



WEAVER
E Q U I P M E N T

Please read this manual before operation

WEAVER

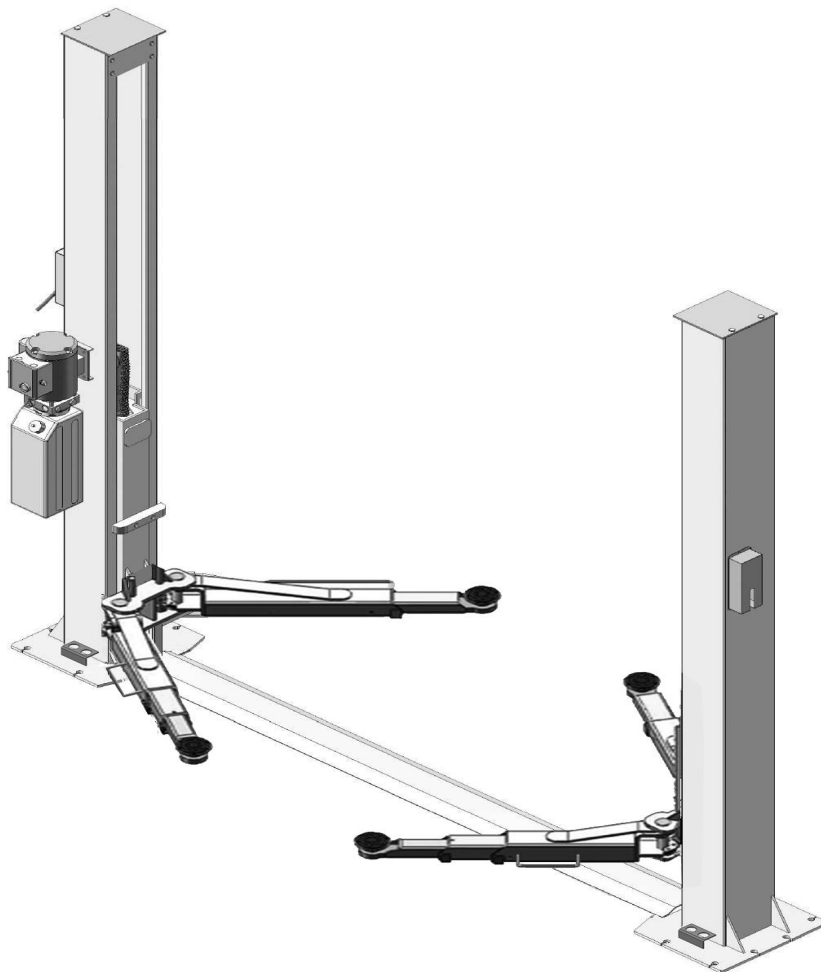
L I F T



W-9F Installation & Operation Manual

9000 lb. Capacity Baseplate

Super-Symmetric Two Post Lift



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I. PRODUCT FEATURES AND SPECIFICATIONS

FLOORPLATE CHAIN-DRIVE TWO POST LIFT

Model W-9F (See Fig. 1)

- Compact design
- Dual hydraulic cylinders, designed and made on ANSI standards, 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", 2.5" and 5" extension adaptors

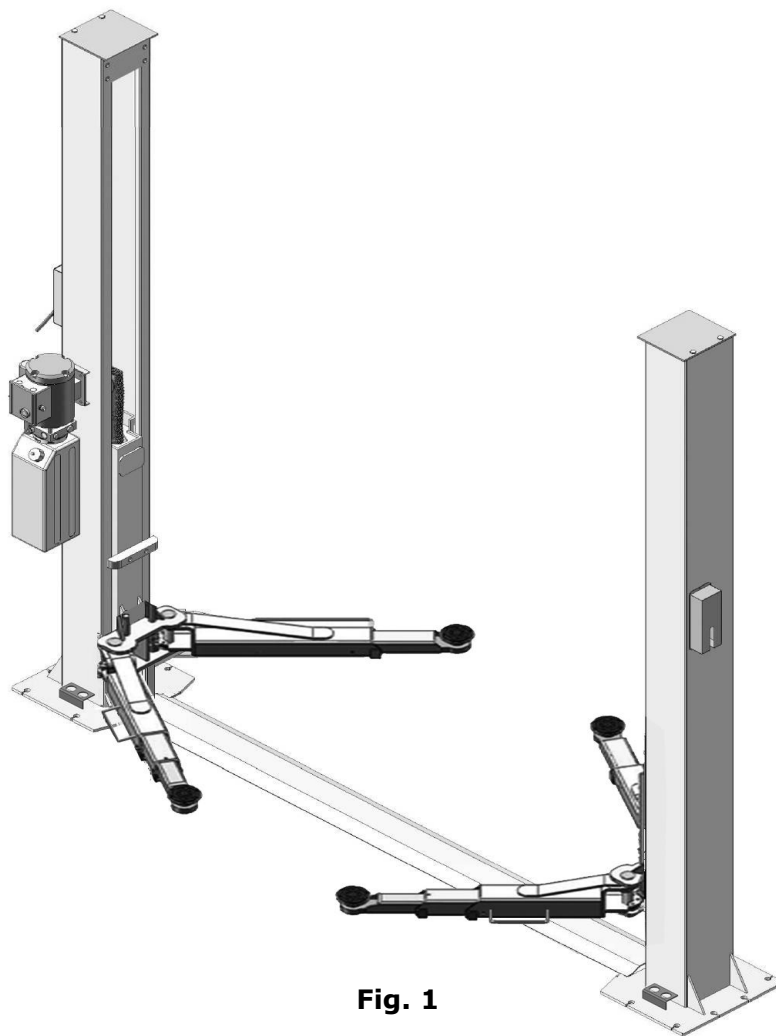


Fig. 1

MODEL W-9F SPECIFICATIONS

Model	Style	Lifting Capacity	Lifting Time	Lifting Height	Overall Height	Overall Width	Width Between Columns	Minimum Pad Height	Gross Weight	Motor
W-9F	Floor-plate Chain-driven	4000kg 9,000lbs	49S	1940-2169mm 76 3/8"-85 3/8"	2841mm 111 3/4"	3460mm 136 1/4"	2850mm 112 1/4"	90-192mm 4 1/4"-9 1/4"	706Kg 1,488 lbs	2.0/3.0 HP

For Model W-9F

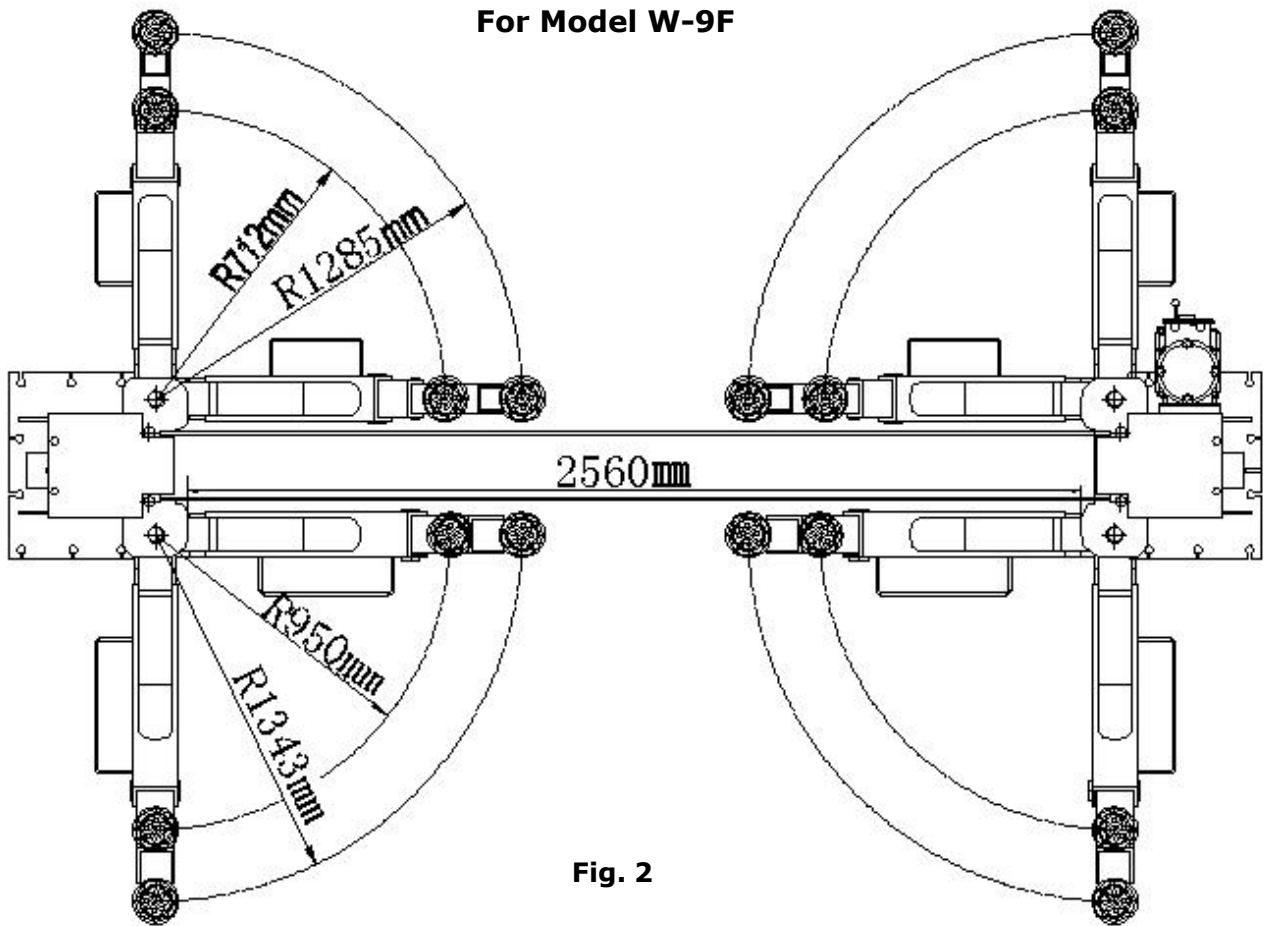


Fig. 2

II. INSTALLATION REQUIREMENT

A. TOOLS REQUIRED

- ✓ Rotary Hammer Drill ($\Phi 19$)



- ✓ Hammer



- ✓ Level Bar



- ✓ English Spanner (12")



- ✓ Ratchet Spanner With Socket (28#)



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



- ✓ Carpenter's Chalk



- ✓ Screw Sets



- ✓ Tape Measure (7.5m)



- ✓ Pliers



- ✓ Socket Head Wrench (6#)



- ✓ 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 the installation.
2. Concrete must be in good condition and must be of test strength 3,000psi (210kg/cm²) minimum.
3. Floors must be level and no cracks.

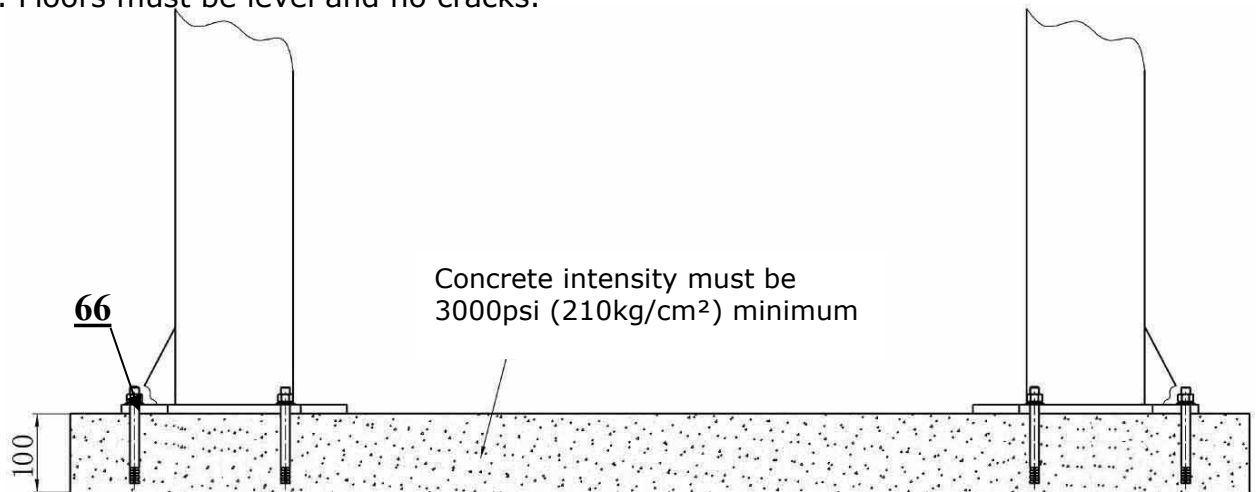


Fig. 4

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).

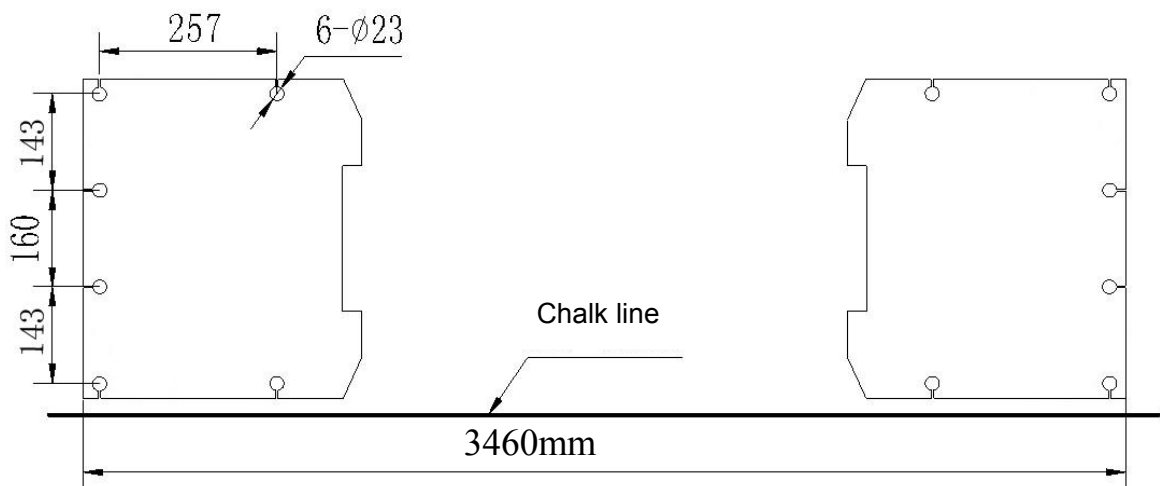


Fig. 5

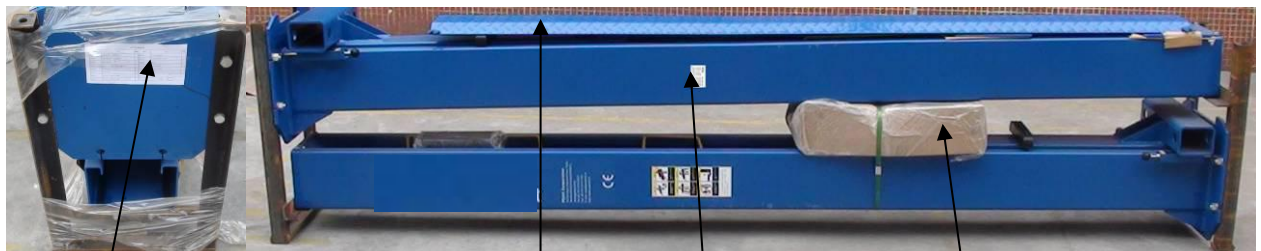
C. Check the parts before assembly.

1. Packaged lift and hydraulic power unit (See Fig. 6).



Fig. 6

2. Move the lift aside 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).



Shipment Parts list

Floor cover

Serial No.

Parts box

Fig. 7

3. Loosen 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).

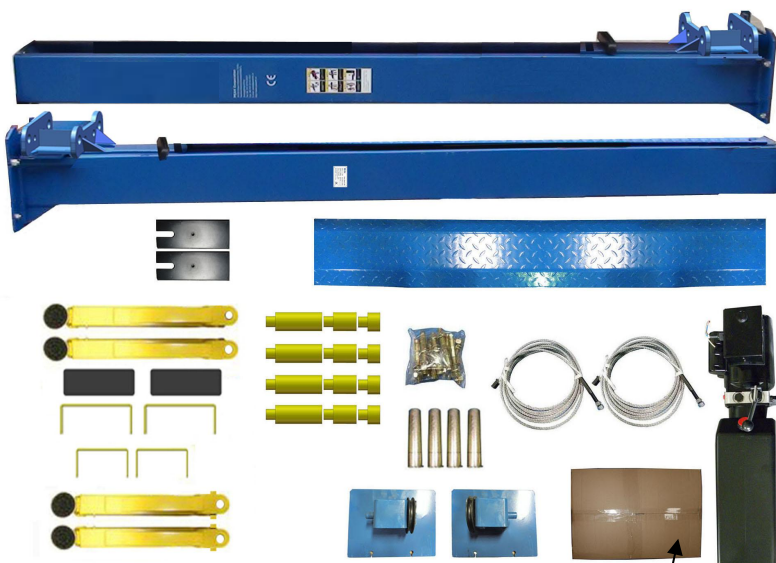


Fig. 8

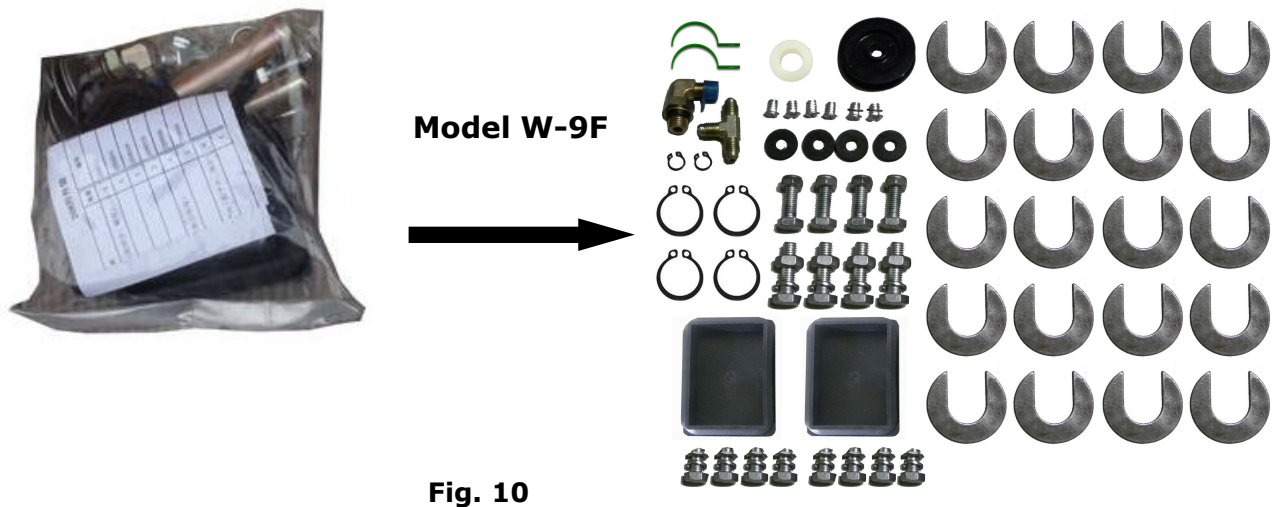
42A



Fig. 9

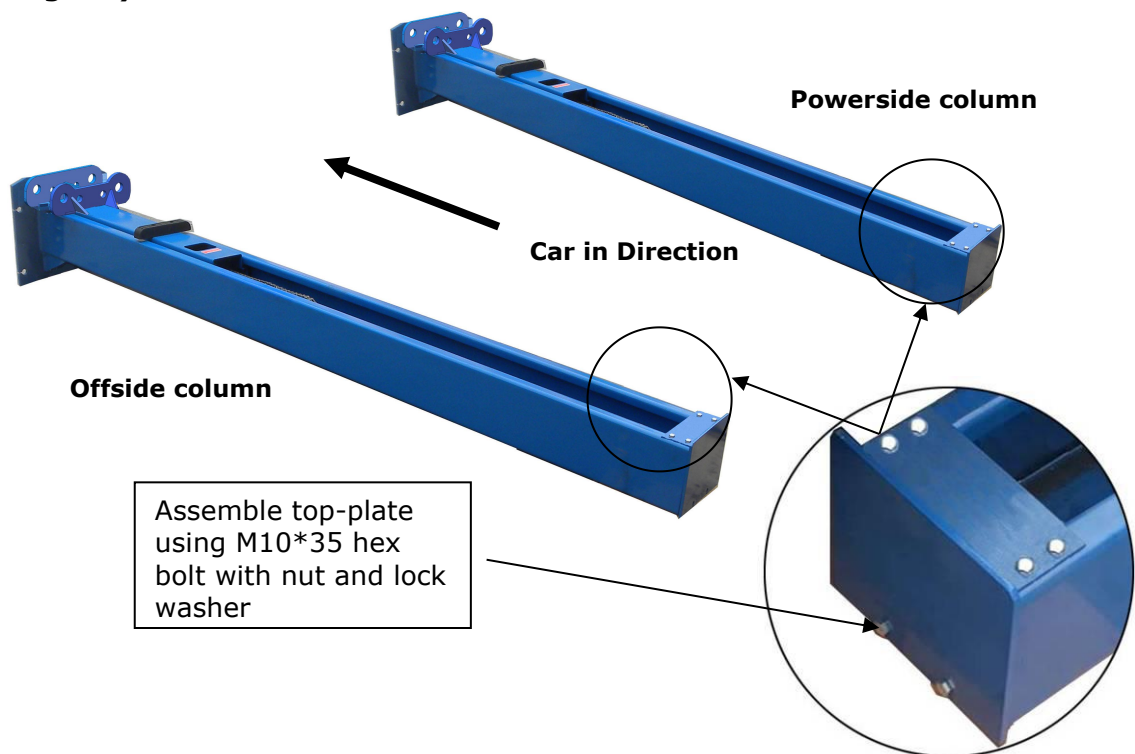
Parts in the parts box (42A)

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



D. Position powerside columns

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).



E. Connecting the cables

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

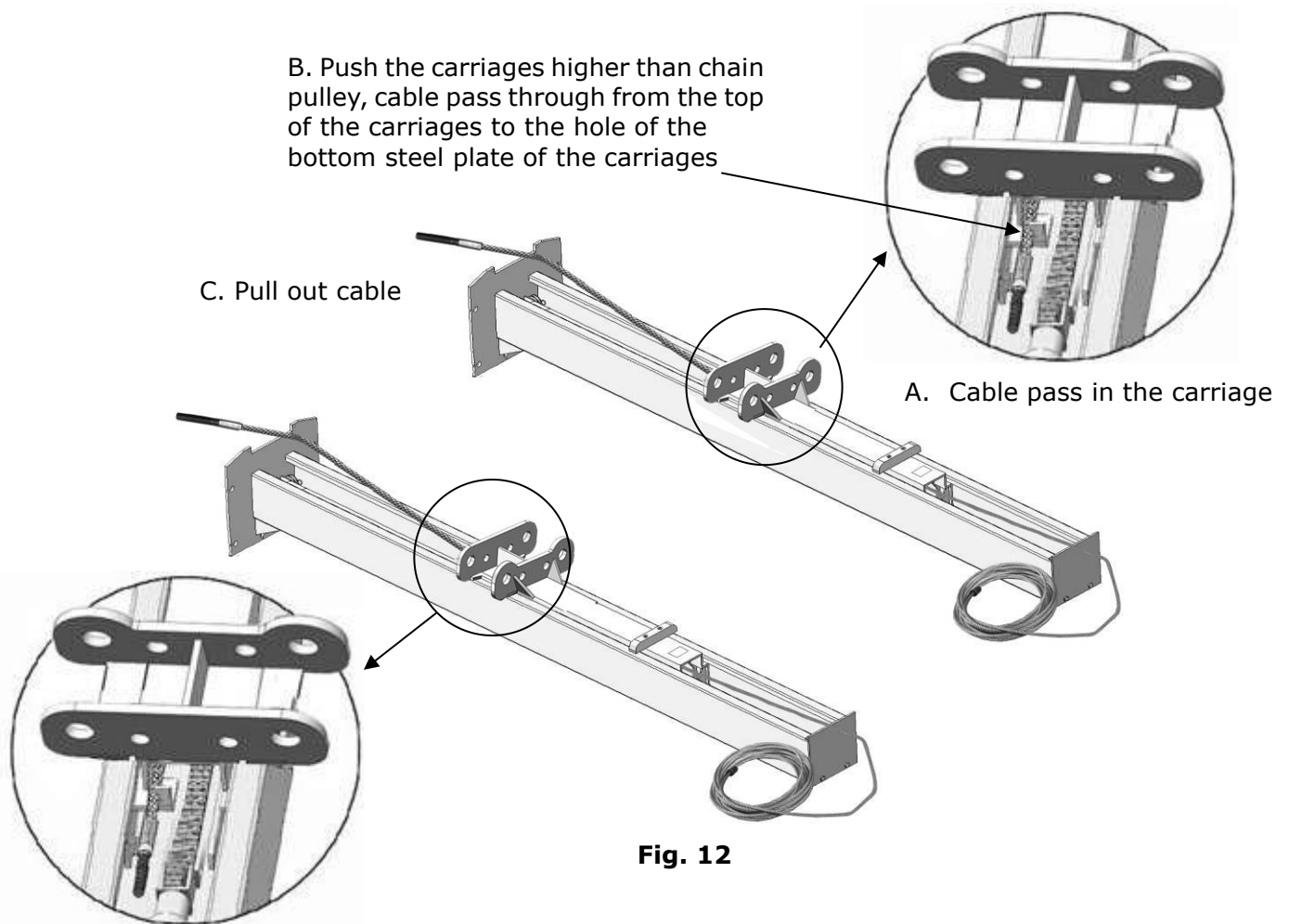


Fig. 12

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

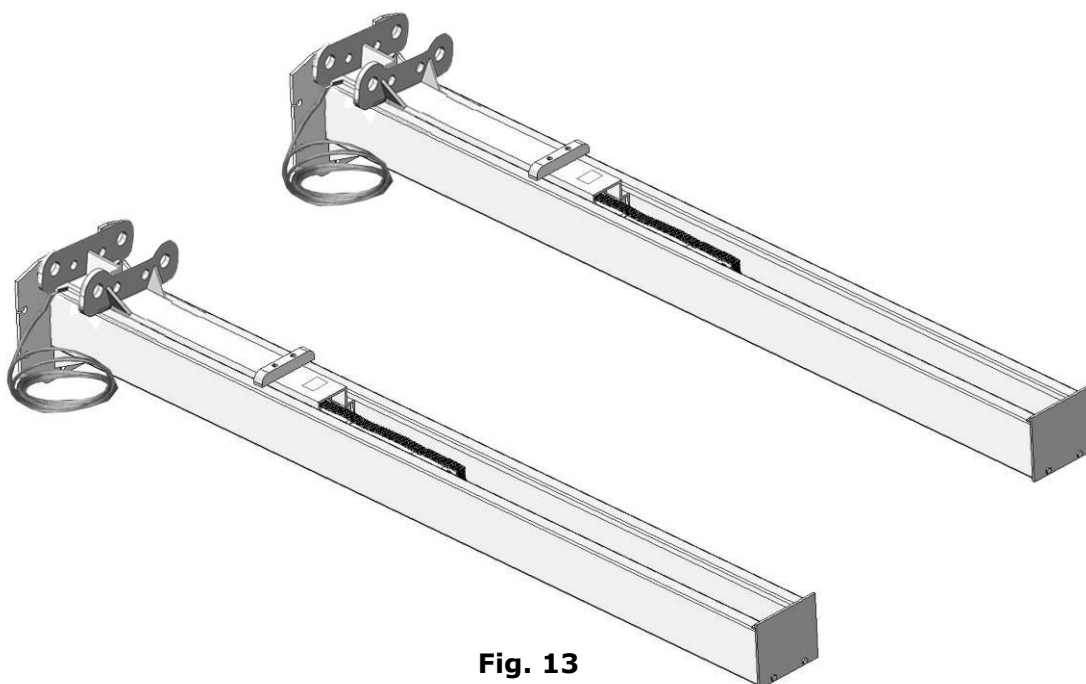


Fig. 13

F. Position columns (See Fig. 14)

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

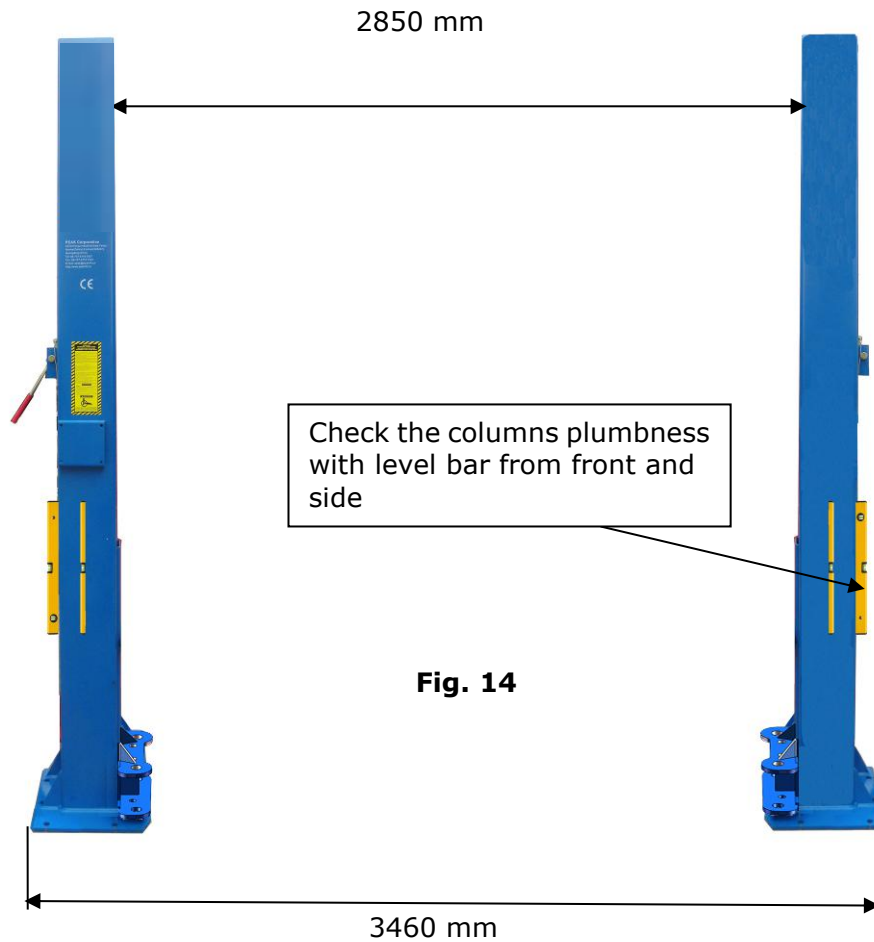
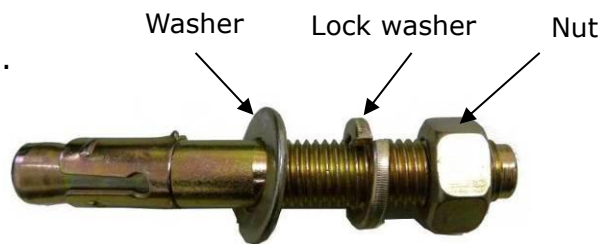


Fig. 14

G. Fix anchor bolts

1. Prepare 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. Then tighten the anchor bolts (See Fig. 16).

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

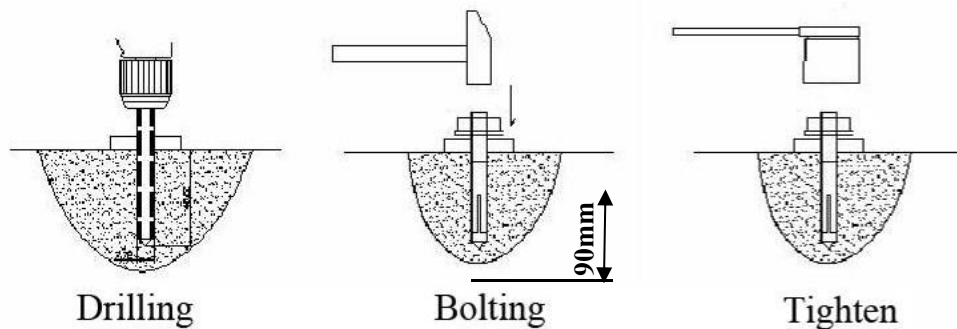


Fig. 16

**H. Lift the carriages up by hand and make them be locked at the same level
(See Fig. 17).**

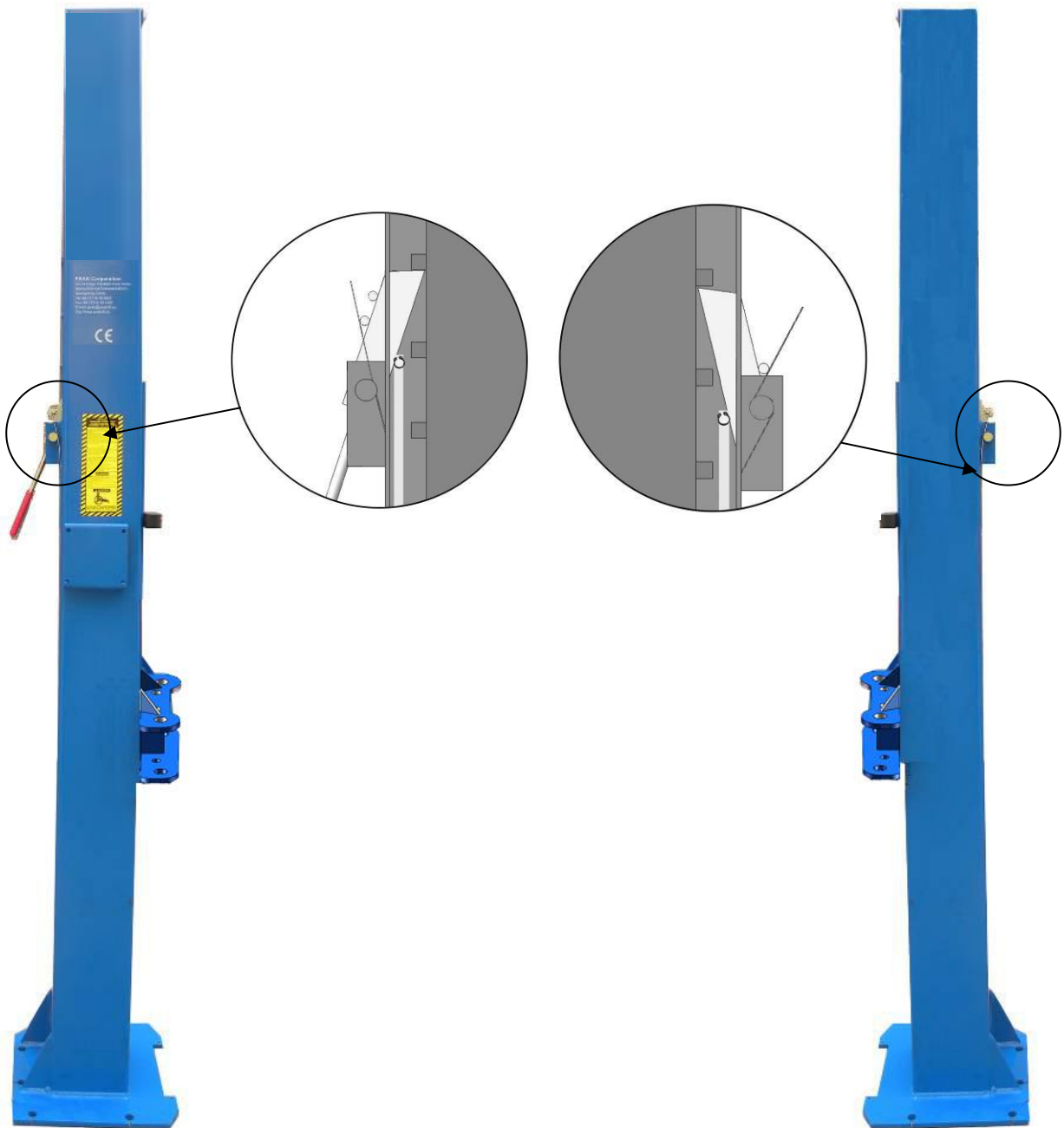


Fig. 17

I. Install cable (See Fig. 18)

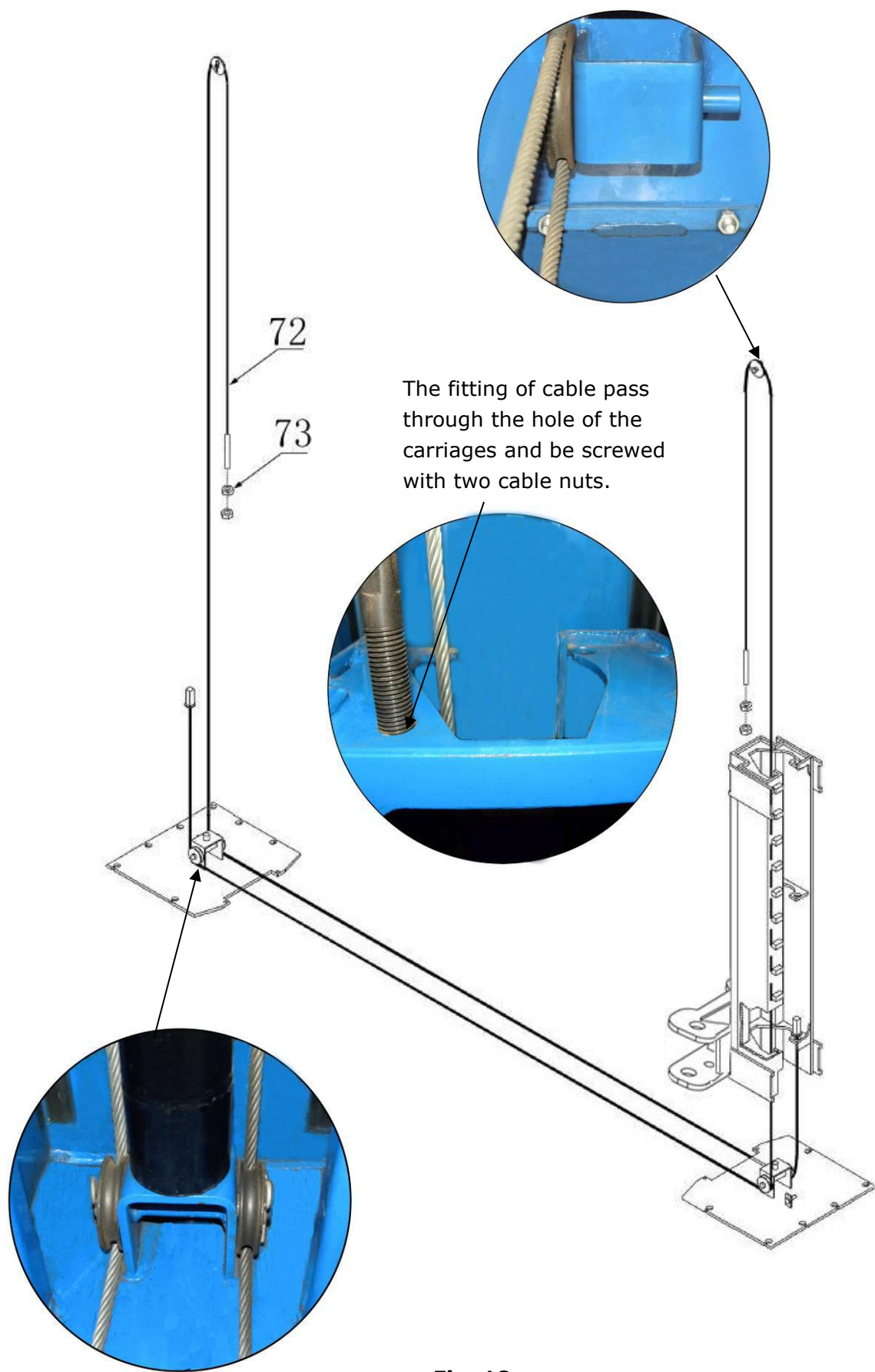


Fig. 18

J. Assembly oil hose assy. (See Fig. 19).

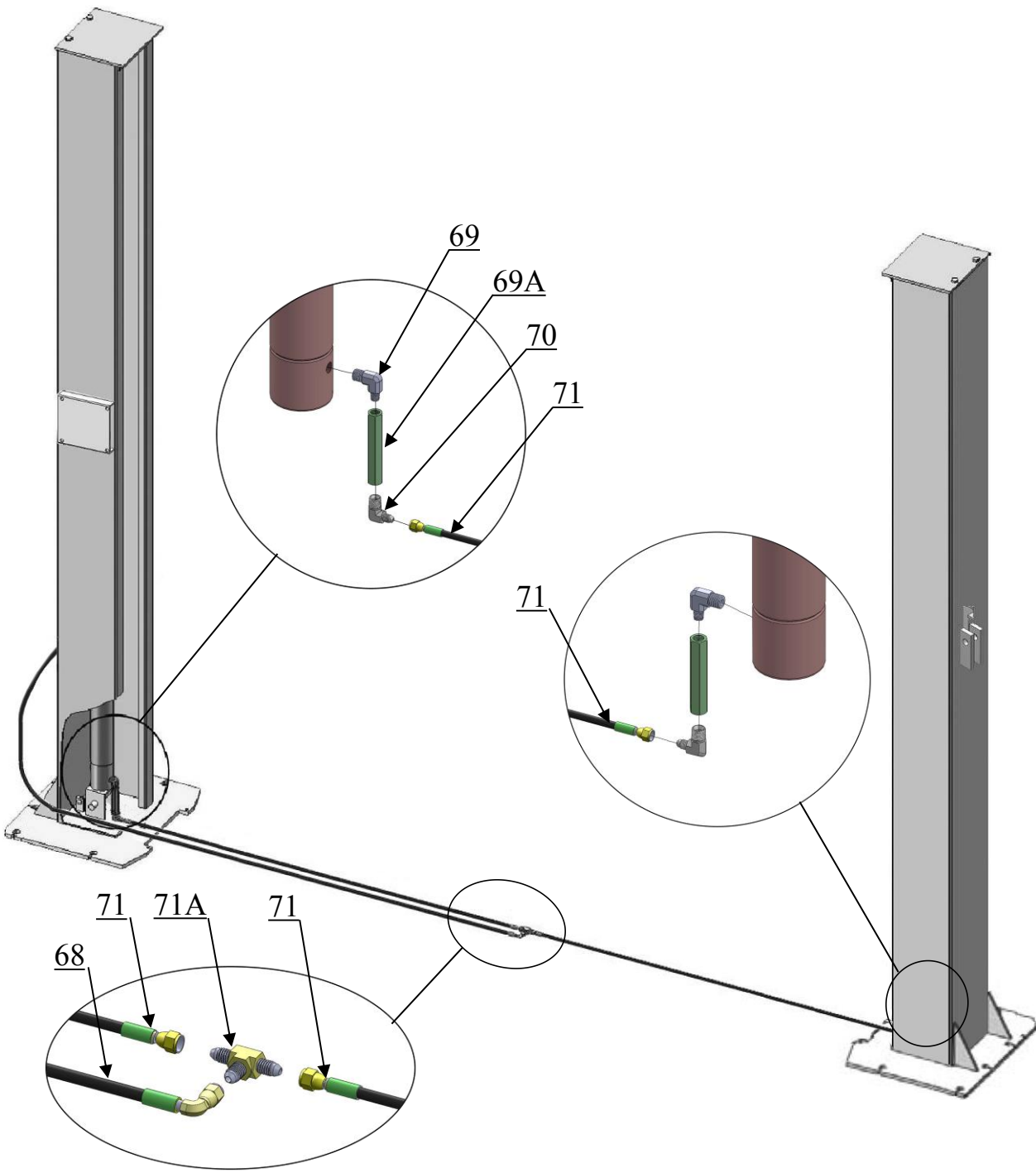


Fig. 19

K. Install hydraulic power unit and oil hose assy. (See Fig. 20).

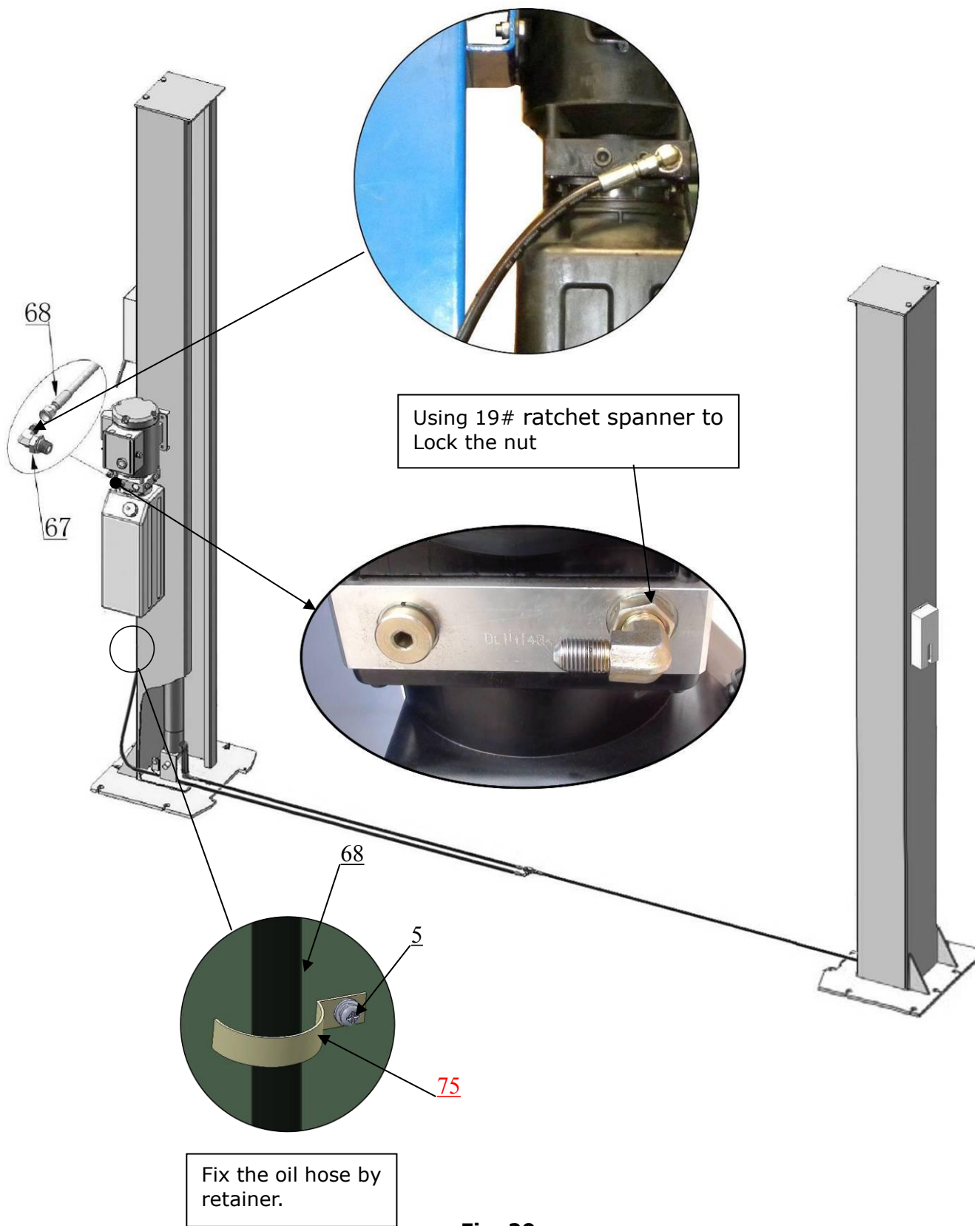


Fig. 20

L. Install safety device and safety cable (See Fig. 21).

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

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

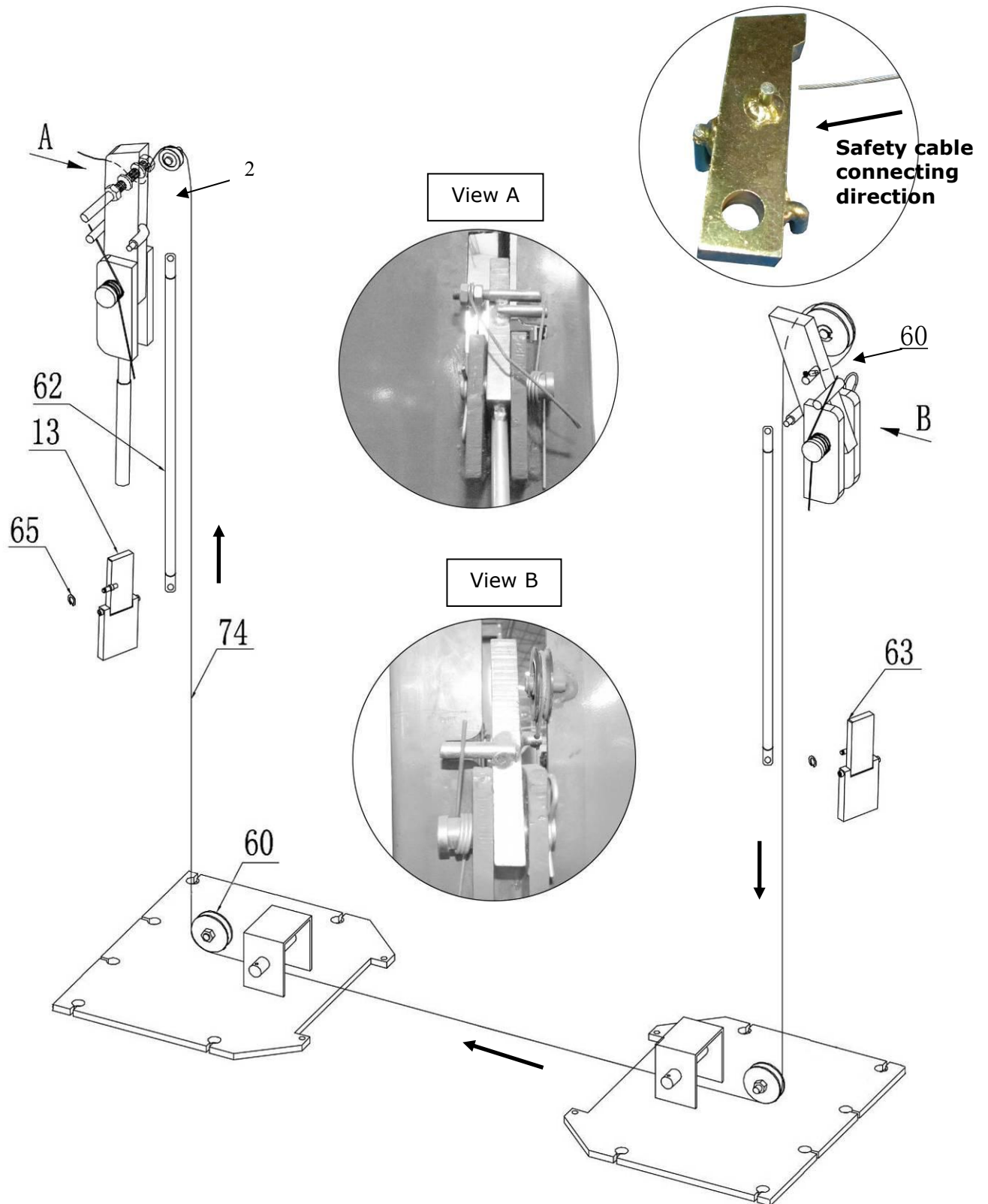


Fig. 21

M. Assemble floor cover (See Fig. 22).



Fig. 22

N. Install lifting arms and adjust the arm locks

1. Install the lifting arms (See Fig. 23, 24)

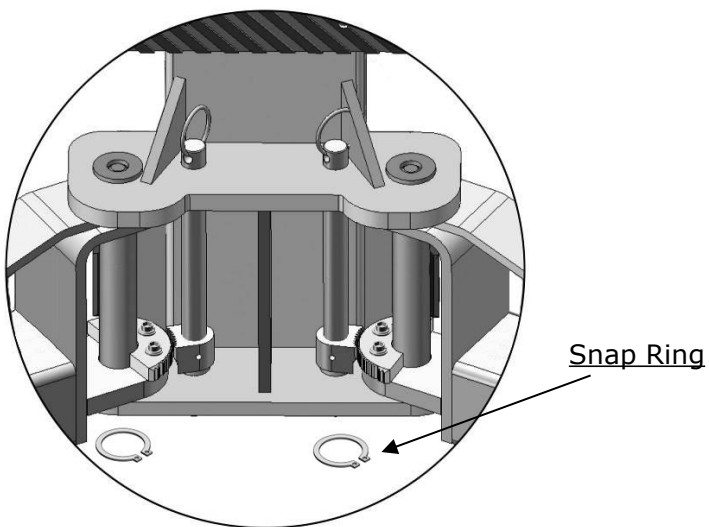


Fig. 23

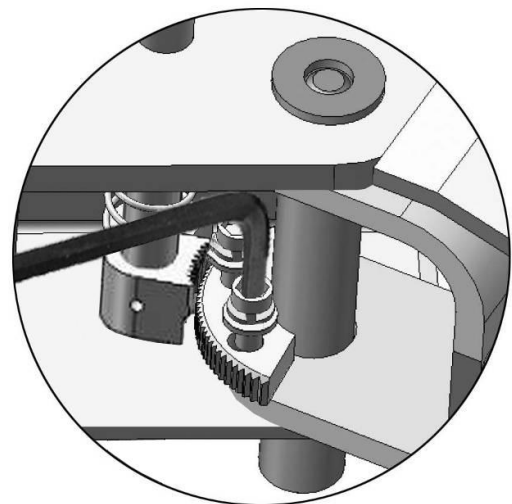


Fig. 24

2. Lowering the carriages down to the lowest position, then use the 8# socket head wrench to loosen the socket bolt (**See Fig. 24**)
3. Adjust the moon gear as arrow direction (**See Fig. 25**).
4. Adjust the moon gear and arm lock to make it to be meshed, then tighten bolts of arm lock (**See Fig. 26**).

Adjust moon gear

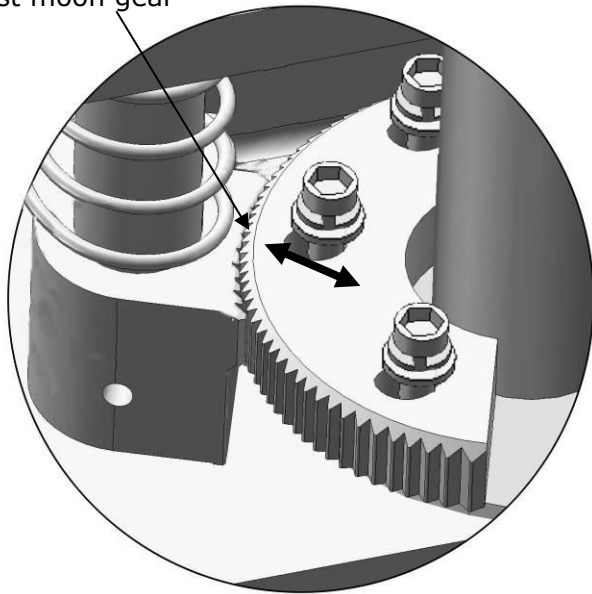


Fig. 25

Locking the bolts after the moon gear and arm lock engaged well

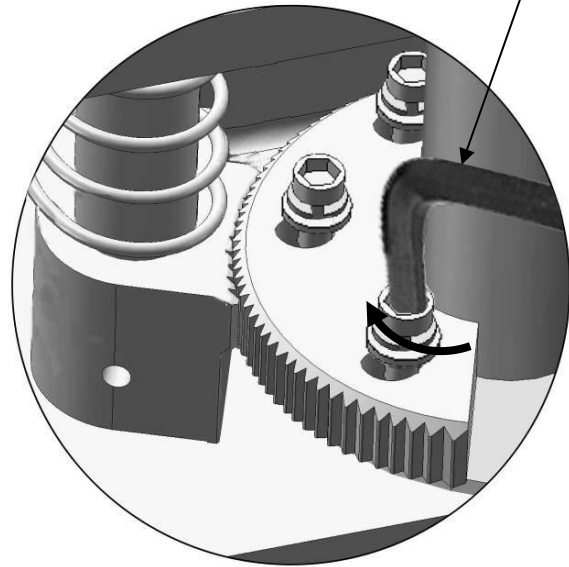


Fig. 26

O. Tighten all the hydraulic fittings, and fix the oil hose by retainer.

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

P. 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 floor well.
2. Pay attention to the direction of rotations when using 380V, three phase motors.

Single phase motor (See Fig. 27).

1. Connecting the two power supply lines (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. Terminal **4#** of control button is connected with terminals **A1** of AC contactor;
Terminal **3#** of control button is connected with terminals **L1** of AC contactor.

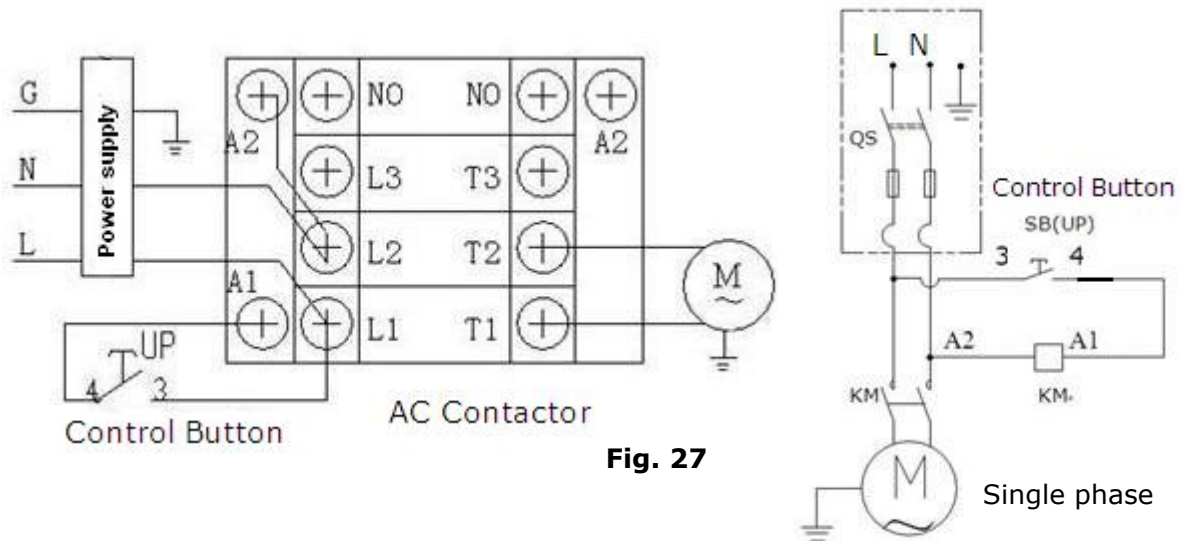


Fig. 27

Three phase motor

1. Circuit diagram (See Fig. 28)

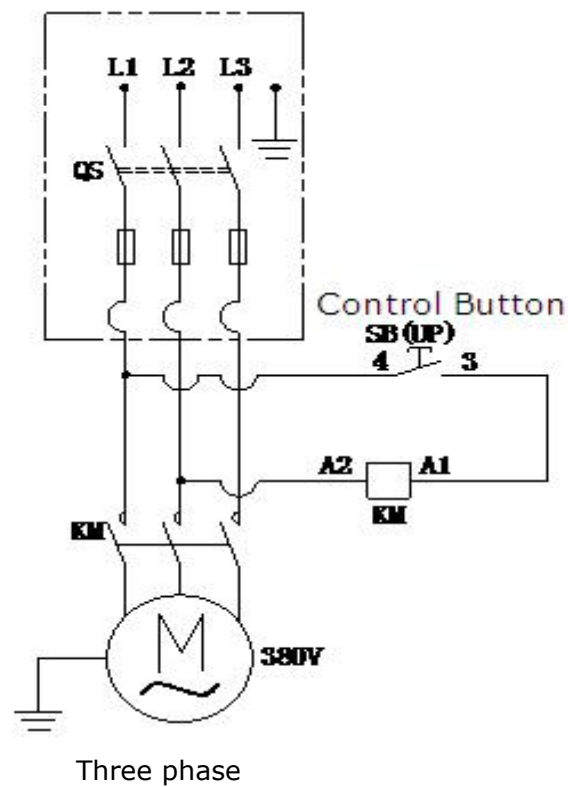


Fig. 28

2. Connection step (See Fig. 29)

- The source wires **L1**, **L2**, **L3** are connected with terminals of AC contactor marked **L1**, **L2**, **L3** respectively.
- Terminal of AC contactor marked **L1** is connected with terminals **4#** of control button. Terminal **A1** of AC contactor is connected with terminals **3#** of control button.

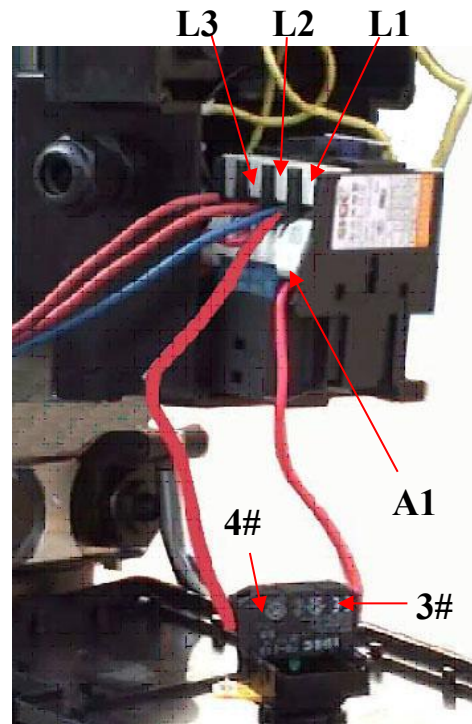
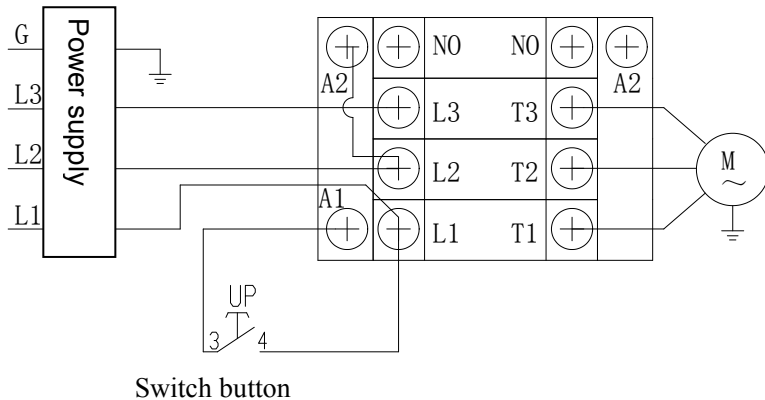


Fig. 29

IV. EXPLODED VIEW

Model W-9F

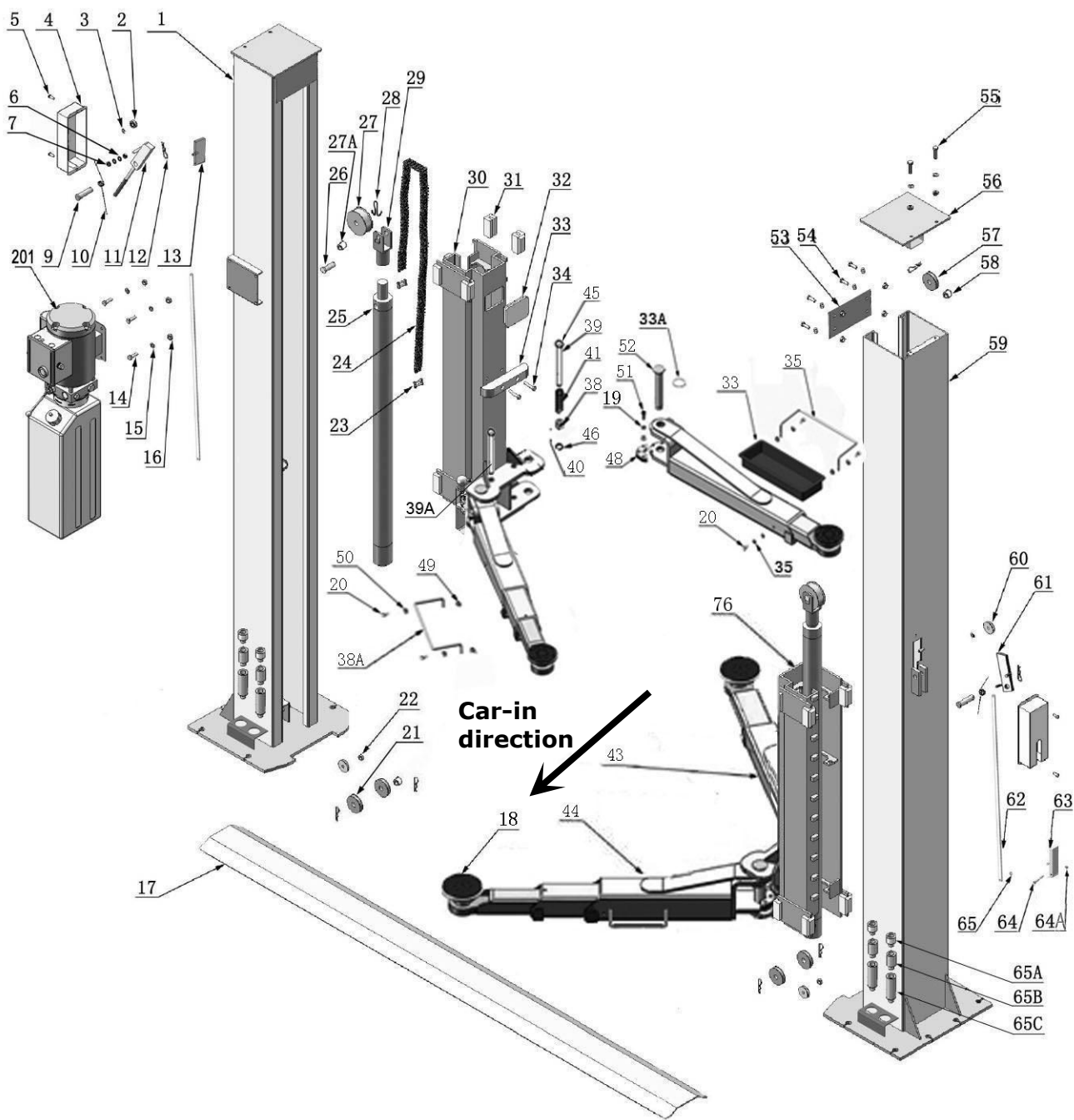


Fig. 30

Cylinders

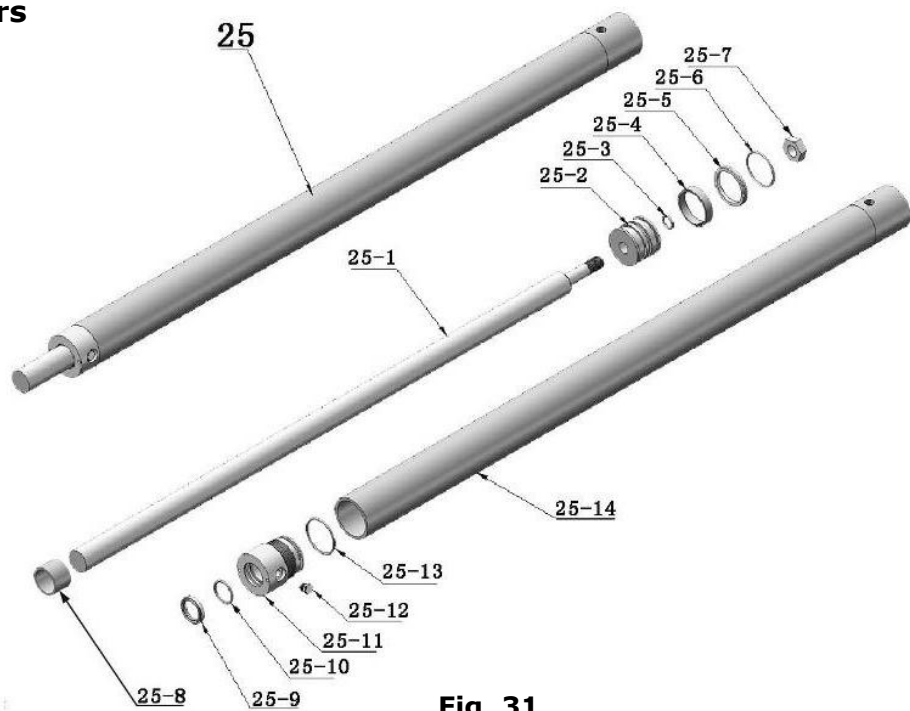


Fig. 31

MANUAL POWER UNIT

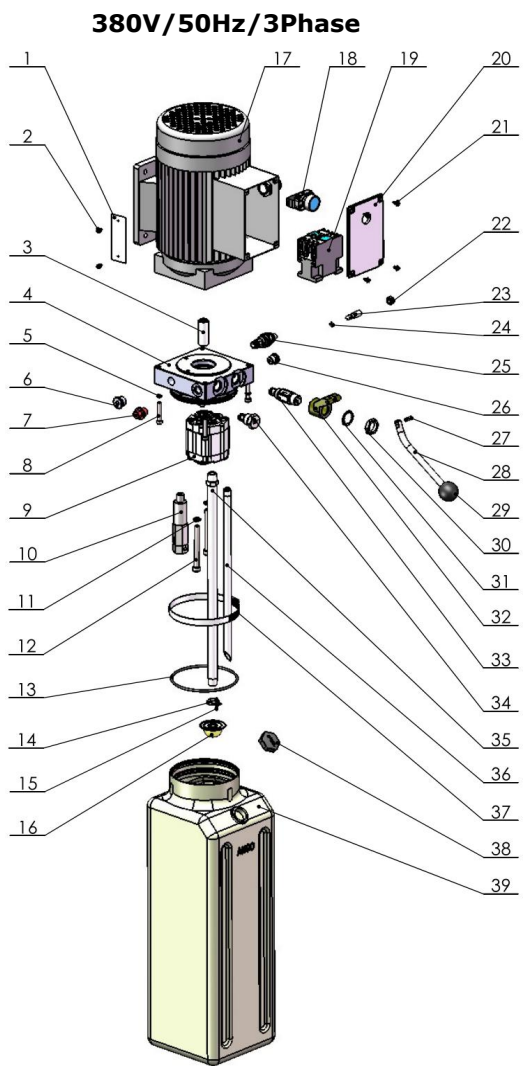
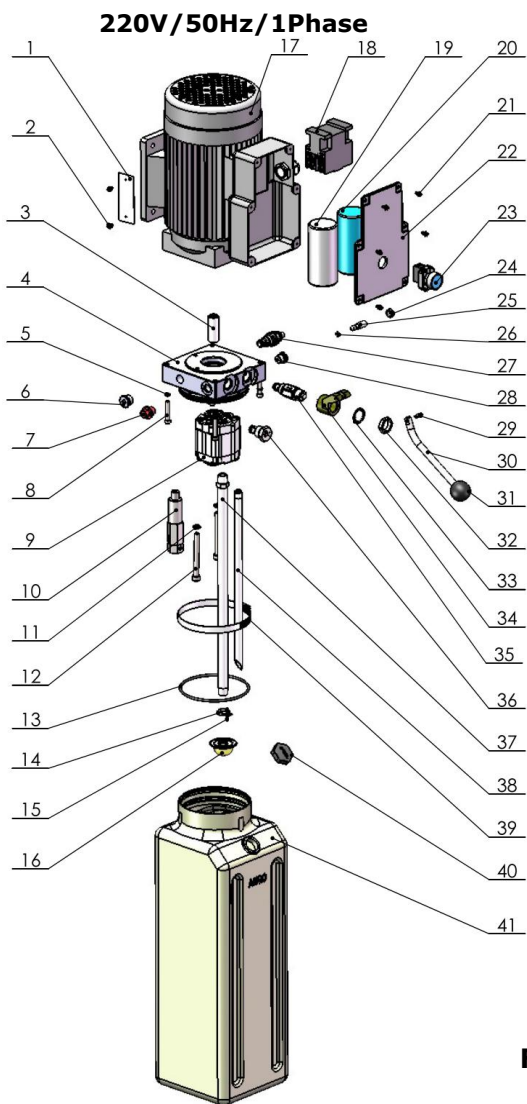
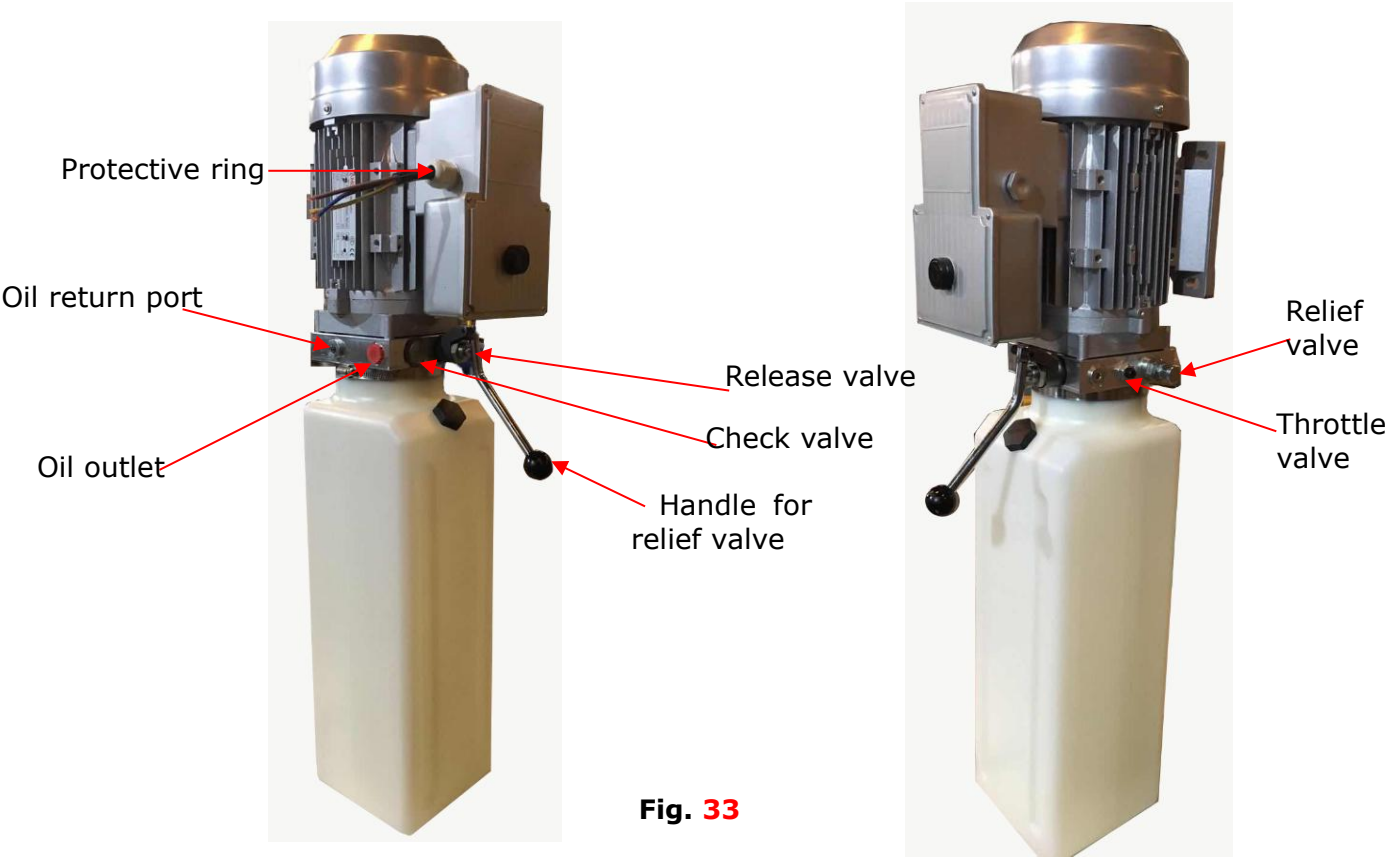


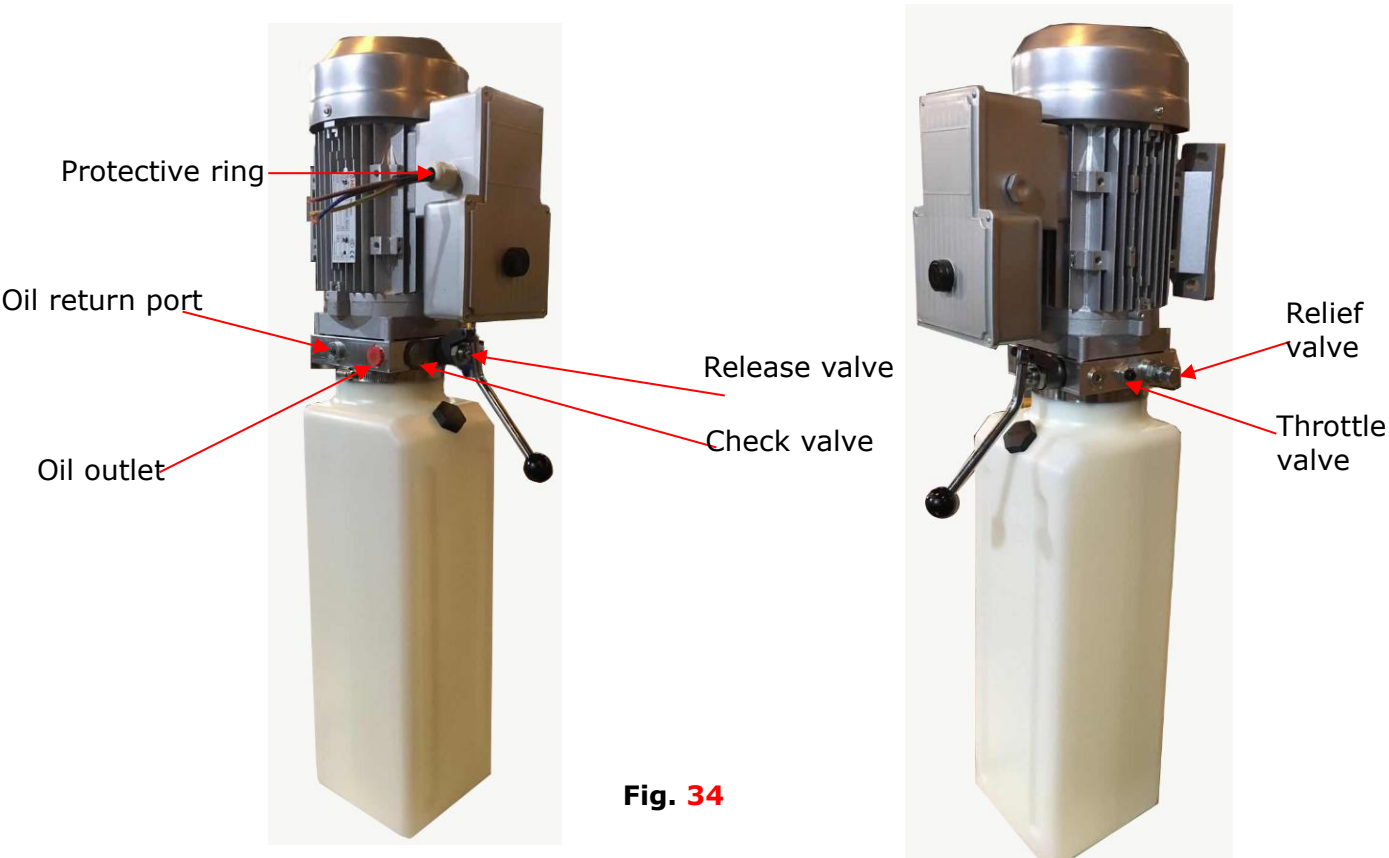
Fig. 32

Illustration of hydraulic valve for hydraulic power unit

a. Manual power unit, 220V/50Hz, Single phase (See Fig. 33)



b. Manual power unit, 380V/50Hz, 3 phase (See Fig. 34)



V. TEST RUN

1. Adjust synchronous cable (See Fig. 35)

Push button "UP" to lift the carriages 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 with the same tension so that two carriage can work synchronously. Fit the plastic hole cover on the lifting head.

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

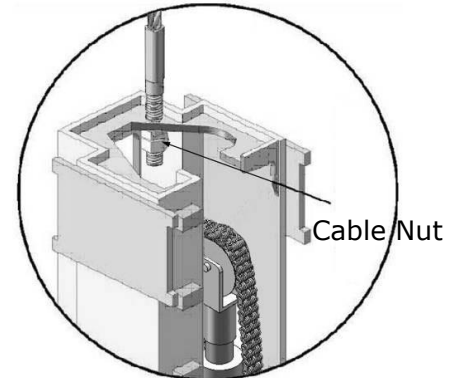


Fig. 35

2. Adjust safety cable

Lifting the carriage 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. Adjust the lower speed

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.

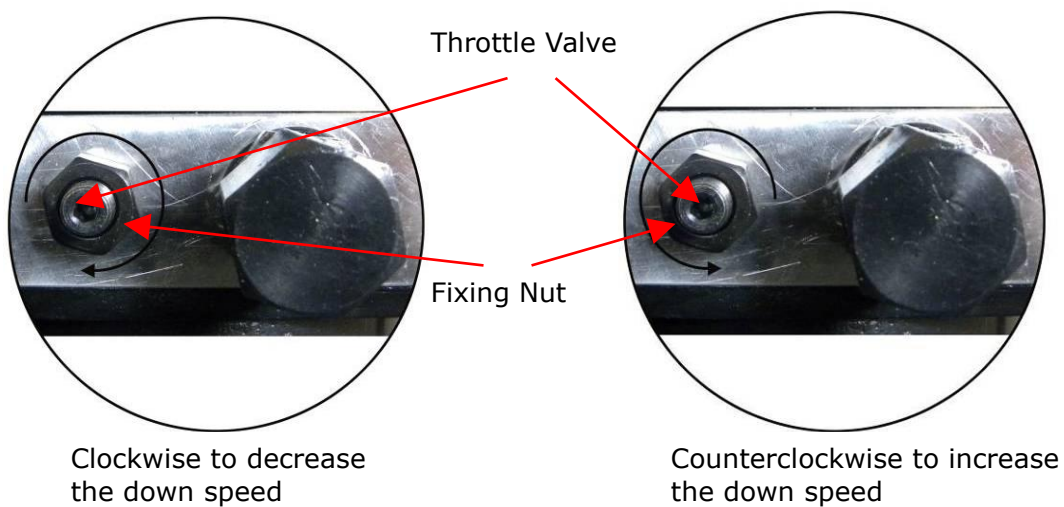


Fig. 36

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 is 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.

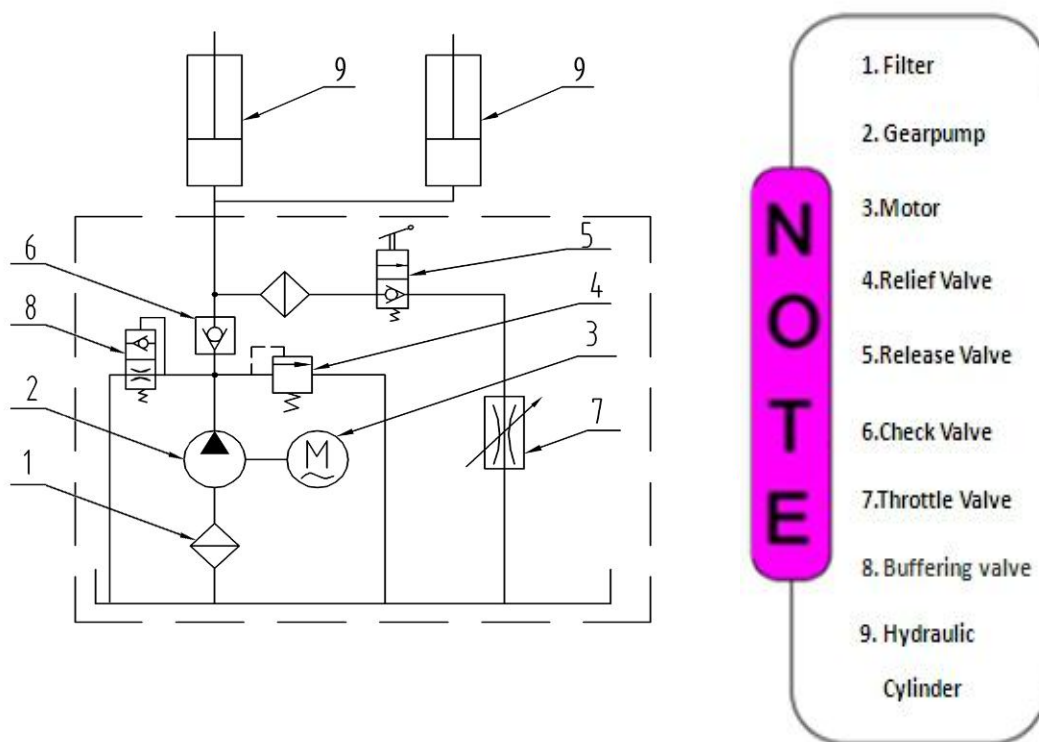


Fig. 37 Hydraulic System

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	<ol style="list-style-type: none"> 1. Button does not work 2. Wiring connections are not in good condition 3. Motor burned out 4. AC contactor in damage 	<ol style="list-style-type: none"> 1. Replace button 2.Repair all wiring connections 3. Repair or replace motor 4. Replace or replace
Motor runs but the lift is not raised	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Release valve out of work 2. Relief valve or check Valve leakage 3. Cylinder or fittings leaks 	Repair or replace
Lift raises slowly	<ol style="list-style-type: none"> 1. Oil line is jammed 2. Motor running on low voltage 3. Oil mixed with air 4. Gear Pump leaks 5. Overload lifting 	<ol style="list-style-type: none"> 1. Clean the oil line 2. Check electrical system 3. Fill tank 4. Replace pump 5. Check load
Lift cannot lower	<ol style="list-style-type: none"> 1. Safety device are locking. 2. Release valve in damage 3. Safety cable broken 4. Oil system is jammed 	<ol style="list-style-type: none"> 1. Release the safeties 2. Repair or replace 3. Replace 4. Clean the oil system

IX. PARTS LIST FOR MODEL W-9F(See Fig. 8,18,19,20,21,30)

Item	Part#	Description	Qty.	Note
1	203140	Powerside column	1	
2	209011	Plastic Pulley	1	
3	209010	Snap Ring	2	
4	209008	Safety device protect cover	2	
5	209009	Cup Head Bolt	6	
6	206006	Washer	2	
7	206023A	Hex Nut	2	
201	209002	Manual Power Unit	1	
9	206002	Safety Pin	2	
10	209007	Safety Spring	2	
11	203002	Powerside Safety device	1	
12	209012	Hair Pin	8	
13	203015	Safety Block (Main)	1	
14	209003	Hex Bolt	4	
15	209004	Rubber Ring	4	
16	209005	Self locking nut	8	
17	203003	Floor Cover	1	
18	201046A	Rubber Pad Assy.	4	
18A	420138	Socket bolt	4	
18B	209134	Rubber Pad	4	
18C	680030C	Rubber Pad Frame	4	
19	209039	Lock Washer	16	
20	201002	Hex Bolt	14	
21	209057	Pulley	4	
22	209056	Self locking nut	2	
23	201010A	Chain Connector	4	
24	203005	Chain	2	
25	201008	Hydraulic Cylinder	2	
26	203040	Pin For Chain Pulley	2	
27	203004	Chain Pulley	2	
27A	203004A	Bronze bush for Chain Pulley	4	
28	201005	Split Pin	2	
29	201004	Chain Pulley Seat	2	
30	203134	Powerside Carriage	1	
31	209015	Slider	16	
32	209016	Carriage Plastic Cover	2	
33	206156	Tool Tray	2	
34	206046	Self-tapping Screw	4	
35	206154	Toe guard- Rear	2	
36	209021	Hex Nut	8	
37	209022	Washer	12	
38	217044	Moon gear	4	

Item	Part#	Description	Qty.	Note
38A	206155	Toe guard - Front	2	
39	207046A	Arm Lock Bar (left)	2	
39A	207046	Arm Lock Bar (right)	2	
40	206036	Hair Pin	4	
41	217045	Spring	4	
42	206045	Protective Rubber Bar	4	
42A	203501B	Parts Box	1	
43	203131	Lifting Arm - Rear (drop-in)	2	
43A	203149	Outer Arm - Rear	2	
43B	203150	Inner Arm - Rear	2	
44	203130	Lifting Arm - Front (drop-in)	2	
44A	203146	Outer Arm - Front	2	
44B	203147	Middle Arm - Front	2	
44C	203148	Inner Arm - Front	2	
45	209153	Pull Ring for Arm Lock Bar	4	
46	206032	Snap Ring	4	
47	620065	Shim(2mm)	10	
47A	201090	Shim(1mm)	10	
48	206049	Moon Gear	4	
49	209033	Washer	22	
50	209034	Lock Washer	14	
51	206048	Socket Bolt	12	
52	217168	Arm Pin	4	
52A	520023	Snap ring	4	
53	203009	Connecting plate	2	
54	209043	Hex Bolt	8	
55	209046	Hex Bolt	4	
56	203010	Top plate	2	
57	209045	Pulley	2	
58	209057A	Bronze Bush For Pulley	6	
59	203167	Offside column	1	
60	209049	Plastic Pulley	3	
61	203012	Offside safety device	1	
62	203013	Coupling	2	
63	203014	Safety Block (Secondly)	1	
64	205026	Socket Bolt	2	
64A	610026	Self locking nut	2	
65	420049	Snap Ring	4	
65A	209051B	Stackable Adapter (1.5")	4	
65B	209052B	Stackable Adapter (2.5")	4	
65C	209053B	Stackable Adapter (5")	4	
66	209059B	Anchor bolt	12	
67	209060	90°Fitting	1	
68	201081	Oil Hose	1	

Item	Part#	Description	Qty.	Note
69	207024	90°Fitting	2	
69A	201082	Extended Straight Fitting	2	
70	420097	90°Fitting	2	
71	203109	Oil Hose	2	
71A	211016	T Fitting	1	
72	203020	Cable	2	
73	209066	Hex Nut	4	
74	203021	Safety Cable	1	
75	217048	Cable clamp	2	
76	203136	Offside carriage	1	
77				
Parts For Hydraulic Cylinder (See Fig. 31)				
25-1	201027	Piston Rod	2	
25-2	201028	Piston	2	
25-3	206069	O-Ring	2	
25-4	201029	Support Ring	2	
25-5	201030	Y-Ring	2	
25-6	201031	O-Ring	2	
25-7	206071	Hex Nut	2	
25-8	201037	Adjustment bar	2	
25-9	209078	Dust Ring	2	
25-10	201032	O-Ring	2	
25-11	201033	Head Cap	2	
25-12	201034	Bleeding Plug	2	
25-13	201035	O-Ring	2	
25-14	201036	Bore Weldment	2	

PARTS LIST FOR MANUAL POWER UNIT

Parts For Manual Power Unit 220V/50Hz/1Phase (See Fig. 32)				
Item	Part#	Description	Qty.	Note
1	71150019	AMGO name plate	1	
2	81400300	Washer	2	
3	81400363	Motor Connecting Shaft	1	
4	81400362	Manifold block	1	
5	10209149	Lock washer	4	
6	81400276	Inner hex iron plug	1	
7	81400259	Red plastic plug	1	
8	85090142	Inner hex screw	4	
9	81400292	Gear pump	1	
10	81400294	Buffer Valve	1	
11	10209034	Lock washer	2	
12	81400295	Inner hex screw	2	
13	81400365	O-ring	1	

Item	Part#	Description	Qty.	Note
14	10209152	Zip tie	1	
15	85090167	Magnet	1	
16	81400290	Filter	1	
17	81400453	Motor	1	
18	41030055	AC contactor	1	
19	81400088	Running capacitor	1	
20	81400130	Starting capacitor	1	
21	420148	Washer	6	
22	81400208	Motor terminal box cover	1	
23	10420070	Button switch	1	
24	81400296	Nut	1	
25	81400459	Throttle valve element	1	
26	10209069	O-ring	1	
27	81400266	Relief valve	1	
28	81400284	Inner hex iron plug	1	
29	81400452	Elastic Latch	1	
30	81400451	Release valve handle	1	
31	10209020	Black plastic ball	1	
32	81400125	Release valve nut	1	
33	81400124	Release Valve washer	1	
34	81400450	Release valve handle seat	1	
35	81400443	Release valve	1	
36	81400267	Check valve	1	
37	81400288	Oil suction pipe	1	
38	81400289	Oil return pipe	1	
39	81400364	Clamp	1	
40	81400263	Oil tank cap	1	
41	81400275	Oil tank	1	
Parts For Manual Power Unit 380V/50Hz/3Phase (See Fig. 32)				
1	71150020	AMGO name plate	1	
2	81400300	Washer	2	
3	81400363	Motor Connecting Shaft	1	
4	81400362	Manifold block	1	
5	10209149	Lock washer	4	
6	81400276	Inner hex iron plug	1	
7	81400259	Red plastic plug	1	
8	85090142	Inner hex screw	4	
9	81400292	Gear pump	1	
10	81400294	Buffer Valve	1	
11	10209034	Lock washer	2	
12	81400295	Inner hex screw	2	
13	81400365	O-ring	1	
14	10209152	Zip tie	1	

Item	Part#	Description	Qty.	Note
15	85090167	Magnet	1	
16	81400290	Filter	1	
17	81400439	Motor	1	
18	10420070	Button switch	1	
19	81400348	AC contactor	1	
20	81400286	Motor terminal box cover	1	
21	420148	Washer	4	
22	81400296	Nut	1	
23	81400459	Throttle valve element	1	
24	10209069	O-ring	1	
25	81400266	Relief valve	1	
26	81400284	Inner hex iron plug	1	
27	81400452	Elastic Latch	1	
28	81400451	Release valve handle	1	
29	10209020	Black plastic ball	1	
30	81400125	Release valve nut	1	
31	81400124	Release Valve washer	1	
32	81400450	Release valve handle seat	1	
33	81400443	Release valve	1	
34	81400267	Check valve	1	
35	81400288	Oil suction pipe	1	
36	81400289	Oil return pipe	1	
37	81400364	Clamp	1	
38	81400263	Oil tank cap	1	
39	81400275	Oil tank	1	