

4 POST HOIST

AutoLift 6435W



Model No: SXJS4019A 4 Post Vehicle Hoist
4000Kg Maximum Lifting Capacity
Design Registration Approval Number: WAH20540
Design Code: AS1418.9-1996

INSTALLATION MANUAL & OPERATION INSTRUCTIONS



READ FIRST



DO NOT use the machine until you read and understand all the dangers, warnings and cautions in this manual.



- READ THE ENTIRE CONTENTS OF THIS MANUAL BEFORE INSTALLATION AND OPERATION. BY PROCEEDING YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

Specifications subject to change without notice.

Note: While all due care and attention has been taken in the preparation of this document, Advance AutoQuip shall not be liable for any inaccuracies or omissions which may occur therein

Advance AutoQuip

2 McDonald Crescent | Bassendean WA 6054

Ph: 08 9279 1663 | Fax: 08 9279 1667 | E: sales@aaq.net.au | W: www.aaq.net.au

INSTALLATION INSTRUCTIONS

Contents:

I	Statement.....	2
II	Installation requires.....	2-3
2.1	Installation Tools.....	2-3
2.2	Installation Site.....	3
2.3	Installation foundation conditions.....	3
III	Installation instructions.....	3-23
3.1	Foundation Drawings.....	3-4
3.2	Platform and steel rope installation.....	5-9
3.3	Post and beam installation.....	9-12
3.4	Installation of auxiliary platform.....	13-16
3.5	Packing disassembly and installation of the post.....	17-20
3.6	Connection of steel rope and column.....	20-23
3.7	Vertical adjustment of column required.....	23
IV	Electric and pneumatic parts installation.....	23-30
V	Rolling Jack installation	30-33
VI	Adjustment	33-34

I. Description:

This installation manual is applicable to the installation of all electronically controlled and manual four post lifts.

Because the product is constantly updated and improved, this installation instruction may differ slightly from the actual structure of the device, but most of the details are the same. If there are major differences, the installation instructions will be updated later.

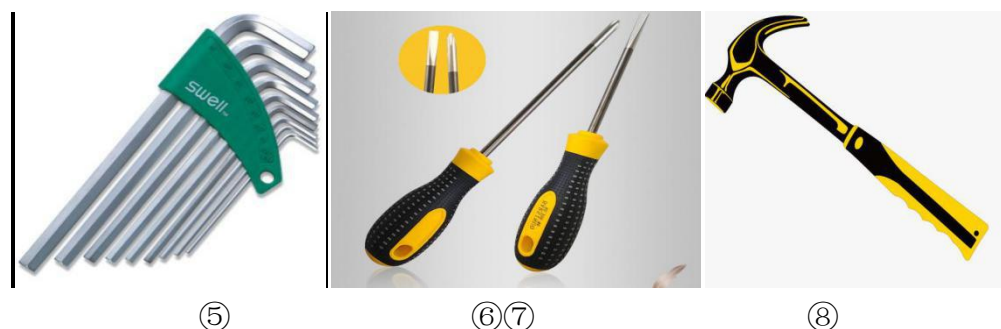
This manual is specially designed for the installation and commissioning of AUTOLIFT four post lift products. Nevertheless, experienced professionals are still required to perform the installation and commissioning work; for various consequences caused by its use to guide the operation of other equipment, We do not assume any responsibility.

II. Installation requires:

Installation requirements:

2.1 Installation tools:

① Impact drill device; ② $\phi 16$ impact drill bit; ③ Adjustable wrench; ④ 12-14 cm/ 17-19 cm/ 19-22 cm double-head fixed wrench; ⑤ Allen wrench (M4-M16); ⑥ Phillips screwdriver; ⑦ Flat head screw driver; ⑧ Hammer; ⑨ 10-meter tape measure; ⑩ Vertical measuring device; ⑪ Chalk...etc.





⑨



⑩



⑪

2.2 Installation Site:

	<p>Only the personnel designated by the manufacturer or the professional and technical personnel entrusted by the dealer can install this equipment. The installers must have qualifications for practice; non-professional installation may cause serious personal or equipment injury.</p> <p>Install as shown in the exploded view.</p>
--	--

2.2.1、 The lift is designed to be installed inside a building, with no obstructions in the space and good ventilation. The installation place shall not be close to the washing area, paint, coating, corrosive solvent storage area and areas where there may be danger of electric shock or explosion; ensure a minimum safe distance (more than 2m) from walls or other equipment, and avoid emergency passages.

2.2.2、 All sources of ignition must be kept away from the installation location of the lift, and there must be good ventilation around the lift.

2.3 Installation foundation requires:

2.3.1、 The minimum thickness of the concrete is 150mm; the strength is more than 3000PSI.

2.3.2、 The foundation ground of the lift needs to be made in its entirety, and no pillar can be made separately for the foundation, and the deviation of the ground level is less than 5mm.

2.3.3、 The lift cannot be installed on two or more layers of concrete poured at different times; it must not be installed on the floor laid with tiles or other decorative materials.

2.3.4、 Concrete cannot be placed directly on unconsolidated ground.

2.3.5、 After the concrete is poured, you must wait until it is completely cured before installing the lift; adjust the installation time accordingly according to the different seasons, and the curing time must be more than 30 days. If necessary, perform concrete maintenance work. (Because the temperature of concrete is lower than 5 °C, its strength will be greatly affected even after solidification, so it is not recommended to make foundation work in winter.)

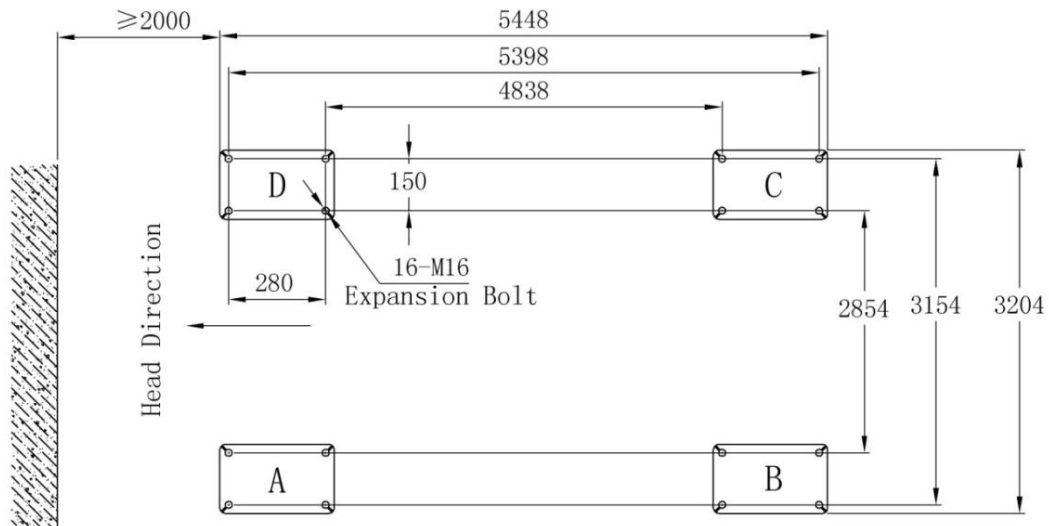
III、 Installation Instructions:

3.1 Before installation, roughly determine the installation position of the equipment

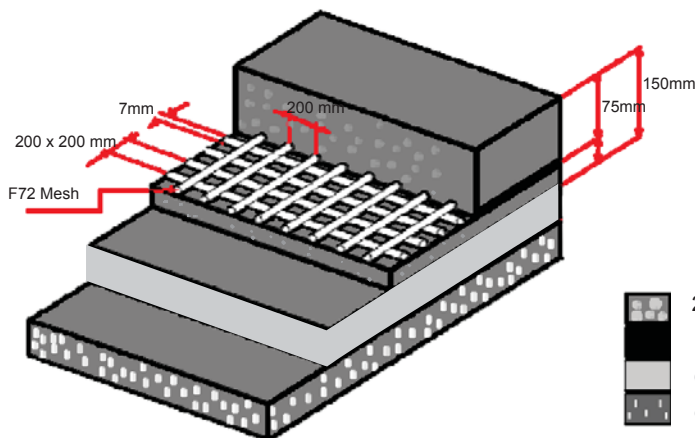
according to the foundation map, and roughly draw the position of the column base with chalk.

The foundation drawing is shown in the following figure:

SXJS4019/SXJS4019A/SXJS4019B



- Notes: 1. Steel reinforced concrete are poured under the groundwork
The thickness is over 150mm
2. The horizontal variation of place A B C D for post installation is less than 5mm



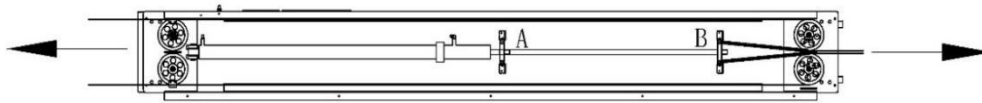
FOUNDATION DIMENSIONS IN MM			QUALITY OF CONCRETE	MIN. PRESSURE RESISTANCE OF SURFACE	MAX. REACTION ON EACH BEARING POINT
Length	Width	Thickness	25MPA	425 Kg/cm ²	0.9 Kg/cm ²
6000	4000	150			

- 25MPA REINFORCED CONCRETE
- F72 REINFORCED MESH
- COMPACTED SOIL
- GRAVEL SHEETING

3.2 Platform and Steel rope installation :

3.2.1 Firstly check the list in the standard box and accessory box to check whether the standard and small parts are missing. If it is found missing, please contact the logistics company or manufacturer immediately; if it is not missing, place it in a safe place that is easily accessible.

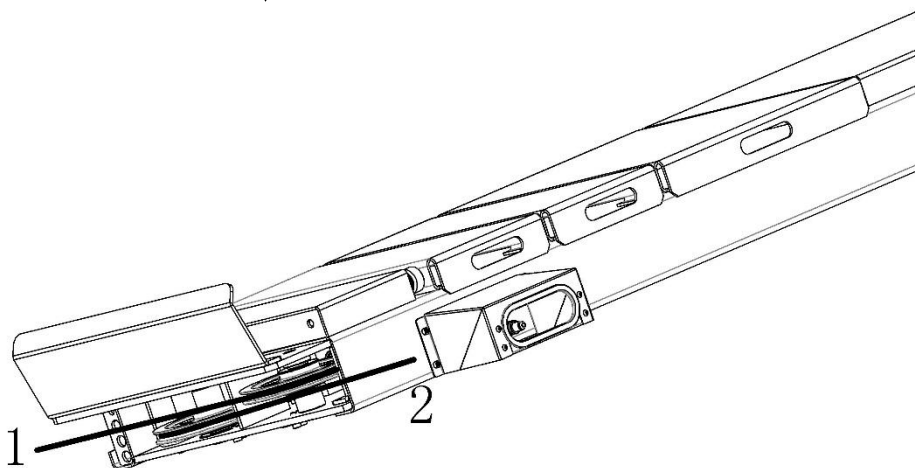
3.2.2 Remove the fixed iron wire from the main platform steel rope on the package, remove the threaded end of the steel rope, and pull the steel rope vigorously until the piston rod of the oil cylinder is pulled to the maximum size. See the following figure for details:



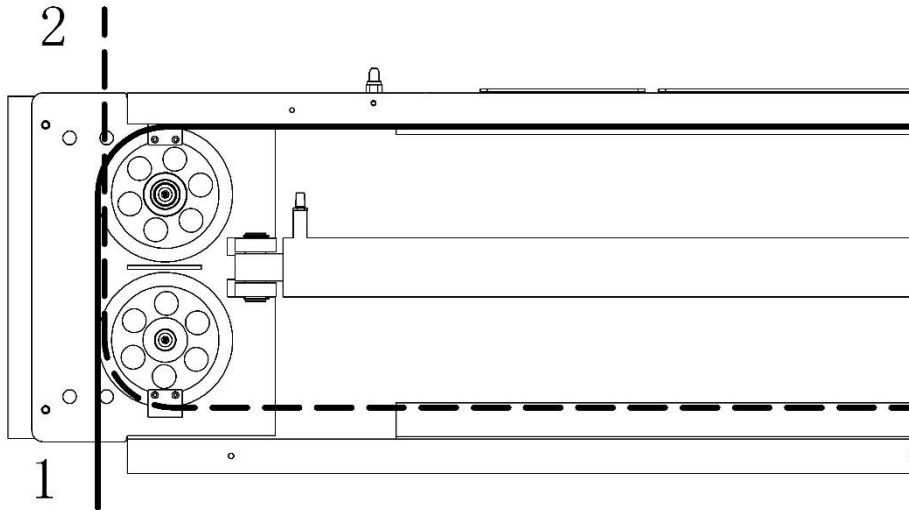
Note: Be sure to pull the piston rod of the cylinder to the maximum size (that is, from the retracted state of the cylinder point A to the maximum extended state of the piston rod of the cylinder point B.)

3.2.3 Remove the fixing bolts of the main platform on the packaging rack, hoist the main platform to a place where it does not interfere, and after confirming that the steel rope is installed correctly, turn the platform so that the platform faces upward. The specific steel rope arrangement and length are shown in the following figure: (top view of the platform)

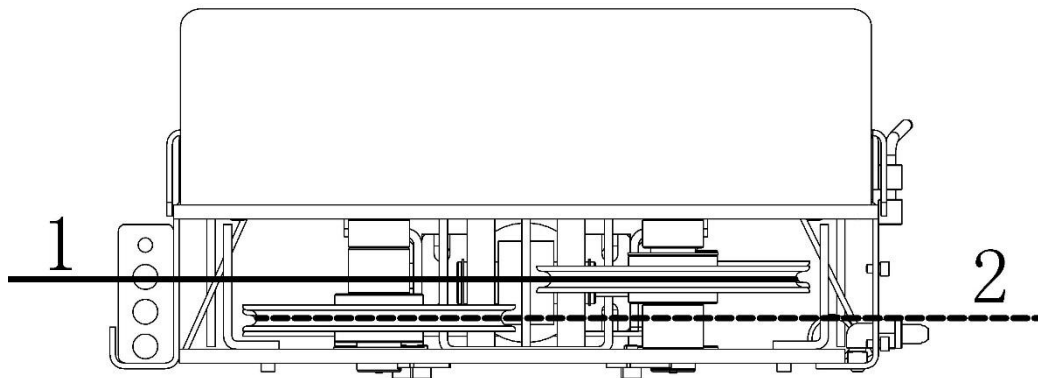
The steel rope at the front of the platform (where the front bezel is installed) indicates:



Main platform Steel Rope in Front position Fig 1

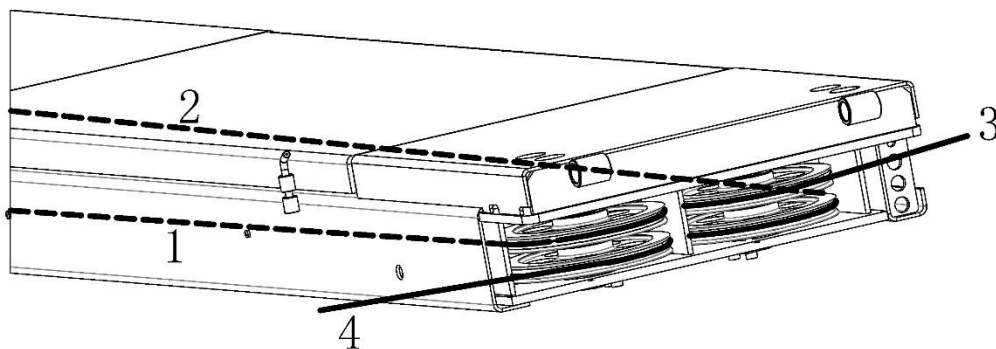


Main platform Steel Rope in Front position Fig2

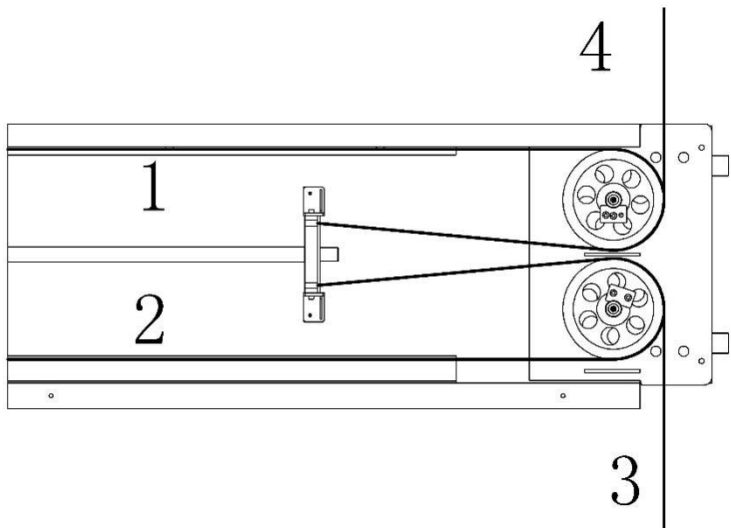


Main platform Steel Rope in Front position Fig3

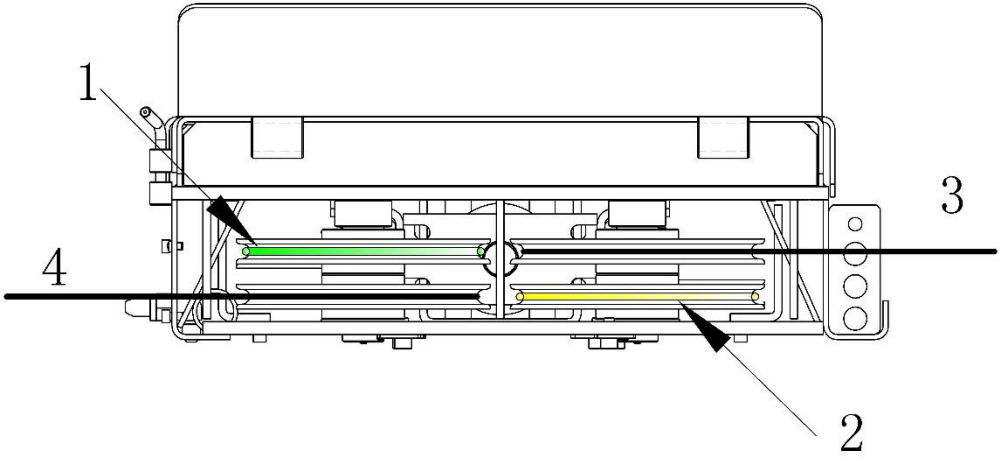
Rear of the platform (where the bridge sleeve of the approach bridge is welded, that is, the driving ramp position) indicates:



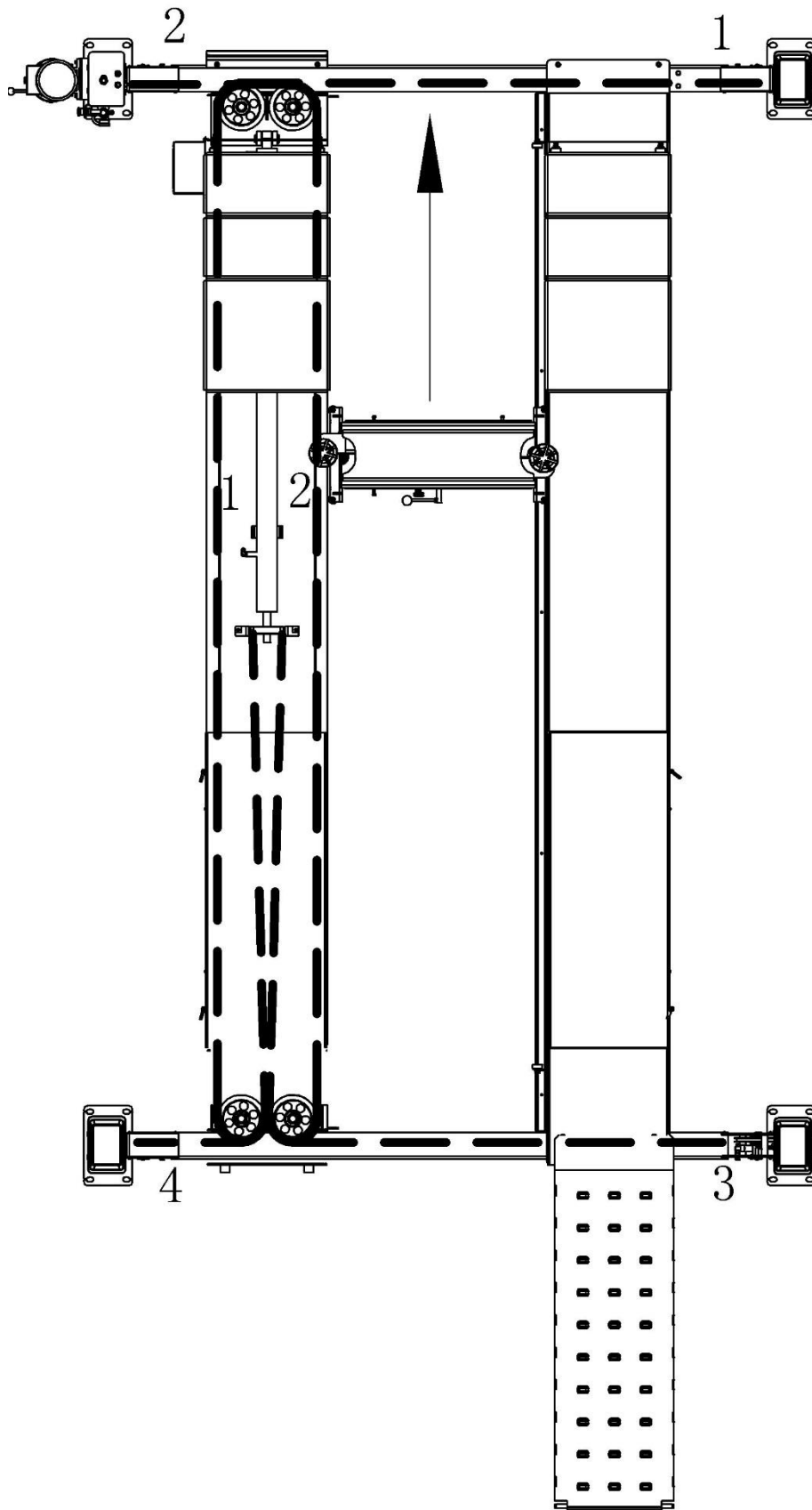
Main platform Steel Rope in Rear position Fig1



Main platform Steel Rope in Rear position Fig2



Main platform Steel Rope in Rear position Fig3



Top view of steel rope general arrangement

SXJS4019/SXJS4019A/SXJS4019B STEEL ROPE LENGTH:

1=9435mm, 2=7930mm, 3=4765mm, 4=3270mm

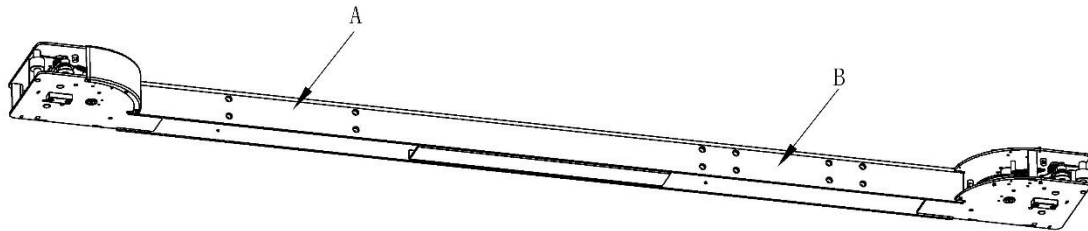
3.2.4 When the four post lift is assembled and packaged, the connection of the steel rope to the oil cylinder and the installation of the pulley have been completed; therefore, when the equipment is installed, the customer can pass the steel rope through the cross beam pulley according to the schematic diagram of the general arrangement of the steel rope in the above figure and the corresponding wire rope length, connecting with the correct post. The specific connection method of the steel wire rope with the beam and the upright post will be described later.

3.3 Post and beam installation

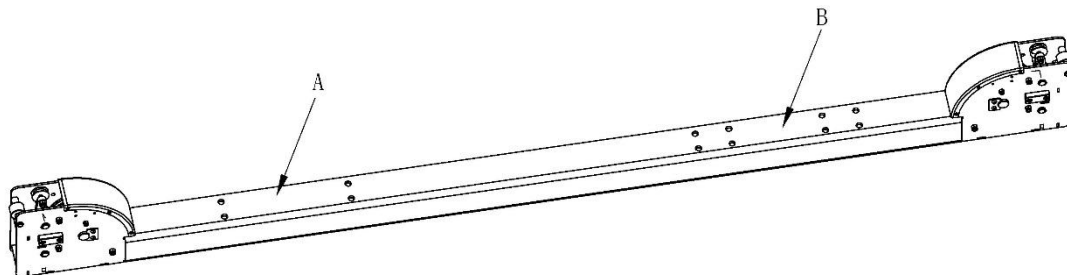
Remove the connecting bolts of the 4 columns on the packaging rack separately, and hoist the 4 pieces of columns near the position to be installed. At the same time, pay attention to the position of the main column (the column with the motor mounting base welded); From the direction of the platform tail, (the end welded with the bridge pin bushing is the platform tail).

2 Beam installation:

Continue to hoist the main and auxiliary beams in the auxiliary platform to the position to be installed. Note that the two beams are symmetrical parts.



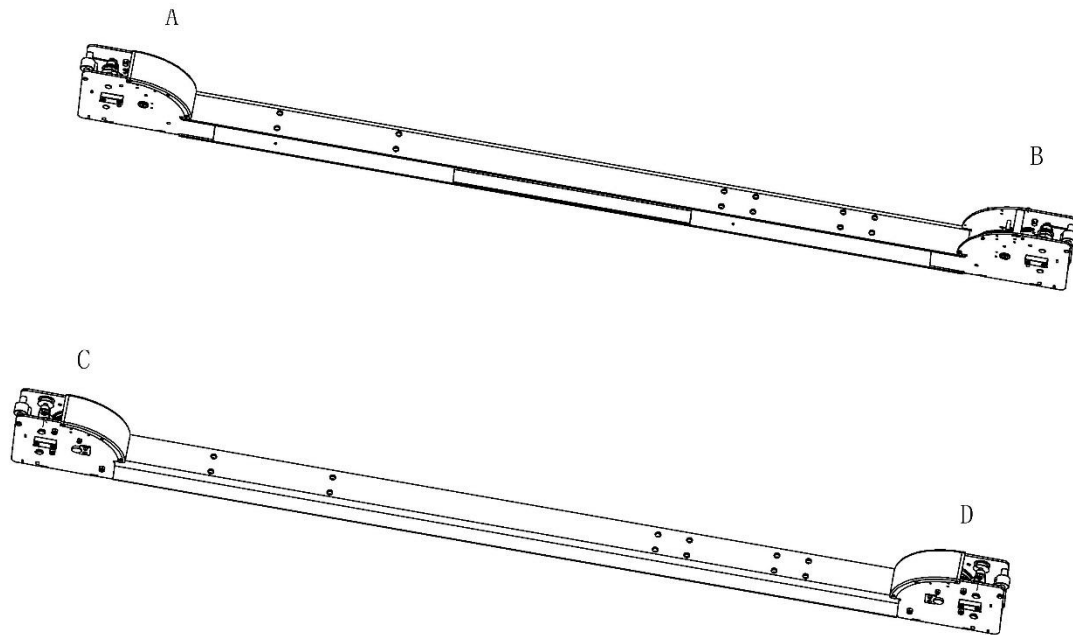
In the figure above, the four holes at the arrow A are the mounting holes for the main platform, and the eight holes at the right side B are the mounting holes for the sub-platform. The sub-platform also requires four mounting holes. When installed at far left, the distance between the inner side of the main and auxiliary platforms is 900 mm; when installed at the far right, the distance between the inner side of the main and auxiliary platforms is 1000 mm.



The above picture shows the auxiliary cross beam. Similarly, the four holes indicated by arrow A are the mounting holes of the main platform. The eight holes at right

arrow B are the auxiliary platform mounting holes. Four of the holes are also used according to the platform space to install the sub-platform.

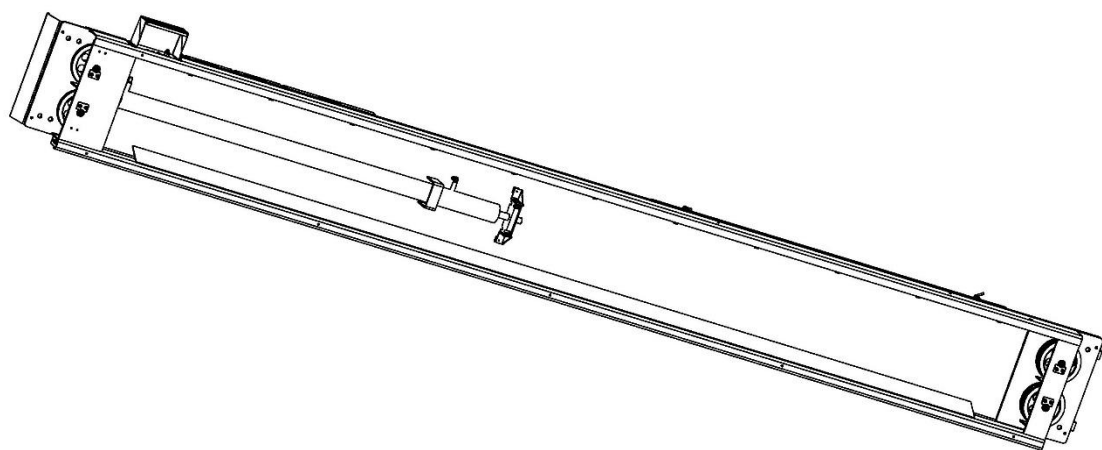
The specific placement of the beam is shown below:



In the figure above, the beams at points A and B are the main beams; the beams at points C and D are the auxiliary beams, where the main pillar is placed at point A and the auxiliary pillars are placed at the remaining points B / C / D; The four mounting holes of the main beam and the auxiliary beam are where the main platform is installed, and the eight mounting holes are where the auxiliary platform is installed. Do not make a mistake according to the figure above.

When connecting to the platform, firstly place 4 equal height pads at the bottom of the beam (two horizontally below each beam) with a height of more than 150mm; adjust to the distance between the inner edges of the two beams of about 5010mm (5Tons) or about 4296mm (4Tons); and the two ends of the beam are basically flush, that is, the horizontal deviation of the two ends of points A and C, and the points of B and D does not exceed 5mm).

The main platform (with oil cylinder and pulley inside the platform) is shown below:



Lift the main platform to points A and C, adjust the four holes on the head and tail of the platform to precisely align with the four screw holes on the beam, and fine-adjust if necessary; now screw the bolts into the screw holes, taking care not to tighten; Note that the head of the platform is an M16 * 45 hexagonal bolt with a flat spring washer, and the tail is an M16 * 45 hexagonal screw with a flat spring washer.

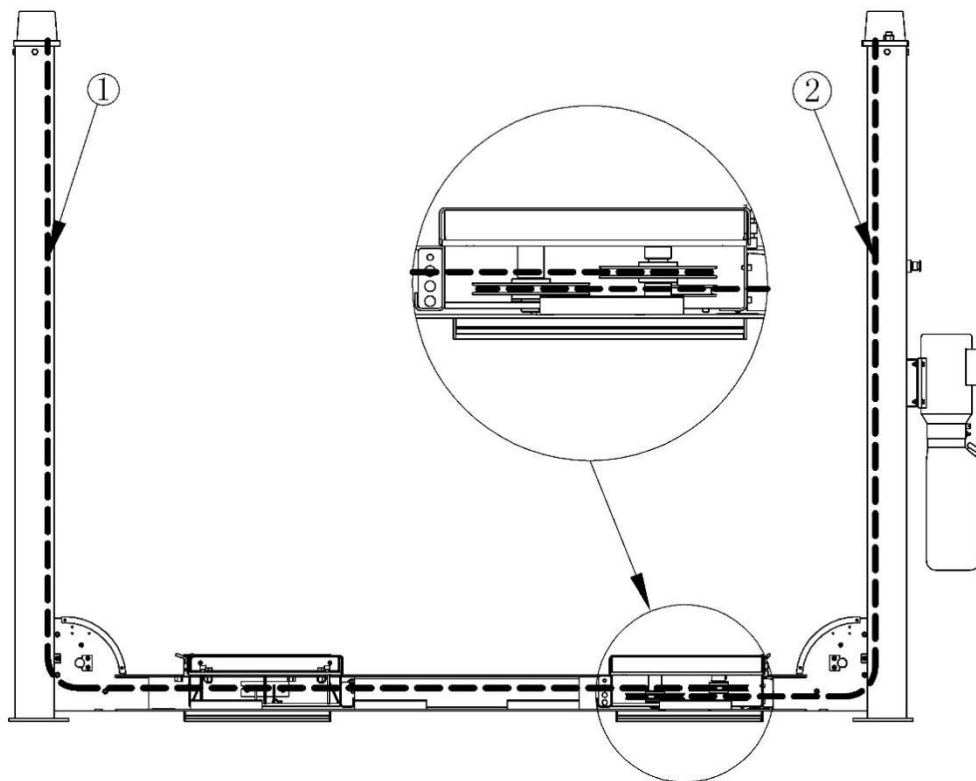


Bolts on the Head

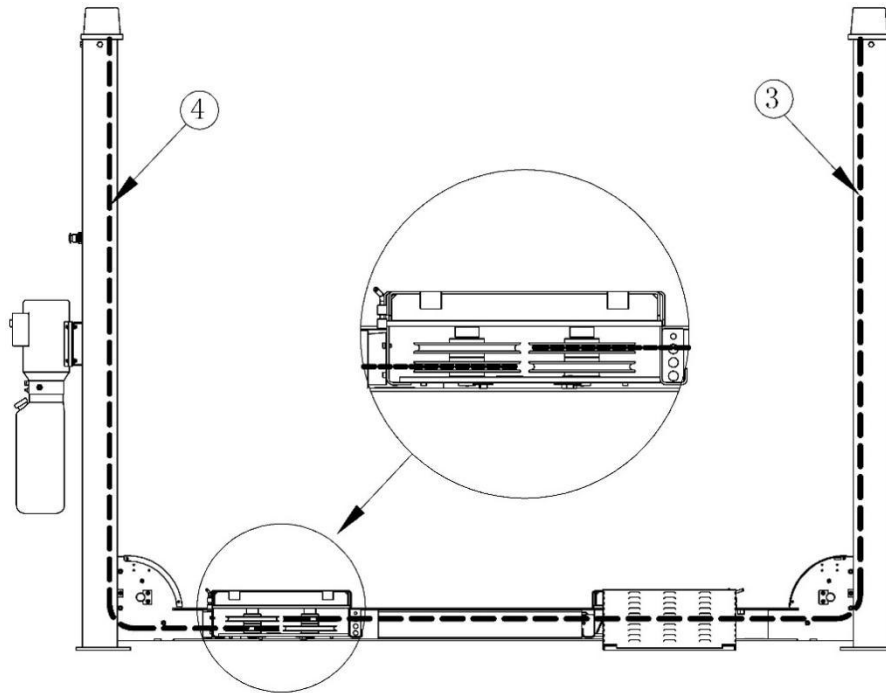


Bolts on the tail

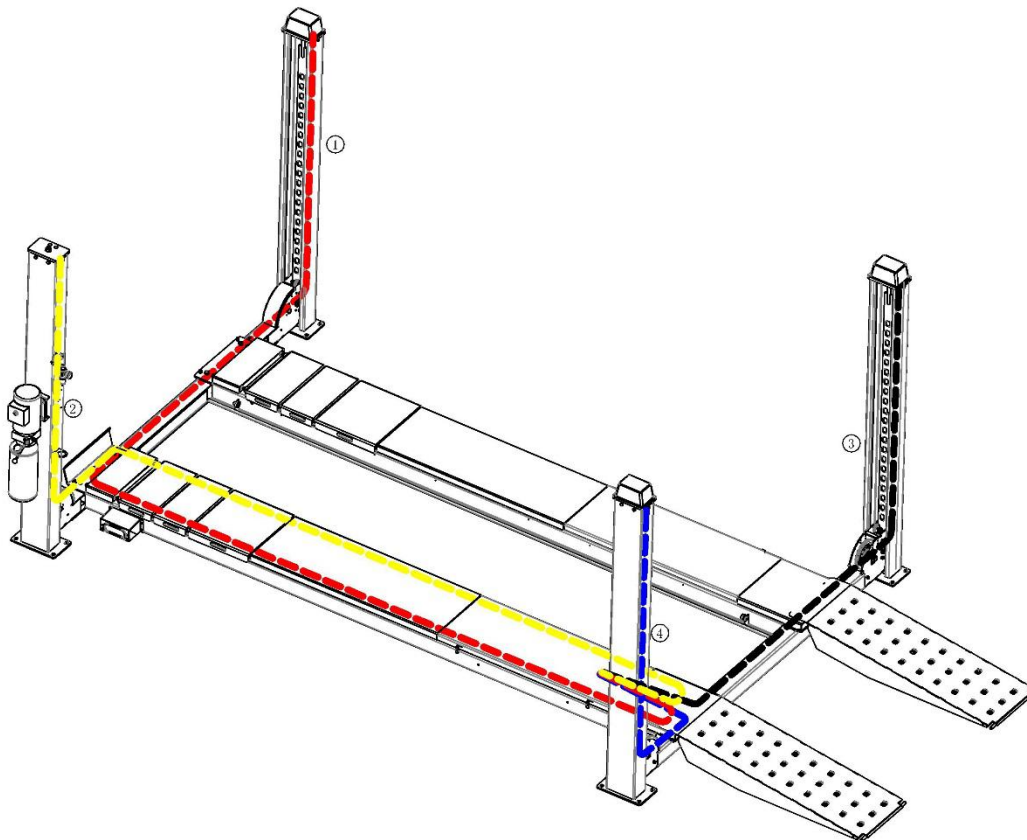
When placing the main platform, be careful not to squeeze the steel rope, and at the same time thread the steel rope into the channel steel of the beam according to the following diagram.



Steel Rope Connection diagram-driving head position



Steel Rope Connection diagram-Ramp position



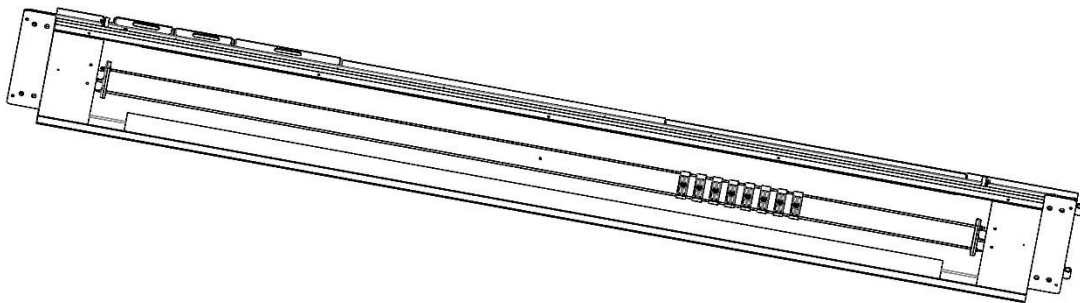
Steel Rope Connection diagram-axonometric

In the above three pictures, the connection and installation methods of the steel rope to the platform, beams, and columns are schematically illustrated; the serial number ①, ②, ③, and ④ correspond to the length of the steel rope marked by the previous serial number 1/2/3/4.

3.4、 Installation of auxiliary platform

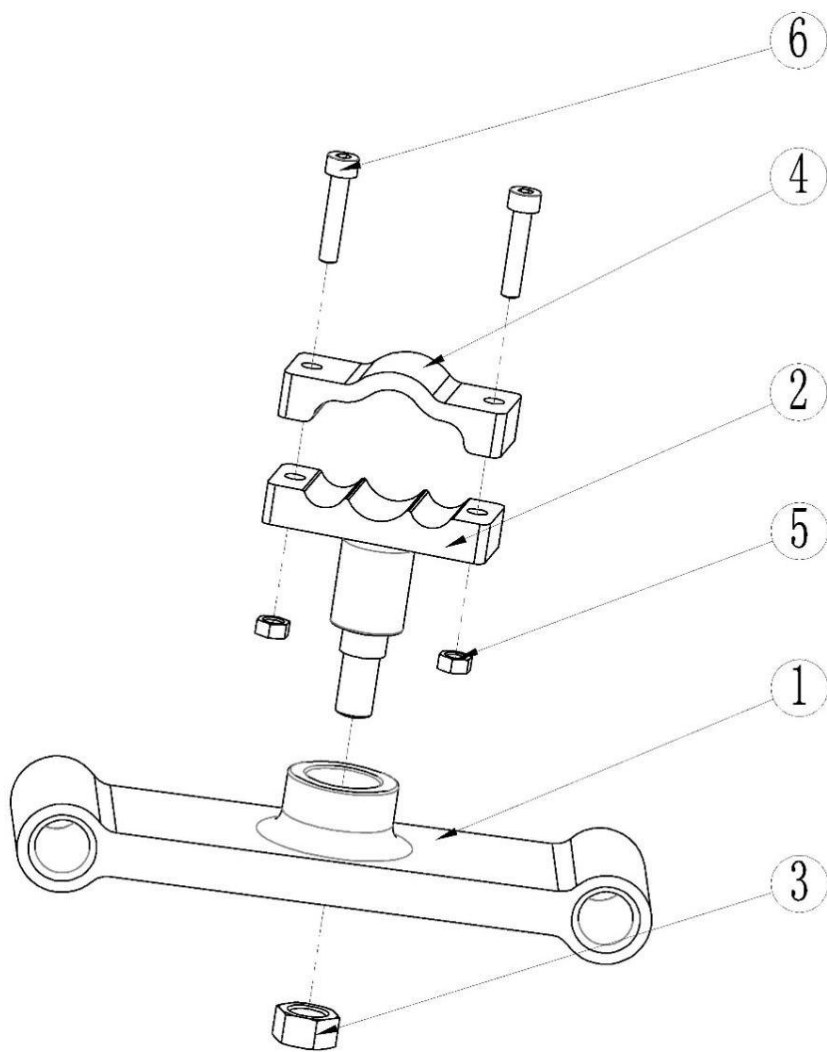
Remove the auxiliary platform on the package and turn it over, and lift it to the points B and D of the beam; Note that the installation position of the auxiliary platform is adjustable, and the inner side of the main and auxiliary platform guide rails can be adjusted from 900mm to 1000mm. Users can determine the installation distance between the sub platform and the main platform according to specific needs.

auxiliary platform:

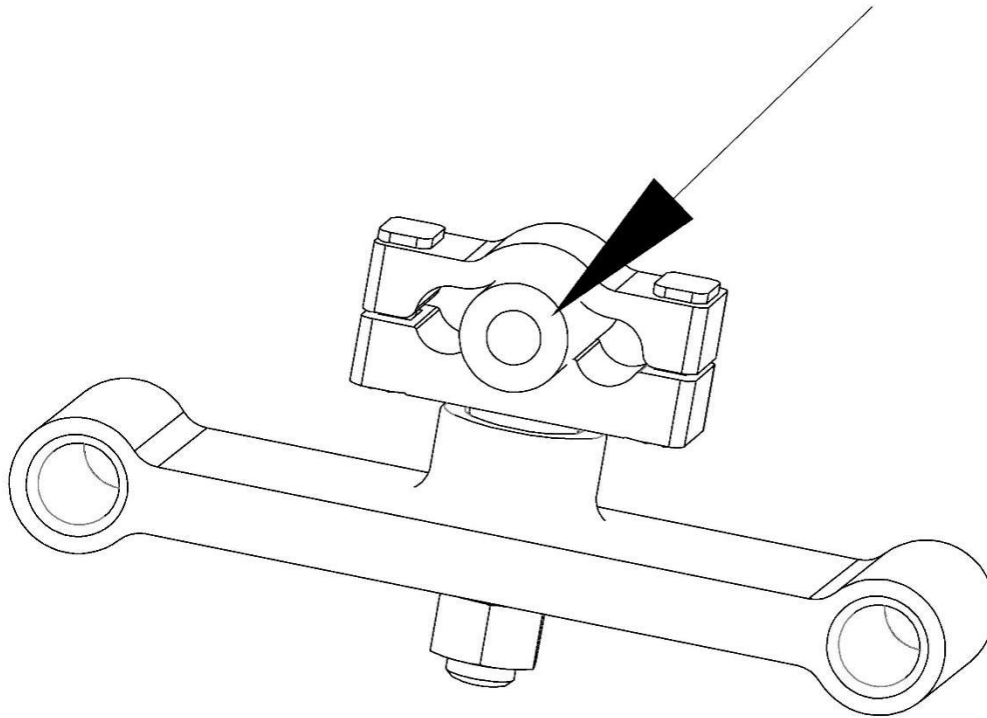


The above figure is a schematic diagram of the auxiliary platform. In the lower part of the auxiliary platform, whether it is a manual four-post or an electronically controlled four-post, there is a carriage structure. The specific installation method of the carriage structure is described in detail below.

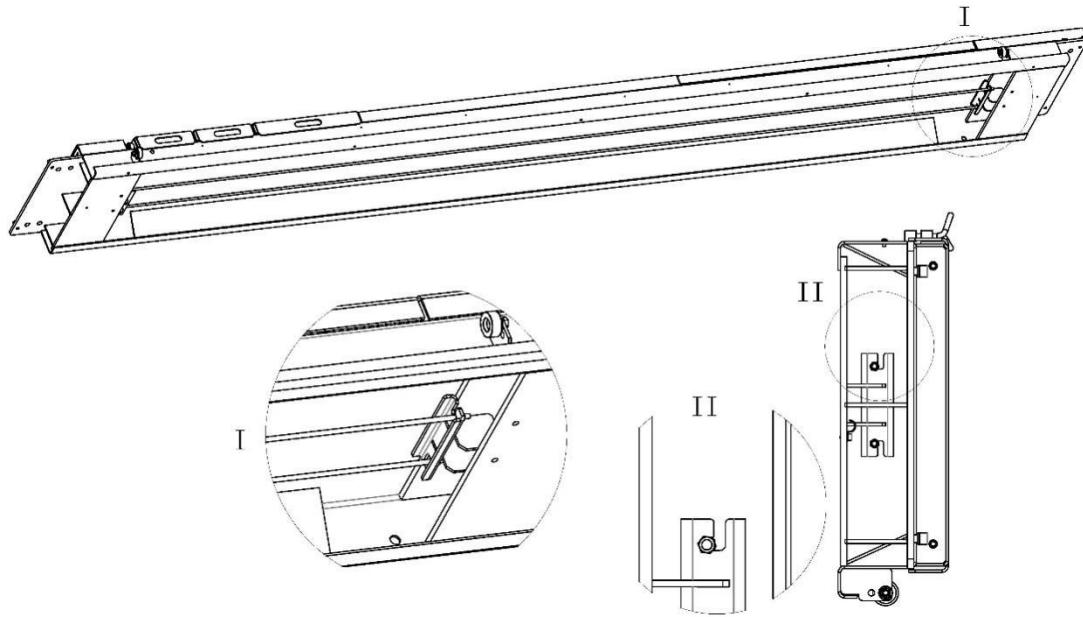
The following figure is an exploded view of the tubing carriage assembly and parts list:



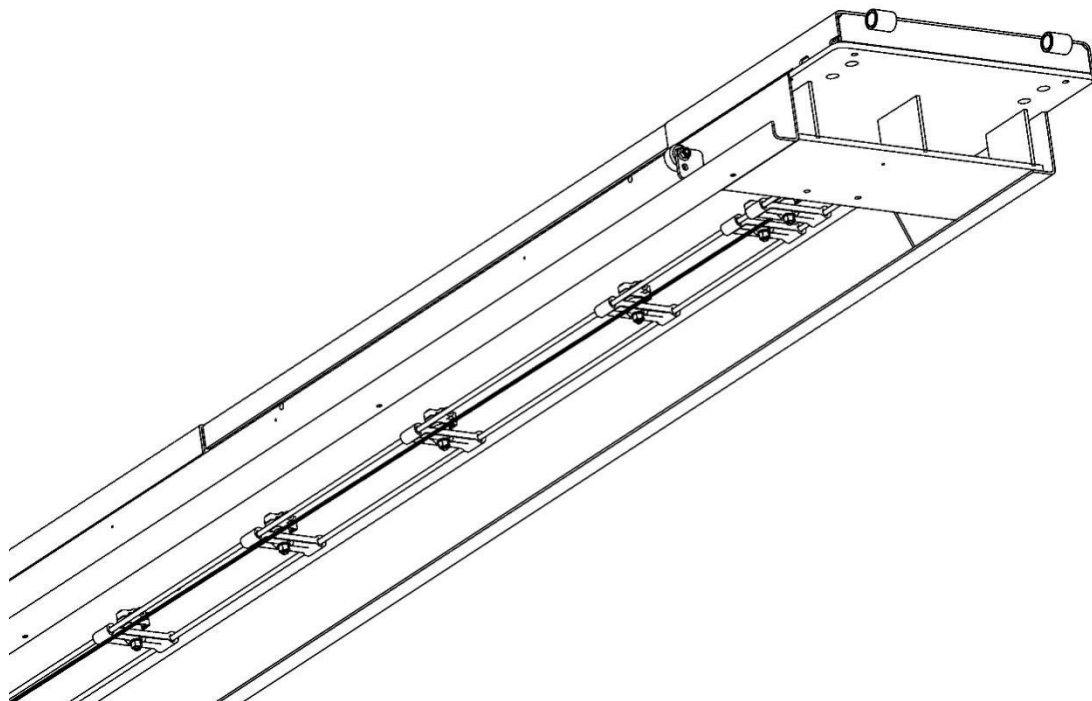
NO.	ITEM	SPEC	QTY
1	Tubling bracket		1
2	Tubing compression bracket		1
3	Hex nuts	M8	1
4	Upper clamping plate		1
5	Hex nuts	M4	2
6	Hexagon socket head cap screw	M4×20	2



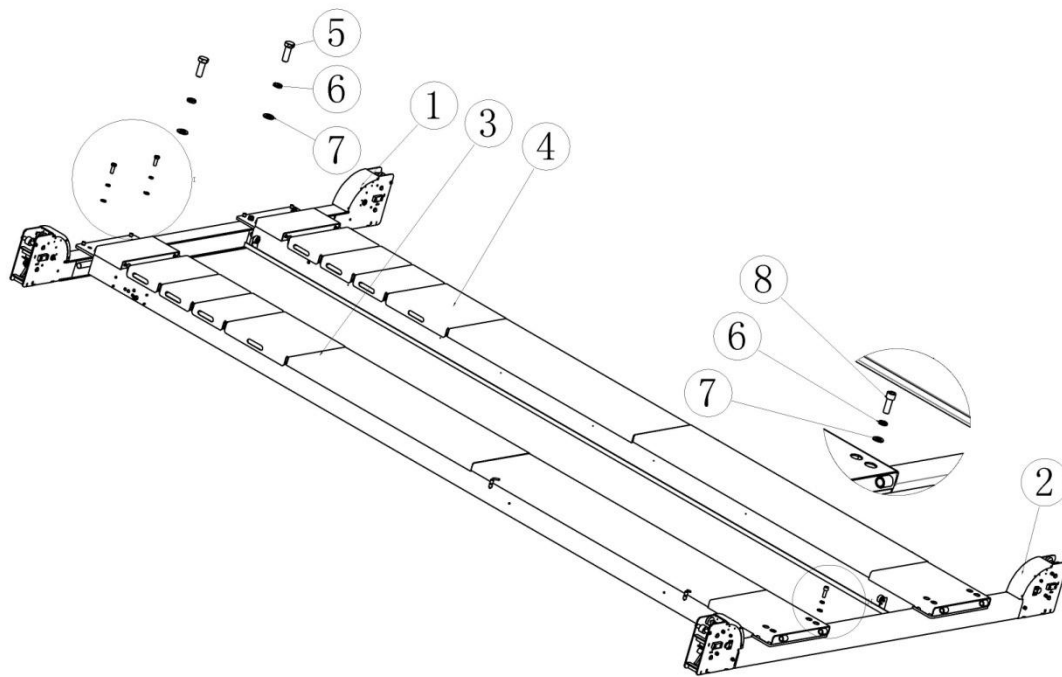
In the figure above, the hydraulic pipes use the pipe compression bracket and the upper clamping plate, pressed on the carriage by the hexagon socket screws and nuts. The small holes on both sides of the tubing are used as the passage holes for the electric control four-post trolley control wire. When the product leaves the factory, whether it is an electric control or a manual four-post lift, oil pipe has been combined with the oil pipe carriage, customers only need to install it on the carriage reinforcement of the auxiliary platform. The picture below is the combination of the carriage reinforcement and the auxiliary platform schematic diagram;



Before installing the carriage reinforcement, you need to install the tubing carriage on the carriage reinforcement, and then fix the ends of the carriage reinforcement with M8 nuts and $\phi 8$ flat pads to the welded bracket on the auxiliary platform, and tighten and straighten the carriage reinforcement. ; The following figure is a schematic diagram of the installation of the oil pipe carriage on the reinforcement of the carriage;



3.5 The diagram after the platform is connected to the beam is shown below: :

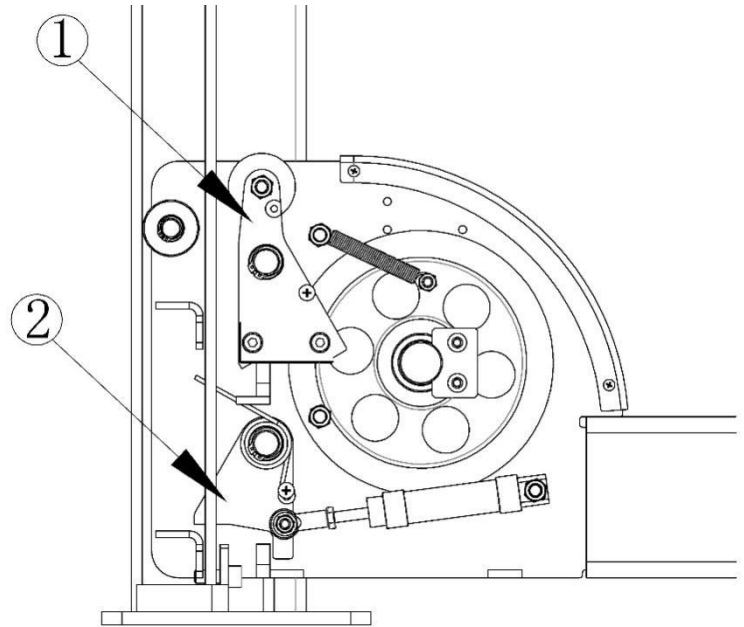
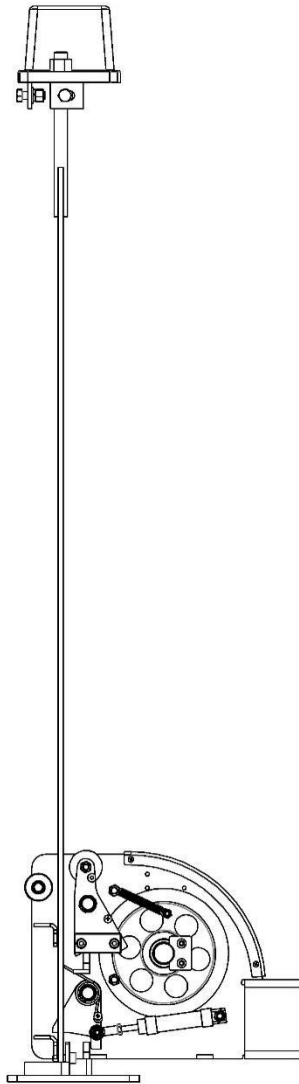


NO.	ITEM	SPEC	QTY
1	Main beam		1
2	Auxiliary beam		1
3	Main platform		1
4	Auxiliary platform		1
5	Outer hexagon bolt	M16*45	8
6	Spring pad	φ16	16
7	Flat pad	φ16	16
8	Socket head cap screws	M16*45	8

Note that after the platform and the beam are connected by bolts, do not tighten them in advance. Tighten the bolts after connecting and adjusting with the post part later.

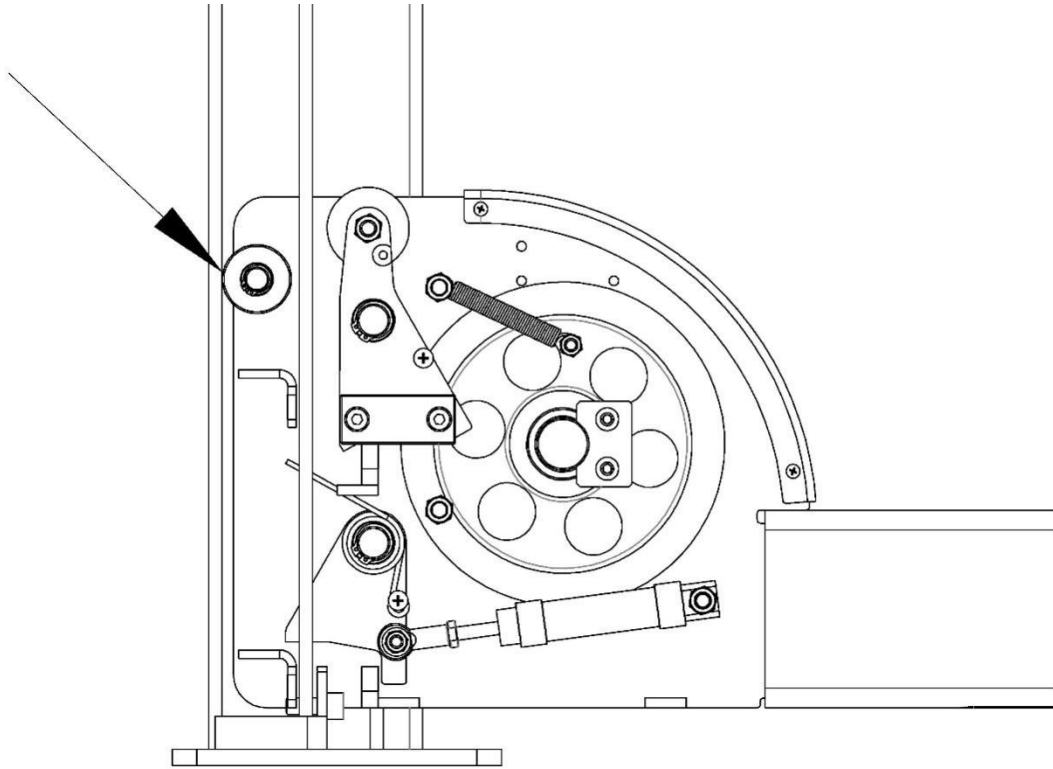
3.5 Packing disassembly and installation of the post:

Remove the top cover of the column, take out the mechanical lock bar, place the four columns to the corresponding positions of the beam, and insert the mechanical lock bar between the mechanical lock and the safety lock of the beam, as shown in the figure below.:

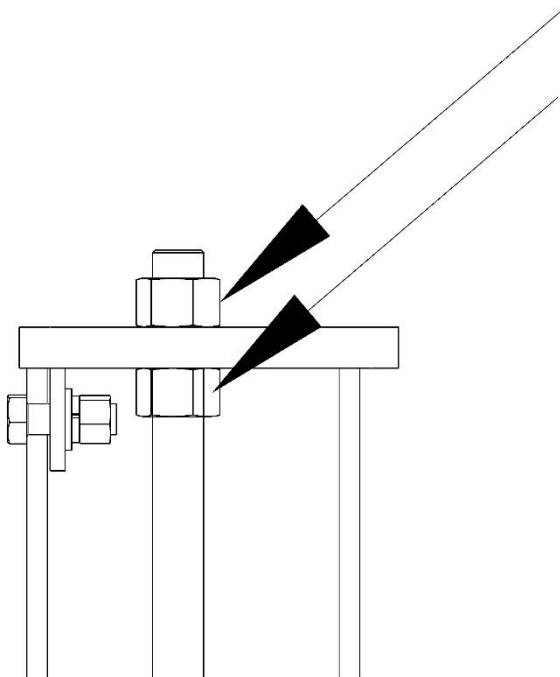


Move the post into the end of the beam so that the nylon roller at the end of the beam touches the inside of the post. See below::

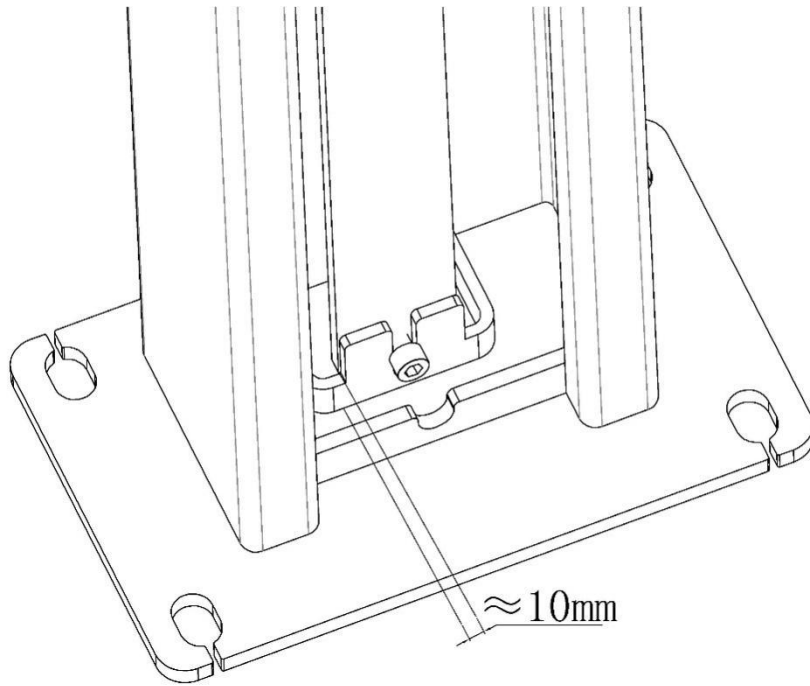
NO.	Item	Spec	QT Y
1	Safety lock		4
2	Mechanical lock		4



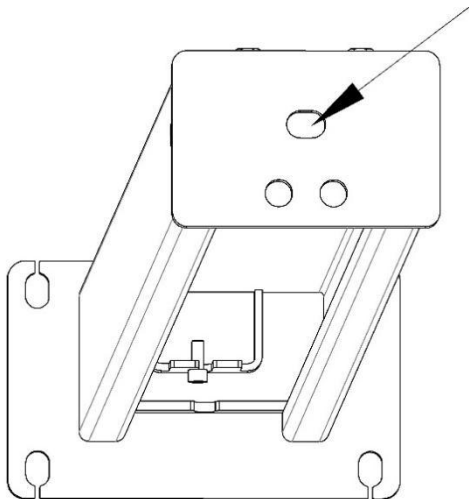
The arrow in the figure shows the nylon limit roller.
Install the column top cover. Note that the M20 nuts are installed on both sides of the top cover, not on one side. After the whole assembly, turn the nut on the lower part of the top cover, adjusting the level of the platform loading on the lock. As shown below;



Adjust the height between the lower end of the mechanical lock bar and the base of the column by about 10mm, and fix it with M10 * 25 hex screws to prevent it from swinging left and right. Be careful not to tighten the hex screws. Adjust the mechanical lock bar to be parallel to the column. See below:



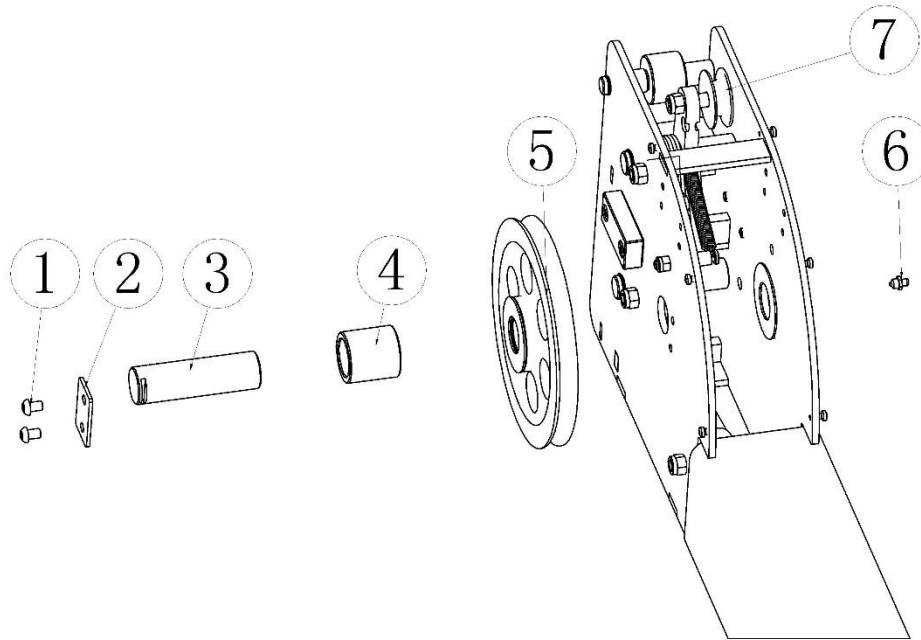
The hole for installing the mechanical lock bar on the column top cover is a long round hole to ensure that the lock bar has a certain amount of adjustment in the lateral direction, so that the mechanical lock bar is maintained at the middle position in the end of the beam. After adjusting the position, tighten the nut. it may be necessary to adjust the height of the mechanical lock bar to ensure that the height error of the horizontal plane of the platform is within 5mm after the lock is locked, and then tighten the nut.



3.6 Connection of steel rope and column;

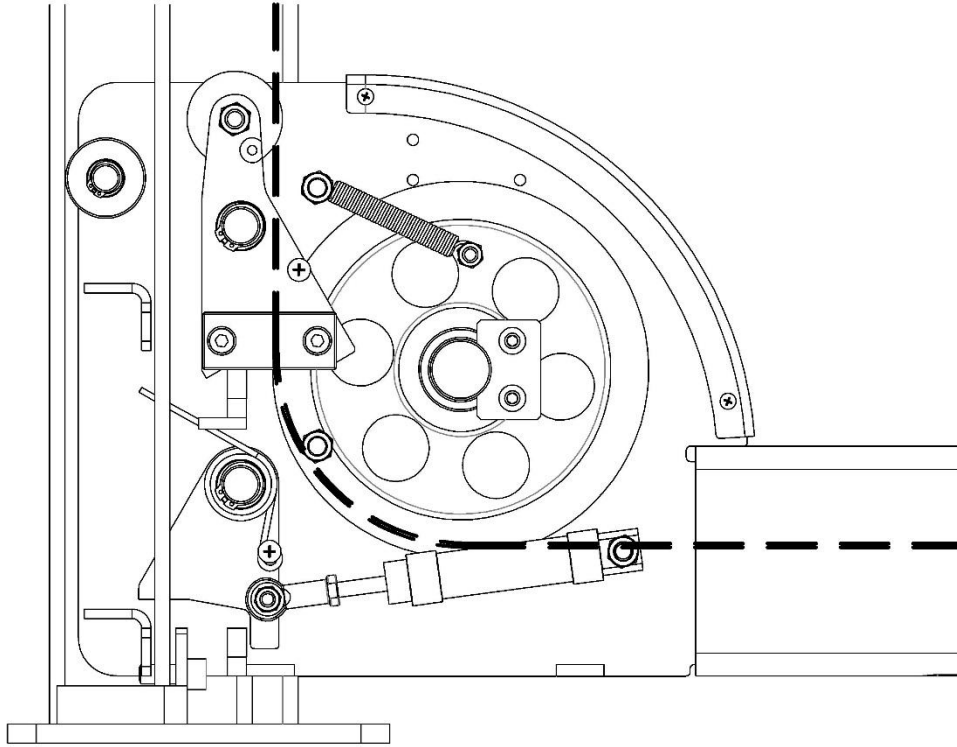
Firstly remove the parts with the numbers 1,2,3,4,5 in the figure below, pass the steel rope through the position shown on the end of the beam, and then reinstall the parts with the numbers 1,2,3,4,5; Make sure that the steel rope is placed in the pulley groove of the beam with the serial number 5 and the nylon pulley with the security lock with the serial number 7. Pass the threaded end of the steel rope through the hole

in the top cover of the column, and screw in two nuts (supplied with the rope); Note that there are two rope installation holes on the column top cover. According to the position of the large pulley installed on the beam, pass the rope through the corresponding holes.

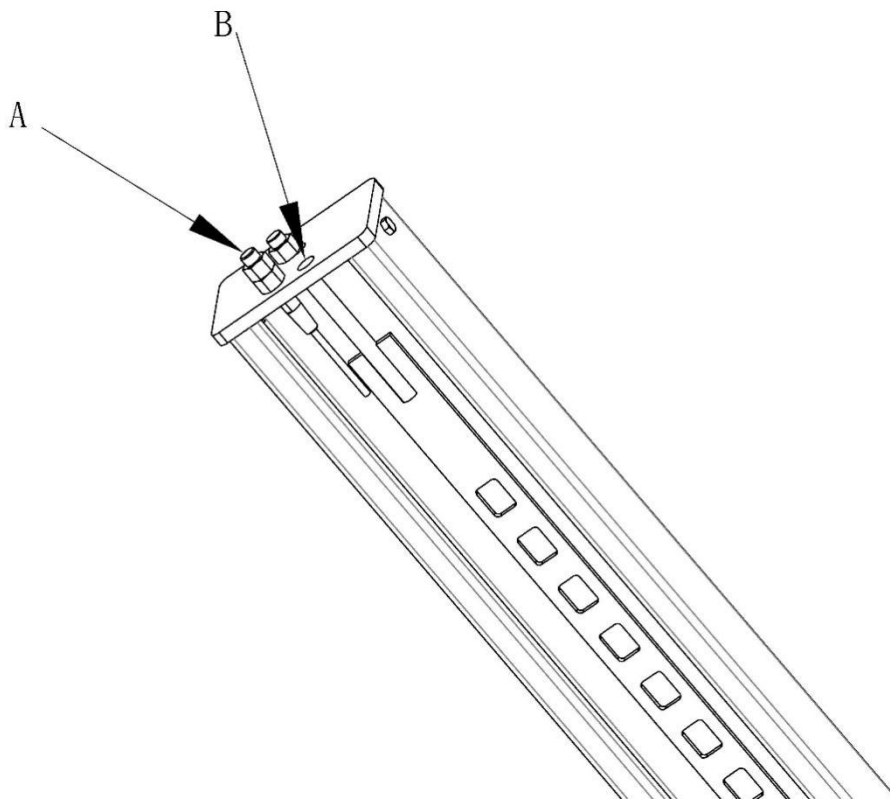


NO.	ITEM	SPEC	QTY
1	Socket head cap screws	M8*12	8
2	Pulley shaft fixing plate		4
3	Beam pulley shaft		4
4	Beam pulley spacer		4
5	Beam large pulley		4
6	Oil Cup	M8	4
7	Safety lock nylon small pulley		4

The schematic diagram of the rope after installation is shown by the dotted line in the figure below:



The schematic diagram of the steel rope installed on the column top cover is as follows:

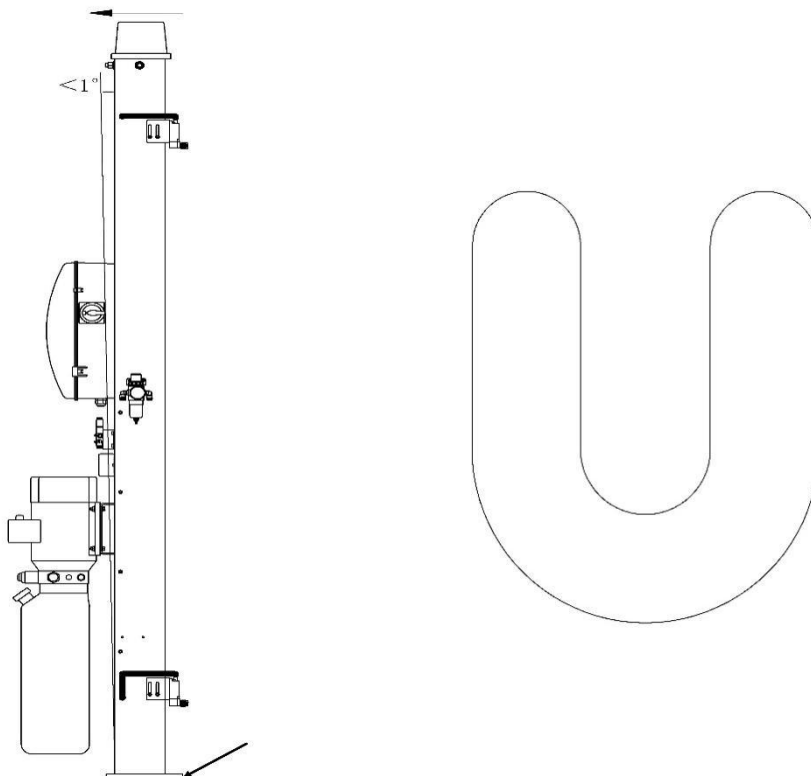


Note: The two nuts of the steel rope must be installed above the column top cover, as shown in Figure A above. There are two holes for installing the steel rope on the

column top cover, and the steel rope needs to be selected to pass through the corresponding hole.

3.7 Vertical adjustment of column required:

Use a spirit level to adjust the verticality of the column. The angle of the column should be less than 1° (in the direction indicated by the arrow in the figure below) so that the lift can offset the elastic deformation that occurs when the load is lifted. 16 pieces of M16 * 120 expansion bolts are fixed, and the tightening torque of the nuts of the expansion bolts is about 80N.M. If the level of the ground causes the vertical requirements of the column to be unsatisfactory, you need to use a U-shaped adjustment pad to insert the expansion bolt at the base of the column for adjustment (the position indicated by the arrow at the bottom of the column in the figure below). See the figure below:



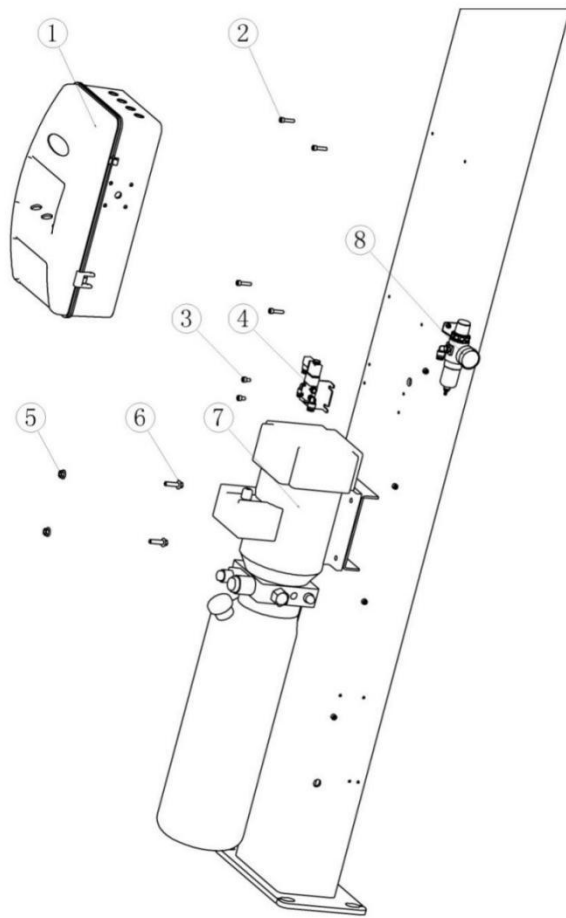
U shape Pad

Install the other three columns in the same way; so far, the installation of the lift body is basically completed.

IV、 Electrical and oil pipe installation instructions

1 Electrical parts connection:

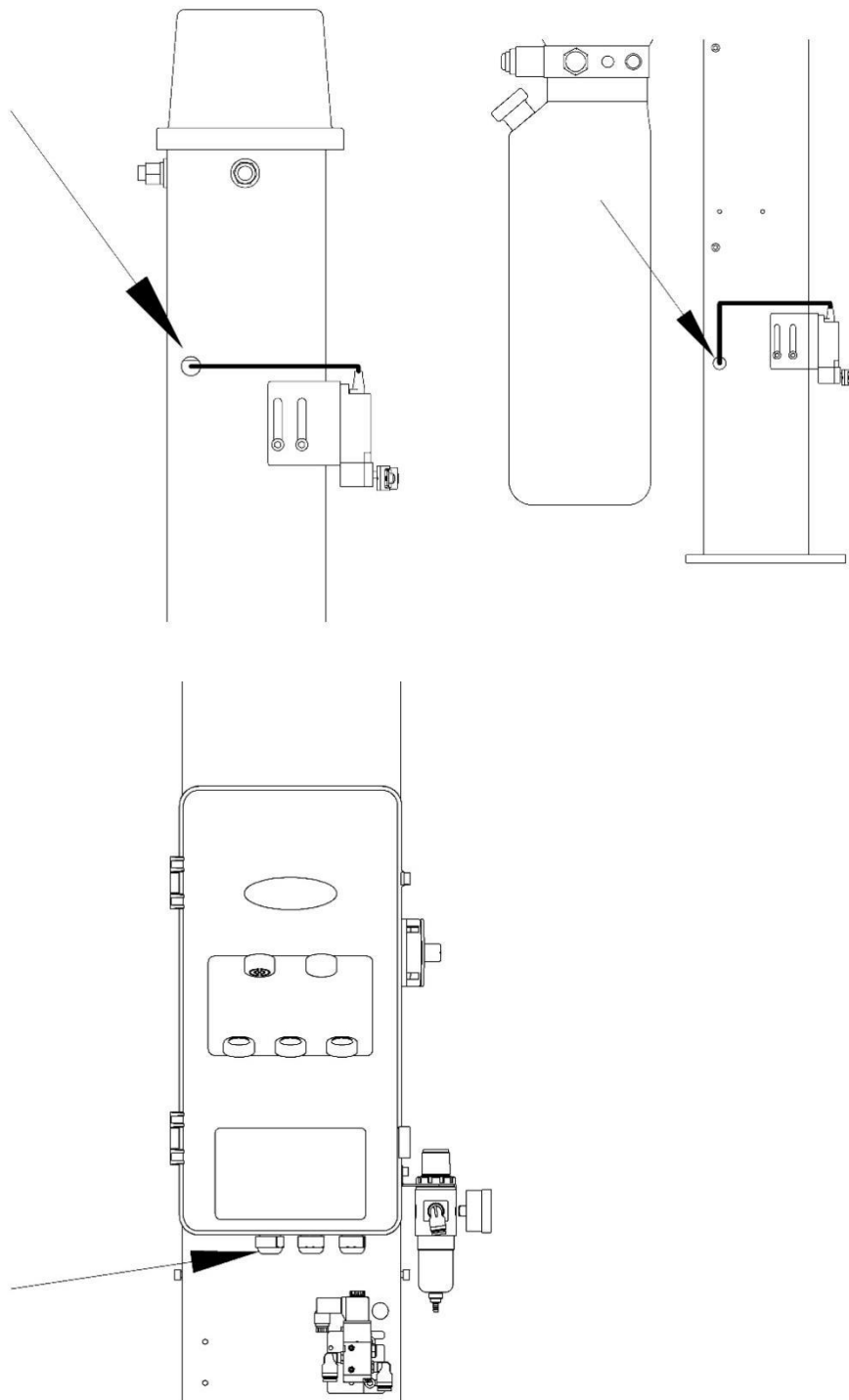
1.1 Firstly install the electric control box on the main column and connect it with 4 pieces of M6*25 hex screws; Pneumatic unlocking solenoid valve is fixed on the column with 2 pieces of M6*10 hexagon socket screws; the pump station is installed on the pump station base with 4 pieces of M8*30 flange bolts and screws nut.As illustrated in below picture:



No.	Name	Spec.	Qty.
1	Electric control box	M8*12	1
2	Socket head cap screws	M6*25	4
3	Socket head cap screws	M6*10	2
4	Pneumatic release solenoid valve		1
5	Flange nut	M8	4
6	Flange face hex head bolts	M8*30	4
7	Pump station		1
8	Air source processing system	Optional	1

1.2 Installation of upper and lower limit switches: (Note:Lower limit switch is optional)

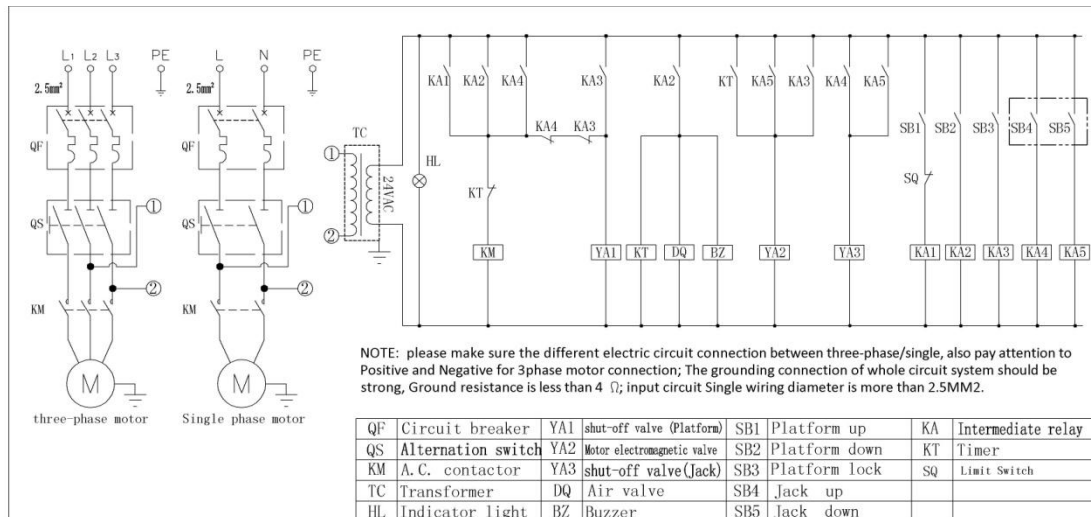
Pass the wires of limit switches into corresponding holes of main column ,and pass through the wires protection slot,collect them into the holes under the electric control box,and then pull them out.Connect the corresponding terminal according to the wiring diagram.After fixing limit switches to the bracket with 2 pieces of M5 * 8 hexagon socket screws, then fix the limit switch bracket to the main column with M6 * 8 hexagon socket screws.Then tighten the screws after adjusting the positions of the limit switch bracket in the testing. The specific installation method is shown in the figure below:



The arrow refers in the left figure is tensioner. After all the wires pass through the tensioner, tighten the nut to prevent the wiring in the electric control box from loosening and falling off.

2 Electrical wiring instructions: the schematic and wiring diagram is only applicable to the electrical four post lift.

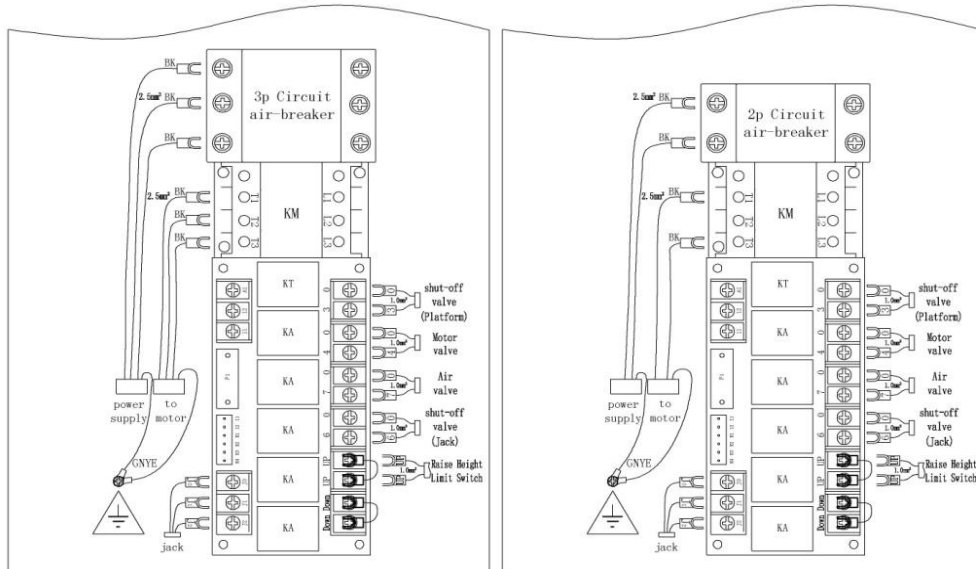
2.1 Electrical schematic:



Connect wire instruction for electric control four post lift

3 Phase drawing

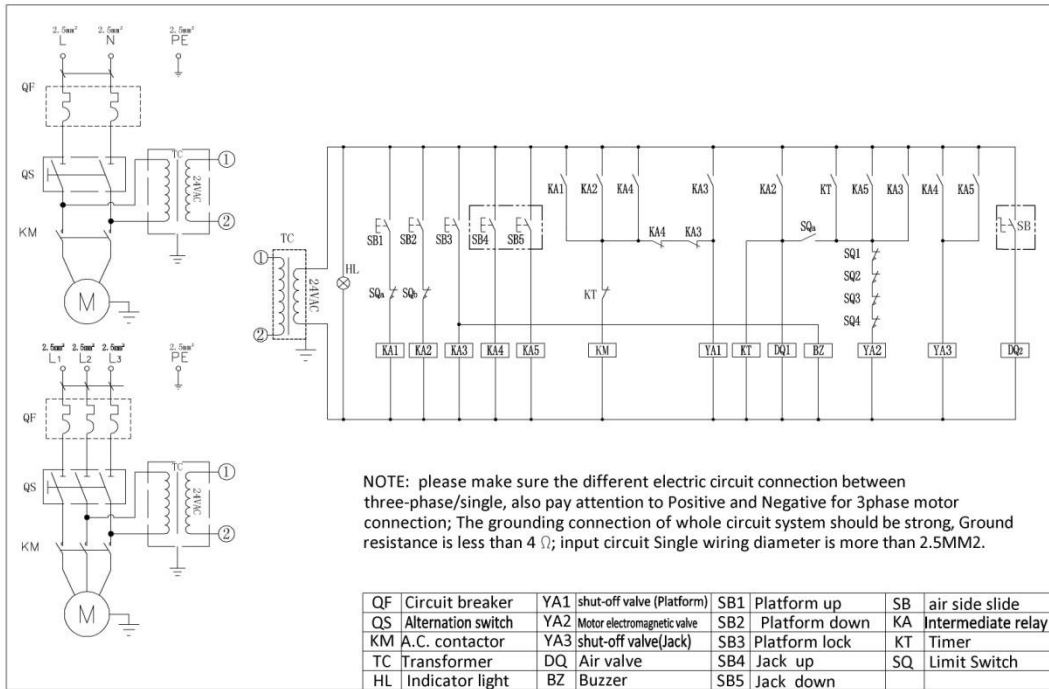
1 Phase drawing



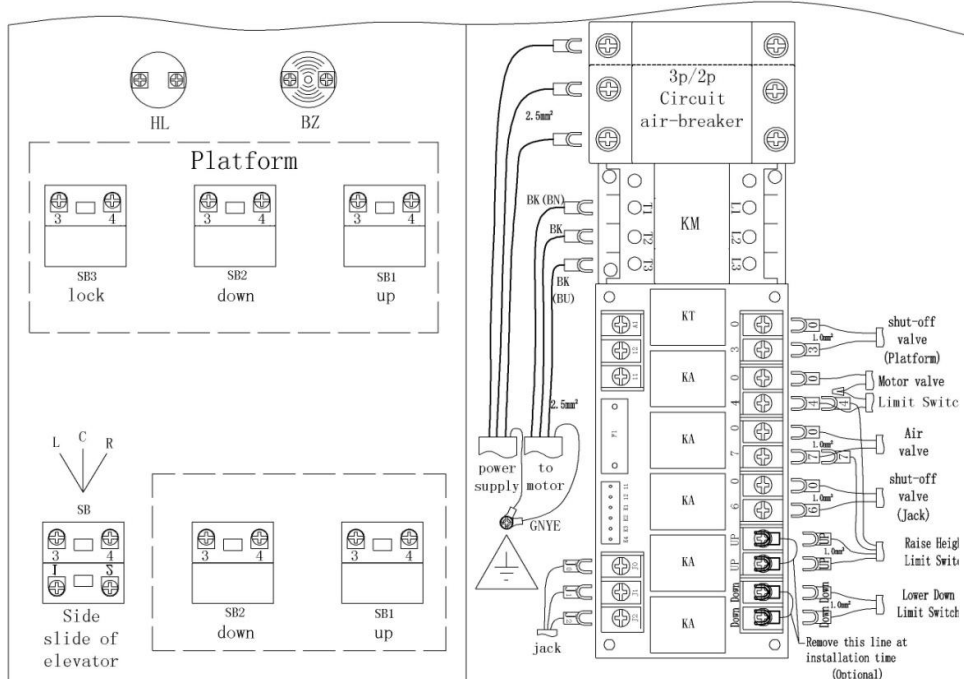
Remark :

1. Before install please confirm the voltage , phase and other parameters on the nameplate, connect the power supply by profession technician , make sure the motor direction rotation is correct .
2. Make sure each terminal fix firmied , to avoid not solid and damage equipment .
3. Ground wire should be fix well ;if the equipment use out door, should install anti thunder ground wire to avoid accident.
4. Ground resistance should less than 4Ω.

The electrical schematic and wiring diagram of standard electrical four post lift as above figures.



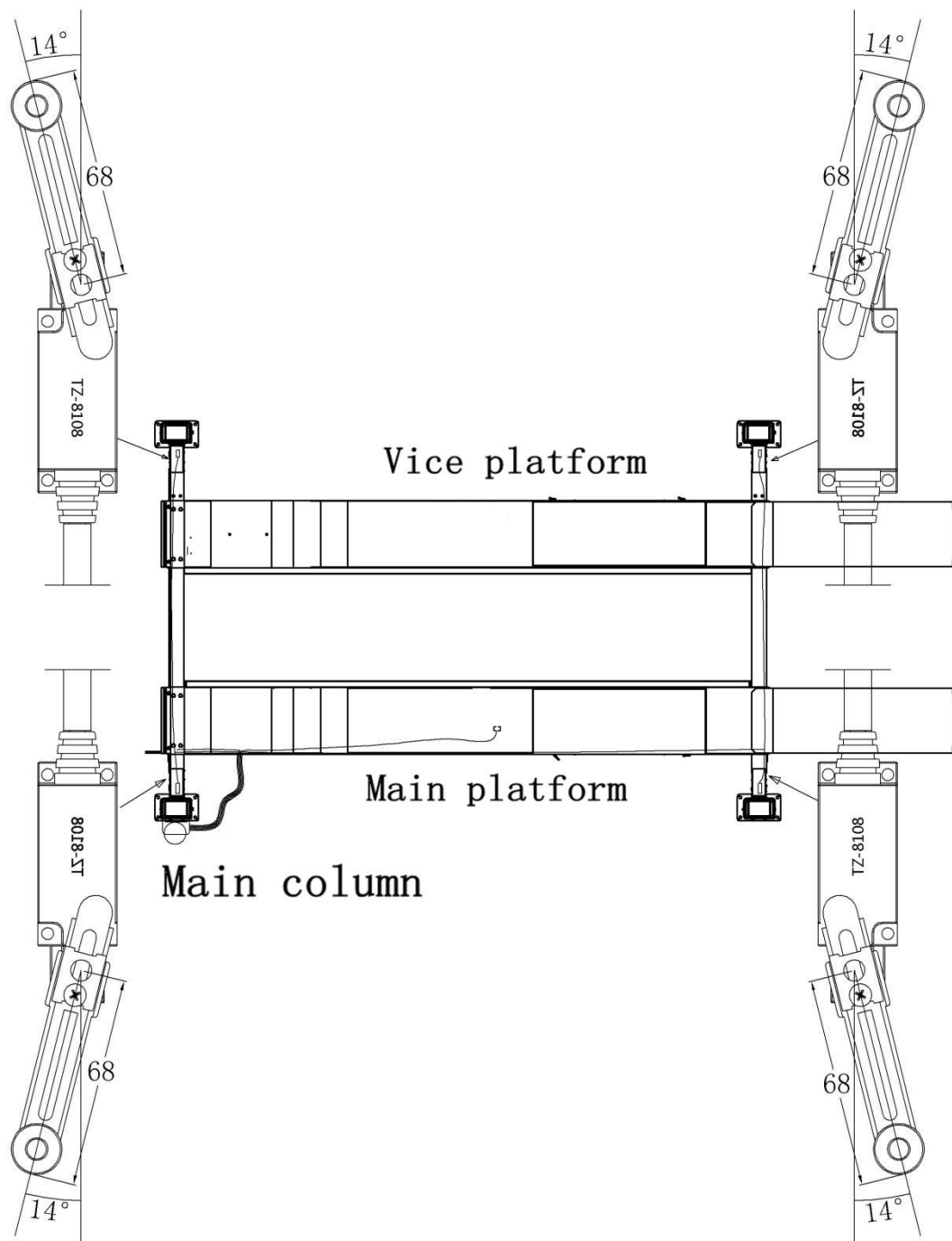
Connect wire instruction for electric control four post lift



- Remark :**
1. Before install please confirm the voltage, phase and other parameters on the nameplate, connect the power supply by profession technician, make sure the motor direction rotation is correct .
 2. Make sure each terminal fix firm , to avoid not solid and damage equipment .
 3. Ground wire should be fix well ;if the equipment use out door, should install anti thunder ground wire to avoid accident.
 4. Ground resistance should less than 4Ω.

The electrical schematic and wiring diagrams of adding the upper and lower limits and the wire rope anti-break limit as above figures.

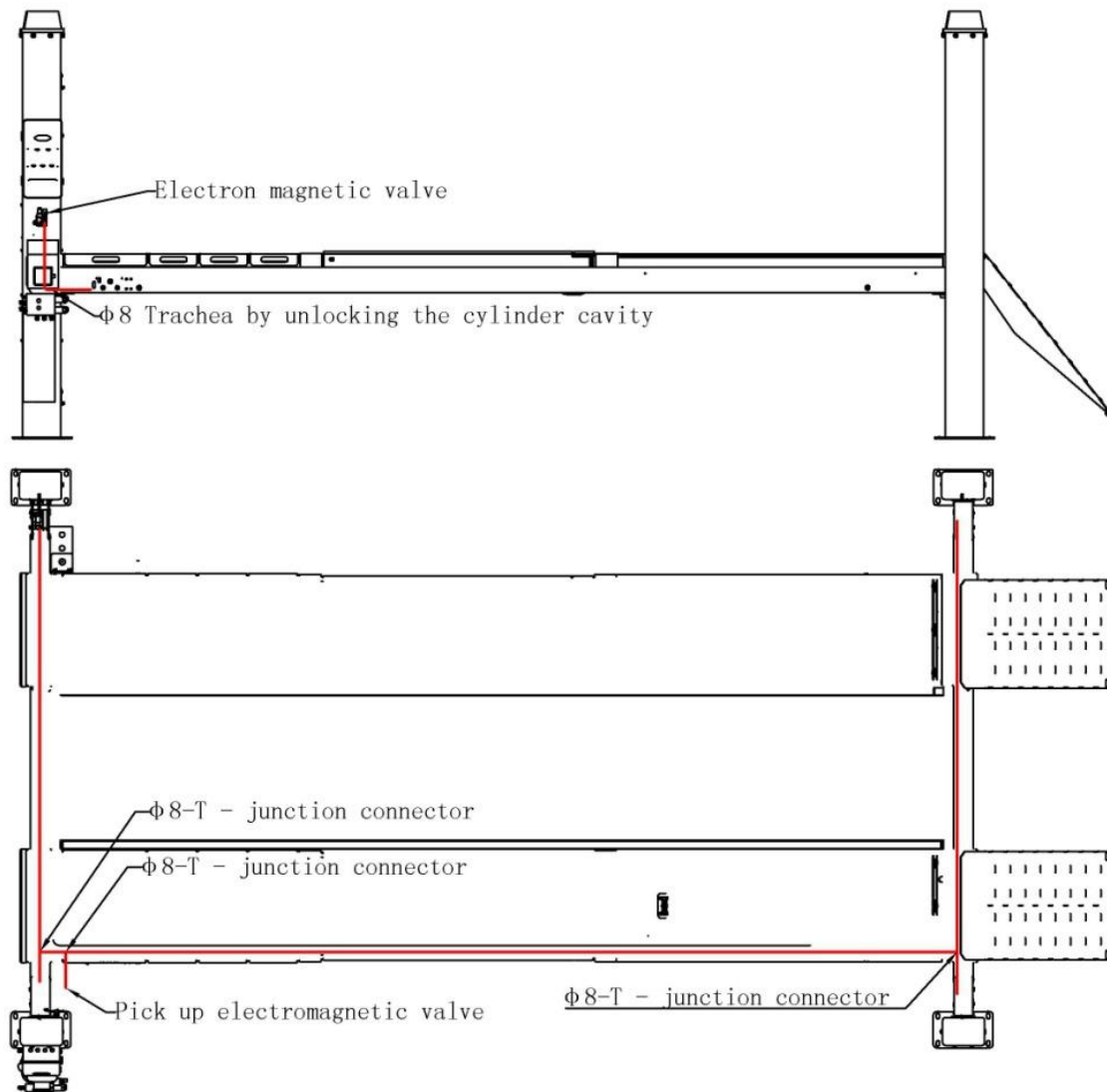
2.2 Steel rope anti-break limit switch adjustment diagram:



The angle between the swing lever of the limit switch and the center line of the switch is about 14 °, and the extended length of the swing lever is about 68 mm; the above

dimensions have been adjusted well before ex-factory; due to the manufacturing and installation errors , users may need to minute adjustment on-site.

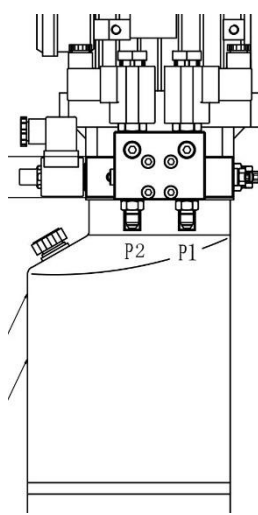
3. Schematic diagram of pneumatic unlocking tube arrangement:



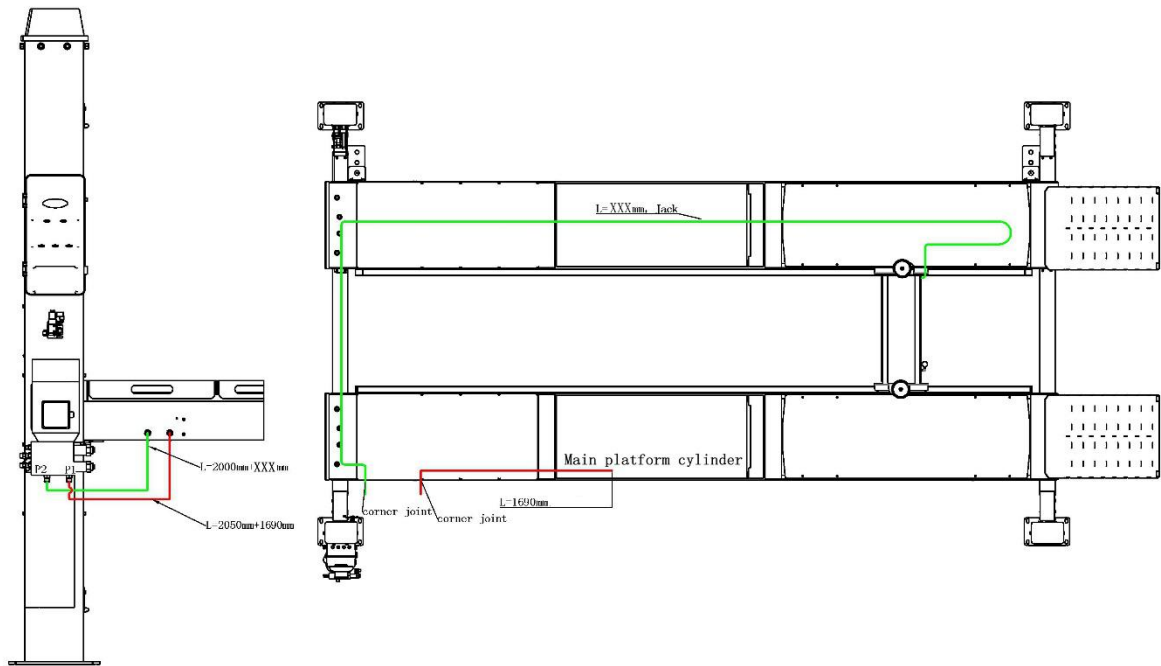
Arrange the air tube of the corresponding length according to the schematic diagram for installation. The air tube in the cylinder, joint and crossbeam have been installed well in the factory, so you only need to intercept the air tube of the required length inside the platform, and then insert it into the quick joint for connection.

4.Oil tube connection :

First connect the right angle of the main platform (already installed on the main platform) to the P1 port of the pumping station (the connection between the oil cylinder and the right angle has been completed at the factory), and ensure that the joint is tightened. Be careful not to twist the tubing when tightening the joint . Since the trolley will be installed later so not connect the oil tube at the moment.



In the left figure,the P1 interface is connected to the oil tube of the main platform;The P2 interface is connected to the tube of the trolley.



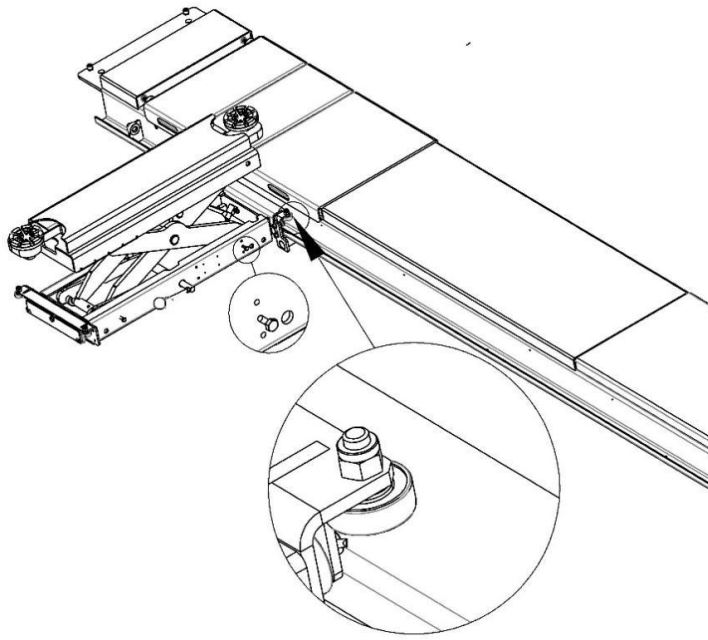
The above figure is the schematic diagram of the oil tube connection. The XXX represents the oil tube length of the trolley is 7100mm for 4tons four post lift such as SXJS4019/SXJS4019B

Main platform connect with motor P1, oil pipe length 2000mm, connect with big cylinder 1600mm oil pipe .

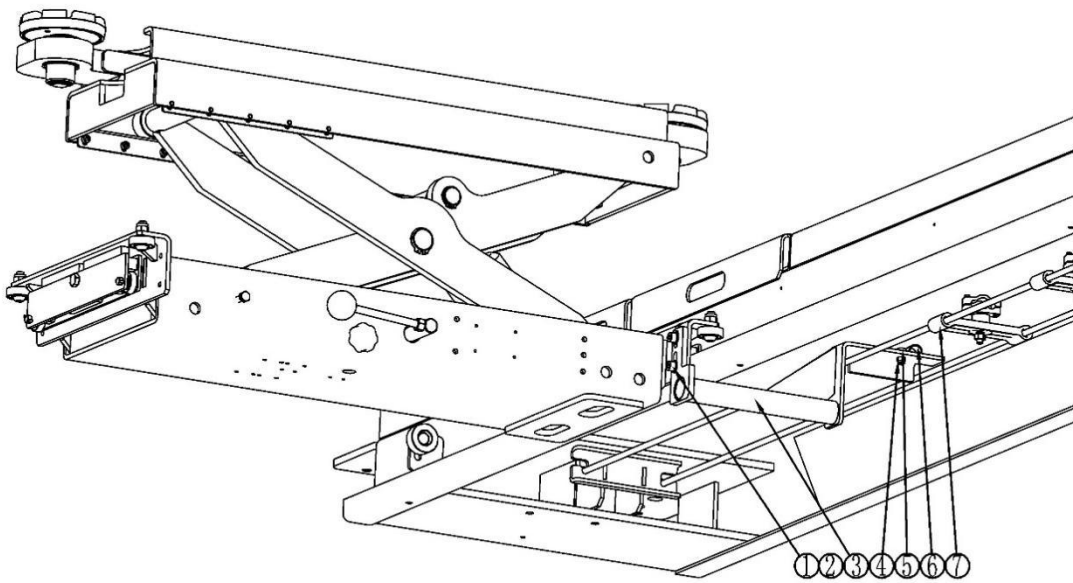
Jacking beam connect with motor P2, has 2 oil pipe : 2000mm oil pipe connect with another right angle connector of platform , connect with 7100mm (SXJS4019/SXJS4019B) oil pipe through the transform bracket on the jacking beam , then connect with the right angle of cylinder .

V、 Jacking Beam installation

1、 After adjust the pulling head of jacking beam ,put the jacking beam on the slider rail of the platform ,adjust the pulling head slightly ,make sure the pulling head limit bearings have 1mm-2mm gap(Bearing in the position indicated by the arrow in the figure below),tighten the puller fixing bolts on the lift (the bolts shown enlarged in the figure below). As shown below:



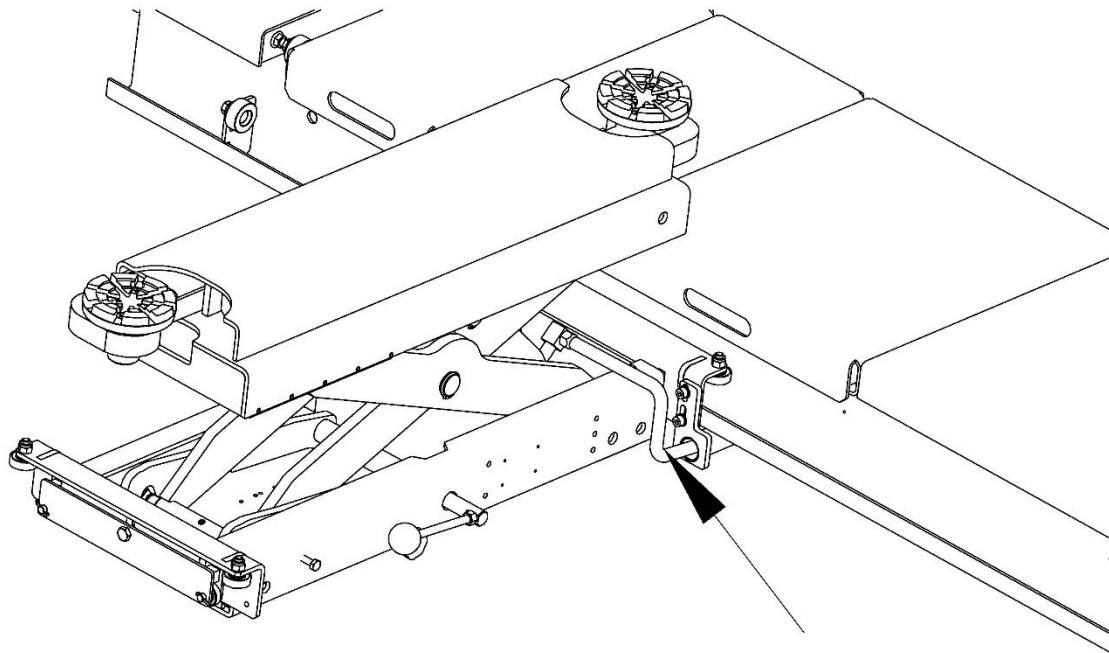
2.Connect the oil pipe conversion bracket, as shown below:



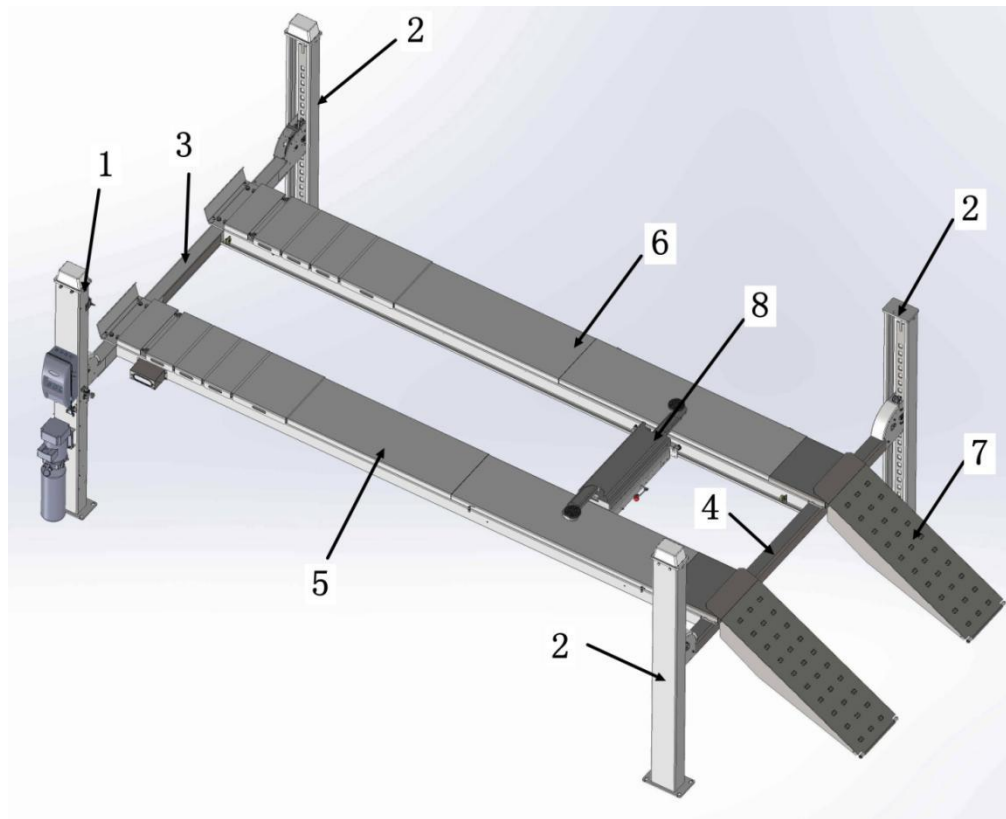
1		Inner hexagon bolt	M8×16	2	
2		Flat washer	φ8	2	
3		Oil pipe conversion bracket		1	
4		Hexagon lock screw	M6	1	
5		Inner hexagon bolt	M6×16	1	
6		Pipe clip		1	
7		Slider combination		8	5T slider combination 9 pcs

In the figure above, the pipe conversion bracket with the number 3 is fixed to the jacking beam puller with the M8 × 16 hexagon socket screws with the number 1 and the φ8 flat washer with the number 2.

The connecting plate of the tubing conversion bracket has a long slot. adjust the distance between the round pipe part of the tubing conversion bracket and the bottom of the guide rail groove of the auxiliary platform of the lift by about 5mm, and then tighten the screws; pass the tubing installed on the carriage combination No. 7 through the tubing conversion bracket No. 3 round tube, adjust the combination of the carriage closest to the oil tube conversion bracket to ensure that the distance between the two components is about 100mm-150mm, and then use the M6 hexagon lock nut with number 4 and the M6 × 16 with number 5. Hexagon screws and single pipe clamp with serial number 6 fix the oil pipe to the upper part of the oil pipe conversion bracket; finally, connect and tighten the oil pipe joint with the right-angle connector installed on the jacking beam cylinder. See the position indicated by the arrow in the figure below:



At this point, the machine is all installed. (See the names of the parts below



NO.	Name	Specification	Qty
1	Main post		1
2	Vice post		3
3	Beam		1
4	Beam		1
5	Main platform		1
6	Vice platform		1
7	Ramp		2
8	Jacking beam		1

VI. Adjustment

1. After confirm that the circuit, air and oil connections are correct, inject hydraulic oil in the motor, and the oil volume should not be less than 10L. After connect with air and power supply, press up button, pay attention to the direction of the motor. Do not press the up button for a long time during the test. If the motor is reversed and press

the up button time too long, the gear pump will be damaged; Observe whether there are any abnormalities such as blockage and abnormal noise or odor in each part of the lift.

2. After completing the above simple inspection, raise the lift to a height of about 1 meter, press the lock button or pressure relief handle to make the mechanical lock fully work, and check whether the mechanical lock of each column can work safely and reliably; measure the main platform and vice platform height, if the height error is large, adjust the mechanical lock bar nut of the corresponding column to raise or lower the corresponding position of the platform, and then tighten the screw.

3. Press the up button of the lift to disengage the mechanical lock and measure the height of the main and vice platforms. If the height error is large, adjust the steel rope nut of the corresponding column to raise or lower the corresponding position of the platform and then tighten the screw.

4. Press the up button lifting to top position, inspect if the top limit switch working, and adjust slight, Make the cylinder stroke less than the maximum stroke, and reserve an empty stroke of approximately 10mm for the cylinder to prevent the cylinder from recovering from excessive oil pressure of damage on seal, gear pump and oil pipe.

5. Press the down button of the lift, inspect if the time on time relay is suitable, time better 2s-3s, then check if the air cylinder can unlock the mechanical lock, if the down limit switch can working when the platform lift to about 200mm from ground, the buzzer sound (down limit switch is optional part)

6. Press the up or down button of the jacking beam to check the lifting situation, if the control circuit is reliable, etc. manual jacking beam needs to operate the manual rotary valve on the pump station for testing.

7. After completing the above work, can do the loading test. After loading, first lift a few times to check whether there are oil leaks and air leaks at each oil pipe joint and gas pipe joint; check whether the expansion bolts are tightened and loose; check The cooperation between the nylon limit roller at the end of the beam and the column when it is raised to the highest position, can be judged from the indentation on the inner surface of the column.

8. Motor cover is standard spare parts of electric four post lift, manual model without this configuration, after checking there is no problem, can install the motor cover on the main column with M6*8 inner hexagon bolt.

9. After the above installation, commissioning, and testing, can use it without abnormality.

OPERATION INSTRUCTIONS

Contents

Chapter 1	General.....	6-8
1.1	Summary.....	6
1.2	Technical performance parameters and overall dimensions drawing.....	6-7
1.3	Operating principle.....	7
1.4	Structure performance.....	8
Chapter 2	Safety Instructions.....	9-13
2.1	Safety rules.....	9
2.2	Warning mark.....	9-11
2.3	Machine nameplate.....	11
2.4	Safety design introduction.....	11-13
Chapter 3	Installation.....	13-20
3.1	Installation conditions and environment.....	13
3.2	Loading and unloading, transportation and storage.....	13
3.3	Handling safety events and method.....	13
3.4	Select installation location.....	13
3.5	Installation groundwork drawing.....	14
3.6	Installation and commissioning.....	14-18
3.7	Explosive view of upright post components.....	19
3.8	Explosive view of beam components.....	19
3.9	Exploded drawing of platform components.....	20
Chapter 4	Operation.....	21-23
4.1	Preparation before commissioning.....	21

4.2 Precautions.....	21
4.3 Work panel instructions.....	22
4.4 Operating instruction of four-wheel alignment slip plate/turntable.....	23
4.5 Introduction of four-post alignment principle.....	23
Chapter 5 Maintenance.....	23-25
5.1 Maintenance.....	23-24
5.2 Common failure and troubleshooting.....	24
5.3 List of wearing parts	25
Chapter 6 Electrical Safety.....	25-27
6.1 Electrical control system safety rules.....	25
6.2 Circuit diagram.....	25-26
6.3 List of electrical components.....	26-27
Chapter 7 Pneumatic 、Hydraulic System.....	27-28
7.1 Hydraulic pressure principle drawing.....	28







Annexes:

1. Certificate of Compliance
2. Inspection Report
3. Packing List
4. Product Warranty Card
5. Declaration



Special Notes

Notes

-  For any damage occurring to the equipment during loading and transportation, the buyer should lodge a claim against the carrier.
-  During design and manufacture, we have taken full consideration of the safety performance of the lift. Only with sufficient training and skillful operation can the safety of the product be assured.
-  The parameters on the nameplate of the motor should be met during installation and the power should be connected by qualified electrician.
-  Please read the manual carefully before operation. It is not allowed use and repair the equipment without reading the manual.
-  The company has the right to make partial improvement on structure of the product and has no obligation to upgrade the products sold before.
-  Any damage on equipment due to lifting weight exceeding rated load (mainframe of 5000kg) should be at your own risk.

Chapter 1 General

1.1 Summary

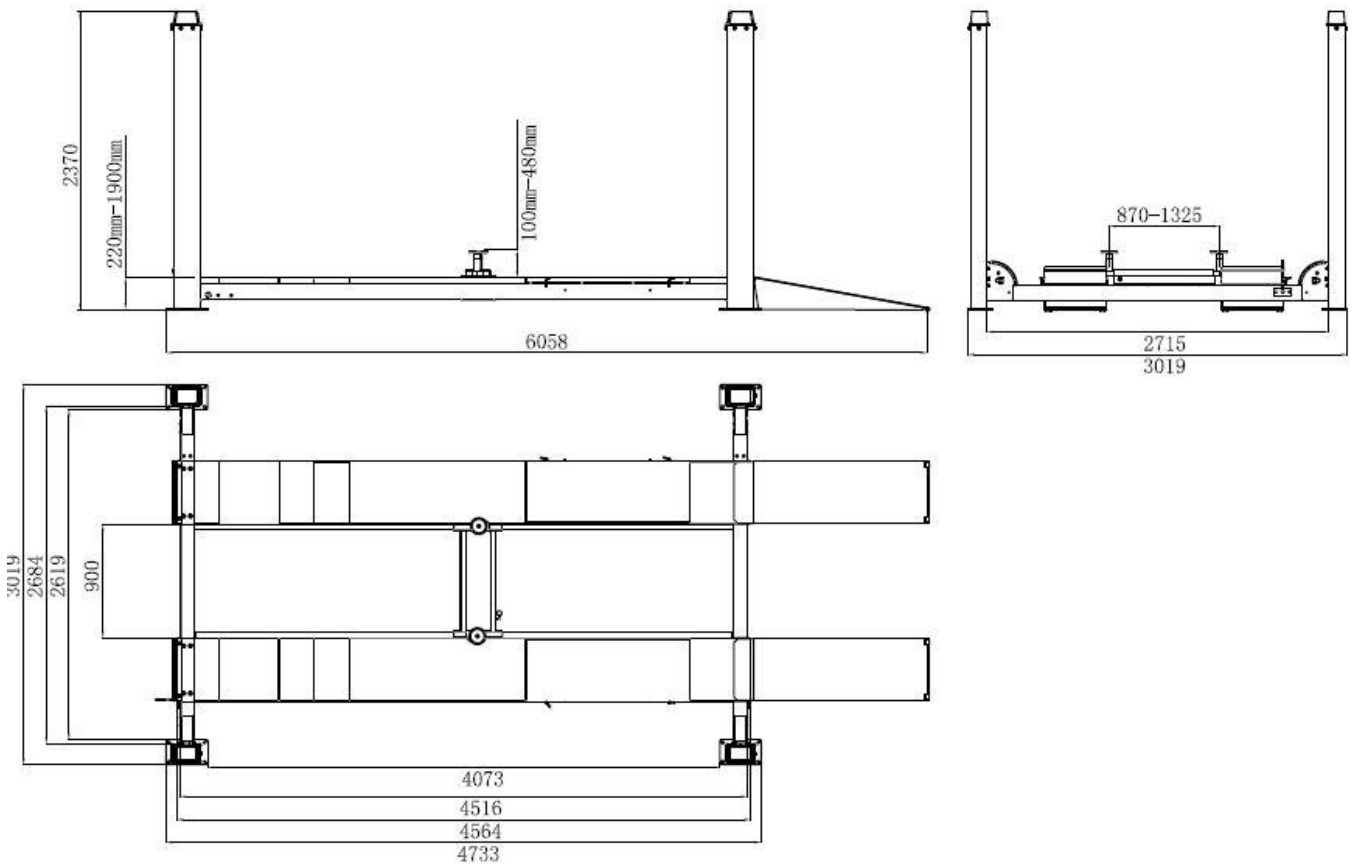
Performance and features

- A. Integrating with functions of inspection, maintenance and four-wheel alignment, beautiful in appearance.
- B. Hydraulic cylinder drive, steel rope transmission, quiet working environment.
- C. The mechanical safety lock can be locked at proper height as required for operation, which is safe and reliable.
- D. The levelness of the lifting platform at the locked position can be adjusted to meet the requirements of precise four-wheel alignment.
- E. The common model is special for inspection and maintenance.
- F. The model for four-wheel alignment is added with two sets of slip plates and two sets of mechanical turntables.

1.2 Technical performance parameters and overall dimensions drawing (Refer to Fig. 1)

No.	Parameters	Unit	Parameter values
1	Lifting height	mm	1900
2	Lifting capacity	kg	4000
3	Lifting time	s	120
4	N.W	kg	1200
5	Dimension	mm	6058*3019*2370
6	Power		380V, 50Hz
7	Motor power	kw	2.2
8	System pressure	Mpa	18

1.2.1 Overall dimensions



1.3 Operating principle

The four-post lift is a lift which is of mechanical structure, utilizes hydraulic pressure to generate power, and mechanically controls to lock and pneumatically loses executive components.

1.4 Structure performance

1.4.1 Structure performance

The lift is a common four-post hydraulic type. The service conditions of most users are taken into consideration in structure design. Users can install the lift at a proper place according to its own situation. (Refer to the foundation picture and relevant notes for installation place and space) The hydraulic power unit of the lift is compact in structure, low in failure rate and convenient for maintenance. To improve the safety of the product, additional design is made to ensure the safety of product, such as steel rope break-proof safety hook, cylinder explosion-proof valve, upper limit, etc.

1.4.2 Power unit

The hydraulic system is of hydraulic power unit and it has the function of manually adjusting pressure. By rotating the adjusting screw of the overflow valve, the system pressure can be adjusted; it also has the function of manually adjusting lowering speed. By rotating the adjusting screw of check valve, the lowering speed of platform and cart can be adjusted.

Notice: The system pressure and lowering speed has been adjusted before ex-work and users are not allowed to adjust at will. After starting the motor, the cylinder acts to realize lifting. After the motor stops, the airproof function of one-way valve and pressure relief valve can keep the cylinder at the original height from dropping down. Press the pressure relief valve handle to realize the dropping function.

1.4.3 Control system

Switch on the power, press the up button and release it after reaching the required height, then the equipment can be stopped. Press the down button and start dropping down. Meanwhile, the lock is open. Release the down button and then the equipment can be stopped. Press the lock button and the equipment can be locked.



When it reaches the working height, lock the lift under the unlocking circumstance. In this way, the platform can be locked by the safety lock effectively to ensure work safety and prevent the platform from dropping down suddenly. The locking procedure must be done during work!

Frequently check the working condition of the lock. If it fails to lock the platform effectively, timely repair it (Refer to Common Failure and Troubleshooting) to ensure the effectiveness of the lock. It is not allowed to use the lift before maintenance.

Chapter 2 Safety Instructions

2.1 Safety rules



Please read and fully understand the entire contents of this manual prior to operation, such as instructions and rules. Negligence may cause severe accidents, electric shock or serious physical injury and property damage.

a. Know your machine

For personal safety, please read the manual carefully. Be familiar with the application and restriction of the machine as well as the potential hazard related to the machine.

b. Keep work area clean

The disordered area and load-bearing components may cause accidents.

c. Do not use it in dangerous environment

Do not use the machine in wet or rainy place or expose it in the rain. Keep the work area with good lighting condition.

d. Keep non-trained personnel away.

All visitors should keep safe distance in the work area.

e. Do not operate the machine by force

Operate the machine to work at designed speed safely.

f. Dress properly

Please don't wear loose-fitting clothes, gloves, necklace, bracelet or jewelry which may be caught by moving part of the machine. Please wear non-slip shoes and a cap to cover long hair.







g. Do not maintain the machine under working situation.

The machine should be maintained periodically, such as lubrication, adjustment.


h. Before maintenance and replacing spare parts, cut off the power of the machine

i. Don't operate the machine without supervision.

2.2 Warning mark

<p>⚠ DANGER</p>	<p>⚠ DANGER</p>
	
<p>The rated load is 4000Kg, over load is forbidden.</p>	<p>Standing under the vehicle is forbidden when the lift is working.</p>
<p>⚠ DANGER</p>	<p>⚠ WARNING</p>
	
<p>Climbing on the lifting vehicle is forbidden, except using the specialized ladders.</p>	<p>There should be no barriers in the area of lifting.</p>
<p>⚠ WARNING</p>	<p>⚠ WARNING</p>
	
<p>Lift to be used by trained operators only.</p>	<p>Operating follow the manual strictly, especially troubleshooting.</p>

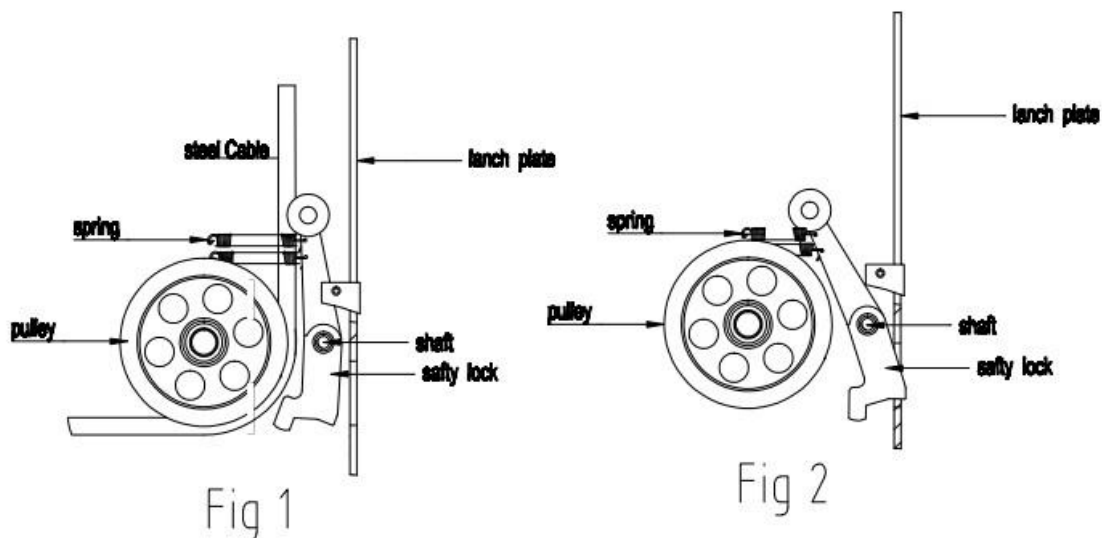
2.3 Machine Label

	
◇ Model: SXJS4019	◇ Date:
◇ Lifting height: 1900mm	◇ Serial No.: SZL
◇ Power: 380V/50Hz/2.2Kw	◇ Rated load: 4000Kg
◇ Full load current: 10A	◇ Machine dimensions: 6058*3019*2370
◇ Machine weight: 1200Kg	◇ Hydraulic pressure: 18MPa

2.4 Safe design introduction

2.4.1 Steel rope break-proof mechanism (see the picture)

Operating principle: Under the locking circumstance of the platform, the steel rope is loose and the safety hook is in reset condition under double spring tension; when the platform rises, the steel rope is pulled right. By the time, the safety hook is pulled tight and it exercises no lock function while dropping down. If the steel rope suddenly breaks, the safety hook will quickly reset under double spring tension and locks the platform. In this way, it can stop the platform from dropping down quickly, prevent over obliquity of single side which may cause vehicle falling and physical harm.



Cylinder explosion-proof valve (see the picture for structure)

Operating principle: The cylinder explosion-proof valve is placed at the oil inlet of the cylinder. It will be prevent the dangerous of the platform dropping to fast when the oil pice suddenly broken.



Chapter 3 Installation

3.1 Installation conditions and environment

- a. Altitude $\leq 1000\text{m}$
- b. Air humidity 30-90%
- c. Ambient temperature $-5-40^{\circ}\text{C}$
- d. Power 220V/380V, 50HZ/60HZ
- e. The maximum vertical space for installation should be not less than 4m and the distance between the lifts and obstacles such as wall should be not less than 2m.

3.2 Loading and unloading, transportation and storage

- a. During loading and unloading, the acting force should not be directly exercised on the machine.
- b. The transportation and storage temperature should be at $-25-55^{\circ}\text{C}$. If it is higher then 70°C , the transportation and storage should not be more than 24h.

3.3 Handling safety events and method

- a. To handle the lift, please select proper lifting device according to machine weight to prevent from

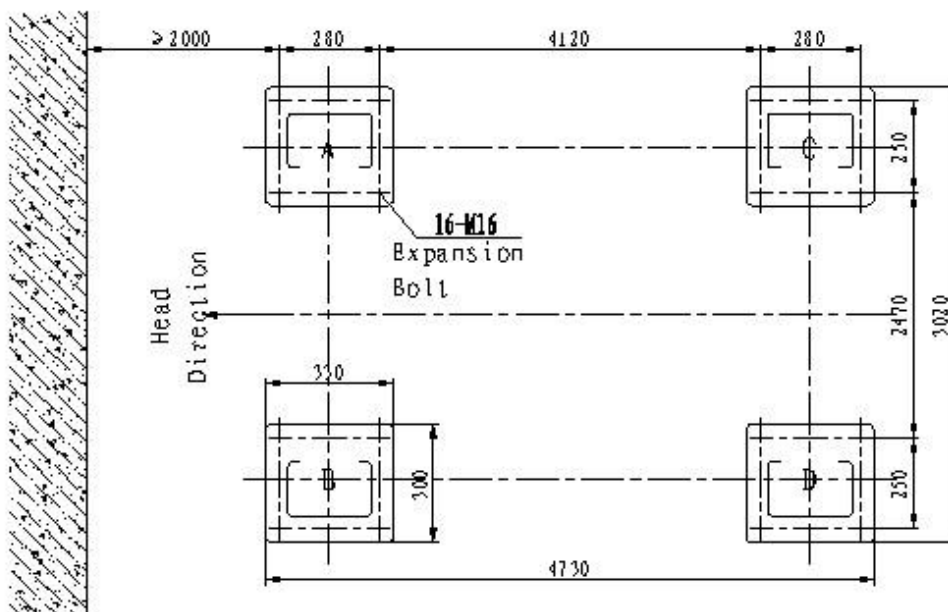
damaging personnel or equipment.

- b. During lifting, please find the center of gravity and lift evenly. If uneven in front and rear, right and left, it is not allowed to lift the equipment in order to prevent it from turning aside and causing damage to personnel or equipment.
- c. After lifting starts, it is not allowed to stand under the lifting device and equipment to prevent safety accidents on personnel.
- d. It is not allowed to pile heavy materials on equipment.

3.4 Select installation location

Check whether it is short of components or damaged according to the packing list in the manual. Please follow the groundwork drawing during construction and ensure the concrete strength reaches 3000PSI. If users require installing on the original groundwork or completed cement floor, please confirm whether the groundwork meets requirements and users should sign names.

3.5 Installation groundwork drawing

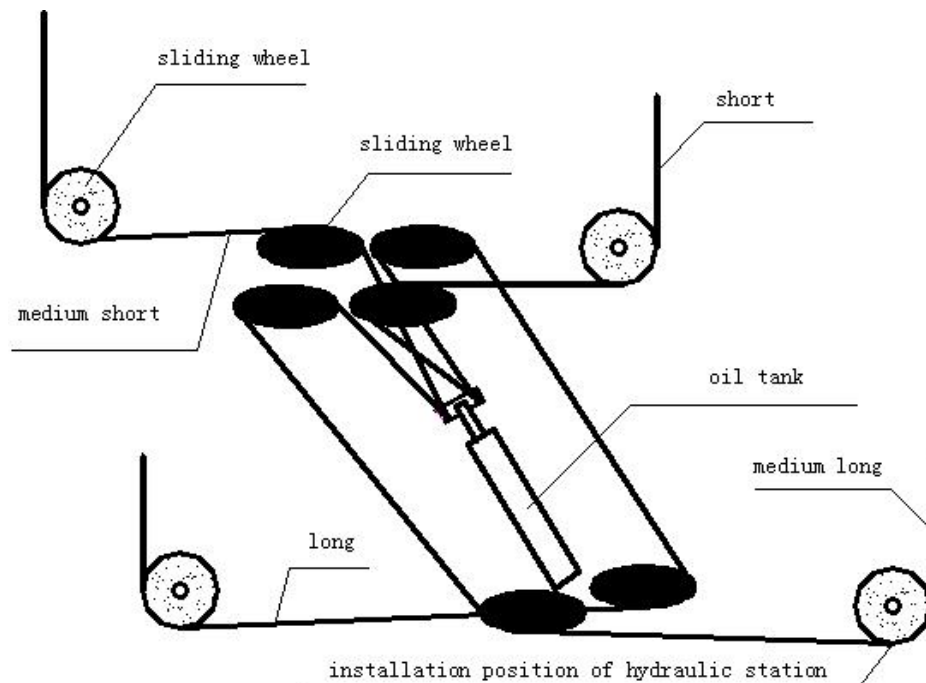


Notes: 1. Steel reinforced concrete are poured under the groundwork. The thickness is over 150mm
2. The horizontal variation of place A B C D for post installation is less than 5mm

3.6 Installation and commissioning

- A. Before installing the lift, pay attention to following events:
- a) The location of the lift should be subject to the design and planning requirements of the whole site. Try to leave enough operation space as much as possible.
 - b) The steel reinforced concrete should be poured after compaction of the groundwork. The thickness should be more than 150mm and the strength should be over 3000PSI with curing time of over 30 days.
 - c) Ensure there are no defects on ground. According to the Fig. 2 groundwork dimensions, determine the installation location of the equipment and mark lines (as the reference for equipment installation). The horizontal variation of four positions (A, B, C and D) for installing upright posts should be not more than 5mm.
 - d. Unpack to check whether it is short of components or damaged during transportation. Count according to the *Packing List*.
- E. Tools required for installation: Percussion drill, $\Phi 18$ percussive bit, hammer, horizontal pipe, tape (5m), monkey wrench, inner hexagon spanner, crow bar, ink line, flat screwdriver, pincers, socket and cable line.
- B. Connect the primary and secondary lifting platforms and beam:
- a. Based on the line marked in last step, refer to Fig. 1 and place the primary and secondary lifting platforms in left and right with distance as shown in the Fig. Support it with high metal stool or other reliable bracket (about 300mm high). The direction of two platforms should be correct:
 - a) The guide rail groove at the side of the platform is located inside.
 - b) The end for installing hydraulic cylinder on the main platform should be at the front side of the lift.
- Notice! During installation, do not squeeze the steel rope.**
- b. Let the two beams of the lift approach the primary and secondary platforms from the front and rear side respectively. Connect them with the platform by bolts. Fasten the bolts but not too tight so as to be able to adjust later.
To place beams:

- a) The side without welding nut on the H steel of the lifting beam should be outwards.
 - b) The end with hole (on center façade of H beam) of the lifting beam is located at one side of the primary platform (installed with hydraulic cylinder).
 - c) Before placing beam, dismantle the gusset plate and place the steel ropes on the primary platform according to the direction respectively (refer to Fig. 4). Before connecting the beam and platform by bolts, confirm all the steel ropes are in the respective sliding wheel grooves!
- c. Dismount the large sliding wheel shaft on two sides of the lifting beam and keep the large sliding wheel suspended. Pull steel rope under the primary platform through corresponding large sliding wheel groove and then reset the large sliding wheel (refer to Fig. 4).
- C. Installation of four upright posts:
- a. Dismount the coping and the up and down bars of the four upright posts respectively.
 - b. Insert the up and down bar into the gusset plate at the end of the beam respectively, get the upright post to approach and then install the upright post coping. By then, it needs to remove the beam and platform entirely and make the position of four upright posts be in conformity with the line marked in last step. Pay attention to the position of the post which is installed with pumping station (refer to Fig. 1 and 4).
 - c. Connect the head of the steel rope to the upright post coping respectively according to the direction shown in Fig. 4. By then, it needs to pull or shorten the piston rod of the cylinder to adjust the length of steel rope (refer to Fig. 4).



Connect the head of steel rope to the top plate according to the drawing, at this time pulling or shorting the piston rod of oil tank to adjust the length of the steel rope

FIG 4 Installation drawing of steel rope

- d. Use horizontal pipe to measure the levelness at the top of four upright posts and get

- e. prepared
- f. for adjustment of installation later.

D. Installation of hydraulic pumping station:

Install the hydraulic pumping station on the upright post welded with soleplate and fix by screw. Connect hydraulic oil pipes with the primary platform and joints of cart hydraulic cylinder respectively and tighten the nut on the joints connected with the primary platform.

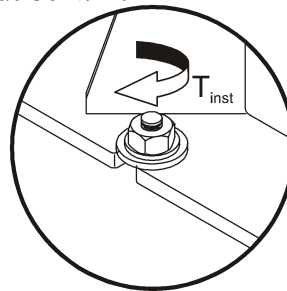
E. Steel rope tension adjustment:

Jog to raise the lifting platform to proper height, remove the support under the platform and lower the platform to the minimum height. Adjust the steel rope nut and make the tension of four steel ropes be the same. Notice! Before jogging to rise, pay special attention to the position of steel rope. See whether it is correct and ensure the steel rope is in corresponding sliding wheel groove (refer to Fig. 4).

F. Adjust the space between the upright posts and beam:

- a. Raise the platform by about 200mm, adjust the space between the upright posts and beam. In longitudinal direction (direction to load the vehicle), the head of the beam should be at the middle of upright post notch to make the clearance between limiting stoppers at two sides be the same. In horizontal direction, let the limiting stoppers approach the side face of the upright post with a distance of about 2-3mm (see the Fig.).
- b. Adjust the upright posts to be perpendicular to the floor:
 - a) Use the steel tape to measure the longitudinal and horizontal distance at upper extreme and lower extreme of the posts respectively. The distance error should be not more than 5mm. If necessary, use the adjusting washer supplied with machine to adjust. During adjustment, ensure that the distance at upper extreme should be not less than lower distance. In consideration of the deformation of the lift due to load, it is doable to increase the distance at upper extreme within required error range.
 - b) According to the position of upright posts, use the $\Phi 18\text{mm}$ percussion drill to make the hole for anchor bolt with depth of about 110mm.
 - c) After drilling holes, use the brush and compressed air to clear the powder in the hole and on the floor.

- d) Align the hole of post soleplate with the hole on the floor, insert the expansion bolt and assemble the nut and washer onto the bolt, leaving screw thread of 3~5mm. Then use a hammer to strike the spindle of the expansion bolt until the washer and the soleplate of the post are in close contact.
- e) If the upright post is not vertical, it needs to insert the adjusting washer under the post soleplate, and then tighten the nut.
- f) The tightening torque of the nut is about 80N.M.



- G. Adjust the levelness of the primary and secondary lifting platforms:

Raise the primary and secondary lifting platforms to proper height, then operate the pressure relief valve handle of the hydraulic pumping station to drop the lifting platform and make the four locking pieces locate in the square holes of the up and down bar. Use a level gauge to detect the levelness of the platform. If necessary, adjust the nut at the top of the up and down bar, control the levelness error of the primary and secondary platforms within 5mm and then tighten it.

- H. Install all the close boards and covers of the lifting beam.
- I. Install baffle plate for loading vehicle and large ramp.
- J. Through twice on and off commissioning with no load, check whether each part works normally. Check the locking reliability of the platform for several times. If inspection with no load is qualified, then take vehicle-loaded commissioning to check whether hydraulic system works normally.
- K. After commissioning, coat moderate lubrication grease on the steel rope and pulley and make final adjustment.

Chapter 4 Operation

4.1 Preparation before commissioning

- a. Coat the lithium grease (GB7324-87) on the movable contact surface of the beam and it needs to coat all the surfaces evenly from top to bottom.
- b. Fill the hydraulic pumping station full of hydraulic oil N46 (SY1227-84). As the temperature is low in winter, the high pressure anti-wear hydraulic oil of above 32# and lower than 40# can be selected. When the temperature is high in summer, it has to timely change the hydraulic oil to the specified model.



Notice: During maintenance, when the vehicle is raised to required height, drop down the skid platform under the unlocking circumstance. After safely locking the platform by the safety lock, start maintenance.

4.2 Precautions



Strictly follow the operation procedure. Do not operate at will.



To load the vehicle, as the center of gravity of vehicles varies from one another, try to make the gravity center of the vehicle approach to the plane formed by the four upright posts.



Do not reverse the motor during initial installation to prevent from damaging the oil pump.



The hydraulic oil should be high pressure anti-wear hydraulic oil manufactured by qualified plants.



Frequently check the working condition of the safety lock and ensure it is safe and reliable.



The hydraulic pressure valve and system pressure, etc. have been adjusted well before ex-work and users are not allowed to adjust at will. Otherwise, all the consequences thereof should be should be at users' risk.



See whether the lifting platforms are synchronous. If not, adjust the tension of steel rope.



During maintenance, the safety lock should be under effective working condition.

4.3 Operating instruction of four-wheel alignment slip plate/turntable

There are three movable blocks at the front side of four-post lifting platform. To carry out four-wheel alignment, take off the movable block of 540mm long and put the turntable here. According to the length of the vehicle body, adjust the position of other two movable blocks. Next, adjust the position of the turntable to make the central vertical line of the front wheel coincide with the center of turntable. Then, take the locating pin out of the slip plate of the platform and turntable and make the vehicle in a free state at the horizontal direction. Adjust the center of the steering wheel and fix it, install the head of the locator on the wheel. Adjust the levelness of the head of locator and then adjust the toe-in of the wheel, etc.

Chapter 5 Maintenance

5.1 Maintenance

Pay attention to following points in routine maintenance of the four-post lift:

- A. Keep the equipment clean. Do not place foreign matters on the platform and under the equipment so as to prevent from falling, squeezing and dropping during lifting or causing damage to equipment and personnel.
- B. Keep the hydraulic, electric pipe and circuit clean to prevent circuit from getting aged and damaged.
- C. Replace the hydraulic oil once every 9~10 months. To discharge oil, empty the old oil. To fill oil, let the oil level reaches the middle of the oil scale. Frequently check the oil level. If the oil level is lower than the required scale, timely replenish oil to the middle position. Foreign matter is not allowed to drop into the oil tank so as to avoid damaging the oil pump.
- D. Clean the oil filter each quarter. Wash with kerosene and sweep the foreign matter on the surface with brush. Do not damage the oil filter. Once found damaged, timely replace it.

Frequently fill lubrication grease on the steel rope and pulleys in order to prolong the useful life of relevant parts.

- E. Check whether the fastening screw at each position is loose or not every half month; especially whether the expansion bolts behind the soleplate of the upright post are fixed or not; whether the nuts of the four large sliding wheel spindles under the primary platform are loose or not.
- F. Check whether the upright post is vertical or not every six months. If the verticality changes and needs readjustment, tighten the nut with tightening torque of about 80N.M.

5.2 Common failure and troubleshooting

No	Failure	Troubleshooting method
1	Motor not work;	<ul style="list-style-type: none"> ● Check whether there is power; ● Check whether the wiring in the terminal box of the motor is loose;
2	Motor is not forceful;	<ul style="list-style-type: none"> ● Phase-failure of the motor;
3	Motor rotates but there is no pressure;	<ul style="list-style-type: none"> ● Reverse the motor and check three-phase four-wire power; ● Check whether there is sufficient oil in oil tank, oil inlet falls off or not, and filter screen is blocked or not;
4	Automatically drop down after lifting;	<ul style="list-style-type: none"> ● Clean the one-way valve, reversal valve and pressure relief valve of pumping station;
5	Safety lock fails to lock;	<ul style="list-style-type: none"> ● Check whether the position of the safety lock plate is normal or not; ● Observe whether the upright post position is normal; ● Check whether the reset spring of the safety lock plate works or not;
6	Motor and electrical apparatus don't work;	<ul style="list-style-type: none"> ● Timely cut off power, professional electrician should check, maintain and replace them;
7	Others;	<ul style="list-style-type: none"> ● For any other failure, please timely consult through phone call;

5.3 List of wearing parts

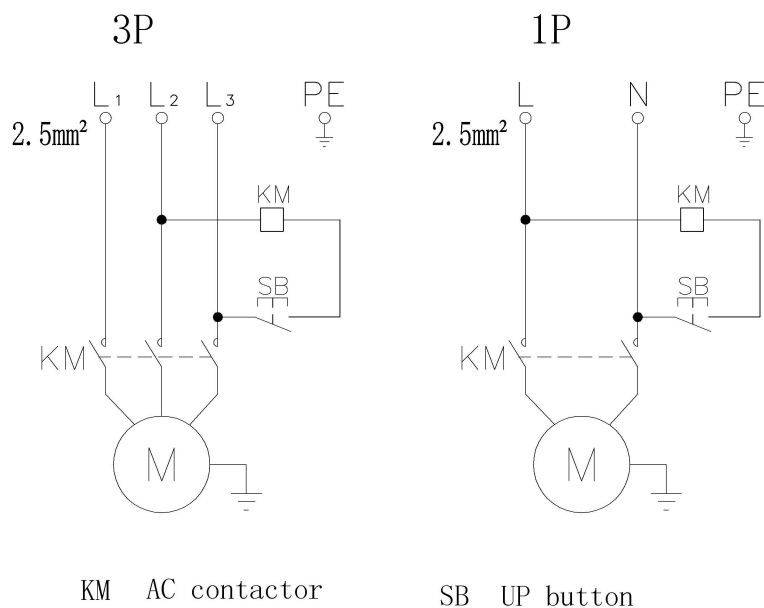
No	Name	Quantity	Remark
1	Self-lubricating bearing	10	
2	Small pulley	4	

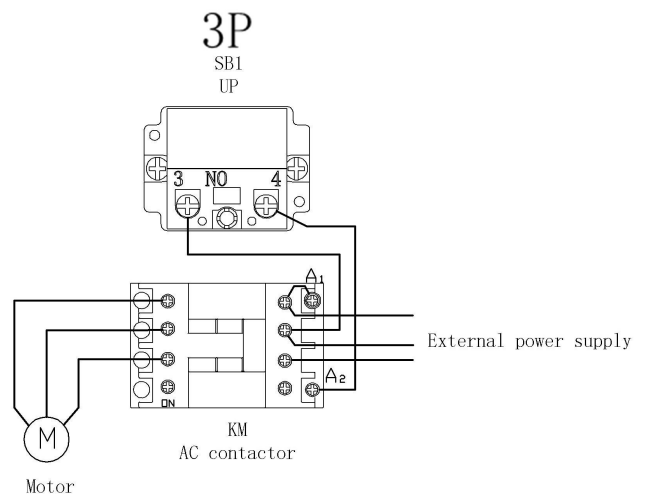
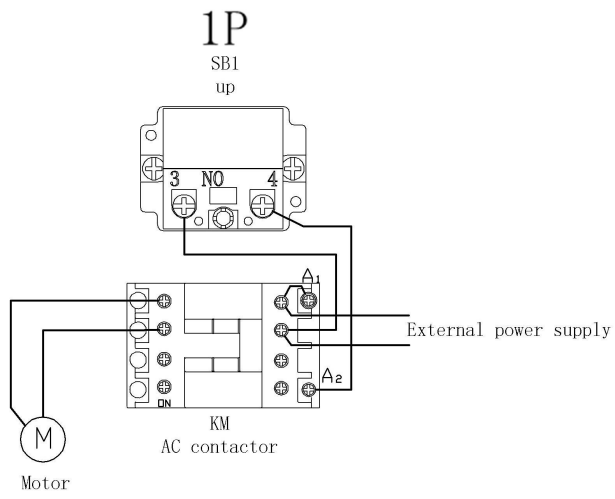
Chapter 6 Electrical Safety

6.1 Electrical control system safety rules

- A. Only formally trained personnel and those with professional knowledge can carry out electrical maintenance and troubleshooting.
- B. Do not alter or omit protective interlocks.
- C. Please read carefully and pay attention to the warning marks before startup.
- D. When troubleshooting is determined, the power must be cut off and the main switch must be locked.
- E. Use the equipment safely in wet area to prevent electric shock.
- F. Keep personnel away before sending power to the equipment.
- G. Do not open the electric control cabinet unless it needs to check the electrical apparatus.
- H. Do not change the circuit unless with qualified authorization by manufacturer.
- I. To replace electrical parts, first confirm whether it is in conformity with specification, including the color code of wire.
- J. Please do not wear metal glasses, necklace, finger ring, watch, bracelet, etc. when operating electrical equipment.

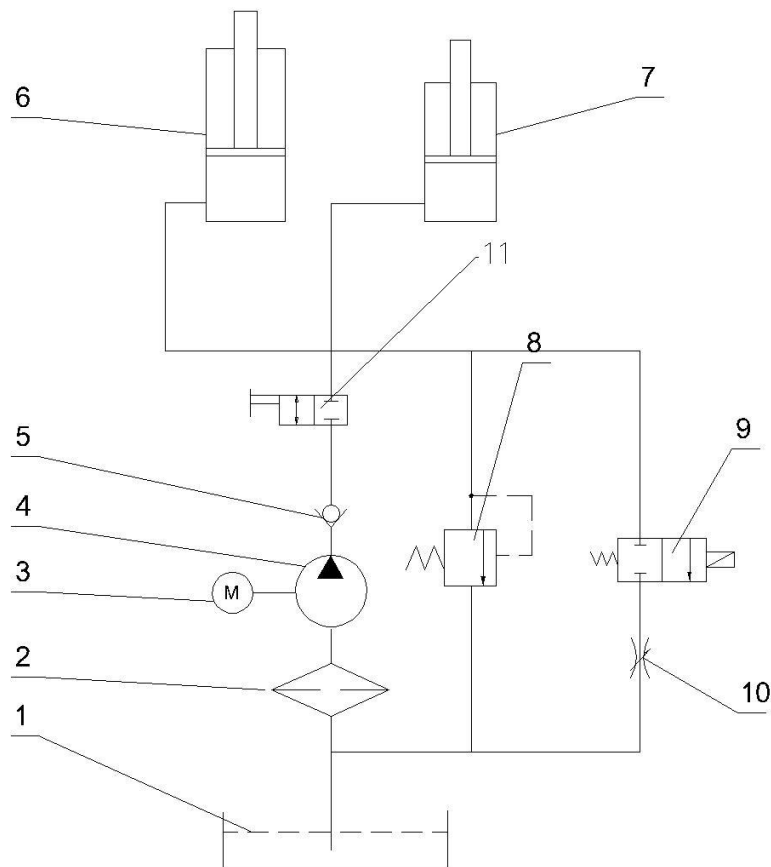
6.2 Circuit diagram





Chapter 7 Hydraulic System

7.1 Hydraulic pressure principle drawing



11	Manual two way directional control valve
10	Compensated flow control valve
9	Hand valve
8	Flood valve
7	Trolley cylinder
6	Master cylinder
5	Check valve
4	Gear pump
3	Motor
2	Oil filter
1	Oil tank

Inspection Report

Product name: Four-post Lift

Product model: SXJS4019

The executive standard of the product is Q/0601KHD002-2013. Before ex-work, the inspection items and results of the product are as follows:

No	Inspection items	Unit	Standard value	Measured value
			Mainframe	Mainframe
1	Lifting height	mm	1900	
2	Lifting capacity	Kg	4000	
3	System pressure	Mpa	≤18	
4	Lifting time	s	55~65	
5	Inspection results:			

Inspector:

Date:

Packing List

No.	Name	Model & Specifications	Quantity	Remark
1	Upright post	330x200x2265mm	4 pcs	4 pcs/set
2	Beam	2945x115x310mm	2 pcs	
3	Primary platform	4564x554x172mm	1 pcs	Including cylinder, oil pipe, steel rope
4	Secondary platform	4564x554x172mm	1 pcs	
5	Large ramp	1280x490x170mm	2 pcs	
6	Front baffle plate	498x35x153mm	2 pcs	
7	Ramp shaft		2 pcs	Including split pin
8	Oil pipe	2000mm	1 pcs	1 pcs
10	Hydraulic power unit		1 pcs	220V motor can be selected
11	Reversal valve		1 pcs	On power unit
12	Standard component bag		1 pcs	
13	Manual		1 pcs	Including Certificate of Compliance and Inspection Report
14	Skip proof sloping block		2 pcs	
15	Limited Block		8pcs	Including 16pcs of M8 X16 Nut

Inspector:

Packing date:

Inspection date:

Packing List of Standard Parts

No	Name	Model & Specifications	Quantity	Remark
1	Expansion bolt	M16x140	16 sets	The anchor bolt has nut, flat washer, spring washer.
2	Outside hexagon bolt	M8x25	4 sets	The pumping station seat has nut, double plat washers and spring washer.
3	Outside hexagon bolt	M16x40 (8.8 degree)	16 sets	It is used to connect platforms with flat washer and spring washer.
4	Nut	M16 (8.8 degree)	8 pcs	It is used to connect platforms.
5	Adjusting washer		10 pcs	It is used to adjust the levelness of upright post soleplate.
6	Outside hexagon bolt	M12x20	4 sets	It is used to fix vehicle loading baffle plate with flat washer and spring washer.
7				
8				
9				
10				
11				
12				
13				
14				
15				

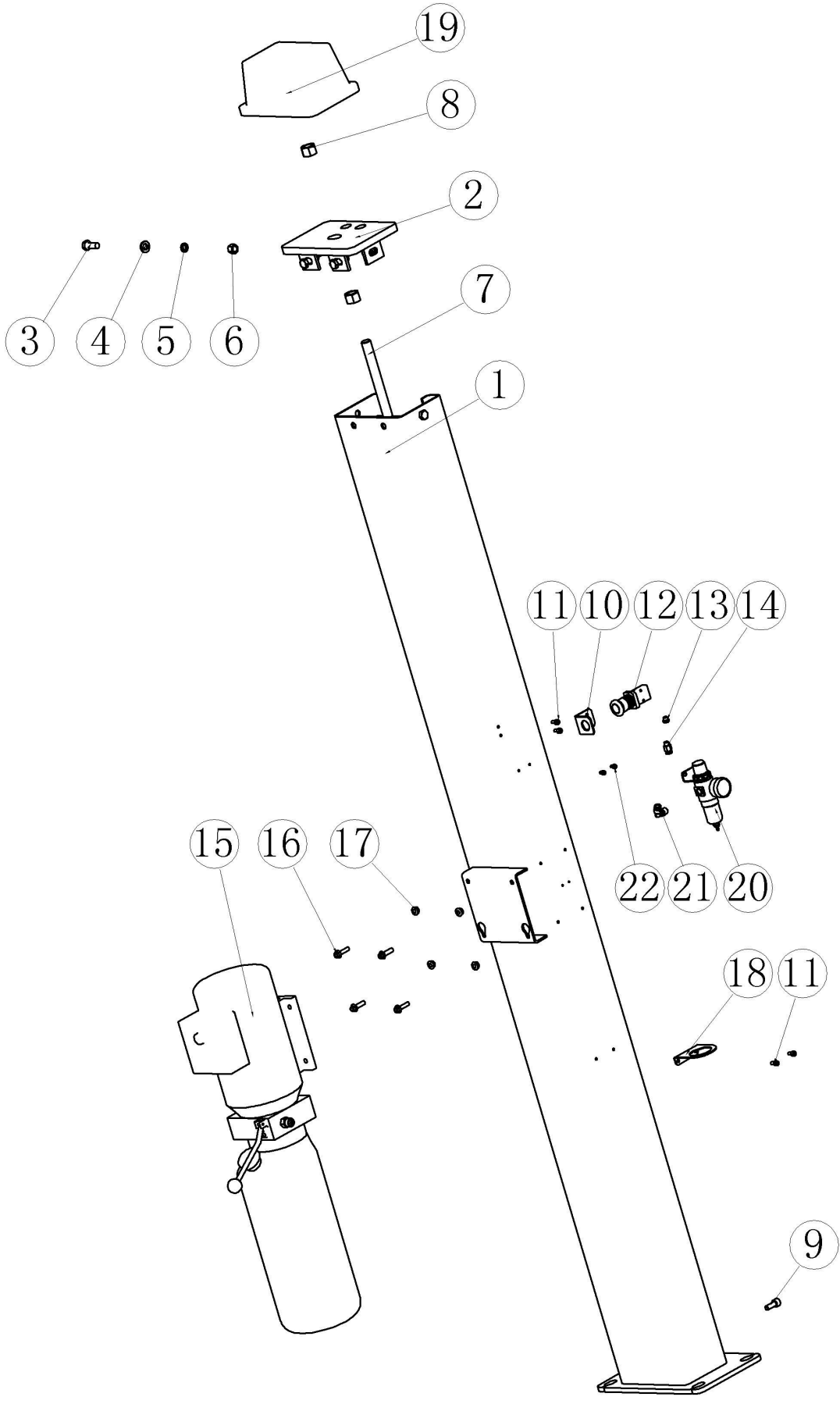
Packed by:

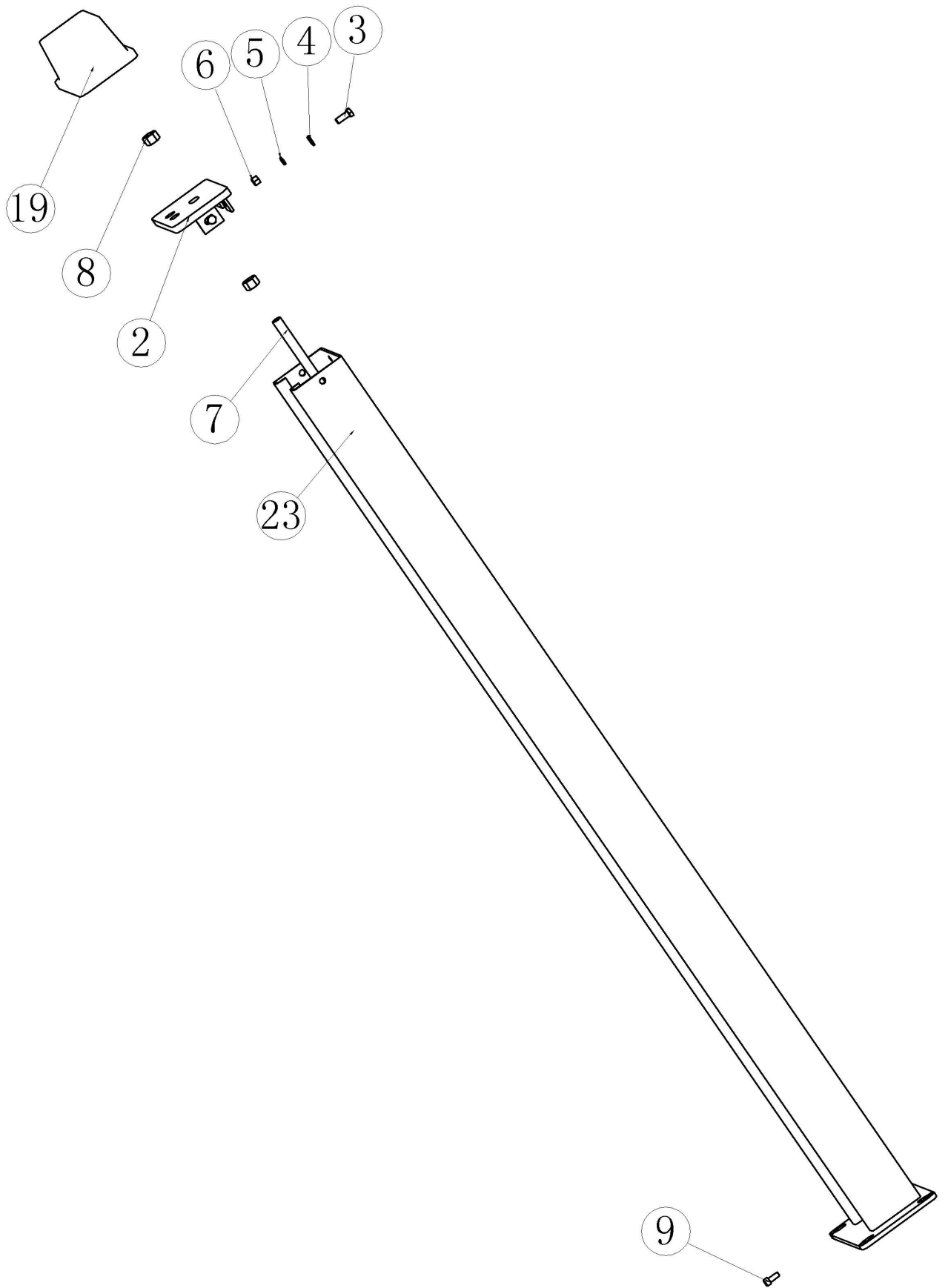
Inspector:

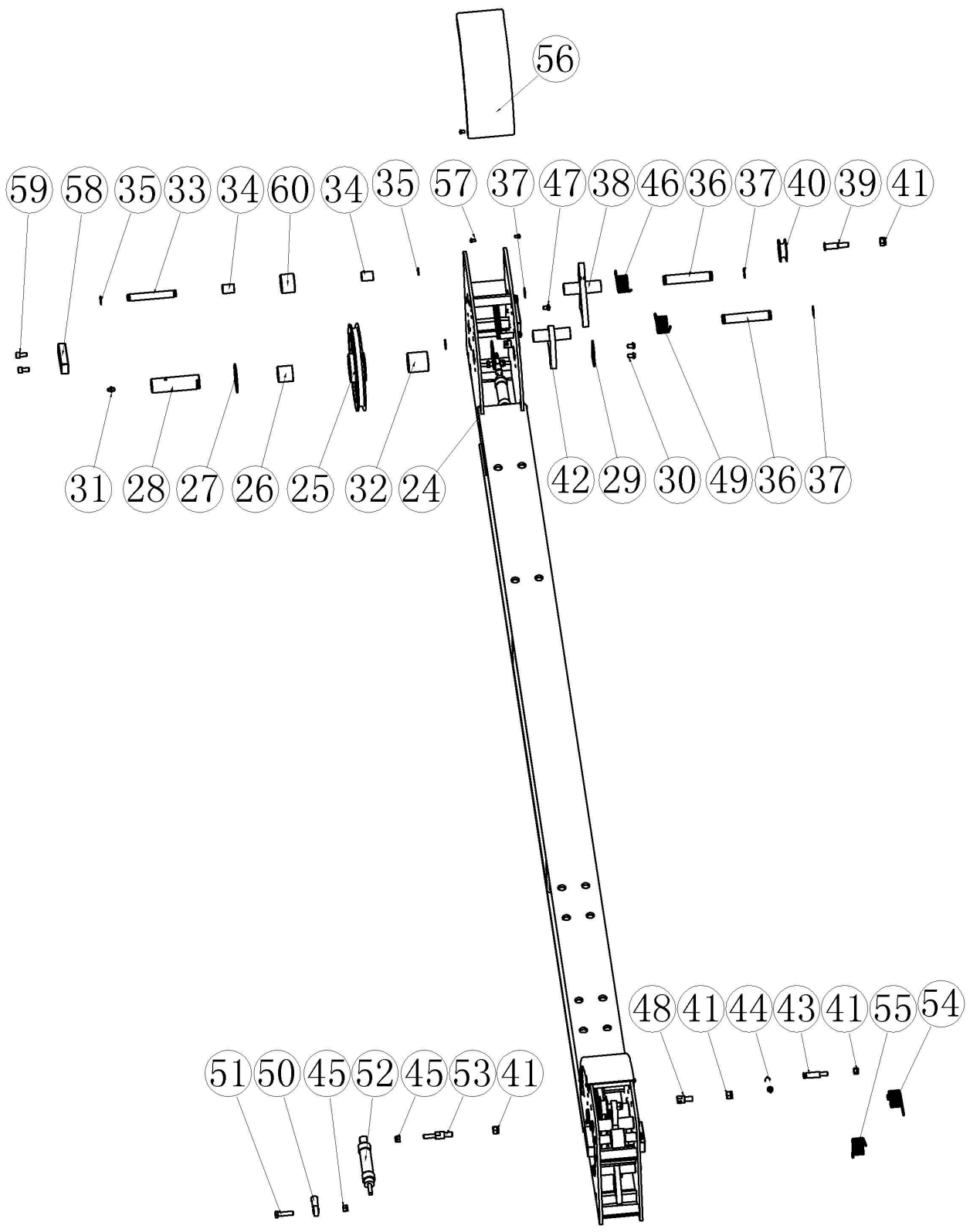
Packing date:

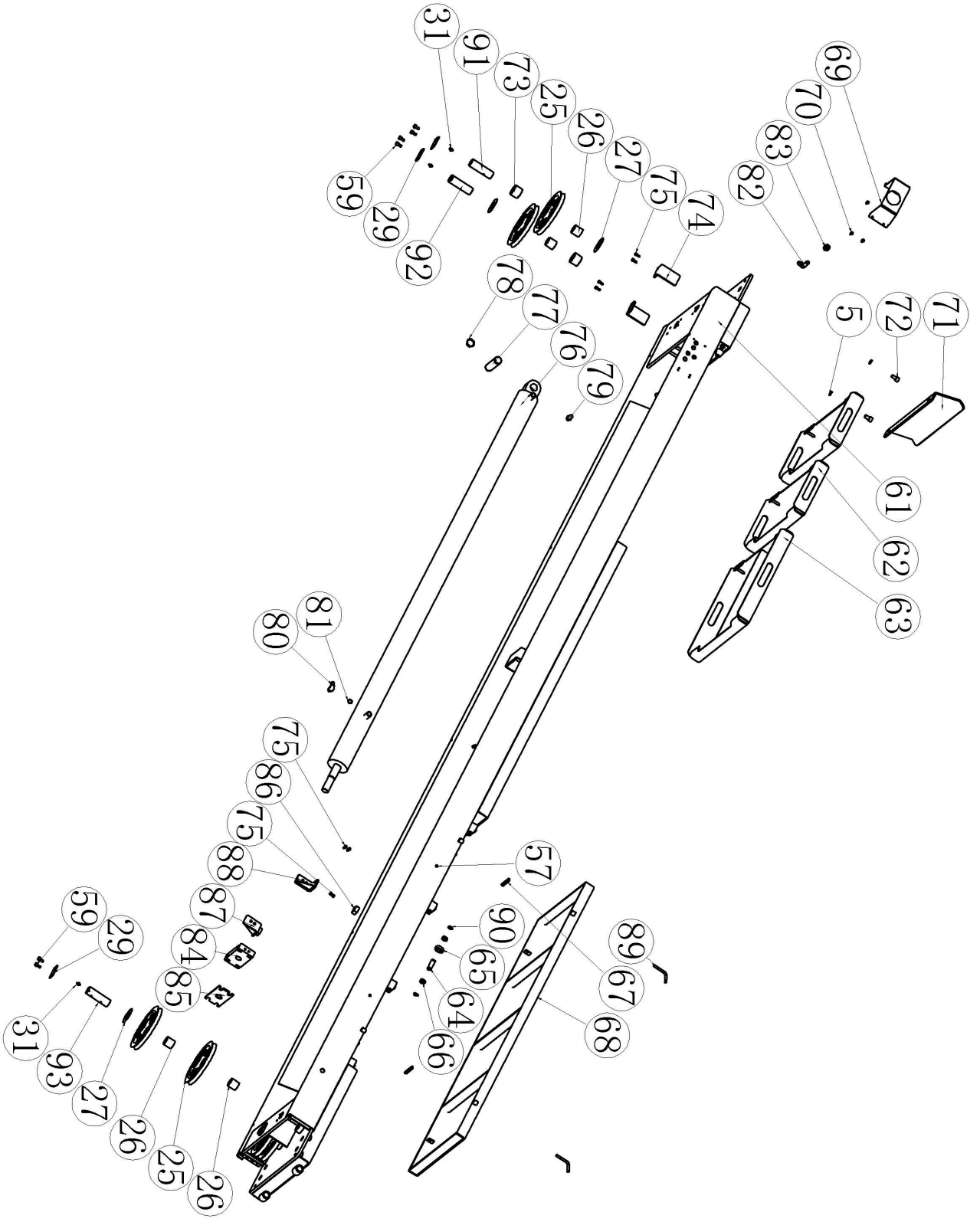
Inspection date:

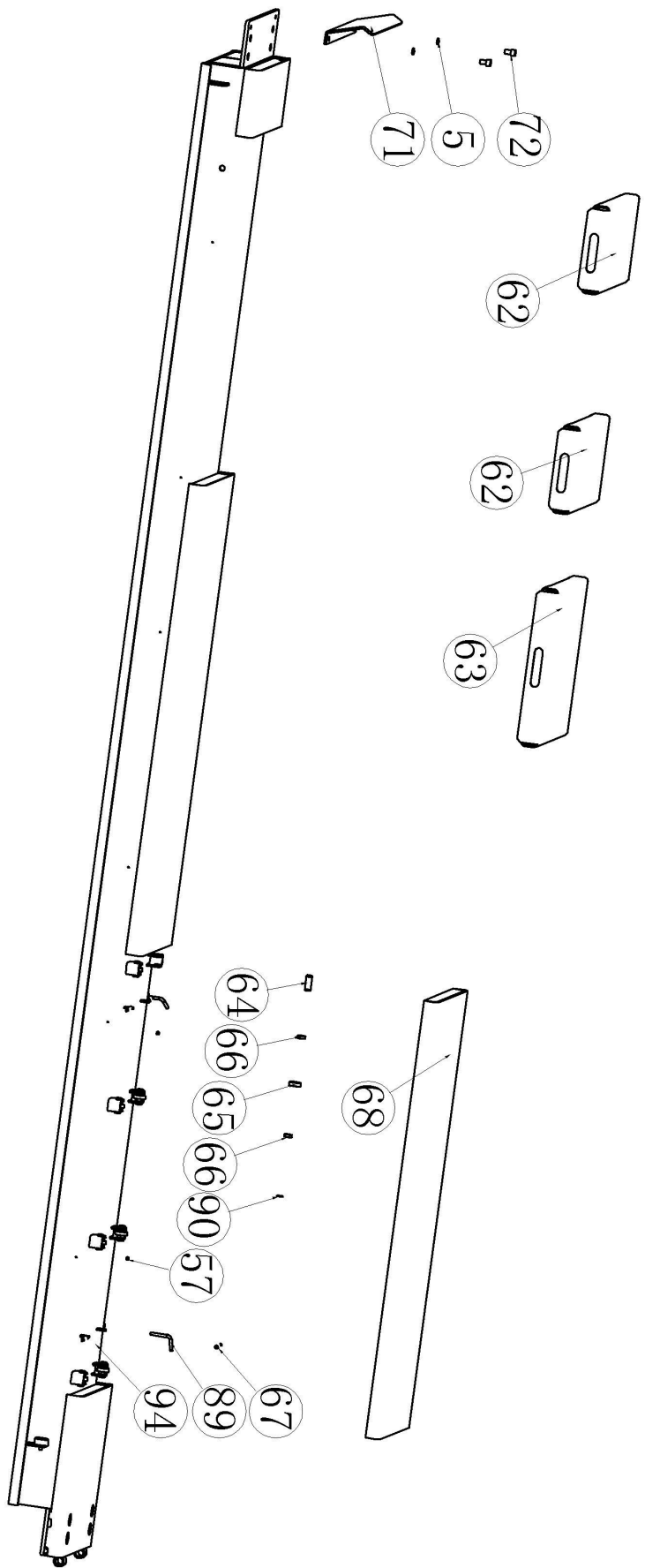
** The company reserves the right to alter the product described in the manual without prior notice. Amendment to printing mistakes and improvement may be made at any time and compiled into the manual of new edition. **

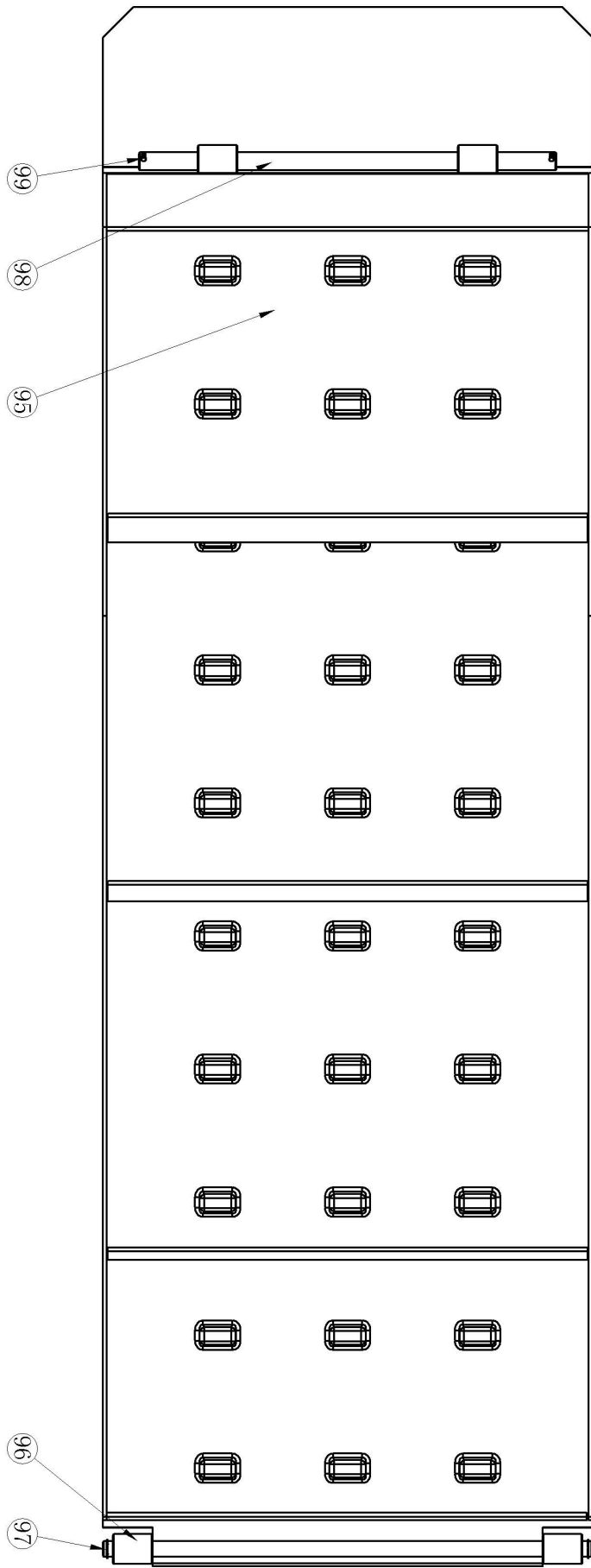












No	Code	Name	Spec	Qty	Note
1	91020110 100	Main column		1	
2	91020110 200	Top cover		4	
3	12030100 020	Hex nut	M12×30	16	
4	12050201 009	Flat washer	φ 12	16	
5	12050203 007	Elastic washer	φ 12	20	
6	12010101 005	Hex nut	M12	16	
7	91020110 300	Lift bar		4	
8	12010101 008	Hex nut	M20	8	
9	12020301 049	Hexagon socket head cap screw	M10×25	4	
10	91020110 400	Manual air valve mounting bracket		1	
11	12020301 028	Hexagon socket head cap screw	M6×12	4	
12	11300000 019	Manual air valve	S3PM-06-B	1	
13	14010300 002	Silencer	1^8	1	
14	14010300 047	Straight connector	APC8-01	1	
15	14020502 065	Pump		1	
16	12030400 005	Hexagon head flange bolt	M8×30	4	
17	12010103 002	Hexagon flange nut	M8	16	
18	91020210 400	Pipeline bracket		1	
19	91020110 400	Hat		4	
20	14020300 001	Gas source treatment	AFR2000	1	
21	14010300 003	Pipe joint	PL802	2	

22	12020301 105	Hexagon socket head cap screw	M5×8	2	
23	91020120 100	Slave column		3	
24	91020130 100	Beam		1 each	another one code is 91020140100
25	91020131 100	Big pulley		10	
26	13010100 058	self lubricate bearing	323633	10	
27	91020131 200	platform pulley washer 1.5		12	
28	91020131 600	beam pulley shaft		4	
29	91020131 700	beam pulley shaft fixing plate		8	
30	12020301 078	inner hex screw	M8×12	8	
31	14020100 001	grease nipple	M8×1	8	
32	91020131 300	pulley bush 45		4	
33	91020131 000	bearing shaft		4	
34	91020130 900	limited bearing bush		8	
35	12090100 021	elastic washer	φ 15	8	
36	91020130 700	lock pin		8	
37	12090100 008	elastic washer	φ 20	16	
38	91020130 800	safety lock		4	
39	91020110 400	roller pin		4	
40	91020131 500	roller		4	
41	12010500 008	hex nut	M8	16	
42	91020131 901	lock		4	

43	91020131 800	spring rod		4	
44	91020132 000	spring		4	
45	12010500 007	hex nut	M10	22	
46	91020130 500	spring-symmetrical		2	
47	12020101 057	cross head screw	M6×12	8	
48	91020130 600	spring fixing bolt		8	
49	91020530 900	spring-symmetrical		2	
50	13030000 001	flexible bearing	SI8TK	4	
51	12030100 056	Hex head bolt full thread	M8×35	4	
52	14010100 003	cylinder	MA-20-25- SDB	4	
53	91020230 200	Cylinder mounting shaft		4	
54	91020130 400	Torsion spring		2	
55	91020530 300	Torsion spring-EAGLE		2	
56	91020132 000	Pulley cover		4	
57	12020101 005	Cross recessed pan head screws	M5×8	20	
58	91020131 900	Nylon limit block		8	
59	12020301 048	Hexagon socket head cap screw	M8×16	24	
60	91020132 100	Limit wheel-beam		4	
61	91020150 100	platform-main		1	
62	91020150 300	Activity block 280		4	
63	91020150 400	Activity block 470		2	
64	91020151 200	side sliper plate bearing pin-4T		16	

65	13020100 001	Deep groove ball bearing	6003-2Z	16	
66	91020151 300	Bearing spacer		32	
67	12060100 001	side sliper plate tension spring		8	
68	91020150 300	side sliper plate		2	
69	91020152 400	Tubing cover		1	
70	12020301 032	Hexagon socket head cap screw	M6×10	4	
71	91020151 400	front block		2	
72	12020301 025	Hexagon socket head cap screw	M12×20	4	
73	91020150 400	Platform pulley spacer 35		2	
74	91020152 100	Wire rope anti-offset angle iron		2	
75	12020301 031	Hexagon socket head cap screw	M6×16	10	
76	14020405 001	cylinder		1	
77	91020151 100	cylinder pin		1	
78	12090100 004	shaft circlip	φ 30	2	
79	14010300 001	sinlencer	M16×1.5	1	
80	15030200 001	right angle connector		1	
81	12130100 001	compound pad	φ 14	1	
82	15030200 002	long right angle connector		1	
83	12010200 002	hexagon lock screw	M14×1.5	1	
84	91020150 800	steel rope fix board A		1	
85	91020150 900	steel rope fix board B		1	
86	91020152 300	nylon slider		2	

87	91020151 900	steel rope fix board bracket		1	
88	91020152 000	steel rope fix board bracket-symmetry		1	
89	91020151 700	ramp lock pin		4	
90	12090100 023	shaft circlip	$\phi 17$	32	
91	91020150 500	platform pulley shaft 1		1	
92	91020150 600	platform pulley shaft 2		1	
93	91020150 700	platform pulley shaft 3		2	
94	91020160 100	vice platform		1	
95	91020170 100	ramp		2	
96	91020170 200	nylon roller		4	
97	12090100 017	shaft circlip	$\phi 16$	4	
98	91020170 200	ramp pin		1	
99	12080100 001	Cotter pin	$\phi 4 \times 40$	4	

4 TONNE

4 Post Hoist

OPERATING INSTRUCTIONS

The hoist should only be operated by personnel that have been thoroughly trained in operation and maintenance of the hoist.

1. Position the vehicle between the columns, turn off the engine and apply the park brake.
2. Place the manual wheel chocks in front and rear of at least one wheel.
3. Make sure that all personnel are clear and there are no obstructions around the hoist.

TO RAISE THE HOIST

1. Turn the power on.
2. Press the "UP" button on the control box until the desired working height is obtained checking for any obstructions.
3. Once the hoist has reached the desired working height lower the hoist onto the safety locks by means of pressing the park button on the control box.

Note: Check for correct engagement of each lock.

TO LOWER THE HOIST

1. Raise the hoist 100mm or until the locks are clear.
 2. Push on the "DOWN" button
- Note: The hoist will automatically raise approximately 50mm.*
3. Check for any obstructions under the hoist when lowering and all personnel are clear of the area.
 4. When the hoist has been lowered to the ground, remove the wheel chocks.
 5. Switch off power to the hoist.

MODEL: AutoLift 6435	SERIAL NO.:	APPROVALS: WAH20540
--------------------------------	-------------	-------------------------------

Design Code: AS1418.9 -1996

SAFETY OPERATING PROCEDURES

Vehicle Hoist

DO NOT use this machine unless the operator has been thoroughly instructed in its safe use and operation.



Safety glasses must be worn at all times in work areas.



Long and loose hair must be contained.



Sturdy footwear must be worn at all times in work areas.



Close fitting/protective clothing must be worn.



Rings and jewellery must not be worn.



Do not stand on hoist whilst hoist is in operation.

A vehicle hoist must not be operated unless it has a current certificate of inspection.

PRE-OPERATIONAL SAFETY CHECKS

1. Ensure that vehicle hoist has operating and maintenance instructions permanently located and clearly visible.
2. The equipment must be used in accordance with manufacturer's instructions.
3. Check the capacity of the hoist compared to the weight of the vehicle. If vehicle is too heavy, do not proceed.
4. Ensure the area is clean and clear of grease, oil, and objects that may be a slip/trip hazard.
5. Familiarise yourself with and check all machine operations and controls.
6. Check all safety devices are in good condition.
7. Ensure support arms are capable of being locked in position.
8. Ensure rubber pads are in good condition on all load points.
9. Faulty equipment must not be used. Immediately report suspect equipment.

OPERATIONAL SAFETY CHECKS

1. Centre vehicle on hoist, ensuring that the weight is evenly distributed to the front and rear.
2. Identify the correct jacking points.
3. Only one person shall operate the hoist at a time.
4. Ensure hoist area is clear of people and equipment before operating.
5. Never leave the hoist running unattended.
6. Check vehicle stability by looking at the jacking points.
7. Engage and check for the correct engagement of the locks.
8. At the completion of work lower the vehicle hoist and ensure all equipment is left in a safe position.

HOUSEKEEPING


1. Switch off equipment.
2. Leave the equipment and work area in a safe, clean and tidy state.

POTENTIAL HAZARDS

■ Falling objects ■ Trapping hazards ■ Crushing hazards ■ Entanglement hazards

This Safety Operating Procedure does not necessarily cover all possible hazards associated with the machine and should be used in conjunction with other references. It is designed to be used as an adjunct to the operation in the safety procedures and to act as a reminder to the operator prior to machine use.

COMMISSIONING REPORT

1. Details of Customer	 2 McDonald Crescent Bassendean WA 6054 P: 08 9279 1663 E: sales@aaq.net.au			
Customer Name:				
Installation Address:				
2. Hoist Details				
Model No:				
Hoist Type:				
Installation Date:				
3. Commissioning Report	Yes	No	N/A	Comments
Safety Devices				
Safety devices incorporated into the design of the vehicle to AS/NZS 1418.9				
Welds				
Visual check all welds completed and comply to requirement of AS/NZS 1554				
Hydraulic Equipment and Controls				
Visual check carried out for leaks				
Pneumatic Equipment and Controls				
Visual check carried out for leaks				
Safety Locks				
Safety locks tested for correct operation				
Support Pads				
Checked for good working order				
Wheel Stops				
Supplied with the hoist and in good working order				
Hoist Motion Limits				
Checked for correct operation				
Load Test and Speed Check				
Hoist checked with load for correct operation and speed control tested				
Wire Ropes				
Checked wire ropes for correct installation and tension				
Concrete Floor				
Concrete floor is a suitable depth for installation				

COMMISSIONING REPORT

Location of Vehicle Hoist & Vehicle Clearances			
Vehicle hoist or any part of the load is positioned no less than 600mm away from any fixed structure			
Provisions have been made for effective clearances above the vehicle when the hoist is in its fully raised position.			
Markings - Hoist Checked for Relevant Marking Including:			
Make & Model Number			
Serial number			
Rated Capacity			
Reference to maintenance			
Operation instructions			
Screw and Nut Gaps			
Hoist compliance plate showing design registration			
Functional Test			
Vehicle hoist has been tested and all safety devices, limit switches and control function interlocks have been tested for correct operation.			
Demonstration			
The installer has demonstrated the operation of the vehicle hoist to the owner or operator			
Electrical Equipment and Controls			
Lock off isolating switch installed			
Emergency stop button installed			
3. Details of Electrical Contractor			
Trading Name:	EC Licence Number:		
Address:	Telephone Number:		
4. Signature			
	Name:		
	Date:		
I, being the person responsible for completing the commissioning report have exercised reasonable skill and competency when completing the report and hereby certify that the vehicle hoist has been commissioned fit for use as per the Australian / New Zealand Standard 1418.9:1996 Vehicle Hoists.			