

# Pro Series Equipment Manual

**PSEOH-1315**

**PSEOH-1515**

**Automotive Lift**

Distributed By;



130 Commerce Dr, Franklin IN 46131

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# Warning

You must read first before installation!! Never Drill all of the Holes First

## 2 Post Installation Guideline

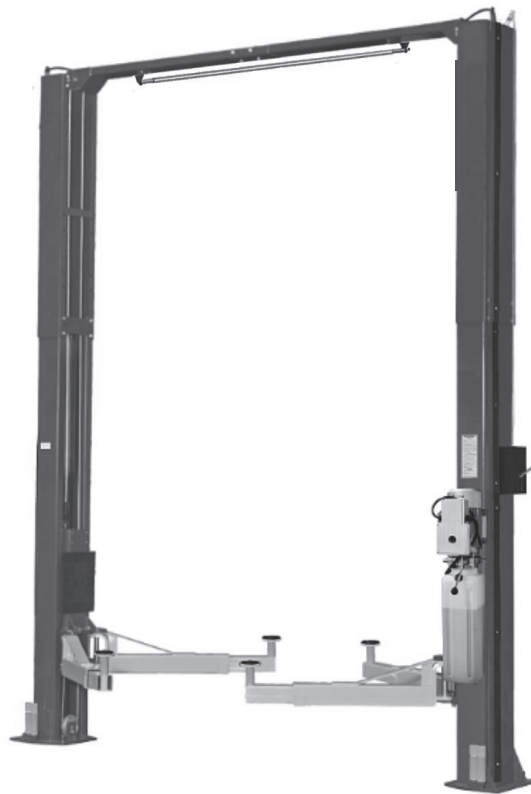
1. Out line on floor and Set Power Unit Column First!!
2. We recommend 6" of concrete for overhead lifts & 8" for base plate lifts. See manual for exact thickness.
3. **DRILL ONLY THE FIRST POST!!** The next to last step is to drill and level the 2<sup>nd</sup> post.
4. Drill all the way through concrete unless it is thicker than your drill.
5. Insert Anchor Bolts in holes of post 1, tighten down and check level. Losen and install shims to bring to level. This make take several steps. Torque to specifications per manual when level.
6. Place 2<sup>nd</sup> post in appropriate position. **Do Not Drill Yet!**
7. Assemble overhead or base plate, Do not tighten up. **DO NOT LEAN LADDER ON 2<sup>nd</sup> POST!**
8. Once Assembled, position 2<sup>nd</sup> post and level then drill holes for Anchors. Install anchors and tighten up and check level. If level is off, loosen bolts and level with shims then tighten. Repeat until post is level.
9. Go back and tighten all of the assembled lift. Finish installation.

## I. PRODUCT FEATURES AND SPECIFICATIONS

### CLEAR-FLOOR DIRECT-DRIVED MODEL FEATURES

#### Model PSEOH-1315, PSEOH-1515 (See Fig. 1)

- Direct-hydraulic design, minimize the lift wear parts and breakdown ratio
- Dual hydraulic cylinders are designed and manufactured according to high standard, utilizing imported seals
- Self- lubricating UHMW Polyethylene sliders and bronze bush
- Single-point safety release with dual safety design
- Clear-floor design, provide unobstructed floor use
- Overhead safety shut-off device prevents vehicle damage
- Standard adjustable heights accommodate varying ceiling heights



**Fig. 1**

### MODEL PSEOH-1315, PSEOH-1515 SPECIFICATION

Model	Style	Lifting Capacity	Lifting Time	Lifting Height	Overall Height	Overall Width	Minimum Pad Height	Motor
1315 1515	Clear-floor Direct-driven	13,000lbs 15,000lbs	90s	72 1/2" - 81 1/2" (1842-2071mm)	174"/198" (4420/5029mm)	150 3/4" (3829mm)	7 1/4" (185mm)	2.0HP

### Arm Swings View

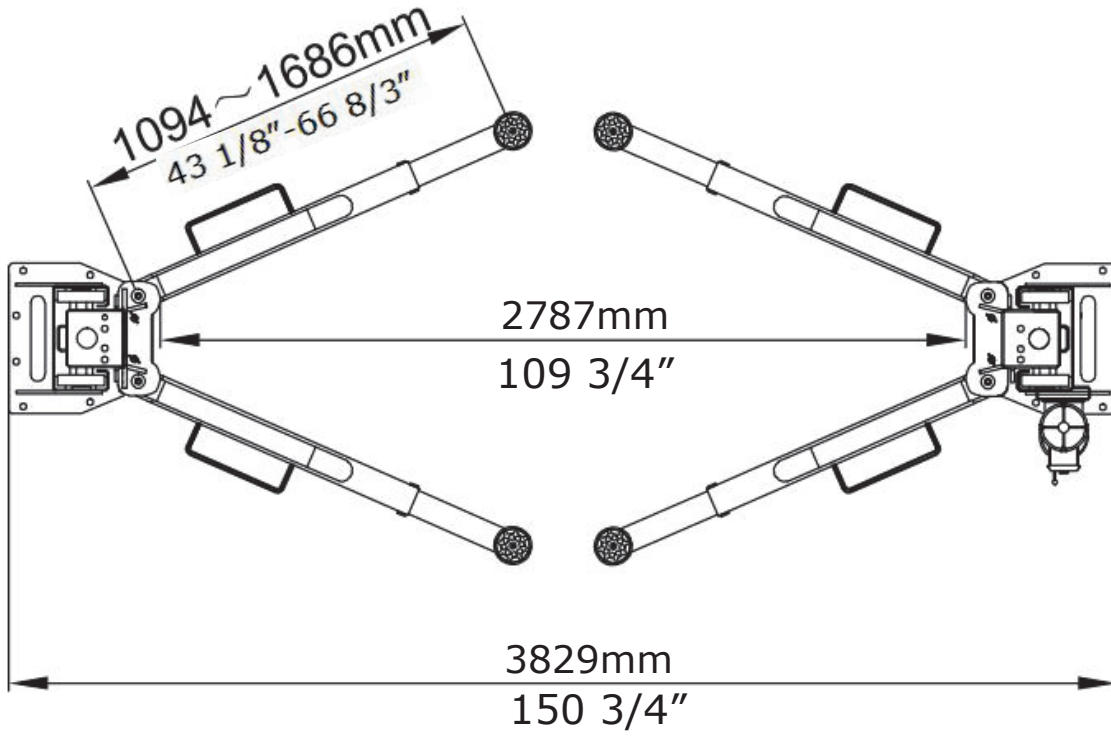


Fig. 2

## 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#)

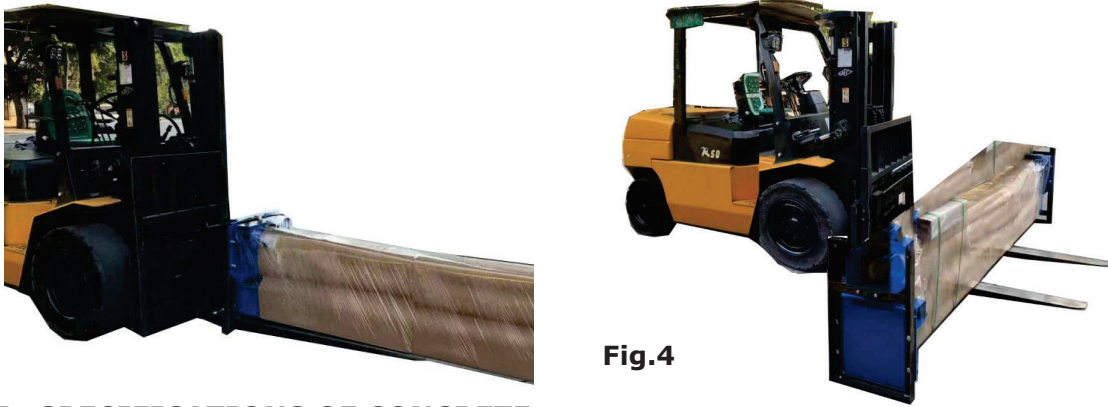


Fig.3

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

The equipment should be stored or installed in a shady, normal temperature, ventilated and dry place.

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

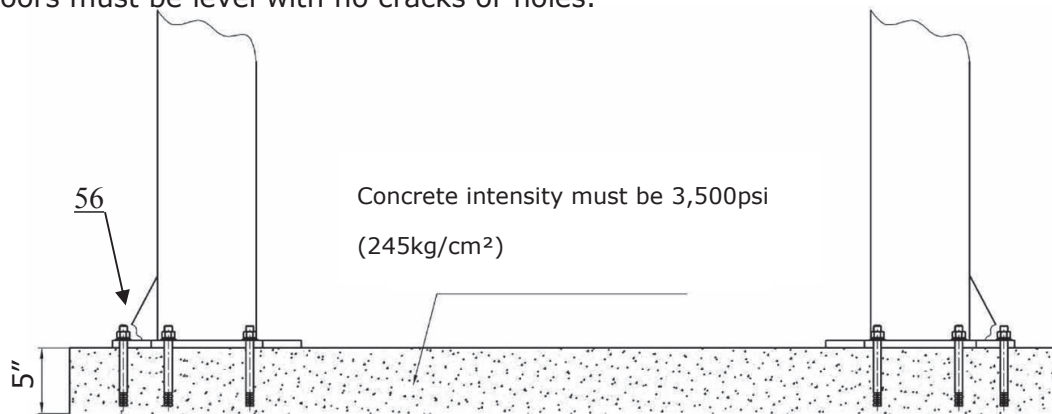


**Fig.4**

**D. SPECIFICATIONS OF CONCRETE (See Fig. 5)**

**Specifications of concrete must be adhered to the specification as following. Failure to do so may result in lift and/or vehicle falling.**

1. Concrete must be thickness 5"(120mm) minimum and without reinforcing steel bars, and must be totally 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.
3. Floors must be level with no cracks or holes.



**Fig. 5**

**E. POWER SUPPLY**

The electrical source must be 3KW minimum. The source cable size must be 2.5mm<sup>2</sup> and in good condition of contacting with floor.

### III. INSTALLATION STEPS

#### A. Location of installation

Check and ensure the installation location (concrete, layout, space size etc.) is suitable for lift installation.

#### B. Use a carpenter's chalk line to establish installation layout of baseplate (See Fig. 6)

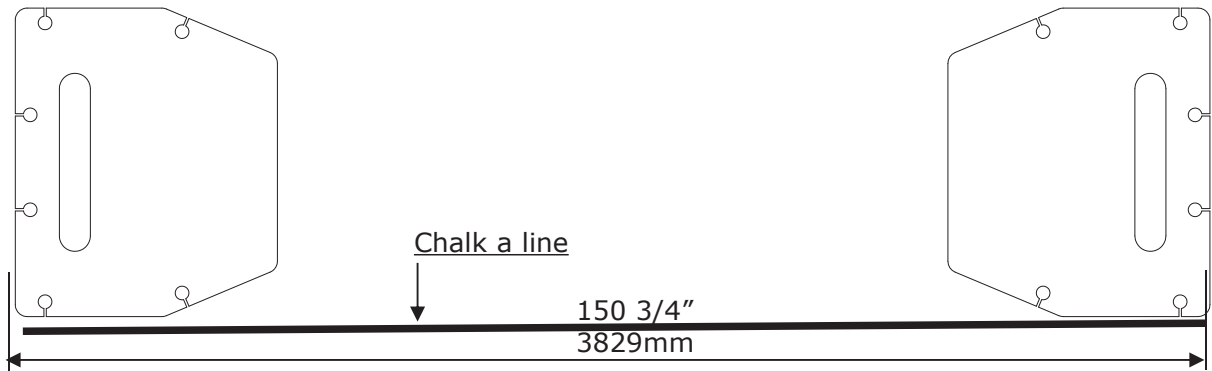


Fig. 6

#### C. Check the parts before assembly.

1. Packaged lift, hydraulic power unit and parts box; (Remark: Outer column is packed into the machine) (See Fig. 7).



Fig. 7

2. Move the lift aside with a fork lift or hoist, and open the outer packing carefully (See Fig. 8).

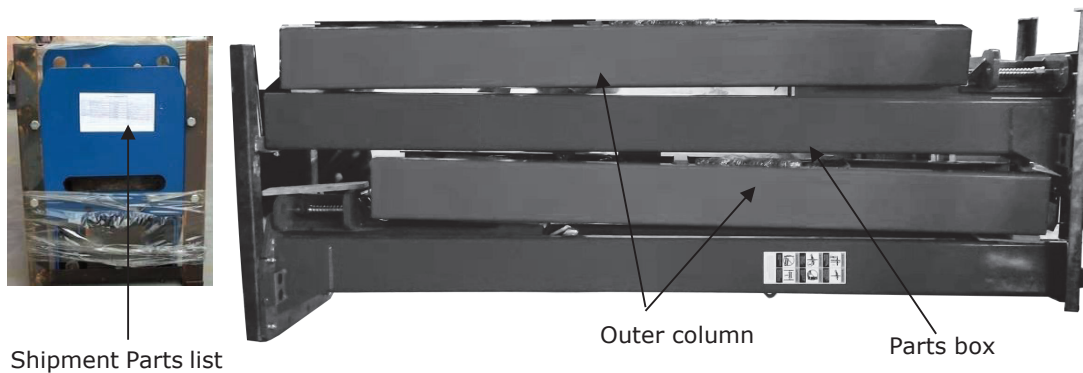


Fig. 8



3. Take out 2pcs outer column, then place the inner column to the installation location. (See Fig. 9).



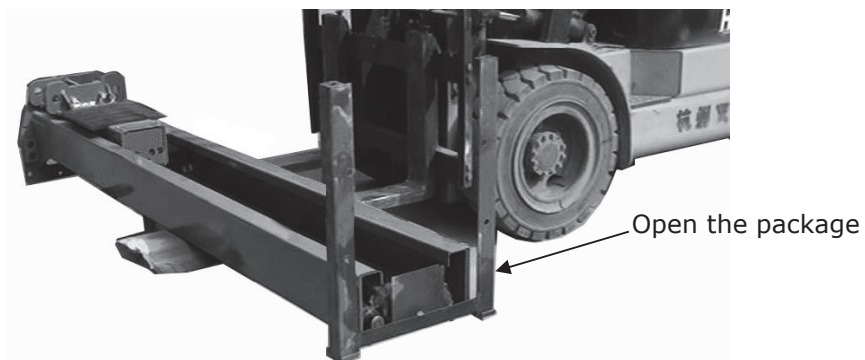
**Fig. 9**

4. Lift the upper column with a fork lift or hoist, loosen the bolts of the upper package stand, take out the parts in the inner column (See Fig. 10).



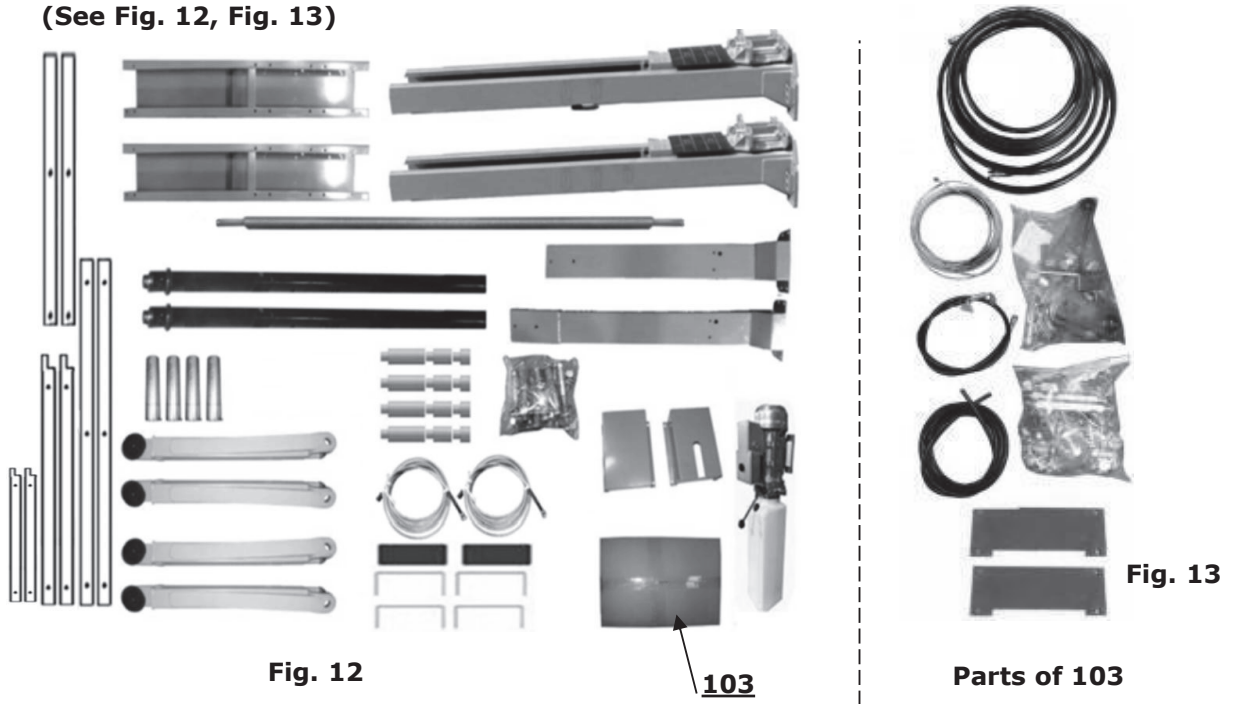
**Fig. 10**

5. Lift the lower column with a fork lift or hoist, take down the package stand, then take off the lower outer column, take out the parts in the inner column (See Fig. 11).

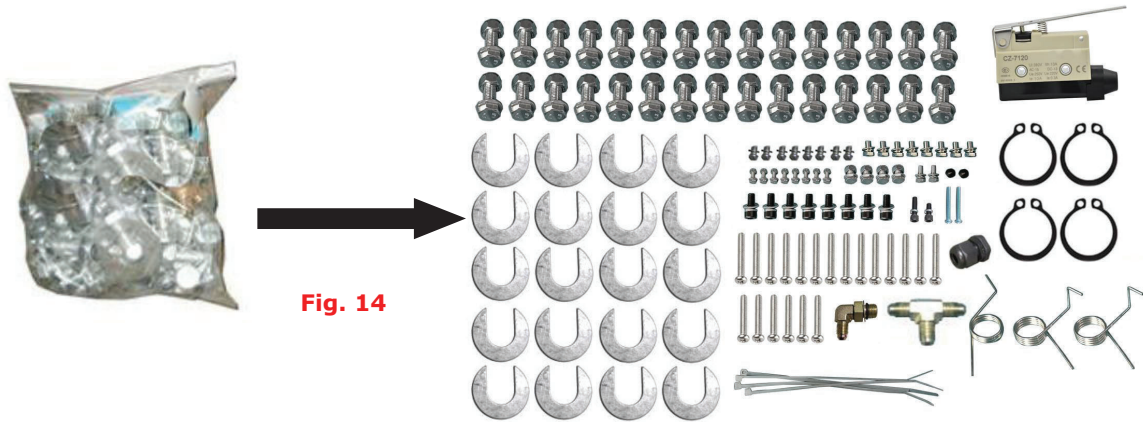


**Fig. 11**

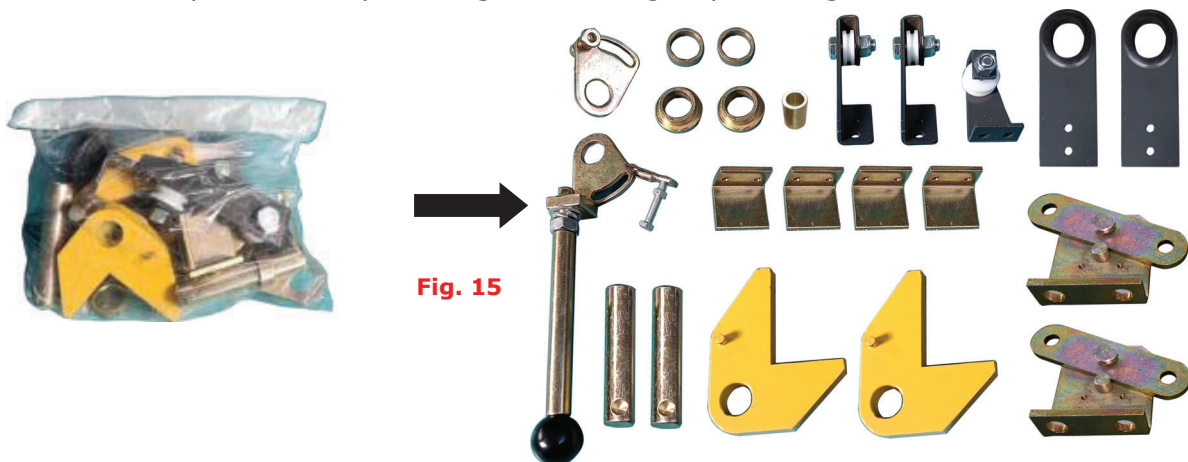
6. Move aside the parts and check the parts according to the shipment parts list  
(See Fig. 12, Fig. 13)



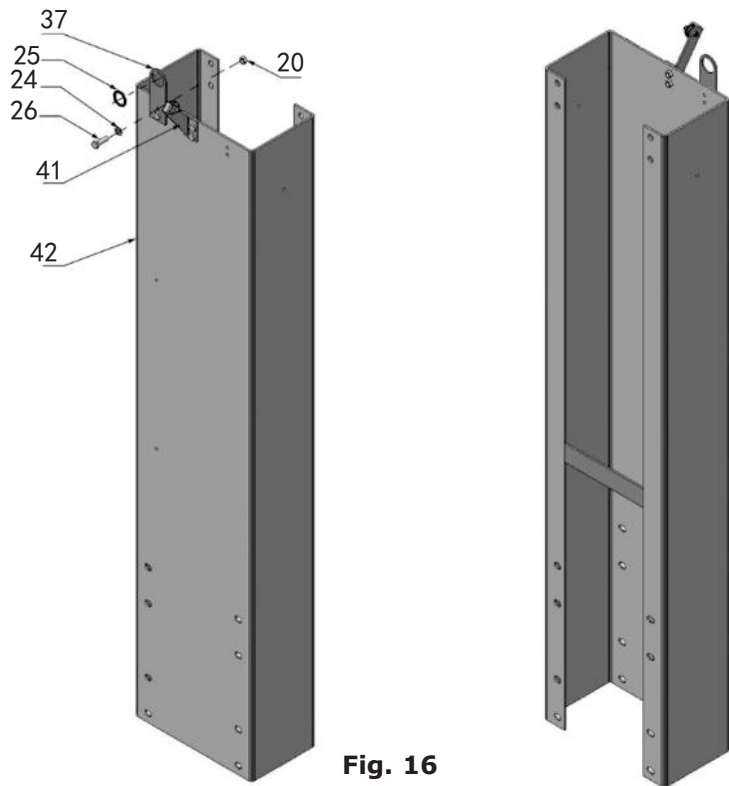
7. Check the parts of the parts bag 1 according to parts bag list (See Fig. 14).



8. Check the parts of the parts bag 2 according to parts bag list (See Fig. 15).

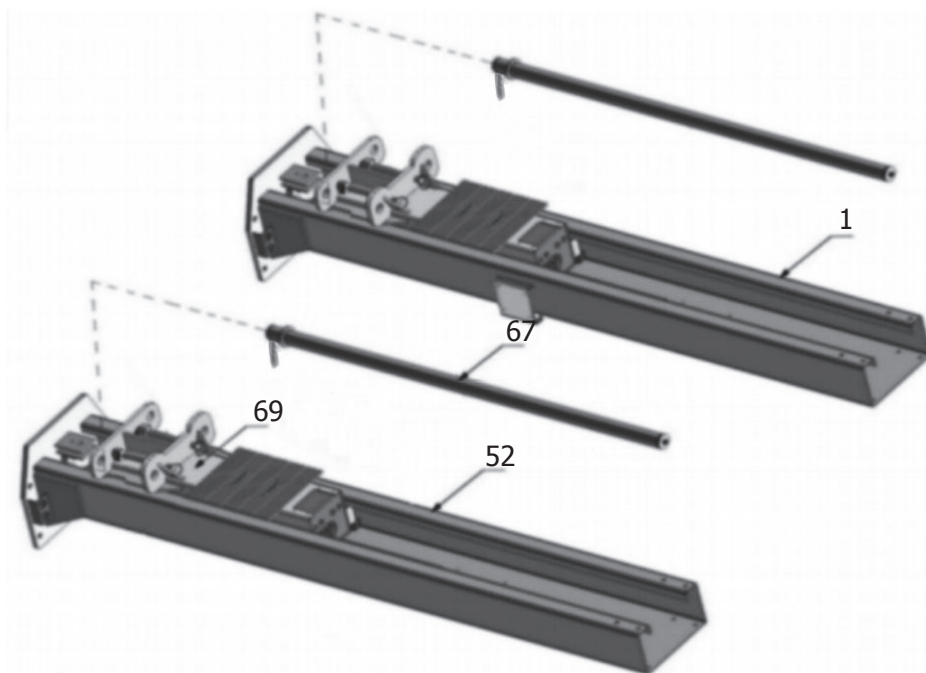


**D. Install parts of extension columns (See Fig. 16).**

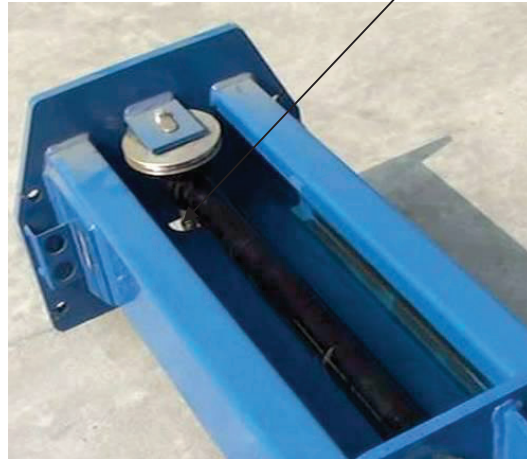


**E. Confirm the installation location and install hydraulic cylinder**

Lay down two columns on the installation site parallelly, position the power-side column according to the actual installation site. Usually, it is suggested to install power-side column on the right side of vehicles driven-in, and then put the cylinder into the carriages. (See Fig. 17).



The fitting across the column hole



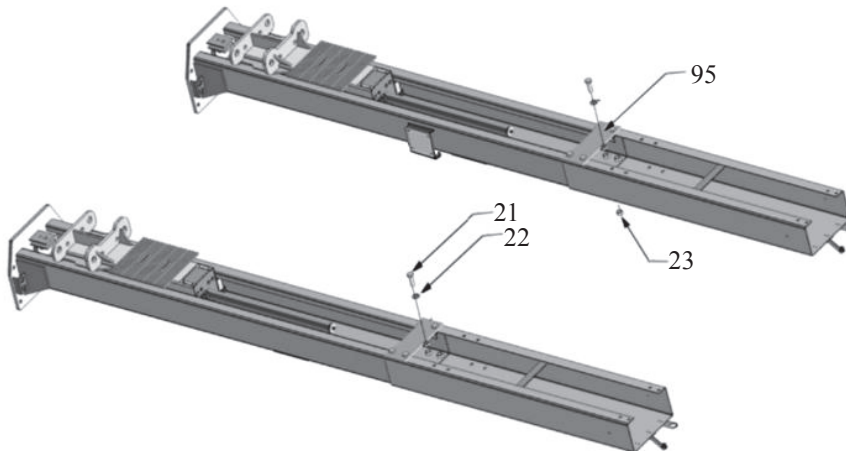
**Fig. 17**

### **F. Install columns**

This lift is designed with 2-Section columns. Adjustable height according to the ceiling height and connecting the inner and outer columns.

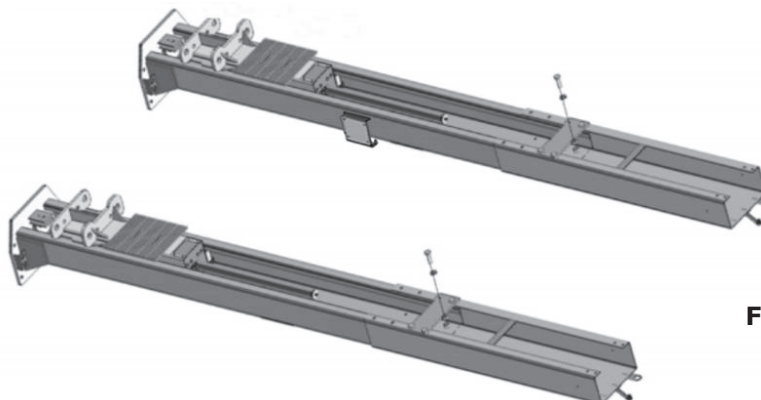
If the ceiling height is over 198 1/4"(5035mm), it can be installed in a high setting; if the ceiling height between 174 3/8"(4430mm)-198 1/4"(5035mm), it can be installed in the low setting; it is not allowed to install if the ceiling height less than 174 3/8"(4430mm).

1. High Setting, connecting the outer columns with the lower hole (**See Fig. 18**).



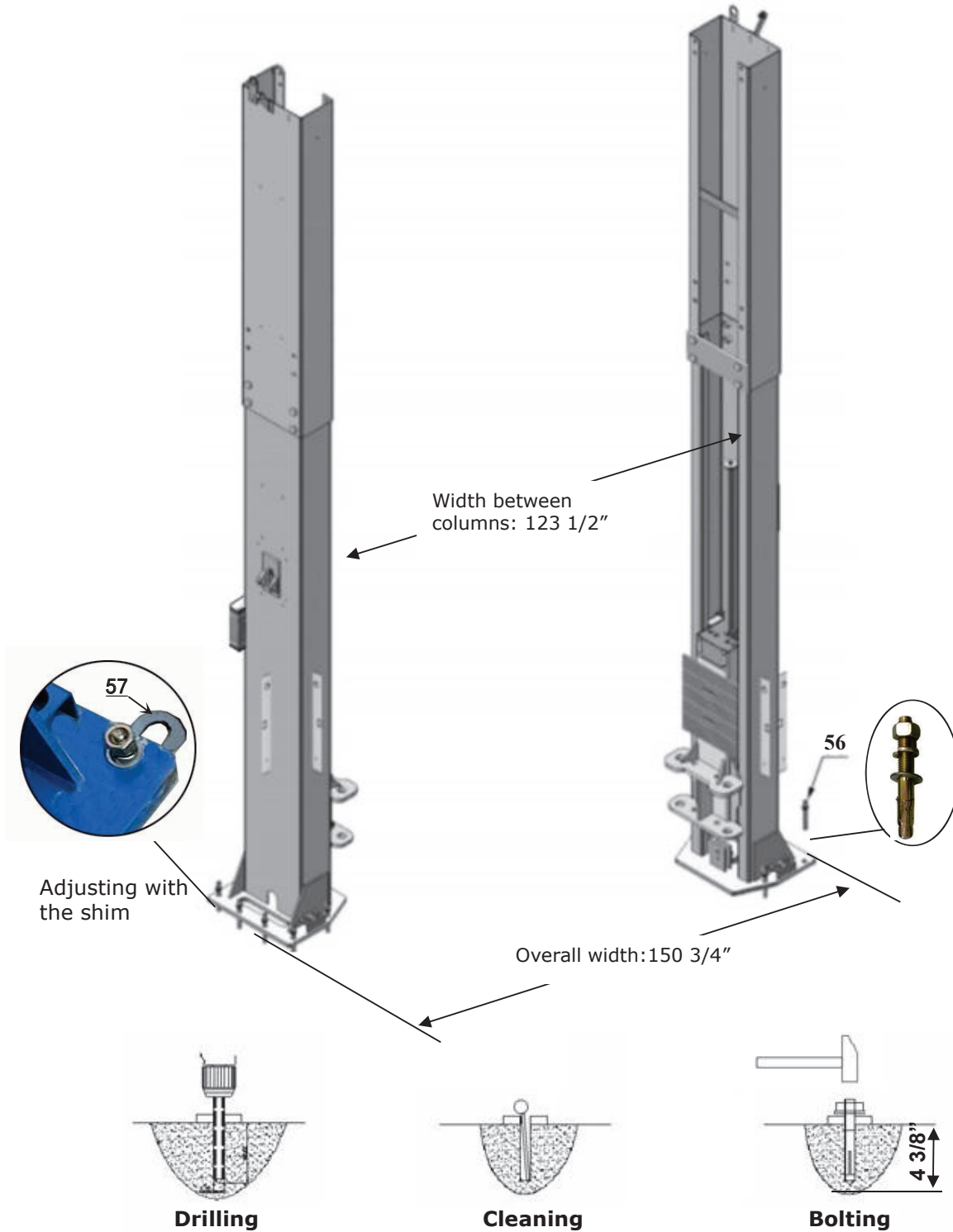
**Fig. 18 High setting**

2. Low Setting: connecting the extension columns with the upper hole (**See Fig.19**).



**Fig. 19 Low setting**

**G. Install anchor bolts. Position the columns on the installation layout. Check the columns verticality with level bar, and adjusting with the shim if the columns are not vertical. Do not tighten the anchor bolts at this time. (See Fig.20)**



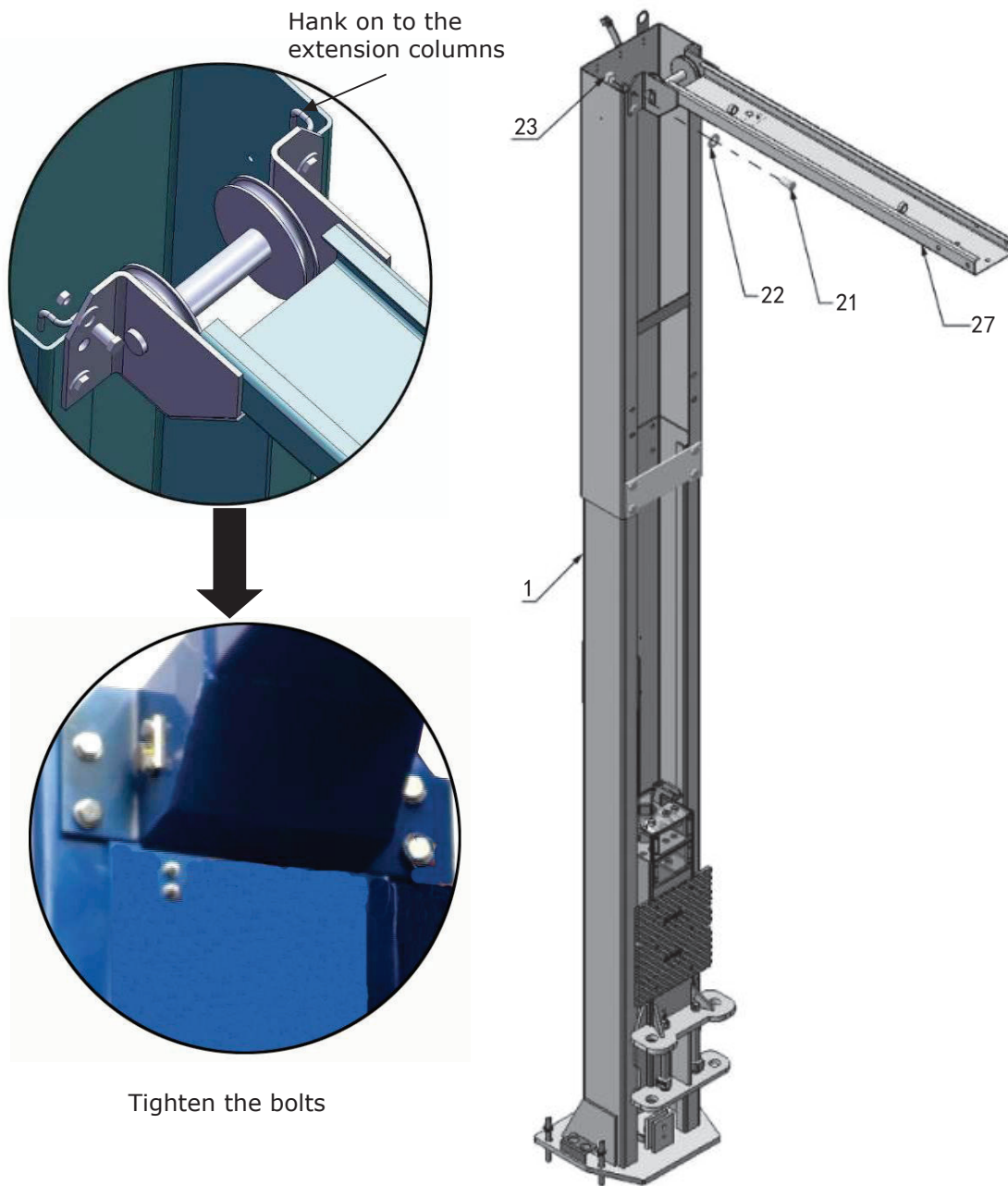
Note: Minimum embedment of anchors is 4 3/8"(110mm).

**Fig. 20**



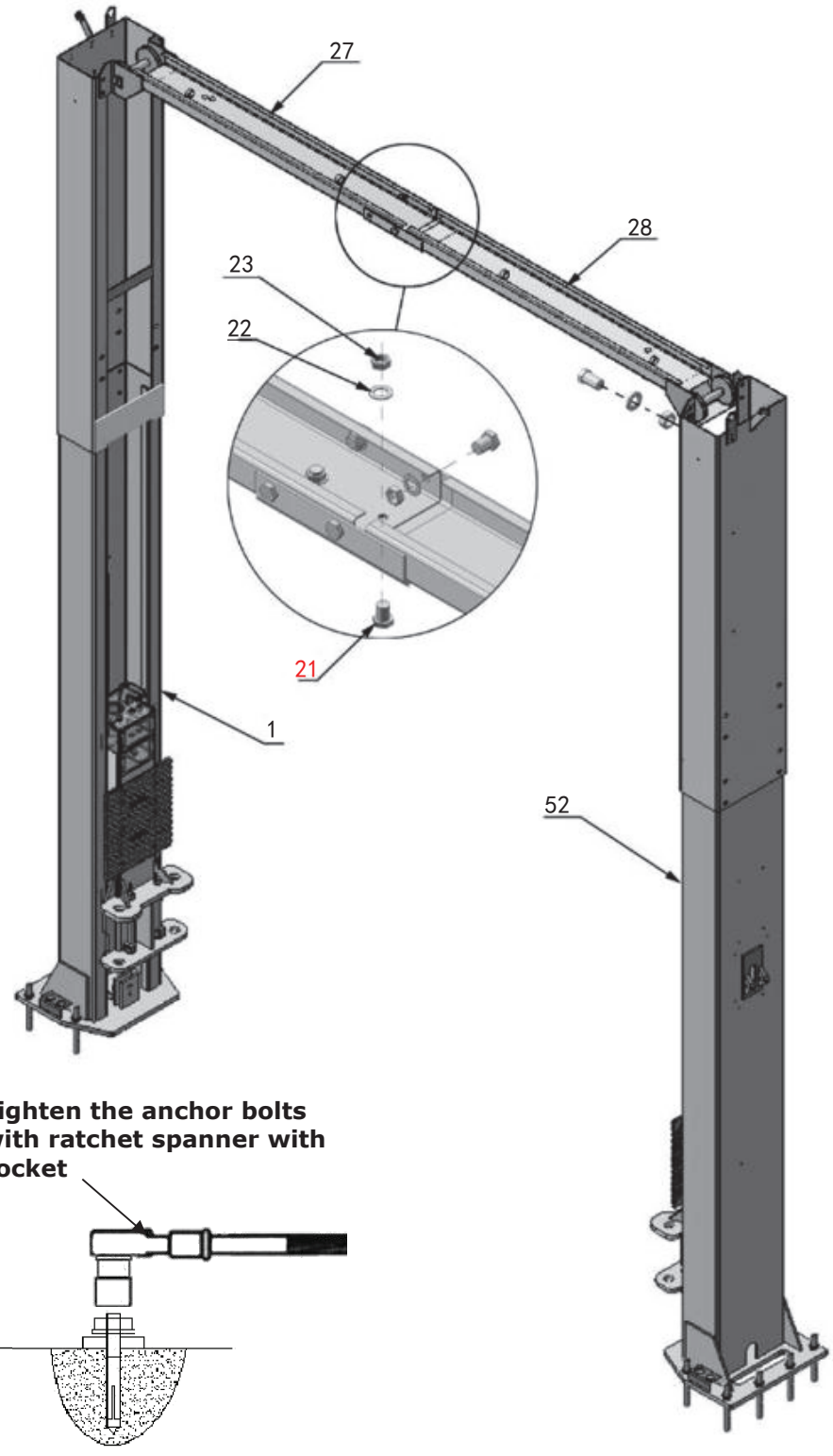
## H. Install top beam.

1. Hang the top beam to the extension column and tighten the bolts. **(See Fig. 21).**

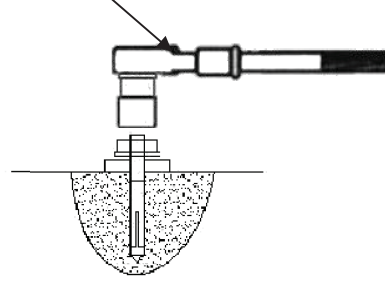


**Fig. 21**

2. Assemble overhead top beam, tighten the columns anchor bolts (**See Fig. 22**).



**Tighten the anchor bolts  
with ratchet spanner with  
socket**

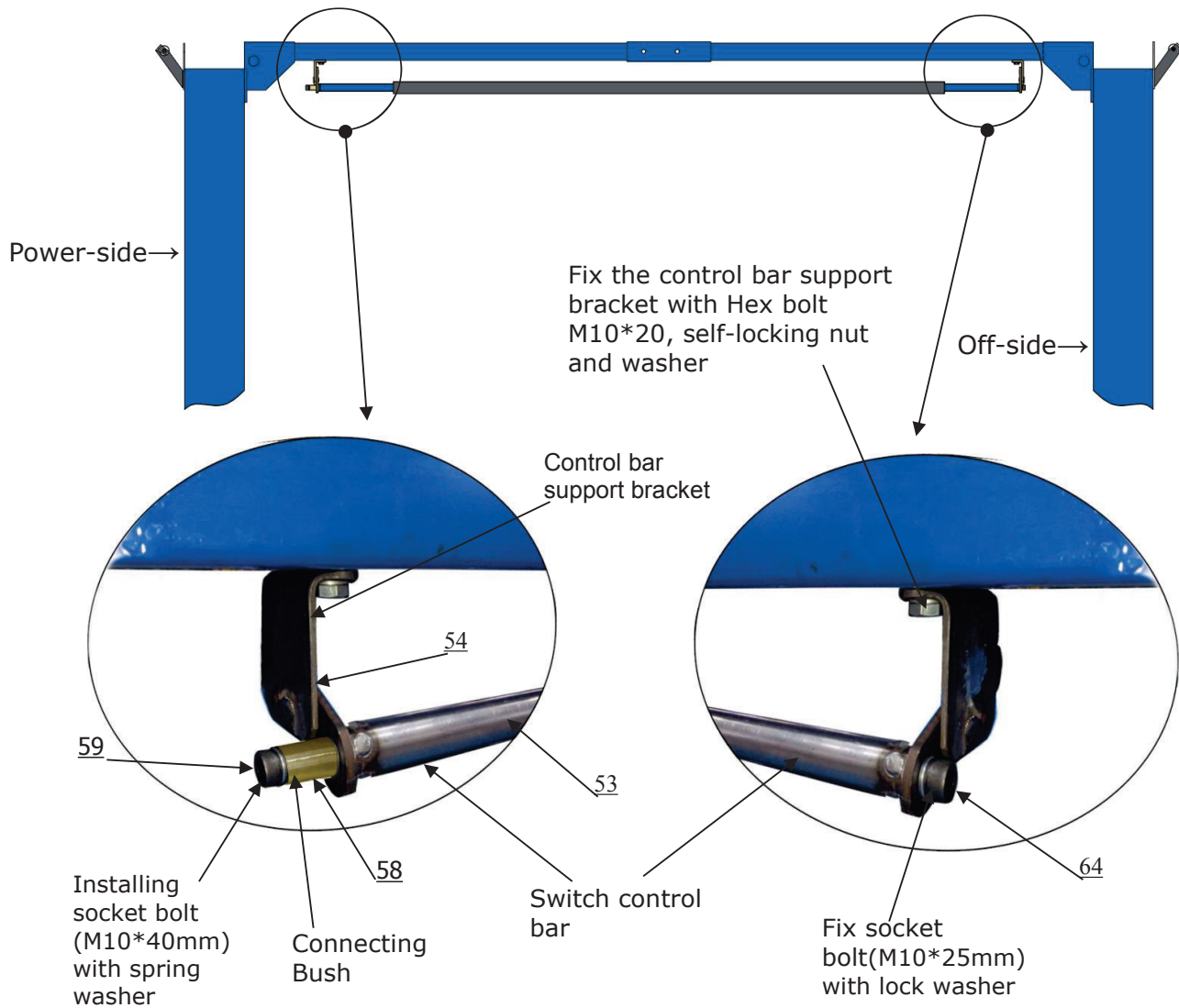


Note: Torque of Anchors is  
110 FT LBS

**Fig. 22**

**I. Install the limit switch control bar and limit switch (See Fig. 23).**

**A. Fix the limit control bar on to the top beam.**



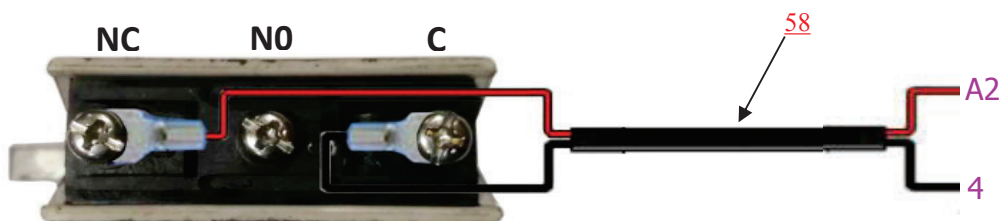
**Fig.23**

**B. Installing the limit switch and wire.**

1. Connect the wire:

Connect the red wire to terminal NC#, another side of the wire connect to the terminal A2 on AC contactor of power unit.

Connect the black wire to terminal C#, another side of the wire connect to the terminal 4 on control button of power unit.

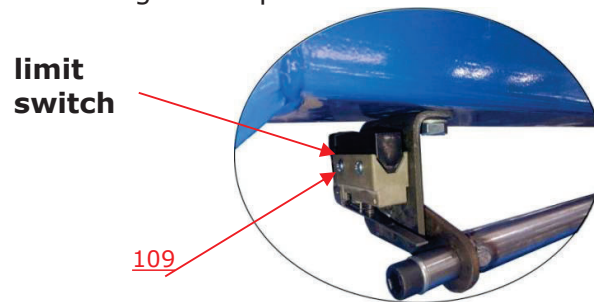


**Wire of limit switch**

**Fig.24**

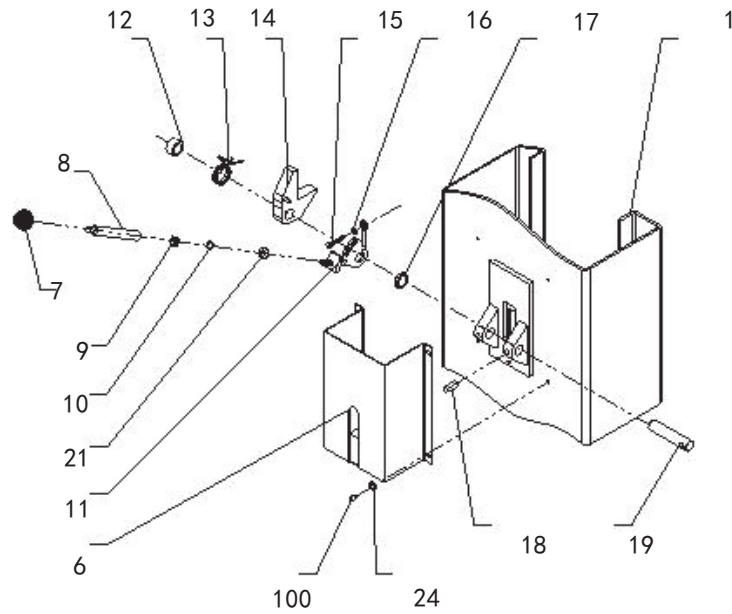
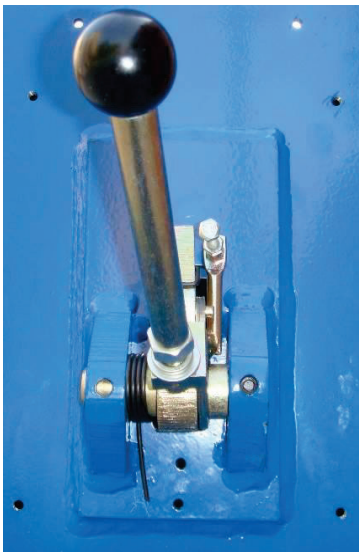


2. Tighten limit switch .Fix the limit switch on control bar support bracket of the power-side as the photo. The wire pass through the top beam and connected to the AC contactor of power unit.

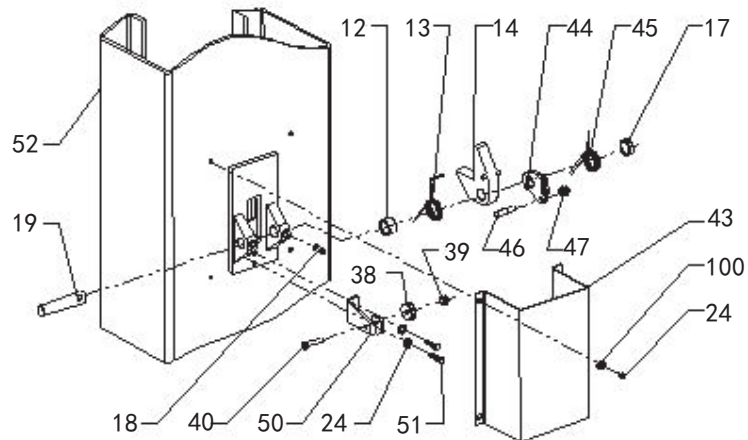


**Fig. 25**

**J. Install safety device (See Fig. 26 & Fig. 27).**



**Fig. 26 Power-side safety device**



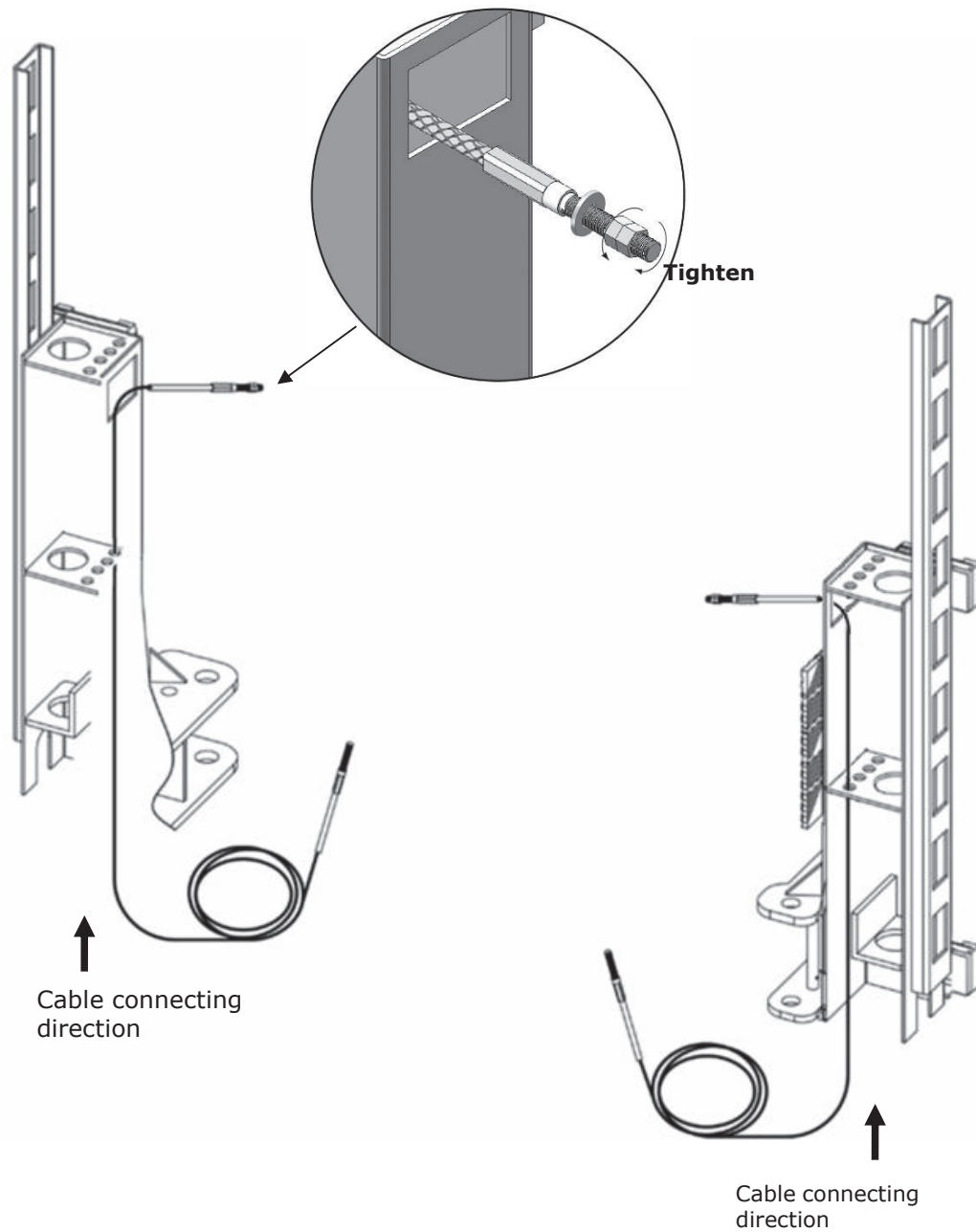
**Fig. 27 Off-side safety device**

## K. Install cables

Raise both two carriages to the same level of lock.

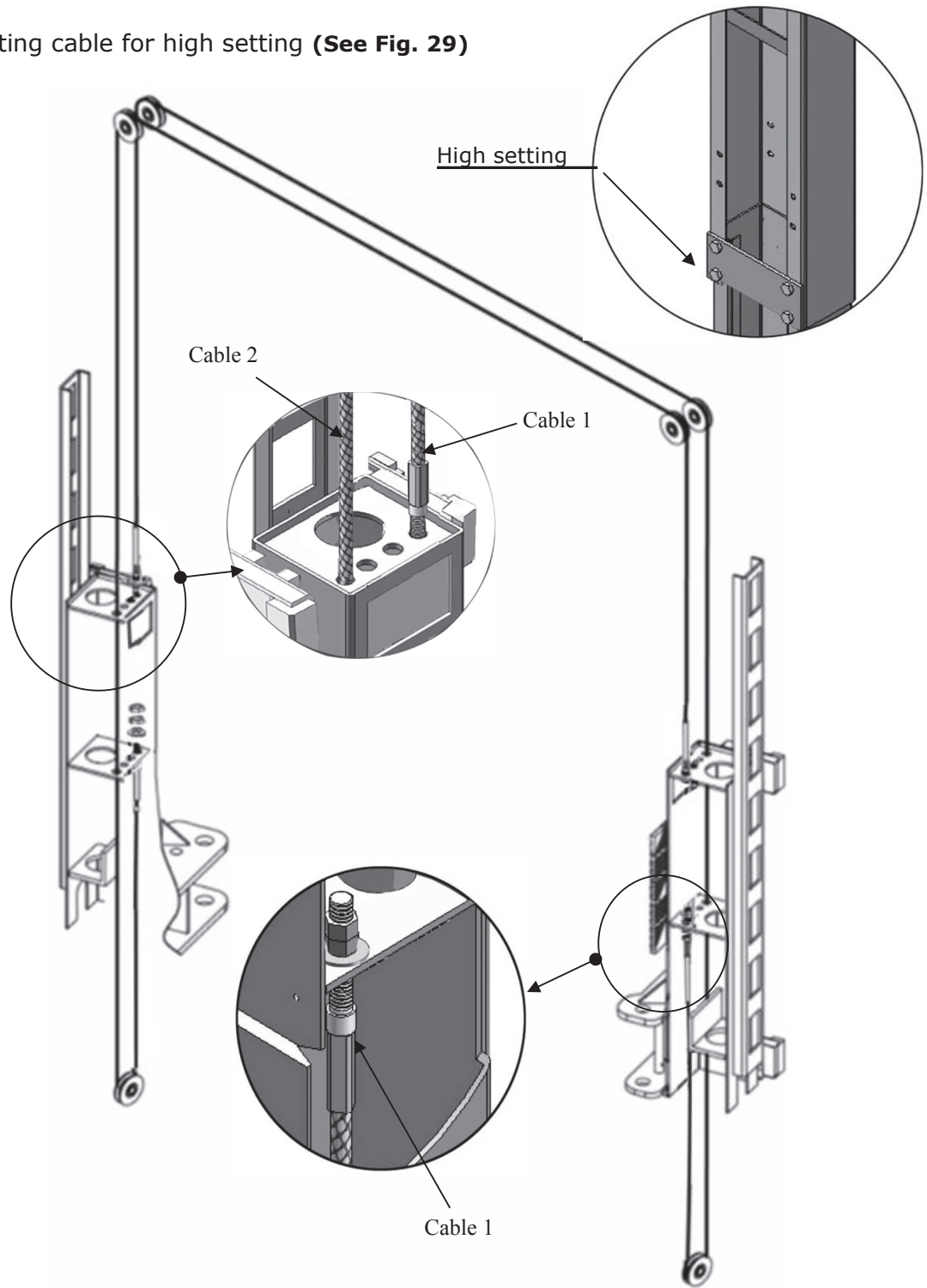
### 1. High setting cable connection.

- 1.1 Take out the carriages plastic cover, cable pass through from the bottom of the carriages and be pulled out from the open of carriages, then screw the two cable nuts (See Fig. 28).



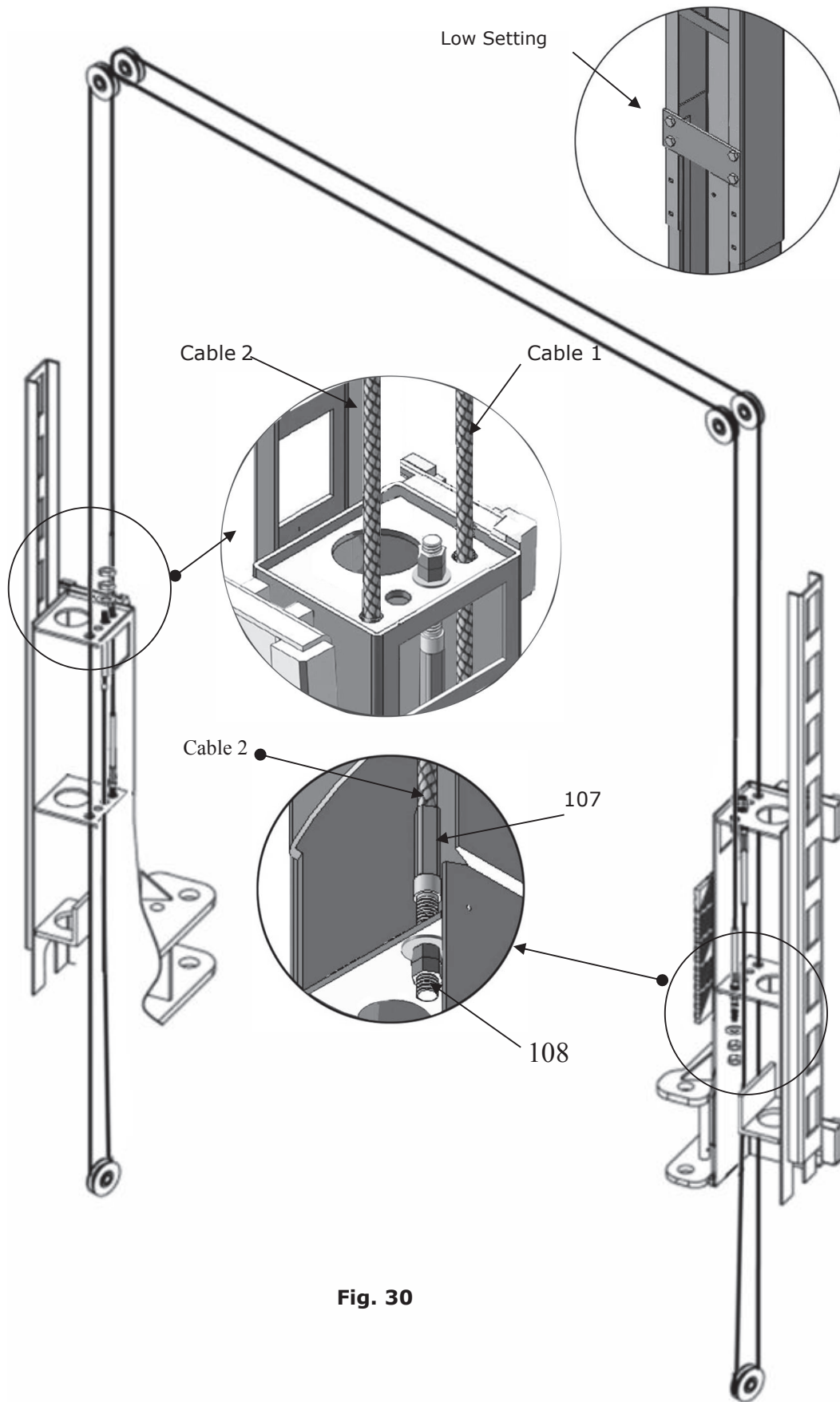
**Fig. 28**

1.2 Connecting cable for high setting (See Fig. 29)



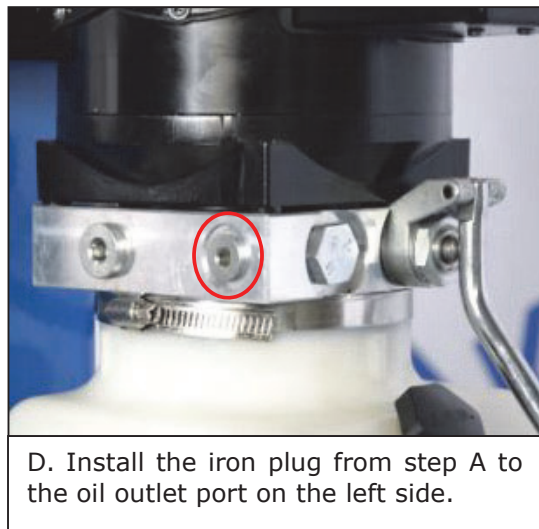
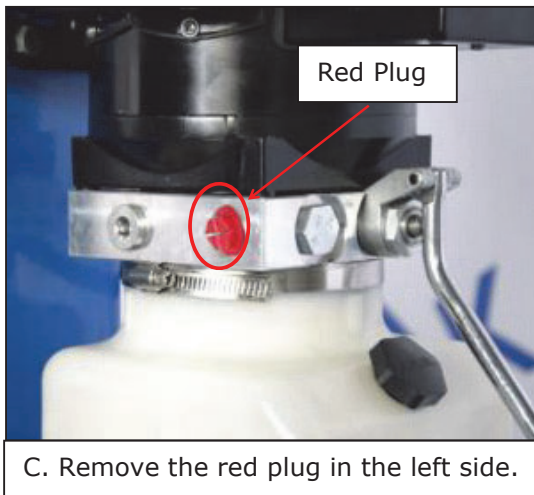
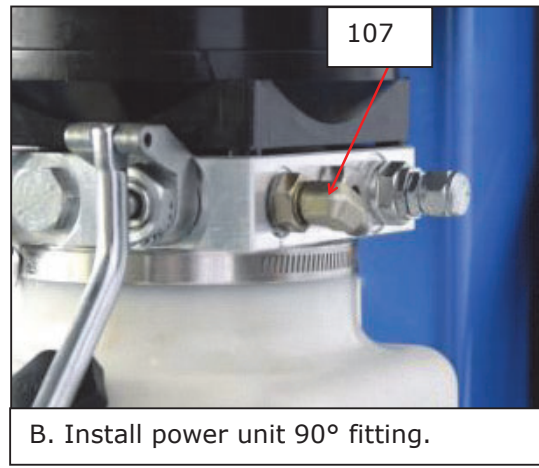
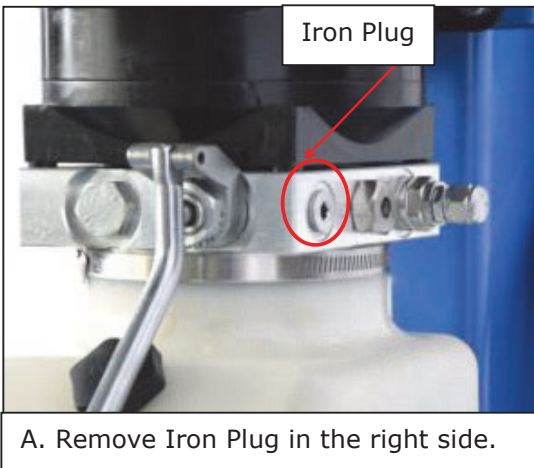
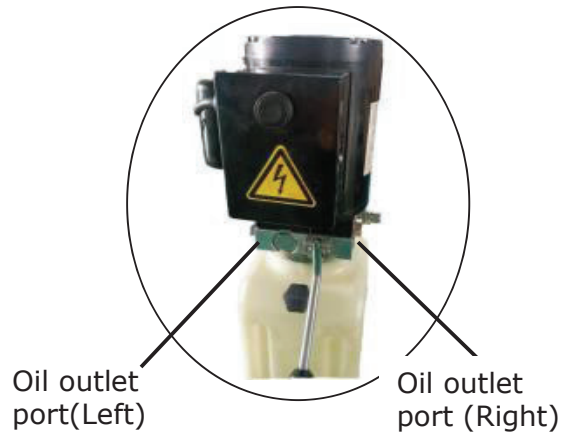
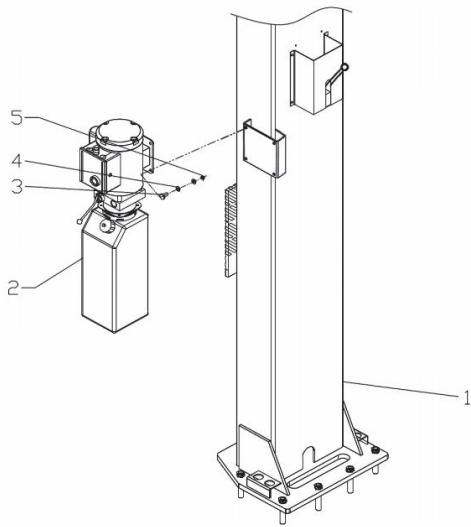
**Fig. 28**

**2. Low setting cable connection. (See Fig. 30).**



**Fig. 30**

**L. Install power unit (See Fig. 31)**

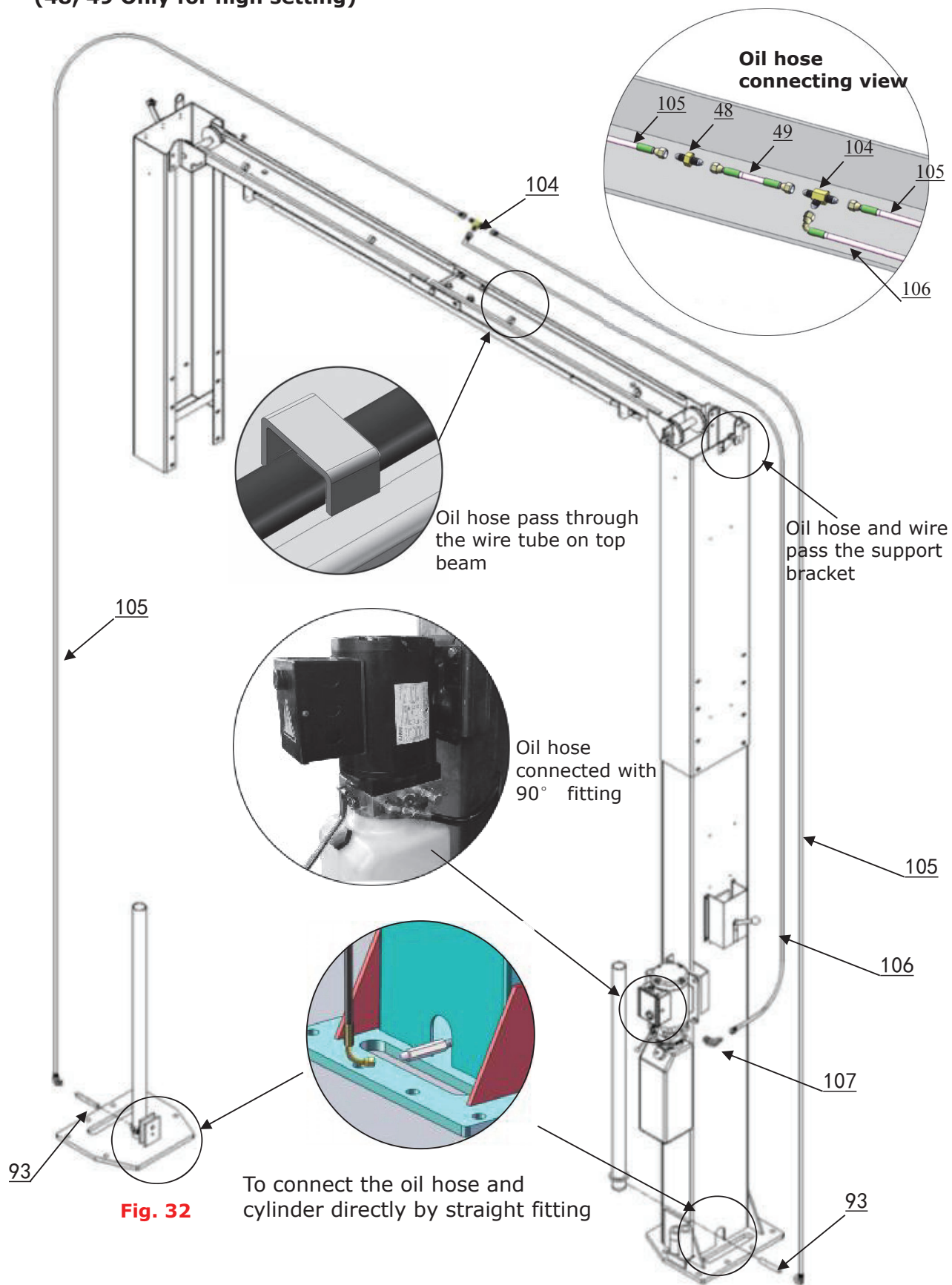


**Fig. 31**



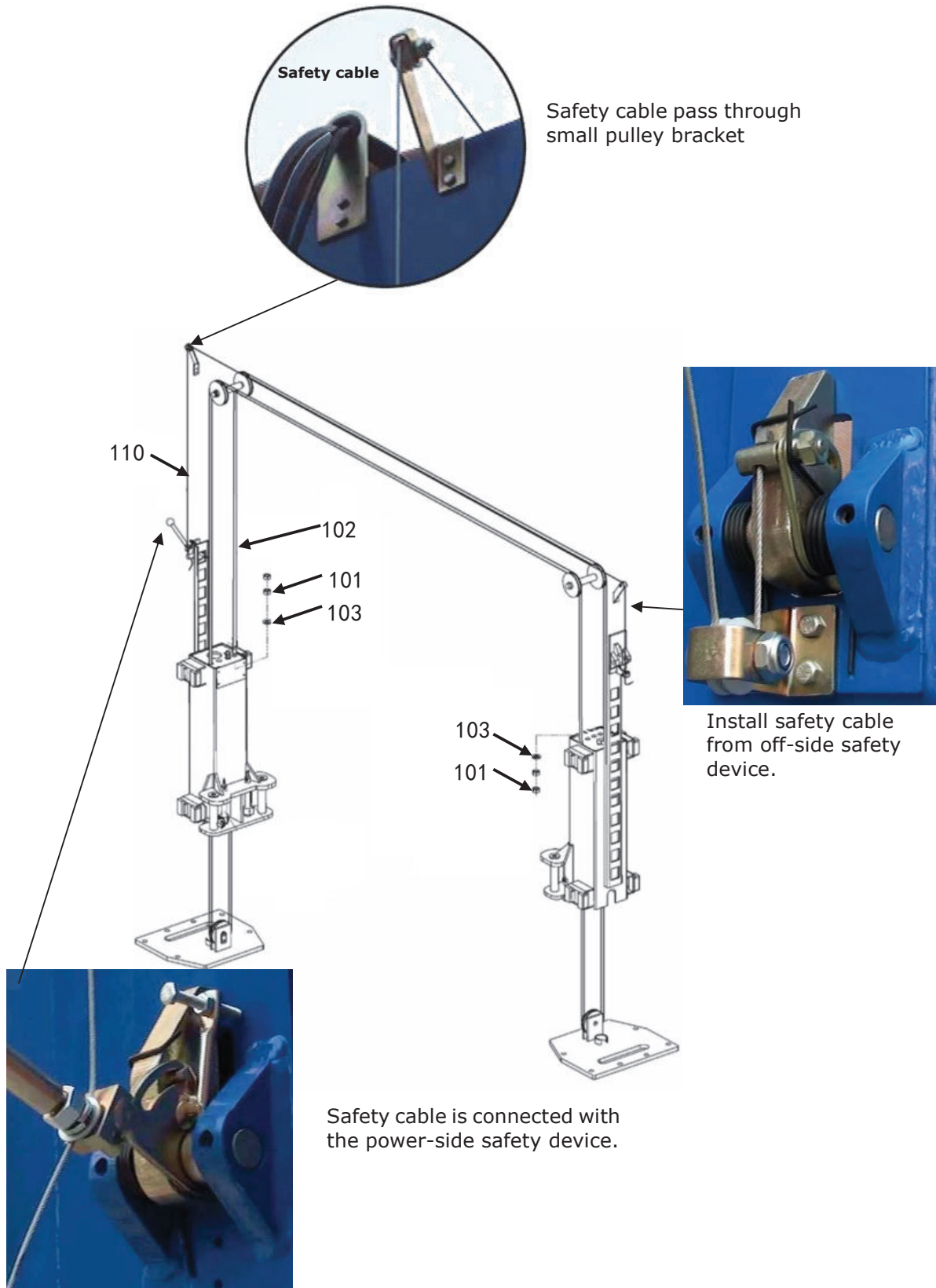
**M. Install oil hose (See Fig. 32)**

**(48, 49 Only for high setting)**



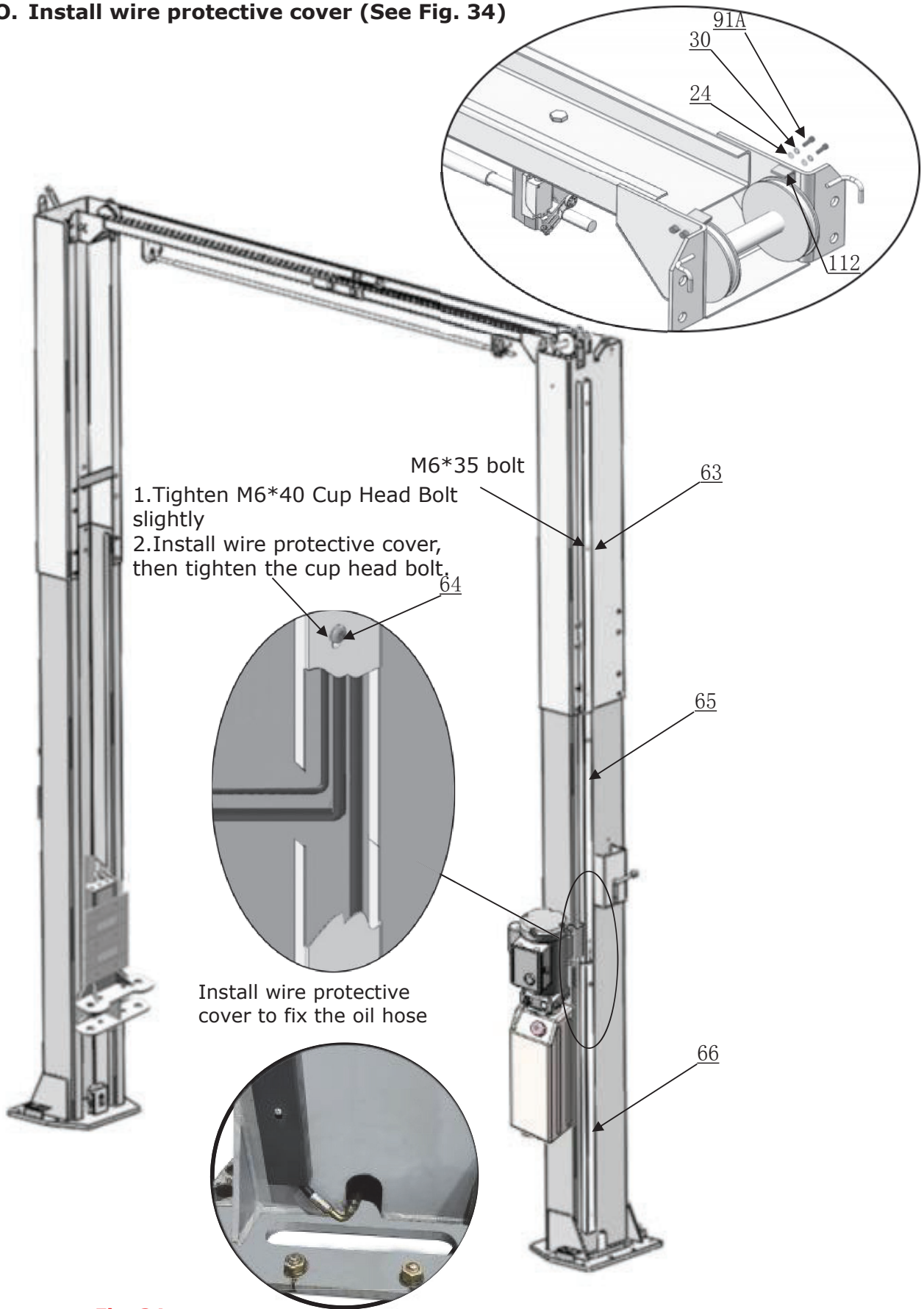
**N. Install safety cable. (See Fig. 33)**

Install safety cable from off-side safety assy. to power-side safety assy., pass through the top beam.



**Fig. 33**

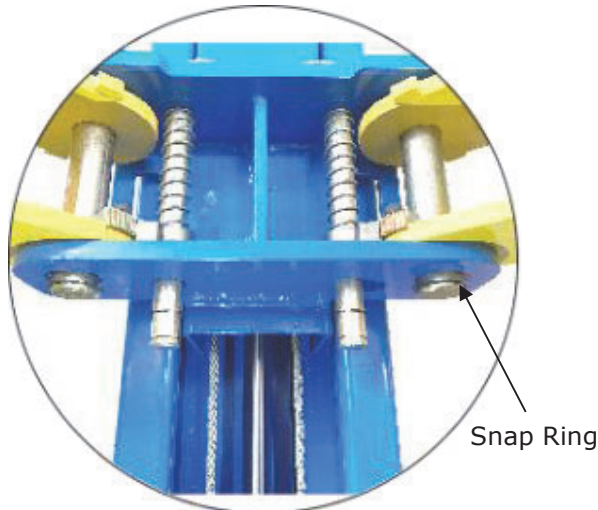
**O. Install wire protective cover (See Fig. 34)**



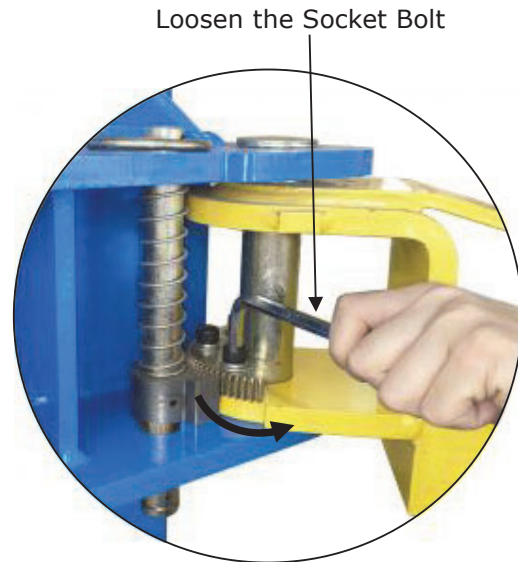


**P. Install lifting arms and adjust the arm locks**

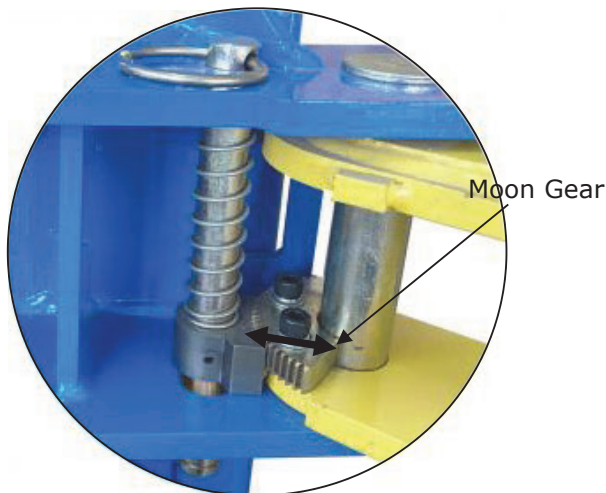
1. Install lifting arms (**See Fig. 35**).
2. Lowering the carriages down to the lowest position, then use the 8# socket head wrench to loosen the socket bolt (**See Fig.36**).
3. Adjust arm lock as direction of arrow (**See Fig.37**).
4. Adjust moon gear and arm locks to make it to be meshed, then tighten the socket bolts of arm lock (**See Fig.38**).



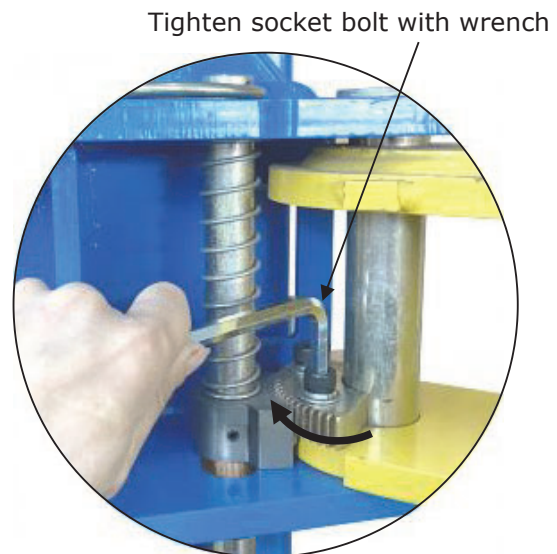
**Fig. 35**  
Install lifting arms



**Fig. 36**  
Use the 10# socket head wrench to loosen the socket bolt



**Fig. 37**  
Adjust moon gear and arm lock to make it to be engaged.



**Fig. 38**  
Locking the bolts after the moon gear and arm lock engaged well.

**Q. Tighten all the oil hose connectors, fill with Hydraulic oil into the tank. In consideration of Hydraulic Power Unit's durability and keep the equipment running in perfect condition, please use Hydraulic Oil 46#**

**R. Install electrical system**

Connect the power source according to the nameplate of the motor.

**Note: 1. Install the limit switch.**

**2. For the safety of operators, the lift must connect with the ground wire.**

**Single phase motor wiring (See Fig. 39)**

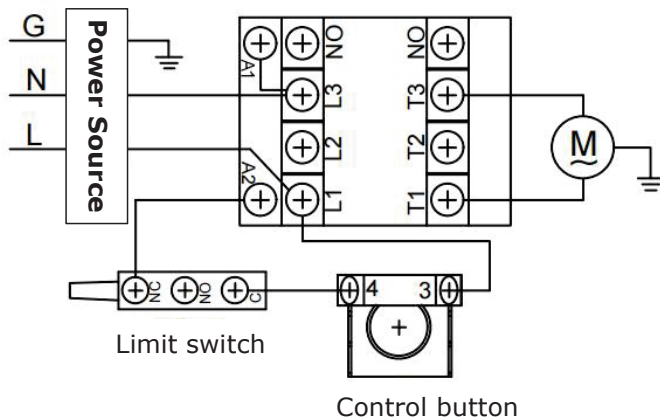
1. When power supply wires are active wire L and neutral wire N ,connecting active wire L to terminals of AC contactor marked L1, connecting neutral wire N to terminals of AC contractor marked L3.

2. When power supply wires are two active wire L, connecting to terminals of AC contactor marked L1, L3 respectively.

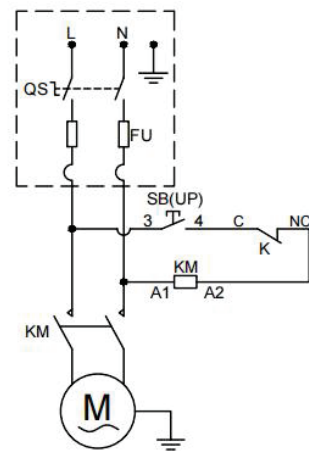
3. Connecting the limit switch: Remove the jumper wire connecting terminal 4# of control button and A2 of AC contactor firstly (See Fig. 40), then connect wire C#(black wire) of limit switch with terminal 4# of control button and connecting wire NC#(red wire) with terminals A2 of AC contactor respectively. (See Fig. 41)

**The interior wire of limit switch connecting NC# and C#, refer to Step H.**

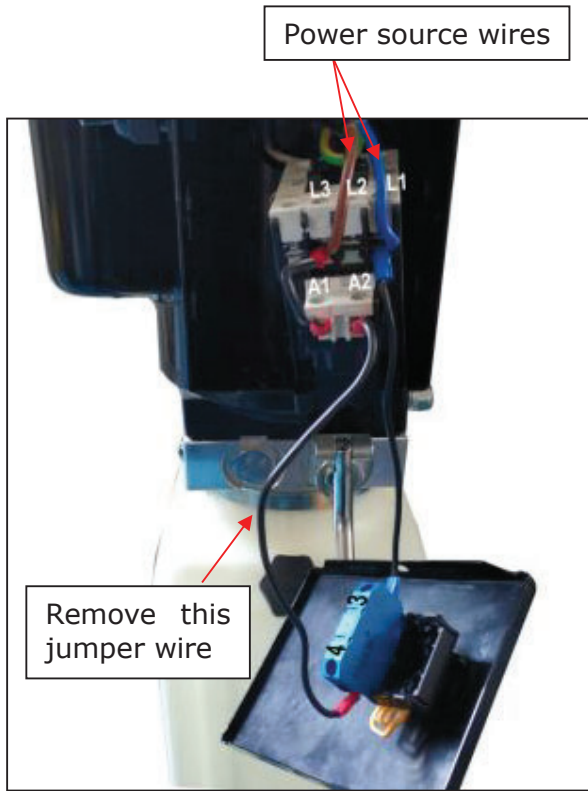
Motor wiring diagram of single phase power unit



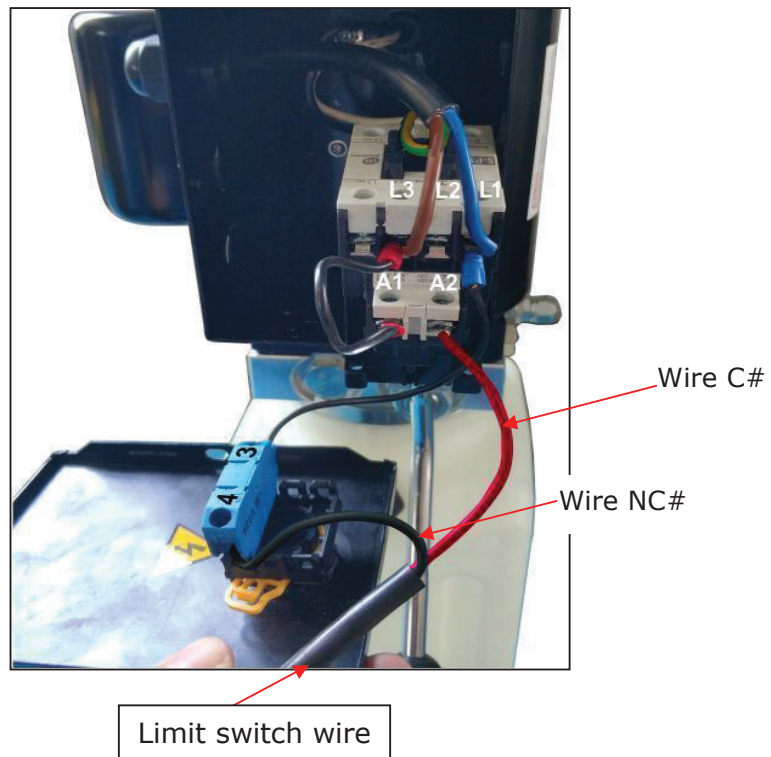
Circuit diagram



**Fig. 39**



**Fig. 40**



**Fig. 41**

# IV. EXPLODED VIEW

Model PSEOH-1315, PSEOH-1515

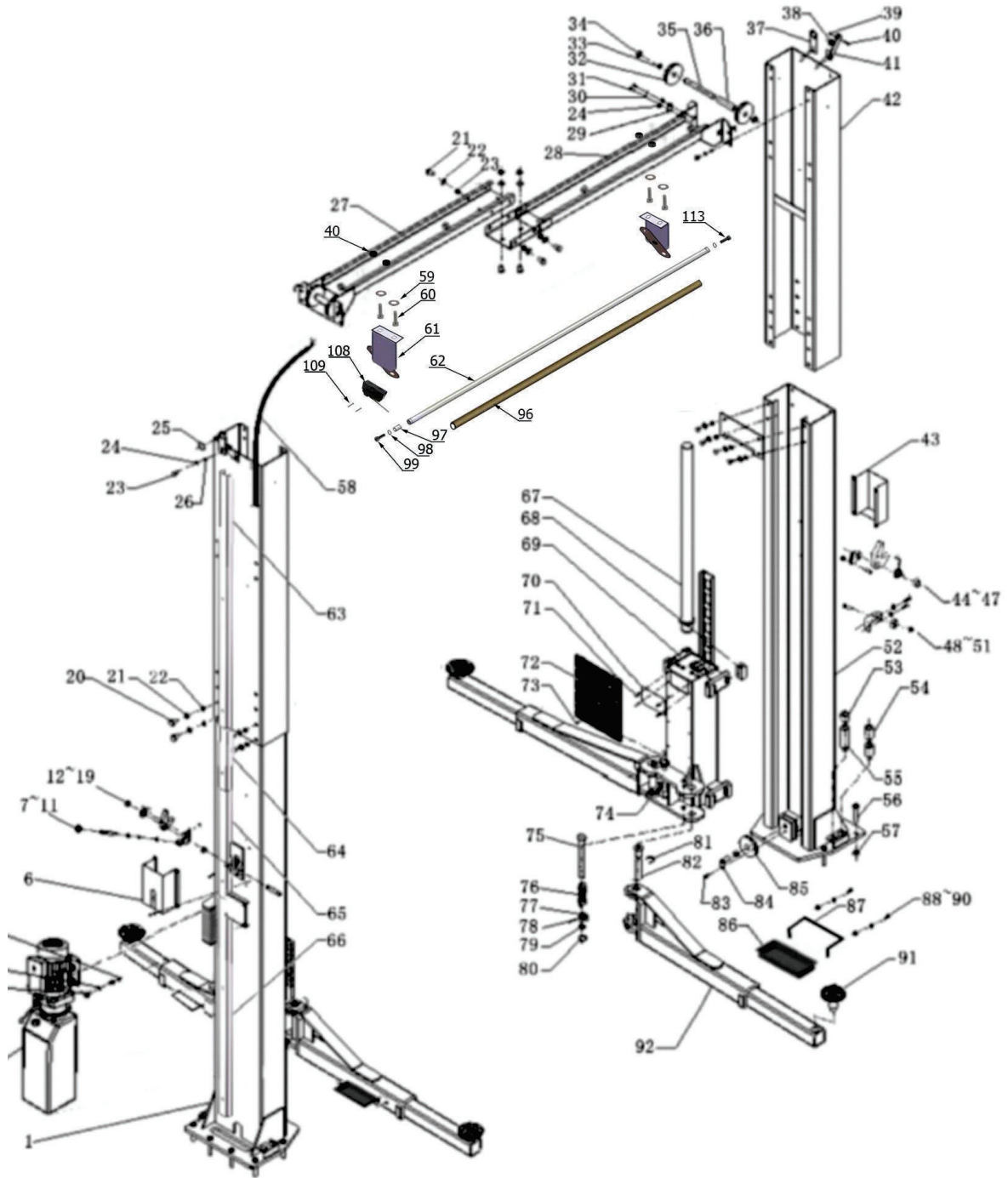


Fig. 42

**PARTS LIST FOR MODEL PSEOH-1315, PSEOH-1515**

Item	Part#	Description	QTY	Note
1	PSE11217466	Power-side column	1	
2	PSE071102	Manual Power unit	1	
3	PSE10209003	Hex Bolt M8*25	4	
4	PSE10209033	Washer φ8	4	
5	PSE10217002	Hex Nut M8	4	
6	PSE11217405	Power-side safety cover	1	
7	PSE11217005	Plastic ball M10	1	
8	PSE11217006	Lock handle	1	
9	PSE10206023A	Hex nut M12	1	
10	PSE10420026	Lock washer φ12	1	
11	PSE11217004	Main cam lock	1	
12	PSE11217436	Large spacer φ36*15.5	2	
13	PSE10217030	Main spring φ2.5*120°	2	
14	PSE11217009	Main lock	1	
15	PSE10217010	Hex bolt M6*40	1	
16	PSE10217011	Hex nut M6	1	
17	PSE11217012	Safety spacer φ27*10	2	
18	PSE10217051	Socket bolt M10*10	2	
19	PSE11217050	Safety pin	2	
20	PSE10420018	Nylok nut M6	8	
21	PSE10217069	Hex bolt M12*30	34	
22	PSE10206006	Washer φ12	35	
23	PSE10206023	Nylok nut M12	34	
24	PSE10420045	Washer φ6	38	
25	PSE1061K074	Protective ring	2	
26	PSE10217013	Hex bolt M6*20	8	
27	PSE11217016B-01	Top Beam Assy. (Left)	1	
28	PSE11217015B-01	Top Beam Assy. (Right)	1	
29	PSE11420044	Limit plate	2	
30	PSE10209149	Lock washer φ6	12	
31	PSE10420138	Socket bolt M6*16	4	
32	PSE11217019	Top pulley	4	
33	PSE10217020	Bronze bush for pulley	6	
34	PSE11217021	Top Pulley Spacer (Short)	4	
35	PSE11217022	Pin for Top Pulley	2	
36	PSE11217023	Pin Spacer (Long)	2	
37	PSE11217024	Oil Hose Support Plate	2	
38	PSE10206009	Plastic Small Pulley P005A-2	3	
39	PSE10209056	Nylok nut M10	3	
40	PSE10209046	Hex Bolt M10*35	3	
41	PSE11217379	Safety Cable Bracket	2	
42	PSE11217471	Outer Column (L=2356mm)	2	
43	PSE11217406	Off-side safety cover	1	
44	PSE10217008	Safety Spring φ2.5*145°	1	
45	PSE11217031	Off-side cam Lock	1	

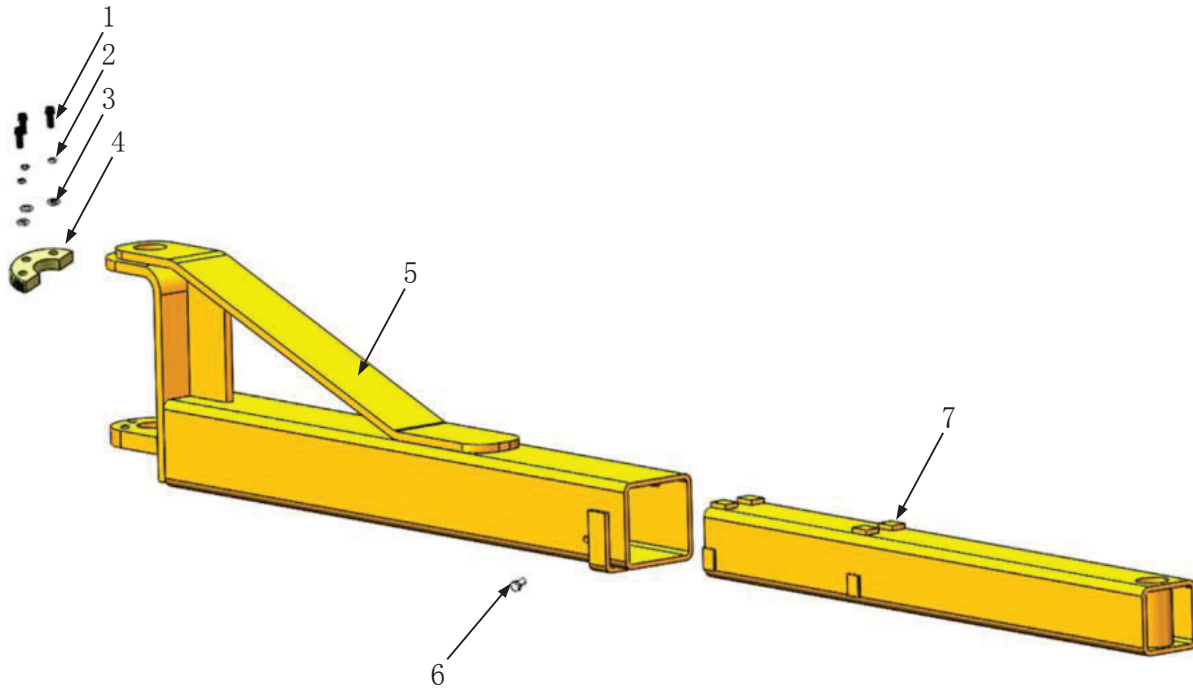


Item	Part#	Description	Qty.	Note
46	PSE10217032	Cable lock hold	1	
47	PSE10217033	Self locking Nut	1	
48	PSE10620079	Straight fitting	1	
49	PSE1002185001-0	Oil Hose assy.	1	
50	PSE11217029	Small Pulley Bracket	1	
51	PSE10217066	Hex Bolt M6*15	3	
52	PSE11217467	Off-side Column	1	
53	PSE11209051B	Adapter 1.5"	4	
54	PSE11209052B	Adapter 2.5"	4	
55	PSE11209053B	Adapter 5"	4	
56	PSE10201140	Anchor bolt 3/4 " *6-1/2	12	
57	PSE10620065	Shim(2mm)	10	
	PSE10201090	Shim(1mm)	10	
58	PSE10217454	Wire Cable L=5200	1	
59	PSE10209022	Washer $\phi$ 10	4	
60	PSE10209125	Hex bolt M10*30	4	
61	PSE1103072003A	Control Bar Support Bracket	2	
62	PSE1102072001A	Control Bar $\phi$ 22*2400	1	
63	PSE11217478	Wire Protective cover L=2230mm	2	
64	PSE10206110	Cup head bolt M6*35	6	
	PSE10206079	Cup head bolt M6*40	10	
65	PSE11217473	Wire Protective cover 1143mm(High setting)	2	
	PSE11217477	Wire Protective cover 531mm(Low setting)	2	
66	PSE11217880	Wire Protective cover L=1320mm	1	
	PSE11217895	Wire Protective cover L=1320mm	1	
67	PSE10217056A	Cylinder $\phi$ 55*1727	2	
68	PSE10217188	Slider block	16	
69	PSE11217480	Carriage	2	
70	PSE11217054	Carriage Plastic Cover	2	
71	PSE10209009	Cup Head Bolt M6*8	8	
72	PSE10217053	Protective Rubber	2	
73	PSE10209019	Flat Head Screw M6*16	12	
74	PSE11217046C	Arm Lock Bar(Right) $\phi$ 30*324.5	2	
75	PSE11217046B	Arm Lock Bar(Left) $\phi$ 30*324.5	2	
76	PSE10217045A-01	Spring $\phi$ 31* $\phi$ 36* $\phi$ 2.5 (L=214.5)	4	
77	PSE1002163001	Arm Lock M1.5*72*24	4	
78	PSE10206036-01	Hair pin $\phi$ 6*45	4	
79	PSE1102163002	Washer ( $\phi$ 39*4*18)	4	
80	PSE10610008	Snap ring $\phi$ 30	4	
81	PSE10520023	Snap ring $\phi$ 38	4	
82	PSE11217047B	Arm Pin	4	
83	PSE10209038	Hex Bolt M10*16	6	
84	PSE11217037	Bottom pulley Pin	2	
85	PSE11217036	Bottom Pulley	2	
86	PSE10206156	Tool tray	2	
87	PSE11206154	Rear guard bar	4	

Item	Part#	Description	Qty.	Note
88	PSE10201002	Hex bolt M8*16	8	
89	PSE10209034	Lock Washer φ8	8	
90	PSE10209033	Washer φ8	8	
91	PSE10217114A	Rubber pad assy.	4	
91A	PSE10420138	Socket bolt M6*16	12	
91B	PSE10209134	Rubber Pad	4	
91C	PSE11680030B	Rubber Pad Frame	4	
92	PSE10217052D	1515-Lifting Arm Assy. NOTE; 1315 below	4	
93	PSE1102186001	Extend Straight Fitting(J0076) 1/4JIC(M)*3/8NPT(M)	2	
94	PSE10209153	Ring of the arm lock handle φ70*φ6	4	
95	PSE11217068	Column Reinforce Plate	2	
96	PSE10206025A	Foam tube of control bar φ35*φ22*1950mm	1	
97	PSE110207007	Connecting Bush φ14*2*20	1	
98	PSE10209039	Lock Washer Φ10	2	
99	PSE10630100	Socket Bolt M10*40	1	
100	PSE10209009	Cup Head Bolt M6*8	8	
101	PSE10209066	Cable nut M16	8	
102	PSE10217452	Cable Assy. φ9.52*12540mm	2	
103	PSE10420029	Cable shim φ16	4	
104	PSE10211016	T-Fitting 1/4JIC(M)*1/4JIC(M)*1/4JIC(M)	1	
105	PSE10217455-01	Oil hose Assy. 5/16*6125mm	2	
106	PSE10217456-01	Oil hose Assy. 5/16*5130mm	1	
107	PSE10209060	90 °fitting for power unit	1	
108	PSE1002022001	Limit swith CZ-7120	1	
109	PSE10420164	Cup Head Bolt M4*30	2	
110	PSE10217453	Safety Cable L=10370mm	1	
111	PSE10217502B	Parts box	1	
112	PSE1102075001	Cable restrain plate	4	
113	PSE10720002	Socket Bolt M10*25	1	

Note; Item 92, PSEOH-1315 Arm Part Number is PSE10217327-01

## 1. Lifting Arm Exploded View (PSE10217052D)



**Fig. 43**

Item	Part#	Description	Qty.	Note
1	PSE1102163005	Socket bolt M12*48	12	
2	PSE10420026	Lock washer $\phi 12$	12	
3	PSE10206006	Washer $\phi 12$	12	
4	PSE1102163001	Moon gear	4	
5	PSE11217122	Outer arm - Rear	4	
6	PSE10201149	Flat head screw M8*12	4	
7	PSE11217123A	Inner arm - Rear	4	



## 1. Lifting Arm (PSE10217327-01)

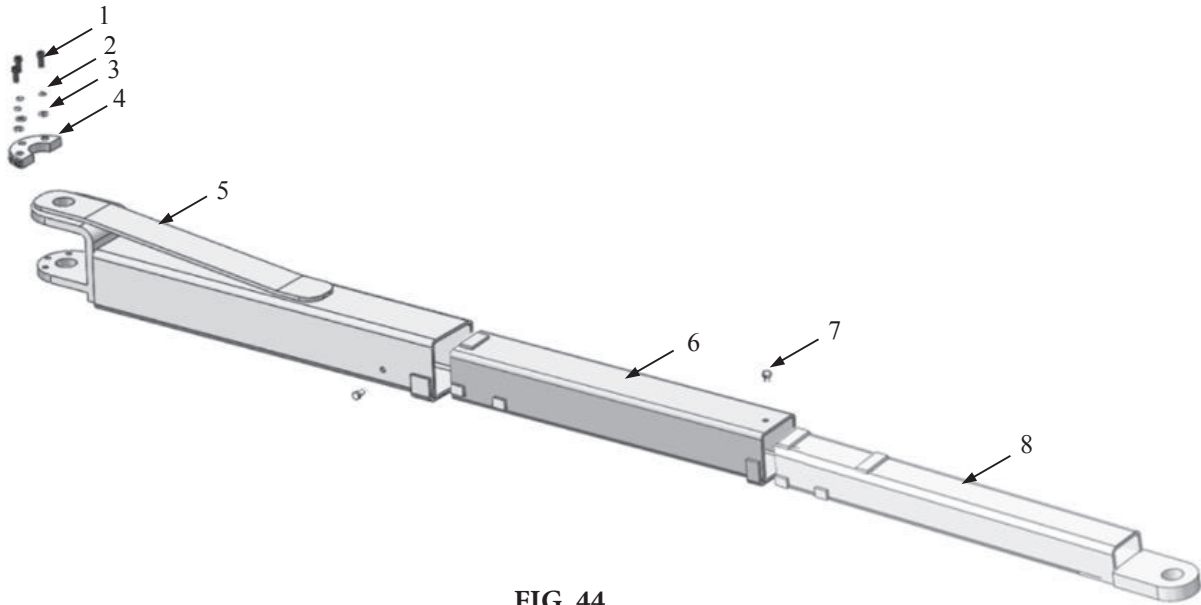


FIG. 44

Item	Part#	Description	Qty.	Note
1	PSE1102163005	Socket bolt M12*48	12	
2	PSE10420026	Lock washer $\phi$ 12	12	
3	PSE10206006	Washer $\phi$ 12	12	
4	PSE1102163001	Moon Gear	4	
5	PSE11217834	Outer Arm	4	
6	PSE11217337	Middle Arm	4	
7	PSE10201149	Flat Head Screw M8*12	8	
8	PSE11217336-01	Inner Arm	4	

## 2. Cylinders Exploded View (PSE10217056B)

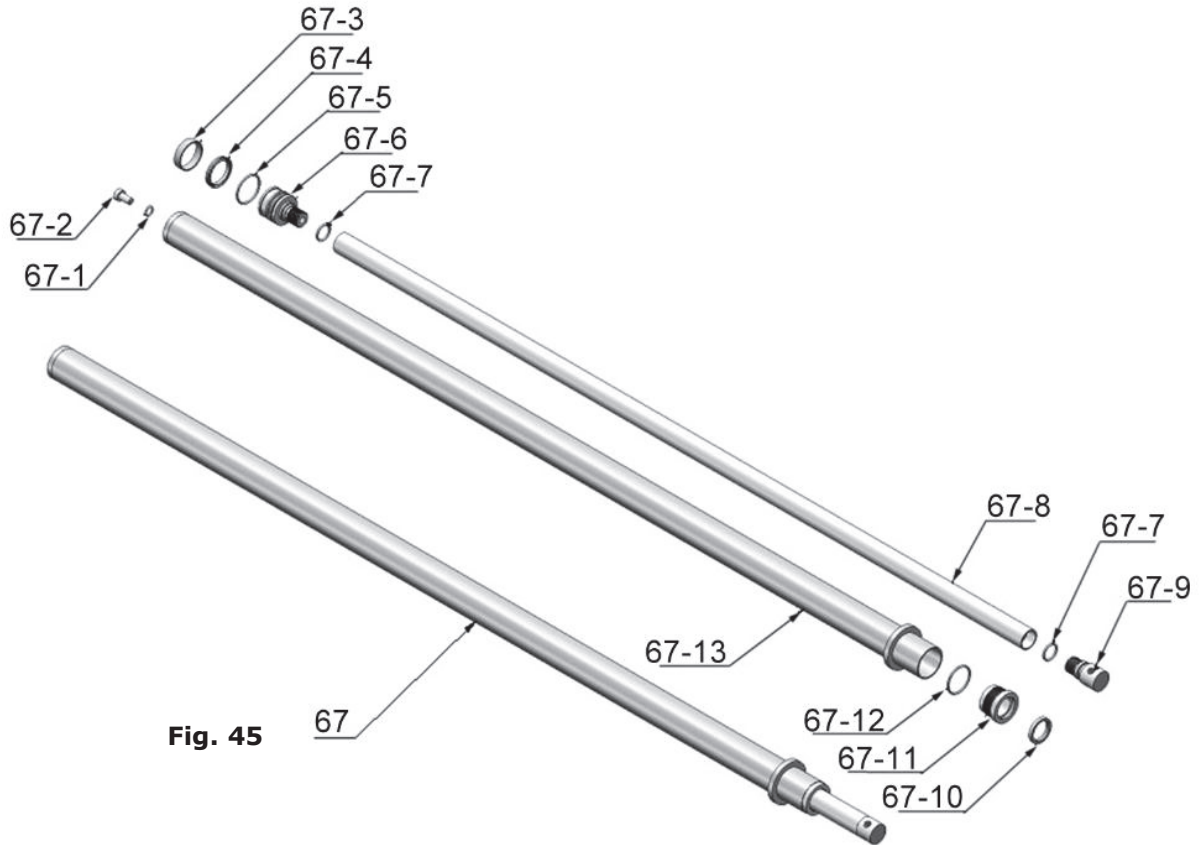


Fig. 45

Item	Part#	Description	Qty.	Note
67-1	PSE10209069	O-Ring	2	
67-2	PSE10209070	Bleeding Plug	2	
67-3	PSE10201029	Support Ring	2	
67-4	PSE10201030	Y-Ring	2	
67-5	PSE10201031	O-Ring	2	
67-6	PSE11217074A	Piston	2	
67-7	PSE10217075	O-Ring	2	
67-8	PSE11217089	Piston rod	2	
67-9	PSE11217077	Piston rod fitting	2	
67-10	PSE10217078	Dust ring	2	
67-11	PSE11217079	Head cap	2	
67-12	PSE10217080	O-Ring	2	
67-13	PSE11217091	Bore weldment	2	

### 3. Manual power unit Explode View (PSE071102)

220V/60Hz, Single Phase

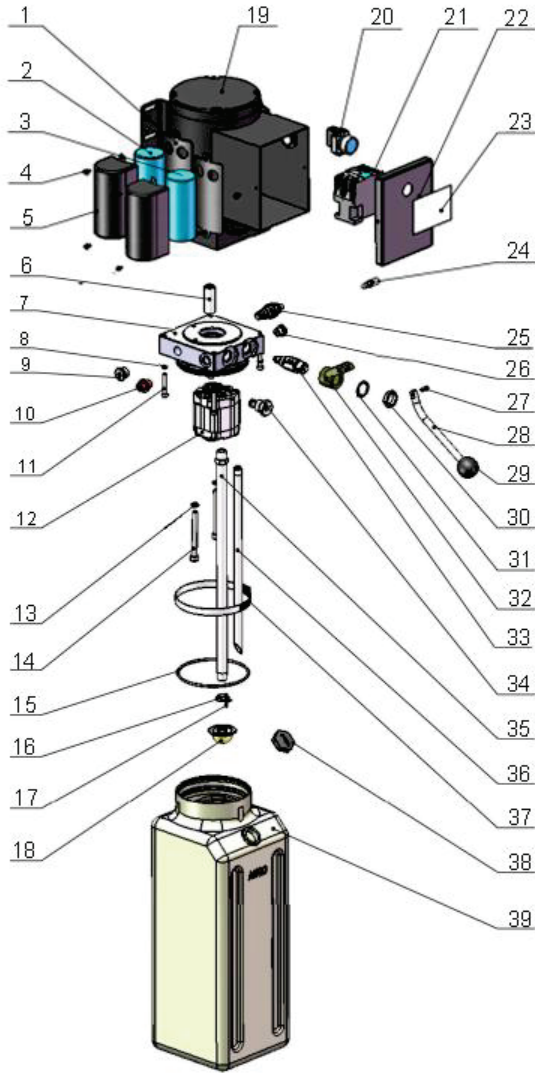
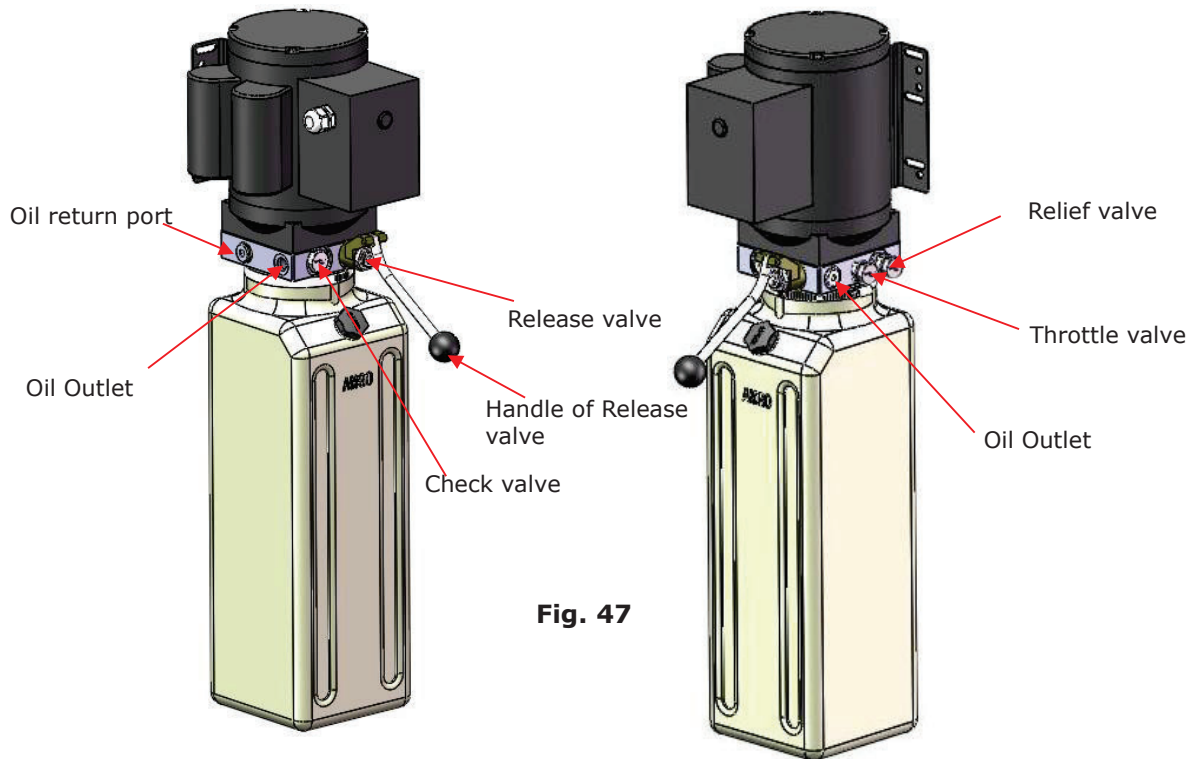


Fig. 46

<b>Parts For Manual Power Unit 220V/60Hz/Single phase (PSE071102)</b>				
<b>Item</b>	<b>Part#</b>	<b>Description</b>	<b>Qty.</b>	<b>Note</b>
1	PSE81400180	Rubber Pad	2	
2	PSE81400250	Starting capacitor	1	
3	PSE81400200	Running capacitor	1	
4	PSE10420148	Cup Head Bolt with washer	4	
5	PSE81400066	Cover of Motor Terminal Box	2	
6	PSE81400363	Motor Connecting Shaft	1	
7	PSE80101013	Manifold block	1	
8	PSE10209149	Washer	4	
9	PSE81400276	Iron plug	1	
10	PSE81400259	Red rubber plug	1	
11	PSE85090142	Socket bolt	4	
12	PSE81400280	Gear pump	1	
13	PSE10209034	Washer	2	
14	PSE81400295	Socket bolt	2	
15	PSE81400365	O ring	1	
16	PSE10209152	Ties	1	
17	PSE85090167	Magnet	1	
18	PSE81400290	Filter	1	
19	PSE81400413	Steel Motor	1	
20	PSE10420070	Push button	1	
21	PSE41030055	AC connector	1	
22	PSE81400287	Motor terminal box cover	1	
23	PSE71111216	Power unit label	1	
24	PSE81400560	Throttle valve	1	
25	PSE81400266	Relief valve	1	
26	PSE81400284	Inner hex iron plug	1	
27	PSE10720118	Hair pin	1	
28	PSE81400451	Release valve handle	1	
29	PSE10209020	Plastic ball	1	
30	PSE81400421	Release valve nut	1	
31	PSE81400422	Shim	1	
32	PSE81400449	Valve Seat	1	
33	PSE81400567	Release Valve	1	
34	PSE81400566	Check Valve	1	
35	PSE81400366	Oil suction pipe	1	
36	PSE81400289	Oil return pipe	1	
37	PSE81400364	Clamp	1	
38	PSE81400263	Oil tank cap	1	
39	PSE81400319	Oil tank	1	

## Illustration of hydraulic valve for hydraulic power unit (See Fig. 47)



## V. TEST RUN

### 1. Adjust synchronous cable (See Fig. 48)

Use Spanner to hold the cable fitting, meanwhile use ratchet spanner to tighten the cable nut. Make sure two cables are with the same tension so that two carriages can work synchronously. Fit the plastic hole cover on the lifting head.

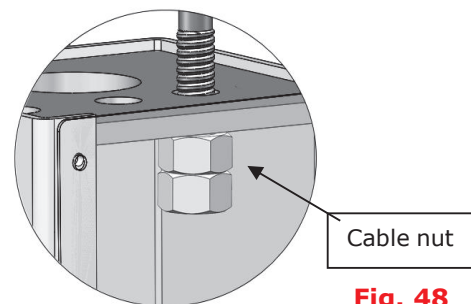


Fig. 48

**If the carriage does not Synchronize when lifting, please tighten the cable nut.**

### 2. Adjust safety cable

Lifting the carriages and lock at the same height, strain the safety cable and then release a little, and then tighten the cable nuts. Make sure the safety device can always be worked properly.

### 3. Exhaust air

This hydraulic system is designed to bleeding air by loosing the bleeding plug. Lifting the carriages to about 1 meter height, and loose the bleeding plug, the air would be bled automatically, then tighten the plug after bleeding, the lift would work stably and smoothly, otherwise repeat bleeding (See Fig. 49).

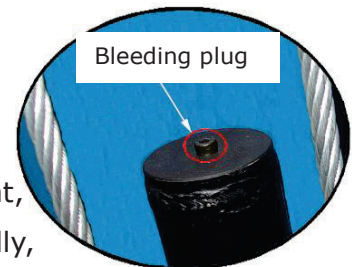
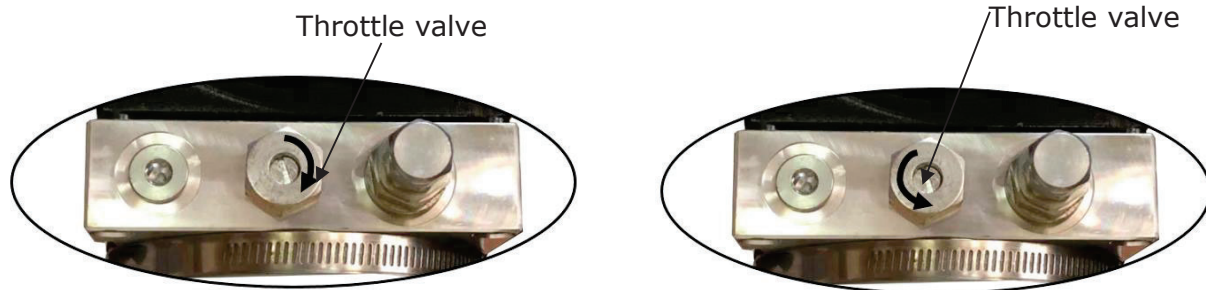


Fig. 49

#### 4. Adjust the lower speed

You can adjust the lower speed of the lift if needing: turn the throttle valve clockwise to decrease the lower speed, or counterclockwise to increase the lower speed.



Clockwise to decrease the lower speed.

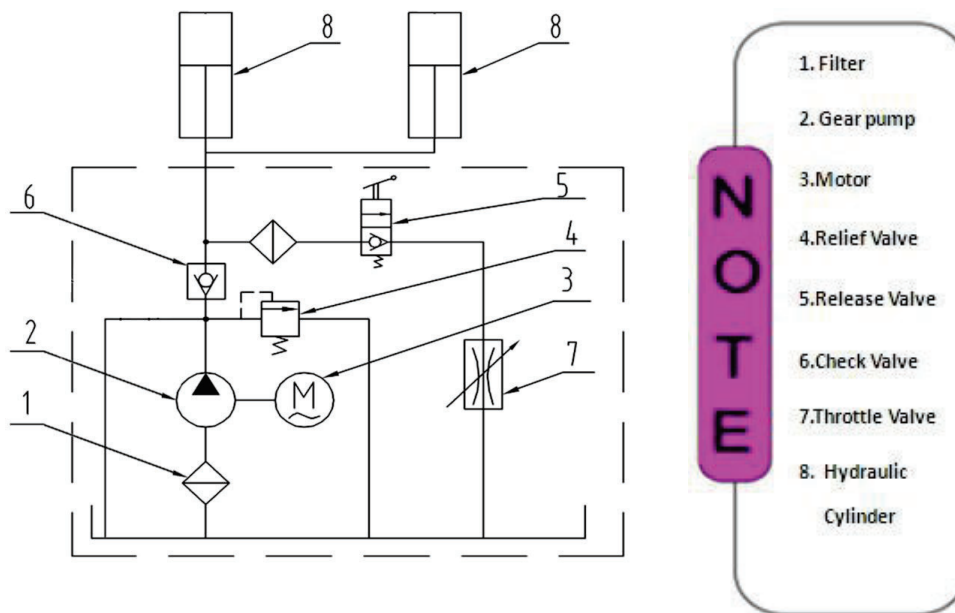
Counterclockwise to increase the lower speed.

**Fig. 50**

#### 5. Test with load

After finishing the above adjustment, test running the lift with load. Run the lift in low position for several times first, make sure the lift can rise and lower synchronously, the safety device can lock and release synchronously. And then test run the lift to the top completely. If there are anything improper, repeat the above adjustment.

**NOTE: It may be vibrated when lifting at start, lifting it with load for several times, the air would be bled and the vibration would be disappeared automatically.**



**Fig. 51 Hydraulic System**

## **VI. OPERATION INSTRUCTIONS**

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

### **To lift vehicle**

1. Keep clear of site near the lift;
2. Position lift arms to the lowest position;
3. To shortest lift arms;
4. Open lift arms;
5. Position vehicle between columns;
6. Move arms to the vehicle's lifting point;

**Note: The four lift arms must at the same time contact the vehicle's lifting point where manufacturers recommended**

7. Press button "**UP**" until the lift pads contact underside of vehicle totally. Recheck to make sure vehicle is secure;
8. Continue to raise the lift slowly to the desired working height, ensuring the balance of vehicle;
9. Push lowering handle to lower lift onto the nearest safety. The vehicle is ready to repair.

### **To lower vehicle**

1. Be sure clear of around and under the lift, only leaving operator in lift area;
2. Press button "**UP**" to raise the vehicle slightly, and then release the safety device, lower vehicle by pushing lowering handle.
3. Open the arms and position them to the shortest length;
4. Drive away the vehicle.
5. Turn off the power.

## **VII. MAINTENANCE SCHEDULE**

### **Monthly:**

1. Re-torque the anchor bolts to 150 Nm;
2. Check all connectors, bolts and pins to insure proper mounting;
3. Lubricate cable with lubricant;
4. Make a visual inspection of all hydraulic 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 or equivalent;

**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 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.



## VIII. TROUBLE SHOOTING

TROUBLE	CAUSE	REMEDY
Motor does not run	<ol style="list-style-type: none"> <li>1. Button does not work</li> <li>2. Wiring connections are not in good condition</li> <li>3. Motor burned out</li> <li>4. Height limit switch is damaged</li> <li>5. AC contactor burned out</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace button</li> <li>2. Repair all wiring connections</li> <li>3. Repair or replace motor</li> <li>4. Replace the limit switch</li> <li>5. Replace AC contactor</li> </ol>
Motor runs but the lift is not raised	<ol style="list-style-type: none"> <li>1. Motor runs in reverse rotation</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. Reverse 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 in activated</li> <li>2. Release valve in damage</li> <li>3. Safety 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>

## IX. LIFT DISPOSAL:

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

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