



Original

## Installation And Service Manual

# **DIRECT-DRIVE TWO POST LIFT**

## **Model: A250SACH**

### **Cargo Claims**

If there is any missing or damaged product during transportation, the buyer must notate on the shipping paperwork or refuse the shipment. NOTATE ALL DAMAGE OR REFUSE DAMAGED SHIPMENT!




### **DANGER**

Read the entire contents of this manual before using this product. Failure to follow instructions and safety precautions could result in serious injury or even death. Make sure all other operators also read this manual. Keep this manual near the machine so that it can be seen by all users. By proceeding with installation and operation, you agree that you are fully understand the contents of this manual and take full responsibility for the use of the product.

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## Explanation of the safety warning symbols used in this manual

 DANGER	Risk of death or injury
 WARNING	Dangerous or unsafe practices that may result in death or injury
 CAUTION	Dangerous or unsafe practices that may result in personal injury, product damage or property damage
ATTENTION	Conditions that may result in damage to products or property

## PROFILE

The two post lift is a commonly used vehicle repair and maintenance tool that uses a pneumatic hydraulic or electric system that can lift the car up to a certain height so that the vehicle can be placed in a suitable position for inspection and repair. Car lifts can be divided into pneumatic and electric, which have the characteristics of safe and reliable, simple structure and quick installation.

This instruction manual is specially prepared for you. Your new lift is the product of over a decade of continuous research, testing and development and is the most technologically advanced lift on the market today.

**Please make sure to read through this manual before operating the lift.**

Record the information on the nameplate label here:

Model No.: \_\_\_\_\_

Serial No.: \_\_\_\_\_

Manufacturer date: \_\_\_\_\_

## WARRANTY

The warranty period for the steel structure part of new car lift is 5 years, hydraulic components, bronze bushings, sliders and plastic parts are under warranty for 2 years, and electrical components and sync cable, lock release cable warranty for 1 year.

Rubber pads are without warranty. During the warranty period, the manufacturer will repair or replace the defective parts free of charge including shipping costs.

This warranty does not cover damage caused by normal wear and tear, improper use, damage in transit, or damage caused by lack of maintenance.

This warranty is unique and supersedes what is expressed and implied in all other warranties. The manufacturer shall not be liable for any particular, indirect or accidental damage resulting in breach of or delay in the execution of the warranty. The manufacturer reserves the right to design and improve the product and has no obligation to make notice of the changes in advance.

The product warranty based on the above clause is based on the model number and serial number of the equipment. This information must be provided in conjunction with all warranty information at the time of service and warranty.

## SAFETY WARNING LABEL



Fig.1


## **IMPORTANT SAFETY INSTRUCTIONS**

In order to properly maintain your product and ensure operator safety, it is the responsibility of the product owner to read and follow these instructions!

1. Ensure product installation complies with all applicable local regulations and rules, such as Occupational Safety and Health Administration regulations and electrical codes.
2. Ensure that all operators are properly trained, know how to operate the unit safely, and are properly supervised.
3. Do not operate the lift until you are sure all parts are in place and operating correctly.
4. Keep your hands and feet away from the machine. Keep hands and feet away from any moving parts. Keep your feet away from the lift as it descends to avoid pressing on pointed objects.
5. Keep the work area clean. A cluttered workspace can lead to injuries.
6. The machine is only approved for indoor installation and use. Outdoor installation is prohibited.
7. Only trained operators are allowed to handle the lift machine. All untrained persons must stay away from the workplace. Never allow untrained persons to handle or operate the machine.
8. Use the lift properly. Use the lift in the correct way.
9. Warning! Keep persons and objects from the lift when lifting the a vehicle.
10. If the vehicle is at risk of falling, make sure no one is around the lift.
11. Before preparing to approach or service the vehicle, ensure that the safety device is in effect.
12. Dress appropriately when operating machines, and consider wearing non-slip steel-toe shoes for added safety..
13. Beware of electric shock. In order to protect the operator from electric shock, the lift in use must be grounded. Do not connect the green wire to the terminal. This is the ground wire.
14. Danger! The power supply used in this type of lift has high voltage. Please

disconnect the power supply before any circuit repair. Unplug in case the power supply is accidentally switched on during maintenance.

15. Warning! There is a risk of explosion. There are parts in the equipment that produce arc light and spark. Do not operate near flammable gas. This machine should not be placed in the lounge or basement.
16. Maintain with care. Keep the machine clean for better and safer operation. Perform proper lubrication and maintenance procedures according to the manual. Keep handles or buttons clean, dry, and free of oil.
17. Stay alert. Use common sense to observe what you are doing and stay alert.
18. Check for damaged parts. Check for adjustments to moving parts, damage to parts, or anything that may affect their operation. Do not use the machine if the parts are damaged.
19. Do not remove relevant safety parts from the machine. Do not use a lift if it is damaged or missing.
20. Only operate the lift at temperature between 5°C to 40°C(41°F to 104°F).

 **DANGER** Be very careful when installing, operating, maintaining or repairing this equipment. Failure to comply may result in property damage, product damage, injury or (in very rare cases) death. Ensure that only authorized personnel operate the equipment. All repairs must be carried out by an authorized technician. Do not modify the machine, this voids the warranty and increases the probability of personal injury or property damage. Ensure to read and follow this instructions on the label.



**Fig. 2**

## **I. PRODUCT FEATURES AND SPECIFICATIONS**

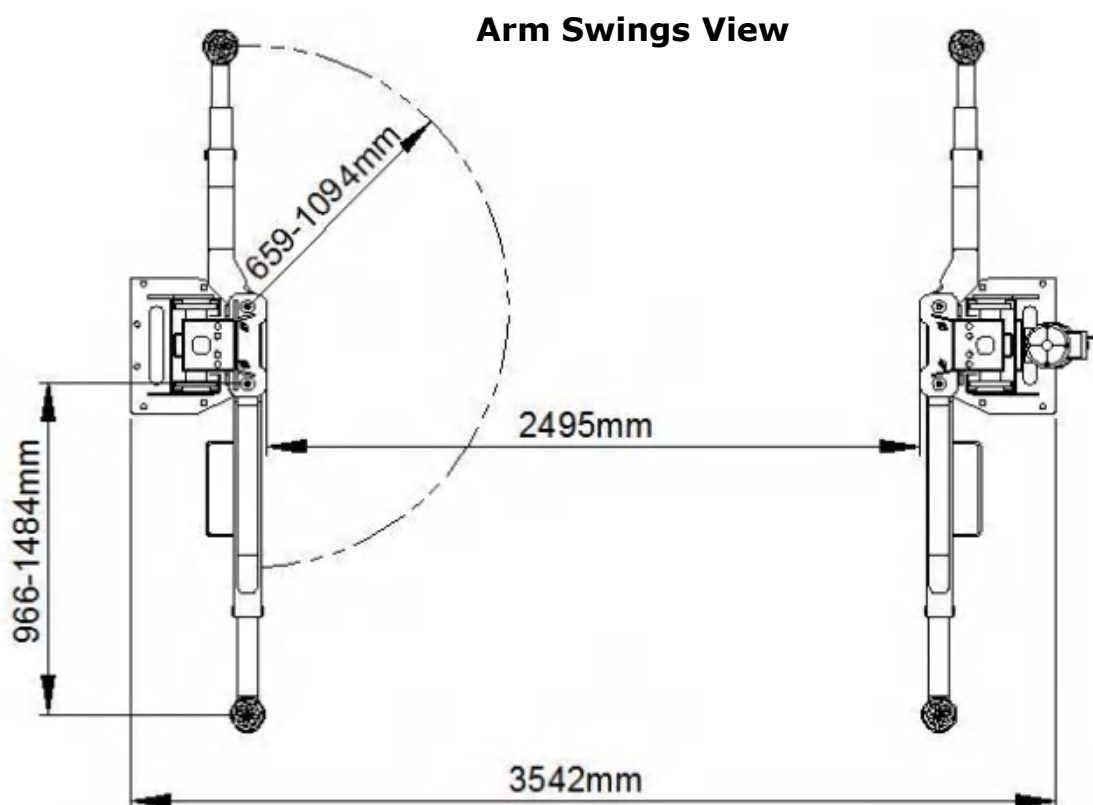
### **CLEAR-FLOOR DIRECT-DRIVE TWO POST LIFT FEATURES**

#### **Model A250SACH**

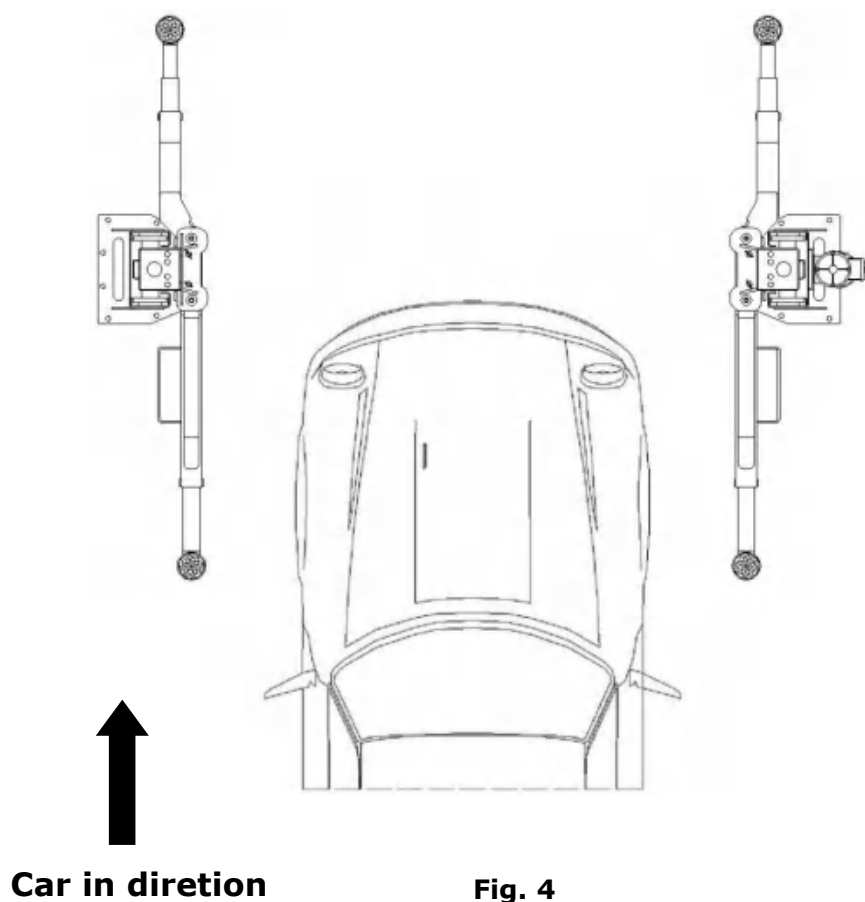
- Direct-drive technology minimizes the lift wear on parts and decreases failure rate.
- Dual hydraulic cylinders, designed and made on high standards, utilizing imported oil seal in cylinder.
- Self- lubricating UHMW Polyethylene sliders and bronze bushings offer smooth operation.
- Single-point safety release offers easy lock disengaging.
- Clear-floor design, provides unobstructed floor use
- Overhead safety shut-off device prevents vehicle damage

#### **MODEL A250SACH SPECIFICATION**

Model	Lifting Capacity	Lifting Time	Max Lifting Height		Max safety lock height		Overall Height	Overall Width	Minimum Pad Height	Motor
			Without extension adapter	Include extension adapter	Without extension adapter	Include extension adapter				
A250S ACH	5000KG	57S	1827-1892mm	2056-2121mm	1782-1847mm	2011-2076mm	3635/3851/4066mm	3542mm	110mm	3.0HP



**Fig. 3**



**⚠ CAUTION** When driving the vehicle, stay in the middle between the columns. If you hit any part of the lift, you could damage the car or lift.



## II. INSTALLATION REQUIREMENT

### A. TOOLS REQUIRED

- ✓ Rotary Hammer Drill ( $\Phi 19$ )



- ✓ Hammer



- ✓ Level Bar



- ✓ English Spanner (12")



- ✓ Wrench set: (10#, 13#, 14#, 15#, 17#  
19#, 24#, 27#, 30#)



- ✓ Ratchet Spanner With Socket (28#)



- ✓ Carpenter's Chalk



- ✓ Screw Sets



- ✓ Tape Measure (7.5m)



- ✓ Pliers



- ✓ Lock Wrench



- ✓ Socket Head Wrench (3#, 5#, 8#)

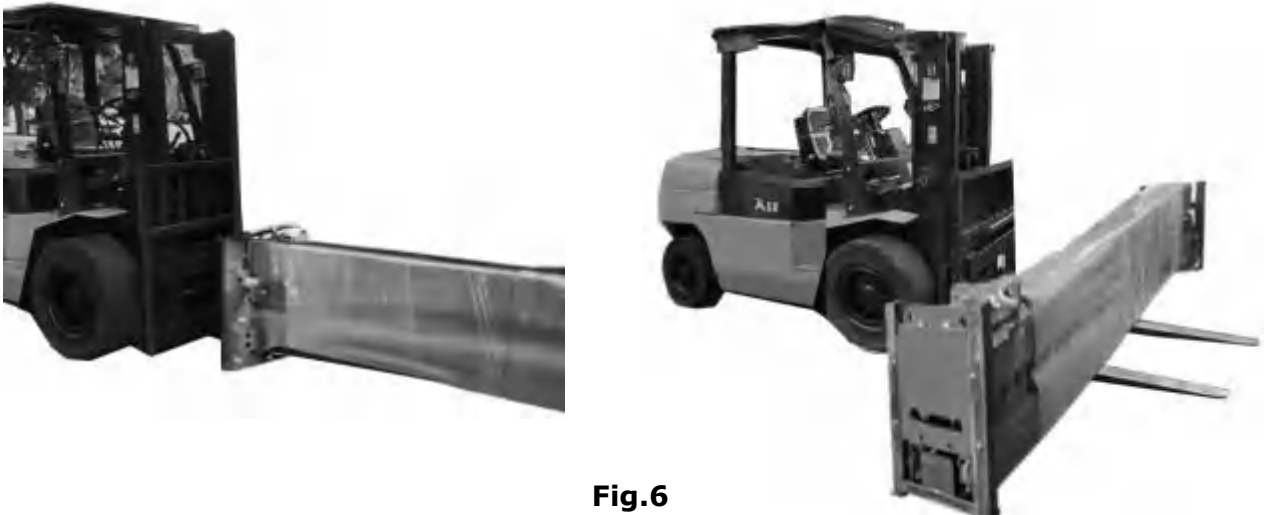


Fig.5

## **B. Equipment storage and installation requirements.**

- 1 . Store the equipment in a dry, non-moldy, non-flammable environment.
- 2 . The lift is only approved for indoor installation and use, and outdoor installation is prohibited.
- 3 . When installing the device, take safety precautions according to the instructions to avoid device damage.
- 4 . Do not install the device outdoors if the installation area is not protected.
- 5 . During installation, all parts should be fastened to ensure the stability and smooth operation of the machine.
- 6 . After installation, the whole machine should be checked to make sure that every component is working properly.

## **C. The equipment should be unload and transfer by forklift.**



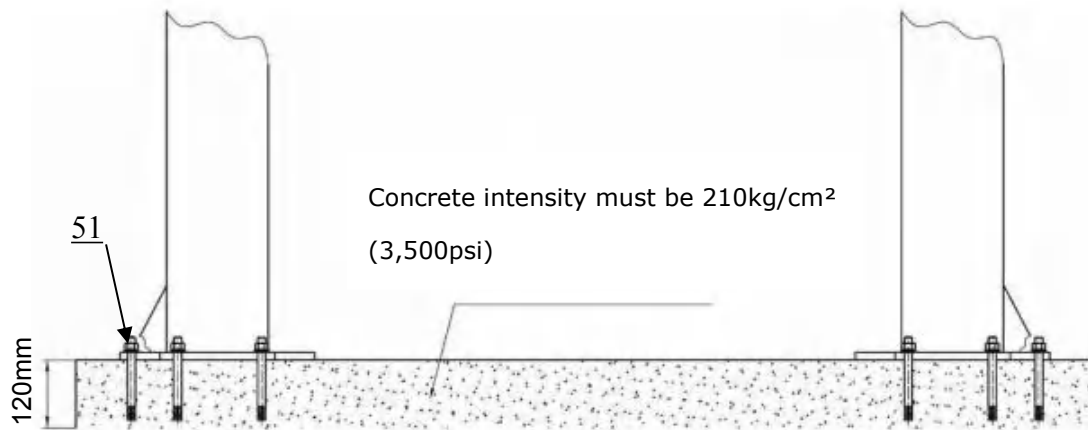
**Fig.6**

## **D. SPECIFICATIONS OF CONCRETE (See Fig. 7)**

**Specifications of concrete must be adhered to the specifications as following.**

**Failure to do so may result in lift and/or vehicle falling.**

1. Concrete must be 120mm minimum thick and without reinforcing steel bars, and must be completely dry before lift installation.
2. Concrete must be in good condition and must be of test strength 3,500psi (245kg/cm<sup>2</sup>) minimum. Solidify at least 15 days.
3. Floors must be level and contain no cracks or holes.
4. Do not install the lift on asphalt or any surface other than concrete.



**Fig. 7**

## **E. POWER SUPPLY**

1. You are required to use a licensed and qualified electrician for the installation process.
2. The power supply capacity must be more than 2.2kw, with a cord larger than 2.5mm<sup>2</sup>, and must be properly grounded.

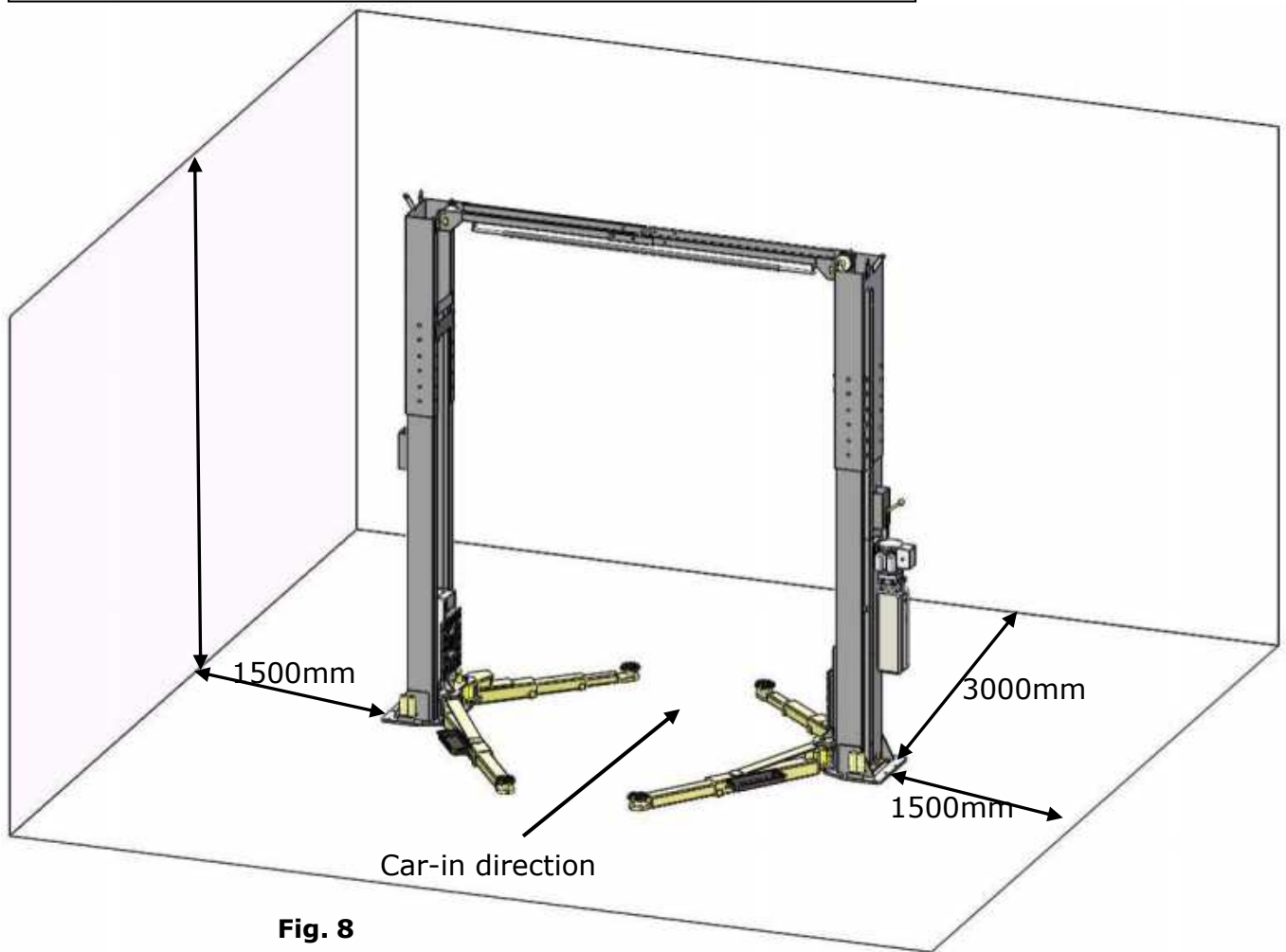
**⚠ DANGER** All electrical wiring must be performed by a licensed and certified electrician. Attempting to connect the circuit without proper certification may result in damage to the lift or electrocution, resulting in serious injury or death.

## **III. INSTALLATION STEPS**

### **A. Location of installation**

1. Installation space: Ensure there is enough space for the lift. Accurately measure the front, back, side and top mounting dimensions and refer to the below figure data(**See Fig. 8**).
2. Overhead obstacle: Check for overhead obstacles, such as building supports, heaters, lights, wires, and low ceilings, etc..
3. Installation: The lift is only approved for indoor installation and use, and outdoor installation is prohibited.
4. Floor: Install lift only on flat concrete floor. Do not install on asphalt or any other surface.

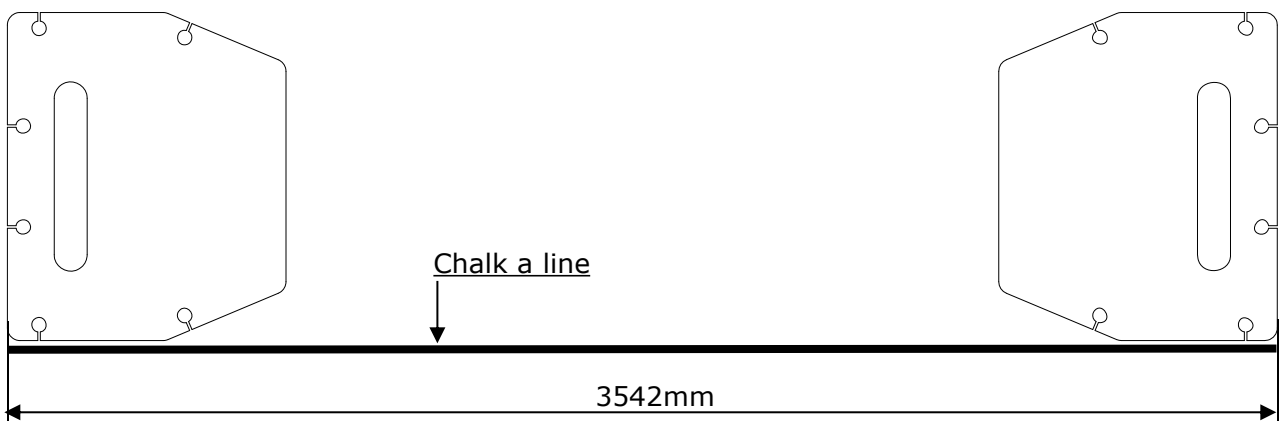
Installation ceiling height requirement: larger than 3635mm



**Fig. 8**

**⚠ CAUTION** Installing the lift on a surface with slopes more than 3° could lead to injury or even death. This lift is designed for installation on a flat and level surface only. (Defined as no more than 10mm difference over the installation area). If the floor cannot be leveled, consider changing installation locations.

**B. Use a carpenter's chalk line to establish installation layout of baseplate  
(See Fig. 9)**



**Fig. 9**

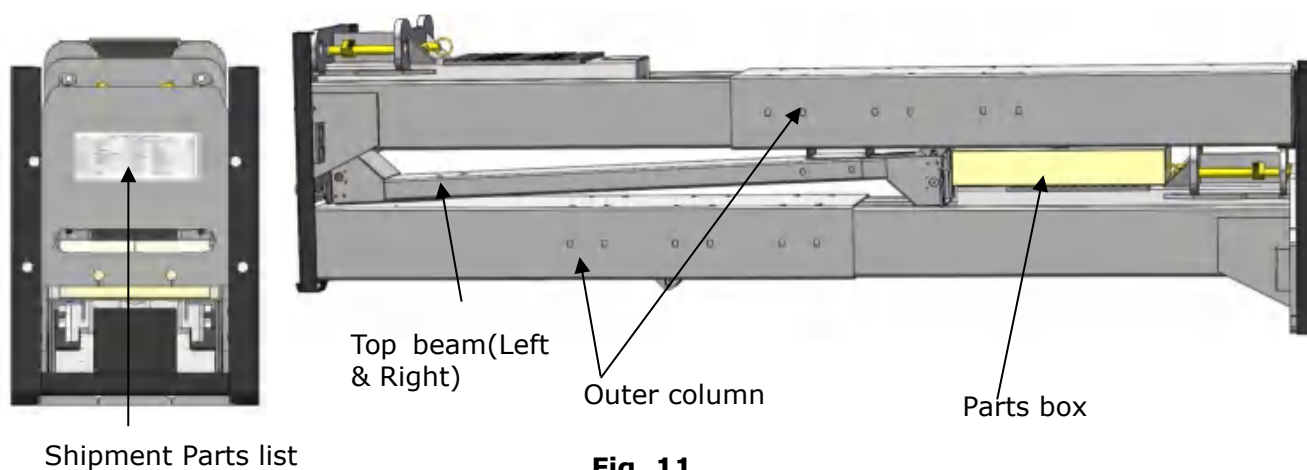
### C. Check the parts before assembly.

1. Whole set of one unit (Packaged lift and hydraulic power unit). **(See Fig. 10)**



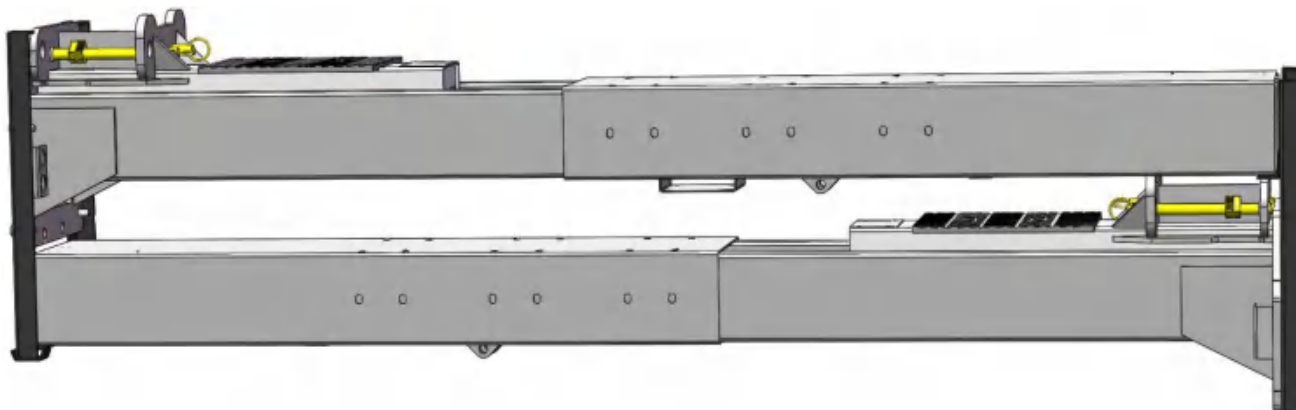
**Fig. 10**

2. Move the lift aside with a fork lift or hoist, open the package and check the parts according the shipment list. **(See Fig. 11).**



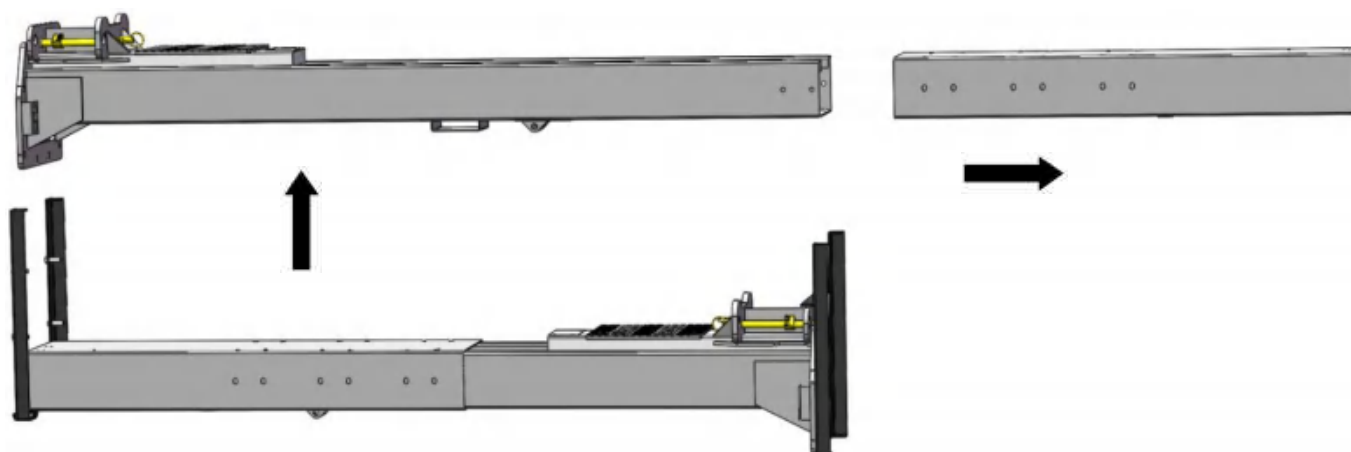
**Fig. 11**

3. Take out top beam, then move them aside to the installation position. **(See Fig. 12)**



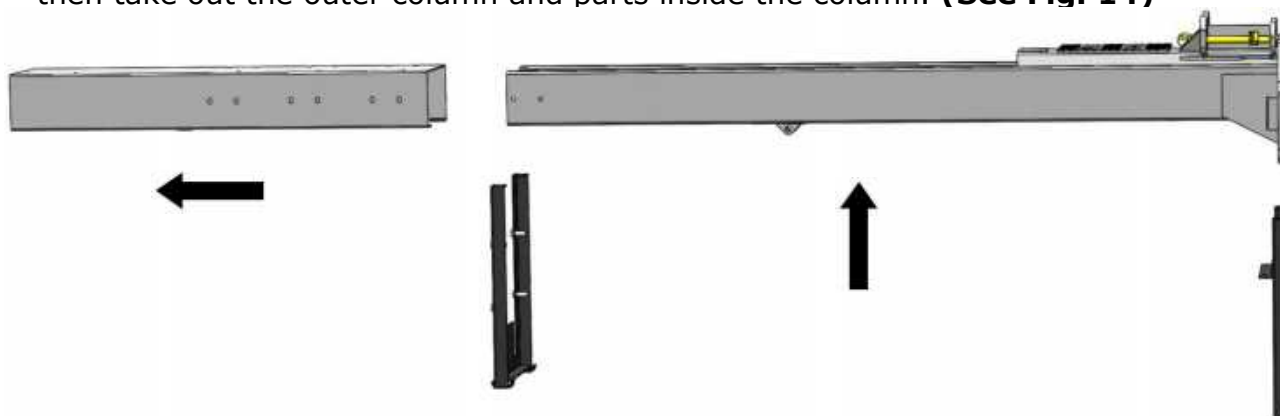
**Fig. 12**

4. Lift the upper column with a fork lift or hoist, loose the upper bolts of the package bracket, then take out the outer column and parts inside the column. **(See Fig. 13)**



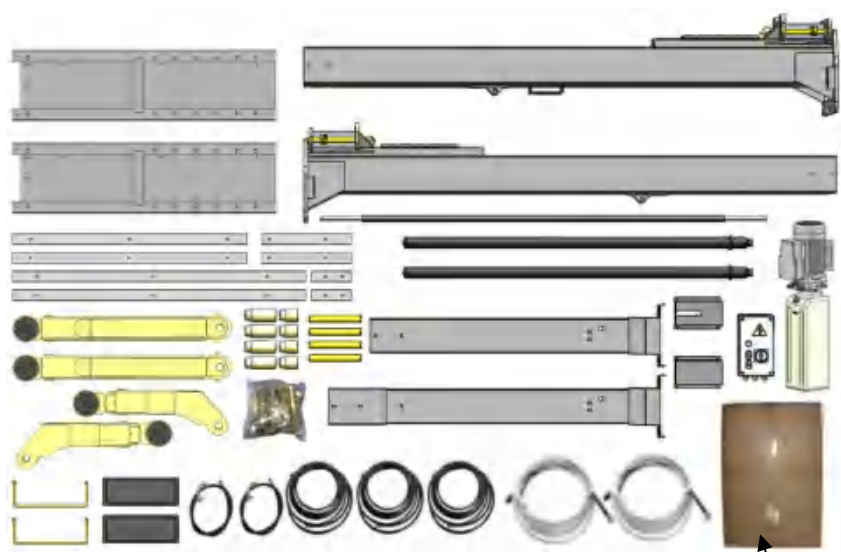
**Fig. 13**

5. Lift the lower column with a fork lift or hoist, loose the upper bolts of the package bracket, then take out the outer column and parts inside the column. **(See Fig. 14)**



**Fig. 14**

6. Move aside the parts and check the parts according to the parts list. **(See Fig. 15 & 16)**



**Shipment parts list  
Fig.15**



**Pars box (106)  
Fig.16**

7. Check the parts of the parts bag 1,2,3 according to parts bag list. (**See Fig. 17**)

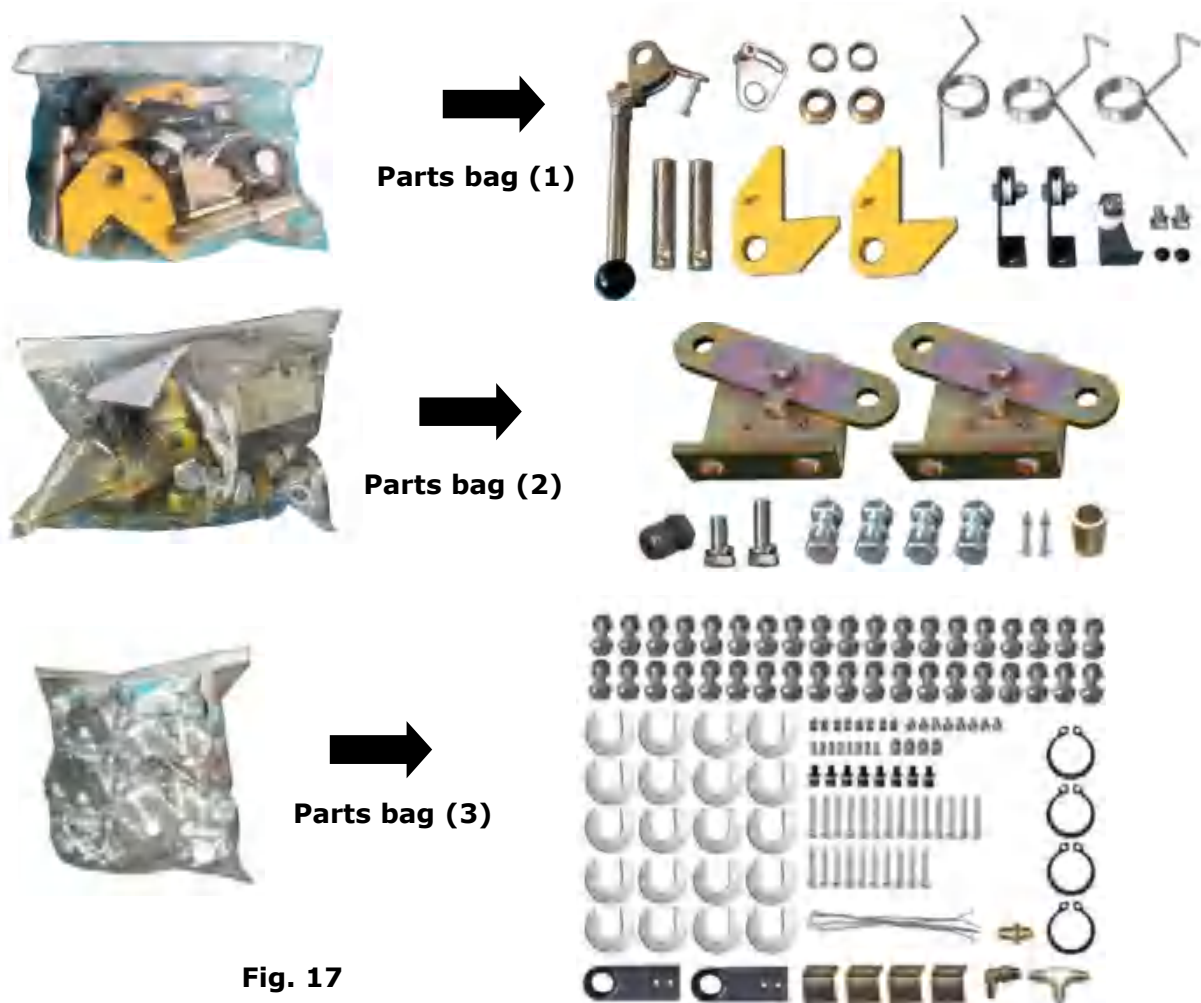


Fig. 17

**D. Install parts of outer columns. (See Fig. 18)**

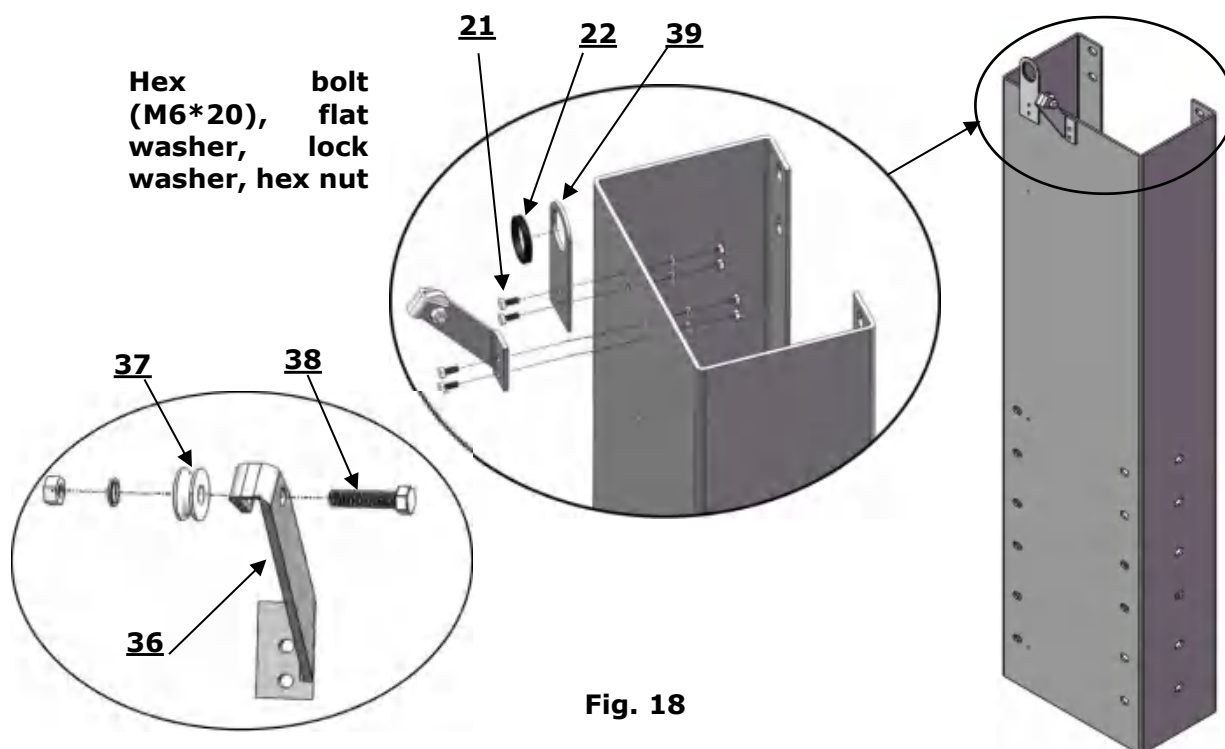
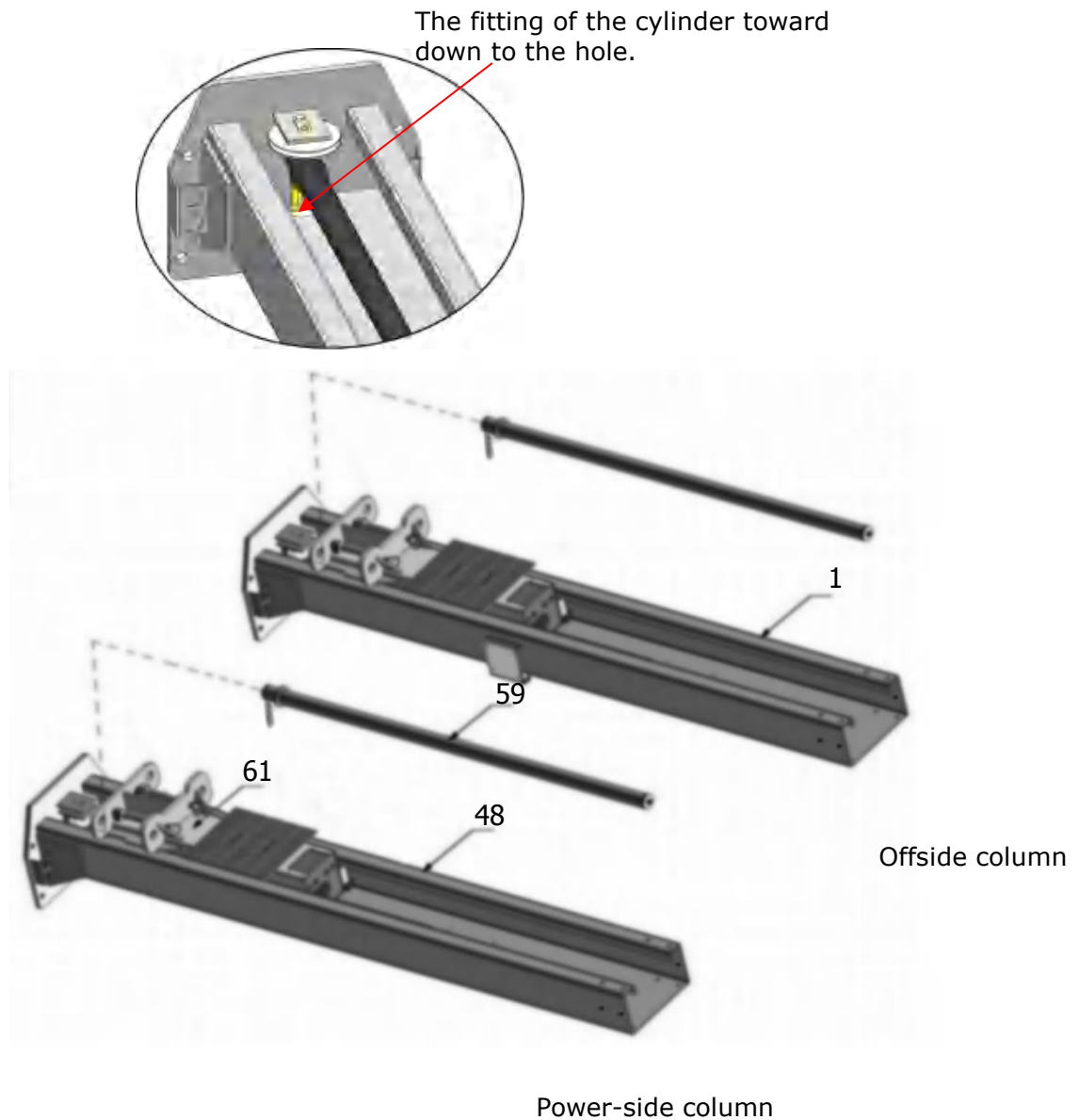


Fig. 18

## E. Confirm the installation location and install hydraulic cylinder

The two columns are placed upside down on the ground of the installation site, and the installation position of the power-side column is determined according to the condition of the installation site. Generally, the power-side column is installed on the right side of the vehicle entering direction. Then install the cylinder.(See Fig. 19).



**Fig. 19**



## F. Install outer columns

**The lift is designed with three height settings, choose high setting, medium setting or low setting on your workshop.**

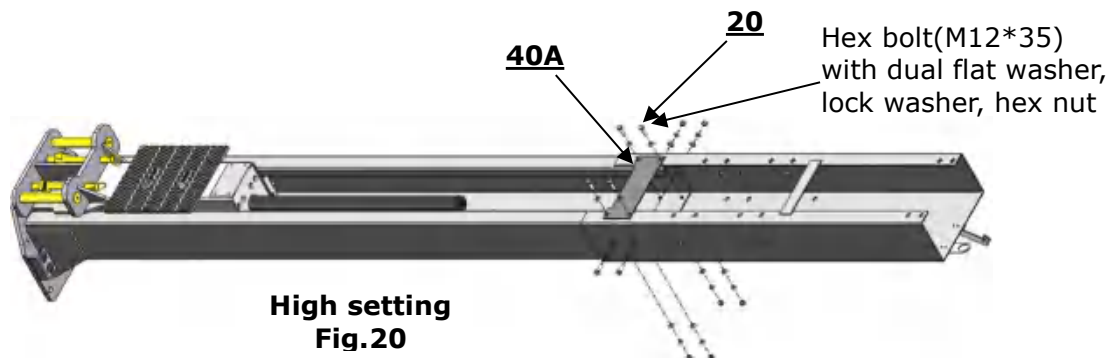
The high setting is suitable for workshops with a height of over 4066mm;

The medium setting is suitable for workshops with a height between 4066-3851mm;

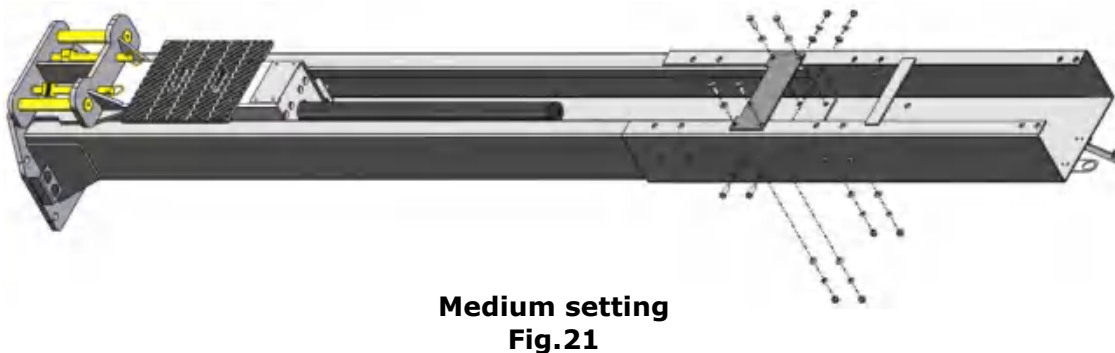
The low setting is suitable for workshops with a height between 3851-3635mm;

The lift is not suitable for workshops with a height less than 3635mm.

- 1.High Setting: connecting the lower holes of outer columns with inner columns. **(See Fig. 20)**



2. Medium Setting: connecting the middle holes of outer columns with the inner columns. **(See Fig.21)**

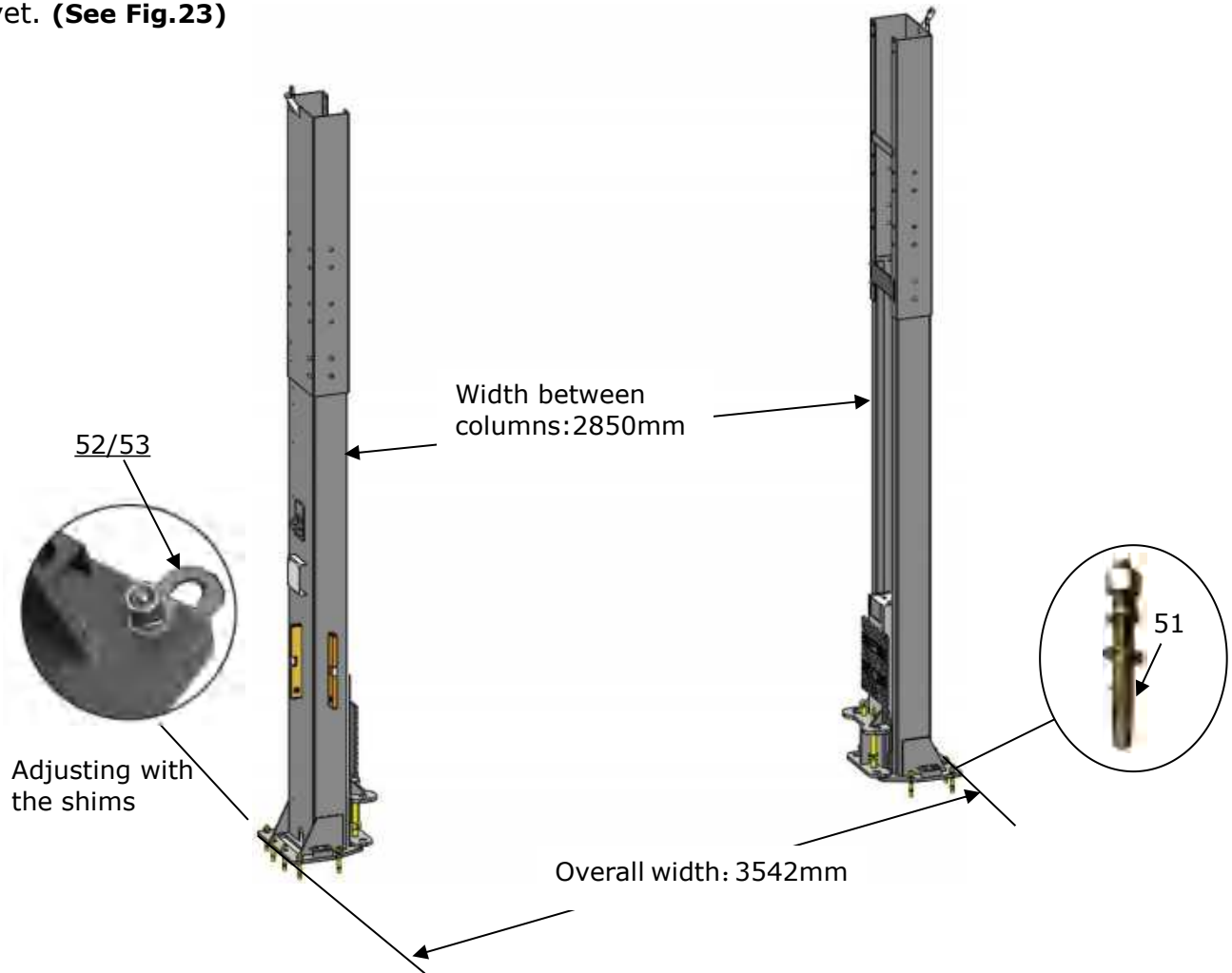


3. Low Setting: connecting the upper holes of outer columns with the inner columns. **(See Fig.22)**



## G. Install anchor bolts.

Position the columns on the installation layout. Check the columns plumbness with level bar, and adjusting with the shims if the columns are not vertical. Do not tighten the anchor bolts yet. (See Fig.23)



**Note:** Minimum embedment of Anchors is 110mm.

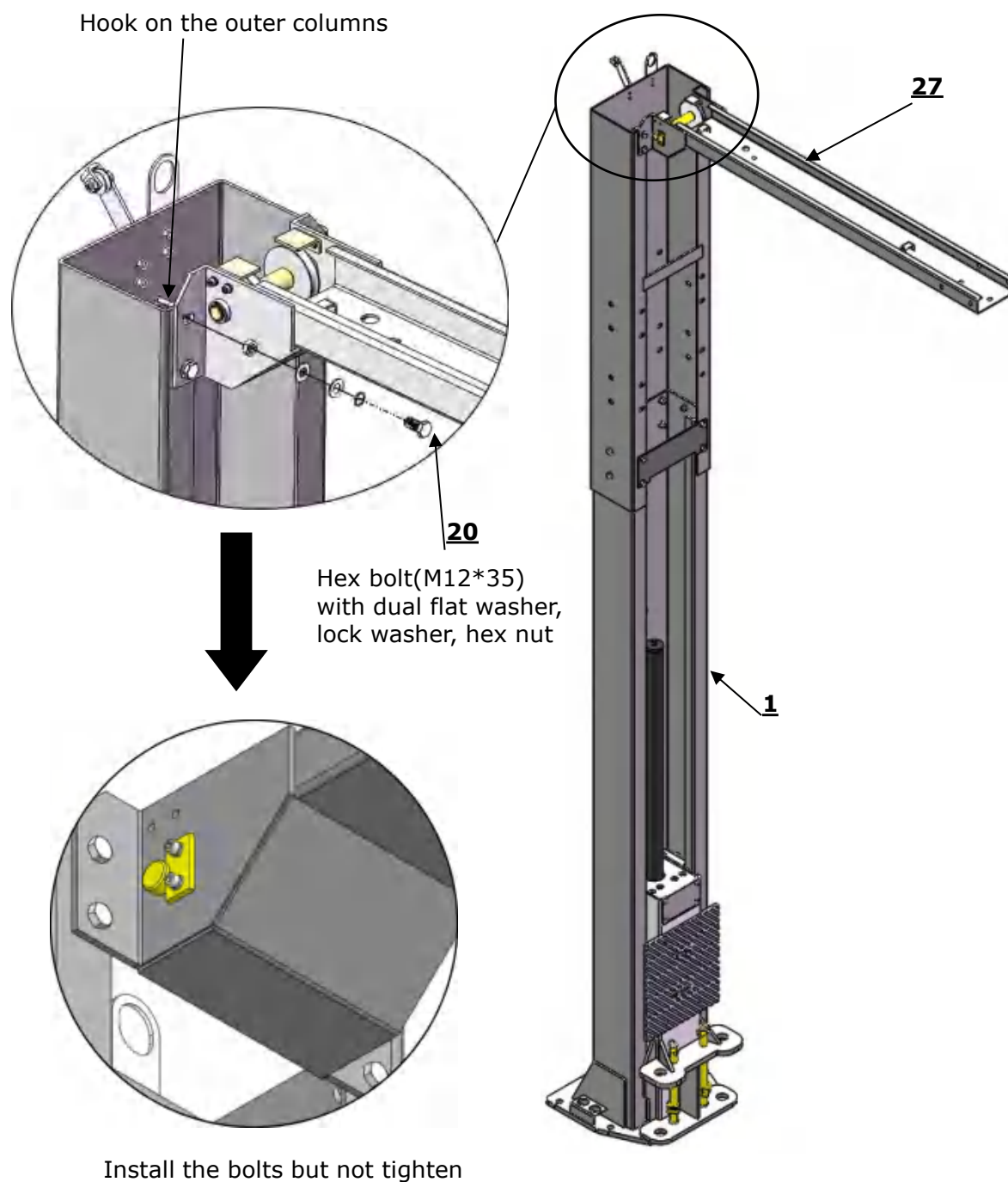


**Fig.23**

**⚠ CAUTION** Concrete and anchor bolts must comply with above specifications. Install lifts only on concrete surfaces. If you are in asphalt or either any other surface on which the lift is mounted, or the concrete or anchor bolts do not meet these specifications, it may result in product damage, vehicle damage, personal injury, or even loss of life.

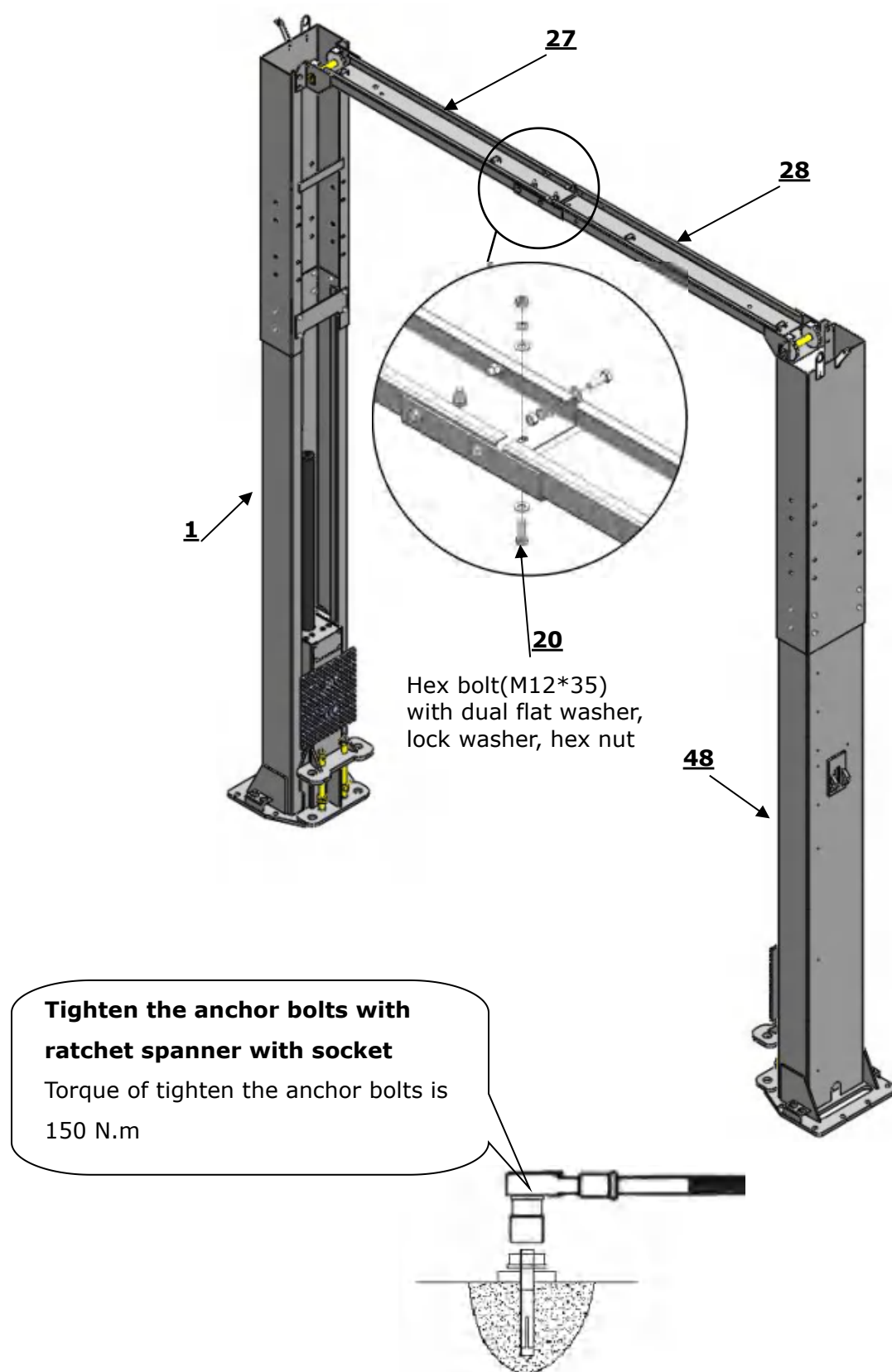
## H. Install overhead top beam

1. Hang the hook of top beam(Left) on the outer column, and then align the holes and install the bolts. **(See Fig. 24)**



**Fig. 24**

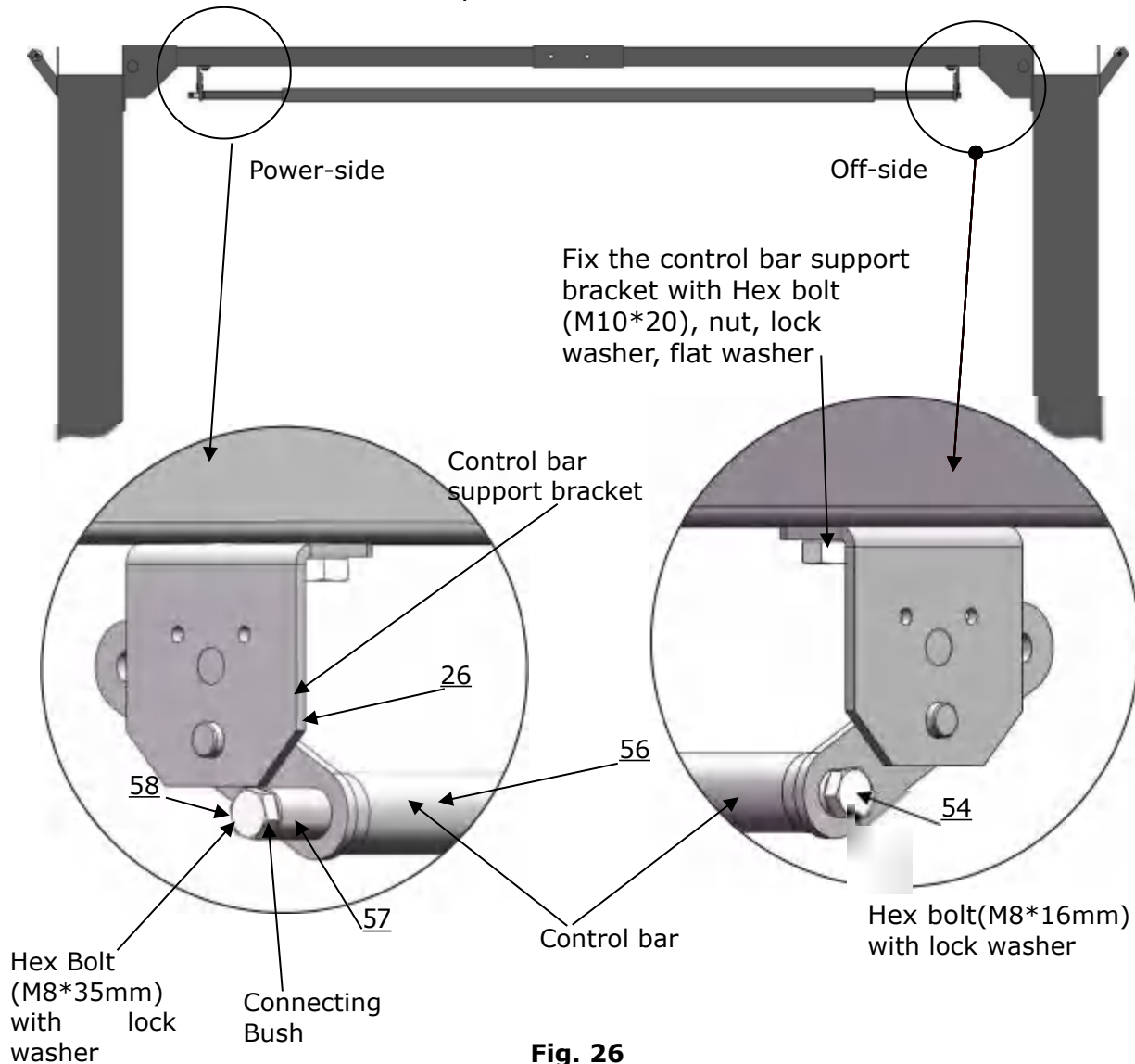
2. Hang the hook of top beam (Right) on the other outer column, and then bolted to top beam (Left). (See Fig. 25)



**Fig.25**

## I. Install control bar for limit switch (See Fig. 26)

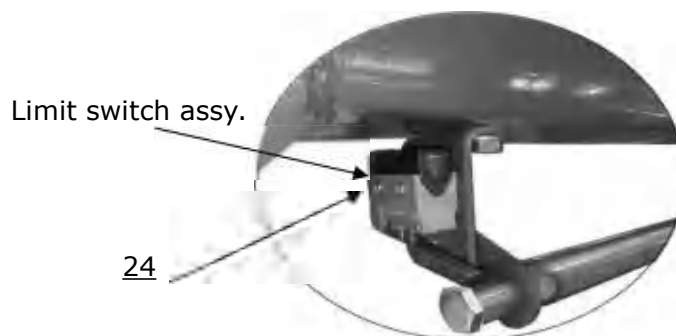
1. Fix the the control bar on the top beam first.



**Fig. 26**

2. Install the limit assy..

Install the limit switch assy. to the power-side control bar support bracket as shown. Run the wire across the top beam hole and along the column to terminal box of the power unit.

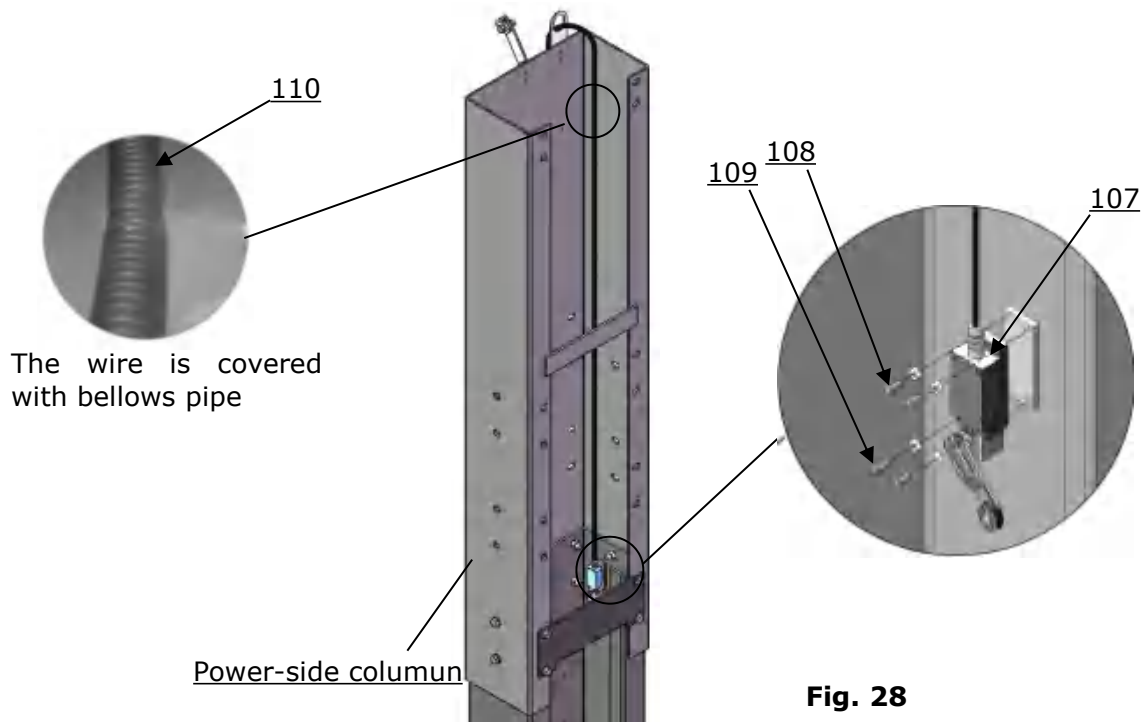


**Fig.27**

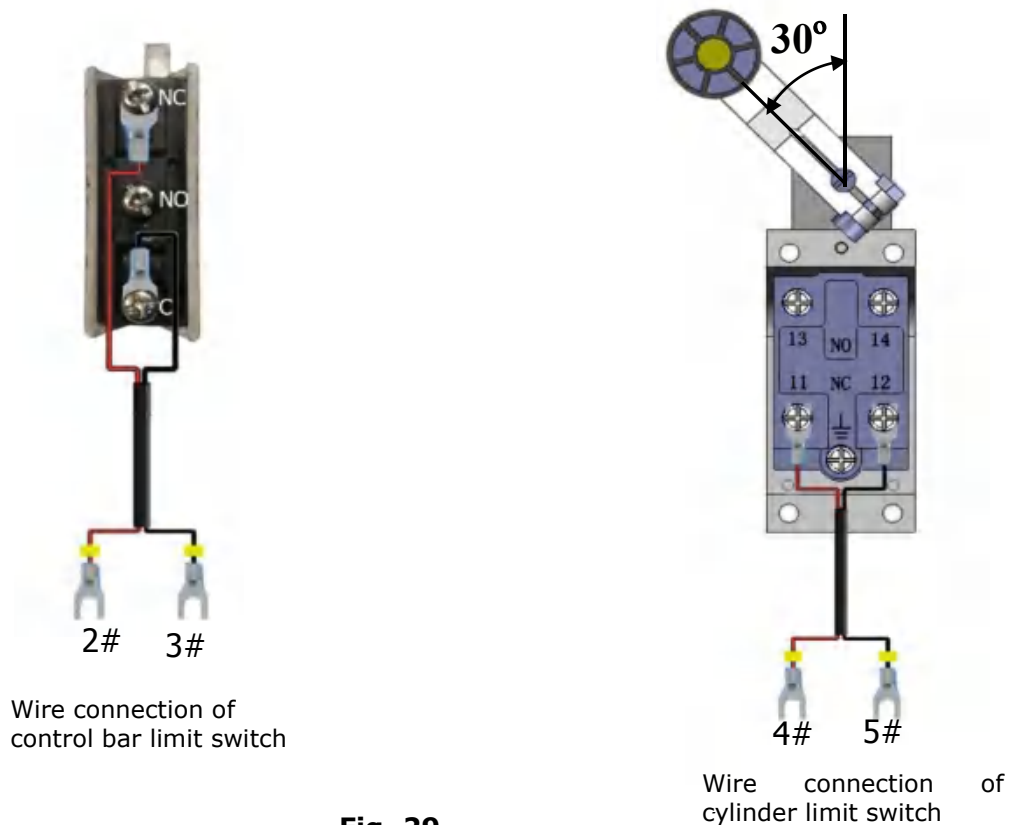
**⚠ DANGER** All wiring must be done by a licensed certified electrician. Do not perform any maintenance or installation of the lift without confirming that the main power had been disconnected from the lift and cannot be reactivated until all procedures have been completed.

### 3. Install cylinder limit switch

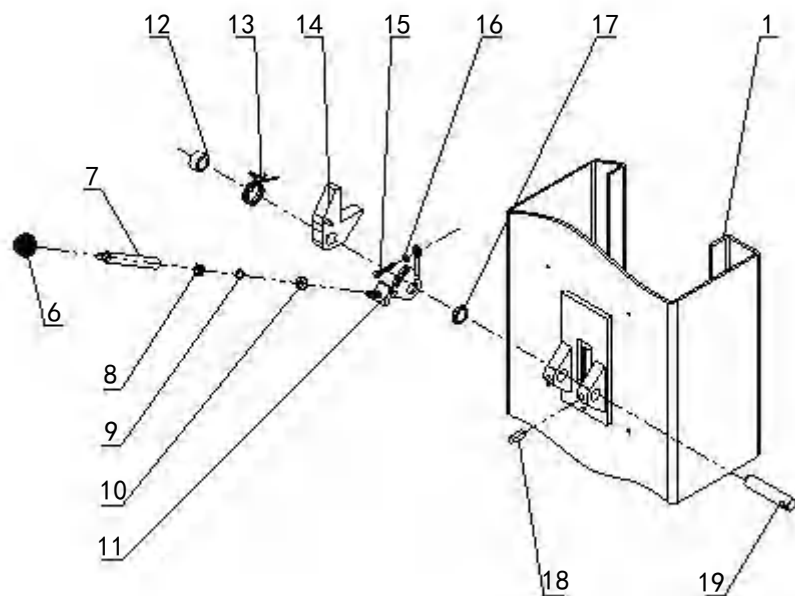
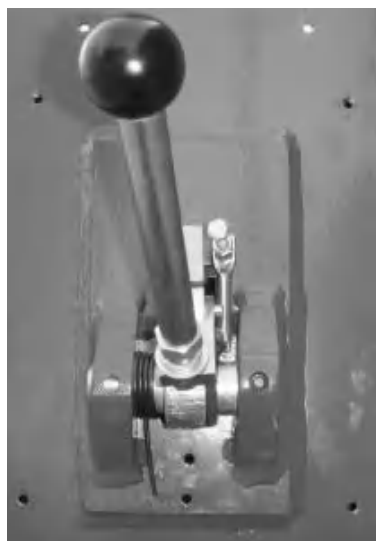
Fix the cylinder limit switch on the mounting plate as shown. Put the limit switch wire into plastic bellows, then across the oil hose support plate which on the top of the column and along the outside of the column to connect the electric control box.



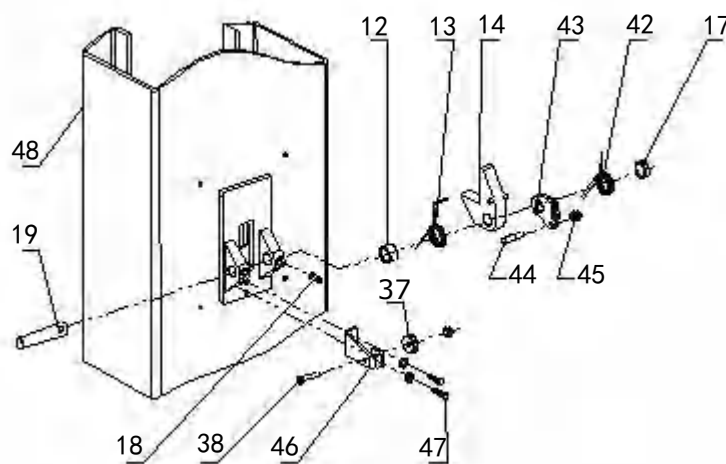
4. Connect the limit switch wire to terminal as shown. Control bar limit switch wire is connected to terminal 2# and 3#, cylinder limit switch wire is connected to terminal 4# and 5#..



**J. Install safety device (See Fig. 30 & 31).**



**Fig. 30 Power-side safety device**



**Fig. 31 Offside safety device**

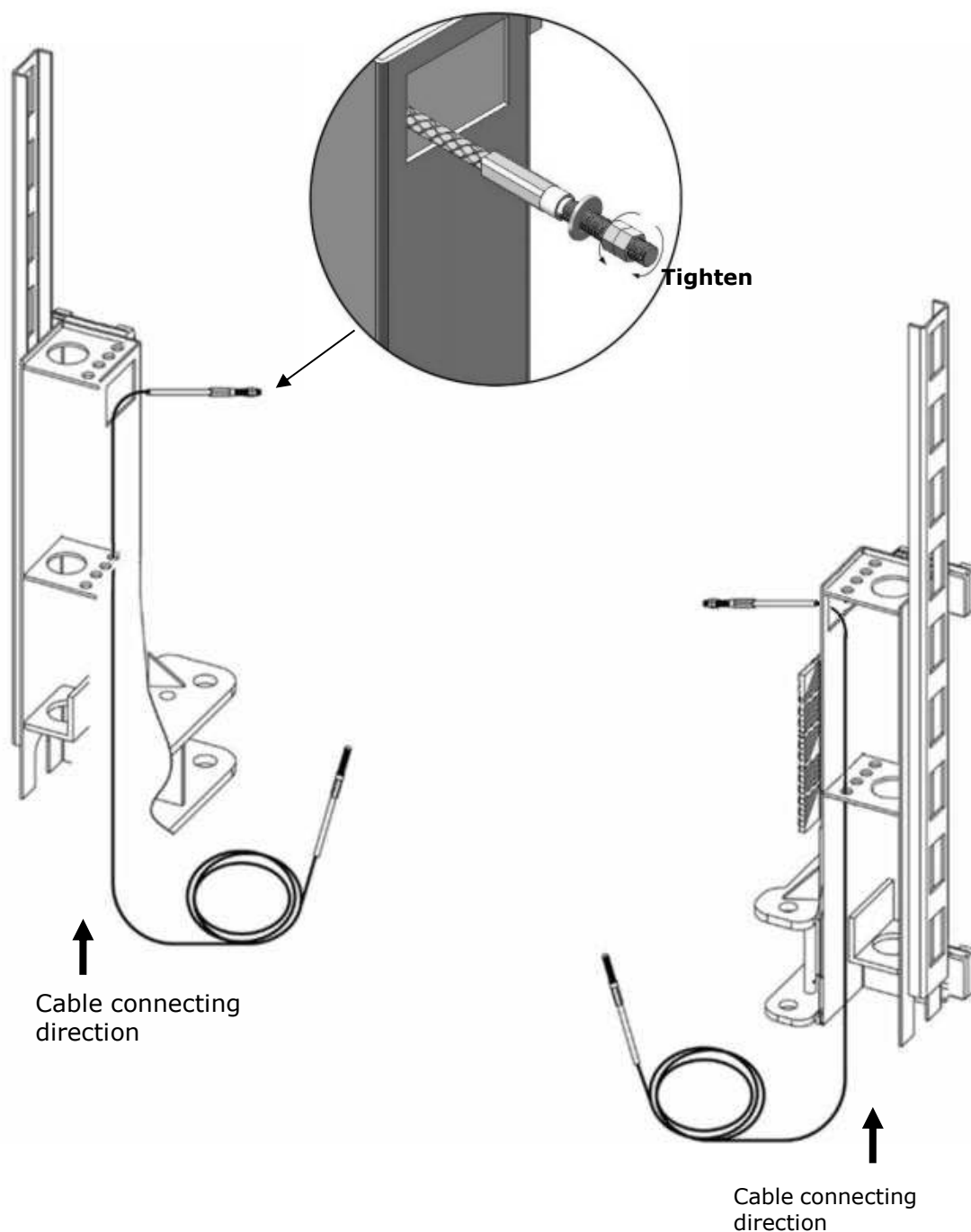
**⚠ DANGER** Make sure the safety device are properly installed before using the lift.

## K. Install sync cables

Raise both sides of carriages and lock them to the same level.

### 1. Sync cable connection of high setting installation

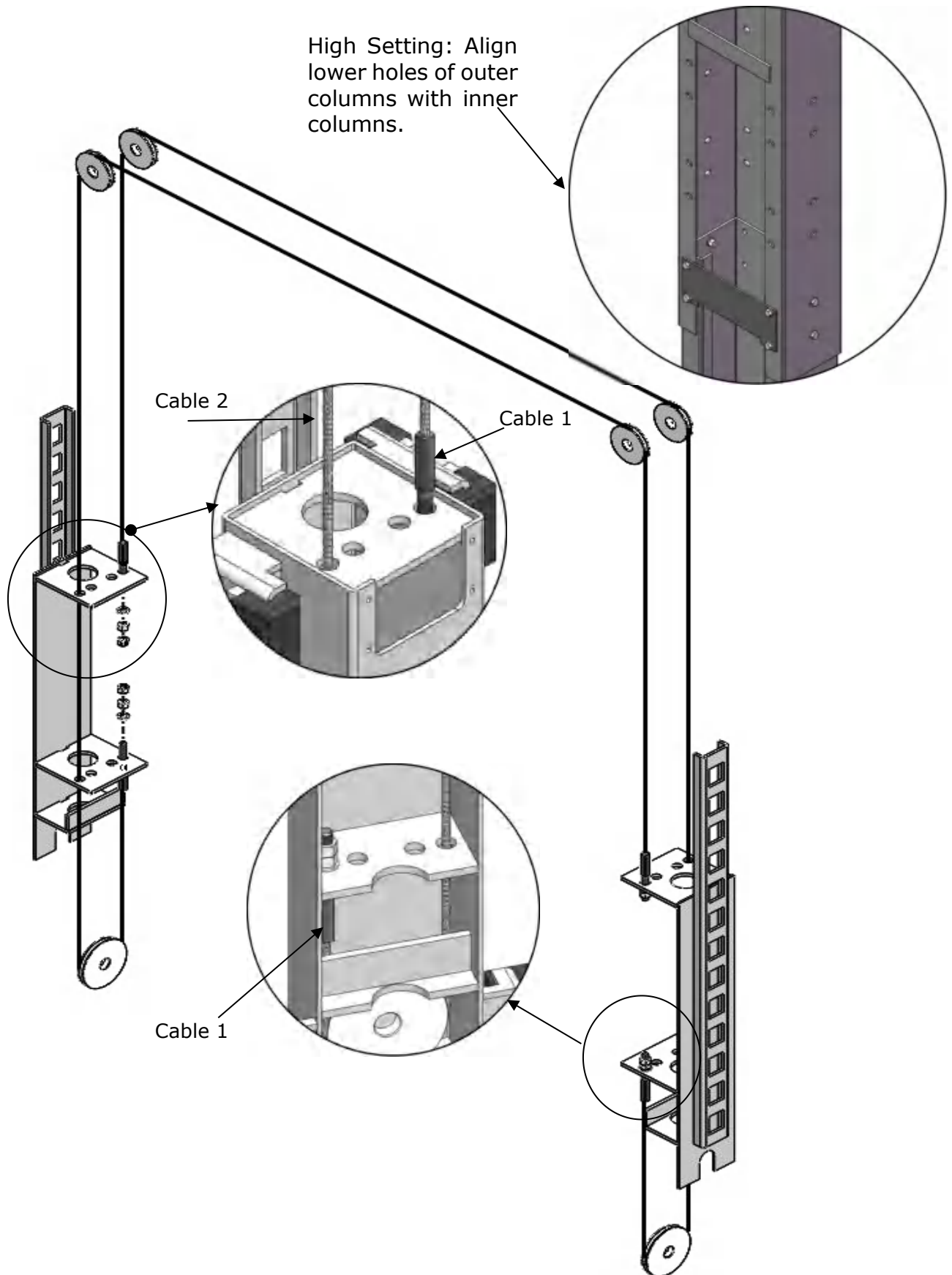
- 1.1 Remove the carriages plastic cover, sync cable across from the bottom of the carriages and pull it out from the hole of carriage, then tighten two cable nuts. **(See Fig. 32)**



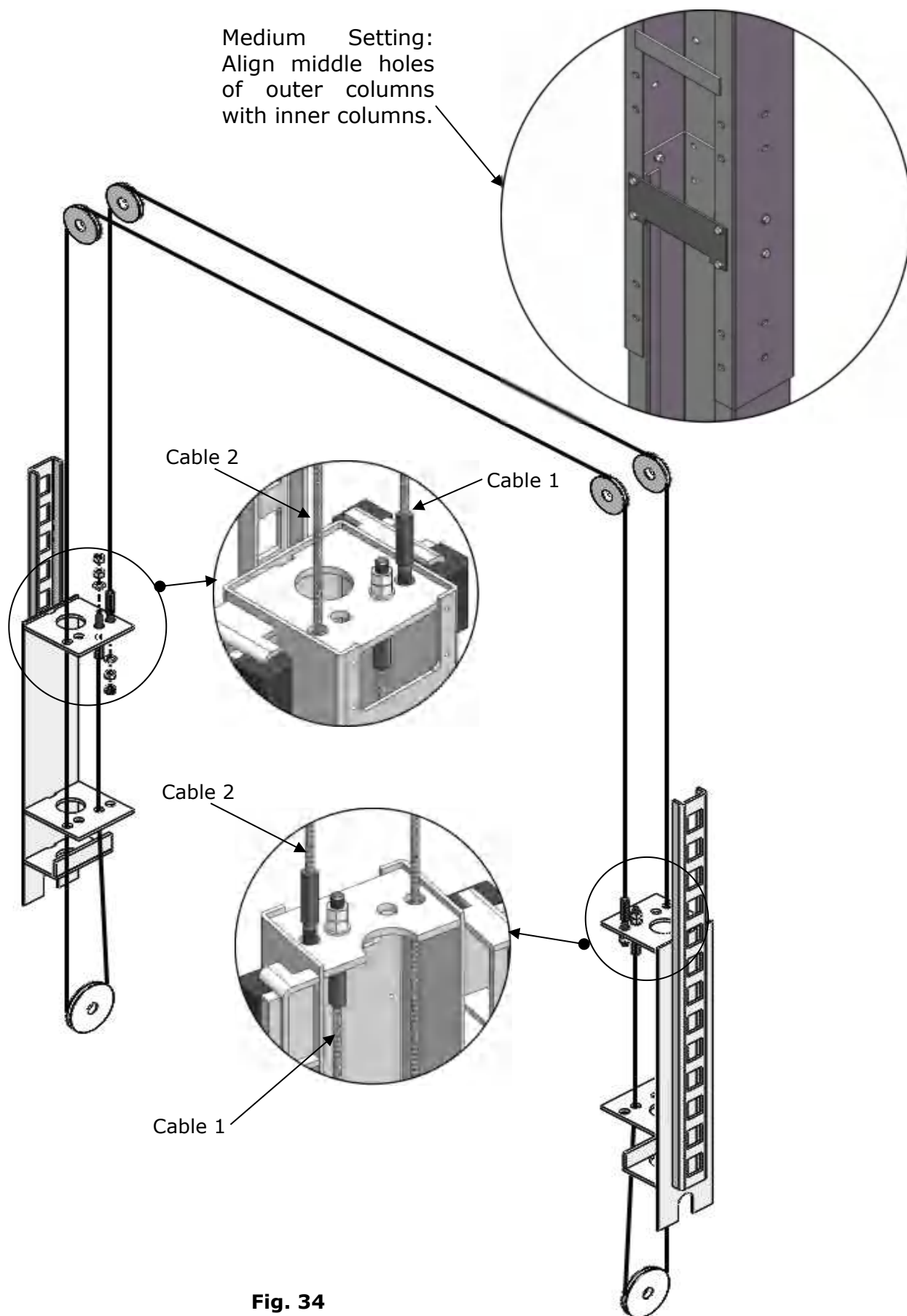
**Fig. 32**



## 1.2 Connecting sync cable for high setting. **(See Fig. 33)**



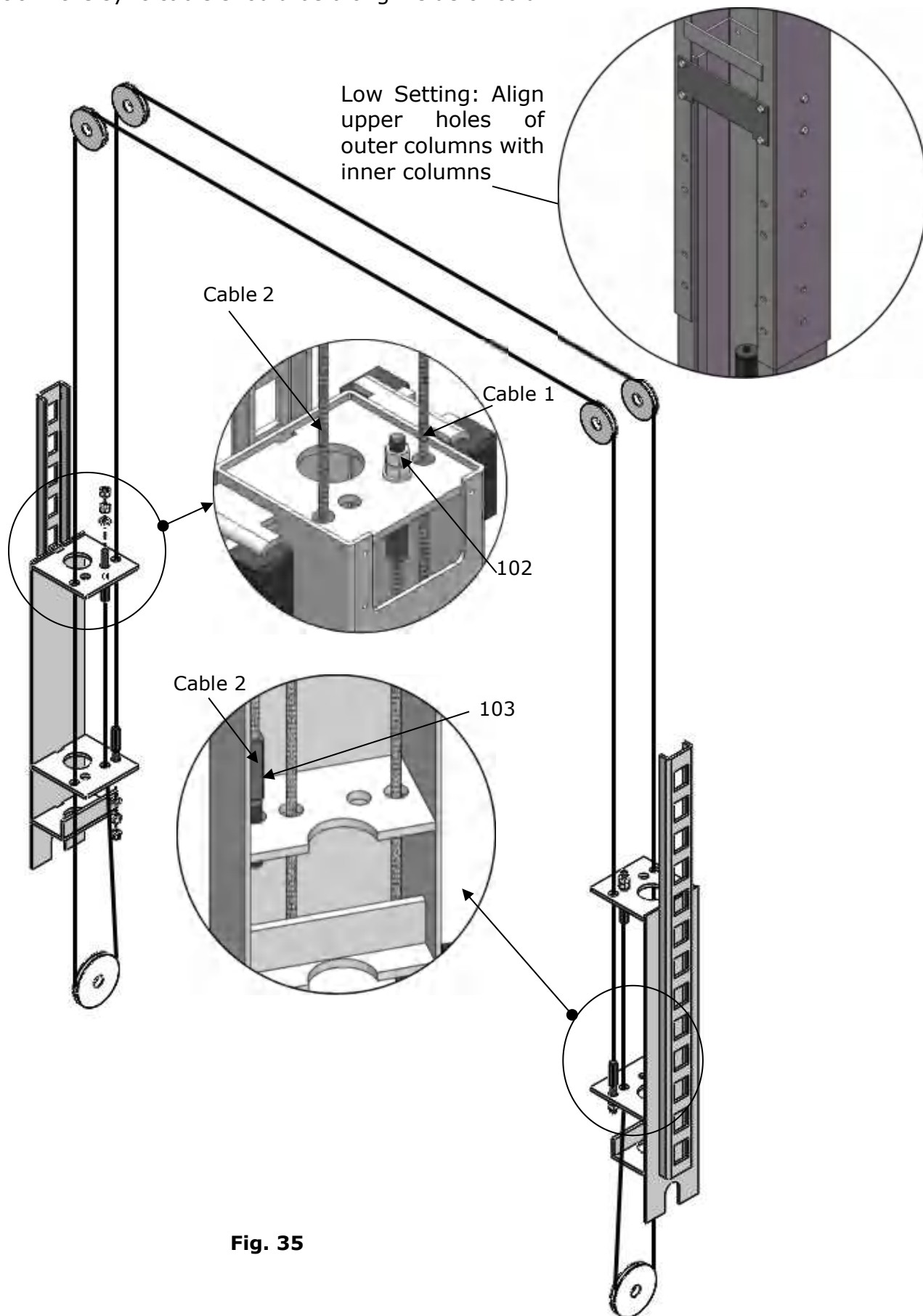
2. Sync cable connection of medium setting installation. **(See Fig.34)**



**Fig. 34**

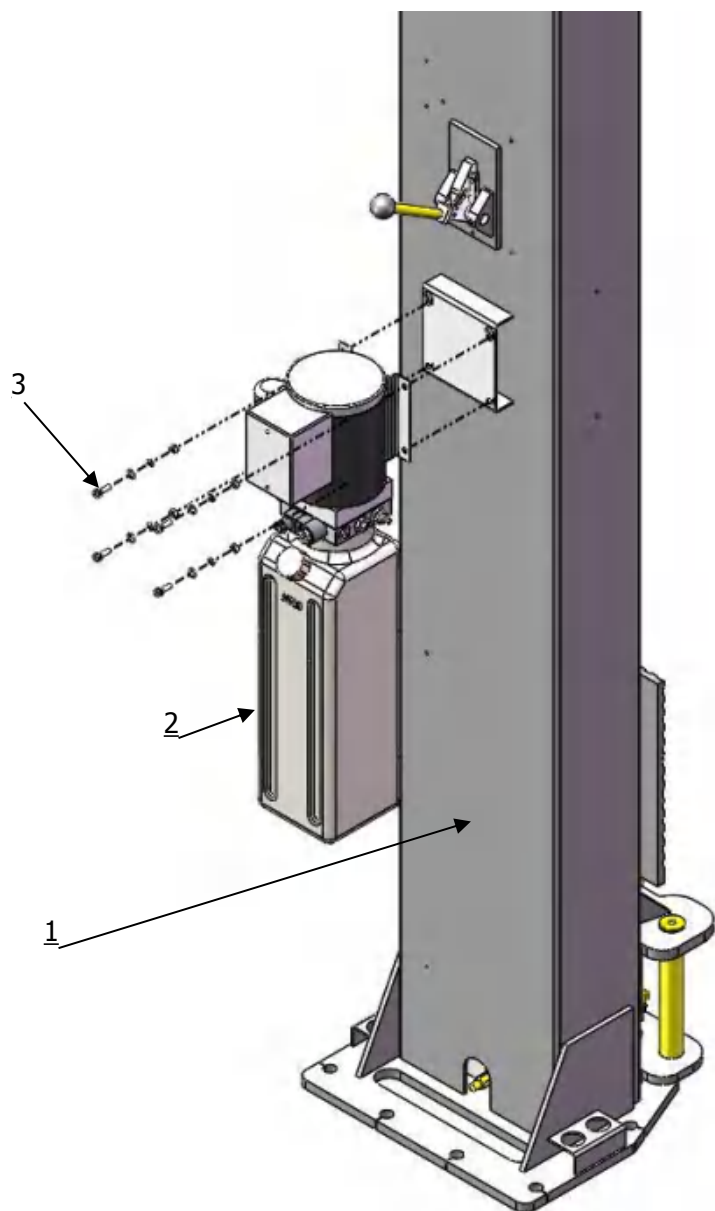
3. Sync cable connection of low setting installation. **(See Fig. 35)**

Attention: the sync cable should be along inside of column.



**Fig. 35**

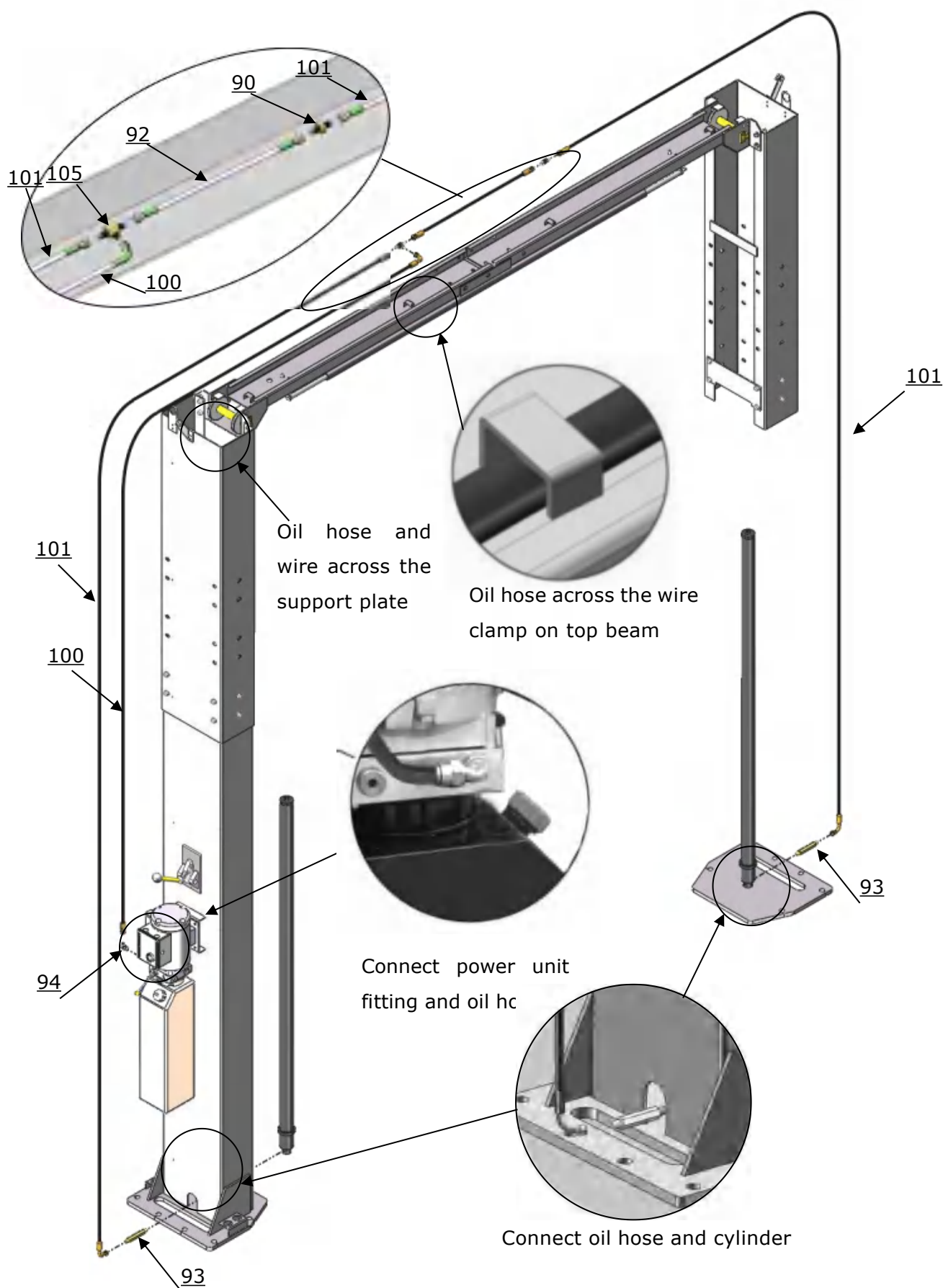
**L. Install power unit (See Fig. 36)**



**Fig.36**

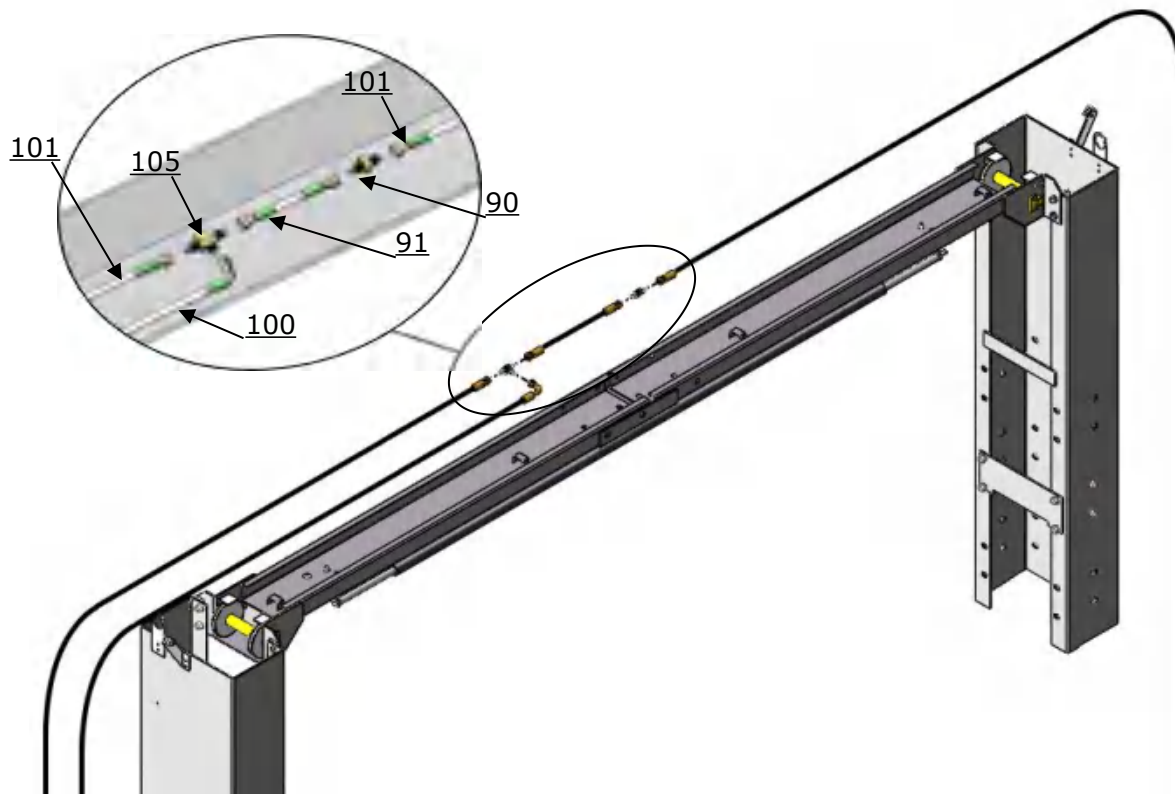
## M. Install oil hose of high, medium and low setting.

### 1. Oil hose installation of high setting.(Fig.37)



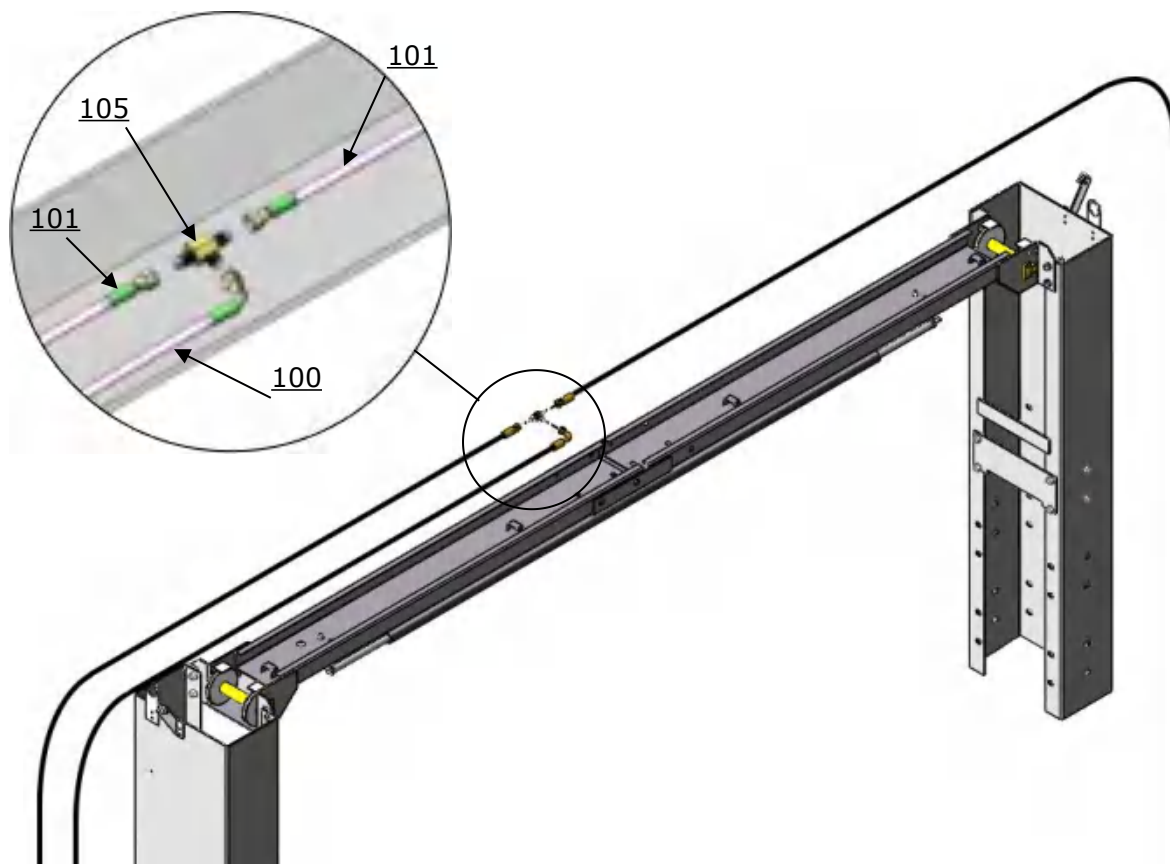
**Fig.37**

2. Oil hose installation of medium setting. **(Fig.38)**



**Fig.38**

3. Oil hose installation of low setting. **(Fig.39)**

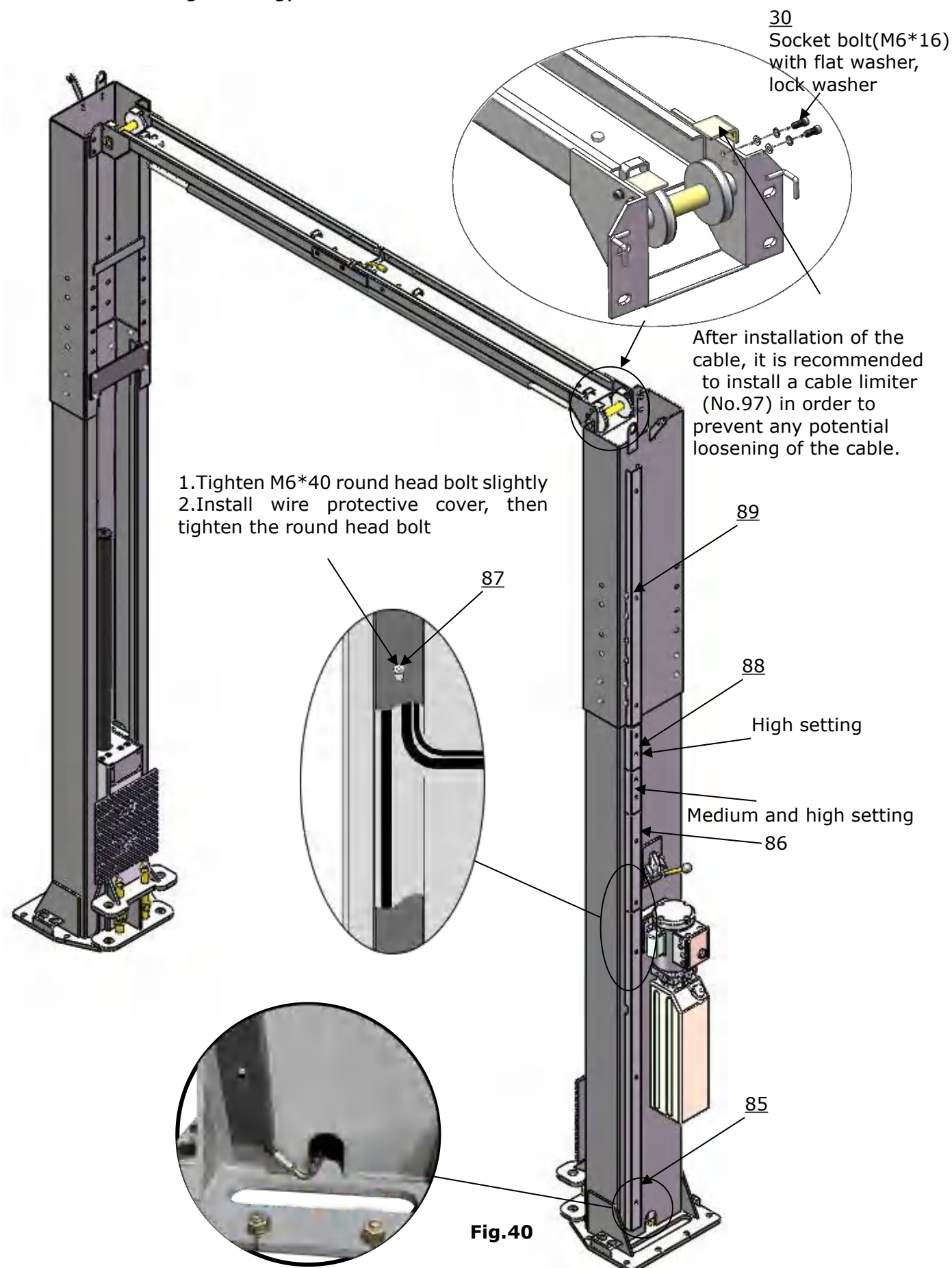


**Fig.39**



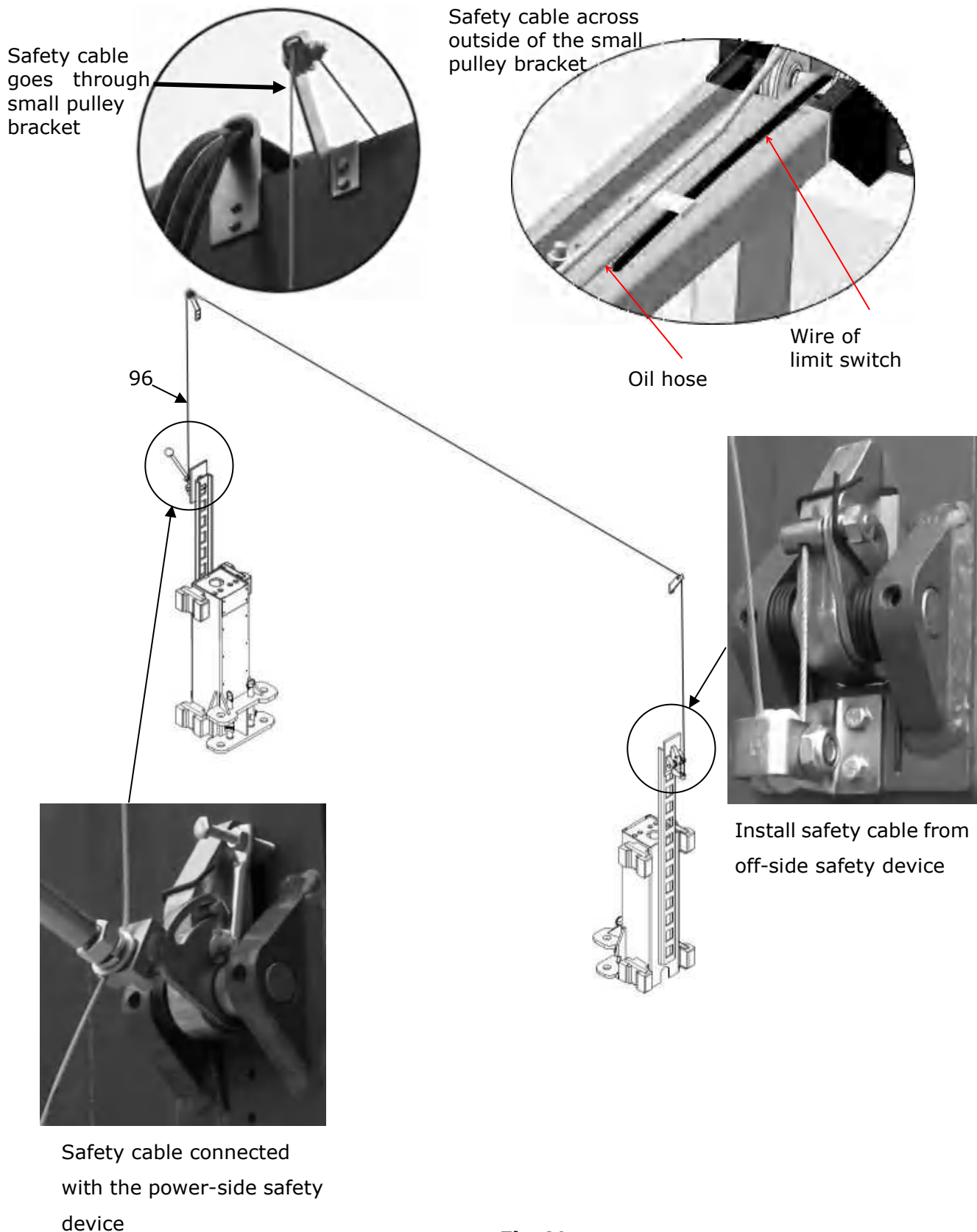
## N. Install wire protective cover and sync cable limit plate.(See Fig.40)

(No.:88 wire protective cover: Install 1pc for each column in medium setting; install 2pcs for each column in high setting)



## O. Install lock release cable (See Fig.41)

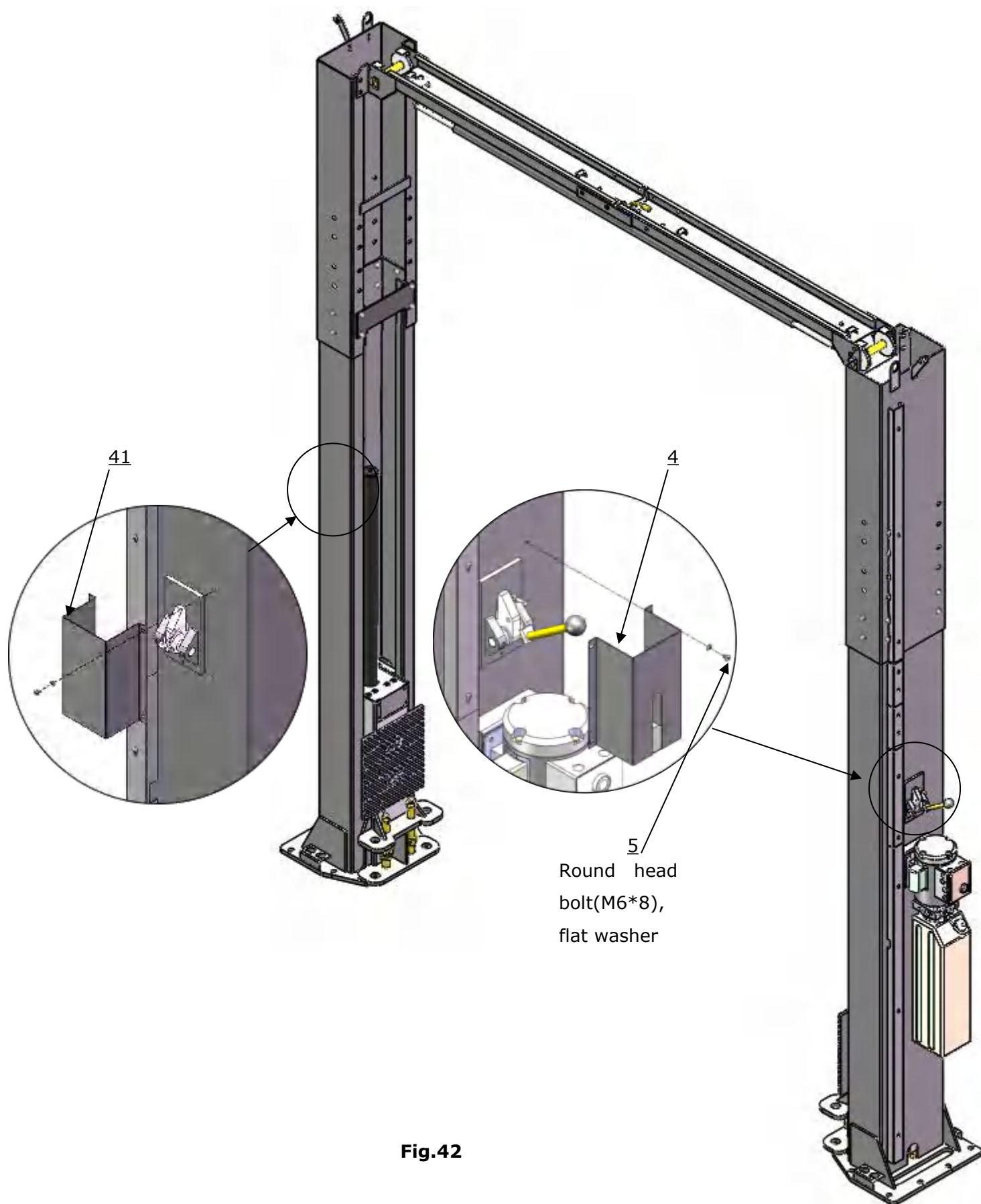
Install lock release cable. Start from off-side safety device, then pass it through the top beam, finally connect to power-side safety device.



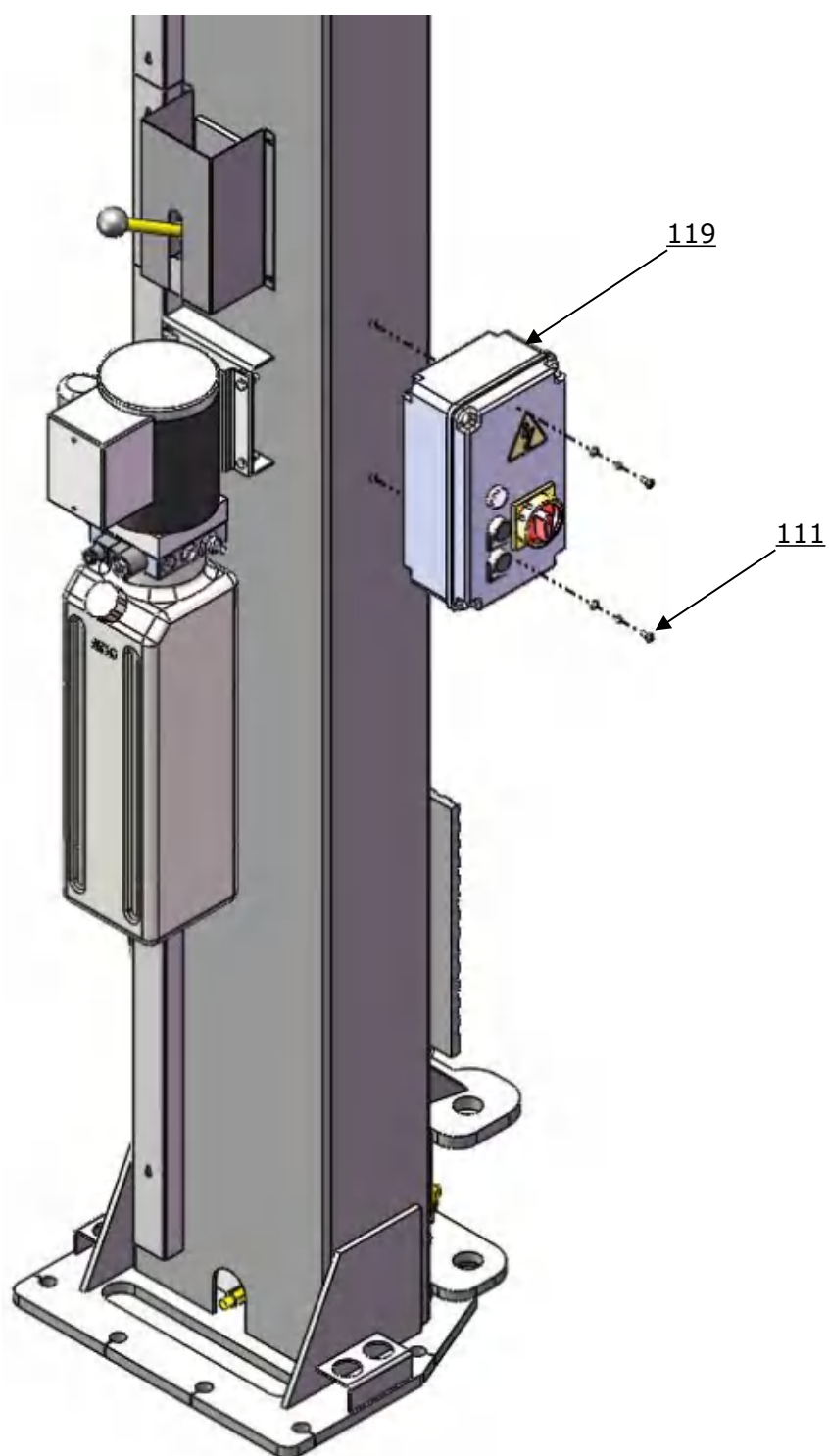
**Fig.41**



**P. Install safety device cover (See Fig. 42)**



**Q. Install control box (See Fig. 43)**



**Fig.43**

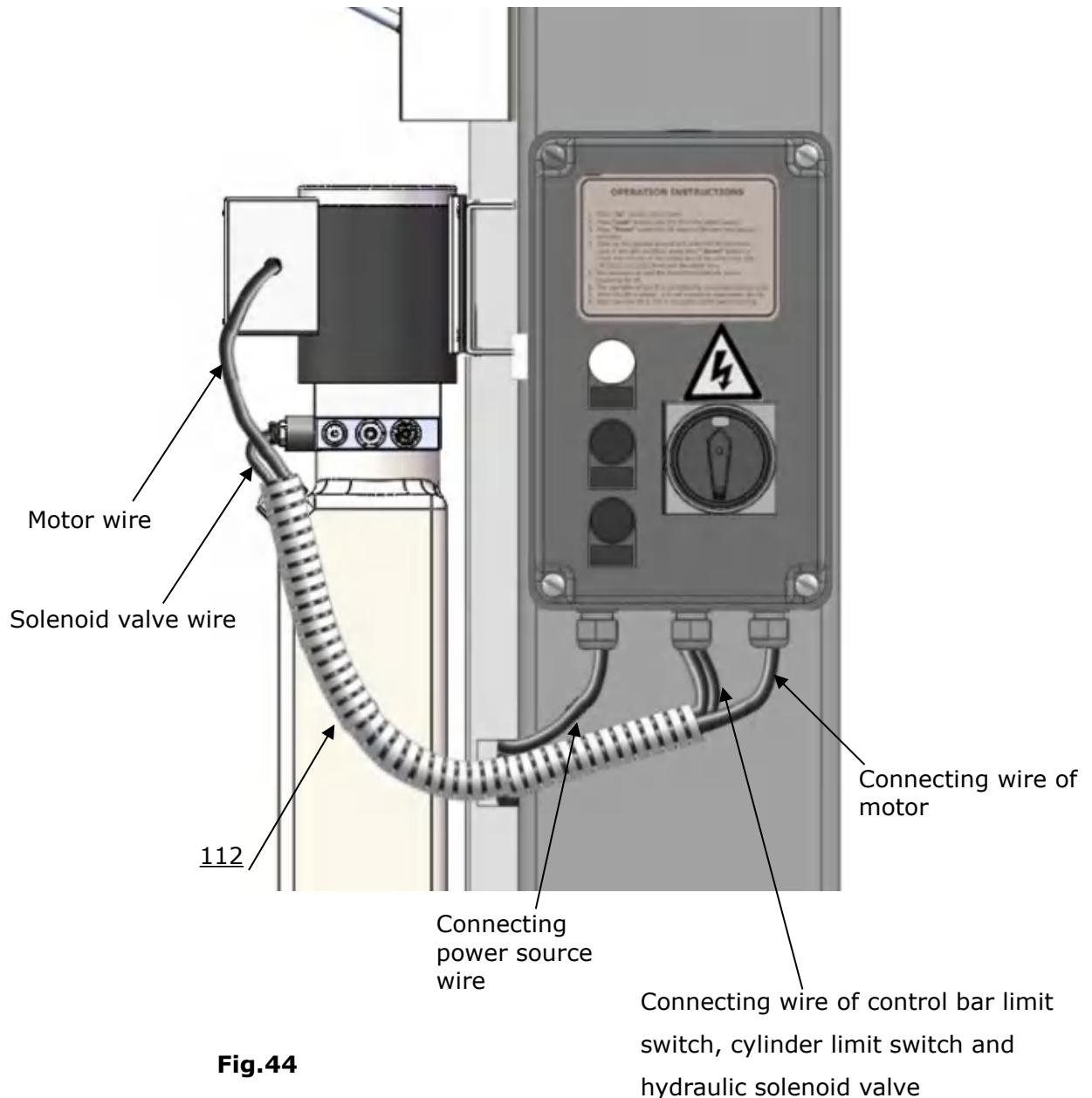
## R. Install electrical system

1. Connecting wire with control box (See Fig. 44).

**Note: 1) Specification of wire of limit switch and hydraulic solenoid valve is  $2 \times 1^2$**

**Wire cable for power source and motor are  $4 \times 2.5^2$ .**

- 2) Using white bobbin to wind around wire.



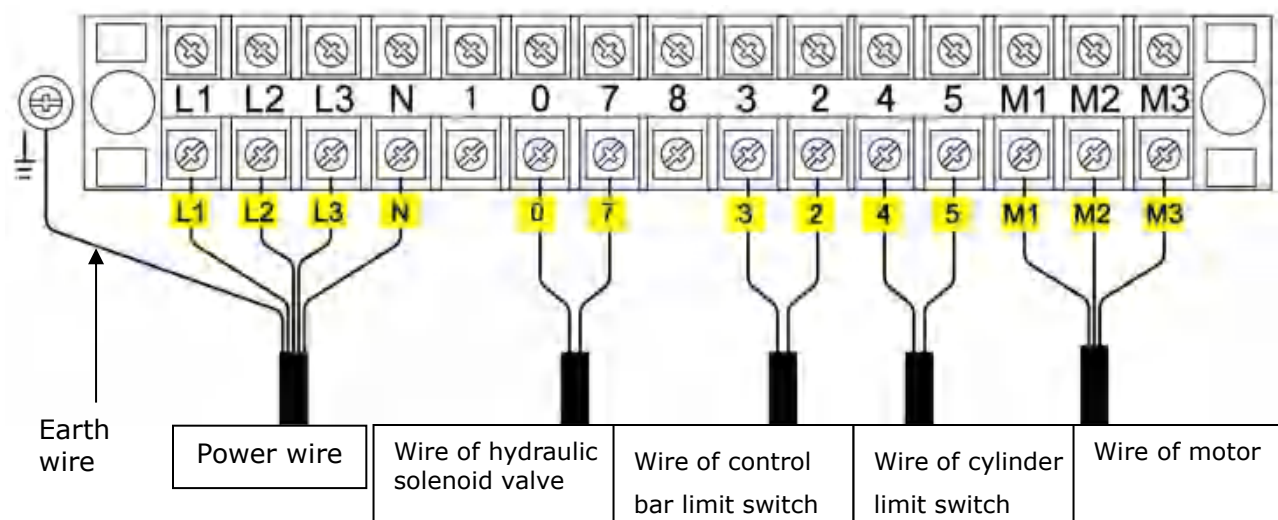
**Fig.44**

**⚠ DANGER** All electrical wiring must be performed by a licensed and certified electrician. Before ensuring the main power has disconnected from the lift and cannot be re-applied until all procedures have been completed, don not perform any maintenance or installation to the lift.

**⚠ DANGER** Do not use the lift if the wires are damaged or severely worn. If the vehicle rises without noticing damage or extreme wear, carefully lower the vehicle to the ground. Once the lift is on the ground, remove it, disconnect the power, and arrange for protection.

## 2. 380V Wire connection and circuit diagram

### 2.1 Wire connection diagram in the control box. (See Fig. 45)

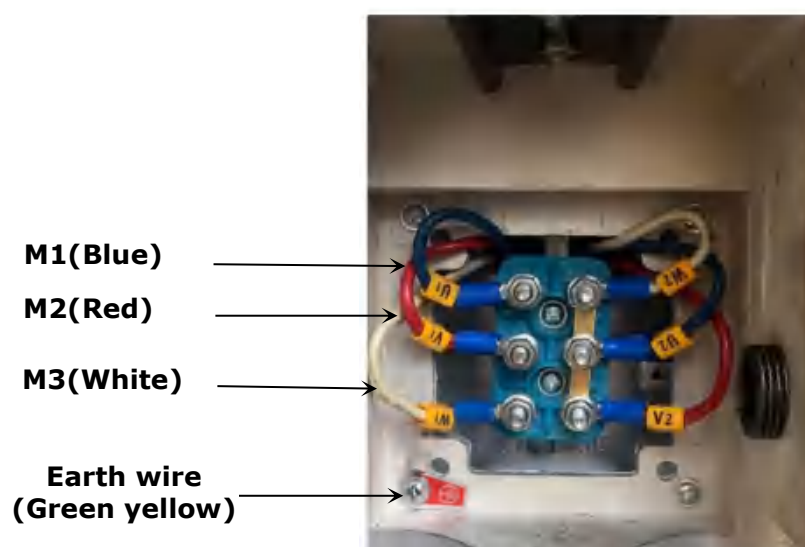


**Fig. 45**

### 2.2 380V Wire connection diagram of hydraulic motor (See Fig. 46).

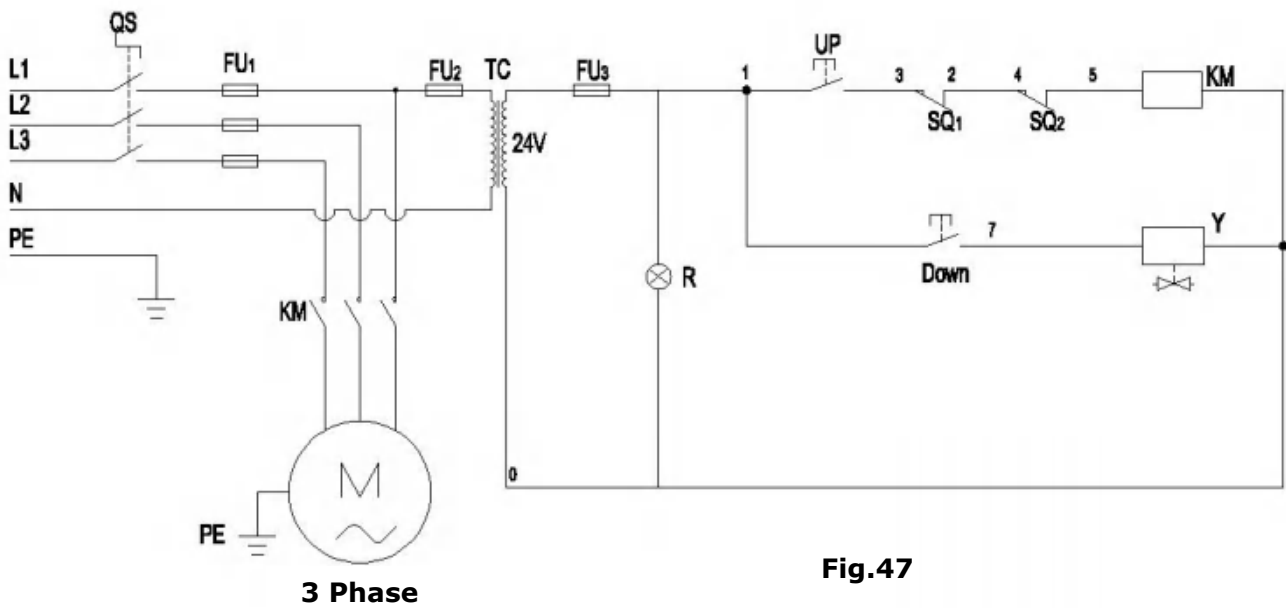
Motor wire (M1,M2,M3) are connected to the right terminal of control box.

If motor run but lift does not work, please exchange the wire M1 and M2 connection.



**Fig.46**

### 2.3 380V Circuit diagram (See Fig. 47).



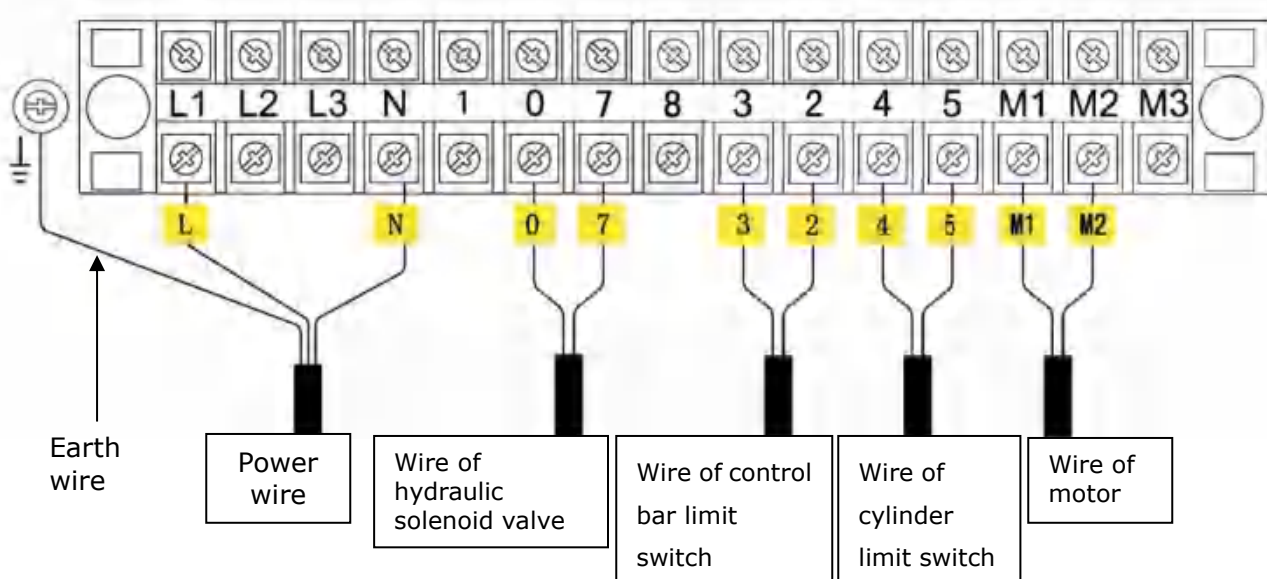
**Fig.47**

Circuit diagram component list For 380V Power

Item	Name	Code	Specification	Item	Name	Code	Specification
1	Power Switch	QS	380V AC	7	Limit switch	SQ(1~2)	10A
2	Breaker	FU <sub>1</sub>	3P	8	AC Contactor	KM	24V AC
3	Breaker	FU <sub>2</sub>	1P	9	Power indicator lamp	R	White (24V)
4	Breaker	FU <sub>3</sub>	1P	10	Push Button	Down	Single
5	Hydraulic Solenoid Valve	Y	24V AC	11	Motor	M	Three phase
6	Push Button	UP	Single	12	Transformer	TC	24V AC

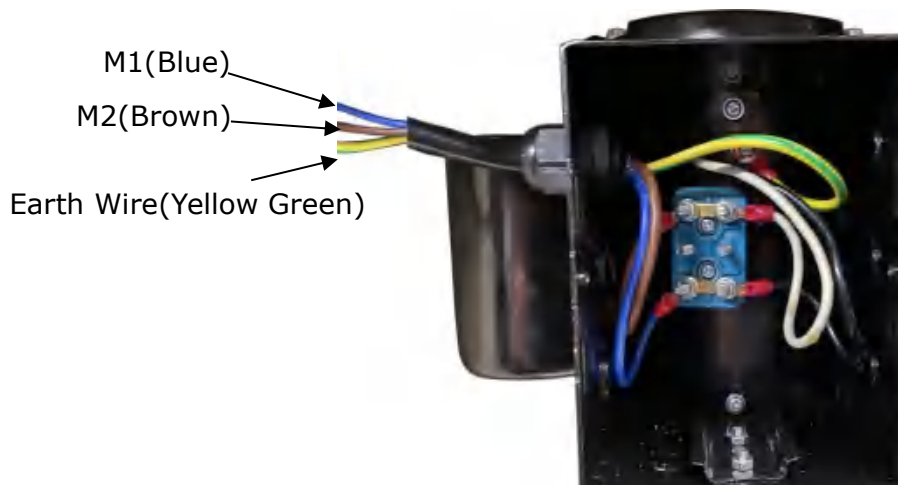
### 3. 220V Wire connection and circuit diagram

#### 3.1 Wire Connection diagram in the control box (See Fig. 48).



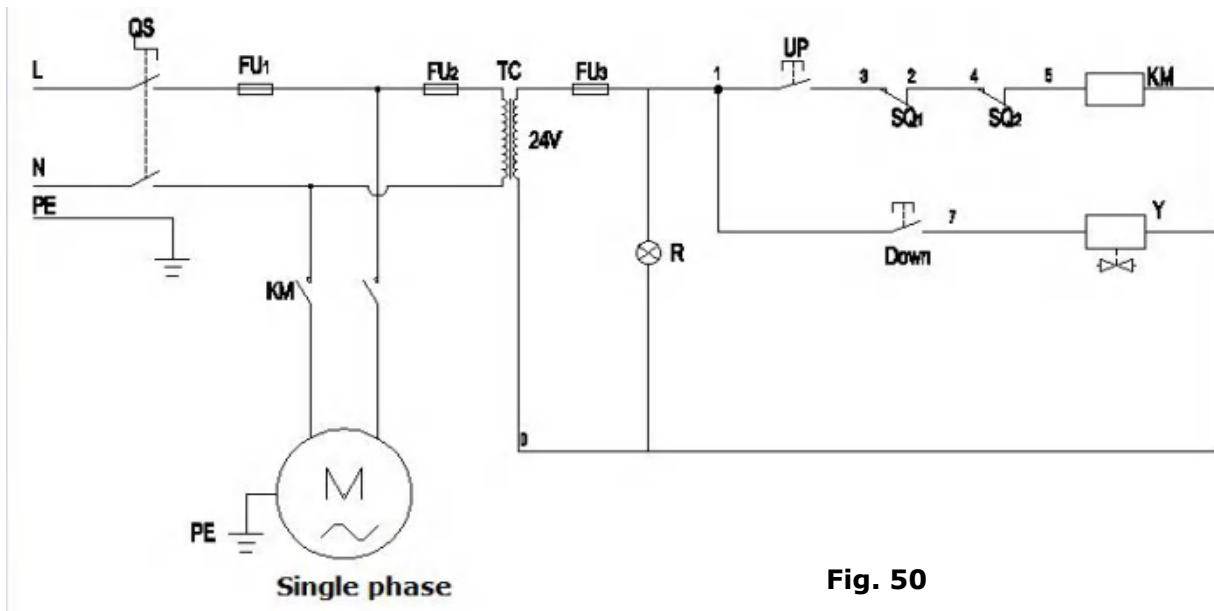
### 3.2 220V Wire connection of hydraulic power unit (See Fig. 49).

Motor wire (M1,M2) separately connected to two wires in the motor



**Fig. 49**

### 3.3 220V Circuit diagram (See Fig. 50).



**Fig. 50**

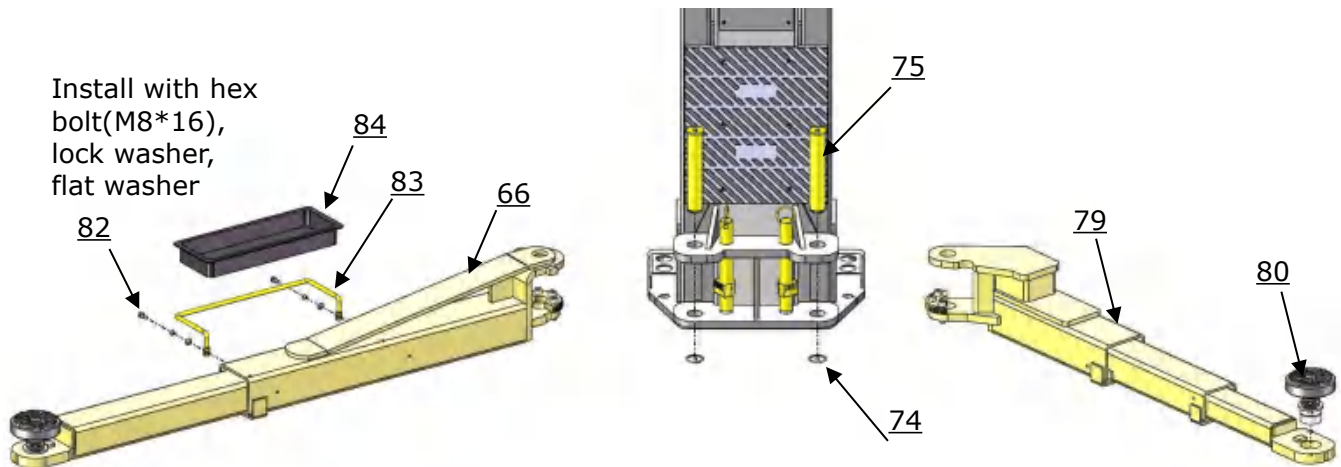
Circuit diagram component list For 220V Power

Item	Name	Code	Specification
1	Power Switch	QS	380V AC
2	Breaker	FU <sub>1</sub>	2P
3	Breaker	FU <sub>2</sub>	1P
4	Breaker	FU <sub>3</sub>	1P
5	Push Button	UP	Single
6	AC Contactor	KM	24V AC
7	Hydraulic Solenoid Valve	Y	24V AC
8	Power indicator lamp	R	White (24V)
9	Push Button	Down	Single
10	Motor	M	Single phase
11	Transformer	TC	24V AC
12	Limit Switch	SQ <sub>(1-2)</sub>	10A



## S. Install lifting arms

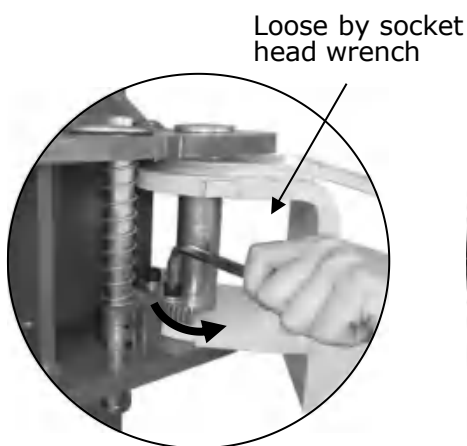
1. Install lifting arms according to the figure, then install spring on the arm pin, last install guard bar. **(See Fig.51)**



**Fig.51**

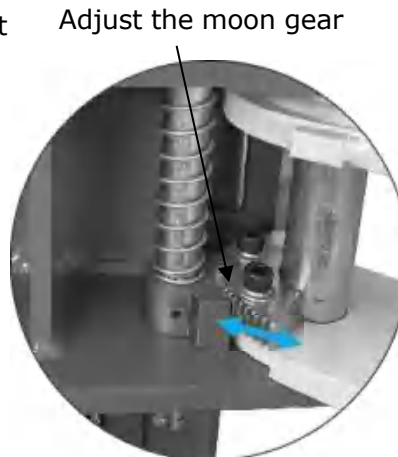
2. Lowering the carriages down to the lowest position, then use the 10# socket head wrench to loosen the socket bolt **(See Fig. 52)**; follow the arrow direction to adjust the moon gear **(See Fig. 53)**; lock the bolts after the moon gear and arm lock are engaged well **(See Fig. 54)**.

### The process of engaging arm lock and moon gear



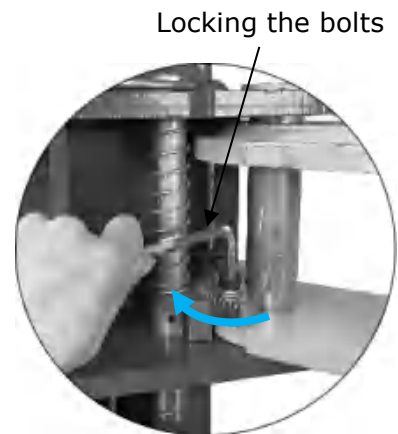
1. Use the 10# socket head wrench to loose the socket bolt

**Fig.52**



2. Follow the arrow direction to adjust the moon gear

**Fig.53**



3. Lock the bolts after the moon gear and arm lock are engaged well

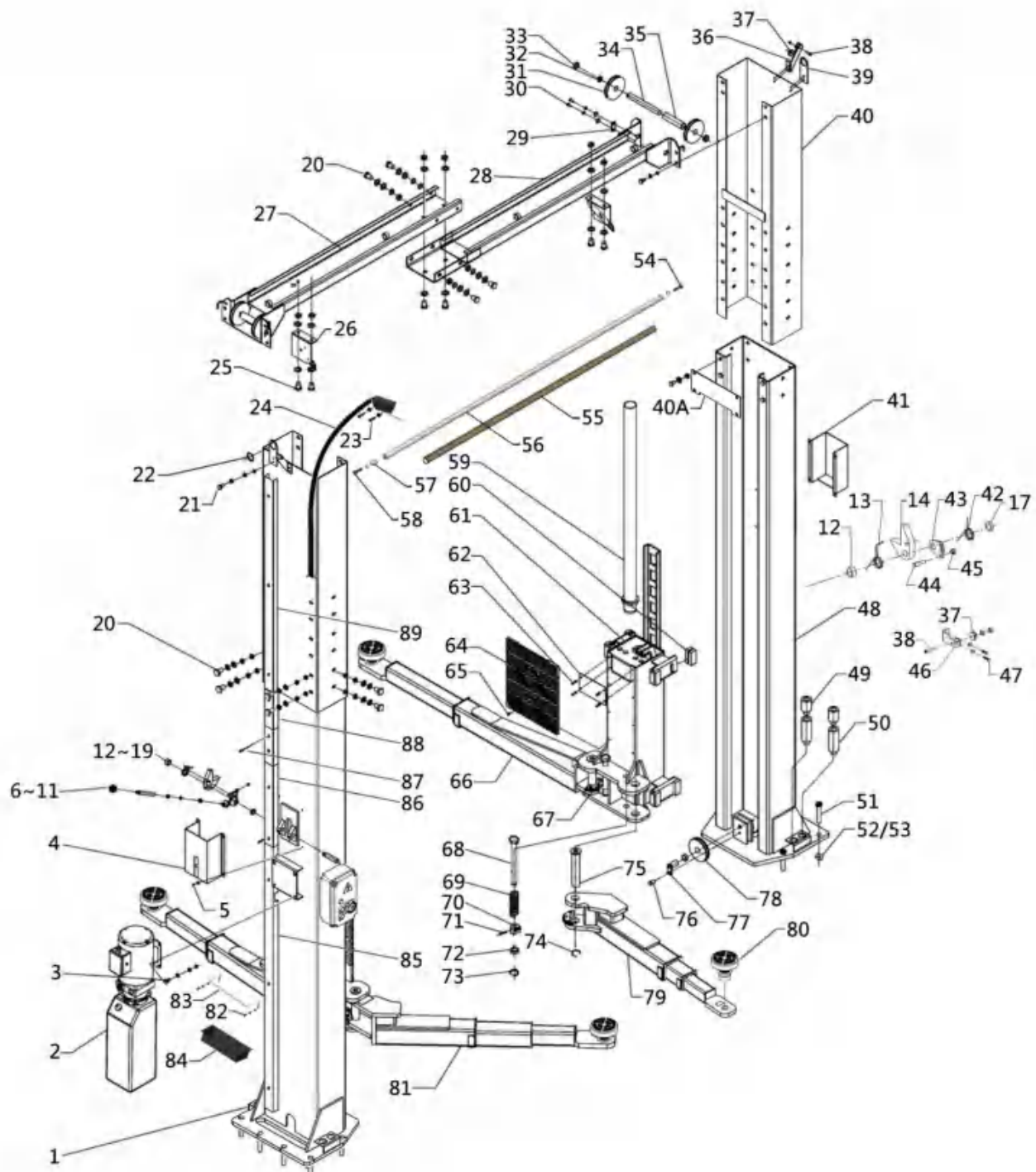
**Fig.54**

**⚠ DANGER** Moon gear must be positioned and adjusted correctly. The lift should not be operated until the gears are fully engaged, and it is important to regularly check and adjust the arm restraint gears on all four arms. Failure to do so can result in vehicle damage, injury, or even death.

**⚠ WARNING** Each arm restraint assembly must be inspected and adjusted before you use the Lift each and every time. Do not operate the Lift if any of the four arm restraint systems are not functioning properly. Replace any broken components or components with broken teeth with authorized replacement parts only.

**T.** Tighten all the oil pipe joints and fill the hydraulic station with hydraulic oil (to ensure the service life of the hydraulic system and ensure the best operation of the equipment, please add No. 46 high-quality anti-wear hydraulic oil).

#### IV. EXPLODED VIEW



**Fig. 55**



## PARTS LIST FOR MODEL A250SACH

Item	Part#	Description	Qty
1	11217460-02	Power-side column	1
2	81523041	Power unit (220V)	1
	81523004	Power unit (380V)	
3	1002735003	Hex bolt M8*25 (Include flat washer, lock washer, nut)	4
4	11217405	Power-side safety device cover	1
5	1002735004	Round head bolt M6*8 (Include flat washer)	8
6	10217005	Plastic ball M10	1
7	11217006	Safety Lock handle $\phi 16 \times 143$	1
8	10206023A	Hex Nut M12	1
9	10420026	Lock washer $\phi 12$	1
10	10206006	Flat washer $\phi 12$	1
11	11217004	Main Cam Lock	1
12	11217436	Large Spacer $\phi 36 \times 15.5$	2
13	10217030	Safety Spring $\phi 2.5 \times 120^\circ$	2
14	11217009	Main Lock	1
15	10217010	Hex bolt M6*40	1
16	10217011	Hex nut M6	9
17	11217012	Small Spacer $\phi 27 \times 10$	2
18	10217051	Socket Screw M10*10	2
19	11217050	Safety pin $\phi 20 \times 93$	2
20	1002735005	Hex bolt M12*35(Include 2 flat washer, lock washer, hex nut)	38
21	1002735006	Hex bolt M6*20 (Include flat washer, lock washer, hex nut)	8
22	1061K074	Protective ring $\phi 35$	2
23	1002735007	Round head bolt M4*30 (Include hex nut)	2
24	10217216	Limit switch assy.(Include wire 2*1 <sup>2</sup> *4200mm)	1
25	1002735008	Hex bolt M10*20(Include flat washer, lock washer, hex nut)	4
26	1103072003A-01	Control Bar fixing bracket	2
27	11217486-01	Top Beam(Left)	1
28	11217485-01	Top Beam(Right)	1
29	11420044	Pin Limit Plate	2
30	1002735009	Socket bolt M6*16(Include flat washer, lock washer)	8
31	11217019-01	Top pulley $\phi 112 \times 18$	4
32	10217020	Bronze Bush for Pulley $\phi 31 \times \phi 25.1 \times 16$	6
33	11217021	Top Pulley Spacer $\phi 32 \times 11$	4
34	11217022	Pin for Top Pulley $\phi 25 \times 213$	2
35	11217023	Top Pulley Spacer $\phi 32 \times 127$	2
36	11217379	Lock release cable bracket	2
37	10206009	Plastic Small Pulley	3
38	1002735010	Hex bolt M10*35(Include lock washer, hex nut)	3
39	11217024	Oil hose supporter	2
40	11217472-02	Outer column L=1392mm	2

Item	Part#	Description	Qty
40A	11217068	Column Reinforce Plate	2
41	11217406	Offside safety device cover	1
42	10217008	Safety Spring $\phi 2.5 \times 145^\circ$	1
43	11217031	Offside Cam Lock	1
44	10217032	Cable connecting pin	1
45	11217033	Nylok Nut	1
46	11217029	Pulley bracket	1
47	1002735011	Hex bolt M6*15 (Include flat washer)	2
48	11217461-02	Offside column	1
49	1102504002	3" Stackable adapter	4
50	1102504001	6" Stackable adapter	4
51	10201140	Anchor Bolt 3/4*6 1/2"	12
52	10201090	Shim(1mm)	10
53	10620065	Shim(2mm)	10
54	1002735014	Hex bolt M8*16(Include lock washer)	1
55	10206025A	Control Bar Foam Pipe $\phi 35 \times \phi 22 \times 1950\text{mm}$	1
56	1102072001A-01	Control car $\phi 22 \times 2400$	1
57	1102022007	Connecting Sleeve $\phi 14 \times 2 \times 20$	1
58	1002735013	Hex bolt M8*35 (Include lock washer)	1
59	10217056	Cylinder $\phi 50 \times \phi 60 \times 1727$	2
60	1002755015	Slide Block 100*55*50	16
61	11217476-01	Carriage	2
62	11217054	Carriage Plastic Cover	2
63	10209009	Cup Head Bolt M6*8	8
64	10217053	Protective Rubber	2
65	10209019	Flat head screw M6*16	12
66	10217333	Rear lifting Arm assy.	2
67	11217046A	Arm Lock bar (Right) $\phi 30 \times 260$	2
68	11217046	Arm Lock bar (Left) $\phi 30 \times 260$	2
69	10217045-01	Spring $\phi 31 \times \phi 36 \times \phi 2.5$ (L=144)	4
70	1002163001	Arm Lock M1.5*72teeth*24	4
71	10206036-01	Hair Pin $\phi 6 \times 45$	4
72	1102163002	Washer $\phi 39 \times 4 \times 18$	4
73	10610008	Snap Ring $\phi 30$	4
74	10520023	Snap Ring $\phi 38$	4
75	11217168	Pin for Lifting arm $\phi 38 \times 204$	4
76	10209038	Hex bolt M10*16	6
77	11217037	Bottom pin $\phi 25 \times 45$	2
78	11217036-01	Bottom pulley $\phi 146 \times 18$	2
79	10217318-01	Lifting arm assy. - Front left	1
80	10201046A	Rubber pad assy.	4
81	10217319-01	Lifting arm assy. - Front right	1

Item	Part#	Description	Qty
82	100273012	Hex bolt M8*16/(Include flat washer, lock washer)	4
83	11206154	Rear toe guard	2
84	10206156	Tool tray	2
85	11203778-01	Wire Protective cover L=1560mm	2
86	1102751005	Wire Protective cover L=483mm	2
87	10206079	Cup Head Bolt M6*40	24
88	1102751004	Wire Protective cover L=216mm	4
89	1102751003	Wire Protective cover L=1260mm	2
90	10620079	Straight Fitting 1/4JIC*1/4JIC(Medium & High setting)	1
91	1002735002	Oil hose 1/4"*430mm(Medium setting)	1
92	1002165001-01	Oil hose 1/4"*860mm(High setting)	1
93	1102166001	Extended straight fitting 1/4NPT(M)*1/4JIC(M) L=117	2
94	10209060	90° Fitting for power unit	1
95	10209153	Pull ring of arm lock bar $\phi 70 \times \phi 6$	4
96	10217447-01	Lock release cable $\phi 2.5 \times 8220 \text{mm}$	1
97	1102075001	Cable Limit Plate	4
98	10217138	Metal bellows pipe $\phi 10 \times 1 \times 1670 \text{mm}$	1
99	10209152	Zip tie 3*150	5
100	10217450-02	Oil hose 5/16*4096mm	1
101	10217449-02	Oil hose 1/4*5190mm	2
102	10209066	Hex nut M16	8
103	10217446-01	Sync Cable $\phi 9.52 \times 10515 \text{mm}$	2
104	10420029	Flat washer $\phi 16$	8
105	10211016	T-Fitting 1/4JIC(M)*1/4JIC(M)*1/4JIC(M)	1
106	10217500B	Parts box	1
107	10217215	Cylinder limit switch assy. (Wire L=4970mm)	1
108	1002515002	Round head bolt M4*18(Include nut)	2
109	1002735007	Round head bolt M4*30(Include nut)	2
110	10217451	Metal bellows pipe L=2360mm	1
111	1002515001	Round head bolt M6*12(Include flat washer, lock washer)	2
112	10217176	White winding tape L=1000mm	1
119	10206220	Electric control box(Single Phase)	1
	10206123	Electric control box (3 Phase)	

## 1. Lifting Arm Exploded View (10217333)

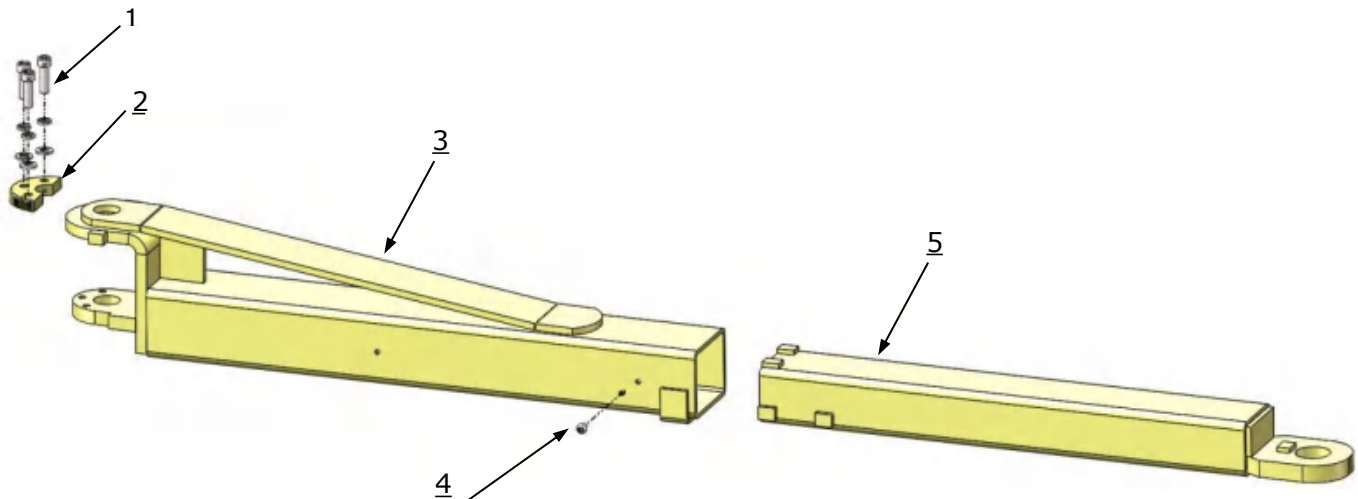


Fig. 56

Item	Part#	Description	Qty.
1	1002205004	Socket bolt (M12*48), flat washer, lock washer	6
2	1102163001	Moon gear	2
3	11217329	Rear outer arm	2
4	10201149	Round head screw M8*12	2
5	11217331	Rear inner arm	2

## 2. Lifting arm assy.-Front left (10217318-01) exploded view:

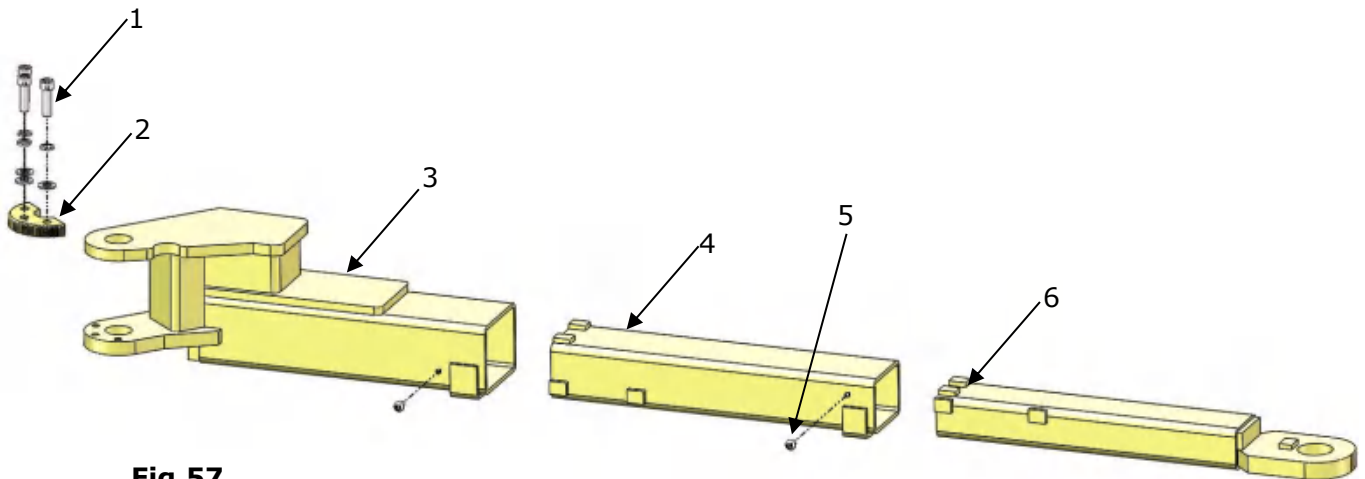


Fig.57

No	Part	Description	QTY
1	1002205004	Socket bolt M12*48, flat washer, lock washer	3
2	1102163001	Moon gear	1
3	11217323	Outer arm-Front left	1
4	11209244	Middle arm-Front	1
5	10201149	Round Head Bolt M8*12	2
6	11217335-01	Inner Arm-Front	1

### 3. Lifting arm assy. -Front right(10217319-01)exploded view:

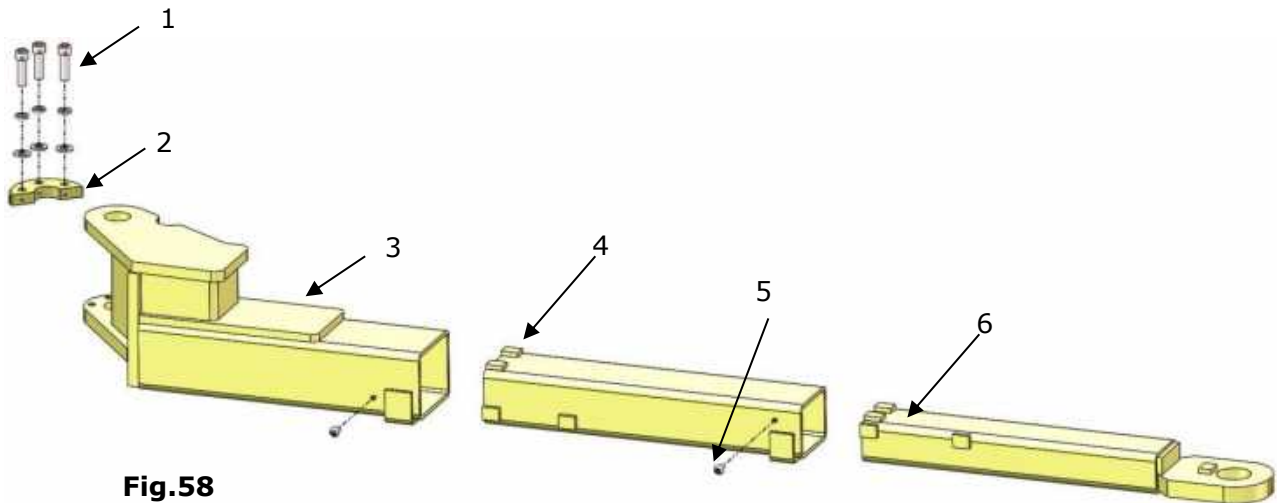


Fig.58

No	Part	Description	QTY
1	1002205004	Socket bolt M12*48, flat washer, lock washer	3
2	1102163001	Moon gear	1
3	11217323	Outer arm-Front right	1
4	11209244	Middle arm-Front	1
5	10201149	Round Head Bolt M8*12	2
6	11217335-01	Inner Arm-Front	1

### 4. Cylinders Exploded View (10217056)

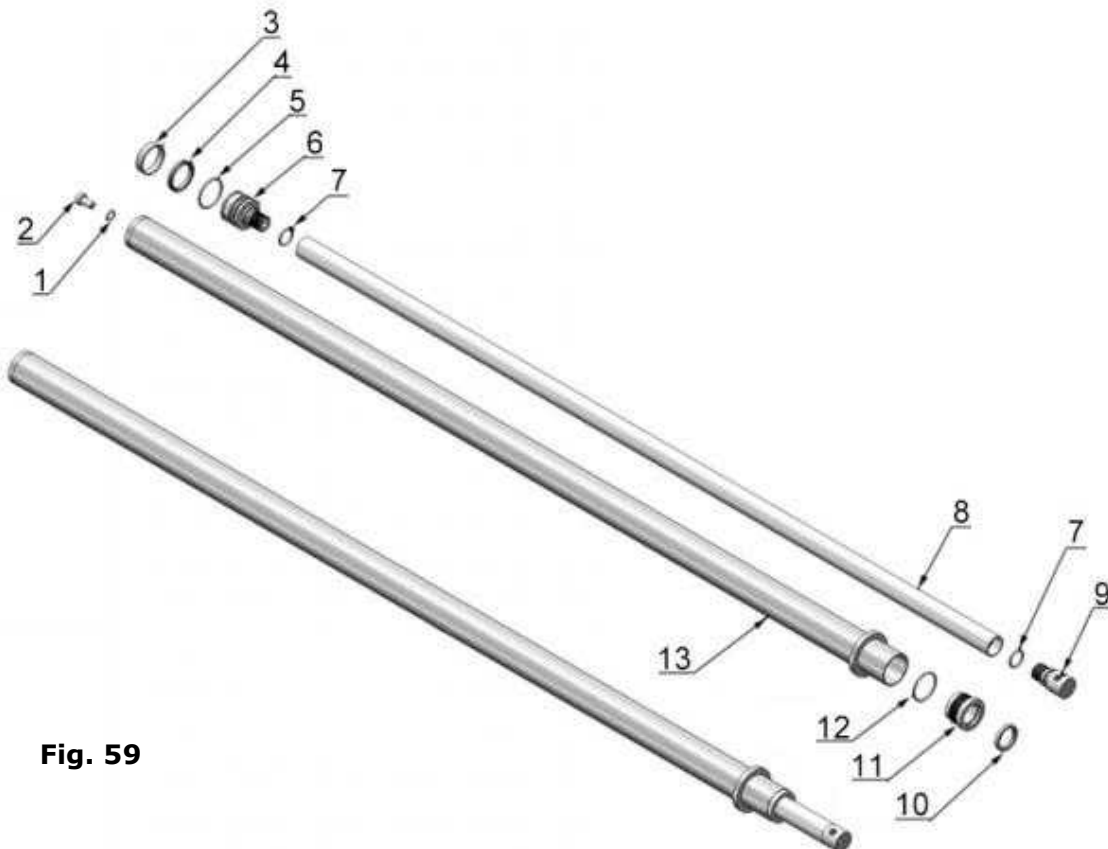


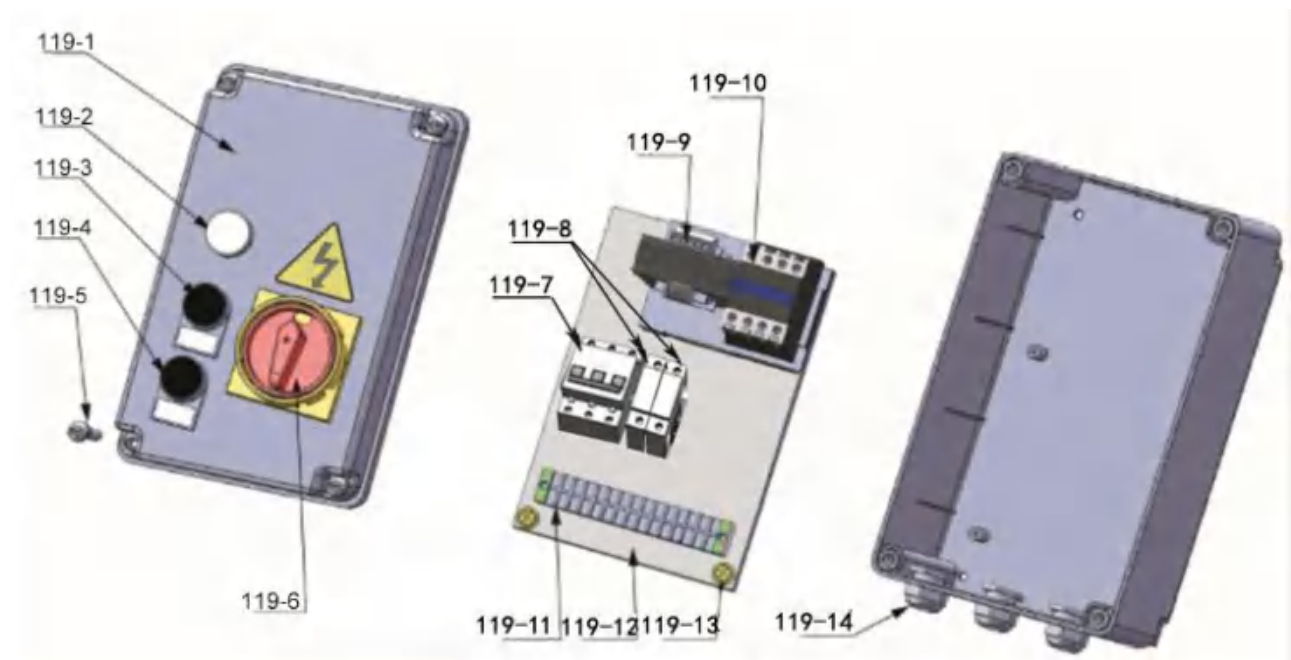
Fig. 59

Item	Part#	Description	Qty.	Note
1	10209069	O-Ring	2	
2	10209070	Bleeding Plug	2	
3	10209071	Support Ring	2	
4	10209072	Y-Ring	2	
5	10209073	O-Ring	2	
6	11209074	Piston	2	
7	10209075	O-Ring	2	
8	11217076	Piston rod	2	
9	1120977	Piston rod fitting	2	
10	10209078	Dust ring	2	
11	11209079	Head cap	2	
12	10209080	O-Ring	2	
13	11209081A	Bore weldment	2	

## 5. Control box Exploded View

Control box: 10206220 (Single Phase)

10206123 (Three Phase)

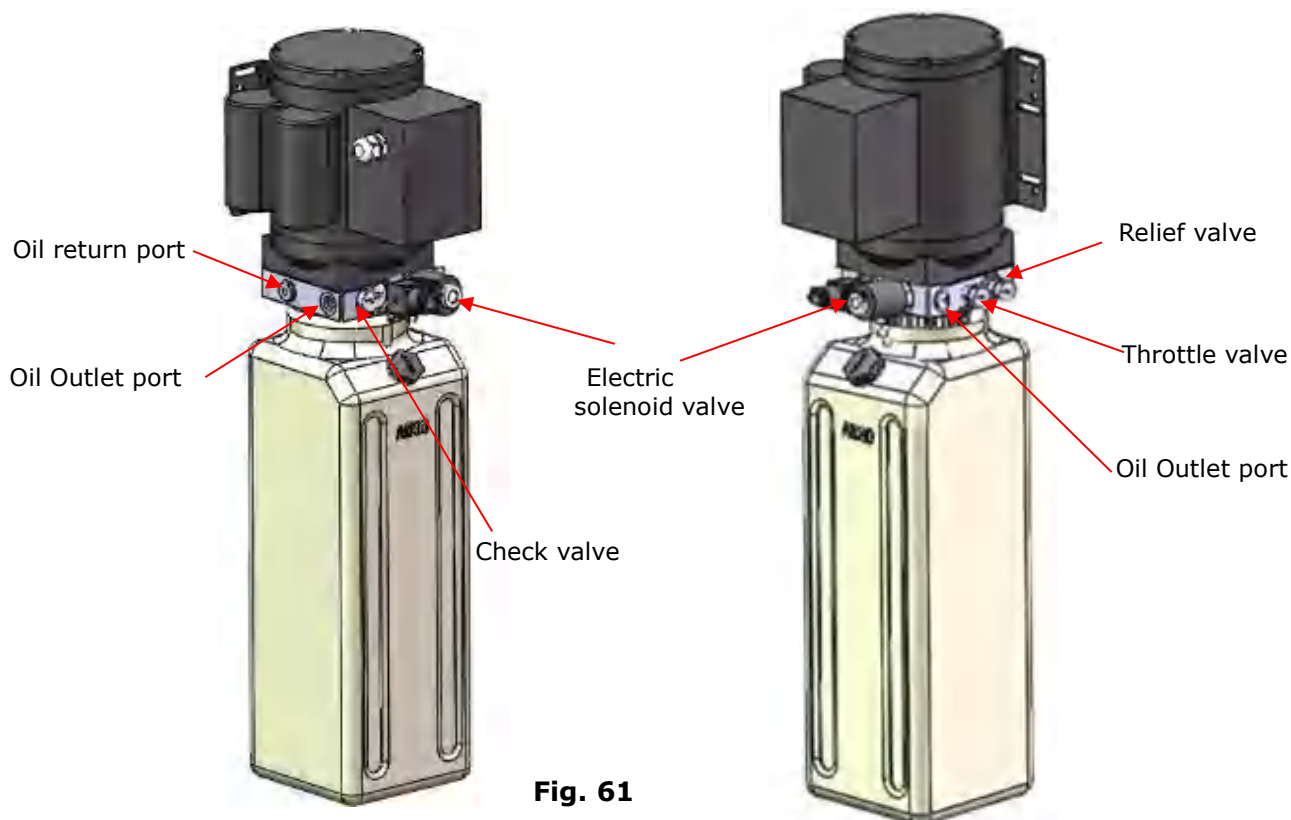


**Fig.60**

## Control box part list:

No	Part no	Name	Qty
119-1	10420069A	Control panel	1
119-2	10201094	Indicate light (24V white)	1
119-3	10420071	UP button	1
119-4	10420072	DOWN button	1
119-5	10420139	Screw for control box	4
119-6	41010217	Power switch (QS)	1
119-7	10202046	Breaker 2P (Only for single phase)	1
	10202047	Breaker 3P (Only for 3 phase)	1
119-8	10202049	Breaker 1P	2
119-9	10580114	Transformer (TC)	1
119-10	10420084A	24V contractor(KM)	1
119-11	10620082	Wire connecting switch	1
119-12	10420133A	Component mounting plat	1
119-13	10420073	Cup head bolt	4
119-14	10420088	White power line fittings	3

## 6. Illustration of hydraulic valve for hydraulic power unit (See Fig. 61)

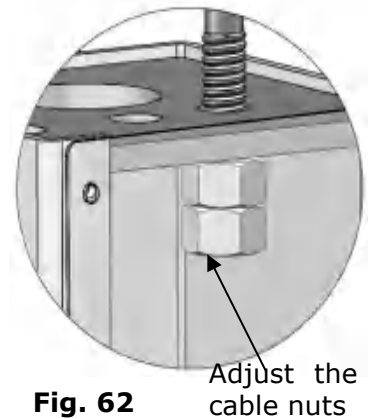




## V. TEST RUN

### 1. Adjustment of sync cable (See Fig. 62)

Use an open spanner to clamp the cable joint, and use a ratchet wrench to tighten the cable nut until the two sync cables are adjusted to a certain tension force and are consistent. If the carriage on both sides do not run synchronously when the lift rises/falls, tighten the cable nut on the lower carriage until the lift can rise and fall synchronously.



### 2. Adjust lock release cable

Lift both carriages and lock them at the same height, strain the lock release cable and then release a little, finally tighten the cable nuts. Ensure that the safety device can always be locked and unlocked properly. At last, install the cover of the safety device.

### 63)

This hydraulic system is designed to bleed air by loosening the bleeding plug. Lift the carriages to a height about 1 meter, loosen the bleeding plug, and the air will be bled automatically. Finally tighten the plug after bleeding, and the lift would work stably and smoothly. Otherwise, repeat these steps.



**Fig. 63**

### 4. Adjust the lowering speed

If necessary, you can adjust the lower speed of the lift by turning the throttle valve clockwise to decrease it, or counterclockwise to increase the lower speed.



Throttle Valve

Clockwise to decrease the lowering speed



Throttle Valve

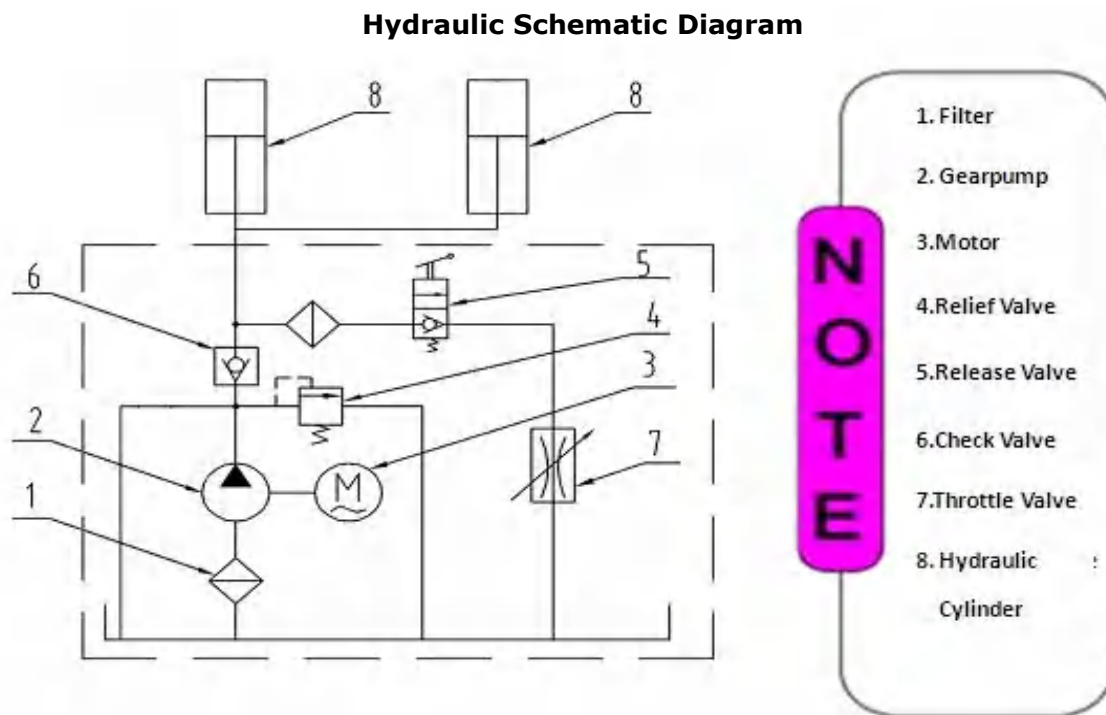
Counterclockwise to increase lowering speed

**Fig. 64**



## 5. Test with a typical vehicle

The test should be conducted after the above adjustments have been completed, test running the lift with typical vehicle. Run the lift at low level several times first, ensure that both side safety lock can lock and unlock in synchronization. When there is no other abnormal phenomenon, run the whole process. Repeat the above adjustment if there is any abnormal phenomenon.



**Fig. 65**

**⚠ WARNING** Do not lift vehicles that exceed the rated capacity of the lift. Please do not release the safety handle until the lift safety lock is locked. Only trained personnel are authorized to operate the lift.

## VI. OPERATION INSTRUCTIONS

**Please read the safety tips carefully before operating the lift**

### **To lift vehicle**

1. Keep operation site clean;
2. Lower the lifting arm to the shortest position;
3. Retract the lifting arm to the shortest position;
4. Open lifting arms out to the sides;
5. Move the vehicle between columns;
6. Move the lifting arms to the vehicle's lifting point;


**ATTENTION: Use the carrier adapter provided by the PEAK manufacturer.**


**Swing the lifting arms under the vehicle, lift the vehicle lifting points as recommend by the vehicle manufacturer. If necessary, use the stackable extension adapter or saddle adapter to ensure good contact.**

7. Push **UP** button until the lifting pads contact underside of vehicle totally and recheck lifting points;
8. Continue to raise the lift slowly, ensure the balance of vehicle, lift the vehicle to the desired height, release the **UP** button;
9. Press the release handle on power unit to lower the lift to the safety lock position. The vehicle cannot be repaired unless safety in lock position.

### **To lower vehicle**

1. Clear obstructions around and under the lift and be certain no people are around the lift;
2. Push **UP** button to raise the vehicle slightly, and then unlock the safety device, lower vehicle by pushing release handle on the power unit.
3. Open the lifting arms out to the sides and retract the lifting arm to the shortest position;
4. Drive away the vehicle.

 **WARNING** It is unsafe to work when the lift without locking at safety device after it has been raised. The vehicle may fall, potentially causing damage the vehicle and lift, even causing injury or death to someone nearby.

 **DANGER** When using the lifting points on the chassis recommended by the vehicle manufacturer, be sure to follow the instructions carefully. If you don't, the vehicle can become unstable and fall, which can damage the vehicle and lift, injure or even kill anyone under the vehicle.

## VII. MAINTENANCE SCHEDULE

### Monthly:

1. Tighten the anchor bolts with to 150 Nm torque force;
2. Check all fittings, bolts and pins to ensure proper connections;
3. Lubricate cable and slider with lubricant;
4. Make a visual inspection of all oil hoses/lines for possible wear or leakage;
5. Check safety device and make sure proper condition;
6. Lubricate all rollers and pins with 90Wt gear oil.

**Note: All anchor bolts should take full torque. If any of the bolts does not function for any reason, DO NOT use the lift until the bolt has been replaced.**


### Every six months:

1. Make a visual inspection of all moving parts for possible wear, interference or damage;
2. Check and adjust as necessary, equalizer tension of the sync cables to insure level lifting;
3. Check columns for plumbness;
4. Check Rubber Pads and replace as necessary;
5. Check Safety device and make sure proper condition;
6. Check limit switch and make sure in proper condition;
7. Check the oil level of power unit and ensure is normal;
8. Check the moon gear and arm lock and ensure in proper condition.

### Oil cylinder maintenance:


In order to extend the service life of the oil cylinder, please operate according to the following requirements.

1. Recommend to use N46 anti-wear hydraulic oil.
2. The hydraulic oil of the lifts should be replaced regularly during using. Replace the hydraulic oil 3 months after the first installation, Replace the hydraulic oil once a year afterwards.
3. Make at least one full trip raising and lowering per day. For exhausting the air from the system, which could effectively avoid the corrosion of the cylinder and damage to the seals caused by presence of air or water in the system.
4. Protect the outer surface of the oil cylinder's piston rod from bumping and scratching, and timely clean up the debris on the oil cylinder dust-ring and the piston rod.

 **DANGER** Ensure that the lift is completely disconnected from the power supply before performing any maintenance on the lift. If your lift external electrical devices have locks/shutdowns, make sure to implement them before performing any maintenance. If you come into contact with high voltage/current, it may result in injury or even death.

## VIII.TROUBLE SHOOTING

TROUBLE	CAUSE	REMEDY
Motor does not run	<ol style="list-style-type: none"> <li>1. Start button does not work</li> <li>2. Wiring connections are not in good condition</li> <li>3. Motor burned out</li> <li>4. AC contactor in damage</li> <li>5. Safety protective switch damage</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace Start button</li> <li>2.Repair all wiring connections</li> <li>3. Repair or replace motor</li> <li>4. Replace</li> <li>5. Replace</li> </ol>
Motor runs but the lift is not raised	<ol style="list-style-type: none"> <li>1. Motor runs in reverse rotation(Only for 3 Phase)</li> <li>2. Gear pump out of operation</li> <li>3. Release valve in damage</li> <li>4. Relief valve or check valve in damage</li> <li>5. Low oil level</li> </ol>	<ol style="list-style-type: none"> <li>1.Exchange two power wire</li> <li>2.Repair or replace</li> <li>3. Repair or replace</li> <li>4.Repair or replace</li> <li>5.Fill tank</li> </ol>
Lift does not stay up	<ol style="list-style-type: none"> <li>1. Release valve out of work</li> <li>2. Relief valve or check Valve leakage</li> <li>3. Cylinder or fittings leaks</li> </ol>	Repair or replace
Lift raises slowly	<ol style="list-style-type: none"> <li>1. Oil line is jammed</li> <li>2. Motor running on low voltage</li> <li>3. Oil mixed with air</li> <li>4. Gear Pump leaks</li> <li>5. Overload lifting</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean the oil line</li> <li>2. Check electrical system</li> <li>3. Fill tank</li> <li>4. Replace pump</li> <li>5. Check load</li> </ol>
Lift cannot lower	<ol style="list-style-type: none"> <li>1. Safety device are locking.</li> <li>2. Release valve in damage</li> <li>3. Lock release cable broken</li> <li>4. Oil system is jammed</li> </ol>	<ol style="list-style-type: none"> <li>1. Release the safeties</li> <li>2. Repair or replace</li> <li>3. Replace</li> <li>4. Clean the oil system</li> </ol>

 **WARNING** Lifts are dangerous when operated by inexperienced or distracted individuals. Operators must be fully aware that lifting a car is a potentially life-threatening operation, especially if mandatory safety precautions are disregarded.

## IX. CAR LIFT SAFETY TIPS

Put these safety tips in a place where you can always alert the operator. Please reference to the lift manufacturer's manual for specific information about the lift.

1. Check the lift daily. If the machine breaks down or has damaged parts, do not operate, and use the parts of original equipment to repair.
2. Do not overload the lift. The rated weight of the manufacturer design is indicated on the label of the lift.
3. Position control of the vehicle and operation of the lift can only be done by a trained and authorized person.
4. You can not lift a car with people inside. When the lift is working, the customer or other people should not be around the machine.
5. Keep the place around the lift clear of obstacles, lubricants, grease, garbage and other debris for a long time.
6. Before driving the car into the lift, put the lifting arm and rubber pad in the proper position to ensure barrier-free space. Do not hit or run over the lift arm and rubber pad of the lift, otherwise it will cause damage to the lift machine or the car.
7. Rise the lift to the required height for operation. **Note**, if you are working under a car, raise the lift high enough and make sure the safety device has locked.
8. Note, removing(or installing) parts from a car can cause a sudden shift of gravity that is unstable for the raised car. Reference to the car manufacturer's service manual as a recommended procedure when removing parts from the car.
9. Before lower the lift , make sure that the tool tray, tool rack, etc. are removed from under the car. Open the lock before lowering the lift.
10. Before removing the car from the lift, put the lifting arm and rubber pad in place to open an unobstructed exit.
11. When not in use, be sure to unplug the lift from the power socket. Never pull the plug out only using the wire. Grab the plug and pull it out to disconnect.
12. To reduce the risk of fire, do not operate the lift near open containers of flammable liquids (gasoline).
13. To reduce the risk of electric shock, do not install and use the lift in wet or exposed to rain.

## X. LIFT DISPOSAL

When the car lift cannot meet the requirements for normal use and needs to be disposed, please follow local laws and regulations



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