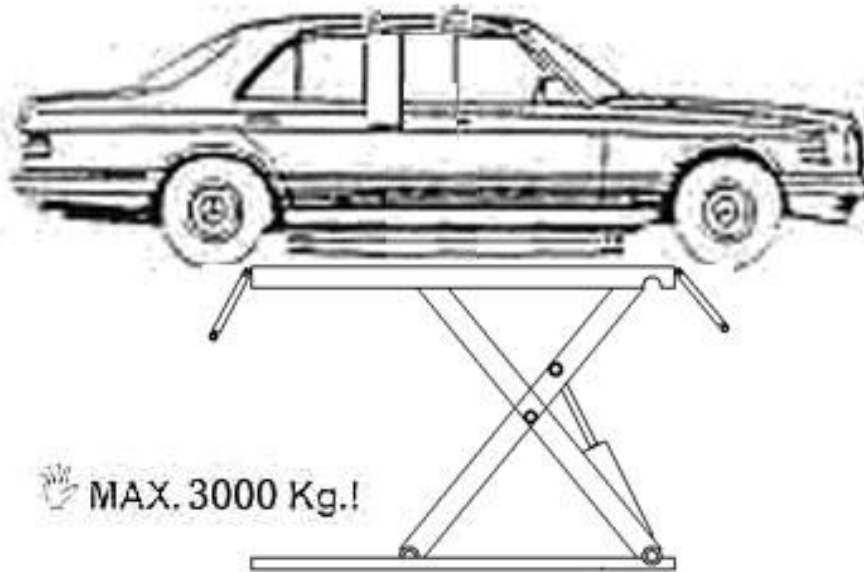


Fig.12 Weight distribution

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CHAPTER 3 SAFETY

It is vital to read this chapter of the manual carefully as it contains important information regarding the risks that the operator and the maintenance fitter may be exposed to in the eventuality that the lift is used incorrectly.

The following text contains clear explanations regarding certain situations of risk or danger that may arise during the operation or maintenance of the lift, the safety devices installed and the correct use of such systems, residual risks and operative procedures to use (general and specific precautions to eliminate potential hazards).



WARNING

Lift is designed and built to lift vehicles and hold them in the elevated position in a closed workshop. All other uses are unauthorized; in particular, the lift is not suitable for:

- Washing and respire work;
- Creating raised platforms or lifting personnel;
- Use as a makeshift press for crushing purpose;
- Use as good lift
- Use as a jack for lifting vehicles or changing wheels.



Should be wipe 3# general lithium base grease on the safety lock gear for every three months.

THE MANUFACTURE DISCLAIMS ALL LIABILITY FOR INJURY TO PERSONS OR DAMAGE TO VEHICLES AND OTHER PCABLERTY CAUSED BY THE INCORRECT AND UNAUTHORISED USE OF THE LIFT.

During lift and descent movements, the operator must remain in the command station as defined in figure 13. The presence of persons inside the danger zone indicated in the same figure is strictly prohibited. The presence of persons beneath the vehicle during operations is permitted only when the vehicle is parked in the elevated position.

DO NOT USE THE LIFT WITHOUT PROTECTION DEVICES OR WITH THE PROTECTION DEVICES INHIBITED. FAILURE TO COMPLY WITH THESE REGULATIONS CAN CAUSE SERIOUS INJURY TO

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PERSONS, AND IRREPERABLE DAMAGE TO THE LIFT AND THE VEHICLE BEING LIFTED.

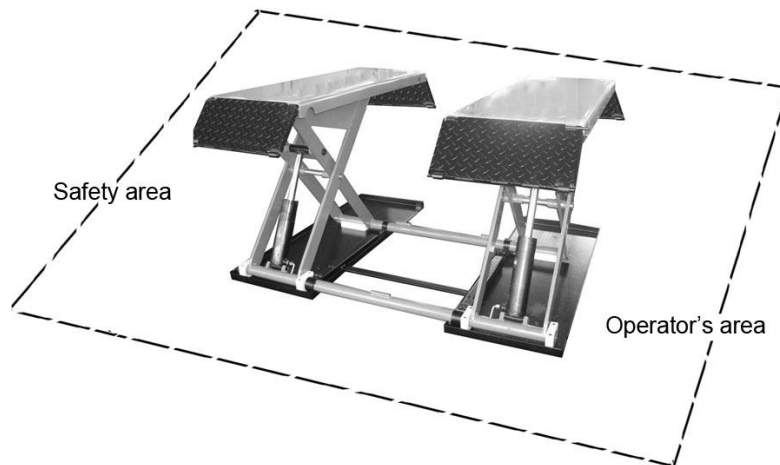


Fig.13 WORKING AREAS

3.1 GENERAL PRECAUTIONS

The operator and the maintenance are required to observe the prescriptions of accident prevention legislation in force in the country of installation of the lift. Furthermore, the operator and the maintenance must:

1. Always work in the scheduled working area as shown in the manual
2. Never remove deactivate the guards and mechanical, electrical, or other types of safety devices.
3. Read the safety notices affixed to the machine and the safety information in this manual.

In the manual all safety notices are shown as follows:

DANGER: indicates imminent danger that can result in serious injury or death.

WARNING: indicates situations and /or types of maneuvers that are unsafe and can cause injuries of various degrees or death.

CAUTION: indicates situations and /or types of maneuvers that are unsafe and can cause minor injury to persons and /or damage the lift, the vehicle or other psaltery.

3.2 RISKS OF ELECTRIC SHOCK

Specific safety notice affixed to the lift in areas where the risk of electric shock is particularly high.

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3.3 RISKS AND PROTECTION DEVICES

We shall now examine the risks to which the operator and the maintenance fitters may be exposed when the vehicle is immobilized in the raised position, together with the protection devices and adopted by the manufacture to reduce all such hazards to the minimum.

3.4 LONGITUDINAL AND LATERAL MOVEMENT

The equipment chosen must be suitable for safe lifting and moving, bearing in mind the dimensions and weight. It is not allowed, when get to the height, to move the load backward and forward, which will cause the vehicle falls off and slant.



WARNING

DO NOT ATTEMPT TO MOVE THE VEHICLE WHEN IT IS RESTING ON THE DISK SUPPORT PLATES.

It is important to position the vehicle on the lift so that the weight is correctly distributed. For person and equipment safety, it is important that:

1. People rest inside the safety area while the vehicle raising.
2. The engine is off, the lock engaged and it should be pulled to activate the lock to work.
3. The vehicle is correctly positioned.
4. Only authorized vehicle are raised without exceeding the rate capacity and overall dimensions.

3.5 RISKS WHILE THE VEHICLE IS BEING RAISED

The following safety devices have been installed to protect against overweight conditions and equipment failure:

1. The pressure- regulate valve, located on the hydraulic oil power unit, will trip if the lift is overloaded.
2. In case of a sudden, great leakage in the hydraulic circuit (a broken pipe), the blocking valves, at the bottom of each Cylinder, will trip.

If the hydraulic cylinder breaks, the block is locked by mechanical lock, and immediately stops the platform preventing their descent.

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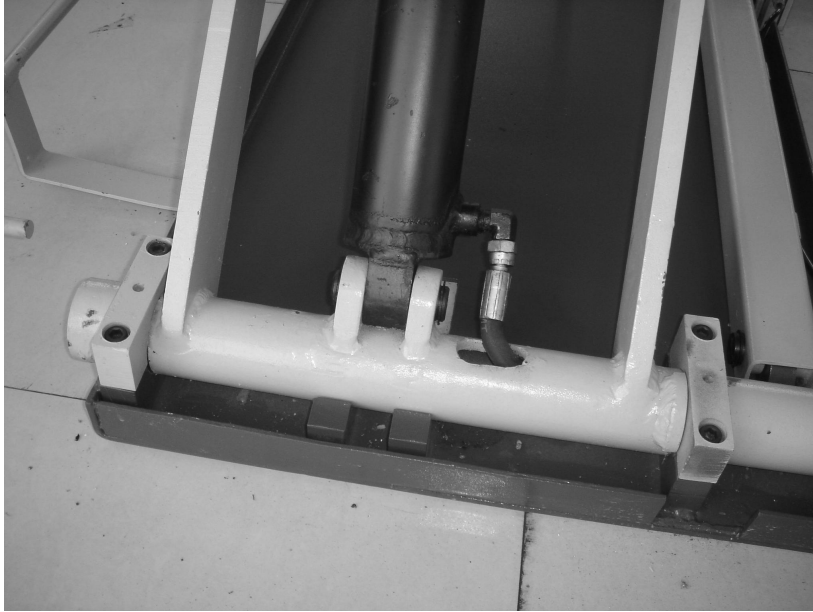


Fig.14

Mechanical Lock

3.6 RISKS OF PERSONS

This paragraph illustrates risks to which the operator, maintenance worker, or any person near the operating area of the lift may be exposed in the case of impeccable use of equipment.

HYDRAULIC SCISSOR LIFT

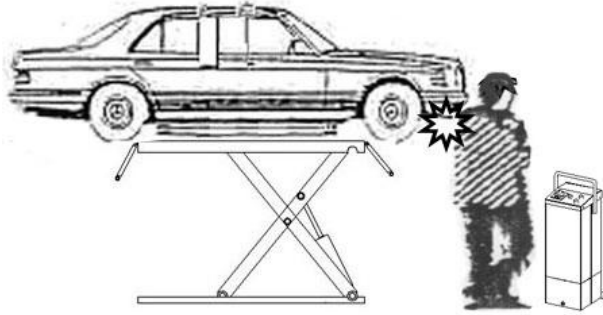


Fig.15 crushing risk

3.6.1 RISK OF CRUSHING (OPERATOR)

Possible if the operator controlling the lift is not in the specified position at the command panel. When the platform and the vehicle are descending, the operator must never be partly or completely underneath the moving structure. During this phase the operator must remain in the command zone (fig.11)

3.6.2 RISK OF CRUSHING (PERSONNEL)

When the platform and the vehicle are descending personnel are prohibited from entering the area beneath the moving parts of the lift.(fig.11) .the lift operator must not start the manoeuvre until it has been clearly established that there are no persons in potentially dangerous positions.

3.6.3 RISK OF IMPACT

Caused by the parts of the lift or the vehicle that is positioned at head height.

When, due to operational reasons, the lift is immobilized at relatively low elevations, personnel must be careful to avoid impact with parts of the machine not marked with special hazard coloring.

3.6.4 RISK DUE TO VEHICLE MOVEMENT

Movement may be caused during operations, which involve force sufficient to move the vehicle (fig.12). If the vehicle is of considerable dimensions or weight. Movement may lead to overload or unbalancing. The weight and dimensions of the lift calculated in advance, must be taking to avoid such an occurrence.

3.6.5 RISK OF VEHICLE FALLING FROM LIFT

This risk could be caused by the incorrect positioning on the arm disk support plates (fig.12) or in incorrect position of the arm disk support plates in relation to the lift. Ensure the center of gravity of the vehicle,

HYDRAULIC SCISSOR LIFT

then put four arms at the correct place to avoid such an occurrence.

NEVER BOARD THE VEHICLE AND/OR TURN THE ENGINE ON WHEN LIFT IS RAISED NEVER LEAN OBJECTS AGAINST THE POSTS OR LEAVE THEM IN THE AREA WHERE MOVING PARTS ARE LOWERED.

This could hamper lowering or cause the vehicle to fall from the rack

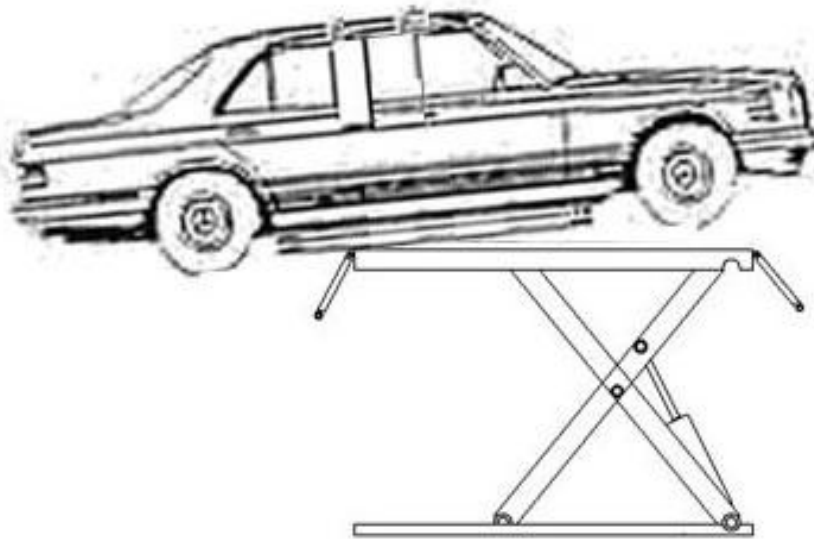


Fig.16

3.6.6 SLIPPING

This risk may arise due to spillage of lubricants in the surrounding area .

ALWAYS KEEP THE AREA SURROUNDING THE LIFT CLEAN BY REMOVING ALL OIL SPILLS.

To avoid the risk of slipping, make use of the recommended personal protection (anti-slip footwear).

3.6.7 RISK OF ELECTRIC SHOCK

Risk of electric shock in areas of the lift housing electric wiring. Do not use jets of water, steam (high pressure wash units), and solvents. Or paint in the immediate vicinity of the lift, and take special care to keep such substances clear off the electrical command panel.

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3.6.8 RISK RELATED TO INAPPROPRIATE LIGHTING.

The operator and the maintenance fitter must be able to assure that all the areas of the lift are properly and uniformly illuminated in compliance with optics principle and the laws in force in the place of installation.

3.6.9 RISK OF COMPONENT FAILURE DURING OPERATION.

The manufacturer has used appropriate materials and construction techniques in relation to the specified use of the machine in order to manufacture a reliable and safe lift. Note however, that the lift must be used in conformity with the manufacturers prescriptions and the frequency of inspections and maintenance work recommended in chapter 6 "MAINTENANCE" must be observed.

RISK RELATED TO IMPROPER USE

Persons are not permitted to stand or sit on the platforms during the lift maneuver or when the vehicle is already lifted.

All uses of the lift other than the uses for which it was designed are liable to give rise to serious accidents involving the persons working in the immediate vicinity of the unit. It is therefore essential to adhere scrupulously to all regulations regarding use, maintenance and safety contained in this manual.

Warning label

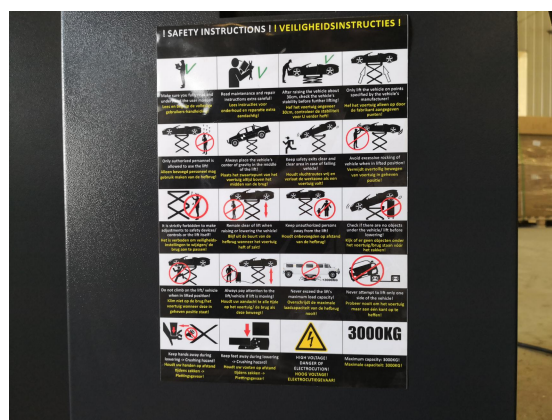


Fig.17

HYDRAULIC SCISSOR LIFT

CHAPTER 4 INSTALLATION

THE FOLLOWING OPERATIONS MUST BE PERFORMED EXCLUSIVELY BY SPECIALISED TECHNICAL STAFF WITH AUTHORISATION FROM THE MANUFACTURER OR LICENSED DEALER. IF THESE OPERATIONS ARE PERFORMED BY OTHER PERSONS, SERIOUS PERSONAL INJURY AND/OR IRREPERABLE DAMAGE TO THE LIFT UNIT MAY RESULT.

4.1 INSTALLATION REQUISITE CHECKLIST

The lift is designed for installation in enclosed areas suitably protected from the weather. The place of installation must be well clear of areas destined to washing or painting, and away from solvent or paint storage areas or areas where there is a risk of potentially explosive atmosphere.

SUITABILITY OF THE DIMENSIONS OF THE PLACE OF INSTALLATION AND SAFTY CLEARANCE

The lift must be installed in observance of the clearances between walls, pillars, other machines, etc. indicated in figure 13 and in compliance with any legislative requirements in the county of installation.

Check in particular:

1. maximum height (i.e. 1000mm),
2. minimum distance from walls: 600mm
3. Minimum working area: 600mm
4. Area for command station
5. Area for maintenance, access and emergency escape routes.
6. Position in relation to other machines

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7. No trouble in installation area

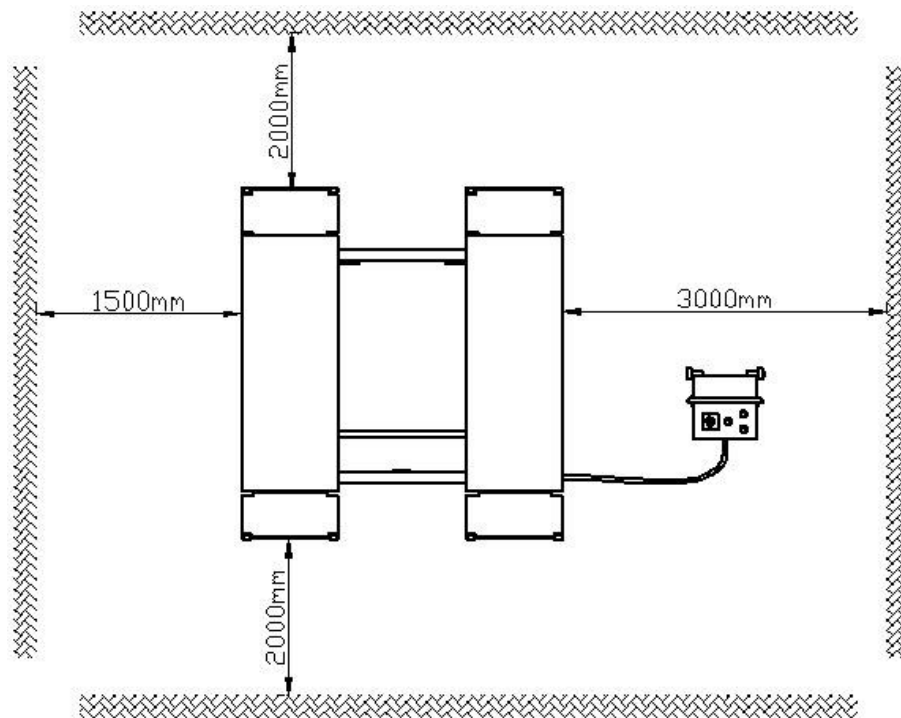


Fig.18

4.2 LIGHTNING

All parts of the machine must be uniformly lit with sufficient light to assure that the adjustment and maintenance operations specified in the manual can be performed, and without areas of shadow reflected light, glare and avoiding all situations that could give rise to eye fatigue.

The lighting must be installed in accordance with the laws in force in the place of installation (responsibility lies with the lighting equipment fitter)

4.3 FLOOR

The floor must also be flat and level (10mm of tolerance for leveling). Consult the manufacturer with regard to special applications.

4.4 ASSEMBLING



WARNING

DURING INSTALLATION ONLY AUTHORISED PERSONNEL IS ALLOWED

To assemble the lift, the weight of the various parts is to be considered, in order to provide a lifting machine with

HYDRAULIC SCISSOR LIFT

the minimum capacity 3000kg

Max. Lifting height 1000mm

Before starting to assemble the lift, check the crate contains all the needed material.

4.4.1 Platforms assembling

1. Mount the command platform
2. Assemble the hydraulic station on the command platform, with the screws fixed on the installation panel of the hydraulic station.

4.4.2 HYDRAULIC SYSTEM ASSEMBLING

1. Before the lift leaving factory, it has been checked and tested. Pack hydraulic station, high pressure oil pipe and cylinder respectively to make the transport convenient. Open the box and check the accessories of the hydraulic system, and then assemble the hydraulic system.
2. Connect oil pipe and joint, oil pipe should through Spiral hose out, then spiral hose one side connect the lift side, another side joint connect the control box .
3. Check again and make sure if it has a leak, and mend it as request.

Full the hydraulic unit tank with hydraulic oil



Fig.18

Put the sufficient hydraulic oil into the tank

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Fig.19

Connect the hose before using the lift

4.4.3 ELECTRIC PLANT CONNECTION

Connect power line and set up the limit switch. The limit switch wire through the Square tube cover out, used wire connectors according the wire number to connect limit switch already. Then overturn the square tube cover install the Soleplate.



Fig.20

Connect the wiring before using the lift

HYDRAULIC SCISSOR LIFT



WARNING

The operations listed below must be performed by skilled personnel

The operations listed below must be performed by skilled personnel

Before connecting the electric system, make sure that:

1. The power supply plant to the lift is equipped with the protection device required by current standards in the country where the machinery is installed.

2. The power supply line has the following cross-section:

Lift voltage 400V, three-phase.....minimum 2.5mm²

Lift voltage 230V, three-phase.....minimum 4mm²

Lift voltage 230V, single-phase.....minimum 6mm²

3. The voltage oscillations are within the tolerance range set forth by the specifications.

The manufacturer supplies the rack to operate at 400V with a three-phase configuration; if the line voltage is different, the motor and other parts and components must be changed. The voltage is the same.

4. Check the accessories of the electric system of the lift whether they are safe or loose.

5. Pay attention to the limit switches connection and breaker (fuse).

If everything goes well, insert the power supply plug into the jack. At this time the machine can work. (But need to check if it is clockwise rotation).

4.5 TESTING AND CHECKS TO PERFORM BEFORE START-UP

4.5.1 MECHANICAL TESTS

1. Attachment and tightness of bolts, fittings and connections
2. Free sliding of moving parts
3. Cleaness of various parts of the machine
4. Position of the protection device
5. Safety locking devices

4.5.2 ELECTRIC TESTS

1. Connection comply with diagrams

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2. Machine ground connections

4.5.3 OPERATING OF THE FOLLOWING DEVICES

1. Rise limit switch
2. Mechanic lock and electric control
3. Hydraulic oil plant solenoid-valve

4.5.4 HYDRAULIC OIL TEST

1. Sufficient oil in the tank
2. No leaks
3. Cylinder operation

NOTE: If oil is not present, fill the reservoir of the power unit with the necessary amount of oil .See the

procedure in chapter 6: MAINTENANCE

4.5.5 ROTATION DIRECTION TEST

The motor should turn in the direction of the arrow located on the power unit pump; check using brief start-ups (each start-up must last a maximum of two seconds). If problems arise in the hydraulic oil plant, see the "Trouble-shooting" table in chapter 7

4.6 SET UP



WARNING

THESE OPERATIONS MUST ALWAYS BE PERFORMED BY TECHNICIANS OF THE AUTRORIZ SERVICE CENTRE INDICATED IN THE FRONT OF THIS MANUAL

4.6.1 VACUUM TEST (without vehicles loaded)

In this phase check the following:

- . That the up, down and parking push buttons operate correctly;
- . That the rack reaches the maximum height;
- . That there are no abnormal vibrations in the posts and in the arms;
- . That the safety wedges enter the iron pads under the carriage
- . That the rise limit switches trip
- . That the electromagnet trips
- . After having done all as previously recommended, the height difference between the arms of the two carriages, is less than 1cm. On the contrary, adjust their level by working on the counter-nuts on the synchronous steel cables

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To perform the tests listed about, complete two or three complete up and down cycles. This is also to be done in order to make the air in the hydraulic circuit going out

4.6.2 LOAD TESTS

Repeat the previous tests with the vehicle on the rack

After the load tests, visually inspect the machinery and check again that all bolts are tightened.

4.7 MOVE THE LIFT

Before move the lift, lifting the platform about 800mm, then install the wheel on the bar, and then lower the platform to the bottom, install the pull bar to the front bar, now you can push the pull bar and move it.

It easy to move for you.

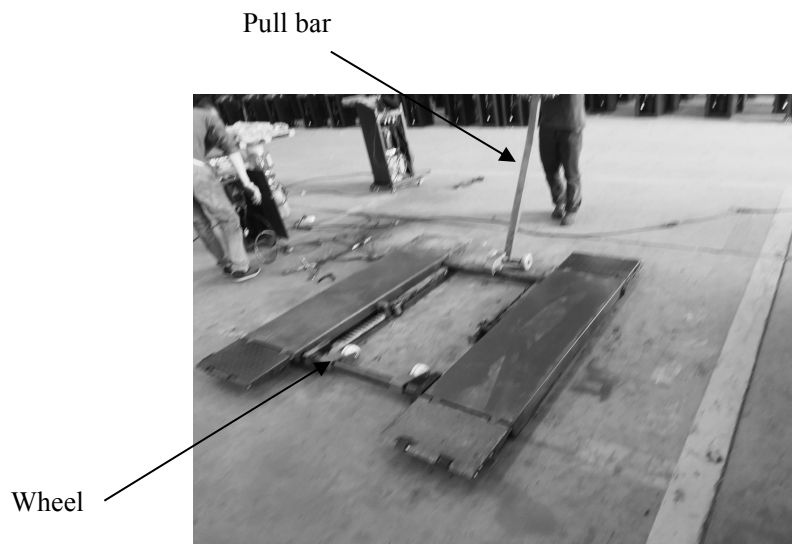


Fig.21

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CHAPTER 5 OPERATIONS AND USE

·5.1 Preparation:

Drive the car into lift and stop the car, put skid proof pad in suitable position.(the pad prepared by user)

·5.2 Lifting:

Turn on the power (from 0 to 1), press “UP” button, the lift rises. As the carriages are raised the safety wedges are inserted automatically into each the iron pad under the carriage. Regarding lift limits and safety devices, see pages 15,16 “**RISKS WHILE THE VEHICLE IS BEING RAISED**”.



Fig.22

·5.3 Stop:

Release the “UP” button, the lift will automatically stop rising. In the meanwhile, the motor stop working.

·5.4 Park/LOCK:

When the lift reach to the required position, press “PARK/LOCK” button, the lift automatically in locked position.

The user allows to do maintenance works only when the scissor lift is in locked position..

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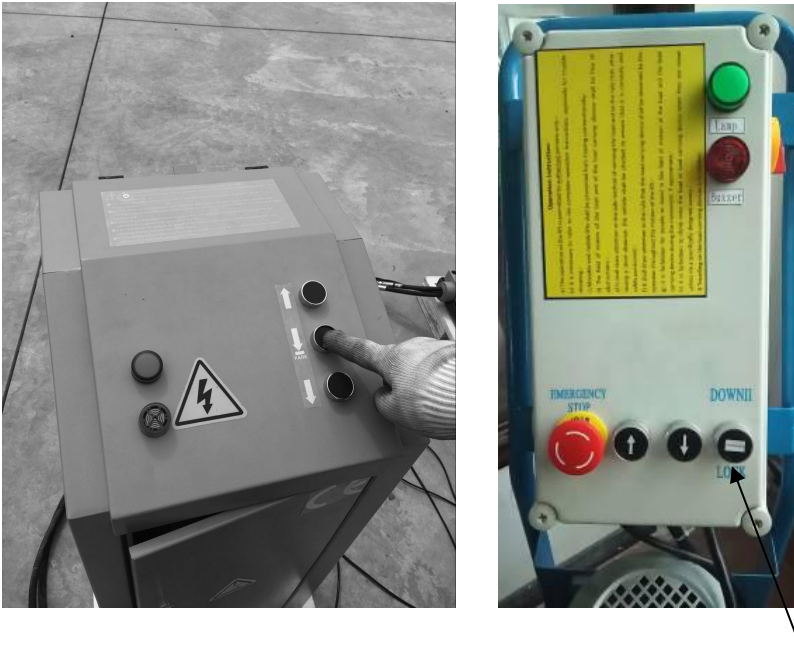


Fig.23

5.5 Lowering:

Press **“DOWN”** button, the lift will go up and safety lock will release in the next 1-2 seconds then the lift descends and the motor stop operating. Lowering speed is not allowed to adjust by un-authorized person and should be adjusted by authorized dealer or manufacturer’s instruction.



Fig.24

When the lift reach the **“CE”** stop device, the lift could only be lowered by pressing **“Park/LOCK”** button in order to lower to the minimum height.

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Fig.25



ATTENTION: MOVING THE MACHINE WITH LOADING IS PROHIBITED.

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CHAPTER 6 MAINTENANCE

6.1 PRECAUTIONS



WARNING

Maintenance must be operated **ONLY BY authorized person**

When performing maintenance on the lift, follow all the necessary precautions

FROM BEING STARTED ACCIDENTALLY:

1. The main switch on the control box must be locked in POSITION 0 by using a LOCK (Position left)
2. The main switch for the lock must be kept by the MAINTENANCE FITTER
3. While maintenance is being performed on the machine, always keep in mind all the main possible risks and the safety instructions indicated in chapter 3 “safety risk of electric shock” at the machine power supply terminal strip.

IT IS PROHIBITED TO PERFORM MAINTENANCE ON THESE PARTS SUCH AS OIL CYLINDER, AIR CYLINDER AND GEAR PUMP. IF THESE PARTS ARE DAMAGED, THEY SHOULD BE REPLACED.



IMPORTANT

To ensure operating maintenance.

1. Only use original spare parts and tools that are suitable for the job and in good condition;
2. Follow the maintenance schedule indicated in the manual: these frequencies are indicative and must always be considered as general rules to be respected.
3. Good preventive maintenance requires constant attention and continuous supervision on the machine.
Quickly find the cause of any abnormalities such as excessive noise, overheating, leaking fluids, etc.

Special attention is required for:

1. The condition of lifting parts (cylinder, power unit);
2. Safety devices (micro switches, pneumatic push and safety wedges)

To perform maintenance correctly, refer to the following documents supplied by the rack manufacturer:

1. Complete functional diagram of the electric equipment and auxiliary equipment indicating the power supply connections
2. Hydraulic diagram with lists of parts and max. pressure values
3. Exploded drawings with the data needed to order spare parts

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4. List of the possible causes of malfunctions and recommended solutions (chapter 7 of the manual)

5.

6.2 PERIODIC MAINTENANCE

6.2.1 OPERATION FREQUENCY

To keep the lift working at full efficiency, follow the indicated maintenance schedule. The manufacturer will not be responsible and will not honor the warranty as a result of non-compliance with the instructions indicated above.



NOTE

The frequency indicated refers to normal operating conditions; different frequencies will apply to particularly severe conditions.

ALL MAINTENANCE OPERATIONS MUST BE PERFORMED WITH THE LIFT STOPPED AND THE MAIN SWITCH KEY LOCKED.

When after the machine has been installed, check:

- 1 The tightness of the posts bases connection anchor bolts
- 2 The tightness of the beam to posts attachment screws
- 3 That the opposite carriages arms are at the same level
- 4 The power unit oil level. Add oil up to the right level, if necessary

6.2.2 EVERY MONTH

HYDAULIC POWER UNIT

- 1 Check the oil level of the oil tank, using the special dipstick, which is attached to the filler cap. If necessary, add oil through the cap to reach the required level. For the type of oil, see page 10 "TECHNICAL SPECIFICATIONS".
- 2 After the first 40 hours of operation, check the pressure oil contamination level. (Clean the filter and replace the oil if there is a high contamination level).

HYDAULIC CIRCUIT

Check that there are no oil leaks in the circuit between the pump, oil pipe and cylinder and in the cylinder itself. In this case, check the condition of the gaskets and replace them, if necessary.

6.2.3 EVERY 3-MONTH...

SYNCHRONOUS CABLE

Check that the opposite carriages arms are at the same level, check the tightness of blocking nuts and counter

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nuts on the steel cable threaded ends.

HYDAULIC PUMP

Under normal operating conditions, check that there is no changes in the noise in the motor and gear pump and check that the relative bolts are properly tightened.

SAFETY SYSTEMS

1 Check the operating condition and efficiency of the safety devices (as described at pages 15,16) and the wear on the safety wedges and relative hinge pins. Oil the pins on the safety wedges. In case of excessive wear, replace the safety wedges and/or pins.

Use a torque wrench to check that the post bases anchor bolts screws are properly tightened to the ground as well as the connection bolts.

2 Clean and lubricate the carriage slip block and guides.

3 Check that all screws are tightened

4 Check that the arm locking system works properly.

5 Grease all the moving parts.

6.2.4 EVERY 6-MONTH...

HYDRAULIC

Check the contamination or aging level of the oil. Contaminated oil is the main cause of malfunctions of the valves and leads to a brief service life of the gear pumps.

6.2.5 EVERY 12-MONTH...

General check: visual inspection of all structural parts and mechanisms to guarantee that there are no problems or anomalies.

Electric plant: skilled electricians (contact the service center) should test the electric plant, including the motor of the power unit, cables, and limit switch and control box.

HYDRULIC PLANT OIL

Replace the oil, following the instructions listed below:

1. Lower the lift to the minimum height (on the ground)

2. Make sure that the hydraulic cylinder is at the end of its travel

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3. Disconnect the power supply to the lift rack.
4. Drain the oil from the hydraulic circuit, unscrewing the plug located at the bottom of the power unit reservoir.
5. Close the drain plug
6. Fill the power unit with oil through the plug located at the top of the power unit reservoir.

The oil must be filtered

Oil characteristics and types are reported in the technical specifications (chapter.2, page 9)

1. Close the filler plug
2. Energize the lift rack
3. Go through two or three up-down cycles (for a height about 20-30 centimeters) to insert oil into the circuit.

When changing the oil: use only recommend oil or the equivalent; do not use deteriorated oil that has been in the warehouse for an extended period of time. Oil should be disposed as indicated in appendix "A".

AFTER EACH MAINTENANCE OPERATION, THE MACHINE MUST RETURN TO ITS INITIAL CONDITIONS, INCLUDING THE DISASSEMBLED PROTECTION AND SAFETY DEVICE.

To ensure good maintenance, it is important:

1. To use only tools that are suitable for the job and original spare parts
2. Follow the minimum maintenance schedule as indicated
3. Immediately find the cause of any abnormalities (excessive noise, overheating, leaking fluids, etc)
4. Pay special attention to lifting parts (cylinders) and safety devices
5. Use all the documentation supplied by the manufacturer (wiring diagrams, etc)

6.3 PERIODIC LUBRIFICATION CHART

Lubricate the rotate axis. Grease must be taken from perfectly closed tins and/or well preserved. Old or damaged grease may damage the lubricated part.

1. Lubricate each rotated parts once when anyone is on duty.
2. Lubricate each slipped parts once a week

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CHAPTER 7 TROUBLESHOOTING

7.1 TROUBLESHOOTING GUIDE

Troubleshooting and possible repairs require absolute compliance with ALL THE SAFETY PRECAUTIONS indicated in chapter 6 "MAINTENANCE" and chapter 3 "SAFETY"

7.2 POSSIBLE PROBLEMS AND SOLUTIONS

Problem	Possible cause	Solution
The motor does not run when the life is raising.	<ol style="list-style-type: none"> 1. switch circuit has been broken off. 2. AC contactor circuit has been broken off. 	<ol style="list-style-type: none"> 1. check switch circuit 2. check AC contactor circuit
The motor does not run but humming.	<ol style="list-style-type: none"> 1. the power supply lacks phase 	<ol style="list-style-type: none"> 1. stop running, check if main loop have been broken
The lift does not rise when the motor is running.	<ol style="list-style-type: none"> 1. incorrect motor rotation 2. short of hydraulic oil 3. some air in the pump results air-log-jam. 4. slipping valve have tripped 5. fore object in the core of solenoid discharge valve 6. damaged seal 7. fore object in oil filter 8. manual screw of solenoid discharge valve looses 	<ol style="list-style-type: none"> 1. alter motor phase 2. supply hydraulic oil 3. remove the single-direction valve then press the up button (pay attention to jet), until oil slips out don't reset the single-direction valve. Repeat sub operation if defeat. 4. check the seal ring and seal parts or change them. 5. clean the core 6. remove the bolts with which connect the pump and cabinet, pull the motor out for 30mm and support it with a batten. Press the up button to observe leakage from the joint, change the seal ring if presented leakage. 7. clean the oil filter 8. tighten the screw

Ascending speed is too slow.	<ol style="list-style-type: none"> 1. damaged seal 	<ol style="list-style-type: none"> 1. the same as above
The lift shakes when working.	<ol style="list-style-type: none"> 1. some air in hydraulic loop 2. the tie-in of oil collector has been leaked 3. jam in oil filter 	<ol style="list-style-type: none"> 1. according to the instrument discharge air repeatly. 2. check the seal condition 3. clean oil filter

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The lift cannot descend.	<ol style="list-style-type: none"> 1.non-electricity in solenoid discharge valve 2.damage solenoid discharge valve 3.ill-connection inside the button switch 4.lack of air pressure 	<ol style="list-style-type: none"> 1.check if the circuit between down button and solenoid discharge valve turnoff. 2.check the solenoid discharge valve and repair it 3.check the button switch 4.regulate air pressure
The lift does not descend.	<ol style="list-style-type: none"> 1.gears haven't been opened 2.nonelectricity in the solenoid discharge valve or solenoid valve 	<ol style="list-style-type: none"> 1.check if two-phase and three-way valve in good condition, or check if the trachea has been folded 2.check if solenoid circuit and rectifier have been damaged

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APPENDIX A-SPECIAL NOTES

A.1 DISPOSAL 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 prescriptions of the country in which the lift is installed.

A.2 MACHINE DEMOLITION

DURING MACHINE DEMOLITION, COMPLY WITH ALL THE SAFETY PRECAUTIONS DESCRIBED IN CHAPTER 3, WHICH ARE ALSO VALID FOR ASSEMBLING.

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 standards 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.

APPENDIX B- SPARE PARTS

B.1 SPARE PARTS

When replacing parts and making repairs, comply with ALL THE SAFETY PRECAUTIONS described in chapter 6 MAINTENANCE and in chapter 3 SAFETY

Take all the necessary precautions to **AVOID ACCIDENTAL START-UP OF THE LIFT**

1. The switch on the control box must be blocked in position 0 with a lock
2. The key of the lock must be kept by the maintenance fitter during the maintenance operation.

B.2 PROCEDURE FOR ORDERING SPARE PARTS

To order spare parts:

1. Indicate the serial number of the lift and the year built
2. Indicate the code of the spare parts to the authorized dealer
3. Indicate the quantity required.

The request must be submitted to the authorized reseller for ordering parts.

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EC Declaration of Conformity



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

2006/42/EC Machinery Directive

2014/30/EU Electromagnetic Compatibility Directive

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

CCQS UK Ltd., 5 Harbour Exchange Square London, E14 9GE, UK

Description of Equipment

Model: JS3000A

Capacity 3000kg, movable dual platform chassis supporting scissor vehicle lift, with load bearing platform extension, solenoid safety catch

Series number: ---

For MD Annex IV machinery

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

CCQS UK Ltd., 5 Harbour Exchange Square, London, E14 9GE, UK

Who have issued an EC type-examination certificate

Number is CE-C-0116-18-08-04-5A, date 2019.11

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 harmonise standards have been used:

EN 1493:2010 Vehicle Lift

EN 60204-1:2006/AC:2010 Safety of machinery – Electrical equipment of machines –

Part 1: General requirements

EN ISO 12100:2010 Safety of machinery - General principles for design - Risk assessment and risk reduction

EN 61000-6-2:2005+AC:2005 Electromagnetic compatibility (EMC) Part 6-2: Generic standards — Immunity for industrial environments

EN 61000-6-4:2007/A1:2011 Electromagnetic compatibility (EMC) — Part 6-4: Generic standards — Emission standard for industrial environments

Authorised signatory of manufacturer

Signatory:

Name of signatory:

Position in company: General manager

Place signed: Yingkou City

Date signed: 2019-11