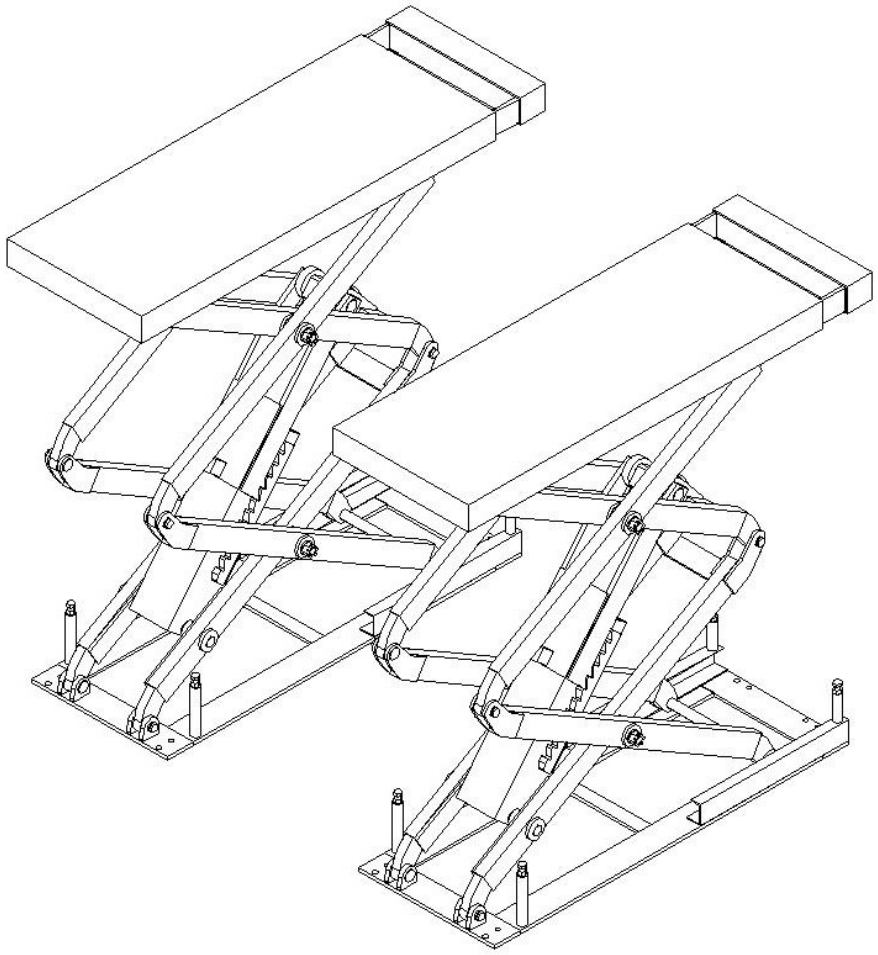
SCISSOR LIFT

Installation, operation and maintenance manual



It is necessary to carefully read the instructions before starting work in order to prevent damage and injury.

MODEL: WK 301LP

User Note

Thank you for purchasing our products. Please read this manual carefully for safe and proper use of the lift. Keep the manual in an accessible place so that you can refer to it when necessary.

■This manual applies to the model:WK301LP
■To ensure safe working conditions Please read this manual carefully first.

■Please make sure that this instruction provided to end users to ensure the safe operation of the lift.

■ Forbiddenwork on a lift
explosive atmosphere.

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INTRODUCTION

This manual is intended for workshop employees who work as an operator and mechanic (technician). Employees must carefully read the instruction manual before working on the lift. This manual contains essential information about:

- operator and mechanic safety.
- safe installation of the lift.
- safe operation of the lift.

STORAGE INSTRUCTIONS

This manual is included with the lift.

It should be stored in close proximity to the lift, so the operator and mechanic (technician) should have it at hand. In cases of need, they should quickly find it and read it.

Necessary attentively acquainted with section 3, which contains the most important information And warnings.

The lift is designed and manufactured in accordance with European standards.

Lifting, transporting, unpacking, assembly, installation, commissioning, initial adjustment, testing, extraordinary service, repair, capital repair, disassembly must be be carried out carried out by an authorized dealer or authorized service producer center.

The manufacturer is not responsible for personal injury or damage to vehicles and other objects if any of the above operations are performed by another person or the operating requirements are violated.

This manual contains operational and safety aspects that may be useful to the operator and mechanic. For the best understanding designs Andprinciple work lift and proper operation, personnel must read this manual before carrying out any work.

Also necessary be able to understand V terminology, perform repair and maintenance work, work with descriptions and drawings.

In addition, mechanics and operators must have knowledge of engineering and mechanics.

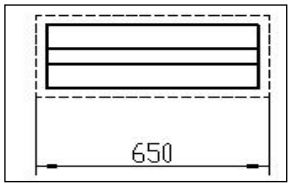
- **OPERATOR:**lift operator.
- **MECHANIC (TECHNICIAN):**specialist, performing standard lift maintenance operations

The manufacturer reserves the right to make changes to the instructions as a result of improving the design of the lift.

PACKAGING, TRANSPORT AND STORAGE

All packing, lifting, unloading, transportation And unpacking lift must produced exclusively qualified workers.

PACKAGING:



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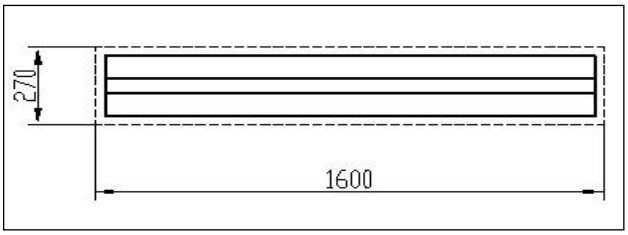

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Standard equipment:

Oil hose and accessories, front plate, cover (box no. 1). Main and auxiliary lifting platform (box No. 2). Power block (box No. 3), .

Total:3 units

TRANSPORTATION:

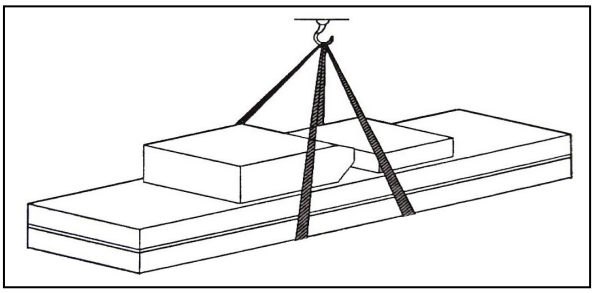
The packaging can be lifted or moved using a forklift, crane or overhead crane.
In case of use slings the assistance of a second employee is necessary to avoid dangerous rocking of the load.

After loading and unloading, the lift should be transported by sea vessel or car.

After unpacking, check the scope of delivery according to the list. In case of missing parts, defects in the mechanism and damage during transportation, check the completeness against the packing list in the damaged packaging and inform the supplier of any inconsistencies.

Lift enough heavy! It is forbidden to load, unload and carry it manually. The safety of the personnel must be kept in mind.

During loading and unloading operations, the load must be placed as shown in the figure. (Fig. 3)



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STORAGE:

- The lift must be stored in a warehouse. When stored outdoors, exposure to precipitation should be avoided.
- When transporting, use a truck, transport by ship in a container.
- The power block should be placed vertically during transportation, to exclude the risk of it hitting other objects.
- Lift storage temperature -25°C -55°C

Section 1 DESCRIPTION OF THE LIFT

1.1 APPLICATION

Scissor lift modelHXL6430

It is used for lifting vehicles whose weight does not exceed 3000 kg and is suitable for use during vehicle inspection, maintenance and repair. The lift can be installed in the basement or on the floor without additional structures and a viewing hole.

1.2 DESIGN FEATURES

- Usage scissor designs drowned in floor without additional structures and a viewing hole on a small territory.
- Autonomous power unit with low-voltage control mechanism with high work safety.
- Hydraulic capacious in-phase cylinder, synchronization of lifting platforms.
- It has two security systems: a hydraulic lock and a mechanical lock.
- It has a safety valve and a shock-resistant mechanism in case of failure of the hydraulic system and overloads. If the oil hose breaks, the lift will not fall immediately.
- Hydraulic parts And electrical systems high quality made in Italy, Germany, Japan and other countries.
- In the event of a power failure, lowering can be done manually.

1.3 DEVICE

Equipment:

- lift base (on which equipment installed)
- Lift frame (lift body and base for security system)
- Power unit (device that controls the operation of the lift)

Base:

The base of the lift is made of cement and concrete.

Frame:

Consists of steel frame, main lifting platform, moving plate, pneumatic double clutch, hydraulic oil reservoir.

Power block:

On power block posted management reservoir for hydraulic oils and hydraulic pump, valves and other elements. On the power block is located electrical system.

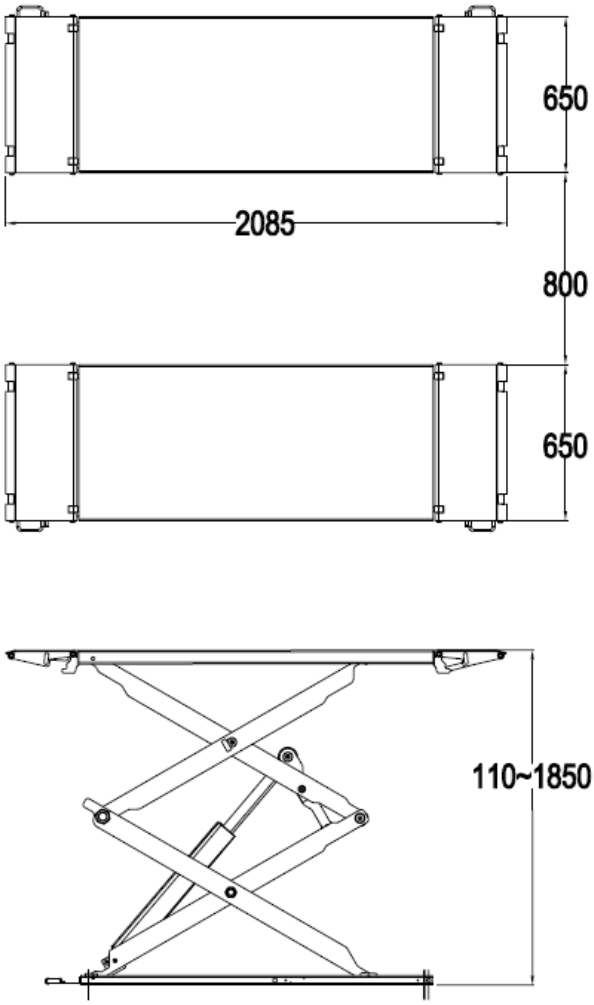
The scissor lift is designed for lifting vehicles of different types, other use of the lift is prohibited. The lift is not intended for washing work. It is forbidden to lift vehicles whose weight exceeds the maximum permissible value.

Chapter2 SPECIFICATIONS

2.1 MAIN TECHNICAL CHARACTERISTICS

Model No.	WK 301LP
type of drive	electro-hydraulic
load capacity	3000kg
Max. lifting height	1850mm
min. height	110mm
platform length	2085mm
platform width	650mm
rise time	⩽50sec
descent time	⩽60sec
total length	2085mm
overall width	2100mm
weight	950kg
power supply	AC 400V or 230V± 5% 50Hz
power	2.2kw
hydraulic oil	18l not included supplies
air pressure	4~6kg/cm2
working temperature	5-40℃
humidity	30-95%
noise level	< 76db
height above level seas	⩽1000M
temperature stored And	- 25℃~55℃

2.2 DIMENSIONS



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electric motor

Type.....Y90L Maximum power..... 2.2kW Maximum voltage..... AC 400 or 230V±5% Maximum consumption..... 400V:5A .....230V:10A Maximum frequency.....50Hz Number of poles.....4 Speed.....1450 rpm Form of construction.....B14 Insulation class.....F

When connecting the motor, use the attached diagrams. The direction of rotation of the motor is clockwise.

Pump

Type.....P4.3
Model.....gear pump
Maximum output.....4.3cc/rev. Type of connection.....connection drain valve

Constant operating pressure.....280bar
Average operating pressure.....150-300bar

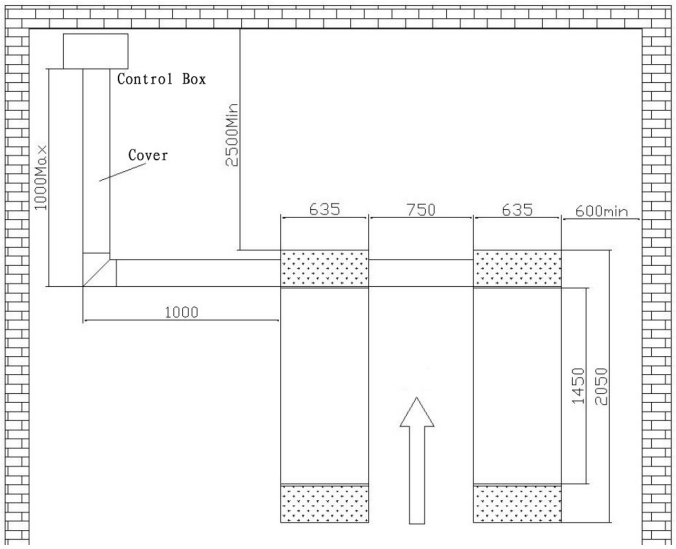
2.3 INSTALLATION DIAGRAM

Requirements:

- type of concrete425#, curing period - 15 days
- clear base layer, thickness concrete≥150mm, full length error pouring concrete≤10mm

Power sources:

- connect to the power socket of the control unit (400V or 230V 15A)
- connect to the compressed air supply hose of the control unit (f8×6mm)



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Note: basis under platformsP1, P2 is concrete structure, whose area should be2500× 2500mm at thickness concrete≥150mm.

Thickness concrete grounds Andhis level are key points in the installation process of the lift.

2.4 USE OF THE EQUIPMENT

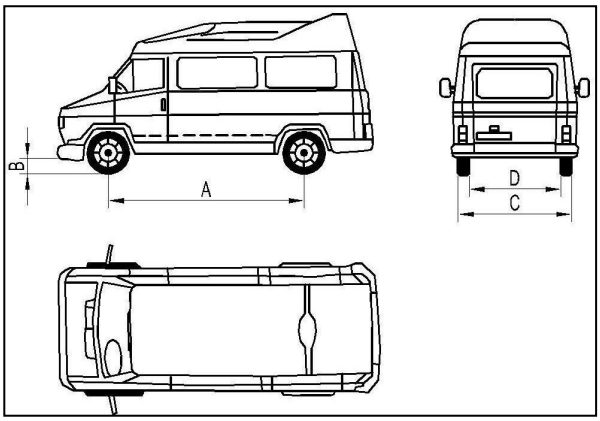
This lift is suitable for use with almost all types of vehicles whose weight and overall dimensions do not exceed the parameters given below.

WEIGHT LIMIT

The maximum weight must not exceed3000 kg

MAXIMUM VEHICLE DIMENSIONS:

The diagram below illustrates the criteria used to determine lift operating limits.



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	3,000kg	
	Min. (mm)	Max. (mm)
A	1900	4000
B	100	
C		1900
D	900	

Chapter3 PRECAUTIONS

AVAILABLE CONTACT LOWER BODY ELEMENTS CAR WITH LIFT PARTS, ESPECIALLY IN SPORTS CARS.

The lift can also be used to handle non-standard size vehicles within the specified load capacity.

It is also necessary to determine the safe work area for personnel, taking into account the non-standard dimensions of the vehicle.

Read the data carefully section because it contains important information relatively security operator Andother employees in case unauthorized use of the lift.

Management contains intelligence O some dangerous or risky situations that may arise during the operation or repair of the lifting mechanism, about the safety devices installed on the lift and how to use them, about the procedure for operating the mechanism.

The lift is designed to lift vehicles and fixing them in a raised position in the workshop. Any other use of the lift is considered improper use. The lift must not be used for:

- performance of washing works;
- lifting of personnel;
- use as a press;
- applications as an elevator;
- use as a jack to raise the body of the vehicle or change wheels.

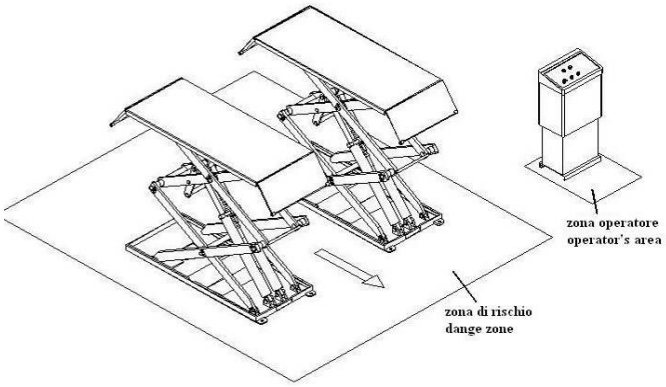
Manufacturer Not bears responsibility for injury of people, damage to the vehicle or other property damage resulting from improper use of the lift.

When lifting and lowering, the operator must be in the control zone as shown in the figure.

In the figure: the presence of people in the danger zone is strictly forbidden. When performing work, it is allowed to stay in the area under the vehicle if it is raised and the platforms are fixed, that is, the mechanical protection devices have worked (for example: the safety gear is blocked).

FORBIDDEN EXPLOIT THE LIFT WITHOUT SAFETY DEVICES OR WITH THE PROTECTION DEVICES DISABLED.

FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN SERIOUS INJURY TO PEOPLE AND THE IMPOSSIBILITY OF REPAIRING THE LIFT AND THE VEHICLE AS A RESULT OF AN ACCIDENT.



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PRECAUTIONARY MEASURES

The operator and installer must comply prescriptions and requirements of national standards.

In addition, the operator and installer must:

- always work in a designated area as indicated in the manual;
- never remove or remove safety devices, mechanical, electrical or any other kind of safety devices;
- read notes, concerning safety devices attached to the lifting mechanism and the safety information described in this manual.

Safety notes:

WARNING: stands for dangerous situations and/or actions that may cause minor injury to personnel and/or damage to the lift, vehicle, or other property.

ATTENTION:points to possible hazards that could result in serious injury or property damage.

DANGER ELECTRIC CURRENT:special safety symbols are affixed to the lift where there is a risk of electric shock.

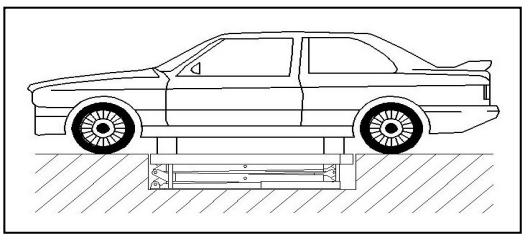
DEFEATS

DANGEROUS SITUATIONS AND PROTECTIVE DEVICES

It is necessary to assess the likelihood of danger to operators and servicemen if the vehicle is installed on platforms in a raised state, and be aware of the protective devices provided by the manufacturer to reduce the occurrence of such.

For optimal protection of people and the vehicle, the following requirements must be observed:

- do not enter the danger zone when lifting car (Fig. 7)
- make sure the vehicle is properly installed ski lift ***(rice.8)***



rice.8

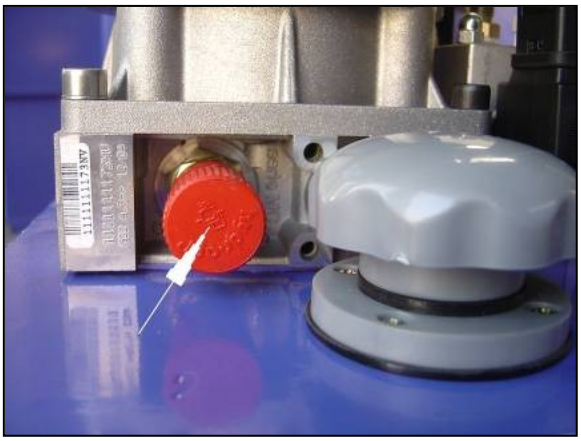
- lift cars of the permitted weight and dimensions, do not exceed the permissible lifting height;

- make sure that there are no people on the platforms during the process of lifting and lowering the vehicle and during maintenance work.

MAIN HAZARDS WHEN LIFTING AND LOWERING

The following protective devices are used to protect against overloads or in the event of a motor failure of the lift.

Under overload conditions, the drain valve opens and the oil flows into the tank***(rice.9).***



rice.9

The lower part of each hydraulic cylinder is equipped with an anti-vibration And blocking valves. If the oil hose in the hydraulic system leaks due to a crack, this valve is activated and limits the speed of the platform***(rice.10).***

rice.10

The safety rack and pinion mechanism protects the personnel under the lift in case of failure of other safety systems. The integrity of the gear module and the reliability of the engagement of the teeth of the rack and pinion should be checked***(rice.eleven).***

rice.eleven

For normal work All safety devices must be in good working order.

HEALTH HAZARDS STAFF

This paragraph illustrates the dangers to which the operator, installer or any other person in the working area of the lift may be exposed in case of improper operation of the installation.

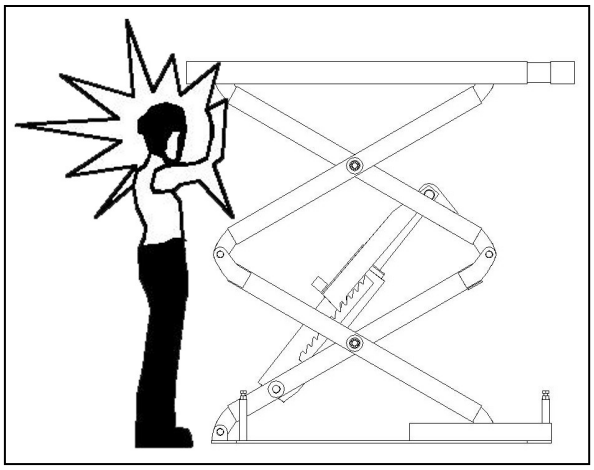
DISPLACEMENT HAZARD

This dangerous situation can occur if the operator is not in the designated area near the control panel while operating the lift.

During the descent platforms and vehicles the operator must not be under the mobile unit. During this period, the operator must always be in the control zone.***(rice.7).***

IMPACT HAZARD

Before starting to raise or lower platforms, make sure that there are no people in the danger area. In the case of lifting platforms to a low height, there is a risk of hitting parts of the lift that are not highlighted in a special color.



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FALL HAZARD (PERSONNEL)

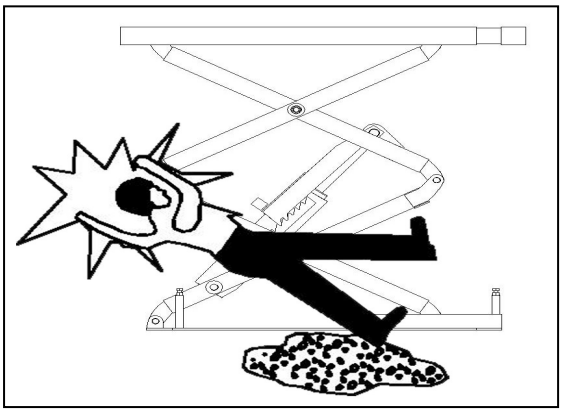
During the lowering of the platforms and the car, maintenance personnel are prohibited from standing on the moving parts of the lift or getting into the vehicle that is on the lift.

FALL HAZARD (VEHICLE)

Danger occurs due to incorrect installation of the vehicle on platforms or non-compliance of the dimensions and weight of the vehicle with the established requirements.

When moving platforms, the car engine must be turned off.

It is strictly forbidden to place any objects under the lift and on its moving parts.



rice.13

SLIP HAZARD

A hazard can arise if lubricant has been spilled on the work surface near the lift. Keep the work area around the lifting mechanism and moving platforms clean, and wipe up oil stains immediately.

HAZARD OF HAZARD ELECTRIC SHOCK

The threat of electric shock exists in places of insulation of electrical wiring and damaged electrical equipment.
It is forbidden to direct water jets, steam, high-pressure cleaners, solvents or paint in the immediate vicinity of the lift towards the lift. Avoid getting these substances on the electric control panel of the lift.

HAZARDOUS SITUATIONS DUE TO POOR LIGHTING

Operator and technician work areas around the lift must be well lit in accordance with local regulations.

When lifting and lowering, the operator must monitor the movement of the platforms of the lift and be in the operator's area. When lifting and lowering, use the pads under the lower part of the vehicle frame.

Forbidden take off safety devices. Do not exceed the permitted lifting capacity of the lift. Vehicles must be unloaded before carrying out lifting work.

Important attentively follow everyone instructions in this manual, which relate to the operation, maintenance and safety rules when working with the lift.

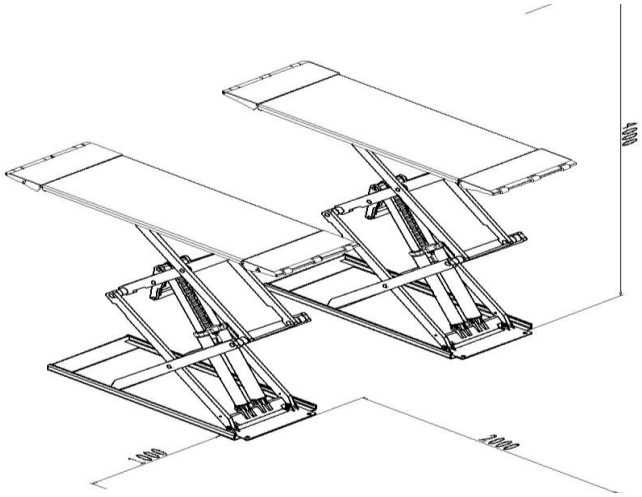
Chapter4 INSTALLATION

ONLY TRAINED AND AUTHORIZED EMPLOYEES ARE ALLOWED TO PERFORM THESE WORKS. SHOULD DEFINITELY OBSERVE PERFORMANCE DATA OPERATIONS TO AVOID POSSIBLE DAMAGES LIFT OR PERSONNEL INJURY.

4.1 INSTALLATION REQUIREMENTS

- The lift must be installed at a certain distance from obstacles: walls, columns, other equipment (***fig.14***)
- Minimum distance from walls: 1000mm, taking into account the space required for the operator to move comfortably. It is also necessary to provide an additional area for the control unit and an escape route in case of

  emergency.
- Before installing the lift, bring to the working area is a source of electrical and pneumatic power.
- Room height not less than4000 mm
- The lift is installed on a flat floor, which has sufficient strength (⩾250kg/cm², concrete thickness ⩾150mm)
- All parts of the lift must be well lit in order to properly perform adjustments and maintenance. There should be no dark zones, areas of glare and reflection.
- Before installing the lift, it is necessary to check the integrity of the components.



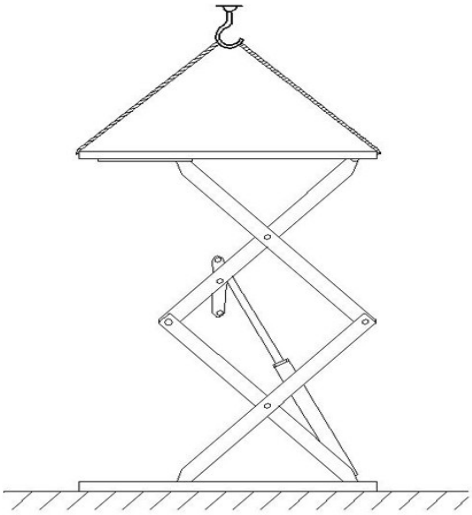
rice.14

Recommendations for transport and storage are described in chapter TRANSPORT AND STORAGE on page 1

4.2 INSTALLATION

4.2.1 PLATFORM INSTALLATION

- Position both platforms at the selected installation location
- The lower part of the oil cylinder is located at the front of the equipment (car entry direction)
- use a forklift or other lifting equipment to lift the platforms ***(rice.15)*** and make sure safety mechanisms of the device are activated and locked



rice.15

To avoid rejection safety devices of the lift, you can block the middle part of the connecting support with a block of wood.

Do not work under the lift or attempt to raise or lower the lift unless the hydraulic system is filled with oil.

- Moving platforms lift adjust distance between them making sure they are parallel to each other.

4.2.2 CONNECTING THE POWER LINES

Connect electrical wiring and oil line according to ***Applications*** at the end of this manual

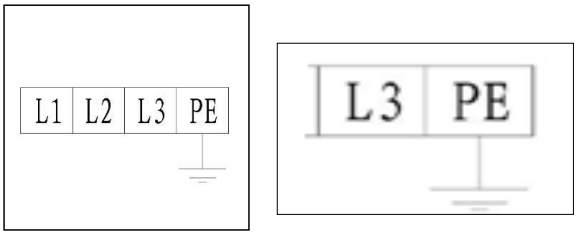
Only after connections hydraulic systems You can connect the pneumatic line.

At connection oil pipeline And pneumatic system, pay special attention to ensure that when inserting the pipe, foreign objects do not get into the oil and pneumatic circuits, which can damage the hydraulic system

4.2.3 CONNECTING TO THE MAINS

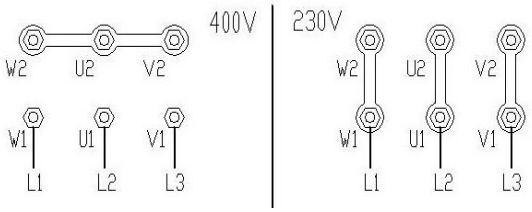
Only employee, past special training is allowed to perform this work.

- Open the front cover of the control box
- Electrical connection: 3-phase 5-wire connection cables 400VAC (3×2.5mm2+2 × 1.5mm2 wires) are connected to the terminals L1, L2, L3,N and ground terminal on the control box. Ground wirePE is connected under bolt marked "ground" first ***(rice.16)*** and then connected under bolt marked grounding of two platforms.



rice.16

- if the lift is running230V3 phase, change the connection on the transformer and motor.***(rice. 17)***



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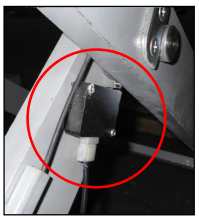
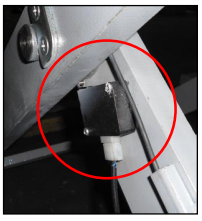
- Photocell connection: connect wires 0V ,INPUT and DC+ to the same numbered terminals on the control unit.

- Connection top terminal switch: connect wires No.109, #125 and #127 to the same numbered terminals on the control unit.



Upper end switch



Lower end switch

photocell

4.2.4 CONNECTING THE HYDRAULIC SYSTEMS

Connect hydraulic hoses to according to the wiring diagram in the Appendix at the end of this manual.

Subsequent work must be carried out by a qualified person.

- Follow the hydraulic hose number to lead the high pressure hose out of the “check valve G” and 2x “oil check check valves H, I” of the control box and then connect it to the hydraulic cylinder.**(see Diagram oil line connections)**

- When connecting the hose, make sure that no foreign objects get into the hydraulic system.

When connecting a hose make sure that there is no mistake in the number of each hose.

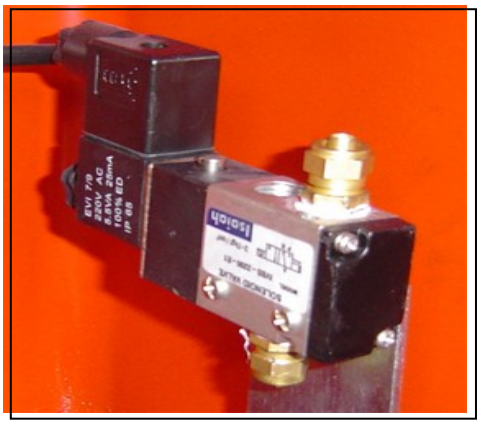
At standard installation block control is located to the left of the car entrance. When placed on the right, adjust corresponding hose.

4.2.5 CONNECTING THE SUPPLY HOSE COMPRESSED AIR

To connect the pneumatic circuit, follow the corresponding diagram at the end of this manual.

Subsequent work must be carried out by a qualified person.

- Connect compressed air hose Φ8x5 to the pneumatic solenoid valve terminal inside the control box (***fig.18***)



rice. 18

- Follow diagram connections pneumatic circuit to lead the compressed air supply hose from the pneumatic solenoid valve and then connect it to the pneumatic valve at the top.***(rice.19)***

rice. 19

- Make sure that foreign objects do not get into the pneumatic system circuit.

- Connect the compressed air supply hose to additionally established oil separator, which is located in front of the control unit and serves to extend the life of the equipment.

When installing the air hose, do not kink or twist it to prevent air from collecting inside the circuit.

Before connecting the air hose to the pneumatic solenoid valve inside the control box, it is necessary to install oil separator For prevention damage to the pneumatic systems.

Chapter5 ADJUSTMENT

5.1 PREPARATION

Add oil and check phase order.

After installing the lift***rice.4***And hydraulic, pneumatic and electrical connections, proceed as follows:

- open the hydraulic oil reservoir, add 14L of hydraulic fluid (hydraulic oil is not included).

Make sure that the hydraulic oil in the reservoir is clean to prevent contamination of the oil line, which will damage the system and the solenoid valve.

- Click on the “power” to turn on nutrition. By clicking on the button “up” (up) check the direction of motor movement (clockwise when looking down), otherwise press the “power” and change the motor phases.

- Turn on the pneumatic system

When the power is turned on, a high voltage will appear in the control unit. Only authorized personnel are allowed to work with it.

5.2 ADJUSTMENT

5.2.1 ADJUSTING THE OIL SUPPLY

If the platforms are not at the same level, you must press and hold the button"PHOTO",to disable photocell function.

- Open stop valve “G” and valves "H" and "I”

- Clicklift buttonSB1,left
  the platform will be raised to its maximum height

- Turn left the screw on the top main cylinder to let compressed air flow, then turn the screw to the right to close.***(rice.20)***

rice.20

- Press the shutter buttonSB2 to drop platform to its minimum height.

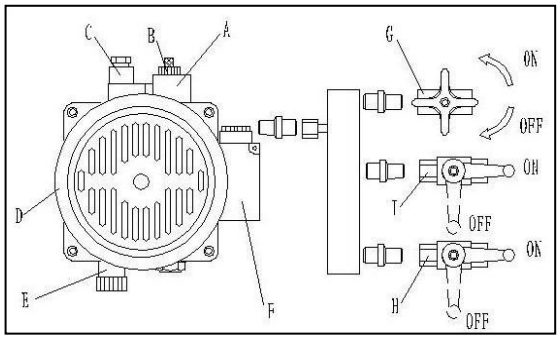
- Repeat the up-down cycle 3-4 times to purge air from the cylinder.

- Close stop valve “H" and "I".

Do not raise platforms above 500mm when adjusting oil supply

- Click the button'UP'(rise)SB1,
  raise the platform to a height of about 200mm. If both platforms are at the same height, close the valveG'. If left platform a little lower, opening the valve "I" if the right platform is lower - open valve"H".

- Click on the lift button 'UP' to lift only one platform. After both platforms are at the same height, close the valve “H” or “I”, open the working check valve "work stop valve”, Process adjustment is completed.



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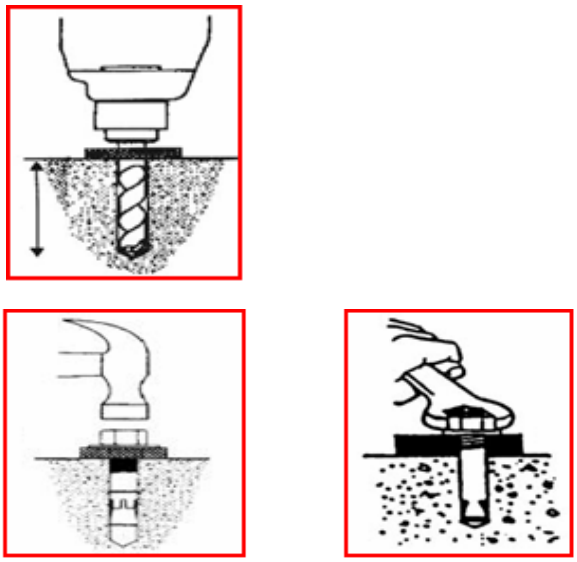
Check:correct location locking shutter.

Check the oil and pneumatic hoses for leaks.

5.2.2 INSTALLATION OF ANCHOR BOLTS

Installation of anchor bolts should be carried out after the concrete hardening process. Otherwise, it will affect the structural strength of the lift.

- Adjust the parallelism of the platforms in relation to each other,as shown in Fig.4.
- Fix the anchor bolts with a hammer drill (drill size - 18), Drill hole size120mm and brush it ***(rice.22)***

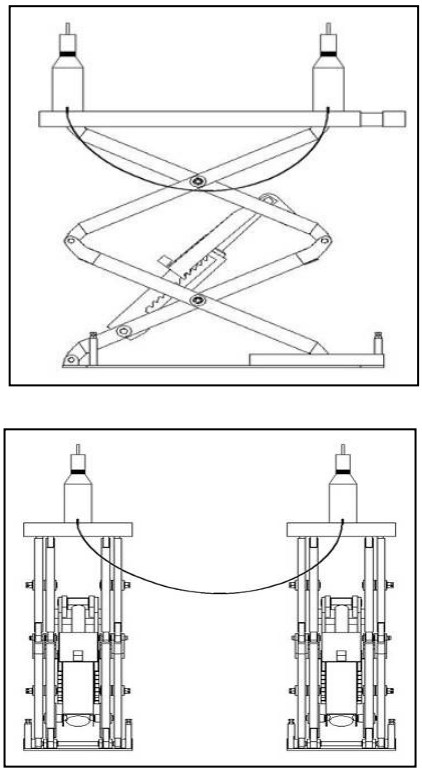


rice.22

- Use a light hammer to install anchor bolts into the hole (do not drive the core of the bolts, first make level control).

5.2.3 LEVEL ADJUSTMENT

- Using a level and a horizontal bar, adjust the adjustment screws on both sides of the base
- If the uneven platform is due to the uneven ground, use the heel to raise the area that is below the required level.
- After adjusting the level, insert the cores of the anchor bolts and hammer them in with a heavy hammer.
- Screw in the ends of the anchor bolts.



Rice.23

Forbidden install core anchor bolts, if the concrete hardening process has not ended.

The gap between the base plate and the ground after adjustment should be filled with thick steel sheet or concrete.

5.2.4 TESTING THE LIFT WITHOUT CARGO

- Turn on the power.QS.
- Click the button “up” (up) SB1. And synchronicity smooth operation lift.
- Check the correct location of the locking latch.
- Check oil and gas hoses for leaks.

When testing the lift, personnel or foreign objects must not be on the sides or under the lift. In case of an unforeseen situation, to timely stop the lift, press the "SB0".

After removal of personnel and objects from the area of the lift, perform a test again.

5.2.5 TESTING THE LIFT WITH A LOAD

- Place a car on a lift that does not exceed the permissible weight. During lifting, the driver must not be in the vehicle.
- Install the rubber pad on the support
- Press the "up" button SB1.

synchronism and smooth operation of the lift.

- Check the correct location of the locking latch.
- Check the oil and pneumatic hoses for leaks.

When testing the lift with personnel or foreign objects must not be on the sides or under the lift.

Test only those vehicles whose weight does not exceed the permissible limit.

In case of an emergency, press the "SB0" button to stop the lift in time. After personnel have left and objects have been removed from the work area

lifter, test again.

CHAPTER6 OPERATION

Only specially trained personnel may carry out maintenance work. Strictly follow the instructions for operating the lift.

6.1 WARNINGS

- Remove foreign objects from the working area of the lift before use.
- While the lift is in operation, personnel or foreign objects must not be on the sides or under the lift. It is also prohibited for personnel to be on the platform.
- Do not lift heavy vehicles or loads.
- At lifting, use the overlays, located under the vehicle chassis.
- Keep the lift synchronized during lifting and lowering operations. In case of unforeseen situations, stop the lift, check and remove objects that interfere with the operation of the equipment.
- During the descent of the car, at first a little lower the platform, then make sure both locking latches and safety racks are fully disengaged. Otherwise, stop the descent.
- If the lift is not used for a long time or at night, it must be lowered and unloaded. It must also be disconnected from the power supply.

6.2 INSTRUCTIONS FOR CONTROL OF THE ELECTRICAL SYSTEM

Rice.24

6.3 OPERATION

6.3.1 LIFTING

- Press the lift buttonUP, oil pump will immediately begin to work, directing hydraulic oil to the hydraulic cylinder through the stop valve, the platforms will begin to rise.
  Also will rise safety dog, activated pneumatic circuit.
- Let gobuttonU.P.,oil pump will stop immediately. the platforms will stop lifting, the safety pawl will fall on the safety mechanism as the power supply to the solenoid valve is cut off and the pneumatic circuit is closed.

6.3.2 Descent

- Clickshutter button"DOWN" the safety pawl will rise by the efforts of the pneumatic circuit and electricity, by opening the solenoid valve of the descent. The platforms will start to lower when the button is released. DOWN, you stop the descent of the safety the dog will fall on the safety mechanism

6.3.3 EMERGENCY STOP In the event of an emergency, press the buttonEMERGENCY situations stop, turning off all working circuits.

6.3.4 Other cases when the lift stops during working hours

When the platforms are not at the same height during the ascent or descent, the photoelectric mechanism alignment immediately stop work. For continuation work necessary adjust both platforms so that they are at the same height.

6.4 ADJUSTING THE OIL SUPPLY (routine maintenance)

If after completion of the installation And of commissioning work, the right platform below the left, this means that the air in the hydraulic cylinder has not been completely deflated, or there is a hydraulic oil leak.

The platforms must not be under load when adjusting the oil supply.

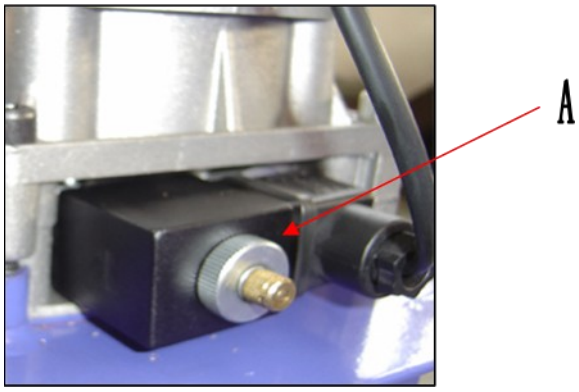
The adjustment process is the same as described in par.5.2.1.

6.5 EMERGENCY Descent POWER OFF

When lowering the lift in manual mode, you should constantly monitor the condition of the platforms and the vehicle on them. In the event of a dangerous situation, screw the hydraulic circuit valve all the way down immediately.

Stages of descent in manual mode:

- First raise both platform safety pawls and use a thin metal bar to block
- Turn off the power button (to avoid sudden power supply). Open the back cover of the control box and locate the release solenoid valve A.
- Loosen the hydraulic circuit nipple at the end of the solenoid valve stem (Fig.27), after that the platforms will start to lower.
- After the lift is lowered
  Screw in the hydraulic circuit nipple until it stops.



rice.25

Chapter 7 MAINTENANCE AND REPAIR

Only trained personnel should perform maintenance on the lift.

- All bearings and hinges should be lubricated once a week with an oil can.
- The safety mechanism, upper and lower moving block and other moving parts must be lubricated once a month.
- Hydraulic oil should be changed1 time per year The oil level must correspond to the upper mark.

When replacing ***hydraulic oils the lift should be lowered to the lower position, then drain the used oil. New oil must be filtered.***

- Regularly check that the safety mechanisms of the hydraulic system are working properly.

CHAPTER 8 TROUBLE-SHOOTING

Elimination work faults must only be carried out by qualified personnel.

See next page.

Malfunction	Cause	Troubleshooting
Engine not works during the operation rise	Wrong wire connection.	Check and correct wire connection.
	The AC contractor in the motor circuit does not pick up.	If the engine only runs if the contractor is forced to descend by the isolation rod, check the control circuit. If the voltage is within limits at both ends of the contractor coil, replace the contractor.
	Limit switch not closed	Check the switch and wires for damage, then adjust or replace the switch.
Engine works, but not raises lifting mechanism.	The engine spins in the opposite direction.	Change the phase of the power supply wires.
	A running motor raises an empty lift, but does not raise lift with a car on it.	The overflow valve pressure can be increased by turning the setting knob slightly to the right. Drain solenoid valve spool clogged with dirt. Clean out the spool.
	Insufficient amount of hydraulic oil.	Add oils.
	Stop valve not closed.	Screw shutoff valve.
When you press a button descent, lift does not fall	The locking latch does not come out of the safety rack mechanism.	Raise the lift a little first, then lower it.
	Fixing constipation is not rises.	Insufficient pressure air. Fixing constipation stuck or air hose disconnected/torn. Adjust pressure. Check the hose and replace it.
	Drain solenoid valve does not work.	If the bleed solenoid valve is connected to the power supply, but does not open the pneumatic circuit
	The drain solenoid valve is connected to the power supply, but does not work.	check or replace the bleed solenoid valve. Check the plug and coil of the drain solenoid valve, check the tightness of its end nut.
	The anti-vibration valve is blocked.	Remove the anti-vibration valve from the oil hole at the bottom of the oil cylinder and clean it.
Lift descends Very slowly at allowable load.	hydraulic oil It has high level viscosity or frozen, which led to a deterioration in its quality.	Change the hydraulic oil as recommended in the manual.
	Anti-vibration valve which is used to prevent oil hose rupture, blocked.	Remove or close the air duct, thus blocking the locking lock without having to lift it. Remove the anti-vibration valve from the oil hole at the bottom of the oil cylinder and clean his.
Right And left platforms asynchronous And rise on different height.	The air has not been completely evacuated from the oil cylinder.	Refer to paragraph 7 of the section "Actions for adjusting the oil supply"
	Oil leakage from the oil hose or its connections.	Tighten oil hose connections or replace oil seals, then bleed oil and level platforms
	Oil shut-off valve impossible tightly close and pump oil	Replace oil shutoff valve,then pump oil and adjust
The lift makes noise lifting process and lowering.	Not enough lubricant.	Lubricate all joints and moving parts (including the connecting rod) with engine oil.
	The base or lift itself is skewed.	Adjust the levelness of the lift or the fill and pad of the base.

APPENDIX A. NOTES

A.1. DISPOSAL OF USED OIL

Waste oil drained from the power supply and hoist tanks during the replacement process must be***be carried out*** disposed of in accordance with current***REQUIREMENTS*** legislation.

A.2. DISASSEMBLY OF THE LIFT

WHEN DISASSEMBLY, OBSERVE ALL REQUIREMENTS OF SECTION 3, WHICH ARE REQUIRED AT ITS ASSEMBLY.

Disassembly lift must produce authorized personnel. Metal parts can be disposed of as scrap. In any case, all materials resulting from the disassembly of the lift must be disposed of in accordance with current national standards. For tax purposes, the dismantling of the lift must be properly documented; Warranty claims and documents must be executed in accordance with◆ the legislation of the country.

APPENDIX B SPARE PARTS

IN 1. SPARE PARTS

Replacement of parts and repair work must V accordance co ALL BY TECHNOLOGY SAFETY, noted V section 6 "Maintenance and Care" and Section 3 "Safety Instructions".

All precautions must be taken in ***AVOIDING ACCIDENTAL ACTIVATION OF THE LIFT.***

AT 2. ORDERING SPARE PARTS

To order spare parts:

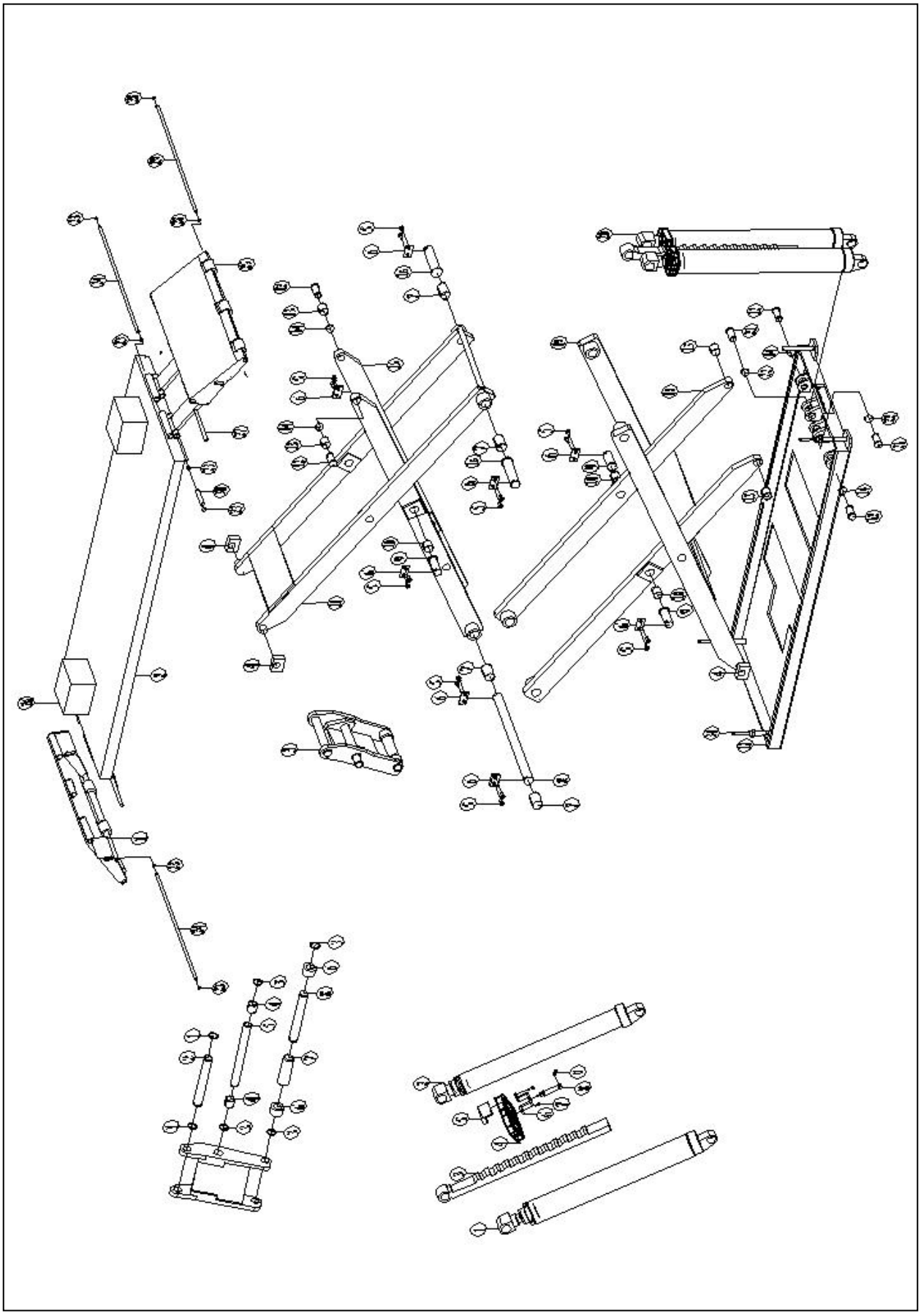
◆ indicate the serial number and year of manufacture lift;

◆ specify the part code (see "codes" in the table);

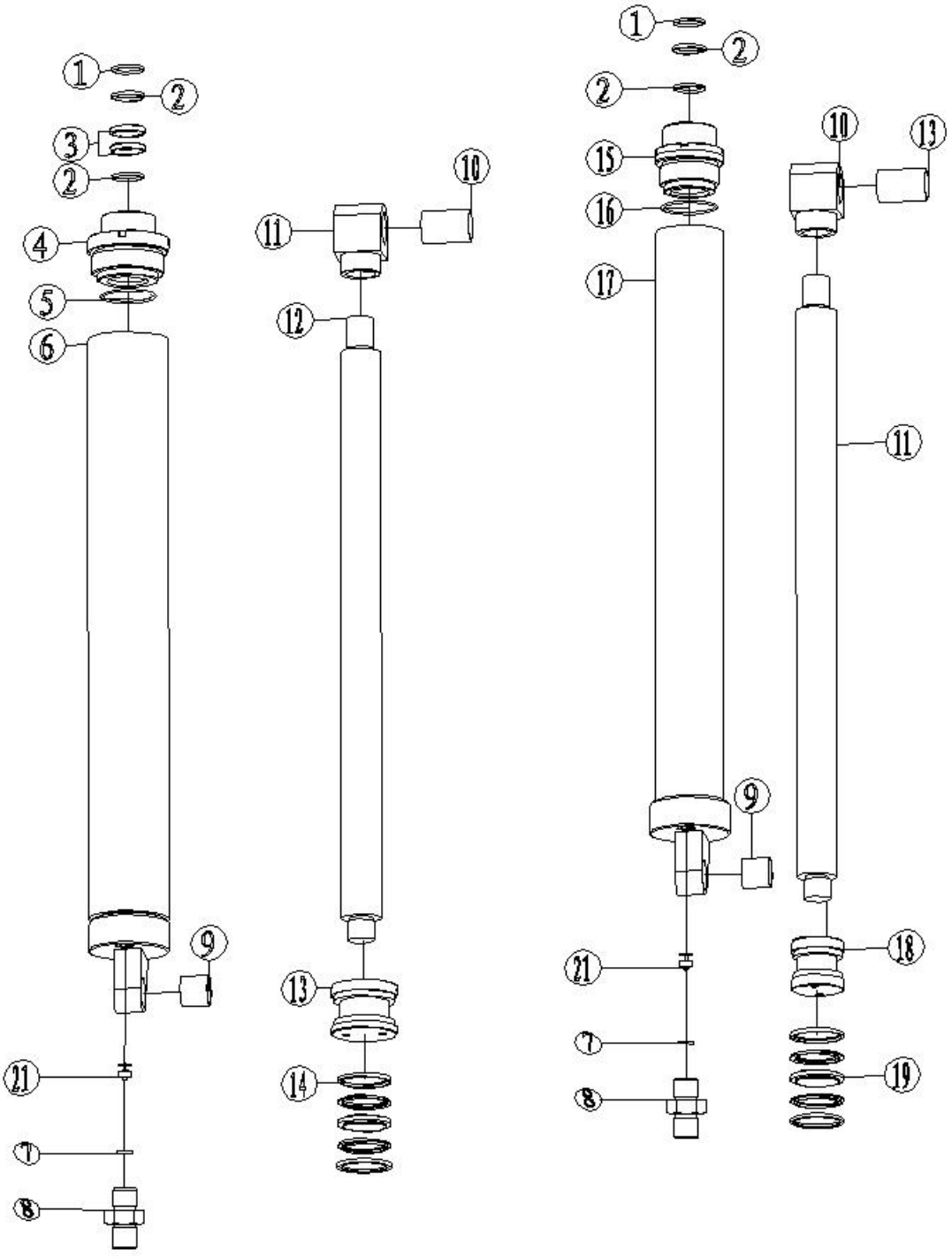
indicate the required number of spare parts.

Order must be given to the supplier How listed on the first page of the manual.

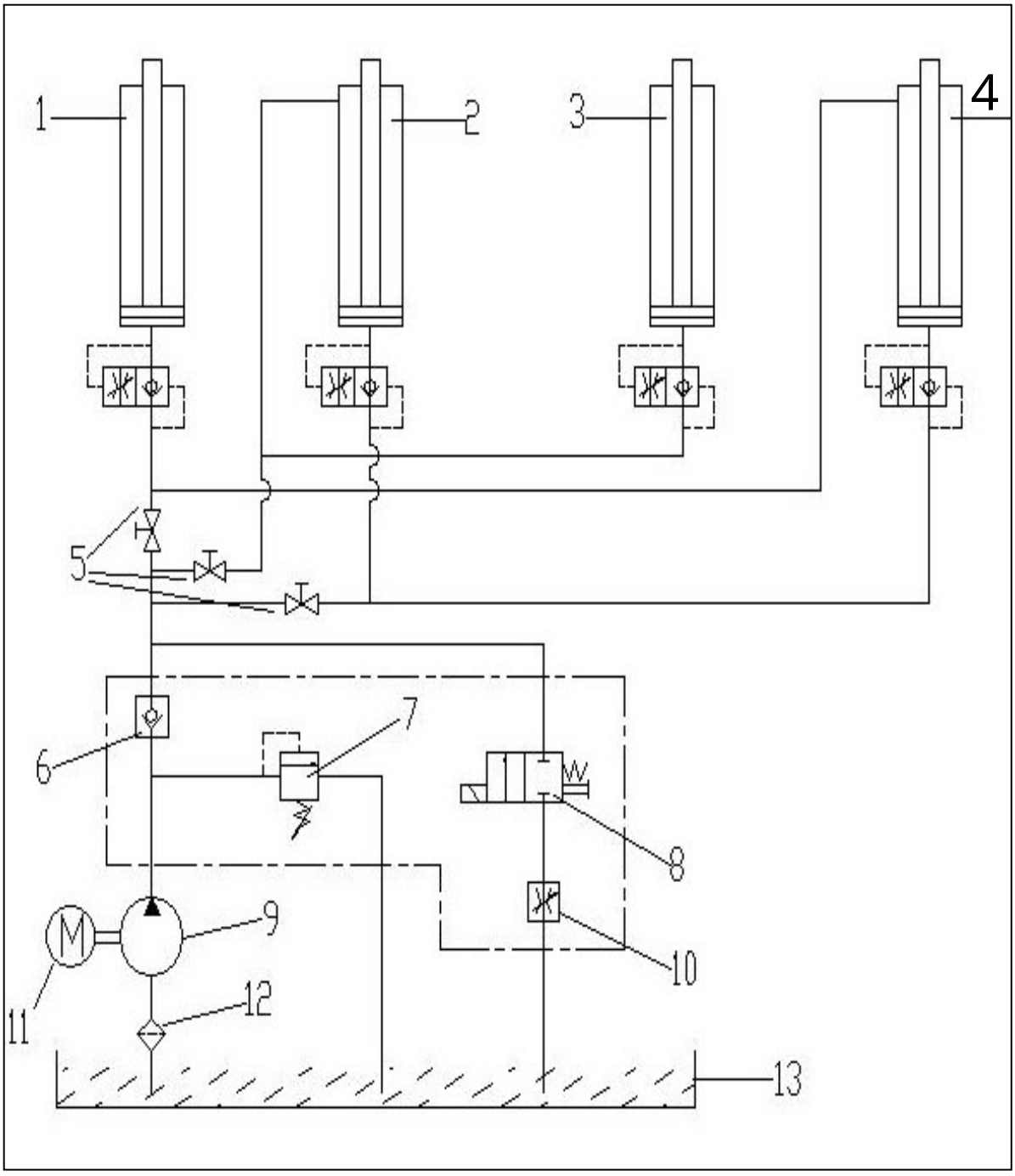
IN.3. SPARE PARTS



Hydraulic Cylinder Explosion Diagram



APPLICATIONC HYDRAULIC DIAGRAM



1.3. auxiliary cylinder

2.4. master cylinder

5. limit valve

6. stop valve

7. bypass valve

8. release valve

9. gear pump

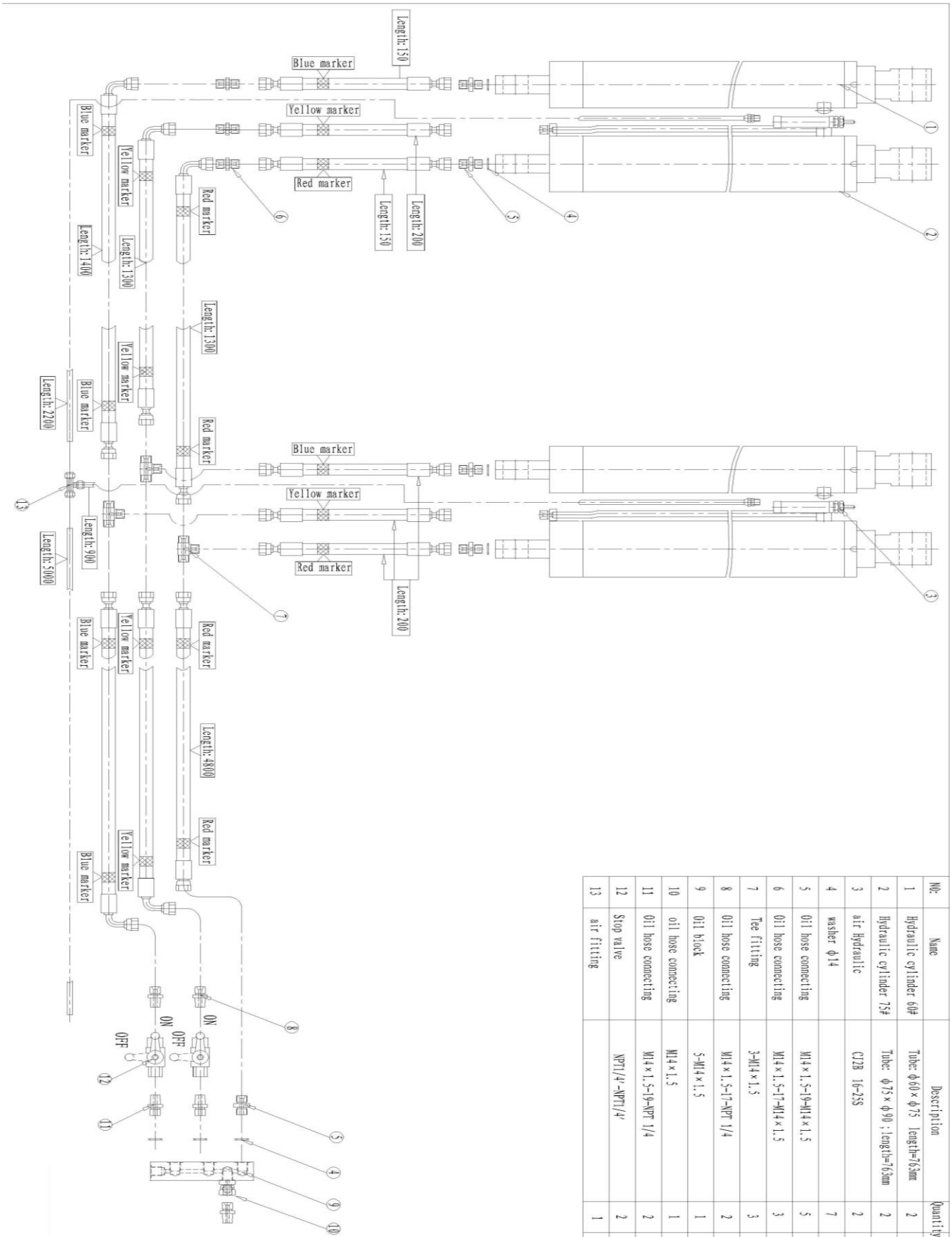
10. flow regulator

11. pump motor

12. filter

13. oil reservoir

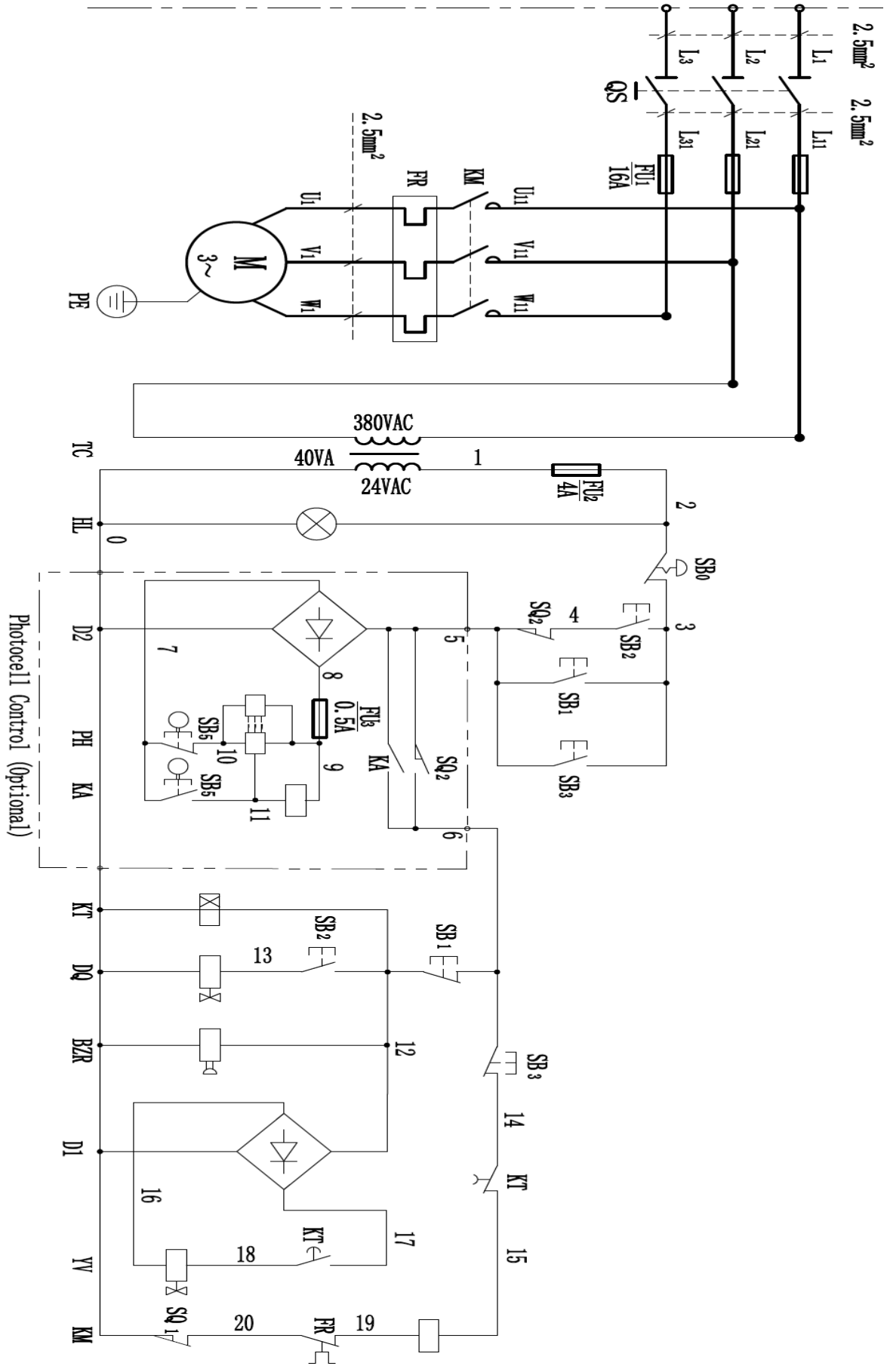
APPLICATIOND LANG CONNECTION DIAGRAM



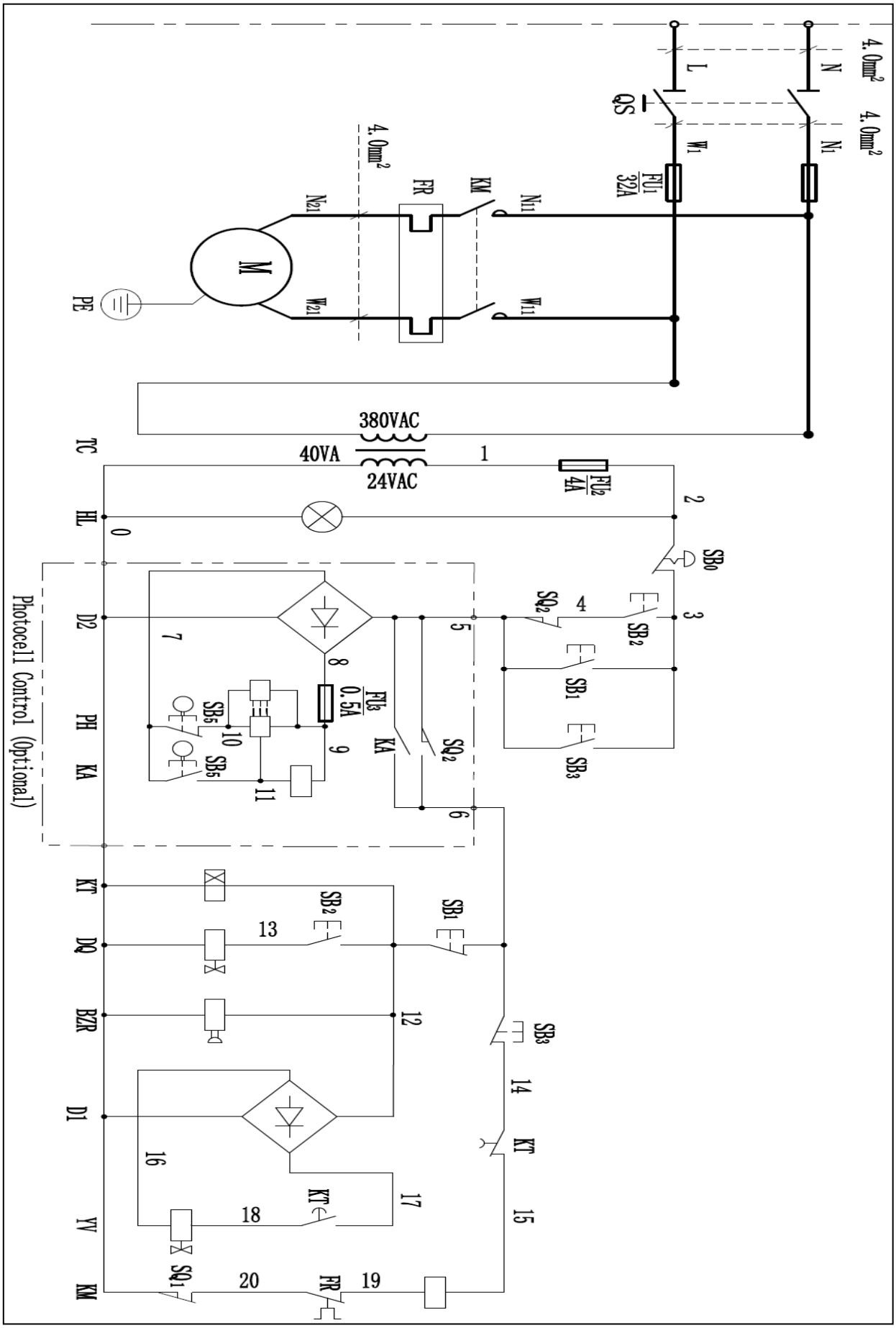
NO:	Name	Description	Quantity	Remark
1	Hydraulic cylinder 60#	Tube: ϕ60× ϕ75 length=763mm	2	
2	Hydraulic cylinder 75#	Tube: ϕ75× ϕ90 ;length=763mm	2	
3	air Hydraulic	C12B 16-25S	2	
4	washer ϕ14		7	
5	Oil hose connecting	M14×1.5-19-M14×1.5	5	
6	Oil hose connecting	M14×1.5-17-M14×1.5	3	
7	Tee fitting	3-M14×1.5	3	
8	Oil hose connecting	M14×1.5-17-NPT 1/4	2	
9	Oil block	5-M14×1.5	1	
10	oil hose connecting	M14×1.5	1	
11	Oil hose connecting	M14×1.5-19-NPT 1/4	2	
12	Stop valve	NPT1/4"-NPT1/4"	2	
13	air fitting		1	

APPLICATIONE ELECTRICAL DIAGRAM

(380V):

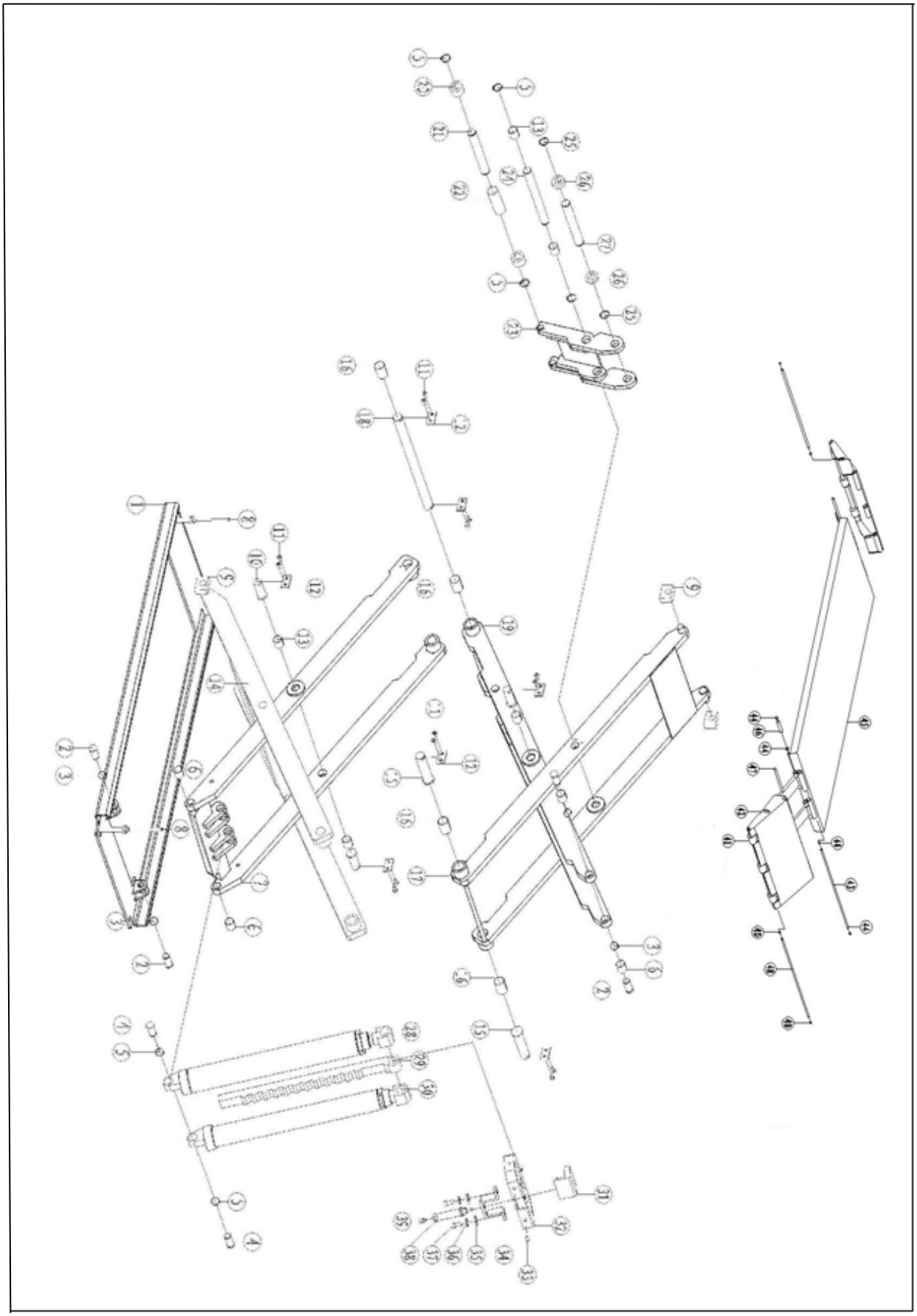


(220V):

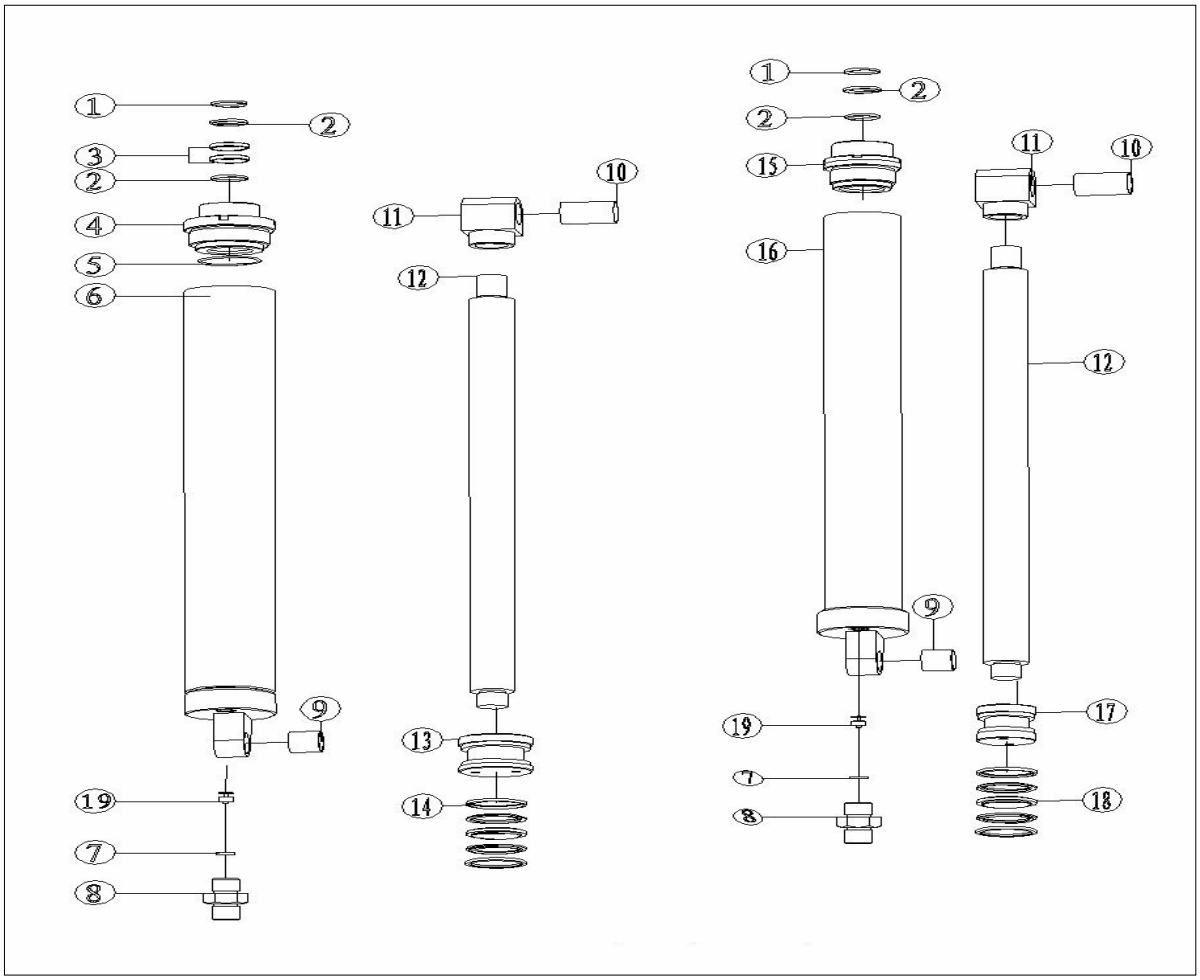

4.0mm²
4.0mm²
L
N
QS
W1
N1
FU1 32A
4.0mm²
FR
KM
N21
N11
M
PE
W21
W11
380VAC
40VA
24VAC
TC
1
FU2 4A
HL
0
2
SB0
D2
PH
KA
SQ2
4
3
SB2
SB1
SB3
7
8
5
FU3 0.5A
SB5
10
9
KA
SQ2
SB5
11
6
Photocell Control (Optional)
KT
DQ
BZR
D1
YV
KM
SB2
SB1
13
12
SB3
14
KT
16
17
KT
18
15
SQ1
20
FR
19

ELECTRICAL COMPONENTS LIST				
item	code	name	model	qty
1	QS	main switch	EN60947-3	1
2	KM	contactor	SC-03 24V	1
3	FR	thermal relay	TR-0N/3(9-13A)	1
4	M	pump motor	Y-90L4(380V 50HZ)	1
5	TC	transformer	380V-220V-24A	1
6	HL	power lamp	AD16-22D/S	1
7	D1	diode bridge	KBPC3510	1
8	D2	diode bridge	KBPC3510	1
9	BZR	buzzer	AD16-22SM	1
10	PH	photocell cell	CX411	1
eleven	KT	time relay	H3Y-2-	1
12	KA	auxiliary relay	MY2J 24VDC	1
13	YV	electromagnetic valve for descent		1
14	SB0	emergency switch	LA23-MT	1
15	SB1	up switch	XB2BA31	1
16	SB2	down switch	XB2BA42	1
17	SB3	lock switch	XB2BA55	1
18	SB5	key switch	XB2-DB22	1
19	SQ1	limit switch of main platform	TZ-8108	1
20	SQ2	again down switch	TZ-8108	1
21	DQ	Solenoid air valve of main platform	IVBS-2200-3EINC	1

explosive scheme1



explosive scheme2



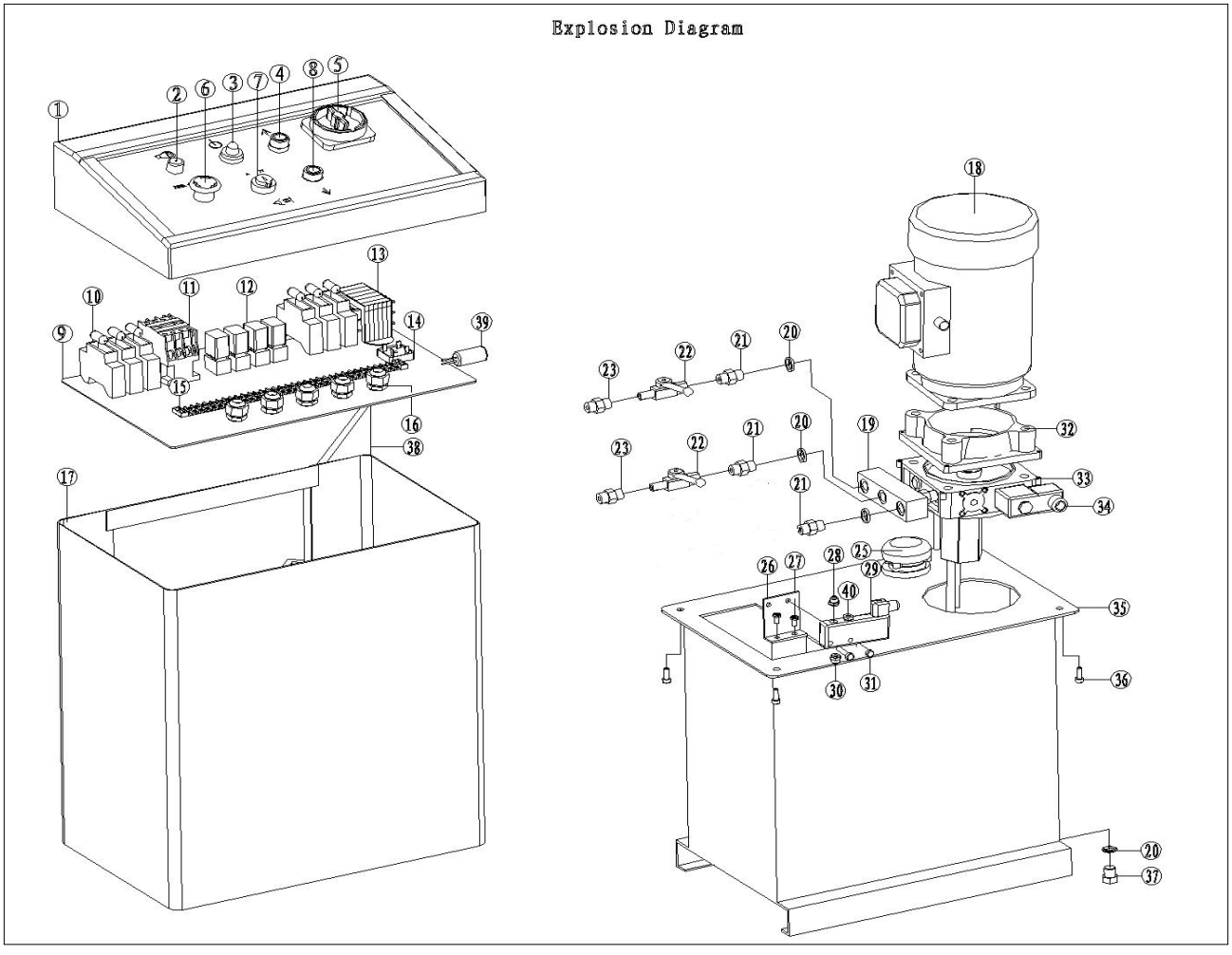
Small scissor lift exploded view list

serial number	Descripton	code number	Quantity	Price/unit	Remark
1	under plate		2		
2	vertically supporting hinge axle		8		
3	snap ring φ25		8		
4	oil cylinder bearing lower pin		4		
5	snap ring φ30		4		
6	oil-less axle-tree	2525	8		
7	lower and inner connecting rod		2		

8	Ground bolt φ16×140		12		
9	upper and lower slide block		8		
10	Center hinge axle		8		
eleven	Bhilips countersunk screw M8×12		32		
12	Ax clip		16		
13	oil-less axle-tree	3033	12		
14	lower and outer connecting rod		2		
15	short hinge axle		4		
16	oil-less axle-tree		8		
17	upper and outer connecting rod		2		
18	long hinge axle		2		
19	upper and inner connecting rod		2		
20	Start-up rod roller		4		
21	Roller axle		2		
22	Start-up rod roller alignment cover		2		
23	Starting rod combined welding		2		
24	Supporting hinge axle		2		
25	snap ring φ32		4		
26	Assist roller		Each 2		
27	Start-up rod supporting hinge axle		2		
28	Hydraulic cylinder 75		2		
29	Safty-jaw gear rack		2		
thirty	Hydraulic cylinder 60		2		
31	Safety claw		2		
32	Cylinder dead plate		2		
33	Socket cap screw	M8×12	8		
34	Cylinder bracket		2		
35	spring washer	φ5	4		
36	washer	φ5	4		
37	Socket cap screw M5×10	GB/T70.1-2000	4		
38	air cylinder	CJ2B 16×25	2		
39	Air hose connector	φ6-RC1/8'	2		
40	snap ring φ12		8		
41	Approaching ramp roller		12		
42	Approach ramp		4		
43	Approaching ramp pin		4		
44	snap ring φ16		24		
45	top plate		2		
46	bracket pin		8		
47	Bracket		Each2		
48	Approaching ramp roller axle		4		
Hydraulic cylinder explosion list					
1	Dust proof ring	45×53×6.5	4		
2	Belt	6.3×2.5	4		

3	Poly sealing	45×55×7	4		
4	Cylinder canister 75		2		
5	O-ring	O 75×2.65	2		
6	Cylinder 75		2		
7	Ringe	φ14	4		
8	oil hose connection	M14×1.5-19-M14×1.5	4		
9	oil-less axle-tree	3030	4		
10	oil-less axle-tree	3250	4		
eleven	Piston pole ring		2		
12	Piston rod 45		4		
13	piston 75		2		
14	Assembly ring	75×55×22.4	2		
15	Cylinder cover 60		2		
16	Cylinder 60		2		
17	Piston 60		2		
18	Assembly ring	60×44×18.4	2		
19	Anti-explosive valve	φ1.5	4		

explosive scheme3



Small SCISSOR CONTROL BOX EXPLOSION LIST（CE）

item	Description	Manufacture code	QTY(pcs)	Remark
1	cover box		1	
2	BZR	AD16-22SM	1	
3	HL	AD16-22D/S	1	
4	Up button	XB2BA31	1	
5	General switch	EN60947-3	1	
6	emergency stop button			
7	photocell key switch	XB2-EG41	1	
8	Down button	XB2BA41	1	
9	circuit board		1	
10	Fuse(8A)		3	voltage=220V
	Fuse(2A)		3	20A(Fuse)2pcs
	fuse holder	(RT28-32)	6	2A(Fuse) 3pcs
eleven	AC contactor	SC-03		
	thermal relay	TR-ON/3		
12	Central relay	MY2J 24VDC	1	
		MY2J 24VAC	2	
		MY4J 24VAC	1	
13	transformer	380V-220V-24V	1	
14	diode bridge	KBPC3510	1	
15	Connection terminals	TBC-10		
16	wire head		5	
17	Up body cover		1	
18	Motor	Y-90L4	1	
19	oil block		1	
20	φ14 washer		3	
21	oil hose connector	M14×1.5-19-NPT1/4'	3	
22	"-" valve		2	
23	oil hose connector	M14×1.5-17-NPT1/4'	4	
25	filter	EF1-25	1	
26	air valve bracket		1	
27	Bolt	M5×12	2	
	Nut	M5	2	
28	Air hose connector	KLC8-02	1	
29	solenoid air valve	IVBS-2200-3EINC	1	
thirty	air hose connector)	KLC6-02	1	
31	Bolt	M4×35	2	
	Nut	M4	2	
32	flange		1	

33	hydraulic pump		1	
34	solenoid valve		1	
35	oil tank		1	
36	Bolt	M6×16	4	
37	Stopple		1	
38	back door of oil tank		1	
39	Capacitance		1	
40	Muffler	1/8'	1	