

## LM-3000FR Full Rise Scissor Lift Setup and Operation Manual

Manual Revision A1 — August 2023

Model: • LM-3000FR



**IMPORTANT Safety Instructions, save these instructions! Read the *entire contents* of this manual *before* using this product. Failure to follow the instructions and safety precautions in this manual can result in serious injury or death. Make sure all other operators also read this manual. Keep the manual near the product for future reference. ***By proceeding with setup and operation, you agree that you fully understand the contents of this manual and assume full responsibility for product use.*****

# LiftMotive

## The LiftMotive Story

LiftMotive is a young company which continues to pursue and elevate the standards of excellence through their strategic partnerships with automotive care professionals throughout Europe. As a direct European importer, LiftMotive is uniquely positioned to provide customers with the lowest delivered pricing and unparalleled after sales support.

## How it started

Imagine a hobby that got out of hand combined with a dream, that makes our business. In 2018, we launched our own brand, LiftMotive. Our idea and goal were to develop and produce high quality products at a reasonable price range. so far our company has made quite some developments and growth.

## Our mission

LiftMotive is the distributor of car lifts and automotive service equipment, because we offer the highest quality products, best service after the sale and most impressive delivery speeds, all while holding fast to the strongest company culture in the industry.

## Our values

Our ongoing goal is to engage candidly and professionally with distributors and individuals interested in our products. We will use every means available to present our wares in the most convenient way possible.

## Our vision

Continue growing a business in providing and distributing products that better people's lives, now and for future generations.

# LiftMotive



**Manual.** LM-3000FR Full-Rise Scissor Lift, *Installation and Operation Manual*, Manual Part Number 420232, Manual Revision F1, Released August 2023.

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**Limitations.** Every effort has been made to ensure complete and accurate instructions are included in this manual. However, product updates, revisions, and/or changes may have occurred since this manual was published. LiftMotive reserves the right to change any information in this manual without incurring any obligation for equipment previously or subsequently sold. LiftMotive is not responsible for typographical errors in this manual. You can always find the latest version of the [manual for your product on the LiftMotive website](#).

**Warranty.** The LiftMotive warranty is more than a commitment to you: it is also a commitment to the value of your new product. Contact your nearest LiftMotive dealer or visit [www.liftmotive.com](http://www.liftmotive.com) for full warranty details.

**Safety.** Your product was designed and manufactured with safety in mind. However, your safety also depends on proper training and thoughtful operation. Do not install, operate, maintain, or repair the unit without reading and understanding this manual and the labels on the unit; **do not use your Lift unless you can do so safely!**

**Owner Responsibility.** In order to ensure operator safety and maintain your product properly, it is the responsibility of the product owner to read and follow these instructions:

- Follow all setup, operation, and maintenance instructions.
- Make sure product setup and use conforms to all applicable local, state, and federal codes, rules, and regulations.
- Read and follow all safety instructions. Keep them readily available for operators.
- Make sure all operators are properly trained, know how to safely operate the unit, and are properly supervised.
- Do not operate the product until you are certain all parts are in place and operating correctly.
- Carefully inspect the product on a regular basis and perform all maintenance as specified.
- Service and maintain the unit only with approved replacement parts.
- Keep all instructions permanently with the product and make sure all labels are clean and visible.
- **Only use the Lift if it can be used safely!**


**Unit Information.** Enter the Model Number, Serial Number, and the Date of Manufacture from the label on your unit. This information is required for part or warranty issues.


Model: \_\_\_\_\_

Serial: \_\_\_\_\_

Date of Manufacture: \_\_\_\_\_

Model No	LM-3000FR
Description	Full Rise Scissor Car Lift
Lifting Capacity	3000 KG / 6600 LBS
Power Supply	380V AC / 50HZ-3 Phase
Weight	850 KG / 1875 LBS
Date of Mfg	
Serial Number	

 DISCONNECT POWER BEFORE SERVICING  
PLEASE READ THE ENTIRE CONTENTS OF THE MANUAL PRIOR TO INSTALLATION AND OPERATION

**LiftMotive**  
www.liftmotive.com 

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## Introduction

This manual describes the LM-3000FR, which is a full-rise, frame-engaging, scissor Lift.

The LM-3000FR can raise Vehicles up to 3,000 kg.

This manual is mandatory reading for all LM-3000FR users, including anyone who sets up, operates, maintains, or repairs them.

**⚠ DANGER** Be very careful when setting up, operating, maintaining, or repairing this equipment; failure to do so could result in property damage, product damage, injury, or (in very rare cases) death. Make sure only authorized personnel operate this equipment. All repairs must be performed by an authorized technician. Do not make modifications to the unit; this voids the warranty and increases the chances of injury or property damage. Make sure to read and follow the instructions on the labels on the unit.

Keep this manual on or near the device so that anyone who uses or services it can read it.

If you are having issues, refer to the **Troubleshooting** section of this manual for assistance.

Technical support and service is available from your dealer, on the Web at **Liftmotive.com**, by email at **info@liftmotive.com**, or by phone at **+31 627365781**.

You may also contact LiftMotive for parts replacement information (please have the model and serial number of your unit available)

# Shipping Information

Your equipment was carefully checked before shipping. Nevertheless, you should thoroughly inspect the shipment **before** you sign to acknowledge that you received it.

When you sign the bill of lading, it tells the carrier that the items on the invoice were received in good condition. **Do not sign the bill of lading until after you have inspected the shipment.** If any of the items listed on the bill of lading are missing or damaged, do not accept the shipment until the carrier makes a notation on the bill of lading that lists the missing and/or damaged goods.

If you discover missing or damaged goods **after** you receive the shipment and have signed the bill of lading, notify the carrier at once and request the carrier to make an inspection. If the carrier will not make an inspection, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

It is difficult to collect for loss or damage after you have given the carrier a signed bill of lading. If this happens to you, file a claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs. Our willingness to assist in helping you process your claim does not make us responsible for collection of claims or replacement of lost or damaged materials.

# Safety Considerations

**Read this manual carefully before using your new product.** Do not set up or operate the product until you are familiar with all operating instructions and warnings. Do not allow anyone else to operate the product until they are also familiar with all operating instructions and warnings.

## General Safety Information

- The product is a full-rise scissor Lift. Use it only for its intended purpose. Do not make any modifications to the product.
- The product should only be operated by authorized personnel.
- You **must** wear safety approved personal protective equipment at all times when installing, using, maintaining, or repairing the Lift: leather gloves, steel-toed work boots, eye protection, back belts, and hearing protection are **mandatory**.
- Keep loads centered and balanced on the Lift.
- **Never** exceed the rated capacity of the Lift.
- When the product is in use, keep all body parts away from it.
- Make sure all operators read and understand the *Installation and Operation Manual*. Keep the manual near the device at all times.
- Make a visual inspection of the product before using it. Check for damage or missing parts. Do not use the product if you find any issues. Instead, take it out of service, then contact your dealer, email [info@liftmotive.com](mailto:info@liftmotive.com), visit [liftmotive.com](http://liftmotive.com), or call **+31 627365781**
- Make a thorough inspection at least once a year. Replace any damaged or severely worn parts, decals, or warning labels.

# 1. Packing, transport and storage



All packing, lifting, handling, transport and unpacking operations should be performed exclusively by expert personnel.

## 1.1.Packing:

### Standard equipment:

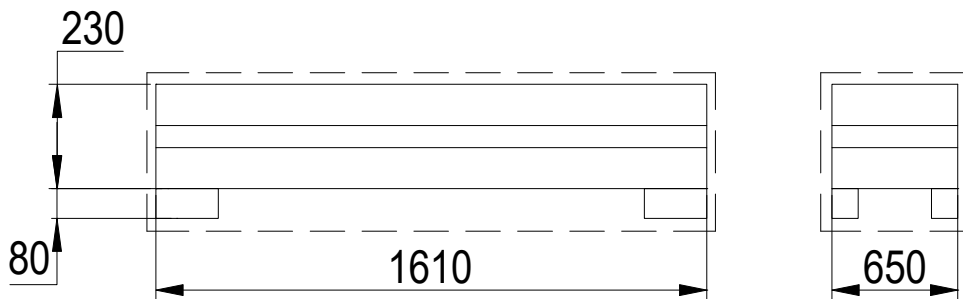
Accessory box (3# CTN), main and sub beam (1# CTN), control box 2# CTN).

### Packing List

NO.	Name	Accessory name and quantity
1	Lift Beam	Main beam 1 piece
1	Lift Beam	Sub beam 1 piece
2	Control Box	1 set
3	Accessory box	1 set(details are in the accessories packing list)

Table 1

### Packing dimension picture



LM-3000FR:1610X650X230

Picture 1

## 1.2.Transport:



Packing can be lifted or moved by lift trucks, cranes or bridge cranes. In case of slinging, a second person must always take care of the load, in order to avoid dangerous oscillations.

During loading and unloading operation, goods must be handled by vehicles or ships.

At the arrival of the goods, verify that all items specified in the delivery notes are included. In case of missing parts possible defects or damage may due to transport operations.

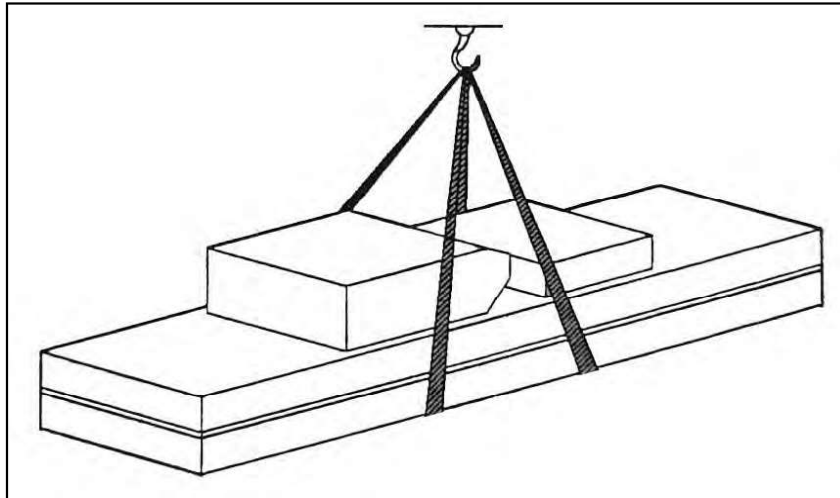
If finding missing parts, possible defects or damage due to transport, one should examine damaged

cartons according to <<Accessories Packing List>> to verify the condition of damaged goods and missing parts, also the person in charge or the carrier must be immediately informed.



**The machine is heavy goods! Don't take manpower load and unload and transporting way into consideration, the safety of working is important.**

**Furthermore, during loading and unloading operation goods must be handled as shown in the picture. (Picture 2)**



**Picture 2 (Goods-lifted)**

### **1.3.Storage:**

- The machine equipment should be stocked in the warehouse, if stocked outside should do the disposal well of waterproof.
- Use box truck in the process of transport, use container storage when shipping.
- The control box should be placed perpendicularly during the transport; and prevent other goods from extrusion.
- The temperature for machine storage : -25°C-- 55°C

## **2. Manual introduction**



**This manual has been prepared for workshop personnel expert in the use of the lift operator and technicians responsible for routine maintenance fitter.**

Workers should read the <<Instruction & Maintenance Manual>> carefully before carrying out any operation with the lift. This manual contains important information regarding:

- The personal safety of operators and maintenance workers.
- Lift safety.
- The safety of lifted vehicles.



Several tips should be done by the operator as follow:

- 1.Well conserving the manual. Manufacturer owns the right to make little change for the manual owing to the improvement of technology.
- 2.Good disposal the used oil.
- 3.The machine must be demolished by authorized technicians, just like for assembling

### 3. Description of the machine

#### 3.1. Machine Application



**Lm-3000FR** small platform low profile scissor lift can lift each kind of vehicle whose weight is less than 3000kg, suitable for use in vehicle tests, maintenance and caring for automobiles, which is particularly suitable for use in the basement or on the floor, without construction and hole.



**Lifts are designed and built to lift vehicles and hold them in the elevated position in an enclosed workshop. All other uses of the lifts are unauthorized. In particular, the lifts are not suitable for:**

- Washing spray work;**
- Use in outdoors;**
- Creating raised platforms for personnel or lifting personnel;**
- Use as a press for crushing purposes;**
- Use as elevator;**
- Use as a lift jack for lifting vehicle bodies or changing wheels.**

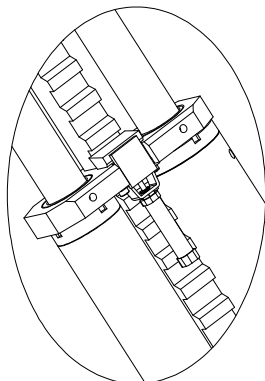


The manufacturer is not liable for any injury to persons or damage to vehicles and other property caused by the incorrect and unauthorized use of the lifts.

#### 3.2. Structure Features

- Use hidden and thin scissor structure, dispense with construction and ground hole, the occupation is small
- Independent control box, low-voltage controlling, good security
- Same hydraulic cubage and in-phase cylinder, the synchronization of platform
- With hydraulic lock and mechanical dual-gear safety-claw lock double safety device automatically open when lowering. Lock operation can has the safety-claw located, adversely, safe & reliable.
- Own protection of safety valve and burst-proof equipment for hydraulic failure and over loading. So when the oil pipe bursts, the machine will not fall quickly.
- Sliding blocks adopt oil free super-wearable materials.
- Use high quality hydraulic or electric element parts made in Italy, Germany, Japan and so on.
- Own manual lowering operation when the power is cut.

#### Safety lock structure



**Picture 3**

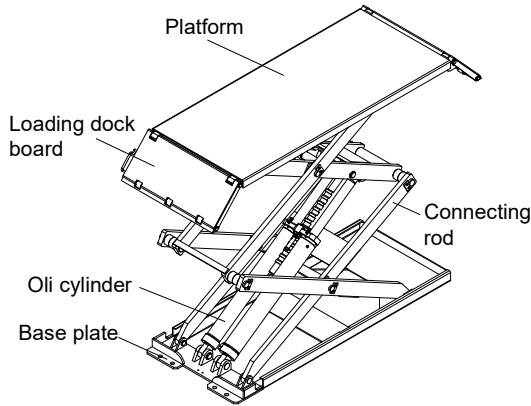


### 3.3. Equipment

- Machine basement (The position and space of equipment installation)
- Machine frame (The main structure of lift and insurance institution)
- Control box (Machine-controlled part)

### 3.4. Frame

Make of base plate, connecting rod, main lifting platform, hydraulic oil cylinder and loading dock board



**Picture 4**

### 3.5. Control box

Under the control box is hydraulic oil tank and hydraulic pump, valve and other control system. On the control box is electrical system.

Function of each valve on the power unit	
Name	Function
Gear pump	Extract hydraulic oil and provide high pressure.
Connecting block	Connect the motor and the gear pump.
Motor	Provide power for the gear pump.
Overflow valve	Adjust oil pressure.
Pressure-compensated valve	Control the speed of falling.
Lowering solenoid valve	Control flow of the hydraulic oil.
One-way valve	Control the one-way flow of hydraulic oil.
Ball valve	Debugging and control the returned oil.

**Table 2**

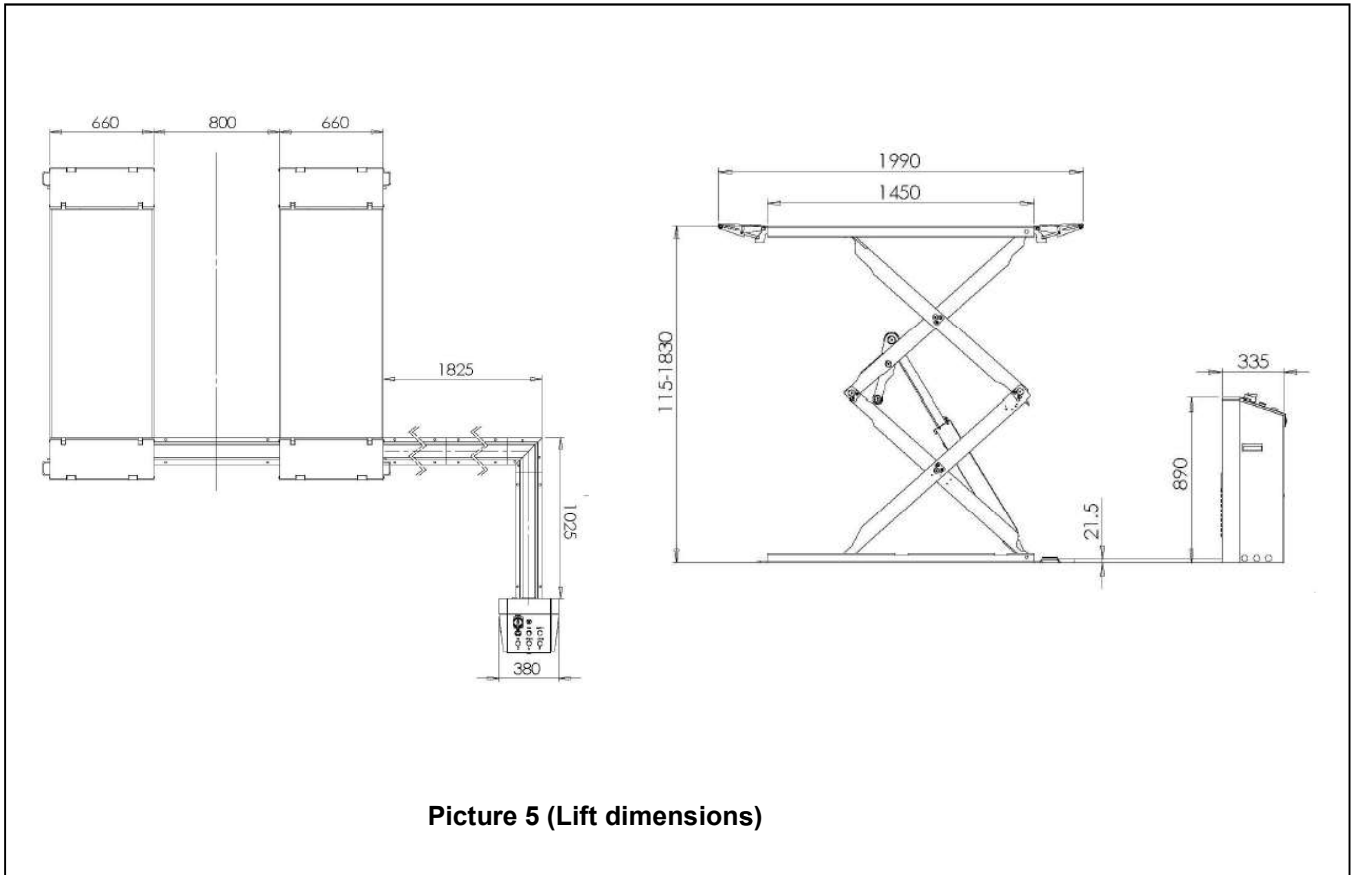
## 4. Specifications

### 4.1 Main technical parameter

Machine type	LM-3000FR
Drive	Electrical hydraulic
Lifting capacity	3000kg
Machine lift height	1830mm
Platform initial height	115mm
Platform length	1450-1990mm



## 4.2 External dimension drawing

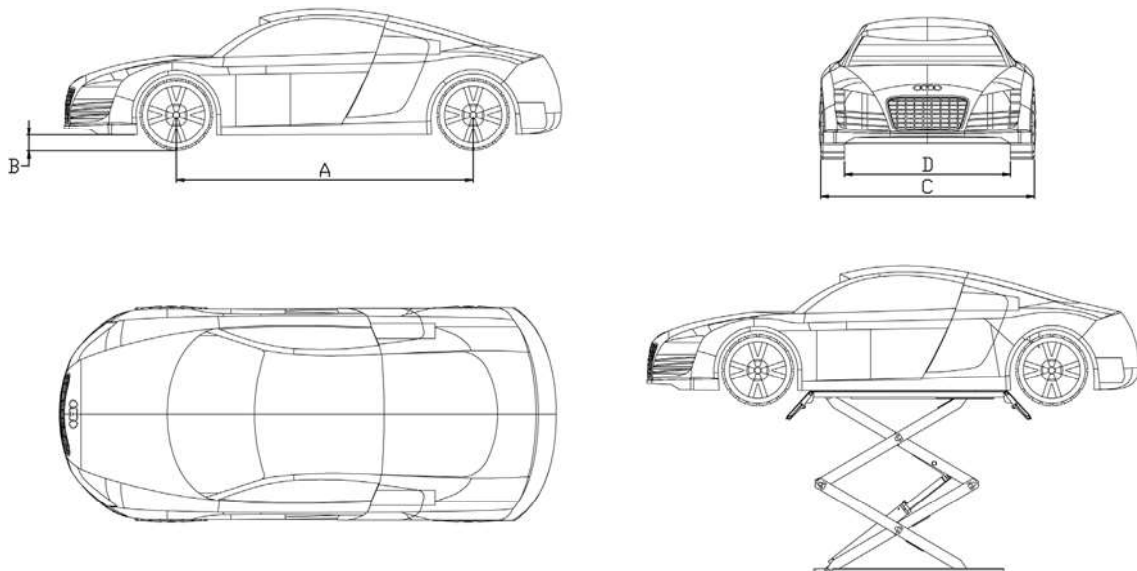


## 4.3. Types of vehicles suitable for

This lift is suitable for virtually all vehicles with total weight and with dimensions not exceeding the below data. **The LM-3000FR Maximum weight may not exceed than 3000kg.**

### The max dimension of vehicle:

The following diagrams illustrate criteria used to define the operating limits of the lift.



**Picture 5**

	LM-3000FR	
	Min	Max.
A	2100	4500
B	120	
C		1900
D	900	



The lower parts of the vehicle under-body could interfere with structural parts of the lift. Take particular parts of the sports-car.

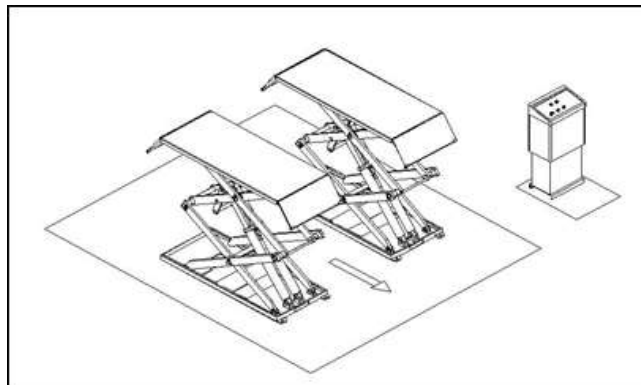
The lift will also handle customized or non-standard vehicles provided they are within the maximum specified carrying capacity.

Also the personnel safety zone must be defined in relation to vehicle with unusual dimensions.

Do not use the lift without protection devices or with the protection devices inhibited.

Failure to comply with this regulation can cause serious injury to persons, and irreparable damage to the lift and the vehicle being lifted.

## 5. Safety notes



**Picture 7**



### General precautions

The operator and maintenance personnel must adhere to the safety regulations enforced in the country where the lift is installed. Additionally, they are required to:

Always operate within the designated stations as outlined and depicted in this manual. Never remove or disable guards, mechanical components, electrical systems, or any other safety devices.

Review the safety notices located on the machine as well as the safety instructions provided within this manual.



**In the manual all safety notices are shown as follows:**

**Warning:** indicates following operations that are unsafe and can cause minor injury to persons and damage the lift, the vehicle or other property.



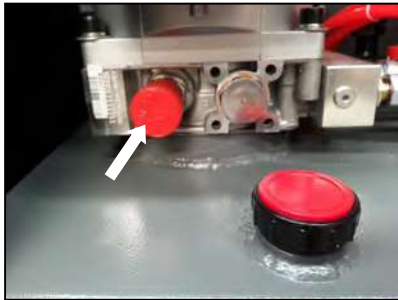
**Risk of electric shock:** a specific safety notice placed on the lift in areas where the risk of electric shock is particularly high.



### Risk and protection devices

For optimal personal safety and safety of vehicles, observe the following regulations:

- Do not enter the safety and safety of vehicles is being lifted. (**Picture 7**)
- Be sure to lift only approved vehicles, never exceed the specified carrying capacity, maximum height, and projection (vehicle length and width);
- Make sure that there is no person on the platforms during up and down movements and during standing



**Picture 8**



**Picture 9**



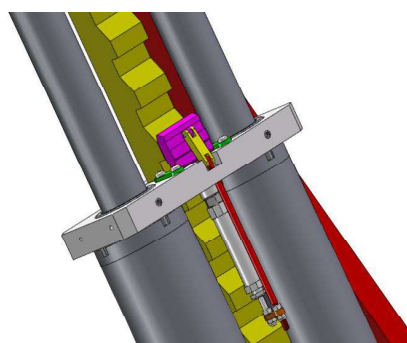
### General risks for lifting or descent

The following safety equipment is employed to safeguard against overloading or potential engine failure. In cases of overloading, the over-loading valve will activate, diverting oil back to the oil tank. (Refer to Picture 8)

Each bottom section of the oil cylinder is equipped with an anti-knock and locking valve (optional). In the event of a hydraulic pressure circuit pipe burst, the relevant anti-knock and locking valve will engage, restricting the platform's speed. (Refer to Picture 9)

Safety tooth and gear modules serve as components ensuring personnel safety beneath the machine in the event of other protection mechanisms failing.

It is essential to ensure the intactness of the gear module and verify that the safety tooth is fully engaged. (Refer to Picture 10) No anomalies should be left on the safety modules to ensure proper occlusion of the safety gear.

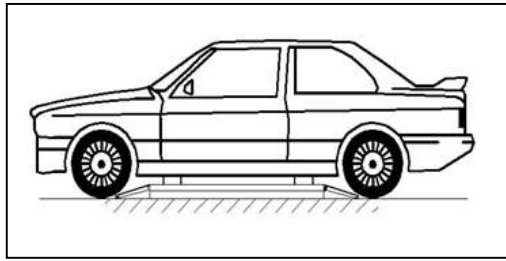


**Picture 10**



### Risk for extrusion

While the lift is in the process of moving up or down, individuals often disregard the designated regulations and instructions by leaving the specified area. It is crucial to emphasize that, during these vertical movements, no individuals should be situated beneath the mobile components of the lift; they should instead remain within the designated safe zone. (Refer to Picture 9)

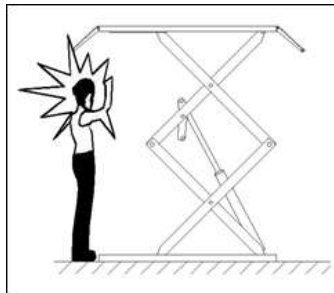


Picture



**Risk of impact**

Prior to initiating any upward or downward motions, it is imperative to confirm that no personnel are present within the hazardous area. In cases where the lift is halted for operational purposes at relatively low heights (less than 1.75m above ground level), individuals should exercise caution to prevent contact with machine components not designated with distinct colors. (Refer to Picture 12)



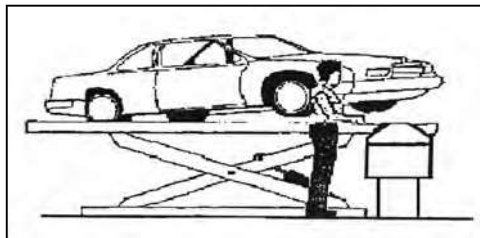
Picture 12



**Risk of falling (vehicle)**

This risk can occur if the vehicle is improperly positioned on the platforms, if the vehicle exceeds the weight limit, or if the vehicle's dimensions exceed the lift's capacity. During platform testing, the vehicle's engine must not be started.

Ensure that no objects are placed in the area where the lift is lowered, and avoid placing any items on the lift's moving parts.

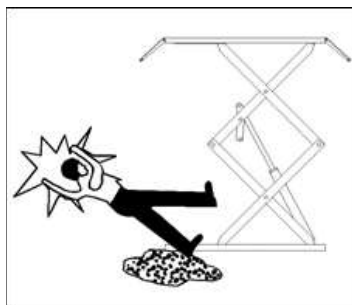


Picture 13



**Risk of slipping**

Lubricant contamination has resulted in a slick floor area around the lift. It is essential to maintain cleanliness beneath, immediately around the lift, and on the platforms. Any oil spills should be promptly cleaned up. (Refer to Picture 14)



Picture 14



### Risk of electric shock

Risk of electric shock in areas with insulated and exposed electrical equipment.

Avoid using water jets, steam, solvents, or paints in close proximity to the lift. Take extra precautions to prevent these substances from coming into contact with the electrical control panel.

Hazards associated with proper illumination.



The operator and maintenance fitter must ensure that all lift areas are adequately and uniformly lit, in accordance with the prevailing laws at the installation site.

During lifting and lowering operations, the operator should maintain continuous visual supervision of the lift and operate it solely from the operator's position. When raising or lowering a vehicle, ensure that a cushion is placed at the bottom of the chassis.

**Manipulating safety devices is strictly prohibited. Never exceed the maximum weight capacity of the lift, and ensure that vehicles to be lifted are unloaded.**



**Consequently, strict adherence to all regulations outlined in this manual regarding usage, maintenance, and safety is of paramount importance.**

## 6. Installation



**Skilled and authorized personnel only should be allowed to perform these operations, follow all instructions shown below carefully, in order to prevent possible damage to the car lift or risk of injury to people.**

### Installation requirements (Picture 15)

-The car lift must be installed according to the specified safety distances from walls, pole -The specified safety distances from walls must be 1000 mm at least, taking into consideration the necessary space to work easily. Because space for the control site and for possible runways in case of emergency is also necessary.

-The room must be previously arranged for the power supply and pneumatic feed of the car lift.

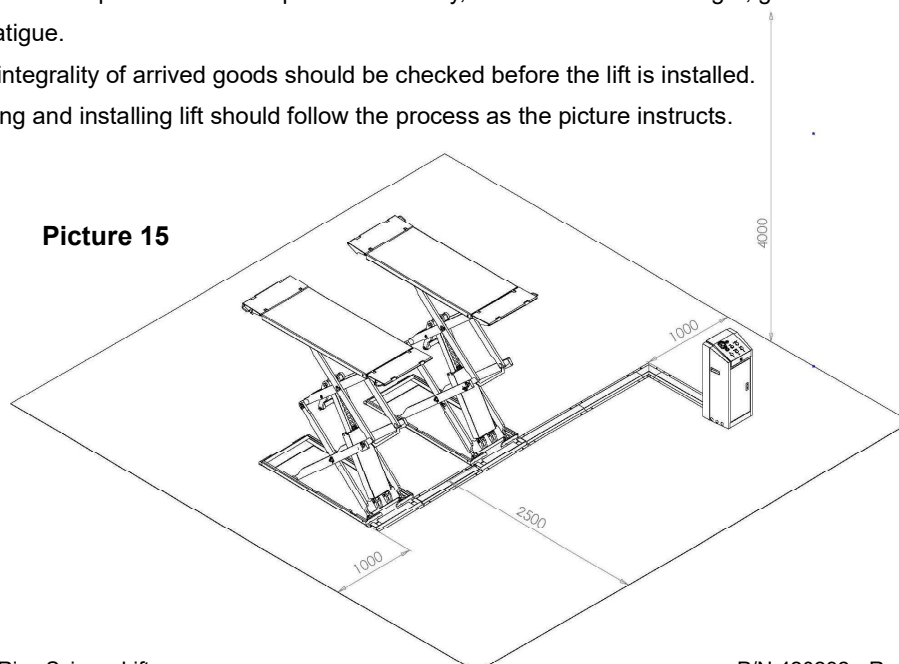
-The room must be 4000 mm in height, at least.

-The car lift can be placed on any floor, as long as it is perfectly level and sufficiently resistant. ( $\geq 250\text{kg/cm}^2$ , the thickness of concrete  $\geq 150\text{mm}$ )

-All parts of the machine must be uniformly lit with sufficient light to make sure that the adjustment and maintenance operations can be performed safely, and without reflected light, glare that could give rise to eye fatigue.

-The integrity of arrived goods should be checked before the lift is installed.

-Moving and installing lift should follow the process as the picture instructs.





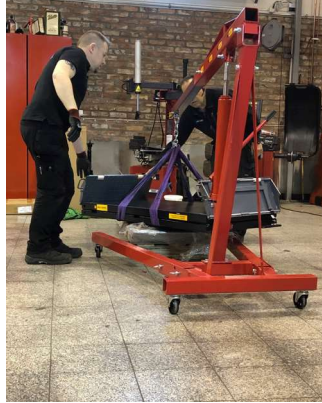
**Note:** The foundation of the end of the lift platform P1, P2 is the structure of concrete. When the thickness of inside level ground is less than 150mm, the end of P1, P2 should be irrigated the acreage: 6000×2500mm and thickness of concrete $\geq$ 150mm

The basic thickness of concrete and leveling are keys, shouldn't egregiously expect the ability of level adjustment of machine-self.

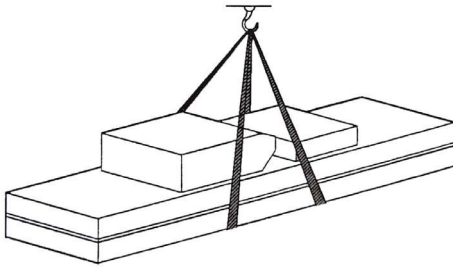


## Unpacking

The lift is delivered on a pallet, consisting of a total of 4 packages. We recommend having at least 2 persons for unpacking, assembly, and installation of the lift. Keep in mind that the platforms are very heavy. We recommend using an engine hoist or a forklift to lift them off the pallet and place them on the floor.

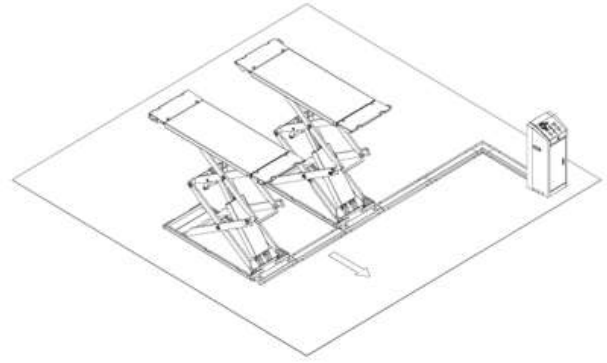


**Hint:** Use a crowbar to gently and easily lift the platform so that you can position it under the lifting straps.



## Assembly Instructions

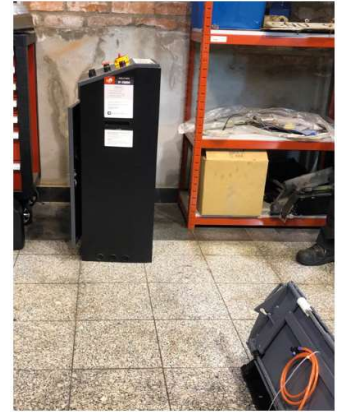
The ramps have been removed from the pallet and the packaging has been taken off. Be careful and cautious so that cables and hoses are not damaged. Always start by freeing the electrical cables and compressed air hoses by cutting the zip ties that hold them in place under the lips of the lift ramps.



Check the positioning of the control cabinet in relation to the layout of the cover plates that will be installed on the floor.



Place the ramps on the floor with a distance of 800 mm between them. Ensure that the ramps are facing the same direction by checking under the lips if the hydraulic and compressed air hoses as well as the electrical cables are coming out on the same side.

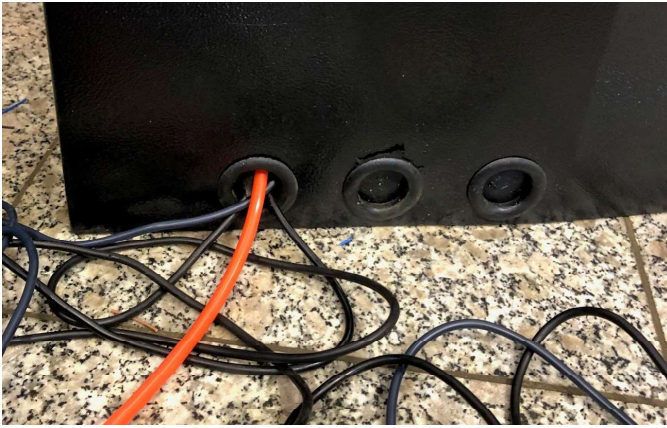


The lift is equipped with a photoelectric safety stop. For proper placement, the laser should be positioned opposite the reflector.



Once the ramps are positioned, it's time to set up the control cabinet.

Incoming electrical cables for the control cabinet.



Options for outgoing electrical cable, 3-phase.



Note: The 3-phase socket is not included with the lift. It should be installed by a qualified electrician.

**Hint:** If there is no hydraulic flow it may be due to incorrect phase connections, causing the motor to rotate in the wrong direction.

The compressed air hoses are already connected in the control cabinet.

1. Thinner hose for the ramps
2. Thicker hose connected to the compressor



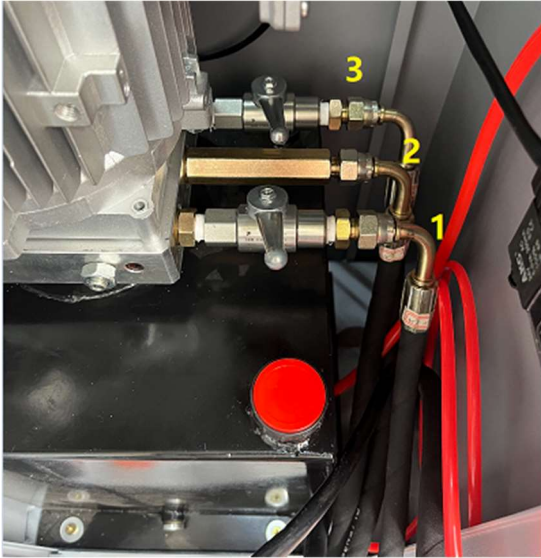
Hint: If the hose becomes too long and tangled between the platforms, you can remove a section to create more space under the cover plates.



## Connecting the Hydraulic hoses

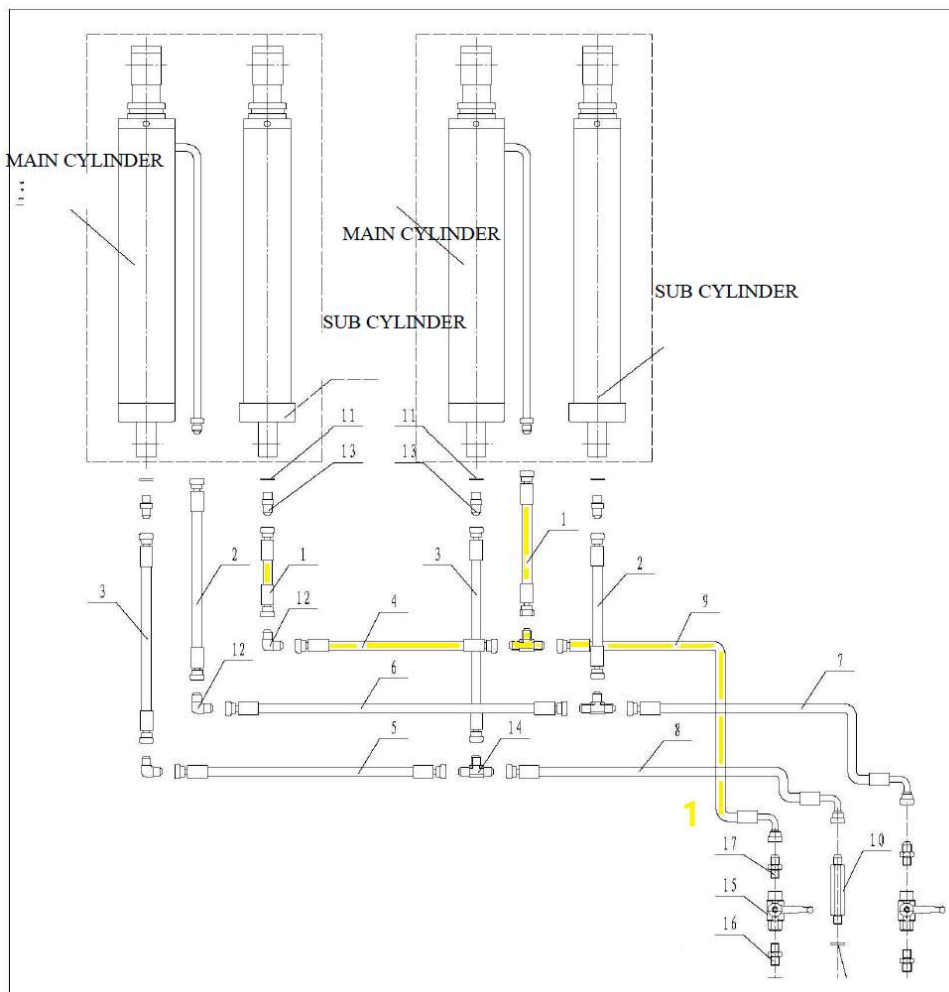
In the power-unit you will find 3 connections. To make it easier we will name them, Connections 1, 2 & 3. **(front is 1, middle is 2, rear is 3)**

**Always check the tightness of all connectors, fittings and bolts, even if they came pre-installed!**



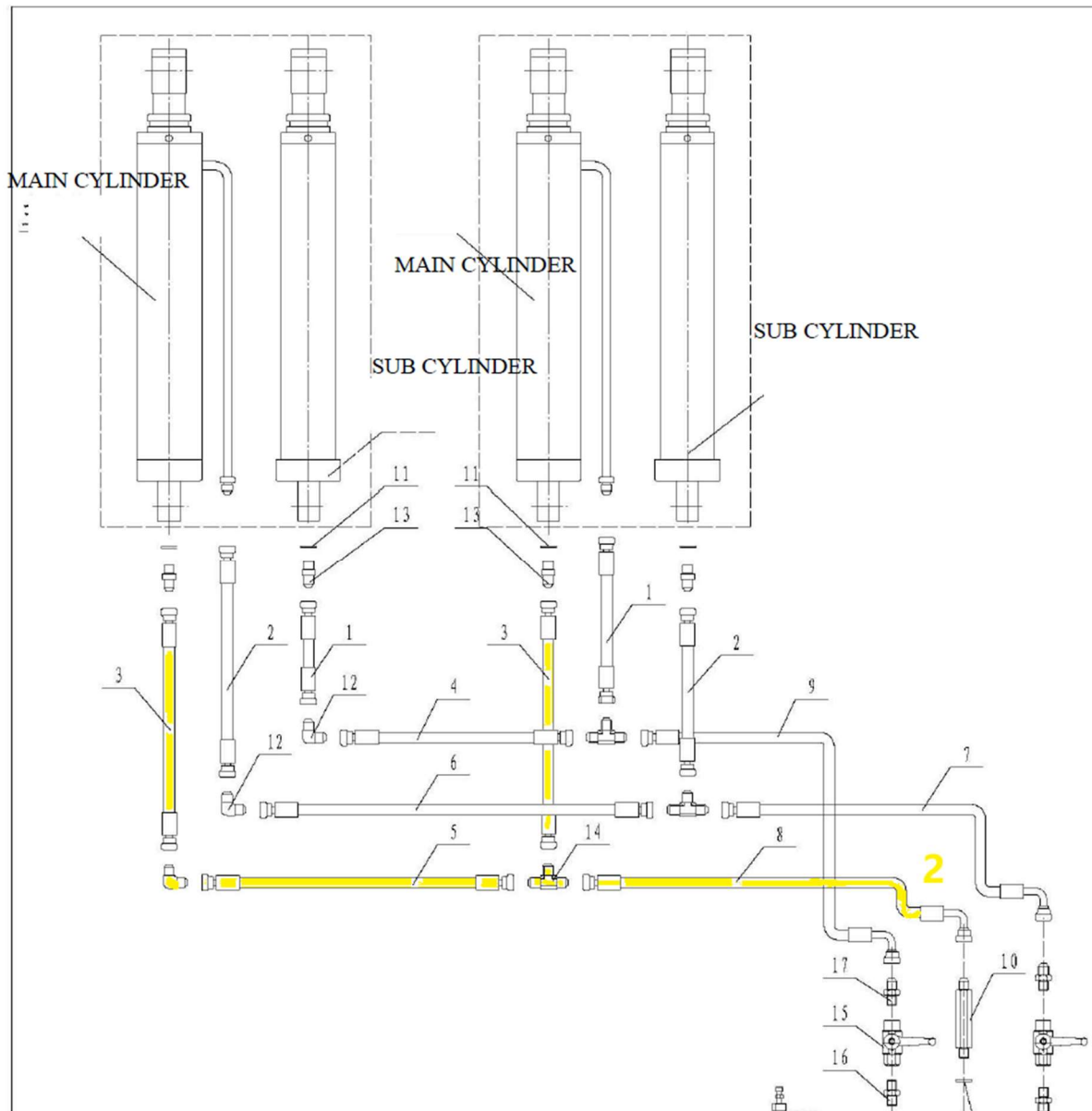
### Connection 1:

This connection runs from the front port in the control cabinet to a T-joint. This T-joint splits into two connections: The angled connection goes to the MAIN cylinder, small line (middle connection) on the nearest platform. The straight connection goes to an angled coupling, which then connects to the SUB cylinder on the farthest platform.



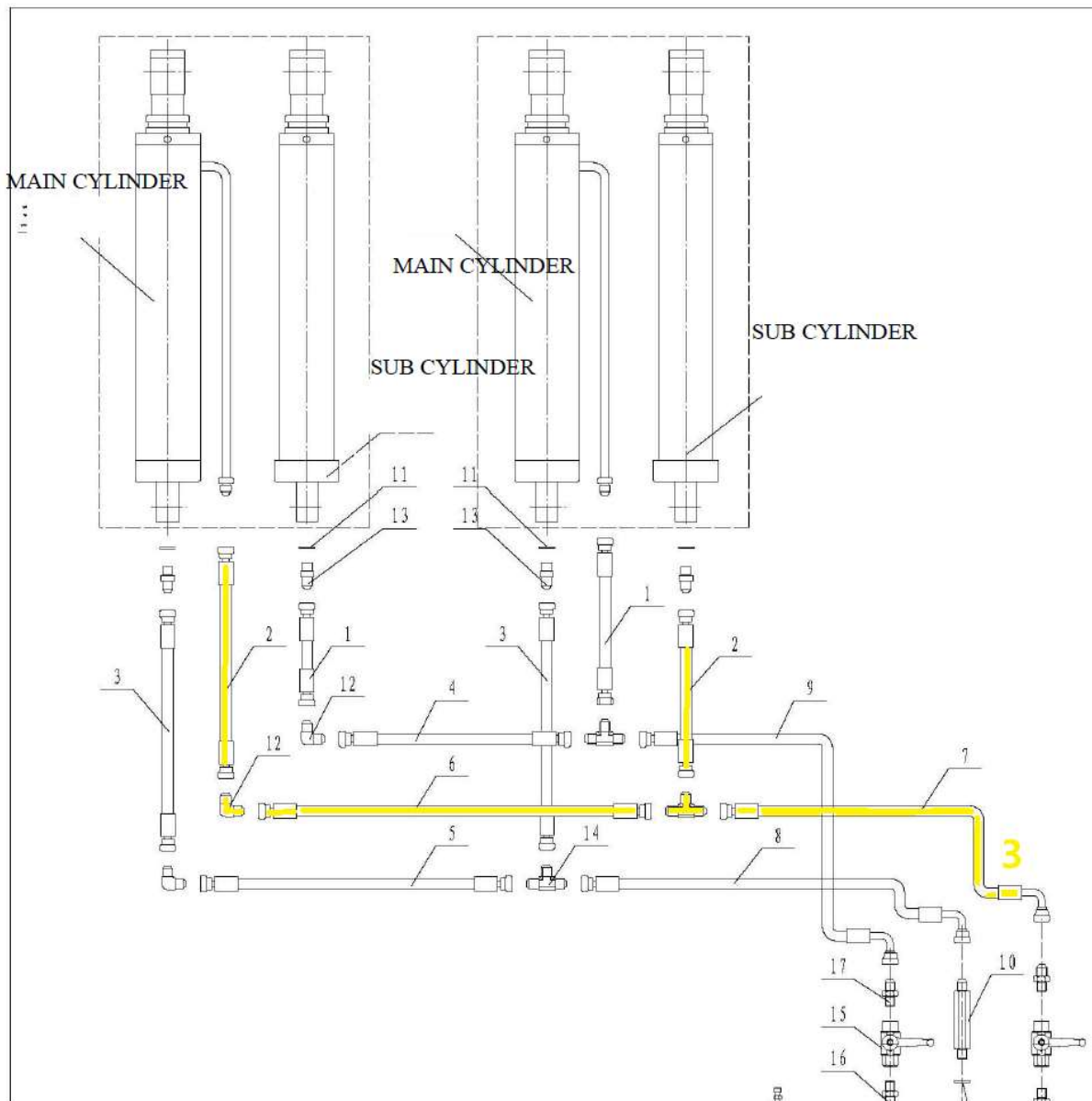
## Connection 2:

This runs from the middle port in the control cabinet to a T-joint. This T-joint splits into two connections: The angled connection goes to the MAIN cylinder on the nearest platform. The straight connection goes to an angled coupling, which then connects to the MAIN cylinder on the farthest platform.



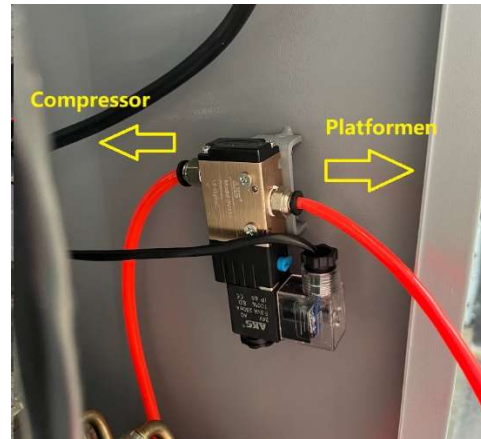
### Connection 3:

This runs from the rear port in the control cabinet to a T-joint. This T-joint splits into two connections: The angled connection goes to the SUB cylinder on the nearest platform. The straight connection goes to an angled coupling, which then connects to the MAIN cylinder, small line (middle connection) on the farthest platform.



## Connecting the airlines

The airlines are straightforward: each scissor frame has two preinstalled lines. These can be connected using the provided T-fitting, and then the long line will run directly to the operation unit.

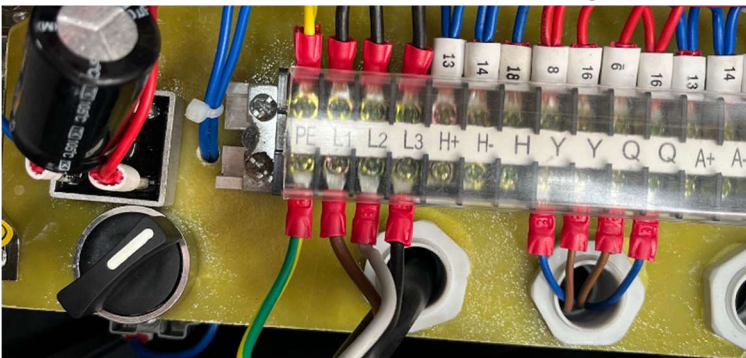


## Electrical connections:

All electrical connections are located on top of the hydraulic power unit, which has a flip-open top for easy access.

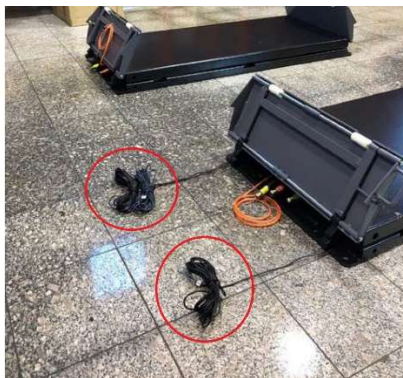
## Power supply 400V:

On the connection bar, left side. From Left to right: Ground , L1 , L2, L3.



## The Photocell, Upper Limit switch and lower limit switch

There are 3 black electrical wires coming from one of the scissor frames. Route these to the control cabinet, but do **NOT** connect these yet.

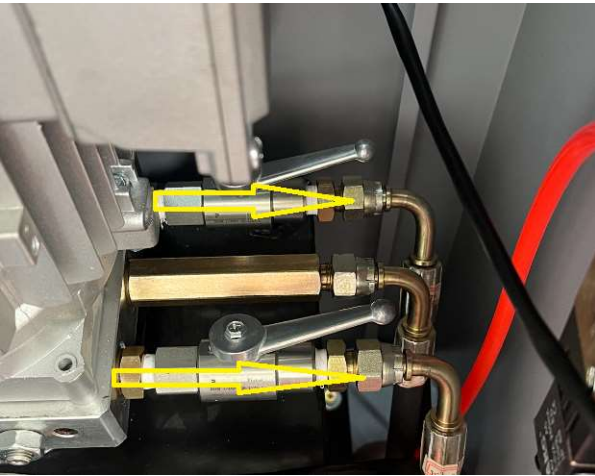


## First Operation:

Fill the hydraulic reservoir with oil, approximately 14 liters.



Open both valves in the control cabinet:



**!NOTE:** Make sure you did **NOT** connect the limit switch and photo cell sensors yet! Otherwise this process will not work!

Press the UP button on the control cabinet to raise the lift to its highest point. When the lift reaches its peak and the cylinders are fully extended, the hydraulic oil has nowhere to go, causing the hydraulic pump to build up maximum pressure, which you can recognize by a hissing sound. Avoid letting the pressure build up too much; stop lifting as soon as you hear the sound. Once the lift is at its highest point and some pressure has built up, briefly press the LOCK button (for about 1 second) to relieve the hydraulic pressure.

Note: During this stage of installation, it is normal for the scissor platforms to rise unevenly. When one platform goes up slower than the other, they will level out once the maximum lift height is reached.

Now, you can loosen (BUT NOT REMOVE) the bleeding screws on the hydraulic cylinders on each platform.

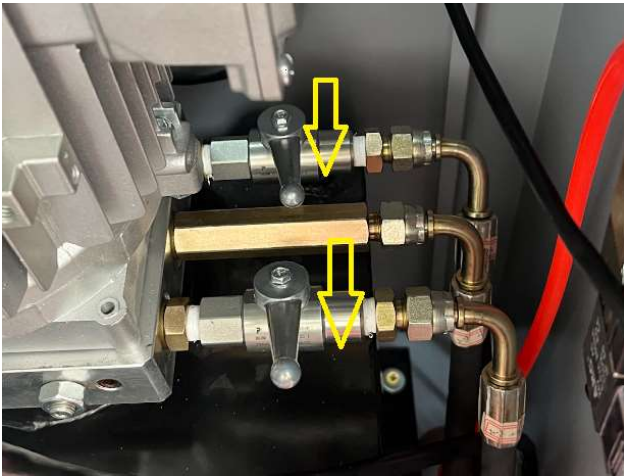




Air and oil will come out when you do this. The platforms may lower, but don't worry—they will engage the safety lock if they lower significantly. Close the screws and press UP again, and still being careful not to build up high pressure.

Open the bleeding screws again and repeat this process until only oil comes out of the bleeding screw holes.

After the bleeding process is done, close the valves in the control cabinet



Now do a complete cycle of lowering and lifting. Look if the platforms are lowering and raising evenly. If not, repeat the complete process again. Check and refill the hydraulic oil reservoir after the bleeding process.

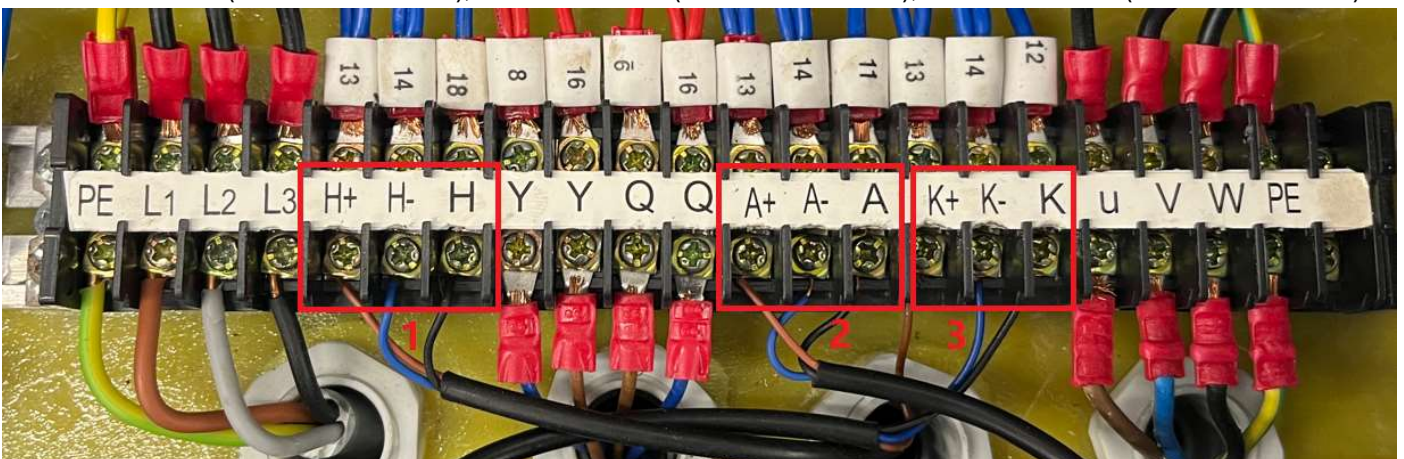
When the lift working properly, it is now time to connect the limit switches and photo cell sensor.

### The Photocell, Upper Limit switch and lower limit switch

**H+** = Brown cable (photo cell), **H-** = Blue cable (photo cell), **H** = Black cable (photo cell)

**A+** = Brown cable (upper limit switch), **A-** = Blue cable (upper limit switch), **A** = Black cable (upper limit switch)

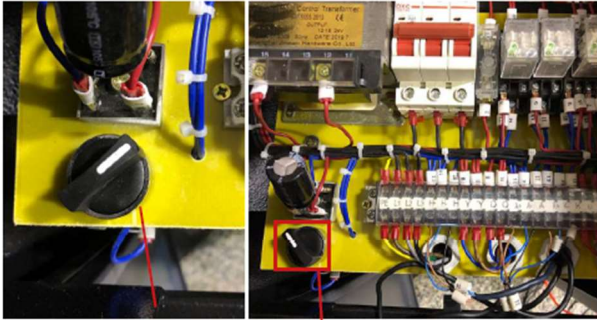
**K+** = Brown cable (lower limit switch), **K-** = Blue cable (lower limit switch), **K** = Black cable (lower limit switch)



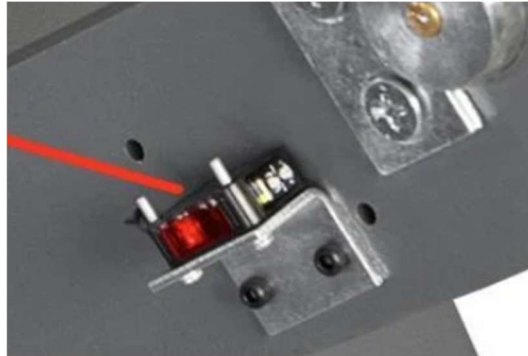
**1 = Photo Cell , 2 = Upper limit switch, 3 = lower limit switch**

After connecting all three sensors, we can set the limit switches in the desired heights.

Start by ensuring that the photoelectric safety stop is temporary disabled. Do this by turning the switch off. (off can be on or vice versa, you can test this by placing an object in front of the photocell (picture on the right) and try to operate the lift. If the lift does not operate, you have to turn the switch)

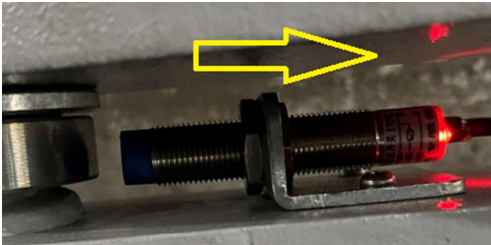


Turn the switch off to disable.



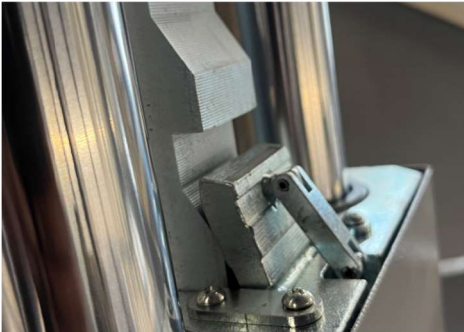
### Adjusting the upper limit switch

Make sure the limit switch is not able to detect anything by adjusting it further away from the detection ring. (or disconnect the wires)

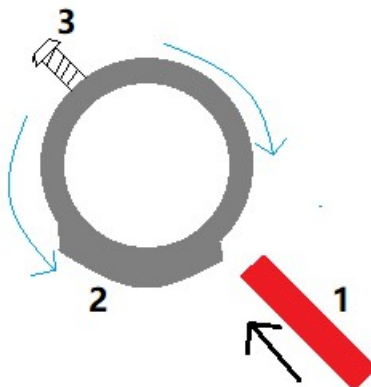
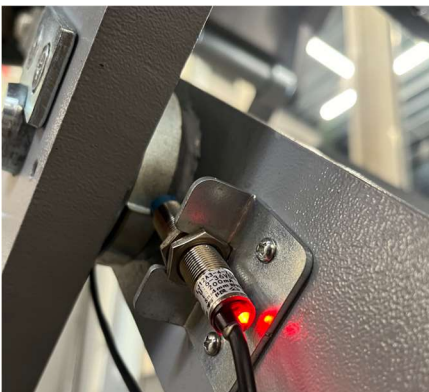


Press the UP button until the lift is all the way up. (right before the pressure builds up)

Press the LOCK button until both frames are just a little over the last locking position:



This is the point where you want the upper limit switch to be activated. Loosen the bolt (3) on the ring. Turn the ring in the direction of the limit switch. Adjust the limit switch (1) to detection. You want it to detect the cam (2) on the ring, but not the ring itself.



**NOTE:** If you have a lower ceiling height, adjust the upper limit switch so the lift+vehicle will not hit your ceiling.

## Adjusting the lower limit switch

The function for the lower limit switch is an extra safety feature:

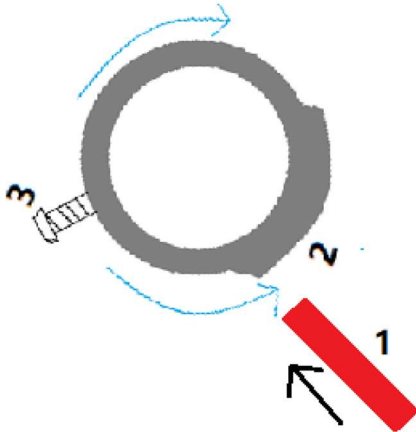
When pressing DOWN, the lift will stop lowering at +/- 30 – 50CM and by pressing DOWN II the lift will completely lower to the ground, but with light and sound signals. This is called the foot protection.

The process of adjusting is basically the same as the upper limit switch, but you want to use the other side of the cam on the detection ring.

Below is a visual example of the height you want to have the lower limit switch to be activated at.



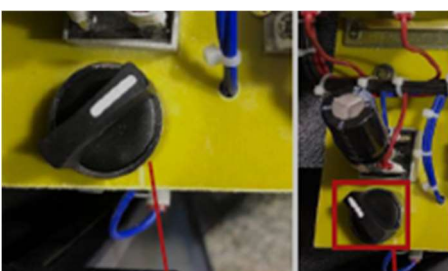
Adjust the detection ring and limit switch again until it activates on the right height.



After adjusting both upper and lower limit switch make a complete test run again.

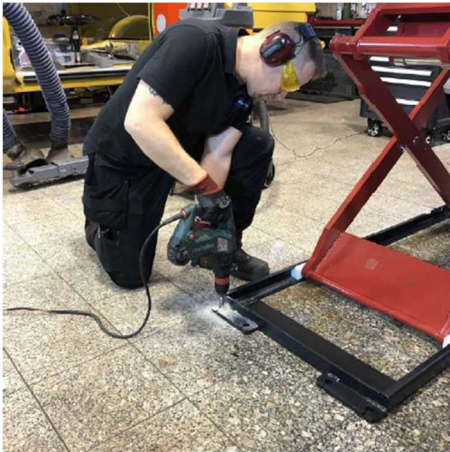
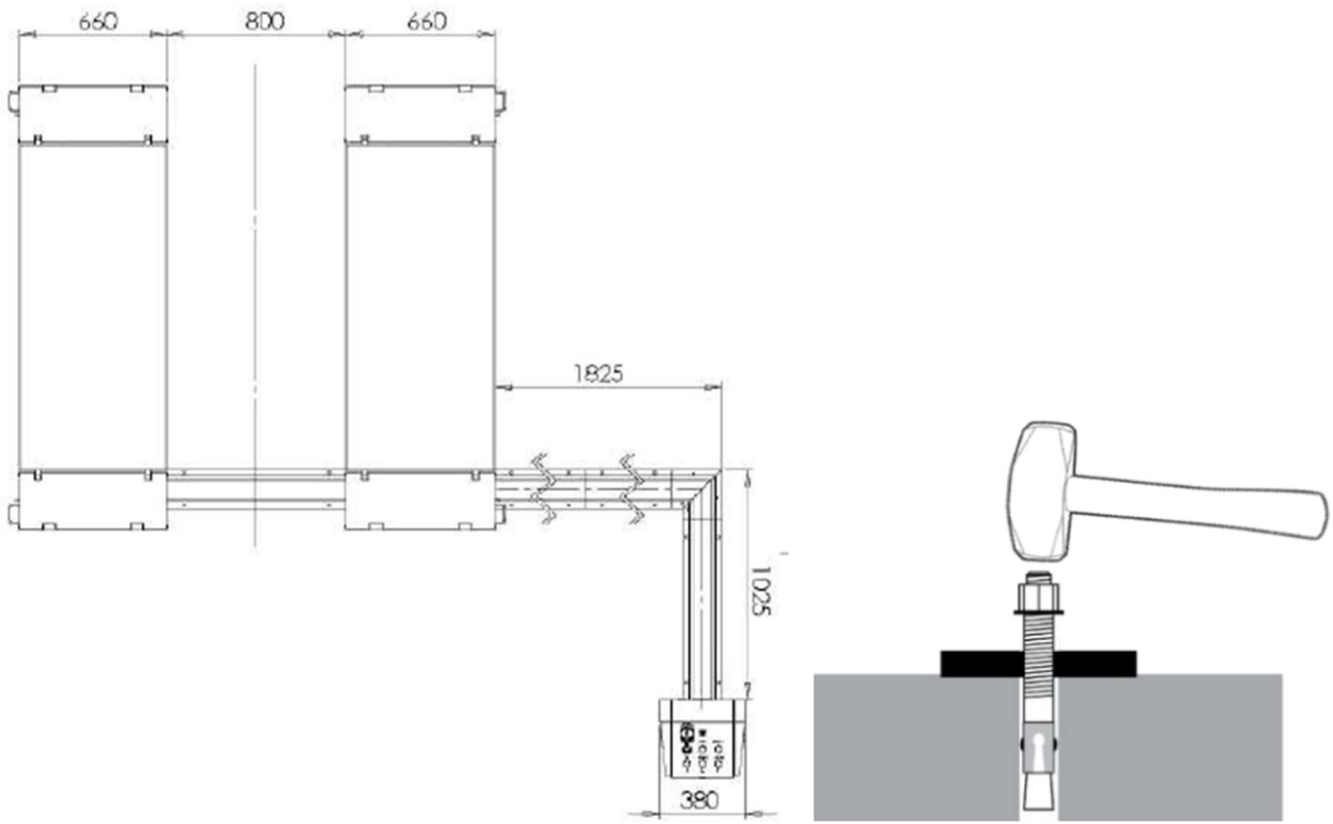
The lift should stop lifting just a little over the last locking position. When lowering it should stop lowering at +/- 30-50cm and lower all the way on DOWN II (including light & sound signals).

When you are finished don't forget to activate the photo safety cell again.



## Anchoring the lift and covers on the ground

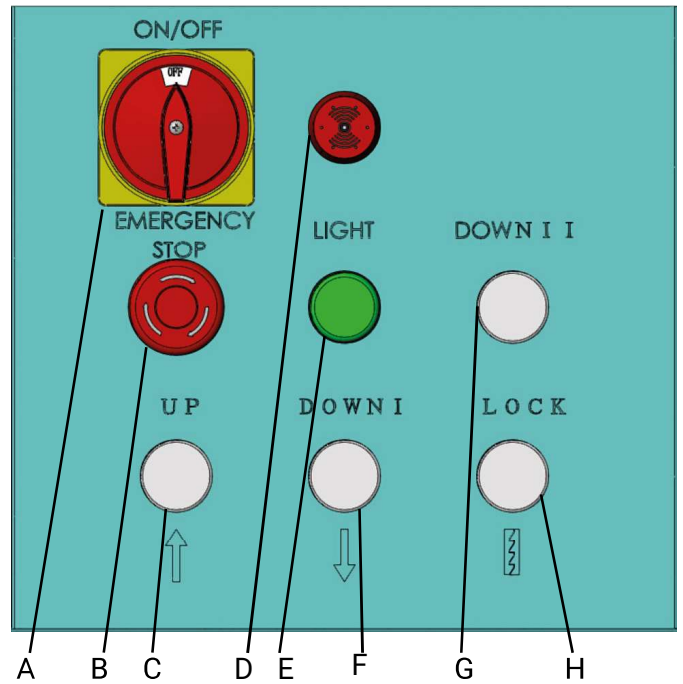
Now double check (measure twice, drill once) all measurements of the placement of the lift and control cabinet and secure the lift and place the cover plates with the supplied anchor bolts.



## User Manual:

### Preparations

- Check all oil hoses. The lift can be started only if there are no leaks.
- If safety equipment is not working or missing, the lift should not be used.
- The lift can only lift and lower vehicles whose center of gravity is positioned directly above the platforms.
- The operator and authorized assistants must stand at a safe distance while operating the lift.
- When the lift is raised to the desired level, turn off the power to prevent accidental operation.
- Make sure the safety barriers are activated before working on the vehicle and that no one is underneath the vehicle when operating the lift.



### Description of Control Box

- A Main power switch
- B Emergency stop
- C Raise the lift
- D Warning light, activates when the lift is lowered below 20 cm
- E Power indicator
- F Lowering I
- G Lowering II, lowering below 20 cm
- H Lowering, resting on the safety barrier

### User Instructions

#### Raise the lift

- Make sure you understand the lift's functions before starting.
- Drive the vehicle onto the lift with its center of gravity centered over the platforms.
- Place the 4 rubber blocks under the vehicle's lifting points (refer to the vehicle's manual) and ensure the weight is evenly distributed on the blocks.
- Turn on the power switch (A). Press the up button (C) until the blocks make contact with the lifting points. Check that it looks good.
- Continue raising a little bit and ensure the vehicle's weight is evenly centered over the blocks in a safe manner.
- If everything seems OK, continue raising to the desired height. Important: Lower the lift so that it rests on the safety barriers (H).
- Turn the power switch to the OFF position to prevent accidental operation of the lift. Once again, check the stability of the vehicle and that the safety locks are in operation before starting to work on the vehicle.

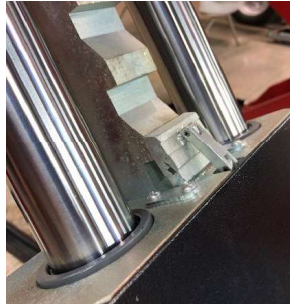
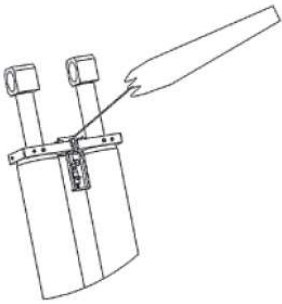
## Lowering the Lift

### Lowering the Lift

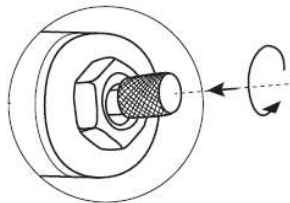
- Turn on the power switch (A). Press the down button (down 1, F), the lift lowers to a level of approximately 20 cm and stops.
- Press the down button (down II C), a warning signal sounds, and the warning light (D) illuminates. The lift now lowers the final 20 cm.
- Turn off the power switch when the lift is fully lowered.
- Remove the rubber blocks and drive the vehicle off the lift.

Note: During lowering, hold down the "down" buttons for about 5 seconds before the lift begins to descend.

- Emergency lowering in case of power outage  
Lift the steel lockout with a wire to release the safety barrier.



Open the valve by pushing and turning counterclockwise. The valve opens, and the lift lowers slowly. Close by pushing and turning clockwise.



Note: Before emergency lowering, ensure that the main power switch is in the OFF position to prevent the lift from starting after a power outage.

## Maintenance

Regular maintenance ensures the lift functions reliably and lasts longer. The frequency of servicing your lift is up to you and depends on how much you use it. However, we recommend performing maintenance at least once a year.

### Daily Inspection – Before Use

**Daglig kontroll – före användning** Användaren Users must conduct a daily inspection. Daily checking of safety barriers is crucial. Detecting any potential issues before use prevents damage and accidents.

- Check all hoses and connections for leaks.
- Inspect electrical connections. Ensure they are in good condition.

- Confirm that the expansion bolts are properly tightened.
- Before use, check that the safety barriers are functioning – you can hear them falling into the rod's slots when the platforms are raised.

### Weekly Inspection

- Check the flexibility of moving parts.
- Verify the functionality of safety components.
- Check the oil level in the tank; it's correct if the carriage reaches its highest position. If there's too little oil, refill it.
- Ensure the anchor bolts are properly tightened.

### Monthly Inspection

- Ensure the expansion bolts are properly tightened.
- Check all hoses and connections for leaks.
- Inspect wear and lubrication on all moving parts – replace worn parts promptly to prevent malfunctions.

### Yearly Inspection

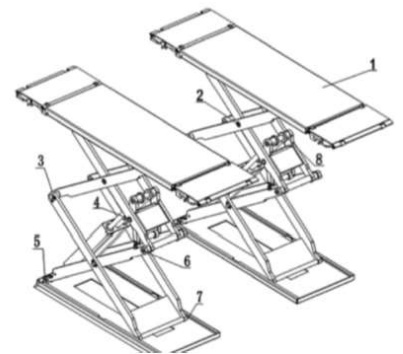
Drain the hydraulic oil.

Important: Consider environmental protection and dispose of used oil properly at a recycling center.

- Clean the tank and oil filter.
- Refill with new oil (VG32).

By following these recommendations, users can ensure the lift's longevity and minimize accidents.

These parts must be lubricated



### Troubleshooting

Important! If you're unable to resolve the issue on your own, don't hesitate to contact our workshop at phone number +31627365781 or email [info@liftmotive.com](mailto:info@liftmotive.com). It's easiest if you can email a photo of your problem and the machine's serial number. This will make it easier to troubleshoot the issue and save time for everyone.

## 10. Trouble shooting table



Skilled personnel only is allowed to perform the operations

Failure Phenomena	Cause and Phenomena	Resolutions
The motor does not run in lifting operation.	① Connection of power supply wires is not correct.	Check and correct wire connection
	② The AC contactor in the circuit of the motor does not pick up.	If the motor operates when forcing the contactor down with an isolation rod, check the control circuit. If the voltage at two ends of the contactor coil is normal, replace the contactor.
	③ The limit switch is not closed.	Check the limit switch, wires and adjust or replace the limit switch.
In lifting operation, the motor runs, but there is no lifting movement.	① The motor turns reverse.	Change the phases of the power supply wires.
	② It is normal while lifting with light load but abnormal while lifting with heavy load.	Lift is overloaded and is unable to carry the load being attempted. Carefully lower and remove vehicle from lift. The spool of the lowering solenoid valve is stuck by dirt. Clean the spool.
	③ The amount of hydraulic oil is not enough.	Add hydraulic oil.
	④ The "operation stop valve" is not closed.	Screw down the "Operation stop valve"
When press "DOWN" button, the machine is not lowered.	① The safety pawl are not released from the safety teeth.	First lift a little and then lowering
	② The safety pawl is not lifted.	The air pressure is not enough, the safety pawl is stuck or the gas pipe is broken off, adjust pressure, check the gas pipe and replace it.
	③ The solenoid air valve does not work.	If the solenoid air valve is energized, but does not open the air loop, check or replace the solenoid air valve.
	④ The lowering solenoid valve is energized but does not work.	Check the plug and coil of the lowering solenoid valve and check the right turn tightness of its end copper nut and so on.
	⑤ The "antiknock valve" is blocked.	Remove the "antiknock valve" from the oil supply hole at the bottom of the oil cylinder, and clean the "antiknock valve".
The machine lowers extremely slowly under normal loads.	① The hydraulic oil has too high viscosity or frozen, deteriorated (in Winter).	Replace with hydraulic oil in accordance with the instruction book.
	② The "antiknock valve" for preventing oil pipe burst is blocked.	Remove or close air supply pipe and thus lock the safety pawl of the machine without lifting of the safety pawl. Remove the "antiknock valve" from the oil supply hole at the bottom of the oil cylinder, and clean the "antiknock valve".
The right and left platforms are not synchronous and not in the same height.	① The air in the oil cylinder is not vent completely.	Refer to " Oil Make-up 'Adjust' Operation".
	② Oil leakage on oil pipe or at its connections.	Tighten oil pipe connections or replace oil seals and then make-up oil and adjust levelness.
	③ The "oil make-up stop valve" can not be closed tightly and almost make-up oil and adjust every day.	Replace oil make-up stop valve, and then make-up oil and adjust.
Noisy lifting and lowering.	① Lubrication is not enough.	Lubricate all hinges and motion parts (including piston rod) with machine oil
	② The base or the machine is twisted.	Adjust again the levelness of the machine, and fill or pad the base.

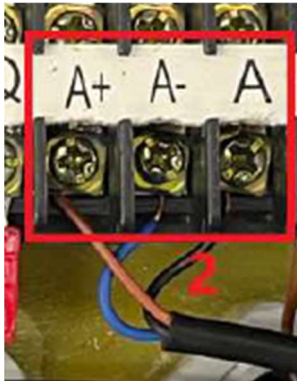
Table 4

## Synchronisation:

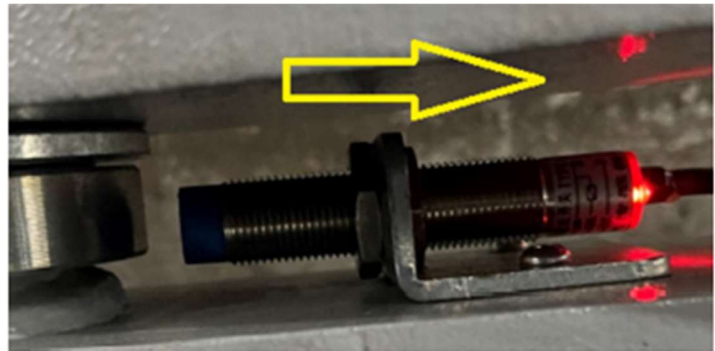
If the lift is not raising and or lowering equally, you have to synchronise the lift. Follow this procedure:

First make sure that the upper limit switch does not detect anything.

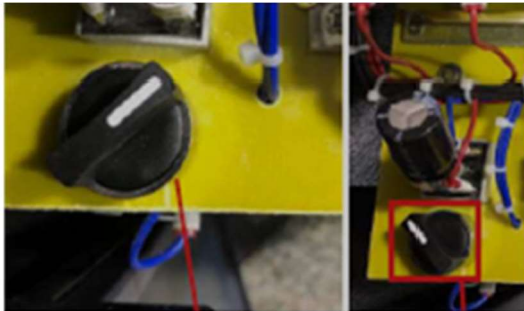
Disconnect the upper limit switch cables in the power-unit **OR** adjust the upper limit switch further away from the detection ring so it does not detect anymore



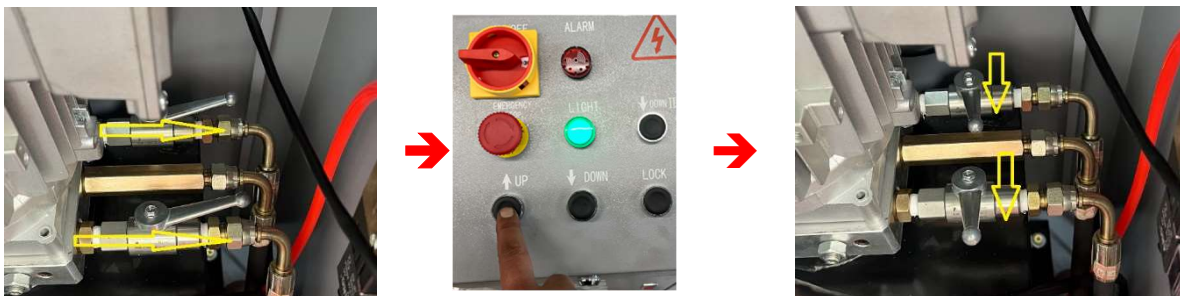
<- OR ->



Disable the photo electric safety cell by switching the switch in the control cabinet:

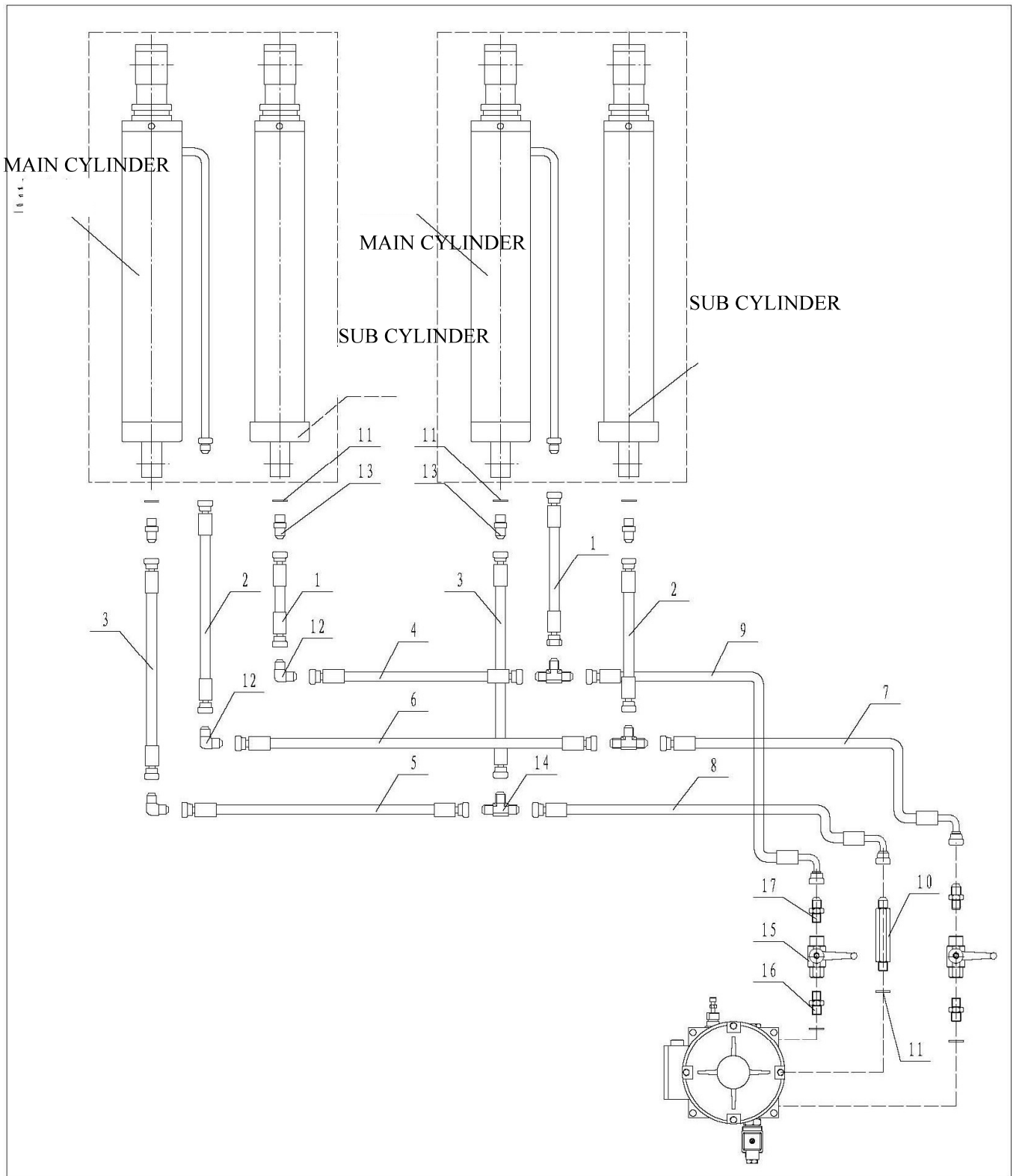


Open both valves in the control cabinet, Lift **all the way up** and close the valves again.



Note: During this operation, it is normal for the scissor platforms to rise unevenly. When one platform goes up slower than the other, they will level out once the maximum lift height is reached.

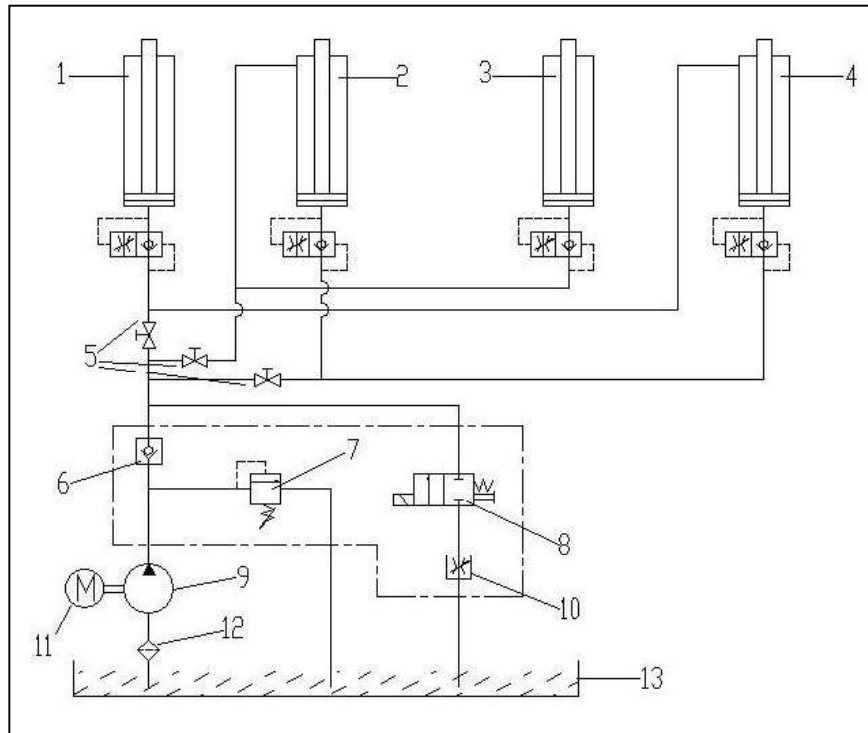




- 1. HOSE 190mm;      2. HOSE 220mm;      3. HOSE 250mm      4. HOSE 1340mm;
- 5. HOSE 1430mm;    6. HOSE 1520mm;    7. HOSE 3790mm;    8. HOSE 3870mm;
- 9. HOSE 3940mm;    10. MAIN JOINT;      11. M14 BONDED WASHER;
- 12. ANGLE JOINT;    13. T-JOINT BALL VALVE;    14. T-JOINT;
- 15. STOP VALVE;    16. STOP VALVE A    17. STOP VALVE B

## Annex 1

### Hydraulic schematic diagram for LM-3000FR



**1,3; sub cylinder**

**6; check valve**

**9; gear pump**

**12; filter**

**2,4; main cylinder**

**7; overflowing valve**

**10; flow control valve**

**13; oil tank**

**5; stop valve**

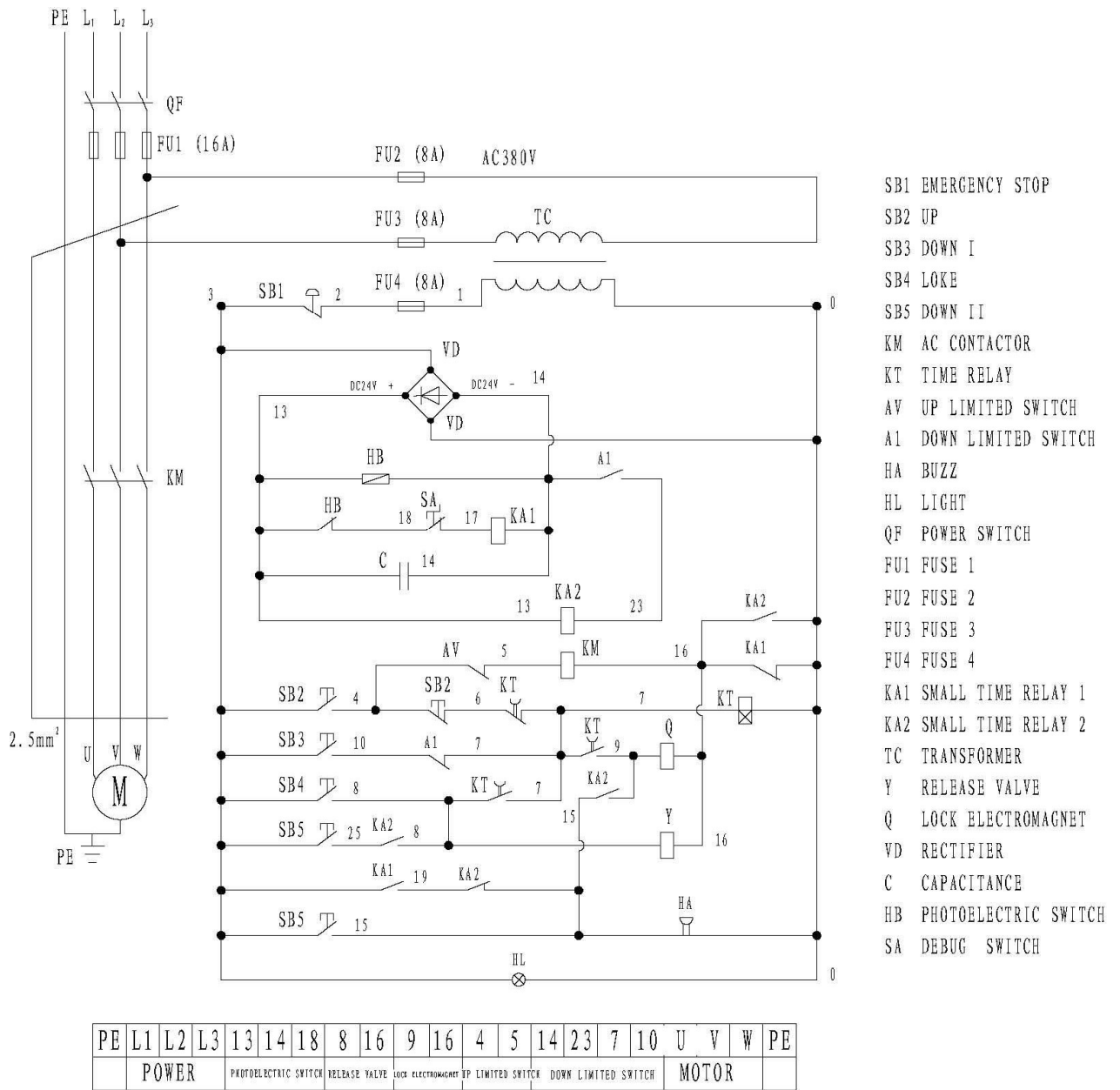
**8; descent valve**

**11; pump motor**

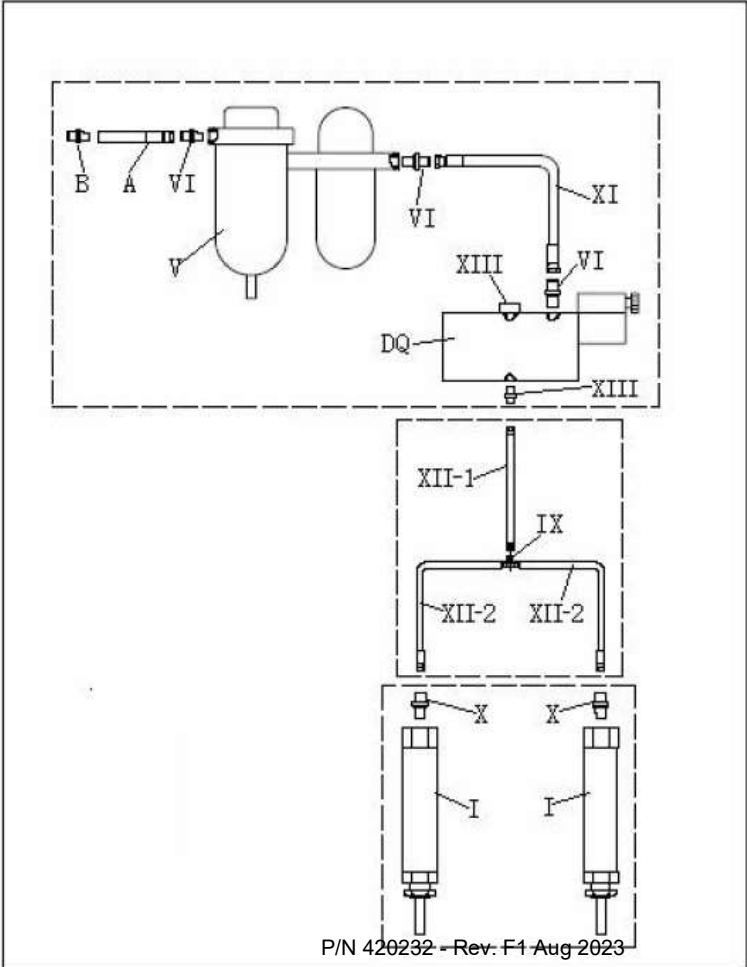
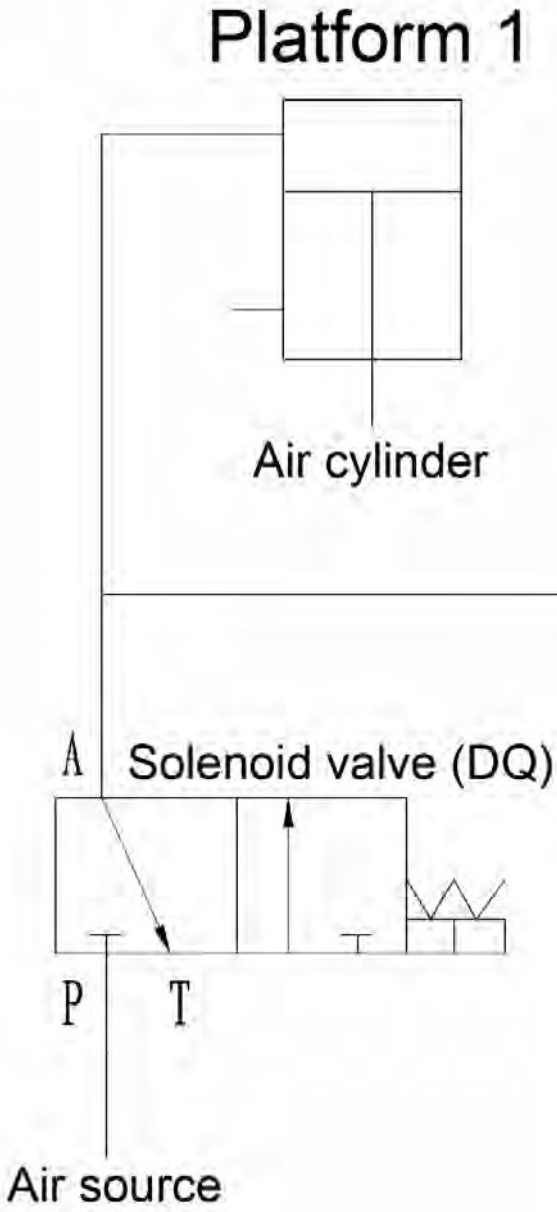
**14 ; check valve**

# Annex 2

## Electric schematic diagram for LM-3000FR



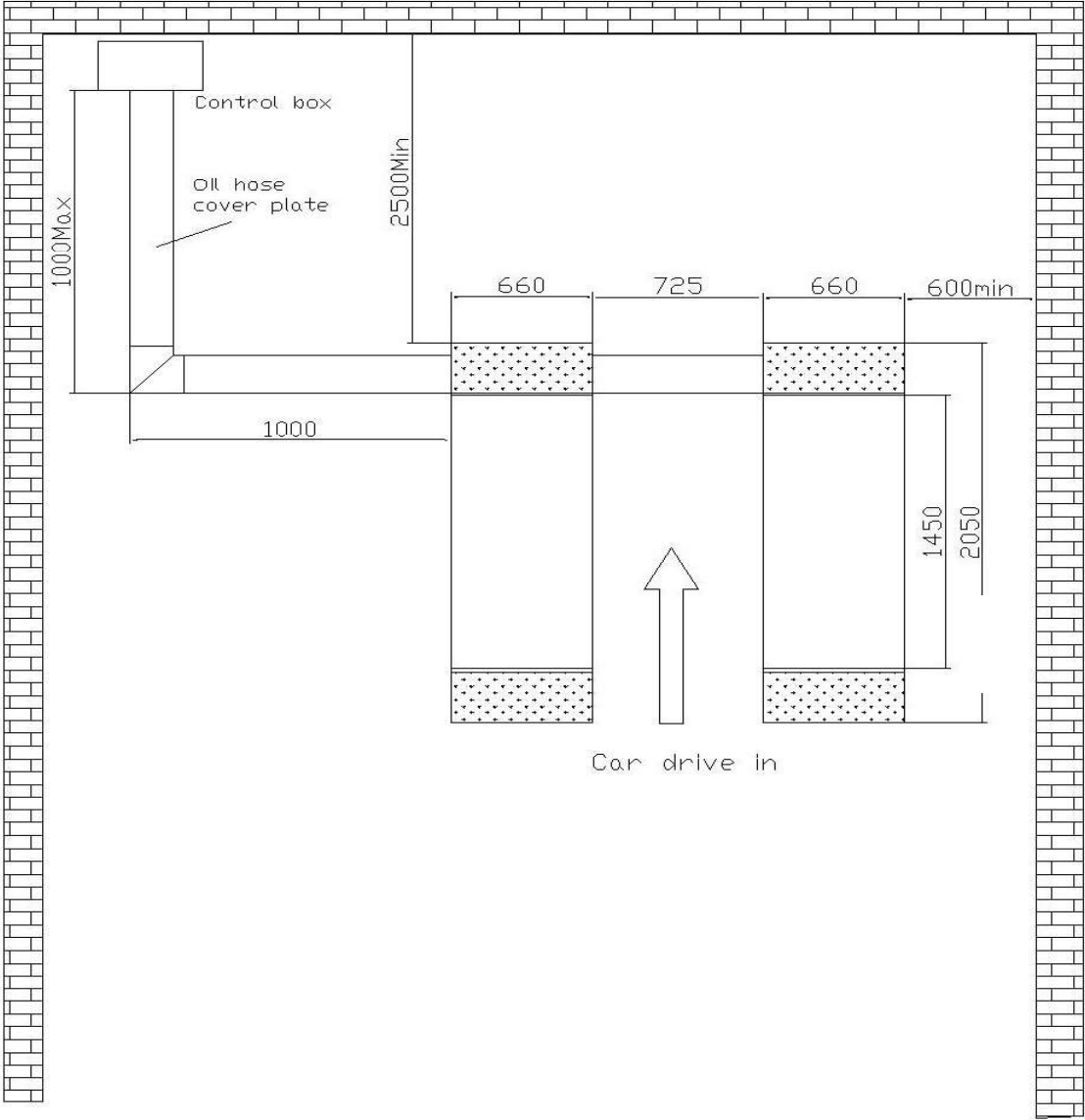
# Pneumatic Diagram



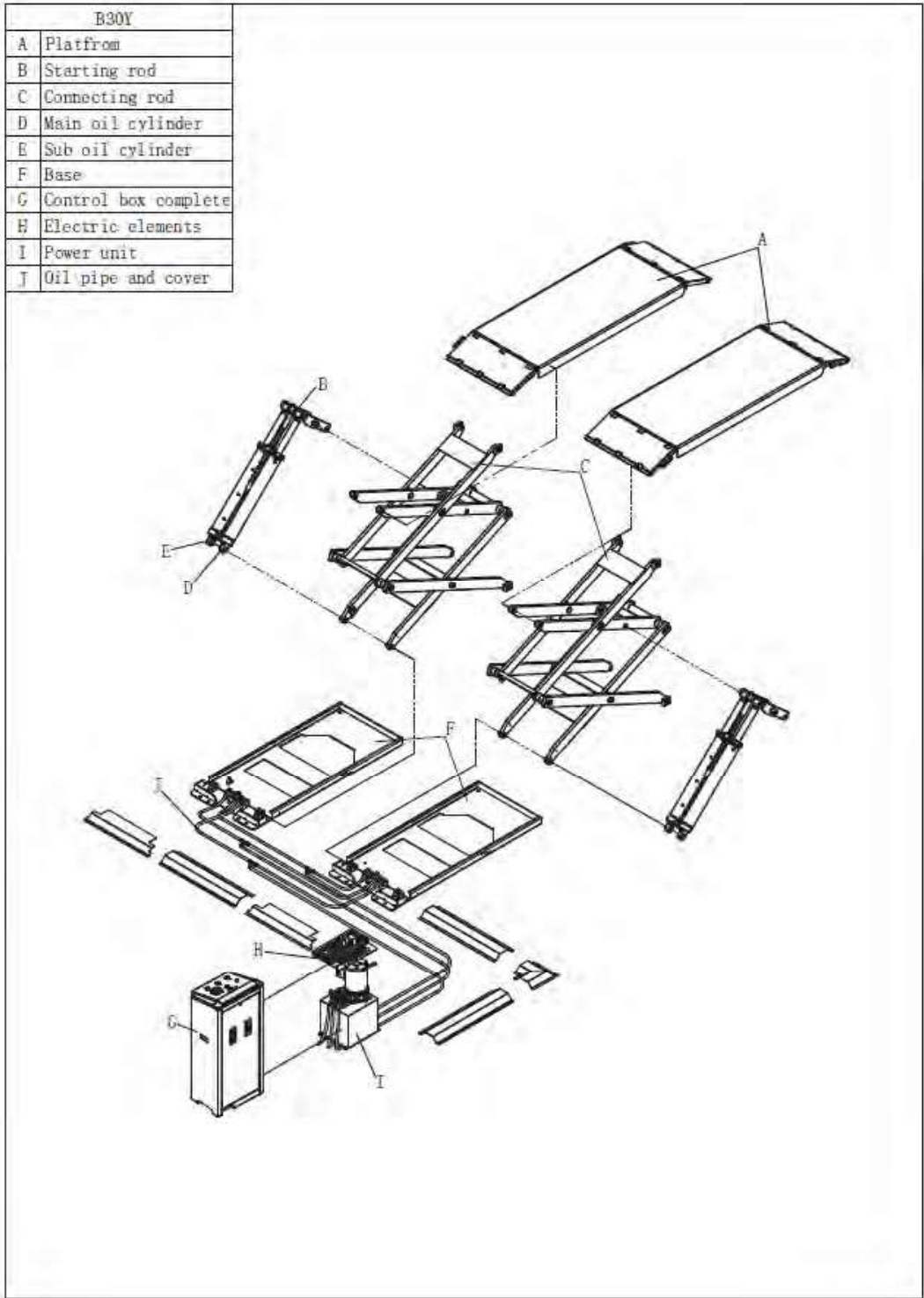
Installation schematics for scissor lift

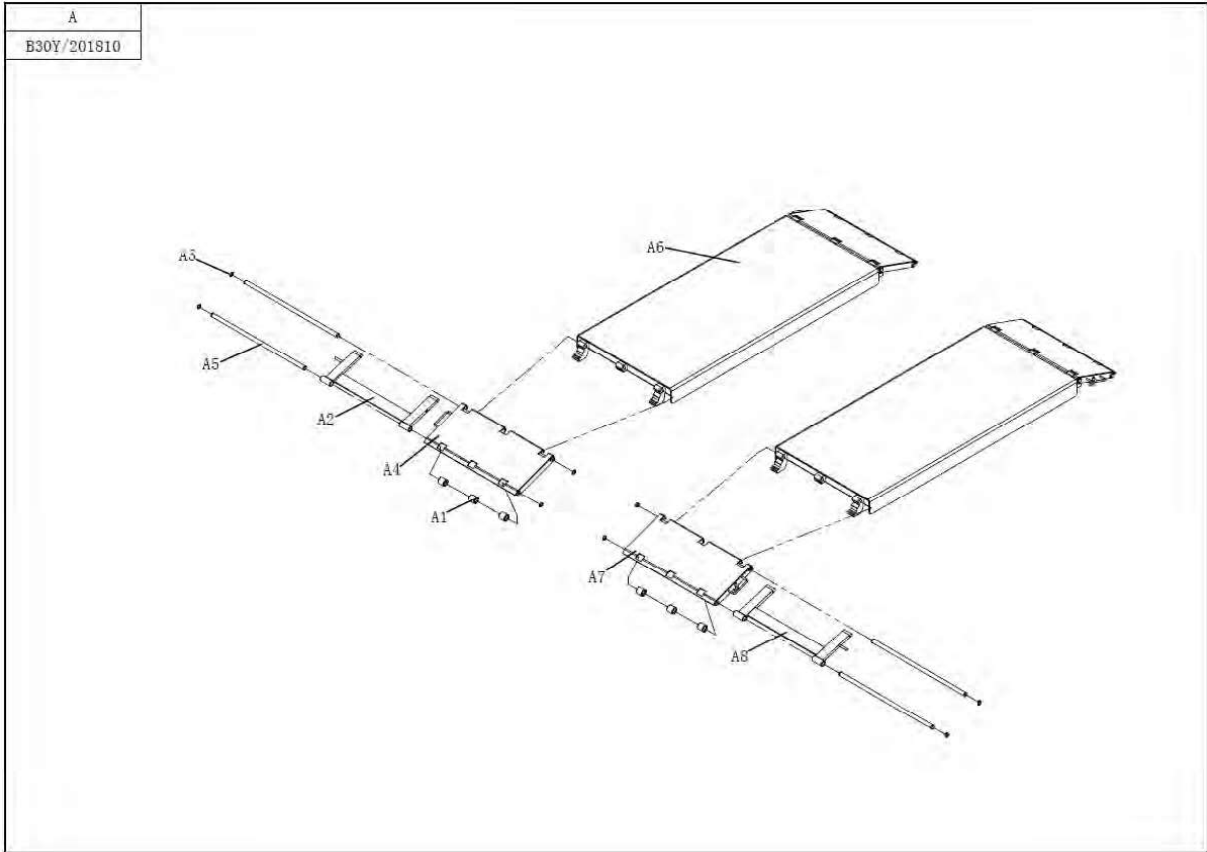
Equipment basic picture

Picture 16 (The control box can be placed on the left or right)

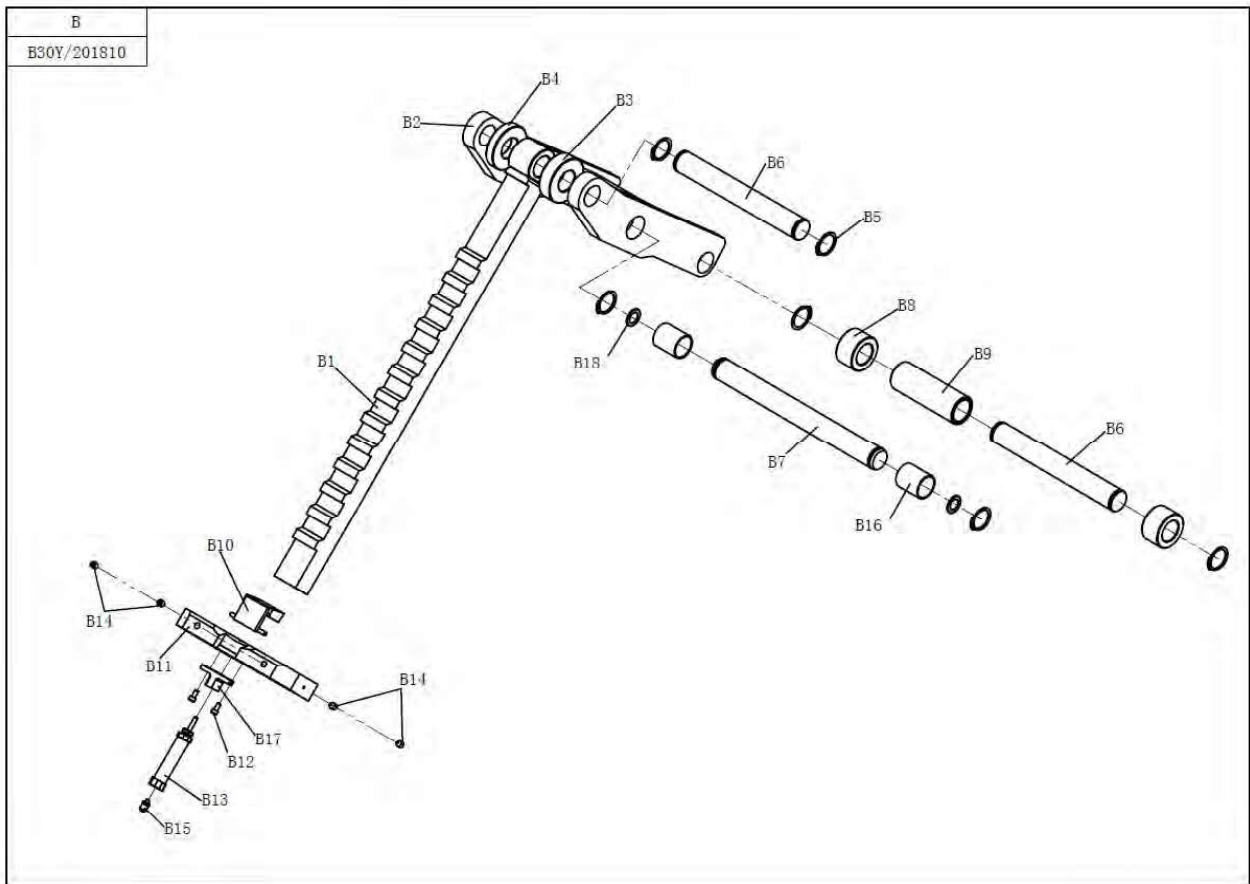


# 15. Explosion drawing



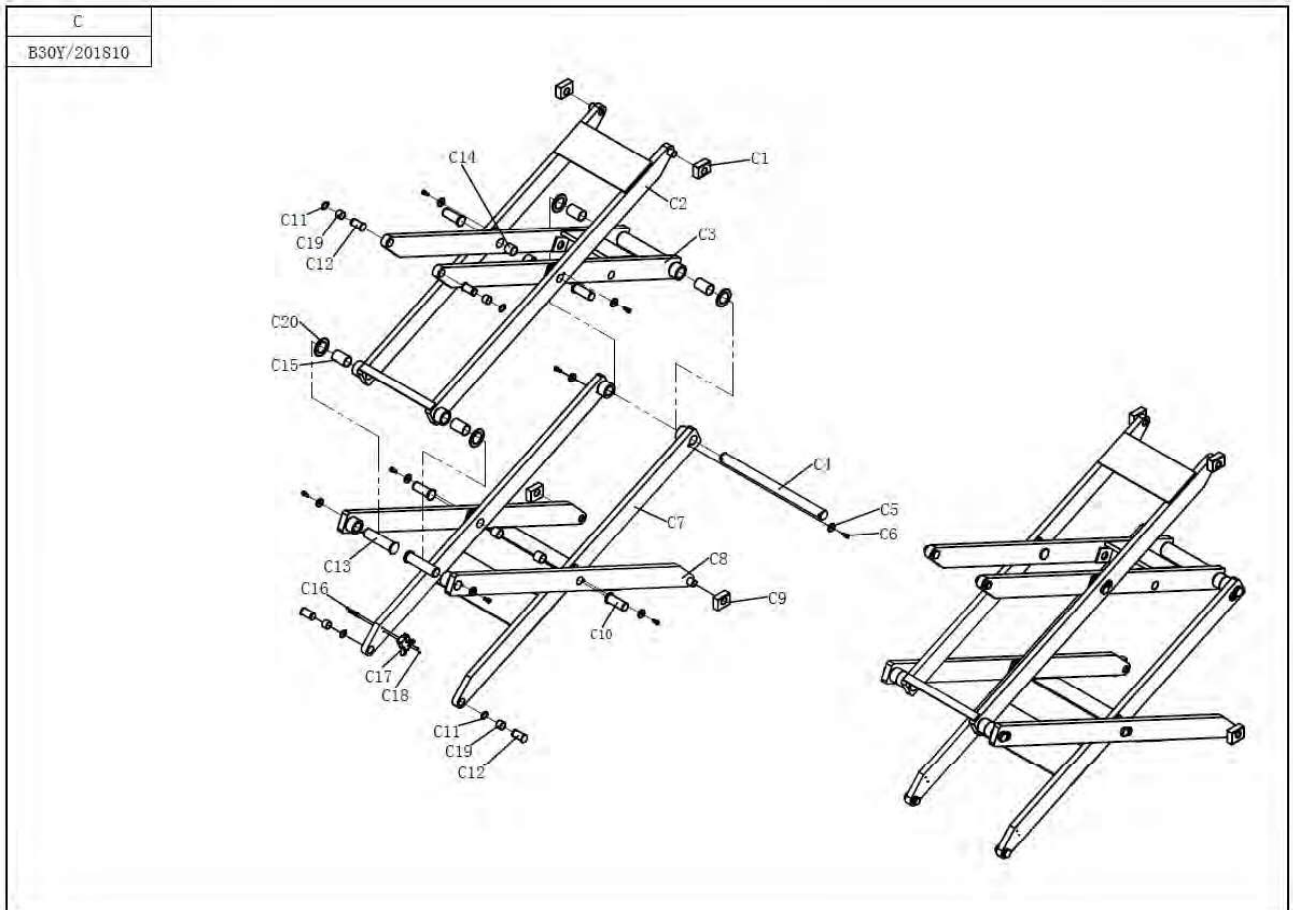


A1	XG-3B2-020500-0	loading dock board roller
A2	XZ-3B2-020100-0	loading dock board support assembly 1
A3	B-055-200001-0	shaft snap ring Ø20
A4	XZ-3B2-020000-Z	loading dock board 1
A5	XX-3B2-000800-0	loading dock board shaft
A6	XZ-3B2-010000-Z	top plate
A7	XZ-3B2-020000-Z	loading dock board 2
A8	XZ-3B2-020100-0	loading dock board support assembly 2

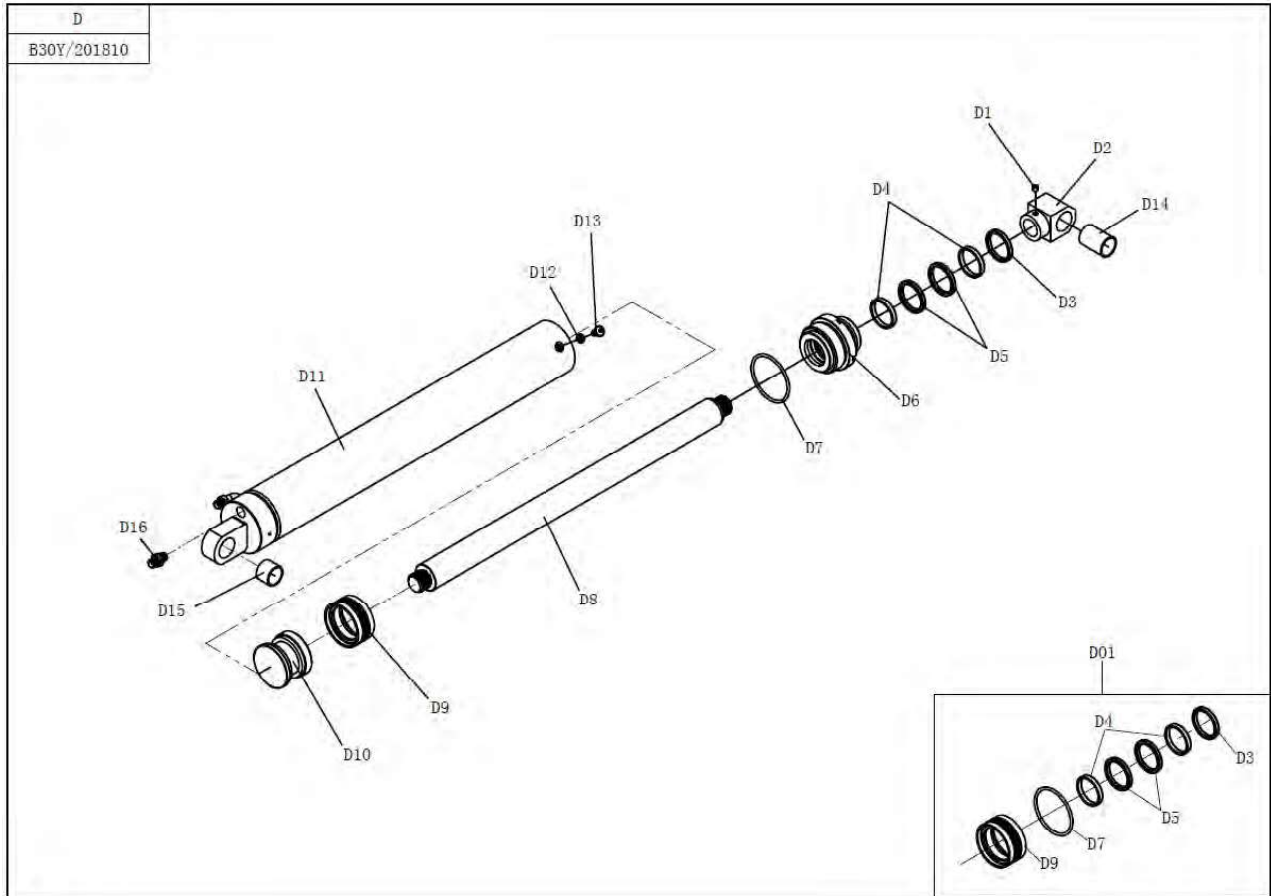


B1	XZ-3B1-100000-Z	insurance strip
B2	XZ-3B1-090000-Z	starting rod
B3	XX-3B1-001600-0	oil cylinder upper spacer sleeve (thick)
B4	XX-3B1-001700-0	oil cylinder upper spacer sleeve (thin)
B5	B-055-300001-0	shaft snap ring Ø30
B6	XZ-3B1-000600-0	piston rod stationary shaft
B7	XX-3B1-000500-0	starting rod stationary shaft
B8	XX-3B1-001300-0	starting rod sliding sleeve
B9	XX-3B1-001400-0	starting rod spacer sleeve
B10	SG-3B1-000800-0	insurance block
B11	XX-3B1-001500-0	insurance base
B12	B-010-050121-0	hex socket cap screw M5×12
B13	S-220-016025-0	cylinder 16×25
B14	B-007-080121-0	hex socket set screws with cone point M8×12
B15	S-010-000506-0	air pipe straight union M5-4×6
B16	S-040-003040-0	shaft steel sleeve 343040
B17	SG-3B1-008000-1	cylinder support
B18	XZ-3B1-002600-0	adjusting washer

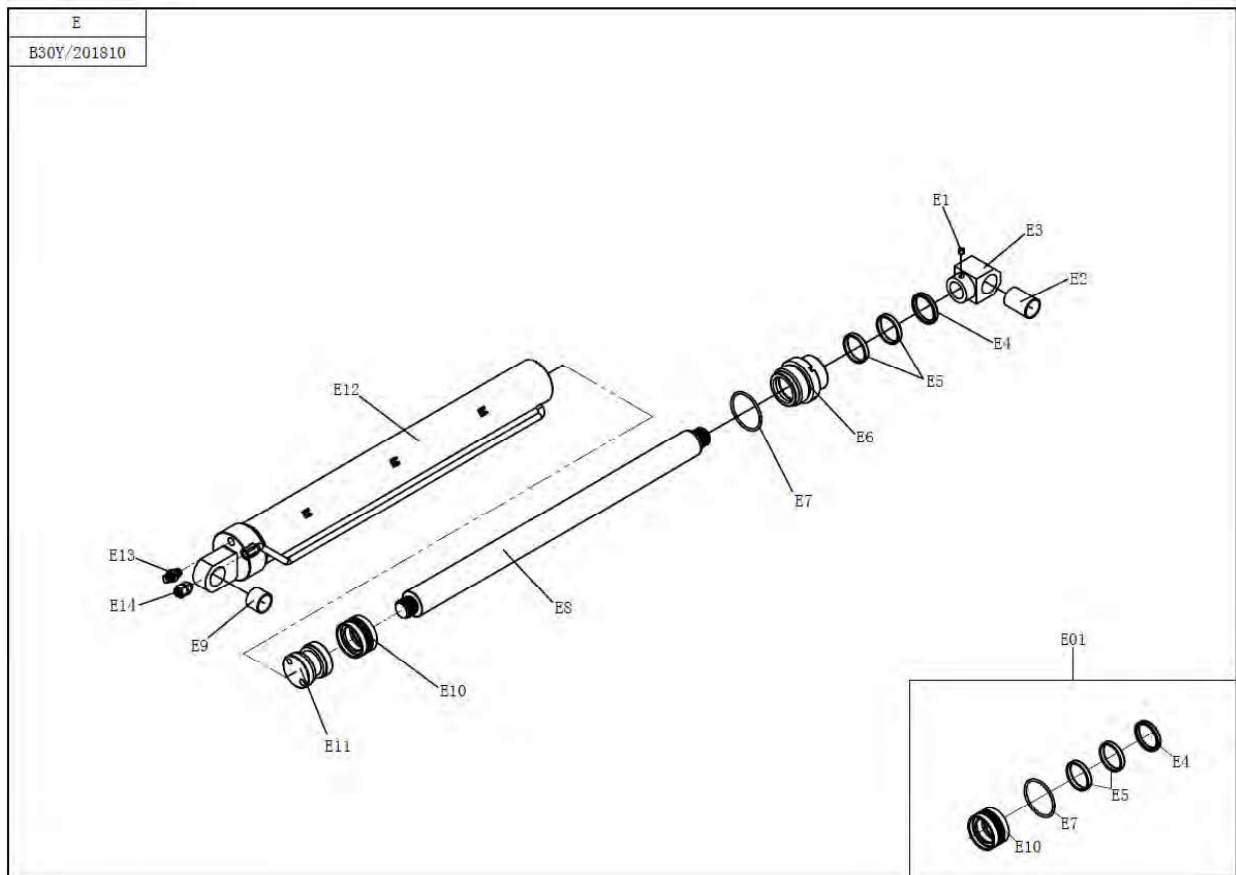




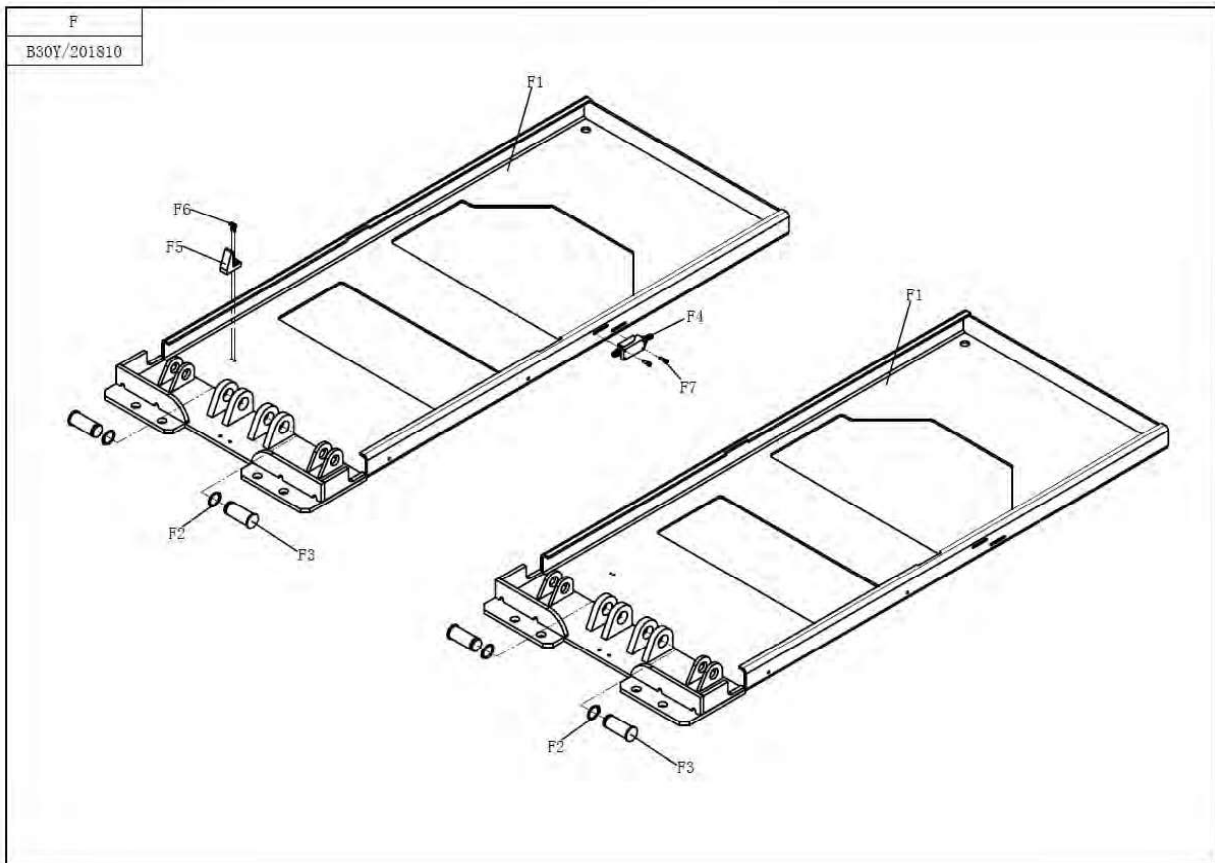
C1	XG-3B1-000900-0	upper sliding block
C2	XZ-3B1-040000-Z	connecting rod(up&outer)
C3	XZ-3B1-040000-Z	connecting rod(up&inner)
C4	XX-3B1-000400-0	inner scissor stationary shaft(up&down)
C5	XX-3B1-001100-0	stop plate key
C6	B-010-080161-0	hex socket cap screw M8×16
C7	XZ-3B1-030000-Z	connecting rod(down&inner)
C8	XZ-3B1-020000-Z	connecting rod(down&outer)
C9	XG-3B1-001000-0	lower sliding block
C10	XX-3B1-000200-0	center shaft
C11	B-055-250001-0	shaft snap ring Ø25
C12	XX-3B1-000100-0	inner scissor stationary shaft(up&down)
C13	XX-3B1-000300-0	outer scissor stationary shaft(up&down)
C14	S-040-003030-0	shaft steel sleeve 343030
C15	S-040-003560-0	shaft steel sleeve 393560
C16	B-024-030501-0	cross pan head screw M3× 50
C17	S-060-051101-1	lower limit switch
C18	B-004-030001-1	nut M3
C19	S-040-002525-0	shaft steel sleeve 282525
C20	/	adjusting washer



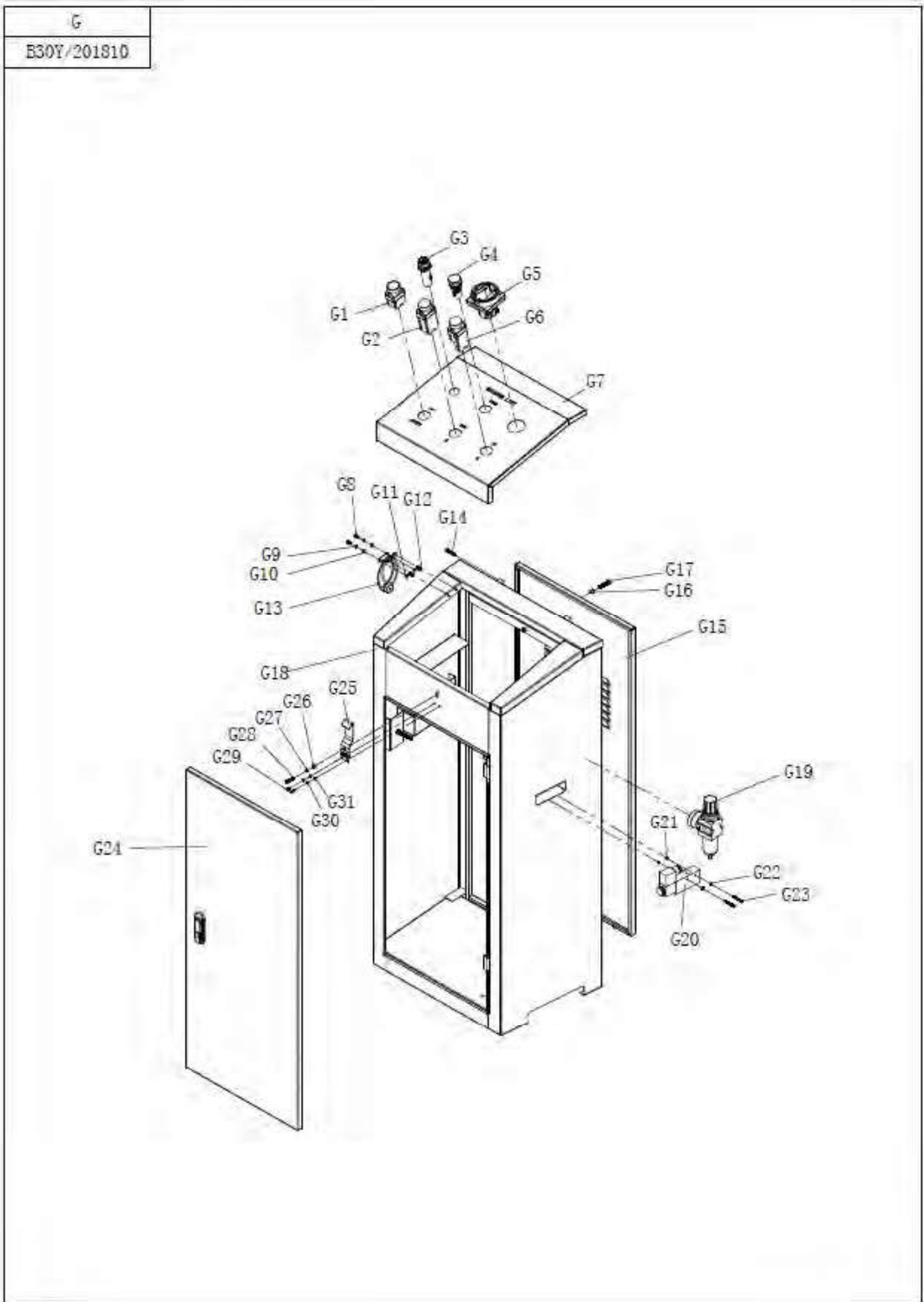
D1	B-007-080121-0	hex socket set screws with cone point M8×12
D2	XZ-3B1-110400-0	oil cylinder support block
D3	S-005-053065-0	dust-proof ring Ø45×53×6.5
D4	S-045-008025-0	wear ring Ø45×8×2.5
D5	S-006-055006-0	U-ring Ø45×55×6
D6	XZ-3B1-110300-0	main oil cylinder cover
D7	S-000-075004-0	O-ring Ø75×4
D8	XG-3B1-110200-0	piston rod
D9	S-007-055224-0	combined seal ring Ø75×55×22.4
D10	XZ-3B1-110100-0	main cylinder piston
D11	XZ-3B1-110200-Z	main oil cylinder
D12	B-042-080001-0	combined seal ring Ø8
D13	B-010-080101-1	hex socket button head screw M8×10
D14	S-040-003048-0	shaft steel sleeve 343048
D15	S-040-003025-0	shaft steel sleeve 343025
D16	S-011-010400-10	oil pipe straight union inner cone G1/4--end face G1/4
D01	SA-210-302000-W	oil cylinder seal kit



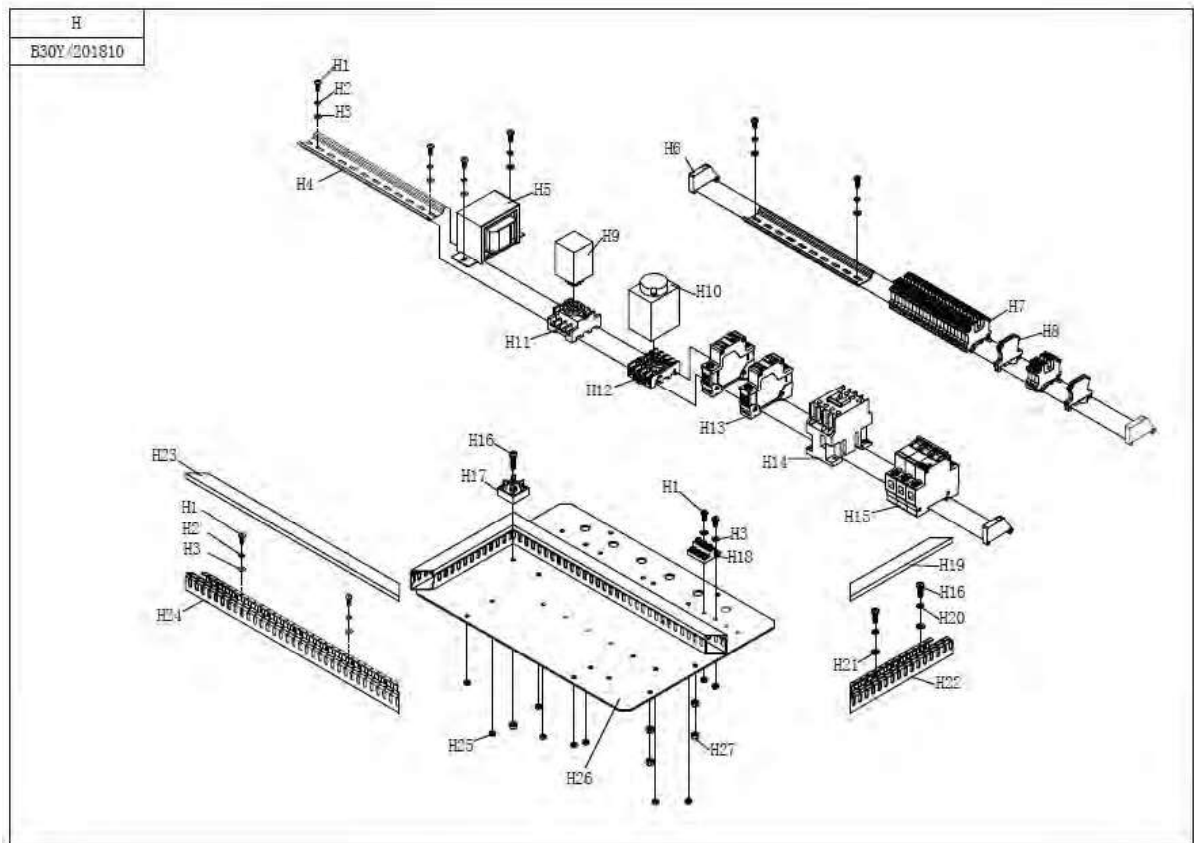
E1	B-007-080121-0	hex socket set screws with cone point M8×12
E2	S-040-003048-0	shaft steel sleeve 343048
E3	XZ-3B1-110400-0	oil cylinder support block
E4	S-005-053065-0	dust-proof ring Ø45×53×6.5
E5	S-045-008025-0	wear ring Ø45×8×2.5
E6	XZ-3B1-120200-0	sub oil cylinder cover
E7	S-000-060004-0	O-ring Ø60×4
E8	XG-3B1-110200-0	piston rod
E9	S-040-003025-0	shaft steel sleeve 343025
E10	S-007-044184-0	combined seal ring Ø60×44×18.4
E11	XZ-3B1-120100-0	sub cylinder piston
E12	XZ-3B1-120100-Z	sub oil cylinder
E13	S-011-010400-10	oil pipe straight union inner cone G1/4--end face G1/4
E14	S-010-010408-0	air pipe straight union G1/4-8×5
E01	SA-210-301000-W	oil cylinder seal kit



F1	XZ-3B1-010000-Z	base
F2	B-055-300001-0	shaft snap ring Ø30
F3	XX-3B1-000700-1	oil cylinder stationary shaft
F4	S-060-008122-0	upper limit switch 8122
F5	XX-3B1-002700-0	lower limit switch block
F6	B-024-040161-0	cross pan head screw M4×16
F7	/	hex socket cap screw M5×12

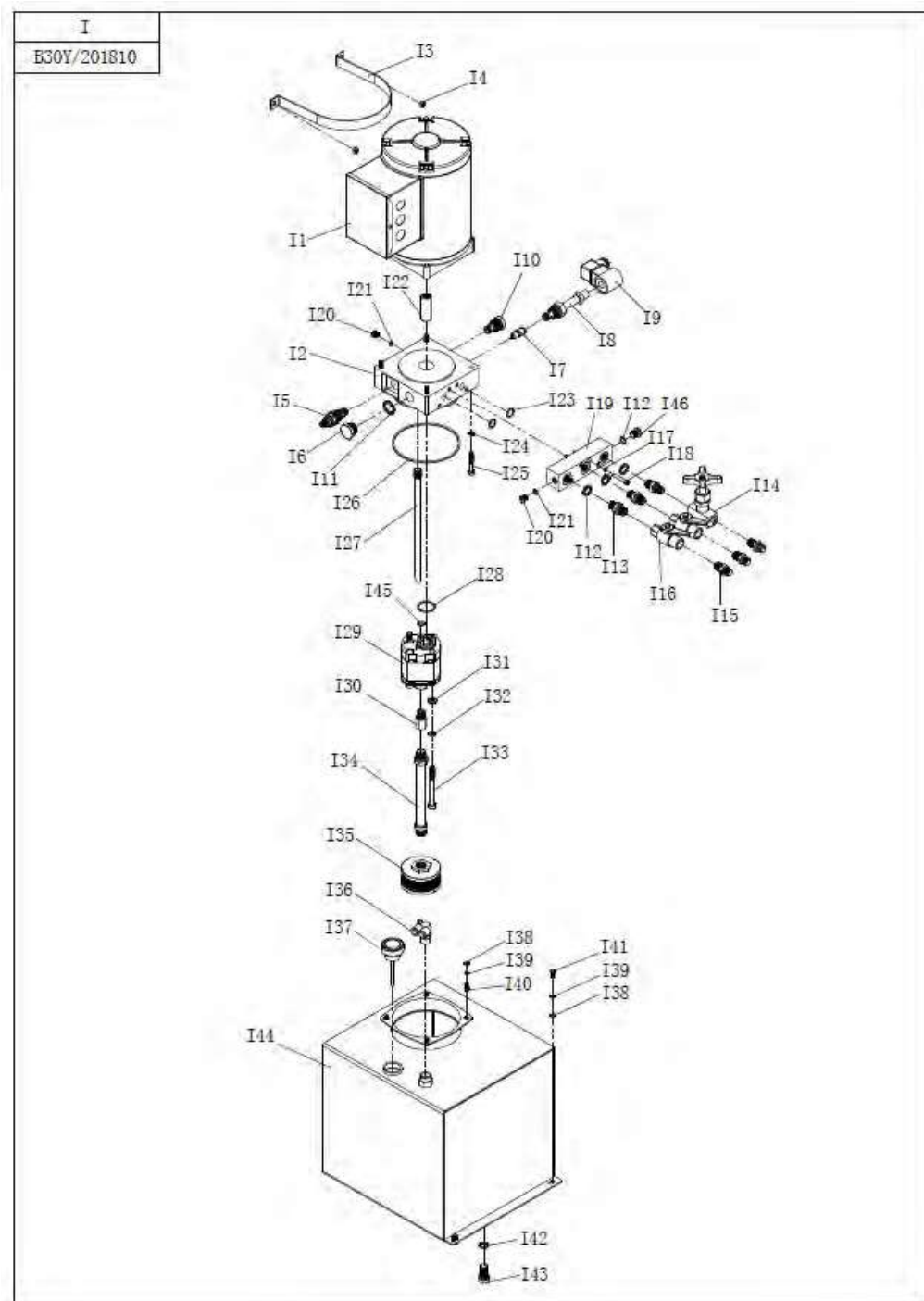


G1	S-060-130020-0	locking button switch 2NO
G2	S-060-150011-0	down button switch 3NO1NC
G3	D-102-038022-0	buzzer
G4	D-090-024022-0	signal
G5	S-060-262004-1	power switch
G6	S-060-130021-1	lift button switch 2NO1NC
G7	/	control box cover
G8	B-024-040101-0	cross pan head screw M4×10
G9	B-050-040000-0	spring washer Ø4
G10	B-040-040908-1	flat washer Ø4
G11	B-004-040001-1	hex nut M4
G12	B-021-040010-0	cross pan head screw M4×10
G13	/	cover board hinge
G14	B-024-040251-0	cross pan head screw M4×25
G15	/	control box back door
G16	/	screw plastic sleeve Ø6
G17	B-024-060301-0	cross pan head screw M6×30
G18	DZ-00K-000000-Z	control box body
G19	D-050-AW2000-0	oil-water separator
G20	S-030-008024-0	pneumatic solenoid valve
G21	B-004-030001-1	hex nut M3
G22	B-040-030705-1	flat washer Ø3
G23	B-024-030301-0	cross pan head screw M3×30
G24	/	control box front door
G25	/	cover board clasp
G26	B-004-050001-1	hex nut M5
G27	B-050-050000-0	spring washer Ø5
G28	B-024-050201-0	cross pan head screw M5×20
G29	B-024-030081-0	cross pan head screw M3×8
G30	B-040-030705-1	flat washer Ø3
G31	B-004-030001-1	hex nut M3



H1	B-021-040010-0	cross pan head screw M4×10
H2	B-050-040000-0	spring washer Ø4
H3	B-040-040908-1	flat washer Ø4
H4	D-101-091000-0	lead rail
H5	S-052-110220-2	transformer
H6	D-073-UK25B0-D	fixed terminal
H7	D-073-UK25B0-0	phoenix terminal
H8	D-073-SV1250-5	earth terminal
H9	H-030-010030-0	intermediate relay
H10	H-030-010020-1	time relay
H11	H-030-010030-0	relay socket
H12	H-030-010020-2	relay socket
H13	H-030-010030-0	circuit breaker
H14	H-030-050011-2	AC contactor
H15	D-100-C202P0-0	circuit breaker 3phase
H15(optional)	D-100-C252P0-0	circuit breaker 1phase
H16	B-024-050201-0	cross pan head screw M5×20
H17	H-030-200013-5	rectifier bridge
H18	D-073-010203-0	grounding strip
H19	/	wiring duct cover
H20	B-050-050000-0	spring washer Ø5

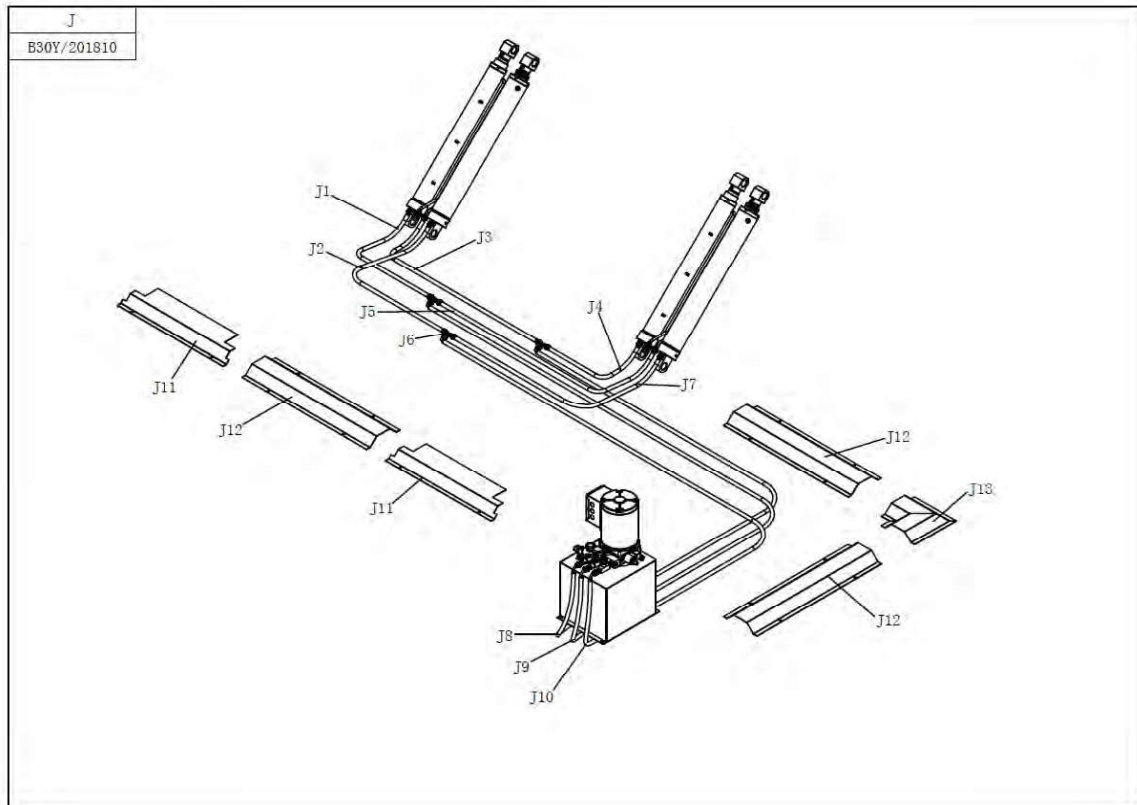
H21	B-040-051010-1	flat washer Ø5
H22	/	wiring duct
H23	/	wiring duct cover
H24	/	wiring duct
H25	B-004-040001-1	hex nut M4
H26	DX-00K-000300-0	power panel
H27	B-004-050001-1	hex nut M5



















I1	S-048-380503-2	3ph motor
I1(optional)	S-048-220501-2	1ph motor
I2	S-048-000013-G	valve block
I3	/	anchor ear
I4	B-004-060001-1	hex nut M6
I5	S-048-000004-G	overflow valve
I6	/	plug M20
I7	S-047-000250-0	pressure-compensated valve
I8	S-048-000002-G	normally closed lowing electromagnetic valve spool
I9	S-048-000003-G	lowing valve coil
I10	S-048-000005-G	one-way valve
I11	/	combined seal ring Ø20
I12	/	combined seal ring Ø14
I13	S-011-010400-10	oil pipe straight union end face G1/4--R1/4
I14	S-030-600104-4	cross ball valve
I15	S-011-010400-10	oil pipe straight union inner cone G1/4--R1/4
I16	S-030-600104-2	high pressure ball valve
I17	B-050-060000-0	spring washer Ø6
I18	B-010-060301-0	hex socket cap screw M6×30
I19	/	additional valve block
I20	/	plug M8×1
I21	/	O-ring Ø6.5×1.5
I22	S-048-000001-G	coupling
I23	/	O-ring Ø14×1.7
I24	B-050-060000-0	spring washer Ø6
I25	/	hex socket cap screw M6×40
I26	/	O-ring Ø114×3
I27	/	return tube
I28	/	O-ring Ø32×2.4
I29	S-048-000021-G	gear pump 2.1C.C
I30	S-048-000020-G	cushion valve
I31	B-040-091616-1	flat washer Ø8
I32	B-050-080000-0	spring washer Ø8
I33	/	hex socket cap screw M8×80
I34	S-048-000023-G	suction tube
I35	S-048-000010-G	filter
I36	/	PA hard air pipe
I37	S-304-060400-0	oil tank cover
I38	B-040-051010-1	flat washer Ø5
I39	B-050-050000-0	spring washer Ø5

I40	B-014-050101-1	outer hex socket bolt M5×10
I41	/	hex socket cap screw M5×16
I42	B-042-120001-0	combined seal ring Ø12
I43	B-014-120201-1	outer hex socket bolt M12×20
I44	/	oil tank
I45	/	rectangle seal ring 9.5×1.7
I46	S-048-000022-G	plug G1/4



J1	Q-001-000470-0	high-pressure oil pipe 600mm
J2	Q-001-000800-1	high-pressure oil pipe 800mm
J3	Q-001-001100-0	high-pressure oil pipe 1100mm
J4	Q-001-000470-0	high-pressure oil pipe 600mm
J5	Q-001-001100-0	high-pressure oil pipe 1100mm
J6	S-015-010400-0	oil pipe T-union 3-G1/4
J7	Q-001-000800-1	high-pressure oil pipe 800mm
J8	Q-001-003750-0	high-pressure oil pipe 3750mm
J9	Q-001-004250-0	high-pressure oil pipe 4250mm
J10	Q-001-003950-0	high-pressure oil pipe 3950mm
J11	XZ-3B2-000600-0	oil hose cover plate 635
J12	XZ-3B1-001900-0	oil hose cover plate 750
J13	XZ-3B1-130000-Z	oil hose cover plate 90°

## 16. Accessories Packing List Of LM-3000FR

Name	Pic	Spec.	Qty
1. Rubber mat(filmy)		160mm*120mm*35mm	4pc
2. High pressure oil hose		3.75m (145#)	1pc
		3.95m (146#)	1pc
		4.25m (147#)	1pc
3. Air Cylinder union		φ6*4	2pc
4. Air hose T-union		φ6*4	1pc
5. Foundation bolt		M16	12set
6. Foundation bolt		M8	24set
7. Air hose		φ6*4 1700mm	2pc
		φ6*4 3500mm	1pc
		φ8*5 5000mm	2pc
8. Oil hose T-union		G1/4	3pc
9. Combined washer		φ 8	2pc
10. Oil hose cover plate		250mm*90°	1pc
11. Oil hose cover plate		LM-3000FR :635mm	2pc
12. Oil hose cover plate		750mm	4pc
13. Loading dock board		LM-3000FR:( including shaft, shaft snap ring, supporting plate and roller of loading dock board) Notice: right and left direction each for 2pc	4set
14. Use manual		(including instruction manual, certificate of soundness, warranty bill and packing list)	1pc
15. Ribbon		4*200mm	10pc