

Strongman tools Montford club



USER'S GUIDE

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Description of Middle Rise Lift

Middle rise lift is specially designed for the tyre-changing of car. With its elaborate design, reasonable structure and easily-operation, it is very popular with the customers. When using this machine, the bottom frame could be placed on the ground or embedded bellow the ground . These two bottom frames must be on the same horizon plain, fix this machine with anchor bolts.

I 、 Features:

1. With A3 steel plate, the strength of the lift is enhanced, avoid deformation, guarantee the service life.
2. Hydraulic system adopts differential cylinder, which one is a kind of high quality high-pressure cylinder. With a Max pressure 22Mpa, the hydraulic pump is a kind of super-high pressure pump from Italy. Hydraulic valve adopts Italy thread cartridge inserted valve, guarantee the working pressure of hydraulic system and its long-term balanced usage.
3. Hydraulic and mechanical double safety lock, guarantee an absolute safety service.

II 、 Safety

2.1 Introduction

Thoroughly read this manual before operating the lift and comply with the instructions. Always display the manual in a conspicuous location.

Personal injury and property damage incurred due to non-compliance with these safety instructions are not covered by the product liability regulations.

2.2 Safety Instructions for Commissioning

the lift may be installed and commissioned by authorized service personnel only.
the standard lift version may not be installed and commissioned in the vicinity of explosives or flammable liquids, outdoors or in moist rooms (e.g. car wash).

2.3 Safety Instructions for Operation

Read the operating manual.

Lift operation by authorized personnel over 18 years only.

Always keep the lift and lift area clean and free of tools, parts, debris etc.

After raising the vehicle briefly, stop and check the disk adapters for secure contact.

Make sure the vehicle doors are closed during raising and lowering cycles.

Closely watch the vehicle and the lift during raising and lowering cycles.

Do not allow anyone to stay in lift area during raising and lowering cycles.

Do not allow anyone on lift or inside raised vehicle.
 Only use the lift for its intended purpose.
 Comply with the applicable accident prevention regulations.
 Do not overload the lift. The rated load capacity is indicated on the lift nameplate.
 Only use the vehicle manufacturer's recommended lift points.
 After positioning the vehicle apply the parking brake.

Use caution when removing or installing heavy components (center-of-gravity displacement).

The main switch serves as emergency switch. In case of emergency turn to position 0.
 Protect all parts of the electrical equipment from humidity and moisture.
 Protect the lift against unauthorized usage by padlocking the main switch.

2.4 Safety Instructions for Servicing

Maintenance or repair work by authorized service personnel only.

Turn off and padlock the main switch before doing any maintenance, or repair work.
 Work on pulse generators or proximity switches by authorized service personnel only.
 Work on the electrical equipment by certified electricians only.

Ensure that ecologically harmful substances are disposed of only in accordance with the appropriate regulations.

Do not use high pressure / steam jet cleaners or caustic cleaning agents. Risk of damage!

Do not replace or override the safety devices.

III、 Technical data

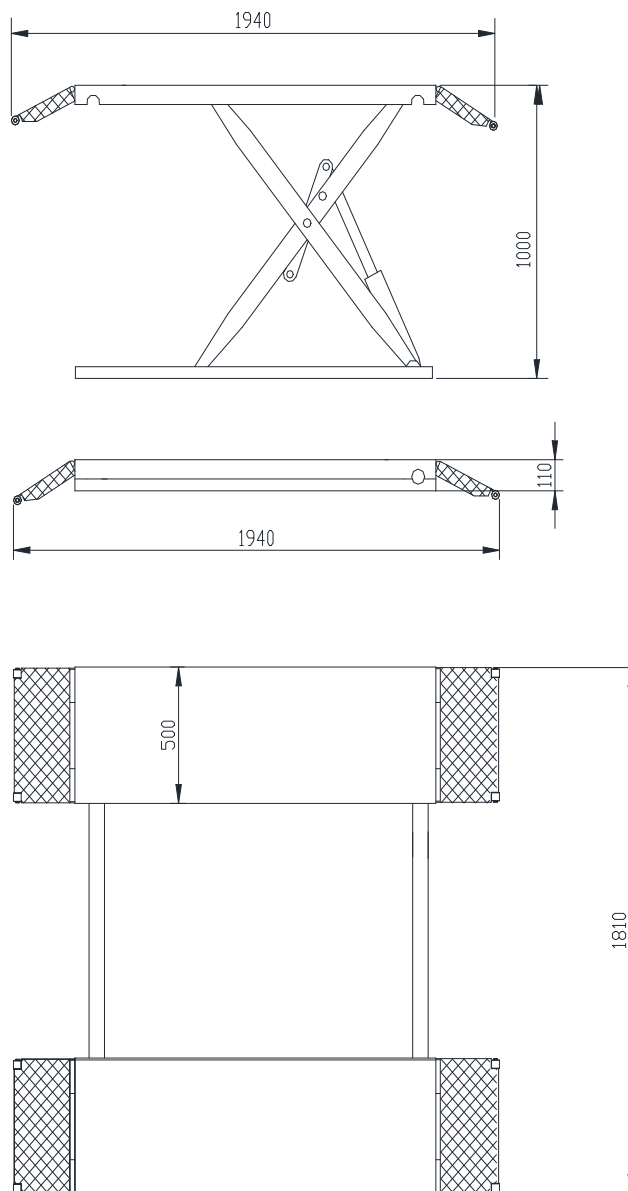
1. The identification data of the machine are shown in the label placed on the control unit.

Scissor lift CE	
Model: Montford	Electrical: 240v50Hz1PH
Max lift weight: 3000KG	Oil Pressure: 22MPa
Max lift high: 1000mm	
Min High: 110mm	Weight: 500KG
Power: 2.2KW	
Series No:	Date:






2. parameter





Max. lift weight	3000kg	Rise time	45-50s
Lift height	1000mm	Lower time	35-40s
Platform length	1450mm	Dimensions	1940*1850*110mm
Platform width	500mm	Weight	500kg
Rated voltage	240V	Rated power	2.2kw
Hydraulic press oil	46# anti-grinding oil	Noise	≤70dB
		Working temperature	-10°C - 40°C
Oil pressure	22MPa		

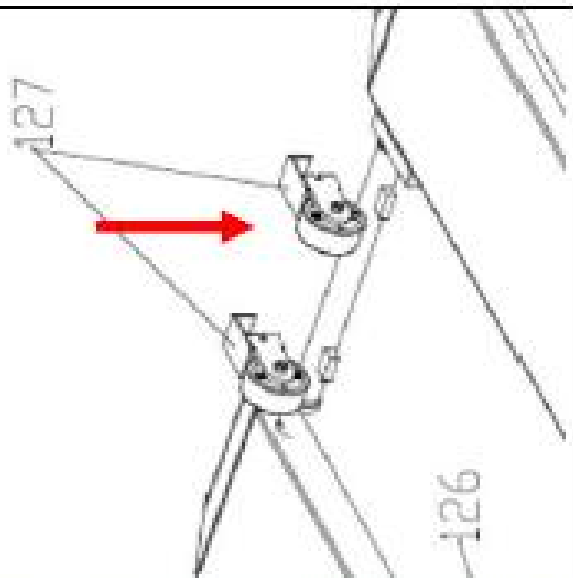



3. Layout



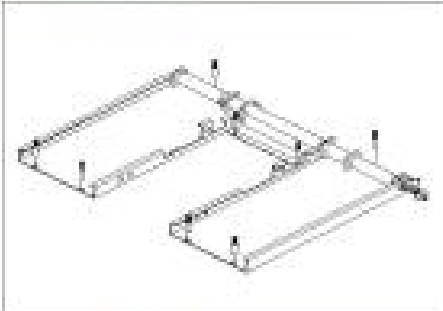



IV、 Installation and Debug

1		Put the lift on the ground
2		Connect oil hose
3		Connect the connectors
4		The numbers on the lift match the numbers on the control box
5		

6		Turn on power plug
7		Turn on "ON" button on the control box, the lamp will lighting
8		Press UP button, you can hear the motor is running, then the lift start to rise up
9		It is normal that the lift starts to move after you hear the motor is running 10-20 seconds
10		If the lift doesn't move after the motor runs 20 seconds, please loosen this nut a little, then press UP button. After you see some oil comes out from this nut, please stop press UP button. Then screw the nut tightly, the lift will work fine.
11		When the lift at 700-800mm height, please stop it

12		Install the wheels, follow the arrow direction
13		Press DOWN button, you can see the lift will rise up 2-3 seconds before it starts to go down. It is totally normal.
14		Connect the mobility kit to the lift
15		Move the lift to an appropriate position

16		<p>Down the lift, when the lift at the lowest position, please keep pressing DOWN button for another 10 seconds more .</p>
17		<p>Then rise up the lift to the highest position and check if the lift can stop automatic</p>
18		<p>Use bolts to fix the lift on the ground</p>
19		<p>Operate the lift up and down for 3-5 times. If you find the down speed is too slow, you can loosen this hexagon nut. Use #5 inner hexagon spanner to spin it in counterclockwise rotation. If you find the down speed is too quickly, please in clockwise rotation. Please screw the hexagon nut tightly after the speed is appropriate.</p>

V、Maintenance

- 1、 Keep all the moveable parts clean, regularly grease them.
- 2、 All the oil cups should be refilled once every week.
- 3、 Replace the hydraulic oil once every year. Clean the oil tank and oil filter. The oil level should keep upper limit.
- 4、 The compressed air for the pneumatic safety lock should be filtered to ensure the reliability of the safety lock.
- 5、 Ordinary Maintenance

The lift has to be properly cleaned at least once a month using self-cleaning clothes, Lubricate all pivot pins at least once a week.

Every 3 months	Hydraulic circuit	<ul style="list-style-type: none"> ▪ check oil tank level; refill with oil, if needed; ▪ check the circuit for oil leakage. ▪ check seals for proper conditions and replace them, if necessary;
	Foundation bolts	<ul style="list-style-type: none"> ▪ check bolts for proper tightening
	Hydraulic pump	<ul style="list-style-type: none"> ▪ verify that no noise changes take place in the pump when running and check fixing bolts for proper tightening
	Safety system	<ul style="list-style-type: none"> ▪ check safety devices for proper operation
Every 6 months	Oil	<ul style="list-style-type: none"> ▪ check oil for contamination or ageing. Contaminated oil is the main reason for failure of valves and shorter life of gears pumps
Every 12 months	General check	<ul style="list-style-type: none"> ▪ verify that all components and mechanisms are not damaged
	Electrical system	<ul style="list-style-type: none"> ▪ a check of the electrical system to verify that motor, limit switch and control panel operate properly must be carried out by skilled electricians
	Oil	<ul style="list-style-type: none"> ▪ empty the oil tank and change the hydraulic oil

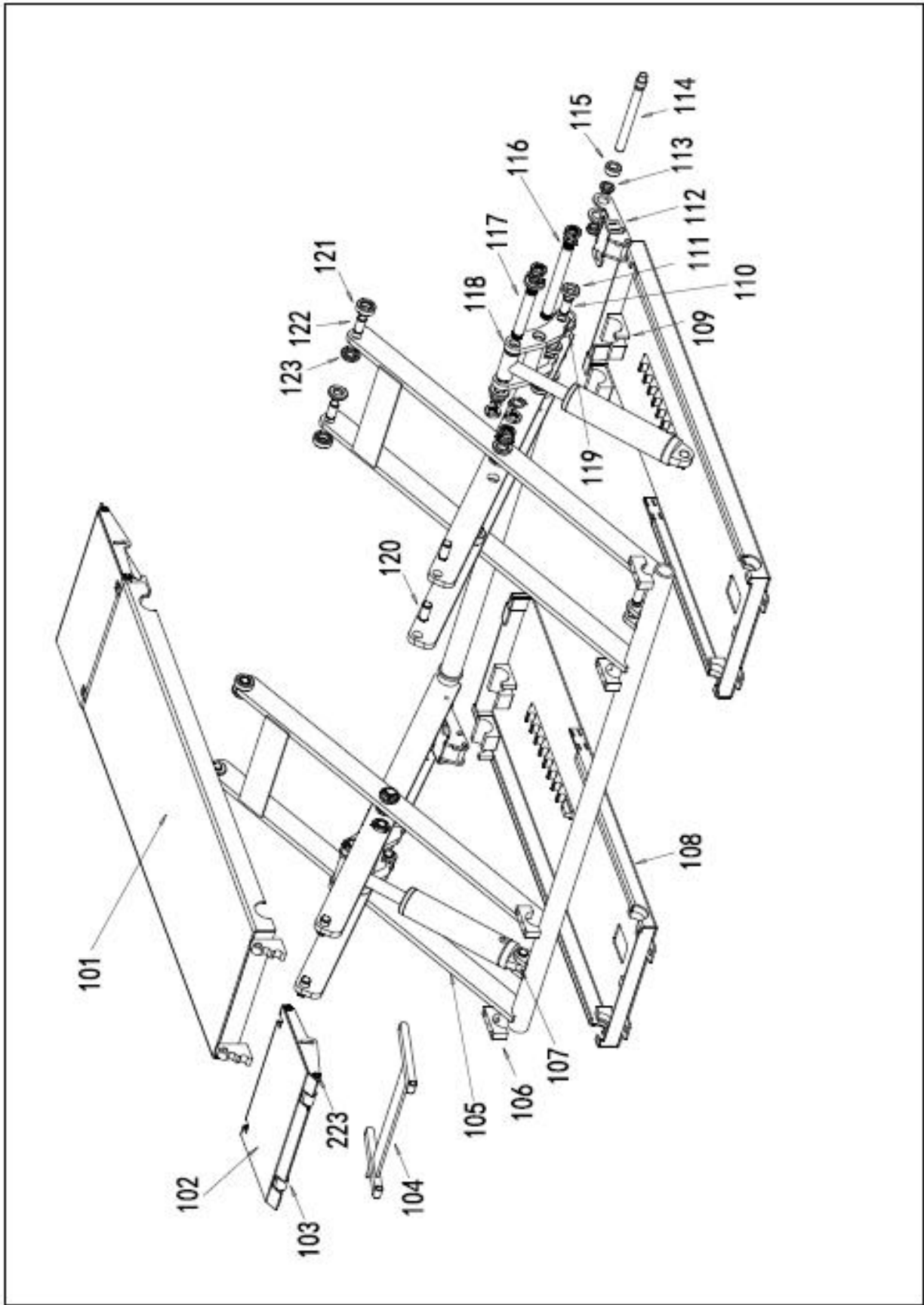
VI、 Safety instructions for operation

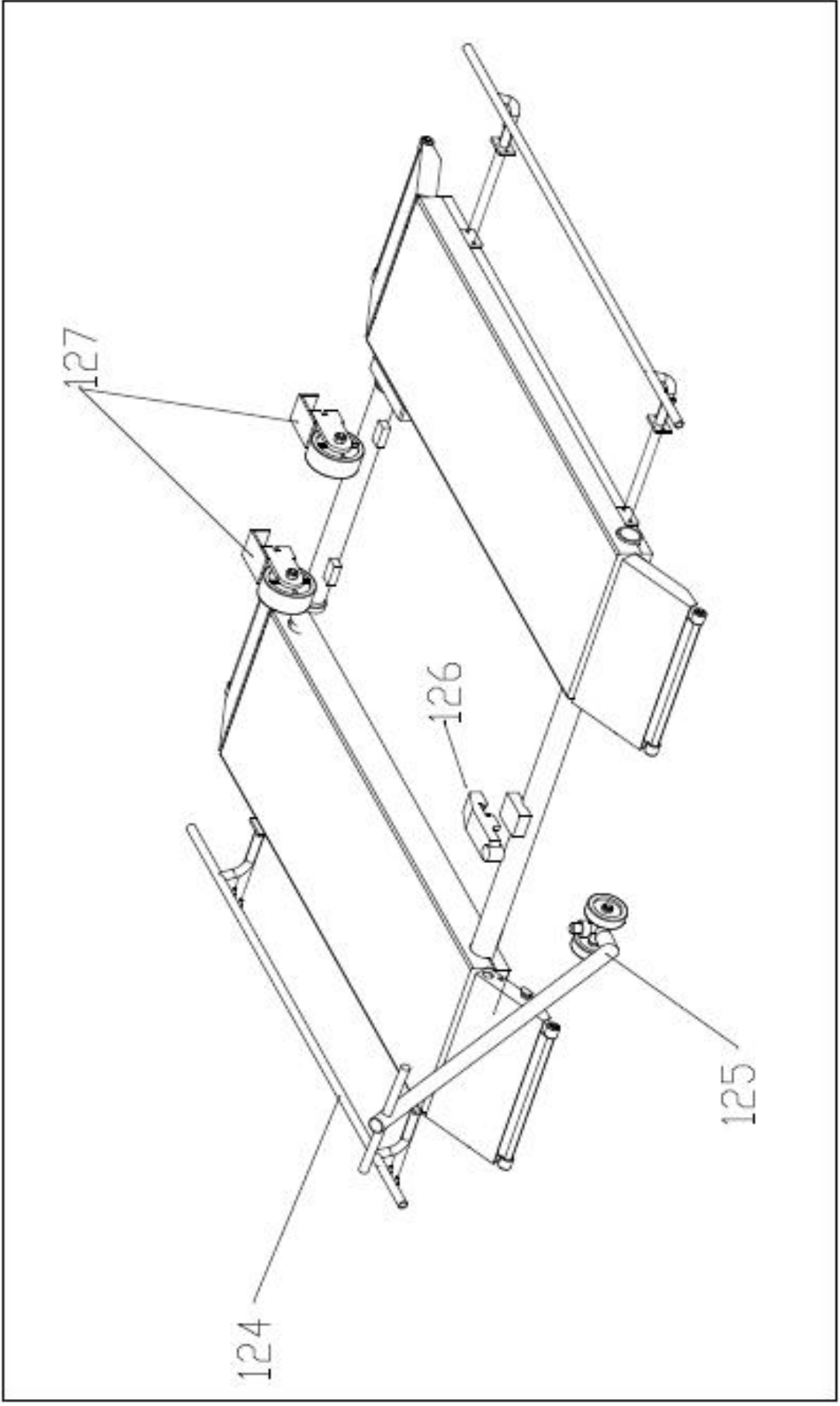
- 1、 Always keep lift and lift area free of tools, parts, debris etc. The car on the platform should be flat, stable.
- 2、 Do not allow anyone to stay in lift area or stand on the platform during raising and lowering cycles.
- 3、 Do not overload the lift.
- 4、 Handle up the manual brake of the car and stack up antiskid pad when the car is on the lift.
- 5、 The rise and fall should be synchronous avoiding any abnormal condition.
- 6、 When this machine is locked, these two platform should be on the same plane.
- 7、 When the operation is finished, the platform should be lowered at a bottom position.

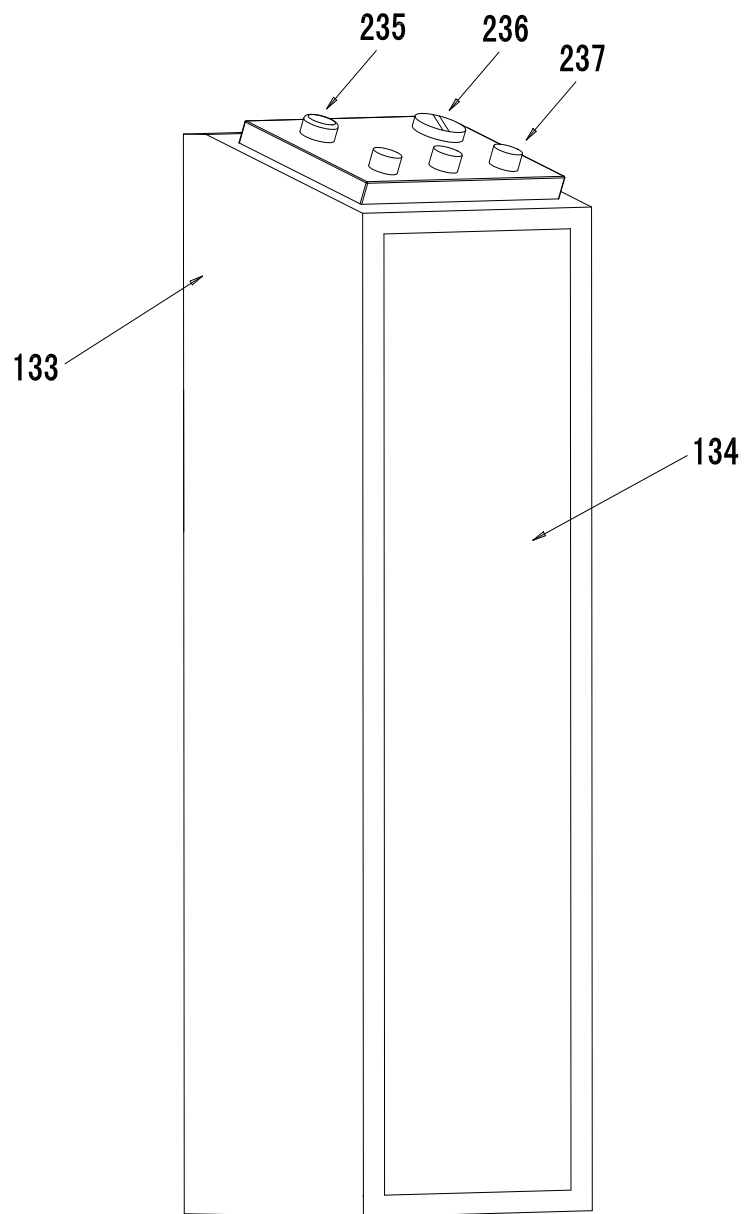
VII、 Spare parts list

Code	Descriptions	Qty
101	Upper cover plate	2
103	Roller	8
105	arm	1
107	Oil cylinder Connecting shaft	2
109	Nylon block	8
111	Roller	4
113	Shaft sleeve	20
115	Shaft sleeve	2
117	shaft	1
119	Roller	4
121	shaft	4
123	Roller	3

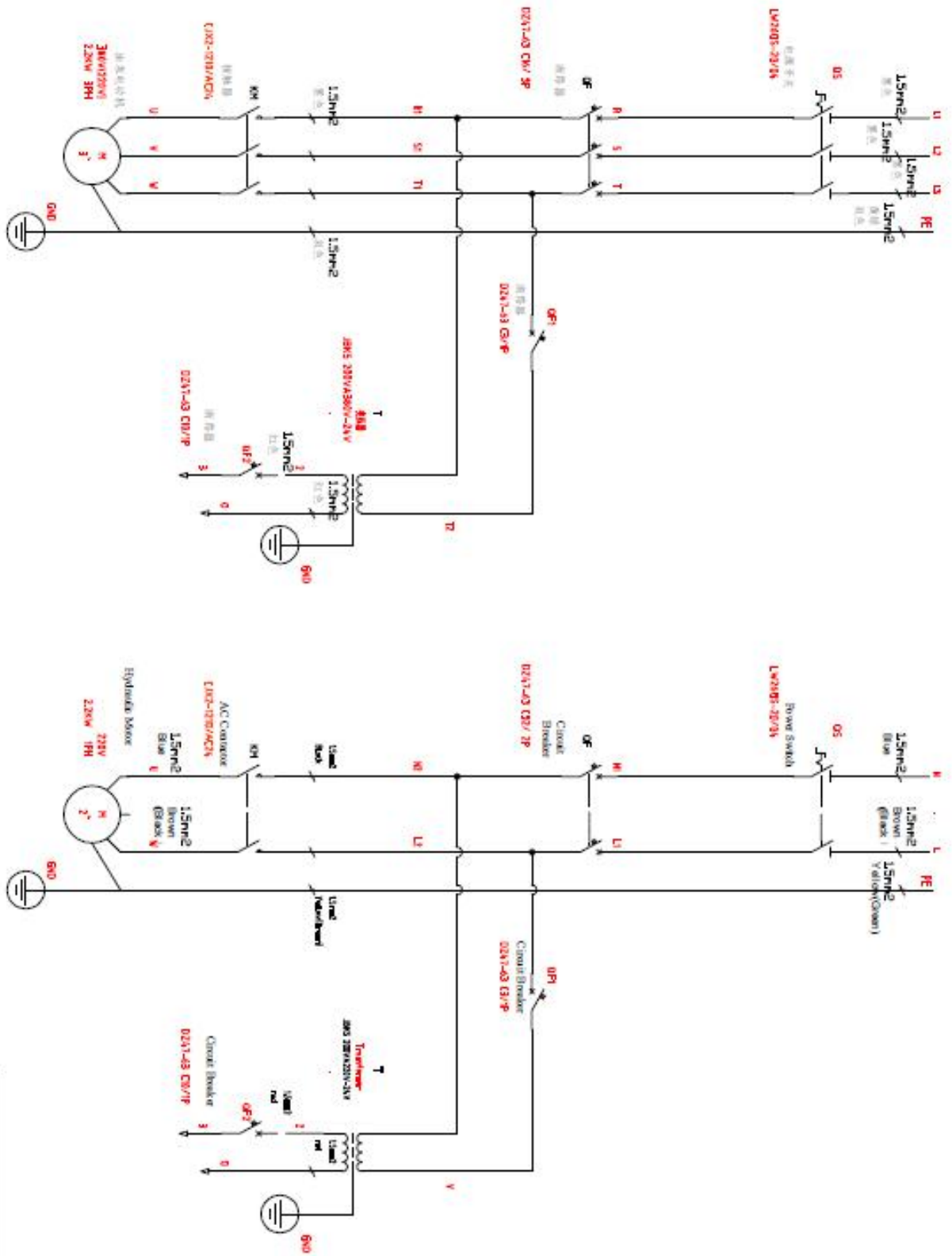
Code	Descriptions	Qty
102		8
104	Support plate	4
106	Bearing block	
108	Baseplate	2
110	shaft	2
112	Bottom safety gear rack	2
114	shaft	2
116	shaft	2
118	Help arm	2
120	shaft	4
121	shaft	4

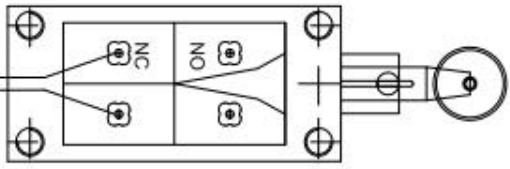
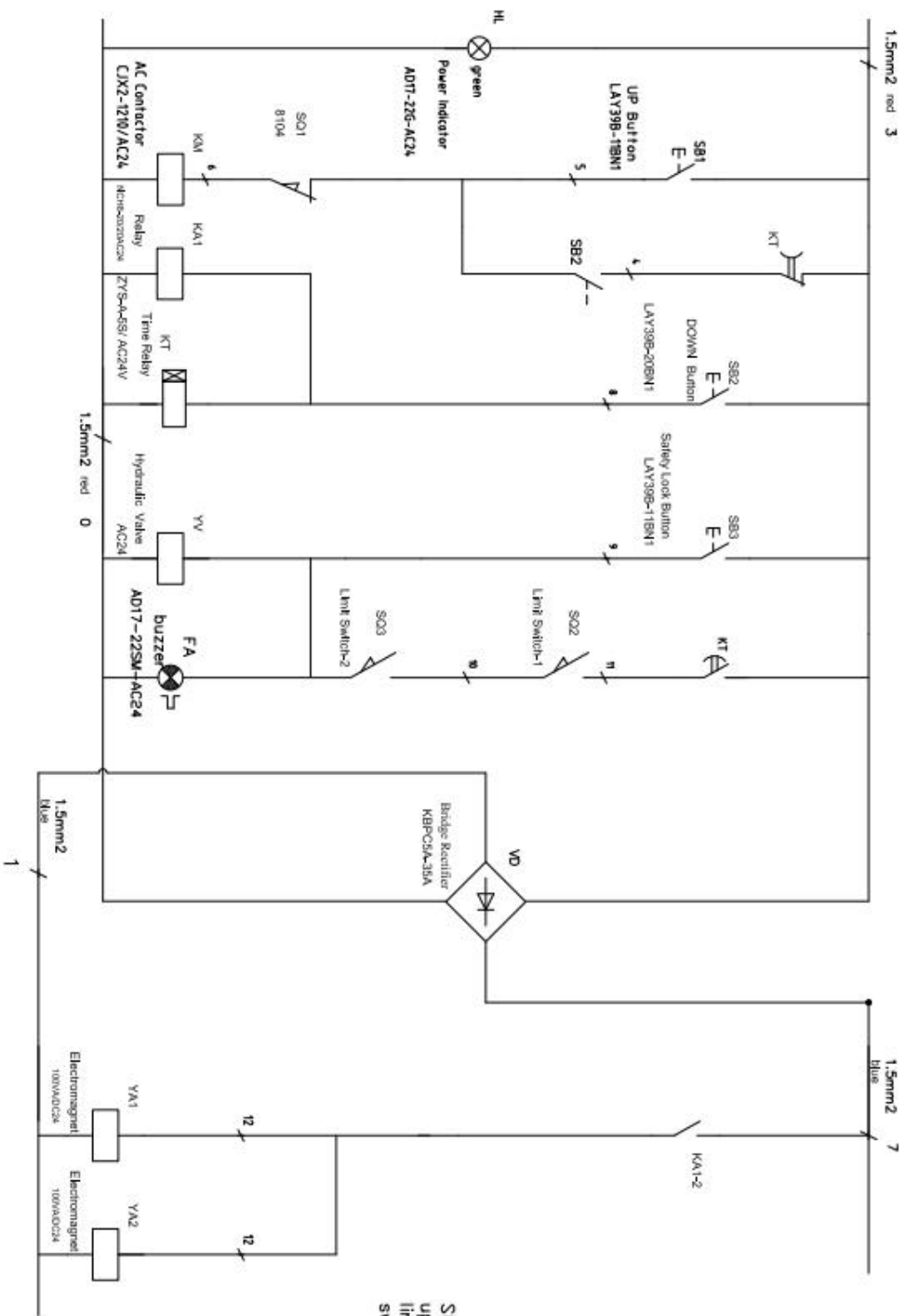




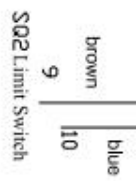


VIII、Circuit diagram

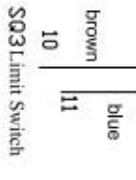




install it on latch gear



install it on latch gear



IX. PACKING, TRANSPORT AND STORAGE

Only skilled personnel who are familiar with the lift and this manual shall be allowed to carry out packing, lifting, handling, transport and unpacking operations.

1 PACKING

The packing of the lift is delivered in following components:

N. 2 base units packed in a steel frame, wrapped up in non-scratch waterproof material and sealed with 2 straps

N. 1 power unit packed in a plywood box

N. 4 drive-on ramps wrapped up in non-scratch waterproof material, including

N. 4 rubber pads, N. 4 hydraulic hoses and N. 8 anchor bolts.

(If requested, optional accessories are available to satisfy each customer's requirements). The average weight of the package is 700kg

2 Lifting and Handing

When loading/unloading or transporting the equipment to the site, be sure to use suitable loading (e.g. cranes, trucks) and hoisting means. Be sure also to hoist and transport the components securely so that they cannot drop, taking into consideration the package's size, weight and centre of gravity and it's fragile parts.



Hoist and handle only one package at a time

3 STORAGE AND STACKING OF PACKAGES

Packages must be stored in a covered place, out of direct sunlight and in low humidity, at a temperature between -10°C and +40°C. Stacking is not recommended: the package's narrow base, as well as its considerable weight and size make it difficult and hazardous.

4 DELIVERY AND CHECK OF PACKAGES

When the lift is delivered, check for possible damages due to transport and storage; verify that what is specified in the manufacturer's confirmation of order is included. In case of damage in transit,

the customer must immediately inform the carrier of the problem.

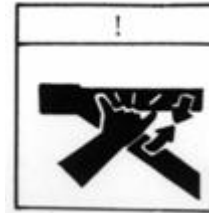
Packages must be opened paying attention not to cause damage to people (keep a safe distance when opening straps) and parts of the lift (be careful the objects do not drop from the package when opening).

RISKS FOR PEOPLE

All risks the personnel could run, due to an improper use of the lift, are described in this section.

PERSONNEL CRUSHING RISKS

During lowering of runways and vehicles, personnel must not be within the area covered by the lowering trajectory. The operator must be sure no one is in danger before operating the lift.



BUMPING RISK

When the lift is stopped at relatively low height for working, the risk of bumping against projecting parts occurs.

RISK OF THE VEHICLE FALLING FROM THE LIFT

Vehicle falling from the lift can be caused when the vehicle is improperly placed on platforms, and when its dimensions are incompatible with the lift or by excessive movement of the vehicle.

In this case, keep immediately away from the working area.

XI、 Electric Appliance Operation

- 1、 Rise: Press the “rise” button, the platform rise. Release this button, it stop.
- 2、 Lock: When the platform rise at a height, release the “rise” button and press “lock” button, this platform begin falling. When the safety gear block the safety claw, it lock.
- 3、 Lower: Press “lower” button, the platform rise. 2-3 seconds later, it fall automatic, the safety claw rise and the motor stop.



XII、 Hydraulic pressure schematic diagram

