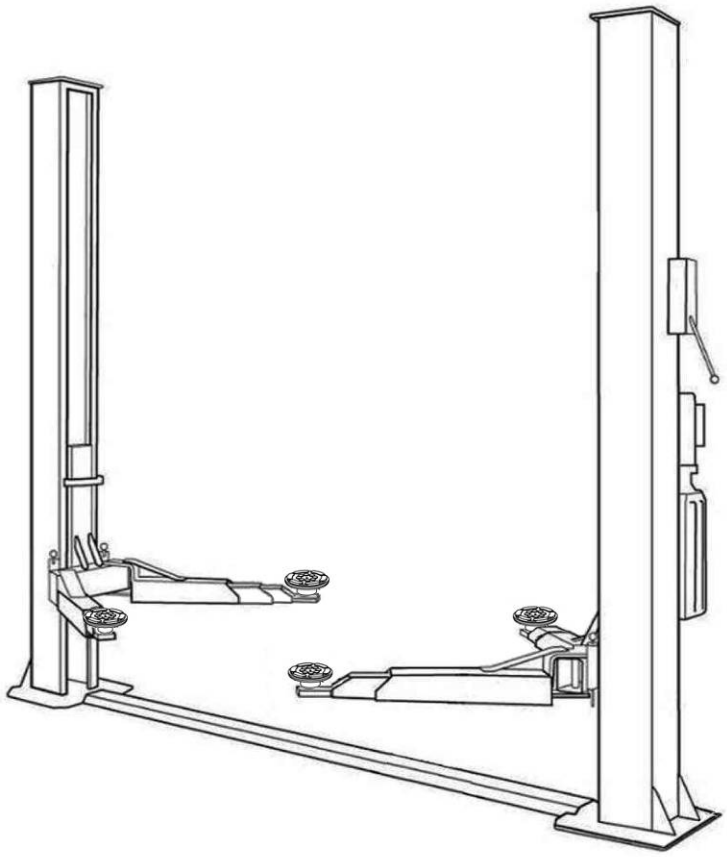
PEAK®

Installation And Service Manual



TWO-POST LIFT

Model: 208

CONTENTS

I. PRODUCT FEATURES AND SPECIFICATIONS

FLOORPLATE CHAIN-DRIVE MODEL 208 FEATURES (See Fig. 1)

· Compact design.

· Dual hydraulic cylinders, designed and made on ANSI standard, utilizing NOK oil seal in cylinder.

· Self-lubricating UHMW Polyethylene sliders and bronze bush.

· Single-point safety release, and dual safety design.

· Super-symmetric arms design with 3-stages front arms and 2-stages rear arms.

· Stackable rubber pad with 1.5” and 2.5” extension adaptors.

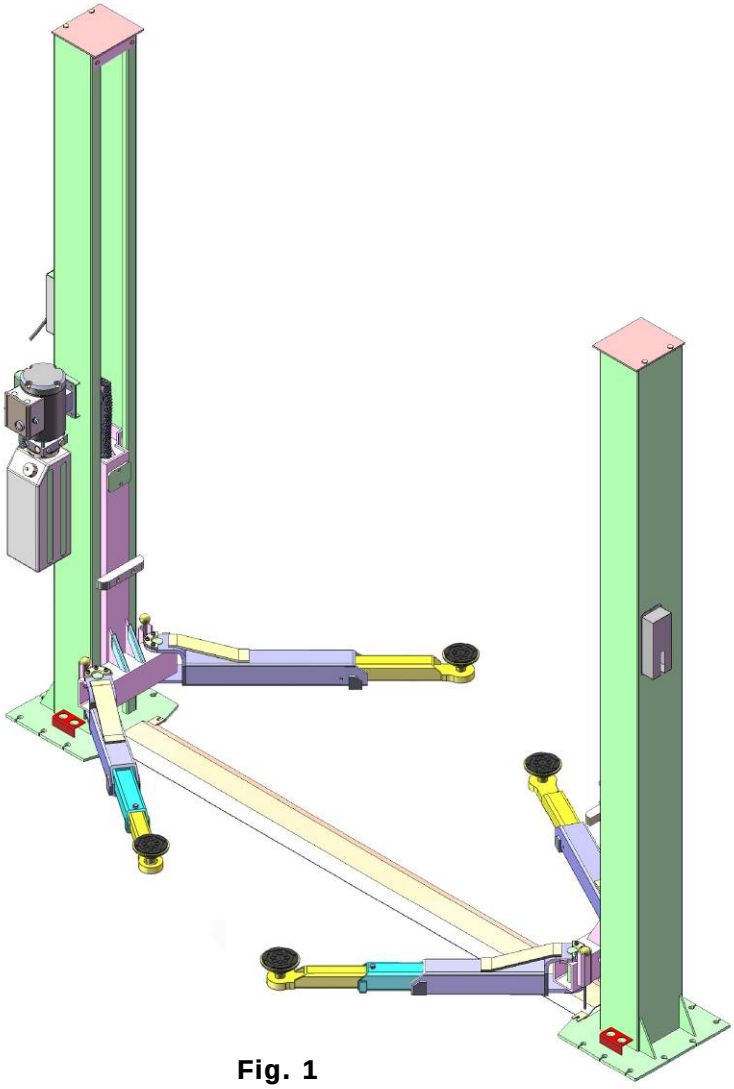


Fig. 1

MODEL 208 SPECIFICATIONS

Model	Style	Lifting Capacity	Lifting Time	Lifting Height	Overall Height	Overall Width	Width Between Columns	Minimum Pad Height	Gross Weight	Motor
208	Floor-plate Chain-drived	3.5T 8,000 lbs	45S	1815-1917mm 71 1/2”–75 1/2”	2850mm 112 1/4”	3390mm 133 1/2”	2780mm 109 1/2”	90mm 3 1/2”	579Kg 1277lbs	2.0/3.0 HP

Arm Swings View

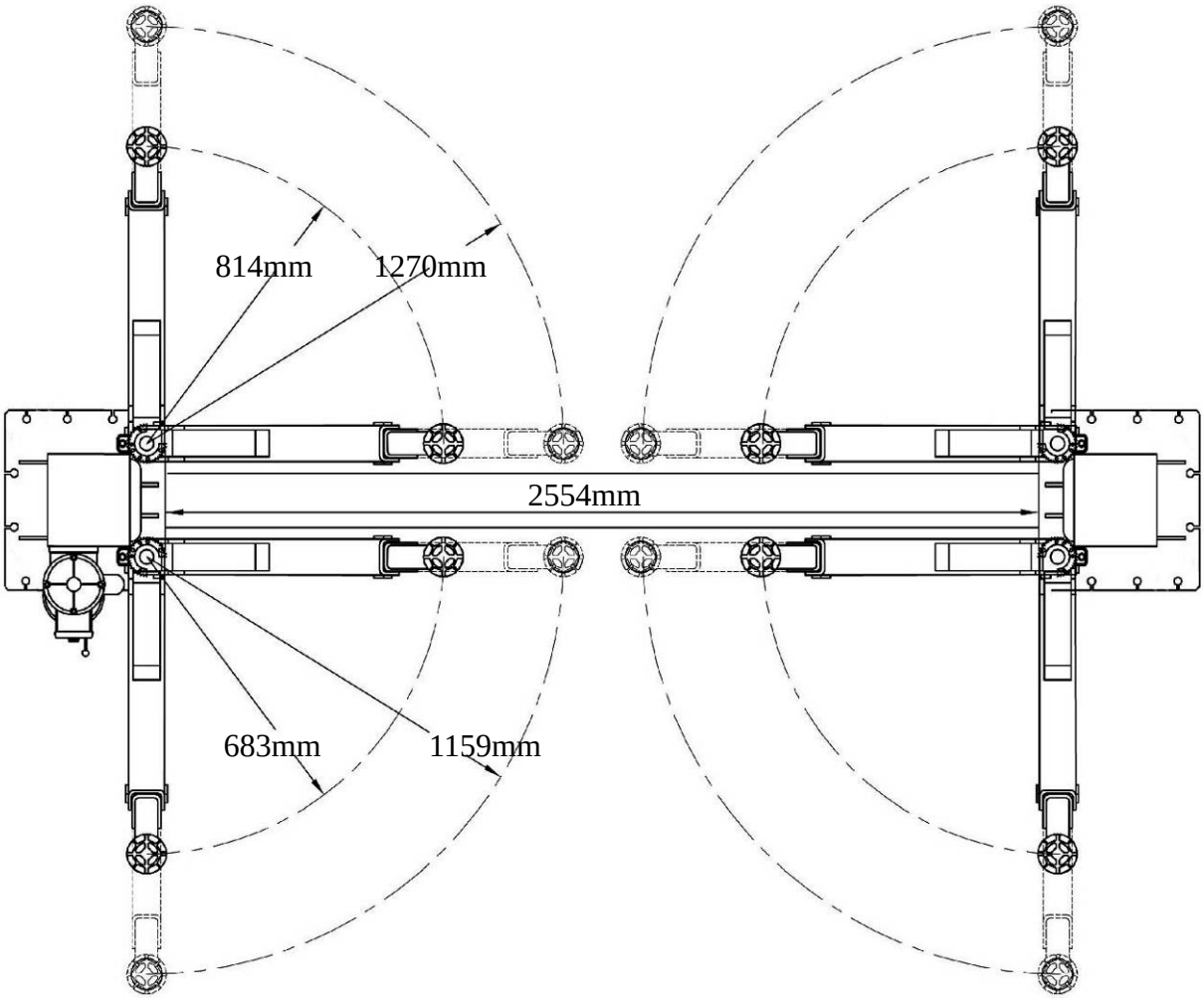


Fig. 2

II. INSTALLATION REQUIREMENT

A. TOOLS REQUIRED

✓ Rotary Hammer Drill (Φ19)

✓ Carpenter's Chalk

✓ Hammer

✓ Screw Sets

✓ Level Bar

✓ Tape Measure (7.5m)

✓ English Spanner (12")

✓ Pliers

✓ Ratchet Spanner With Socket (28#)

✓ Socket Head Wrench (6#)

✓ Wrench Set

(10#, 13#, 14#, 15#, 17#, 19#, 24#, 27#)

✓ Lock Wrench

Fig. 3

B. SPECIFICATIONS OF CONCRETE (See Fig. 4)

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 100mm minimum and without reinforcing steel bars, and must be dried completely before lift installation.
2. Concrete must be in good condition and must be of test strength 3,000psi minimum.
3. Floors must be level and no cracks.

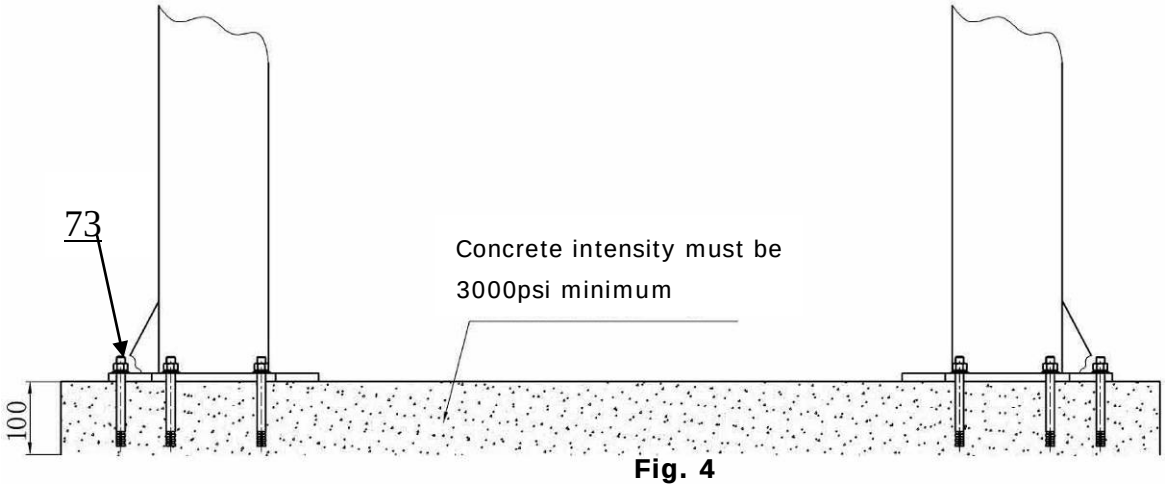


Fig. 4

C. POWER SUPPLY

The electrical source must be 3HP minimum. The source cable size must be 2.5mm² and in good condition of contacting with floor.

III. STEPS OF INSTALLATION

A. Location of installation

Check and insure 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. 5)**.

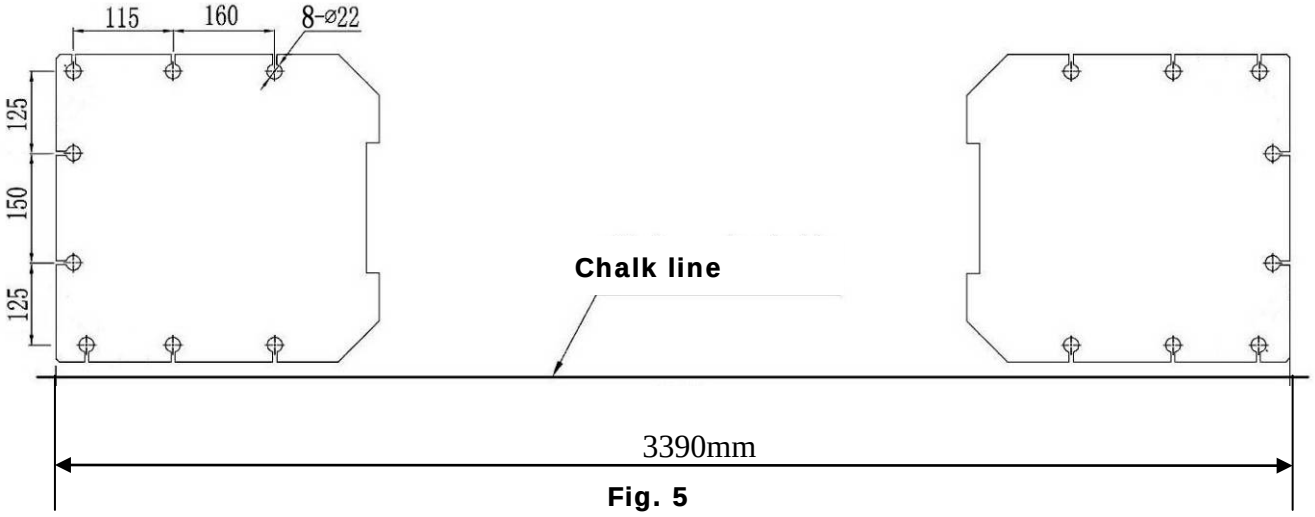


Fig. 5

C. Check the parts before assembly

1. Packaged lift and Hydraulic Power Unit **(See Fig. 6)**

Fig. 6

2. Move aside the lift with fork lift or hoist, and open the outer packing carefully, take off the parts from upper and inside the column, take out the parts box，check the parts according to the shipment parts list **(See Fig. 7).**

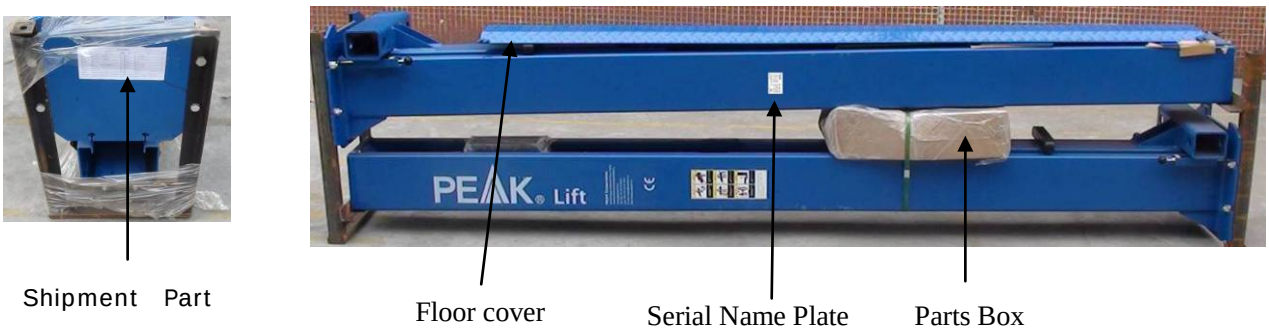


Fig. 7

3. Loose the screws of the upper package stand, take off the upper column and remove the package stand.

4. Move aside the parts and check the parts according to the shipment parts list **(See Fig. 8,Fig. 9).**

Fig. 8 Parts in the shipment parts list

Fig. 9 Parts in the parts box (78)

5. Open the carton of parts and check the parts in the parts bag according to parts bag list **(See Fig. 10).**

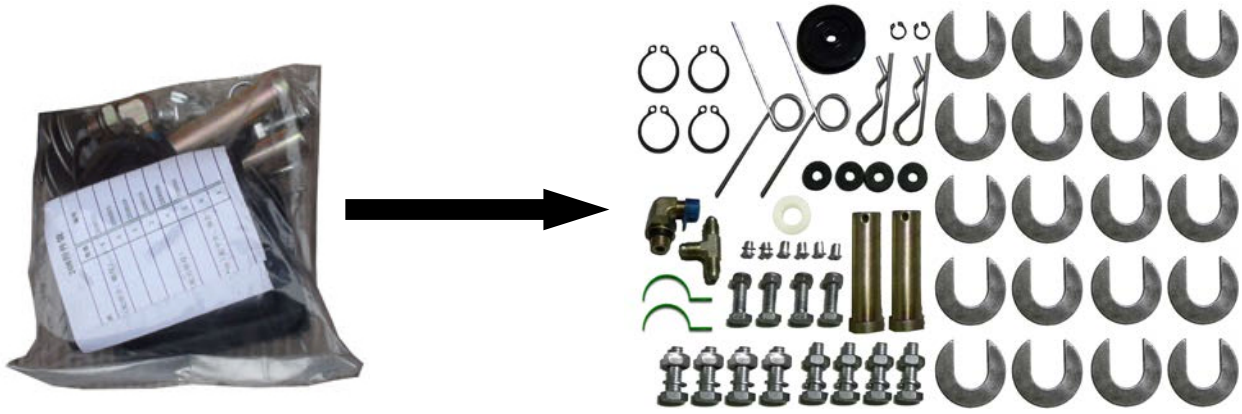


Fig. 10

D. Position powerside column

Lay down two columns on the installation site parallelly, position the powerside column according to the actual installation site. Usually, it is suggested to install powerside column on the front-right side from which vehicles are driven to the lift. **(See Fig. 11)**

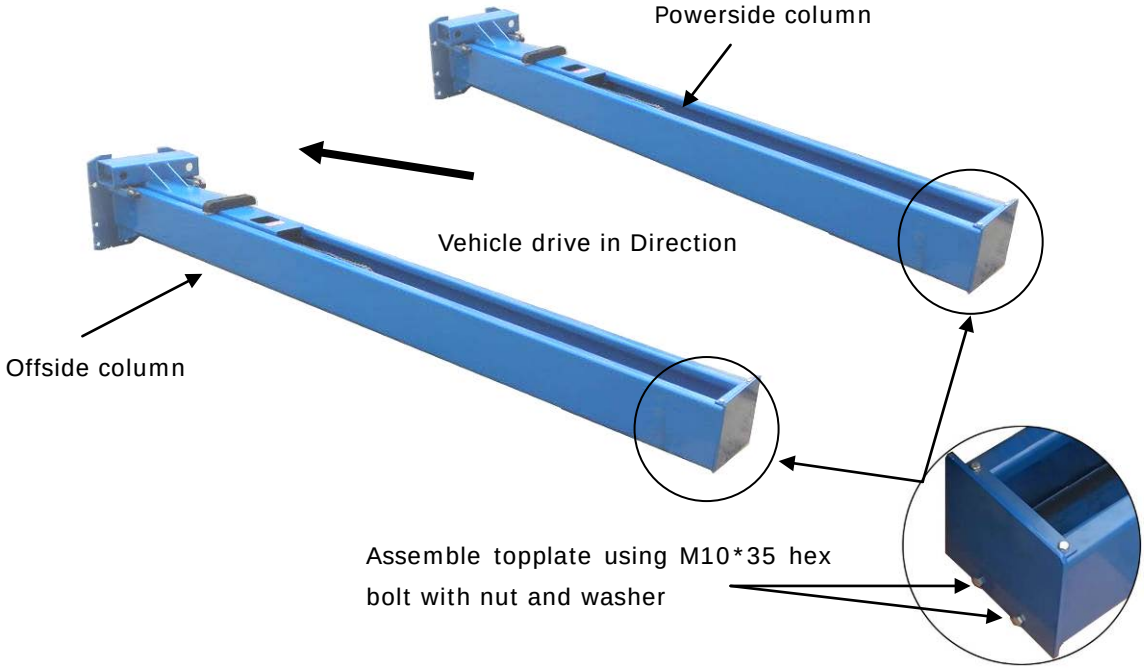


Fig. 11

E. Connecting cables

1. Put down columns and then push the carriages higher than chain pulley **(See Fig. 12).**

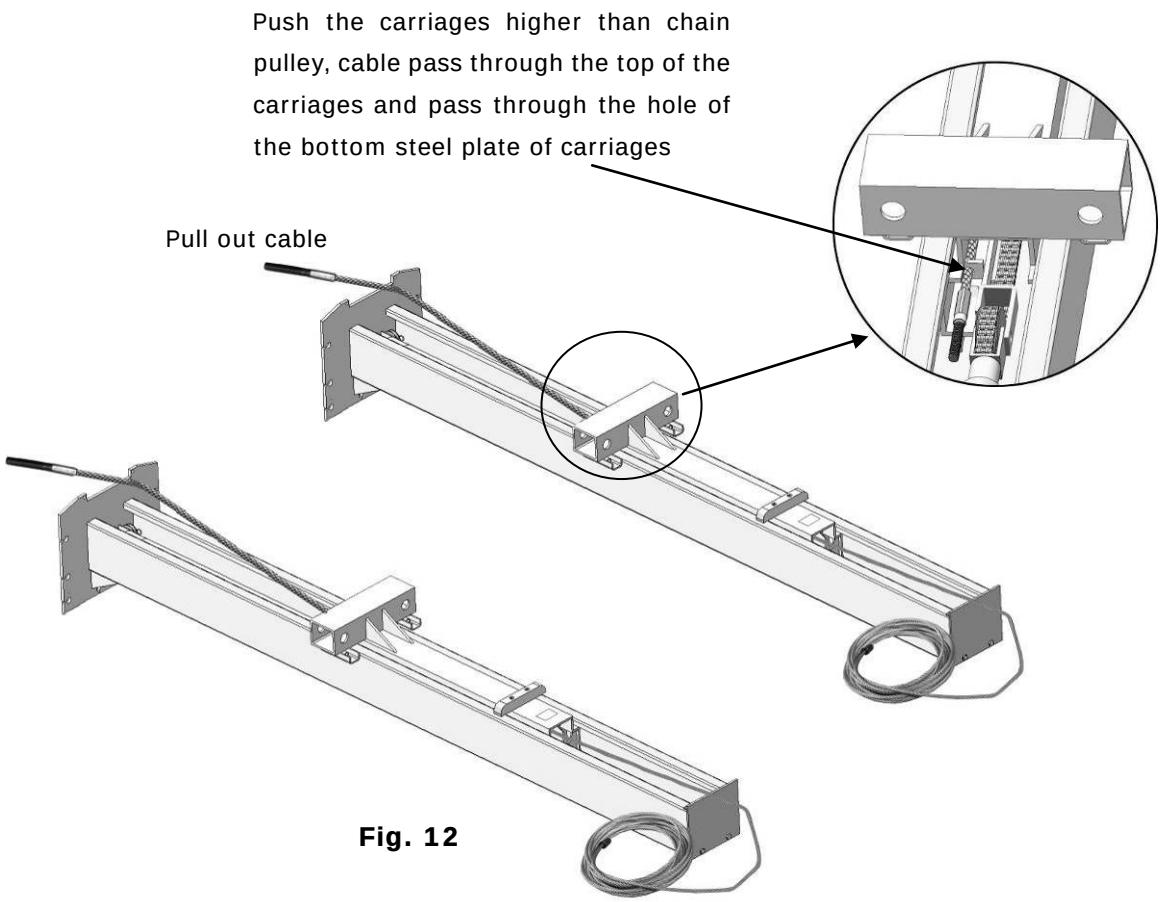


Fig. 12

2. Push the carriages to the bottom of the columns **(See Fig. 13).**

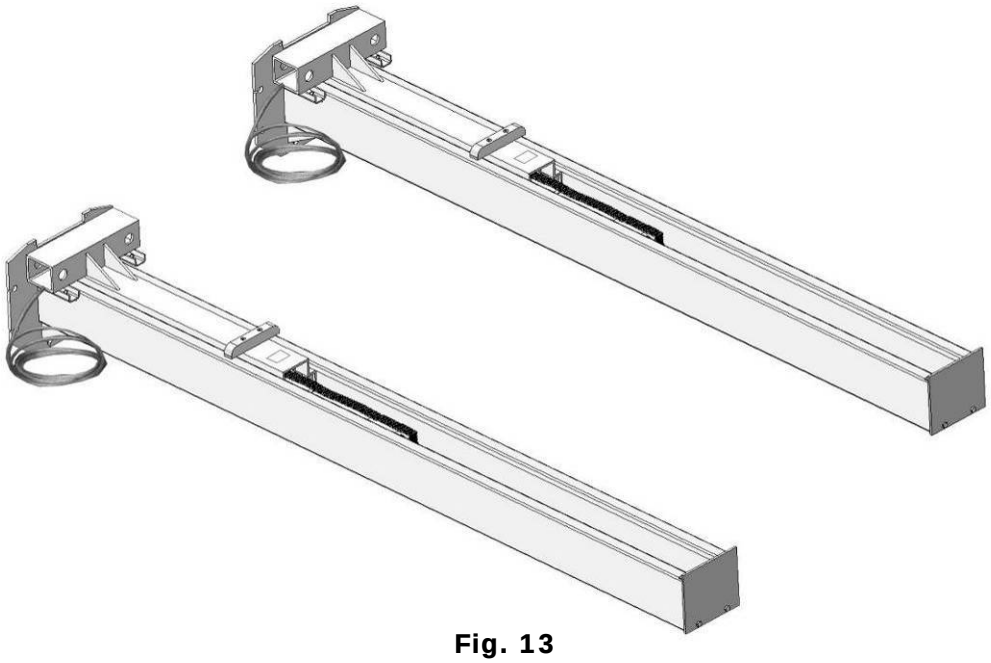
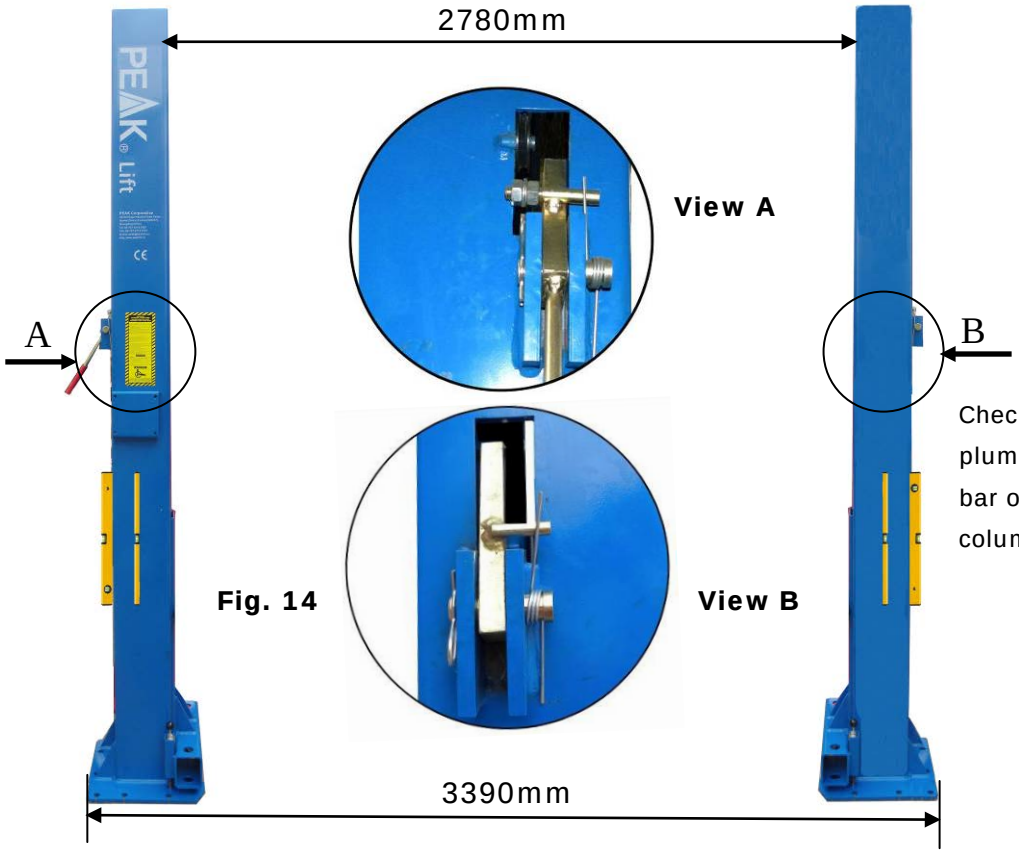


Fig. 13

F. Position columns and install safety device (See Fig. 14).

Check the columns plumbness with level bar, and adjusting with the shims if the columns are not vertical.



G. Fix the anchor bolts

1. Prepare the anchor bolts **(See Fig. 15).**

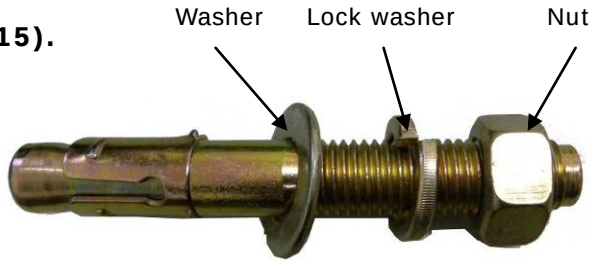
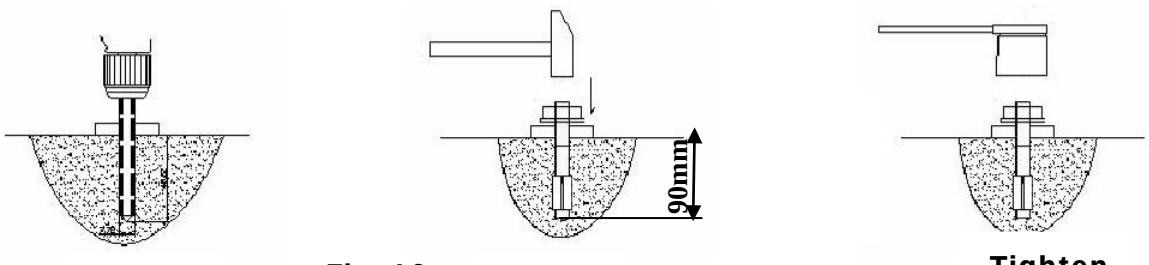


Fig. 15

2. Using the prescribed rotary hammer drill, and drill all the anchor holes and install the anchor bolts. Make the columns plumbness, and adjusting with the shims if not, then tighten the anchor bolts **(See Fig. 16).**

Note: Torque of Anchors is 150N.m .Minimum embedment of Anchors is 90mm.



Drilling **Bolting** **Tighten**

Fig. 16

H. Install cables (See Fig. 17)

Lift the carriages installation hole higher than chain pulley (for easy installation). And make the both carriages be locked at the same level. Then pass cable through the top pulley, and to be screwed to the upper steel plate of carriages with two cable nuts.

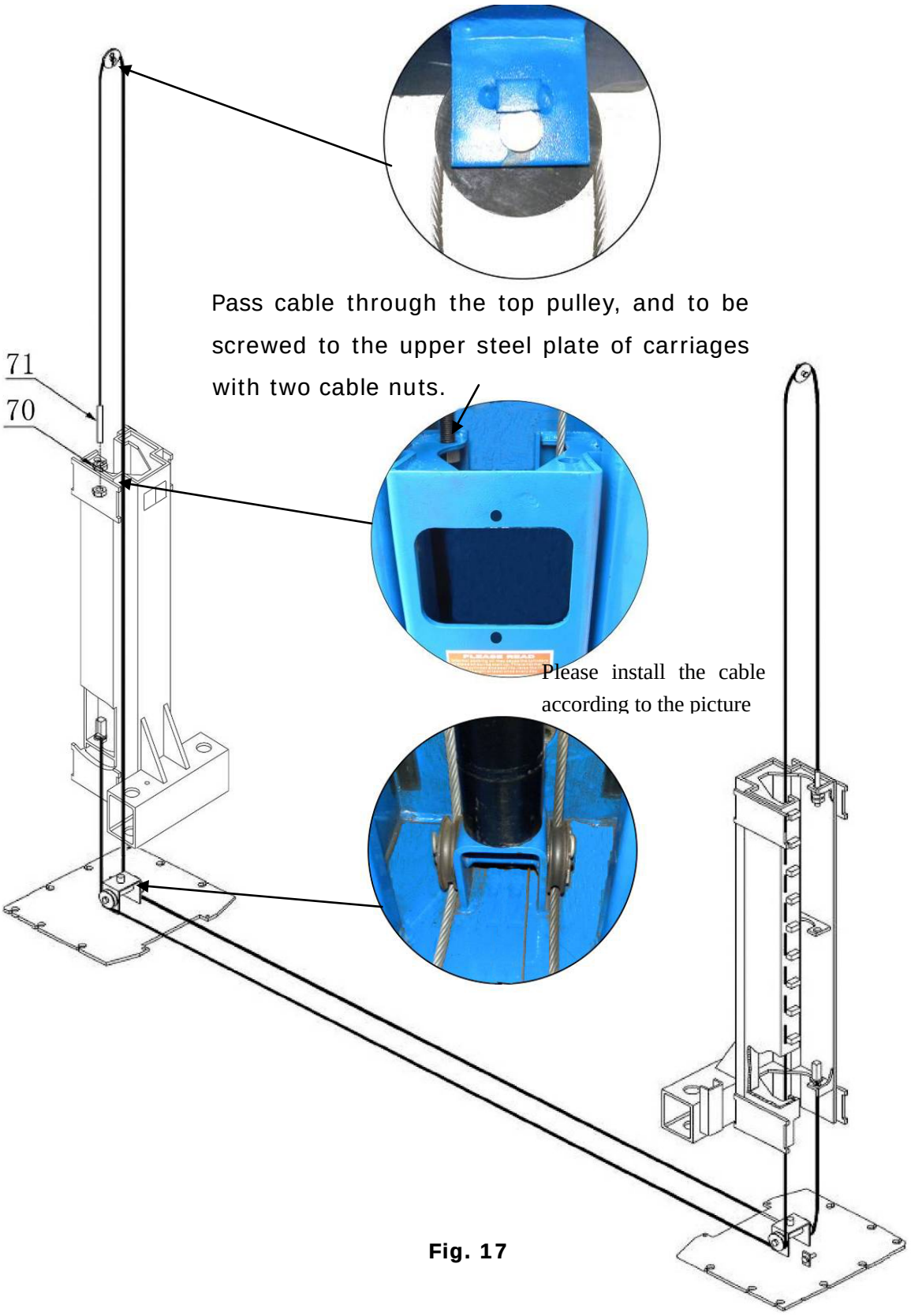


Fig. 17

I. Assembly oil hose assy. (See Fig. 18)

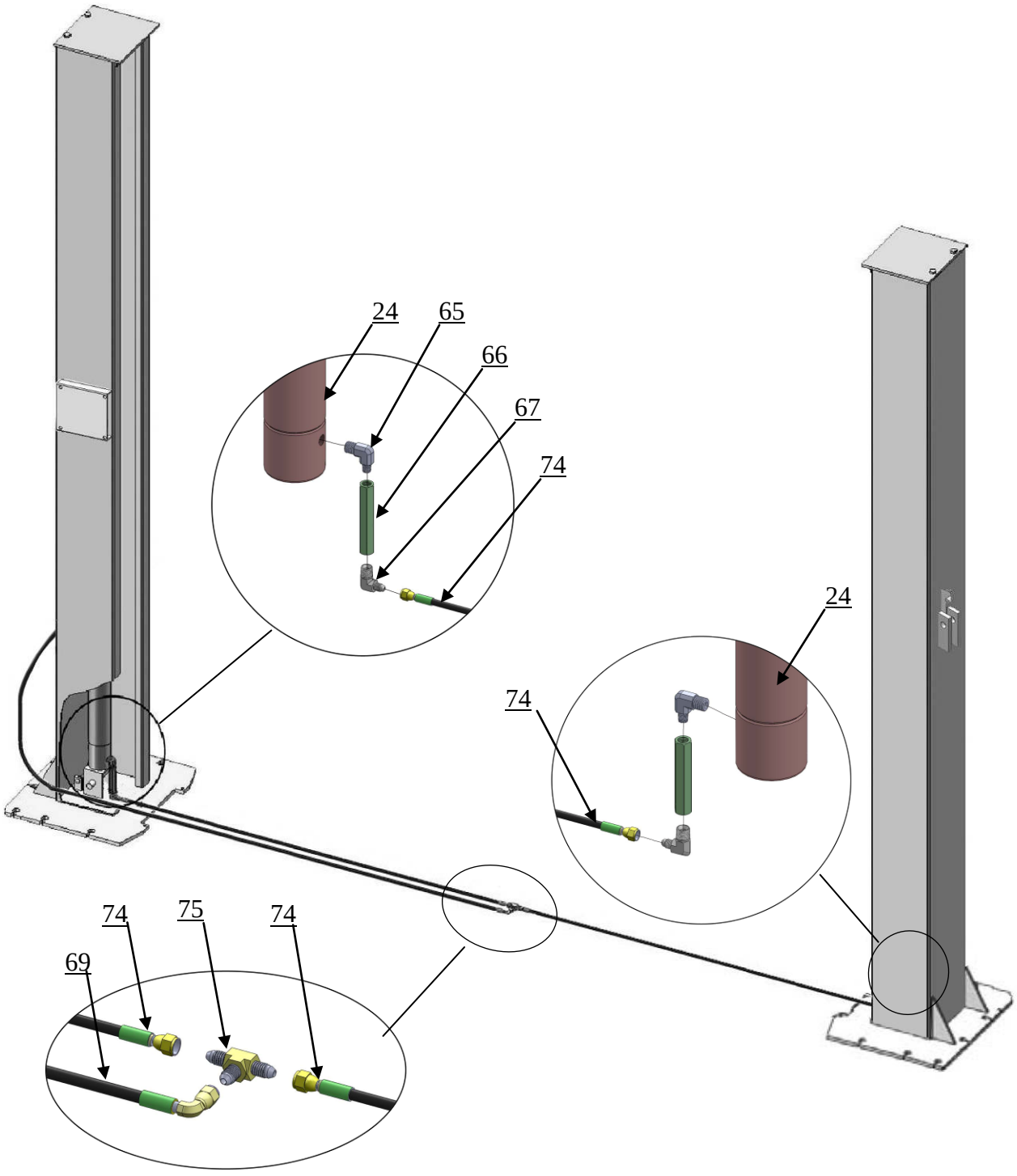


Fig. 18

J. Install hydraulic power unit and oil hose (See Fig. 19)

Please tighten the fitting of the oil hose and power unit to avoid leaking. Fix the oil hose of power unit with retainer.

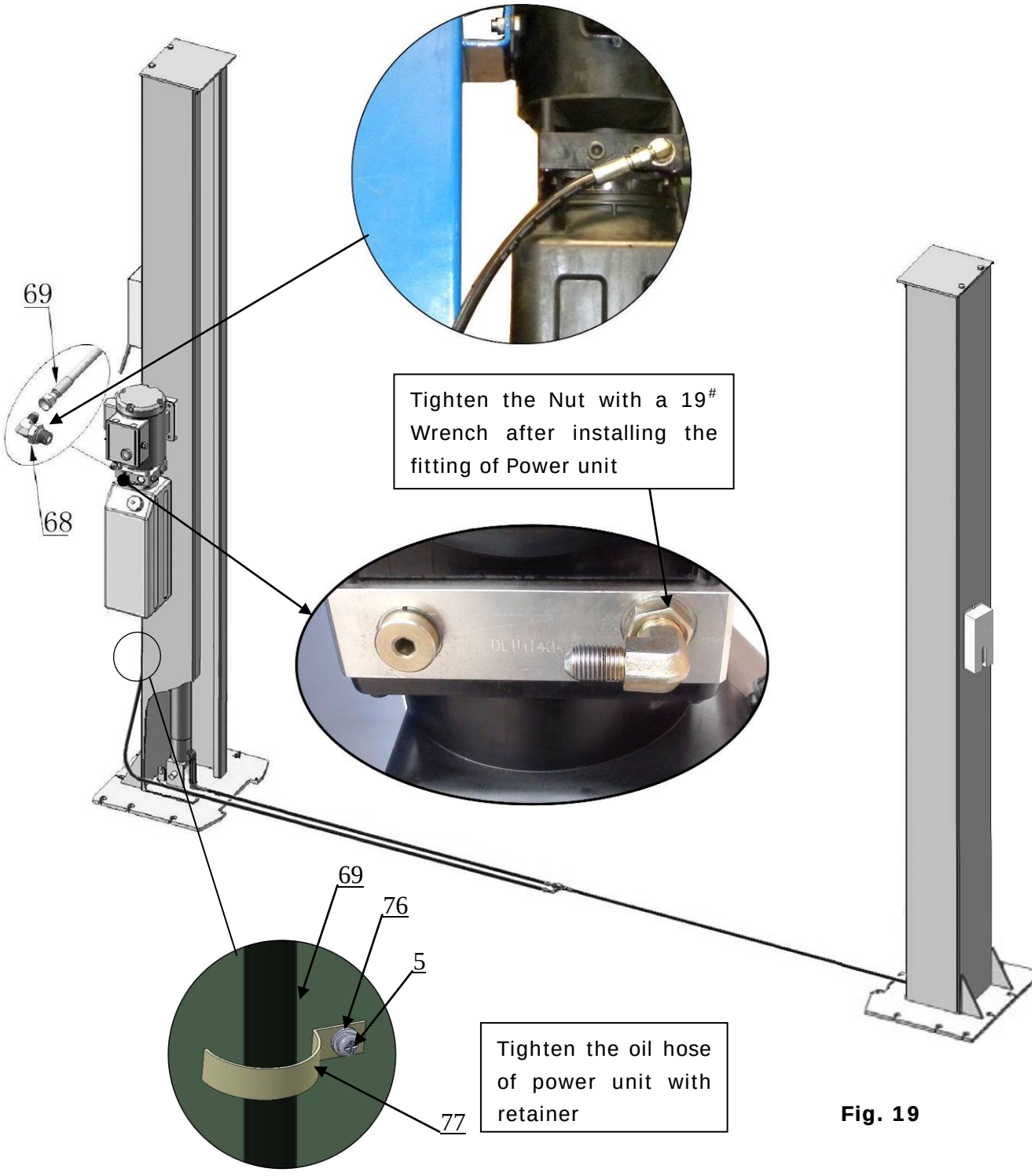


Fig. 19

Tighten all the hydraulic fittings, and fill the reservoir with hydraulic oil.

Note: In consideration of Hydraulic Power Unit's durability and keep the equipment running in the perfect condition, please use Hydraulic Oil 46#.

K. Install safety device and safety cable (See Fig. 20)

NOTE: 1. Assemble safety cable from offside safety assy.

2. Pay attention to the connecting direction of safety cable.

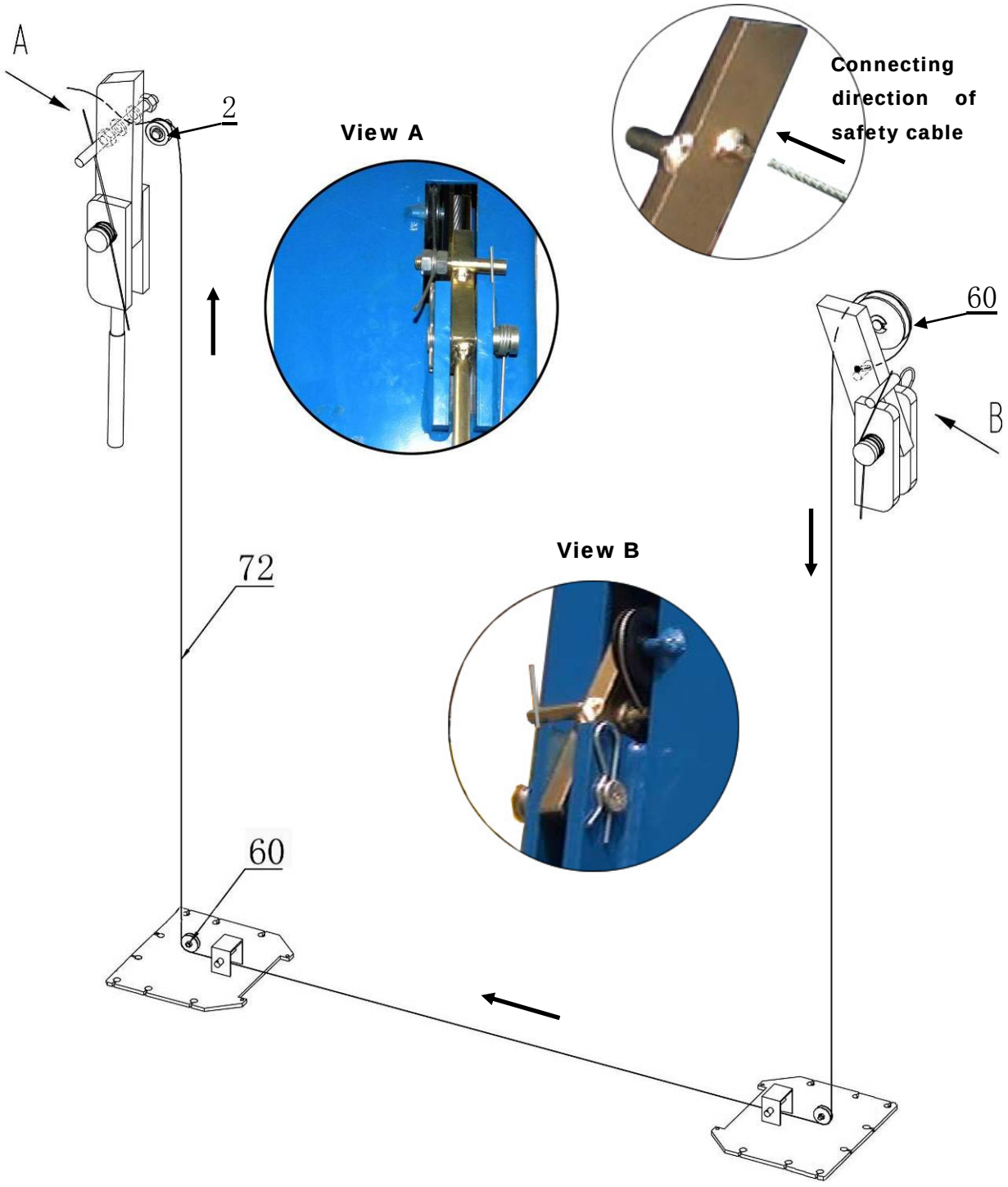


Fig. 20

L. Assemble floor cover and protective rubber sets (See Fig. 21).

Fig. 21

M. Install lifting arms and adjust the arm locks

1. Install the lifting arms **(See Fig. 22)**
2. Lowing the carriages down to the lowest position, then use the 17# wrench to loosen the nut **(See Fig. 23)**

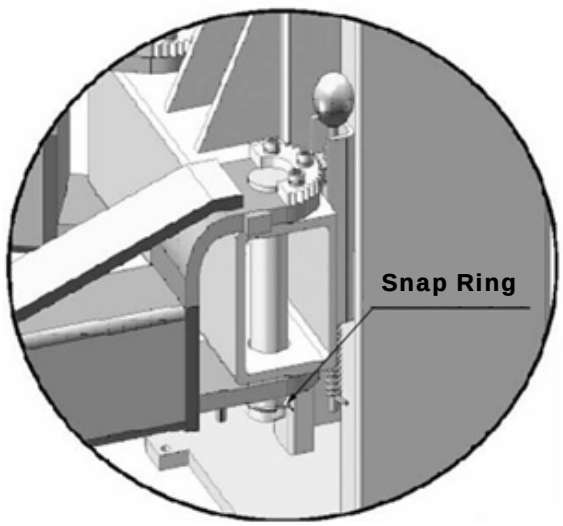


Fig. 22

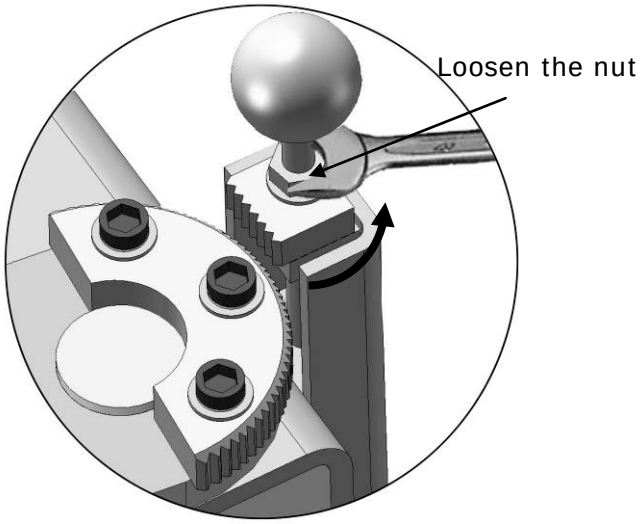


Fig. 23

3. Adjust the arm lock as arrow direction **(See Fig. 24).**

4. Adjust moon gear and arm lock to make it to be meshed, then tighten the nut of arm lock **(See Fig. 25).**

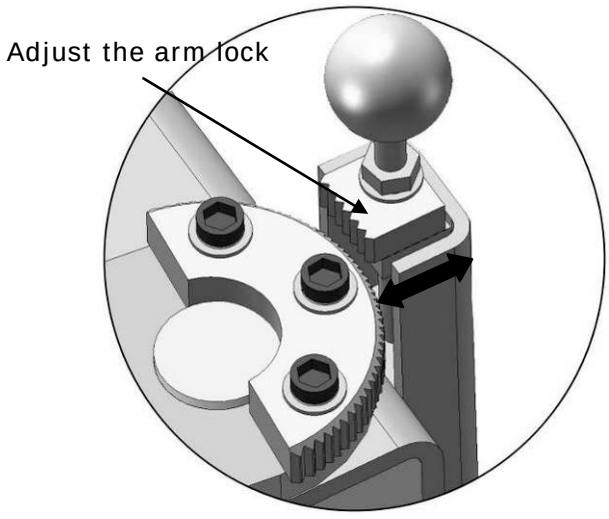


Fig. 24

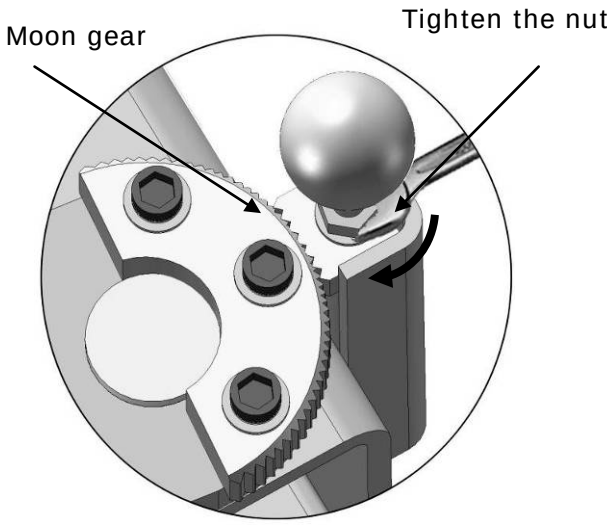


Fig. 25

N. Install electrical system

Connect the power source on the data plate of power unit.

Note: 1. For the safety of operators, the power wiring must contact the earth well.

2. Pay attention to the direction of rotations when using three phase motors.

PEAK single phase motor (See Fig. 26)

1. Connecting the two power supply wires (Active wire **L** and neutral wire **N**) to terminals of AC contactor marked L1, L2 respectively.
2. Connecting the two motor wires to terminals of AC contactor marked **T1, T2**.
3. Connecting **A2** to **L2** of AC contactor.
4. Two wires of control button connected with terminals of AC contactor marked **A1, L1**.

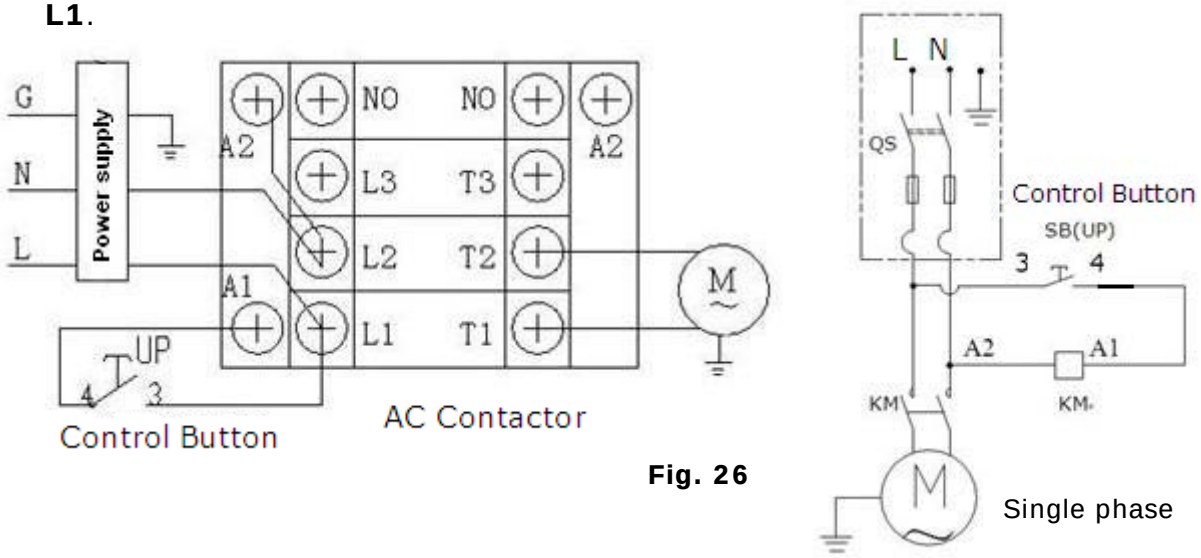


Fig. 26

SPX single phase motor (See Fig. 27)

1. Power supply wire (active wire **L**) connected with wire④ of control button.
2. wire③ of control button connected with wire⑥ of motor.
3. Power supply wire (neutral wire **N**) connected with wire⑤ of motor.

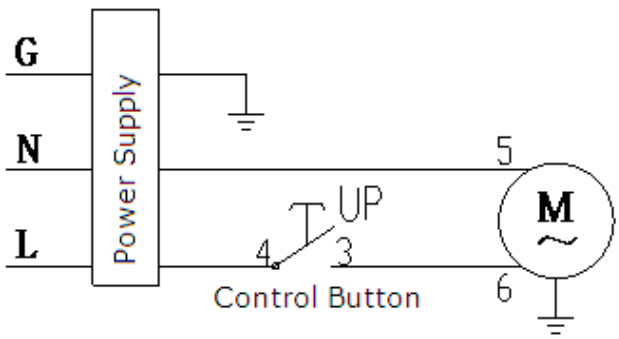
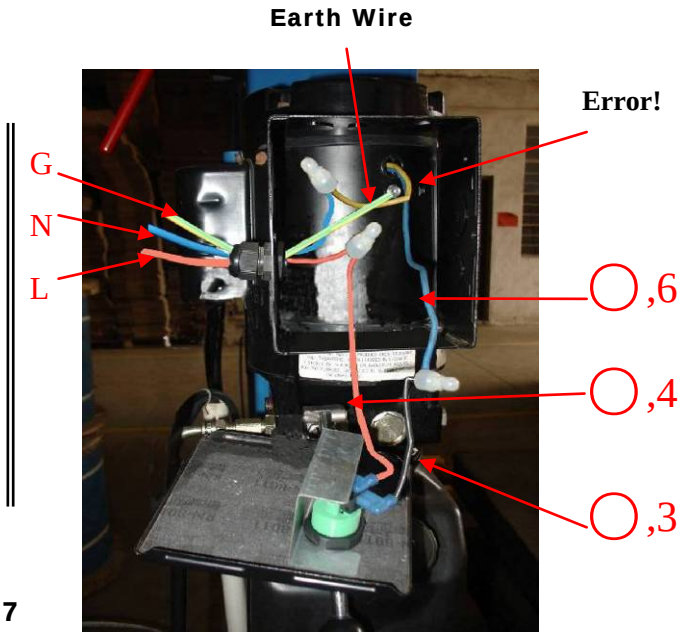


Fig. 27



PEAK three phase motor

1. Circuit diagram **(See Fig. 28)**

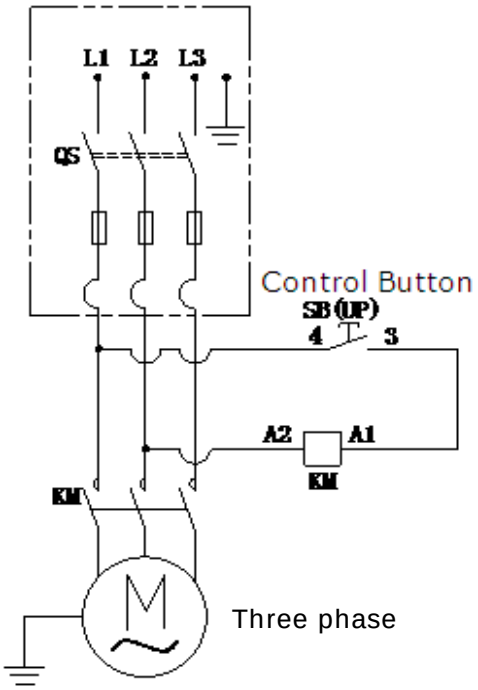
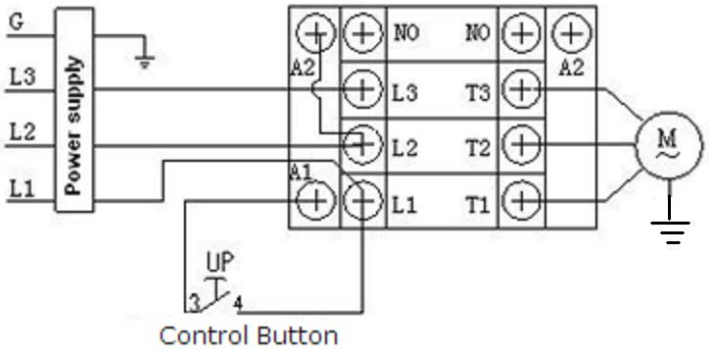


Fig. 28

2. Connection step **(See Fig. 29)**

   a. The source wires **L1, L2, L3** connected with terminals of AC contactor marked **L1, L2, L3** respectively.

   b. Terminals of AC contactor marked **L1** connected with terminals **4#** of control button; Terminals **A1** of AC contactor connected with terminals **3#** of control button.



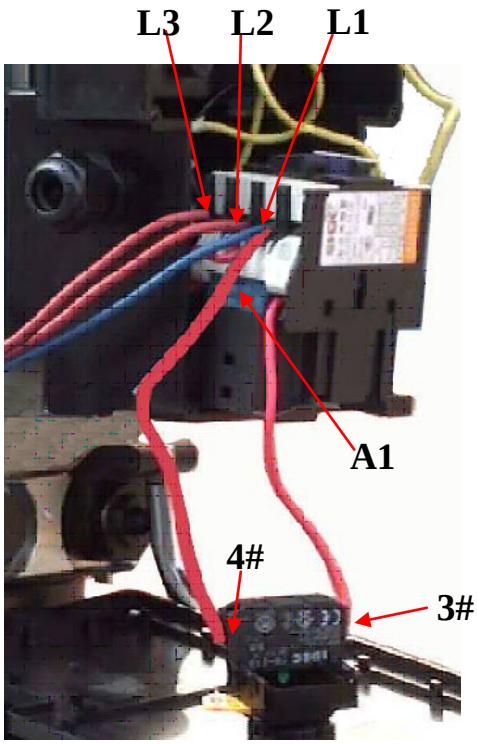


Fig. 29

IV. EXPLODED VIEW

Model 208

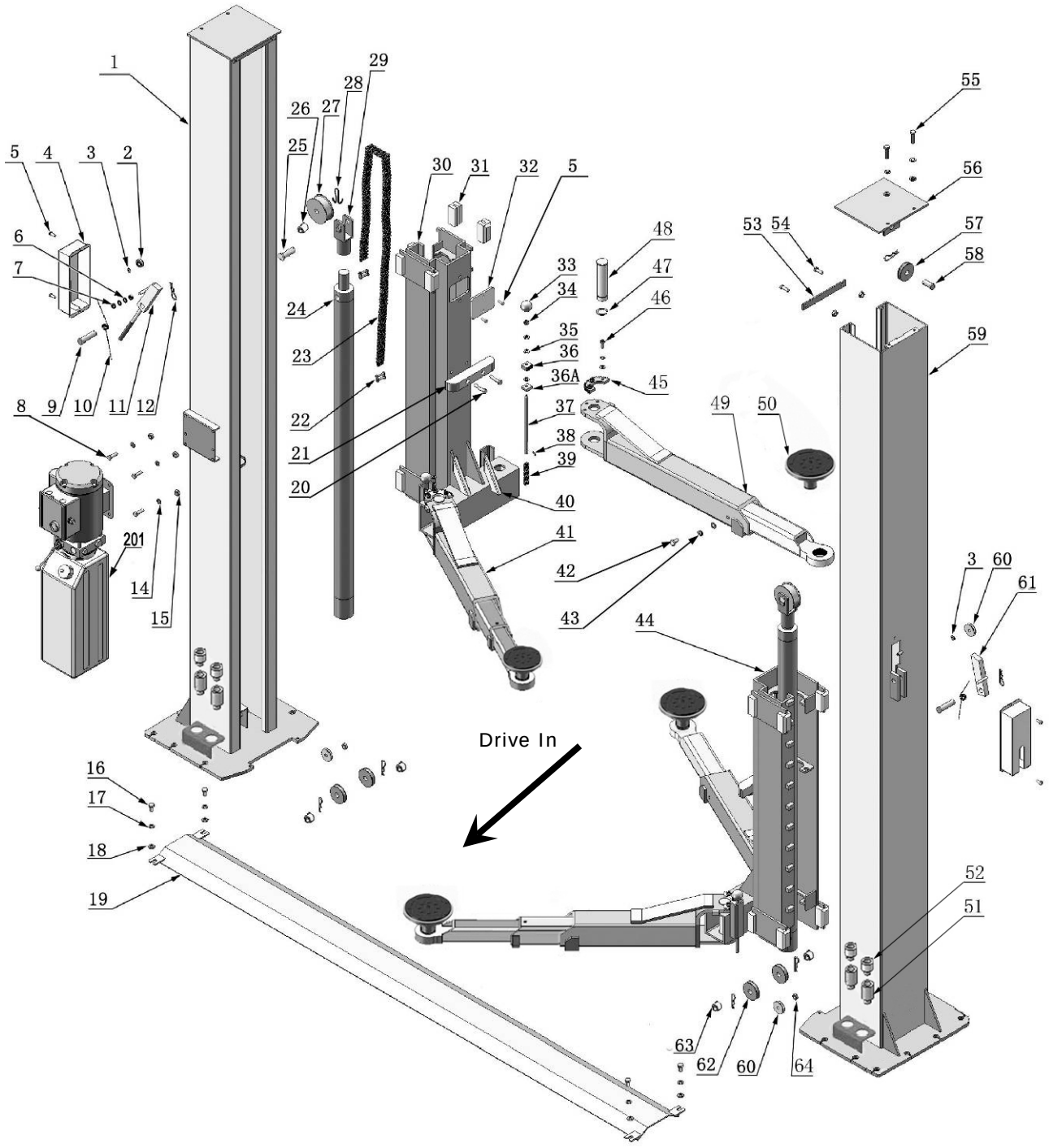


Fig. 30

Cylinders

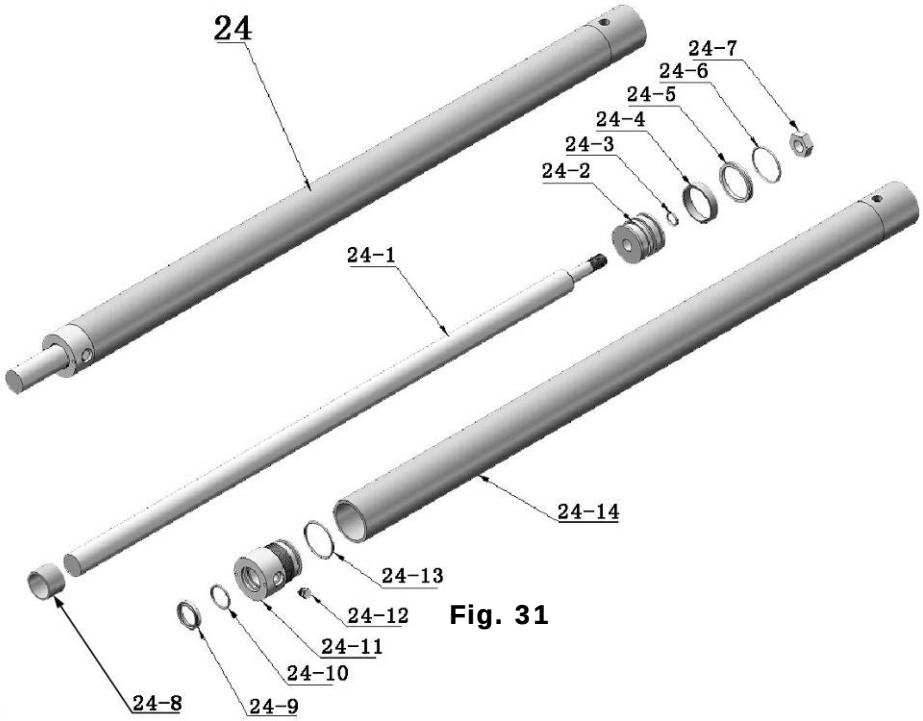


Fig. 31

SPX MANUAL POWER UNIT, 220V/50Hz, Single phase

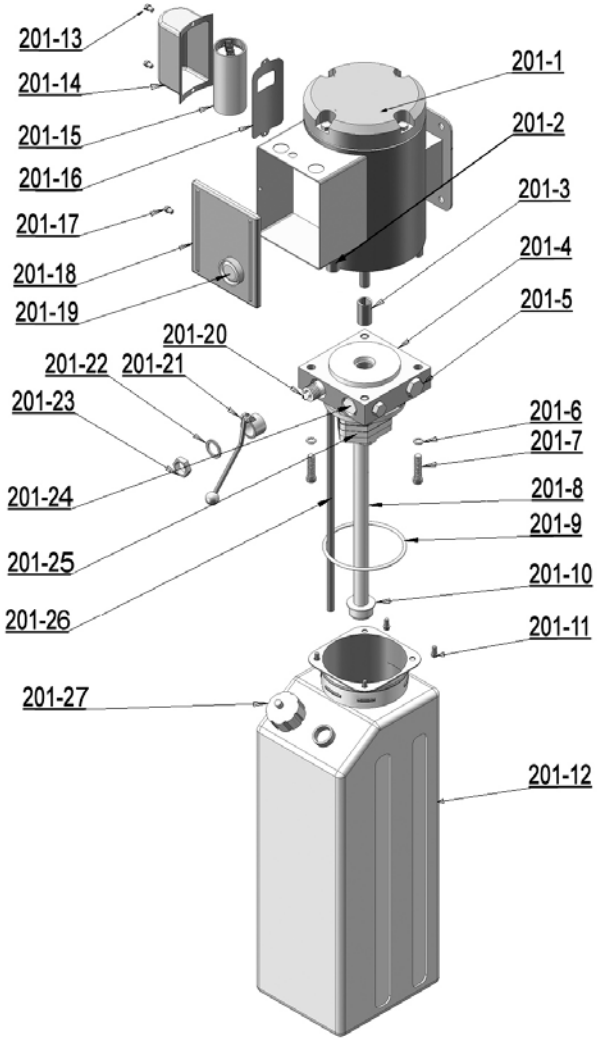
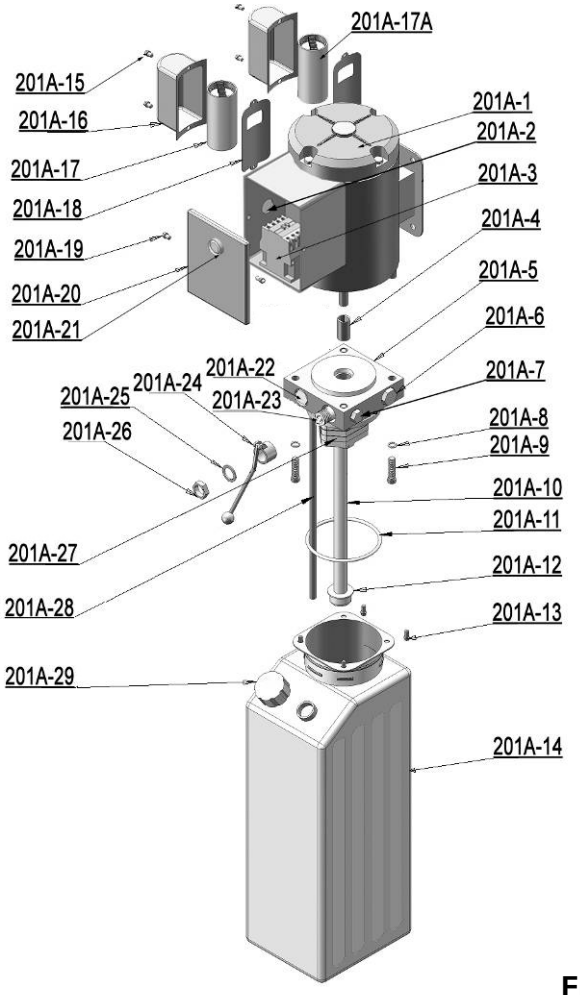


Fig. 32

PEAK MANUAL POWER UNIT

220V/50HZ/1 phase



380V/50HZ/3 phase

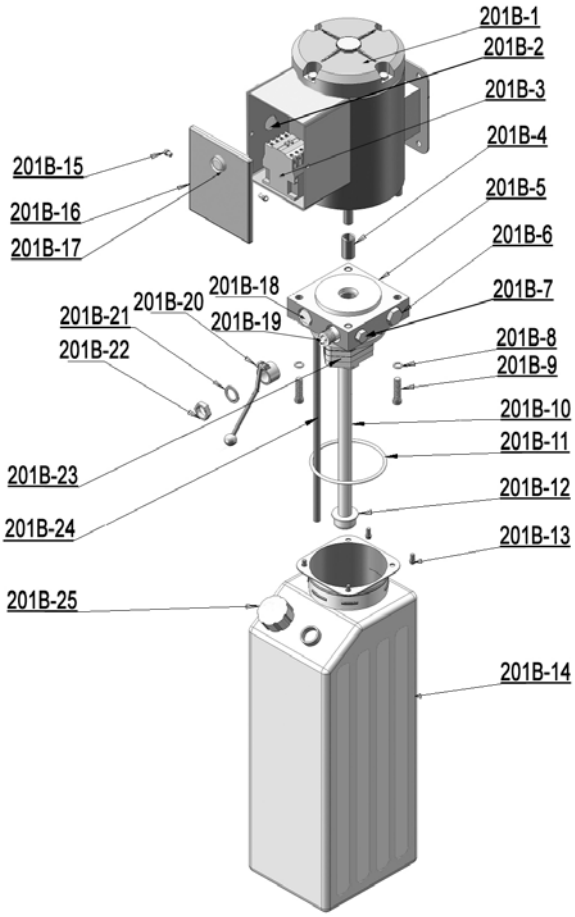


Fig. 33

Illustration of hydraulic valve for SPX & PEAK hydraulic power unit

a. SPX manual power unit, 220V/50HZ, 1 phase (See Fig. 34)

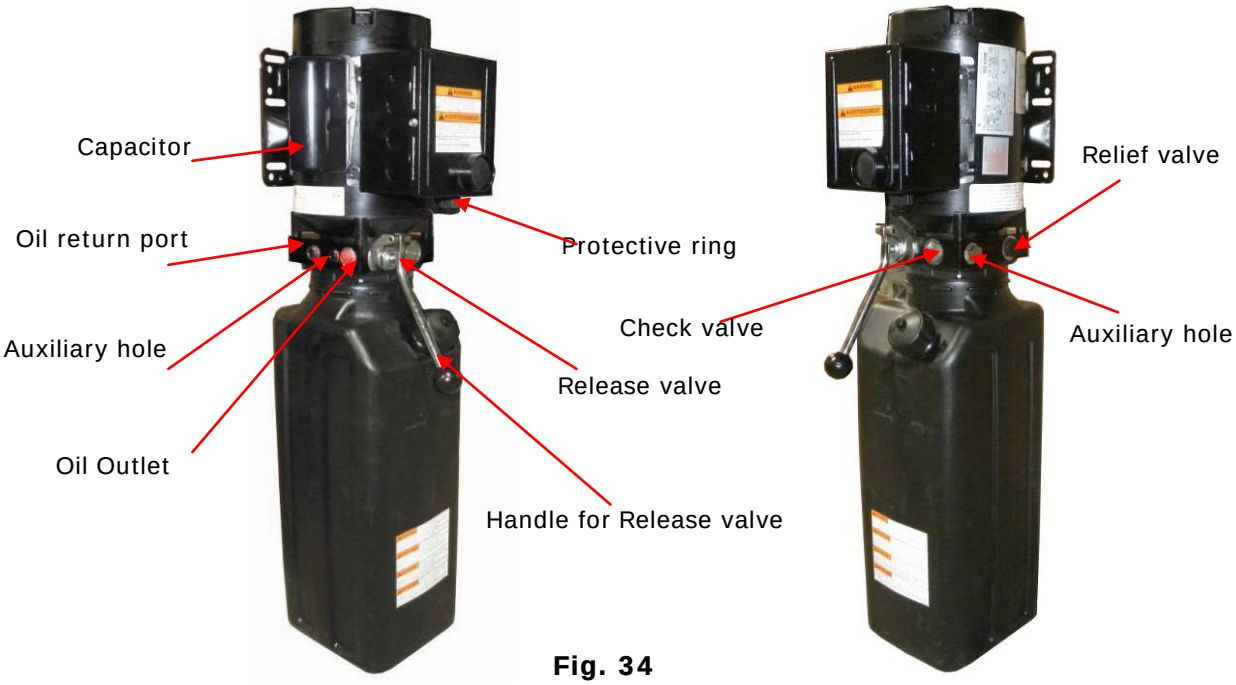


Fig. 34

b. PEAK manual power unit, 220V/50HZ, 1 phase (See Fig. 35)

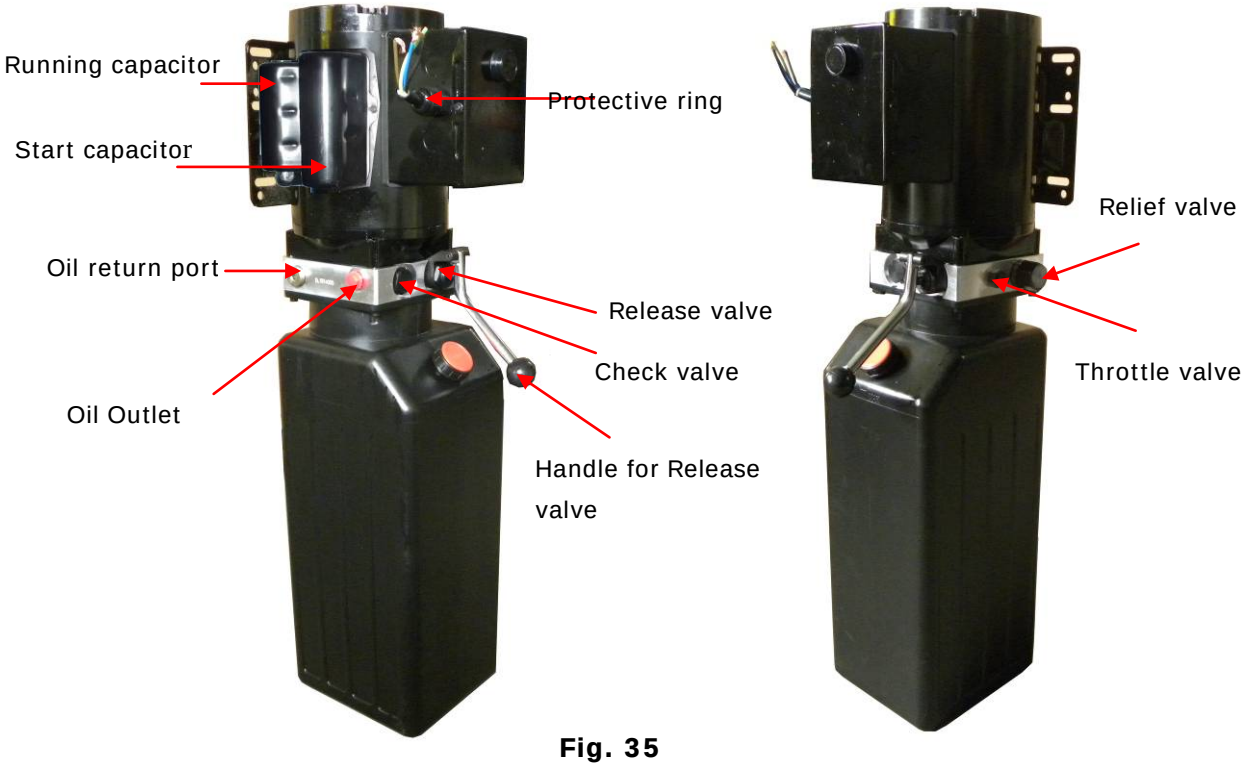


Fig. 35

C. PEAK manual power unit, 380V/50HZ, 3 phase (See Fig. 36)

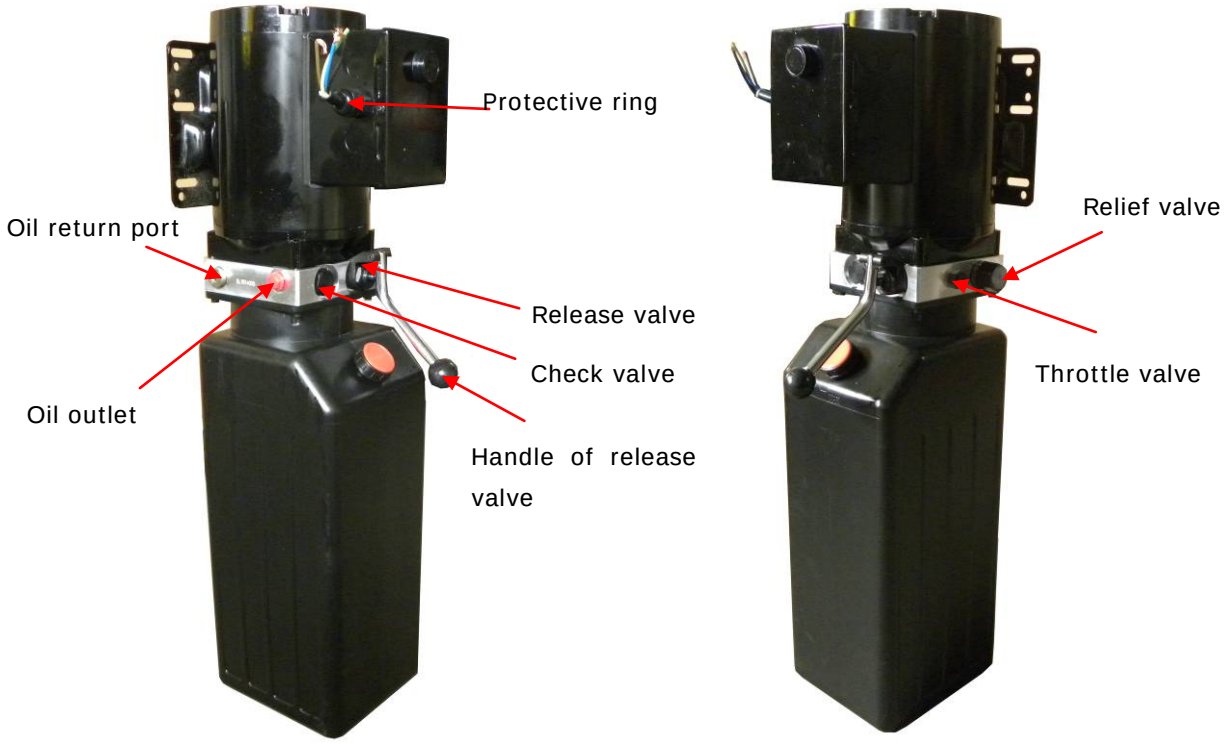


Fig. 36

V. TEST RUN

1. Adjust synchronous cable (See Fig. 37)

Press **UP** button to lift the carriage up to the position of the cable nut higher than chain pulley. Use wrench to hold the cable fitting, meanwhile use ratchet spanner to tighten the cable nut. Make sure two cables are in the same tension so that two lifting carriages can work synchronously.

If the carriage does not Synchronize when lifting, please tighten the cable nut of lower side carriage.

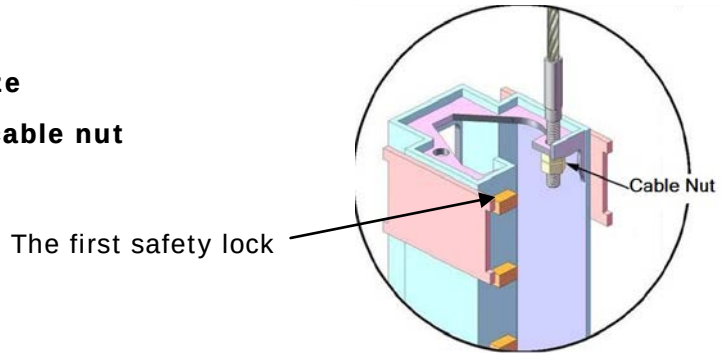


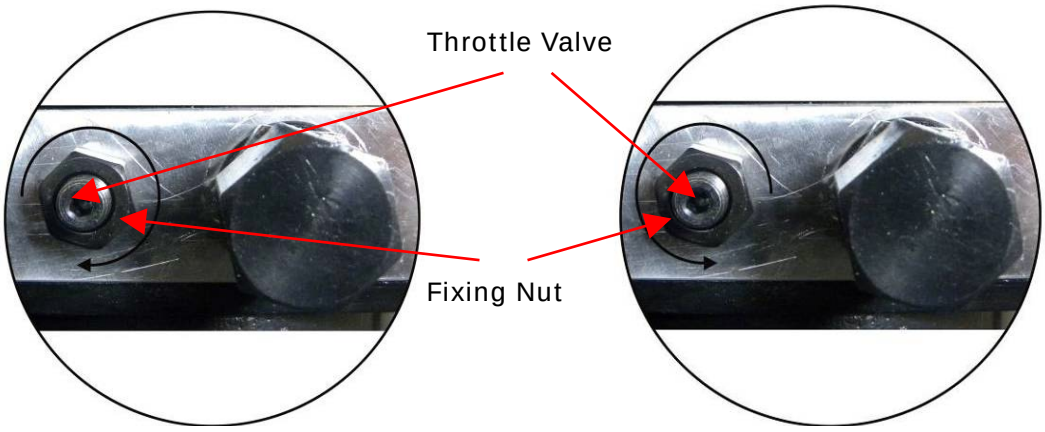
Fig. 37

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. Assemble carriages cover at last step.

3. Adjust the lower speed (only for PEAK power unit)

You can adjust the lower speed of the lift if needing: Loosen the Fixing Nut of the Throttle Valve, and then turn the Throttle Valve clockwise to decrease the lower speed, or counterclockwise to increase the lower speed. Do not forget to tighten the Fixing Nut after the lower speed adjustment has been done.



Clockwise to decrease the down speed

Counterclockwise to increase the down speed

Fig. 38

4. 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, please lifting it with load for several times, the air would be bled and the vibration would be disappeared automatically.

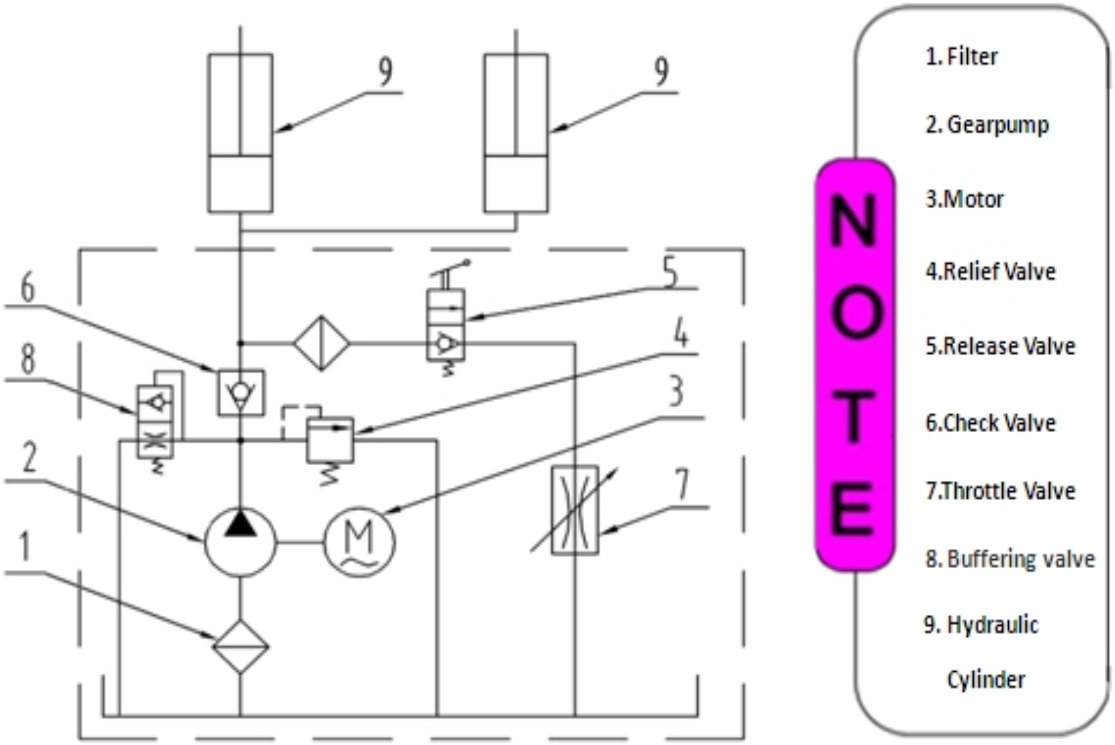


Fig. 39 Hydraulic System

VI. OPERATION INSTRUCTIONS

Please read the safety tips carefully before operating the lift

To lift vehicle

1. Keep clean 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. Push 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. Push 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	1. Button does not work 2. Wiring connections are not in good condition 3. Motor burned out 4. AC contactor burned out	1. Replace button 2.Repair all wiring connections 3. Repair or replace motor 4. Replace AC Contactor
Motor runs but the lift is not raised	1. Motor runs in reverse rotation 2. Gear pump out of operation 3. Release valve in damage 4. Relief valve or check valve in damage 5. Low oil level	1.Reverse two power wire 2.Repair or replace 3. Repair or replace 4.Repair or replace 5.Fill tank
Lift does not stay up	1. Release Valve out of work 2. Relief Valve or Check Valve leakage 3. Cylinder or Fittings leaks	Repair or replace
Lift raises slowly	1. Oil line is jammed 2. Motor running on low voltage 3. Oil mixed with air 4. Gear Pump leaks 5. Overload lifting	1. Clean the oil line 2. Check Electrical System 3. Fill tank 4. Replace Pump 5. Check load
Lift cannot lower	1. Safety device are locking. 2. Release valve in damage 3. Safety cable broken 4. Oil system is jammed	1. Release the safeties 2. Repair or replace 3. Replace 4. Clean the oil system

IX. PARTS LIST FOR MODEL 208

Item	Part#	Description	Qty.	Note
(See Fig. 30, Fig. 17-20, Fig. 4, Fig.8)				
1	201001C	Powerside column	1	
2	209011	Plastic Pulley	1	
3	209010	Snap Ring	2	
4	209008	Safety Cover	2	
5	209009	Cup Head Bolt	10	
6	206023A	Hex Nut	2	
7	206006	Washer	2	
8	209003	Hex Bolt	4	
9	206002	Safety Pin	2	
10	209007	Safety Spring	2	
11	209013	Powerside Safety Lock	1	
12	209012	Hair Pin	8	
201	209002	Manual Power Unit	1	
14	209004	Rubber Ring	4	
15	209005	Self locking nut	8	
16	201002	Hex Bolt	4	
17	209034	Lock Washer	16	
18	209033	Washer	20	
19	201003	Floor Cover	1	
20	206046	Self-tapping Screw	4	
21	206045	Protective Rubber	2	
22	201010	Chain Connector	4	
23	201009A	Chain	2	
24	201008B	Hydraulic Cylinder	2	
25	201007A	Pin For Chain Pulley	2	
26	203004A	Bronze Bush For Chain Pulley	4	
27	201006	Chain Pulley	2	
28	201005	Split Pin	2	
29	201004	Chain Pulley Assy.	2	
30	201011B	Powerside Carriage	1	
31	206044	Slider Block	16	
32	201038	Carriage Plastic Cover	2	
33	209020	Plastic Ball	4	
34	209021	Hex Nut	8	
35	209022	Washer	10	
36	209023A	Arm Lock	4	
36A	201041	Limit Ring	4	
37	209024	Arm Lock Bar	4	
38	209025	Hair Pin	4	
39	209026	Spring	4	
40	209027	Protective Rubber Set	4	

Item	Part#	Description	Qty.	Note
41	201043A	Lifting Arm-Front (drop-in)	2	
41A	201047	Outer Arm-Front	2	
41B	201048	Middle Arm-Front	2	
41C	201049A	Inner Arm-Front	2	
42	209038	Hex Bolt	6	
43	209039	Lock Washer	10	
44	201015B	Offside Carriage	1	
45	209035	Moon Gear	4	
46	209032	Socket Bolt	12	
47	520023	Snap Ring	4	
48	209030A	Arm Pin	4	
49	201039B	Lifting Arm-Rear (drop-in)	2	
49A	201050	Outer Arm-Rear	2	
49B	201051A	Inner Arm-Rear	2	
50	201046A	Rubber Pad Assy.	4	
50A	420138	Socket bolt	4	
50B	209134	Rubber Pad	4	
50C	680030C	Rubber Pad Frame	4	
51	209052B	Stackable Adapter (2.5”)	4	
52	209051B	Stackable Adapter (1.5”)	4	
53	201017	Connecting Bar	2	
54	209043	Hex Bolt	4	
55	209046	Hex Bolt	4	
56	201018	Top plate	2	
57	209045	Big Pulley	2	
58	209044	Pin for Pulley	2	
59	201019C	Offside column	1	
60	209049	Plastic Pulley	3	
61	209050	Offside Safety Lock	1	
62	209057	Small Pulley	4	
63	209057A	Bronze Bush For Pulley	6	
64	209056	Self locking nut	2	
65	207024	90^0 fitting	2	
66	201082	Extend straight fitting	2	
67	420097	90^0 fitting	2	
68	209060	90^0 Fitting for Manual Power Unit	1	
69	201081	Oil Hose	1	
70	209066	Cable Nut	4	
71	201025A	Cable	2	
72	201026A	Safety Cable	1	
73	209059B	Anchor Bolt	16	
74	201080	Oil hose	2	
75	211016	T fitting	1	
76	420045	Washer	2	

Item	Part#	Description	Qty.	Note
77	217048	Retainer	2	
78	201500B	Parts Box	1	
Parts For Hydraulic Cylinder (See Fig. 31)				
24-1	201027A	Piston Rod	2	
24-2	201028	Piston	2	
24-3	206069	O-Ring	2	
24-4	201029	Support Ring	2	
24-5	201030	Y-Ring	2	
24-6	201031	O-Ring	2	
24-7	206071	Hex Nut	2	
24-8	201037	Adjustment Tube	2	
24-9	209078	Dust Ring	2	
24-10	201032	O-Ring	2	
24-11	201033	Head Cap	2	
24-12	201034	Bleeding Plug	2	
24-13	201035	O-Ring	2	
24-14	201036B	Bore Weldment	2	
Parts For SPX Manual Power Unit, 220V/50Hz/1 phase (See Fig. 32)				
201-1	81400030	Motor	1	
201-2	81400159	Protective Ring	1	
201-3	81400063	Motor Connecting Shaft	1	
201-4	81400031	Valve Body	1	
201-5	81400160	Relief Valve	1	
201-6	81400161	Lock Washer	4	
201-7	81400162	Socket Bolt	4	
201-8	81400121	Inlet Pipe	1	
201-9	81400163	O-Ring	1	
201-10	81400164	Filter	1	
201-11	81400165	Hex bolt	4	
201-12	81400093	Reservoir	1	
201-13	81400166	Head screw	2	
201-14	81400167	Cover of Capacitor	1	
201-15	81400087	Capacitor	1	
201-16	81400168	Rubber Gasket	1	
201-17	81400169	Hex Bolt	1	
201-18	81400062	Cover of Motor Terminal Box	1	
201-19	81400028	Push Button	1	
201-20	81400105	Release Valve	1	
201-21	81400033	Handle For Release Valve	1	

Item	Part#	Description	Qty.	Note
201-22	81400170	Washer	1	
201-23	81400171	Hex Nut	1	
201-24	81400043	Check Valve	1	
201-25	81400123	Gear Pump	1	
201-26	81400122	Oil Return Pipe	1	
201-27	81400172	Filler Cap	1	
Parts For PEAK Manual Power Unit, 220V/50Hz/1 phase (See Fig. 33)				
201A-1	81400048	Motor	1	
201A-2	81400178	Protective Ring	1	
201A-3	81400179	AC Contactor	1	
201A-4	81400127	Motor Connecting Shaft	1	
201A-5	81400067	Valve Body	1	
201A-6	81400106	Relief Valve	1	
201A-7	81400107	Throttle Valve	1	
201A-8	209149	Lock Washer	4	
201A-9	81400148	Socket Bolt	4	
201A-10	81400134	Inlet Pipe	1	
201A-11	81400144	O-Ring	1	
201A-12	81400150	Filter	1	
201A-13	81400145	Socket Bolt	4	
201A-14	81400024	Reservoir	1	
201A-15	420148	Cup head bolt with washer	4	
201A-16	81400066	Cover of Capacitor	2	
201A-17	81400130	Start Capacitor	1	
201A-17A	81400088	Running Capacitor	1	
201A-18	81400180	Rubber Gasket	2	
201A-19	420148	Cup Bolt with washer	2	
201A-20	81400050	Cover of Motor Terminal Box	1	
201A-21	81400045	Push Button	1	
201A-22	81400044	Check Valve	1	
201A-23	81400075	Release Valve	1	
201A-24	81400117	Handle For Release Valve	1	
201A-25	81400181	Washer	1	
201A-26	81400182	Hex Nut	1	
201A-27	81400041	Gear Pump	1	
201A-28	81400084	Oil Return Pipe	1	
201A-29	81400113	Filler Cap	1	

Item.	Part#	Description	Qty.	Note
Parts For PEAK Manual Power Unit, 380V/50Hz/3 phase (See Fig. 33)				
201B-1	81400183	Motor	1	
201B-2	81400178	Protective Ring	1	
201B-3	81400184	AC contactor	1	
201B-4	81400127	Motor Connecting Shaft	1	
201B-5	81400177	Valve Body	1	
201B-6	81400175	Relief Valve	1	
201B-7	81400107	Throttle valve	1	
201B-8	209149	Lock Washer	4	
201B-9	81400148	Socket Bolt	4	
201B-10	81400134	Inlet Pipe	1	
201B-11	81400144	O-Ring	1	
201B-12	81400150	Filter	1	
201B-13	81400145	Socket bolt	4	
201B-14	81400024	Reservoir	1	
201B-15	420148	Cup Head Bolt With Washer	2	
201B-16	81400050	Cover of Motor Terminal Box	1	
201B-17	81400045	Push Button	1	
201B-18	81400044	Check Valve	1	
201B-19	81400075	Release Valve	1	
201B-20	81400117	Handle For Release Valve	1	
201B-21	81400181	Washer	1	
201B-22	81400182	Hex Nut	1	
201B-23	81400041	Gear Pump	1	
201B-24	81400084	Oil Return Pipe	1	
201B-25	81400113	Filler Cap	1	

CE

PEAK CORPORATION
A2-A3 Xingui Industrial Area, Yanbu, Nanhai District,
Foshan(528247), China
Tel: 86-757-81102815 81102805
Fax: 86-757-81102809
Email: peak@peaklift.cn http://www.peaklift.cn

Manual Part NO.: **72220103**
Revision Date: **11/2015**