



# ATLAS OH9000

9,000 lb. Capacity  
Two-Post Overhead Lift

## INSTALLATION & OPERATION MANUAL



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# I. PRODUCT FEATURES AND SPECIFICATIONS

## CLEAR-FLOOR DIRECT-DRIVE MODEL FEATURES

### Model OH-9000 (See Fig. 1)

- Direct-drive design
- Dual hydraulic cylinders, designed and made on ANSI standards, utilizing NOK oil seal for cylinder
- Self- lubricating UHMW Polyethylene sliders and bronze bushings
- Single-point safety release and dual safety design
- Clear-floor design
- Overhead safety shut-off device prevents vehicle damage
- Super-symmetric arms design with stackable truck adapters
- Adjustable heights (2)

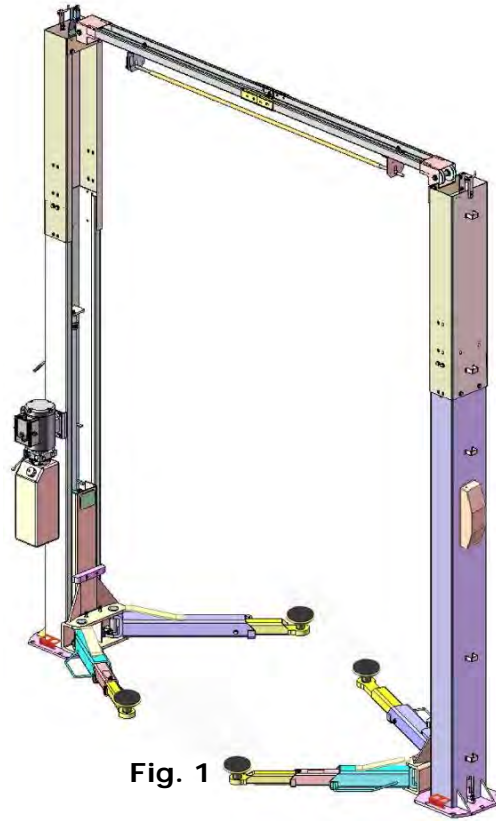
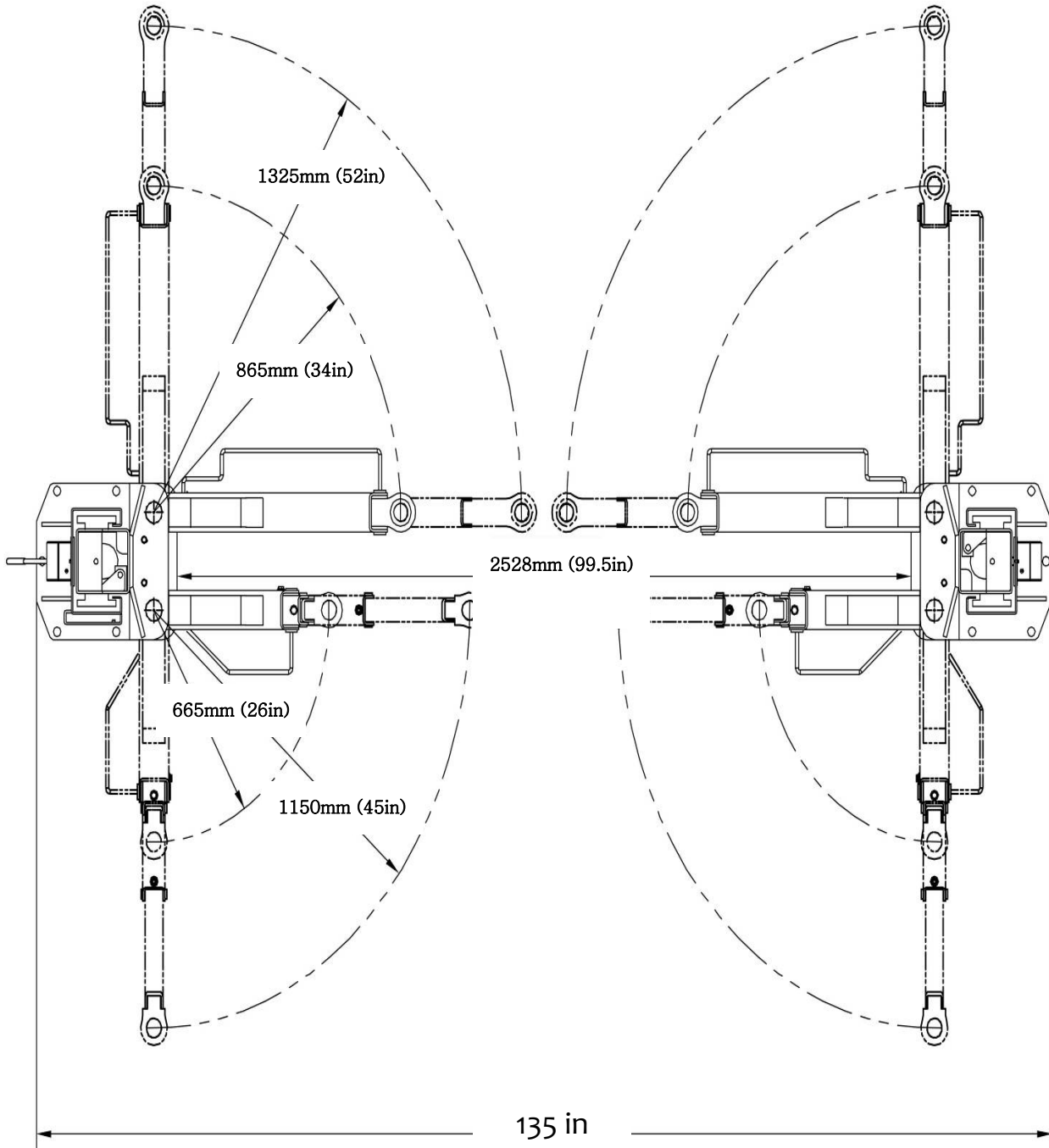


Fig. 1

### MODEL OH-9000 SPECIFICATIONS

Model	Style	Lifting Capacity	Lifting Time	Lifting Height	Overall Height	Overall Width	Width Between Posts	Minimum Pad Height for screw adapters	Minimum Pad Height for stackable adapter	Motor
209C	Clear-floor Direct-drive	4.0 T 9,000 lbs	52 S	1830-2100 mm 72" – 82 1/2"	3621/3821 mm 142 1/2" 150 1/2"	3428 mm 135"	2850 mm 112 1/4"	100 mm 4"	105 mm 4 1/8"	2.0/3.0 HP
209CH	Clear-floor Direct-drive	4.0 T 9,000 lbs	52 S	1830-2100 mm 72" – 82 1/2"	4231/4431 mm 166 1/2" 174 1/2"	3428 mm 135"	2850 mm 112 1/4"	100 mm 4"	105 mm 4 1/8"	2.0/3.0 HP

**Arm Swing View  
For Model OH-9000**



**Fig. 2**

## II. INSTALLATION REQUIREMENTS

### A. TOOLS REQUIRED

- ✓ Rotary Hammer Drill



- ✓ Hammer



- ✓ Level Bar



- ✓ Crescent Wrench (12")

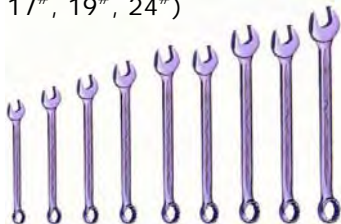


- ✓ 1/2 Drive Ratchet



- ✓ Wrench Set

(8#, 10#, 13#, 14#, 17#, 19#, 24#)



- ✓ Carpenter's Chalk



- ✓ Screw Drivers



- ✓ Tape Measure



- ✓ Pliers



- ✓ Allen Head Wrench (3#, 5#, 8#)



- ✓ Vise Grips



Fig. 3

## B. CONCRETE SPECIFICATIONS (See Fig. 4)

Specifications Of Concrete Must Be Adhered To.

Failure To Do So May Result In Lift Failure

1. Concrete must be thickness (4 in.) minimum and without interfering steel bars, and must be dried totally before the installation.
2. Concrete must be in good condition and must be have a test strength of 3,000 psi
3. Floors must be level and with no structural cracks.

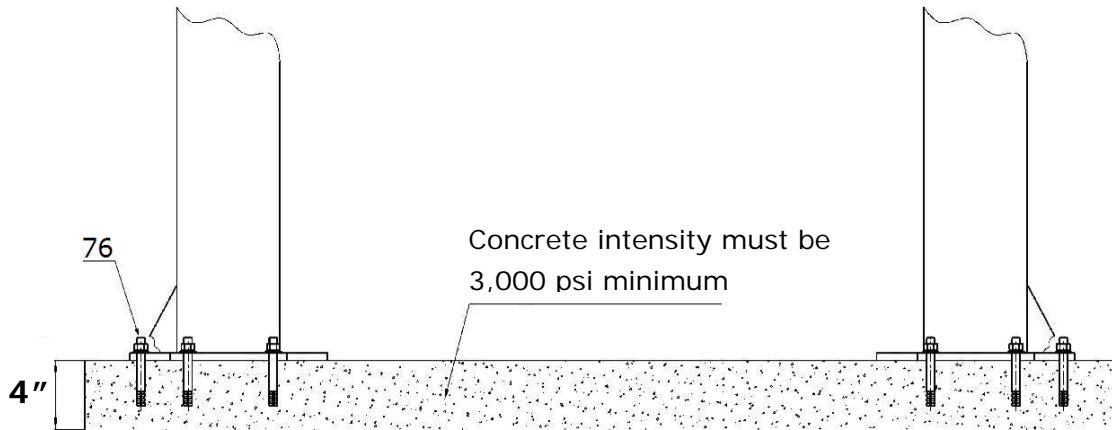


Fig. 4

## C. POWER SUPPLY

220 volt single phase 30 amp breaker with minimum of 10 gauge wiring

## III. INSTALLATION STEPS

### A. Installation Location

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 base plate (See Fig. 5).

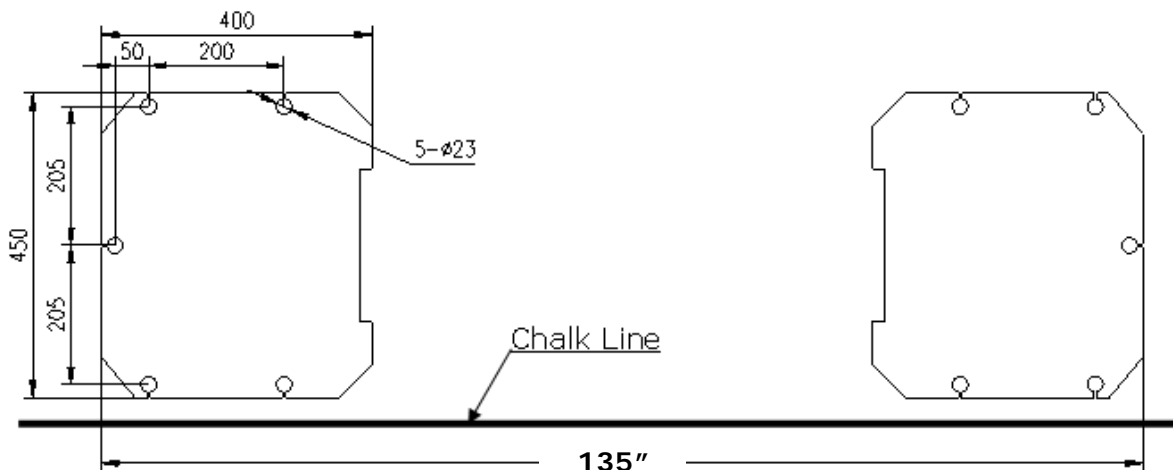


Fig. 5

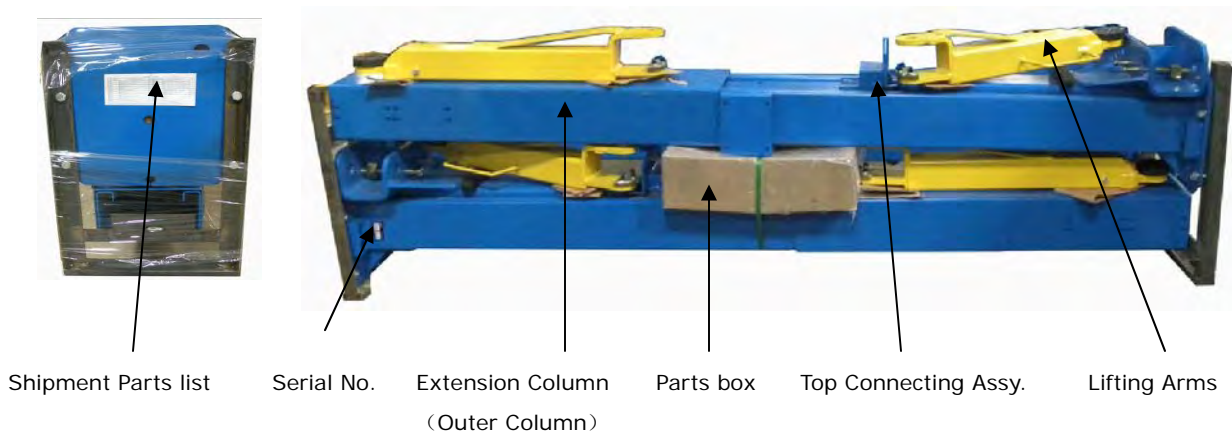
**C. Check the Parts Before Assembly. Do not attempt to install the lift before this step is completed!**

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



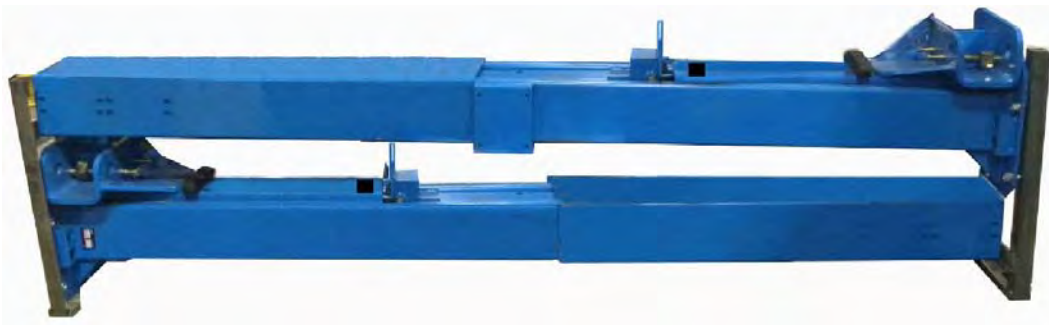
**Fig. 6**

2. Move aside the lift with fork lift or hoist, and open the outer packing carefully (See Fig. 7).



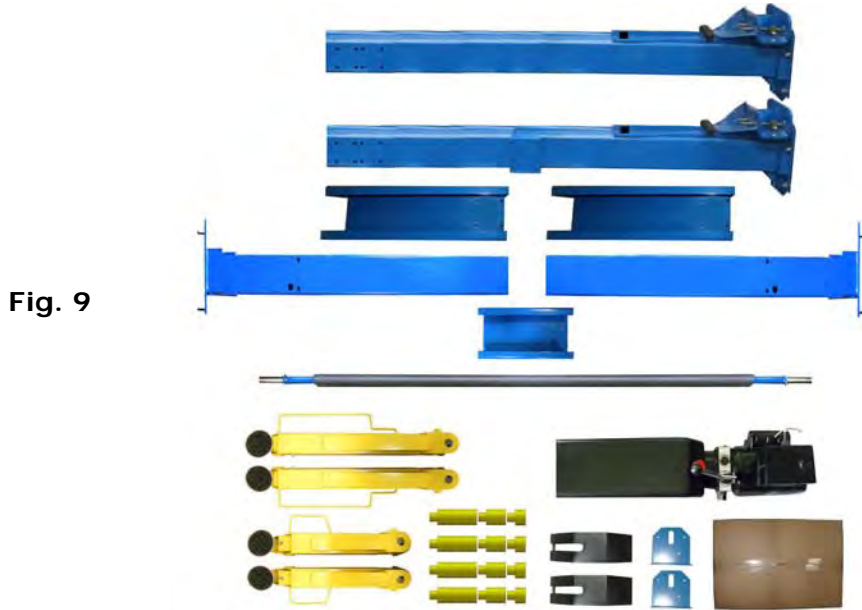
**Fig. 7**

3. Take off the lifting arms and parts box from upper and inside the column, then move them to location nearby installation site. Loosen the screws of the upper package stand, take off the upper column and remove the package stand (See Fig. 8).



**Fig. 8**

4. Check the parts according to the shipment parts list (See Fig. 9)



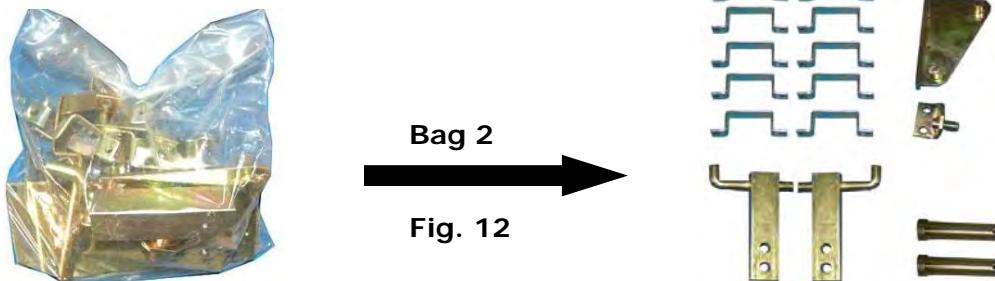
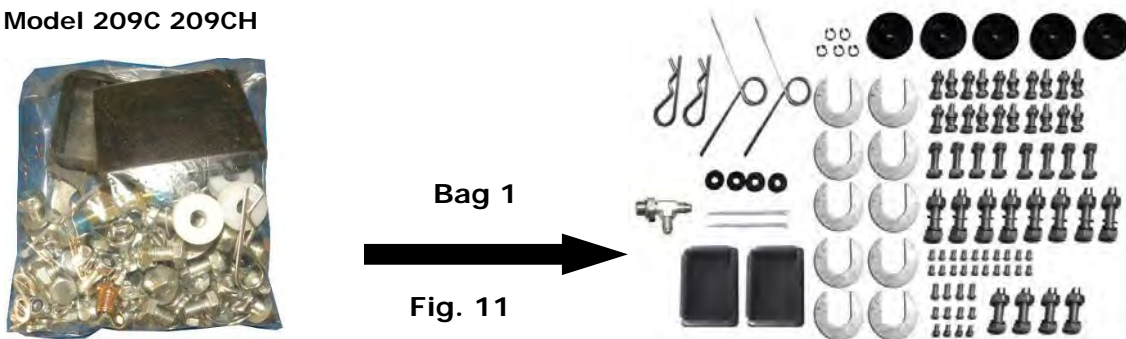
5. Open the box of parts and check the parts according to parts box list (See Fig. 10).



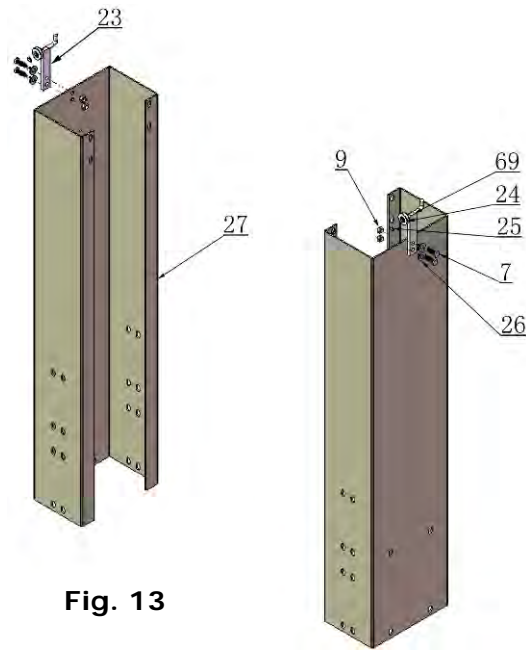
Fig. 10 Model OH-9000

6. Check the parts of the part bags 1 & 2 according to parts bag list (See Fig. 11 & Fig. 12).

Model 209C 209CH



**D. Install parts of extension columns (See Fig. 13).**



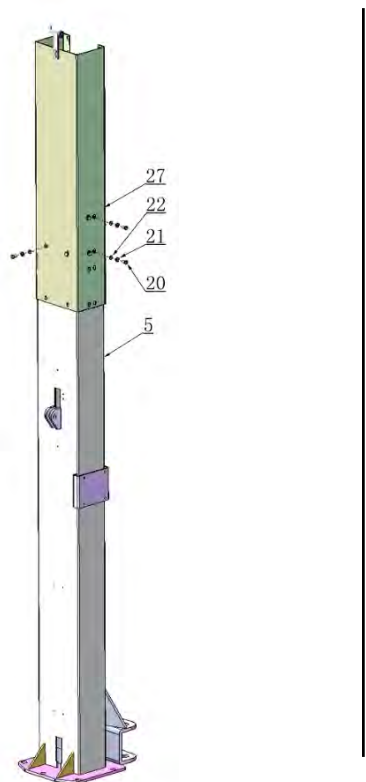
**Fig. 13**

**E. Position Power side Post**

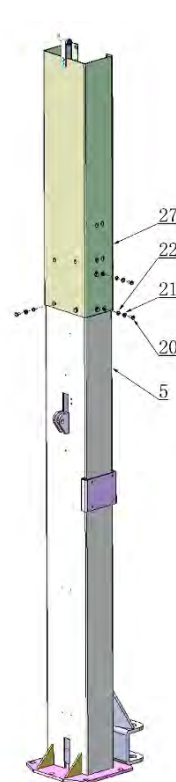
Lay down the two posts in parallel formation.

Position the Power side Post according to the actual installation location. Usually, it is suggested to install Power side Post on the passenger side from which vehicles are driven to the lift.

This lift is designed with 2-Section columns. Select adjustable height according to the ceiling height. When the ceiling height is greater than (12.6'), connect the outer columns with the upper holes (**See Fig.14**); Otherwise, we recommend connecting the outer columns with the lower holes to make the post lower (**See Fig.15**).



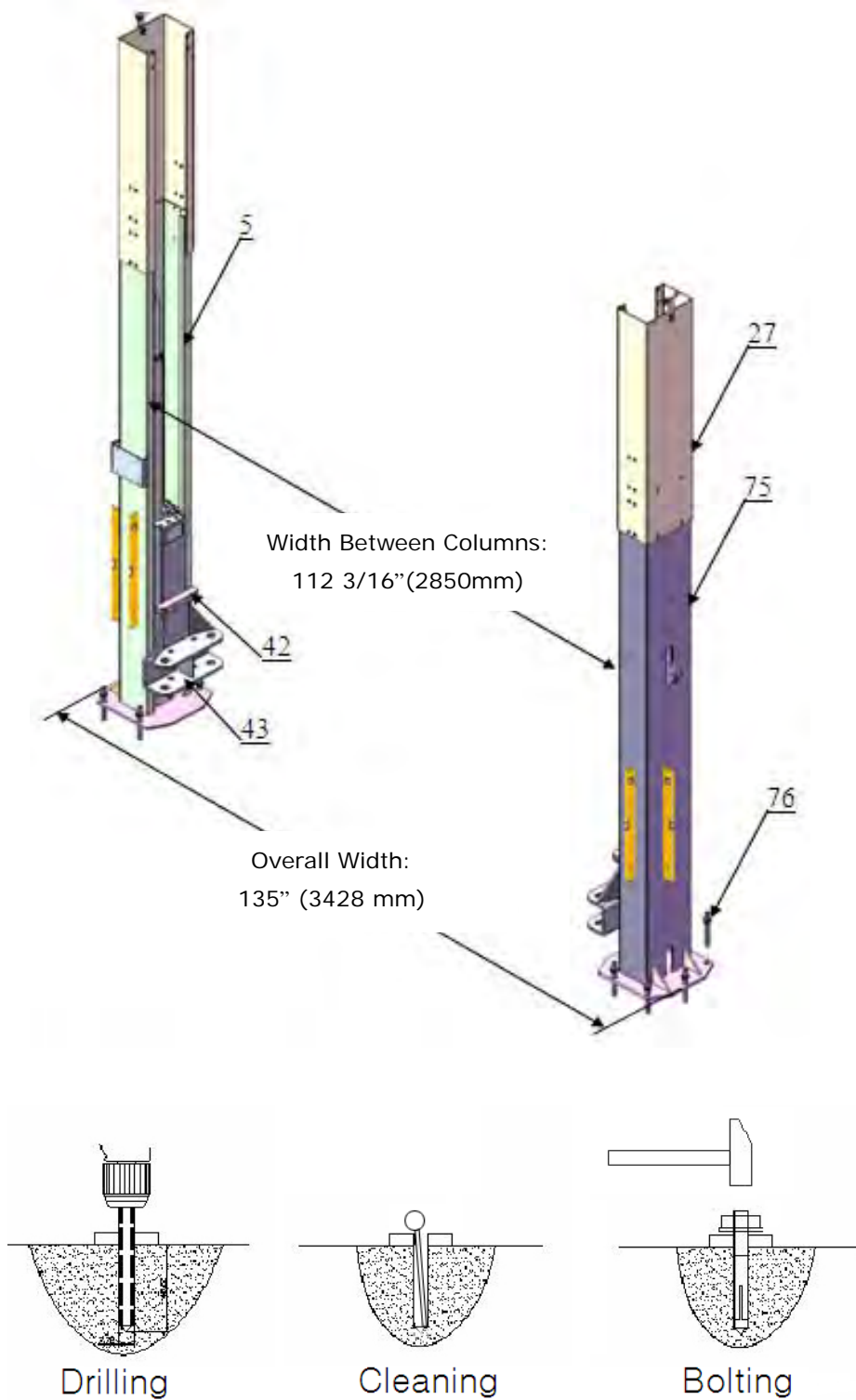
**Fig. 14 Low Setting**



**Fig. 15 High Setting**

**F. Position posts (See Fig. 16)**

Position the columns on the installation layout of the base plate, shown in **step B**.



**Fig. 16**

Install the anchor bolts. Check the posts for plumb with level bar, and adjusting with the shims if the columns are not vertical. Do not tighten the Anchor Bolts.

## G. Install Overhead Top Beam

1. With assistance on the top beam, put one side of top beam on top of the extension column and connect the top beam to the extension column by bolts, tighten the bolts. Then assemble the connecting bracket. (See Fig. 17)

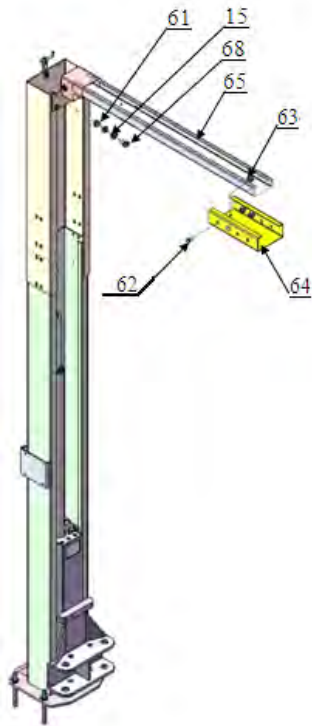
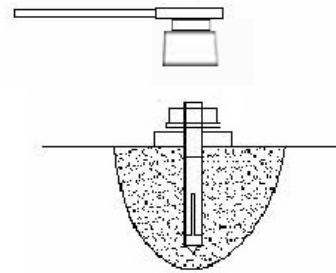
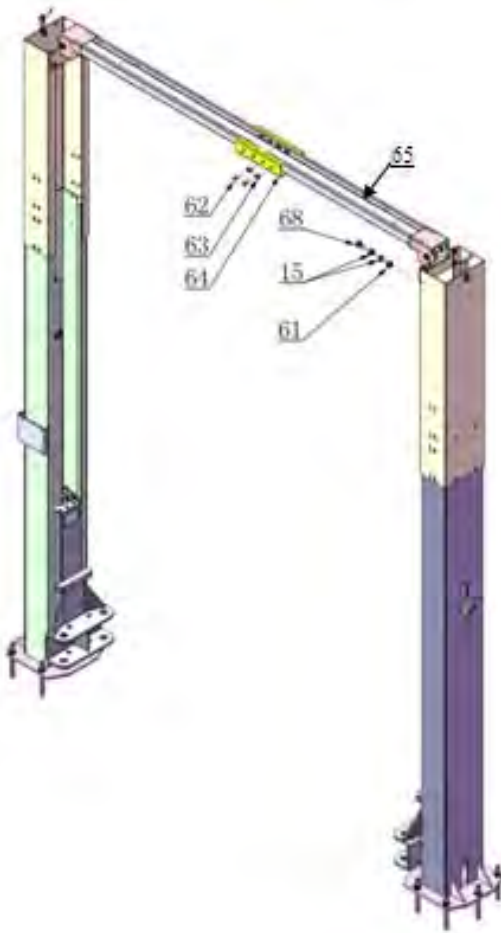


Fig. 17

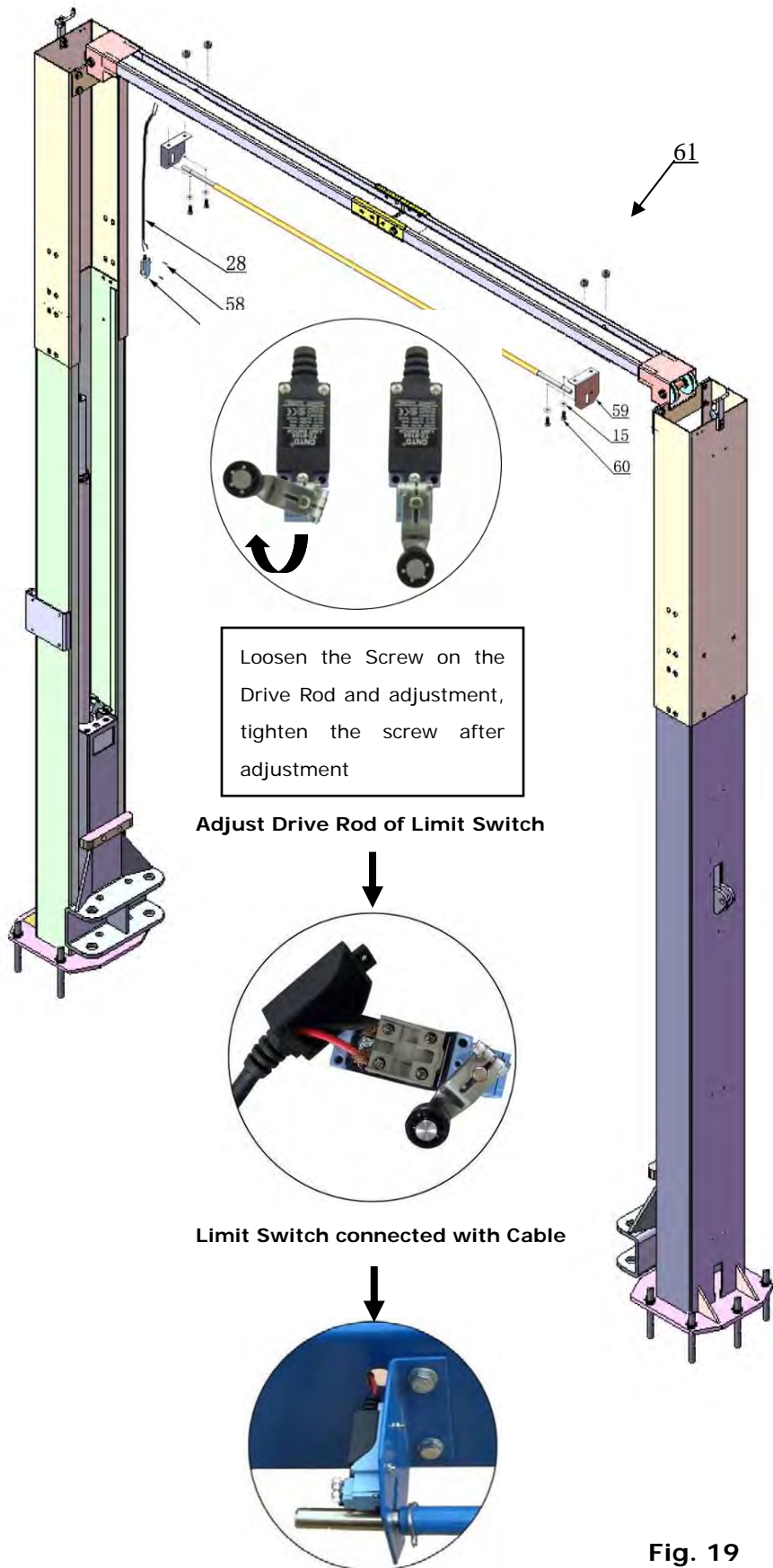
2. Assemble overhead top beam, tighten the post's Anchor Bolts. (See Fig. 18)



Tighten

Fig. 18

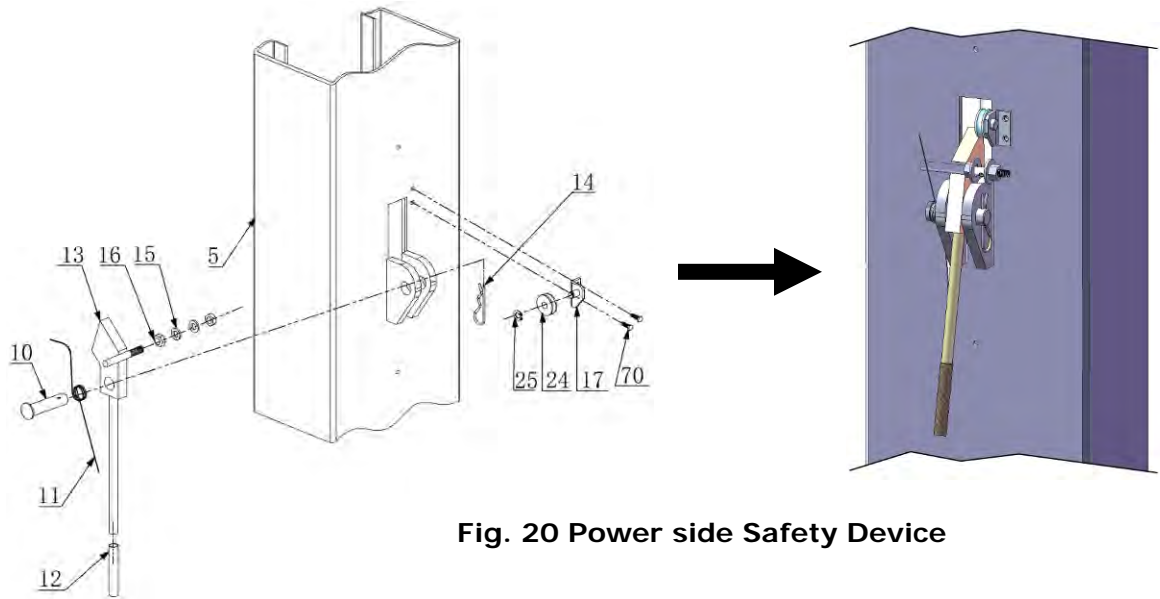
**H. Installing the Control Bar and Limit Switch (See Fig. 19).**



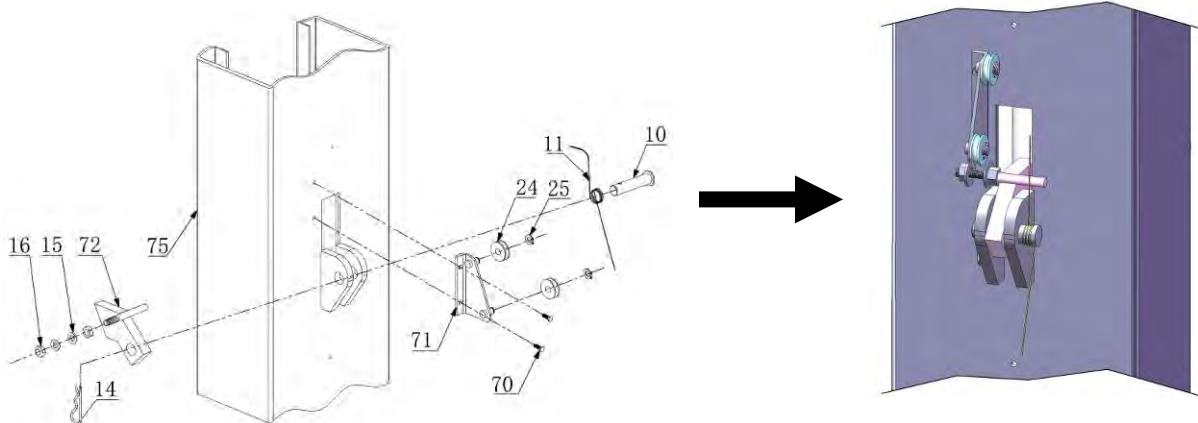
**Fig. 19**

**Installing the Control Bar Bracket and Limit Switch**

**I. Install Safety Device (See Fig. 20 & Fig. 21).**

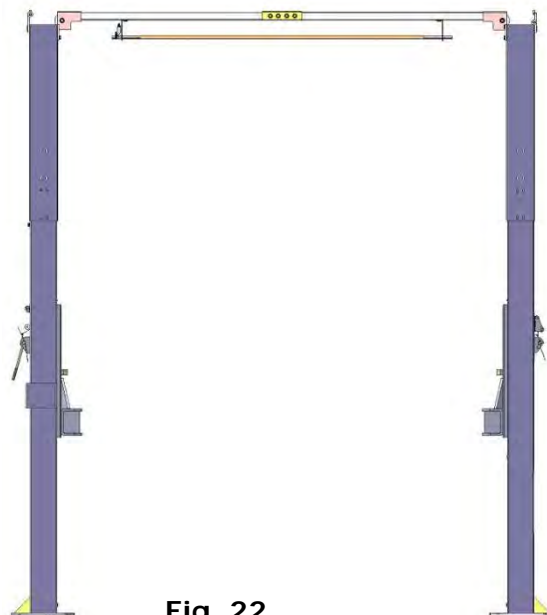


**Fig. 20 Power side Safety Device**



**Fig. 21 Off side Safety Device**

**J. Lift the carriages up to about 3 feet high by hand and rest them on the locks at the same level (See Fig. 22).**



**Fig. 22**

## K. Install Cables

There are two ways to install the cables, low setting and high setting connection.

a. For the low setting cable connection (See Fig. 23).

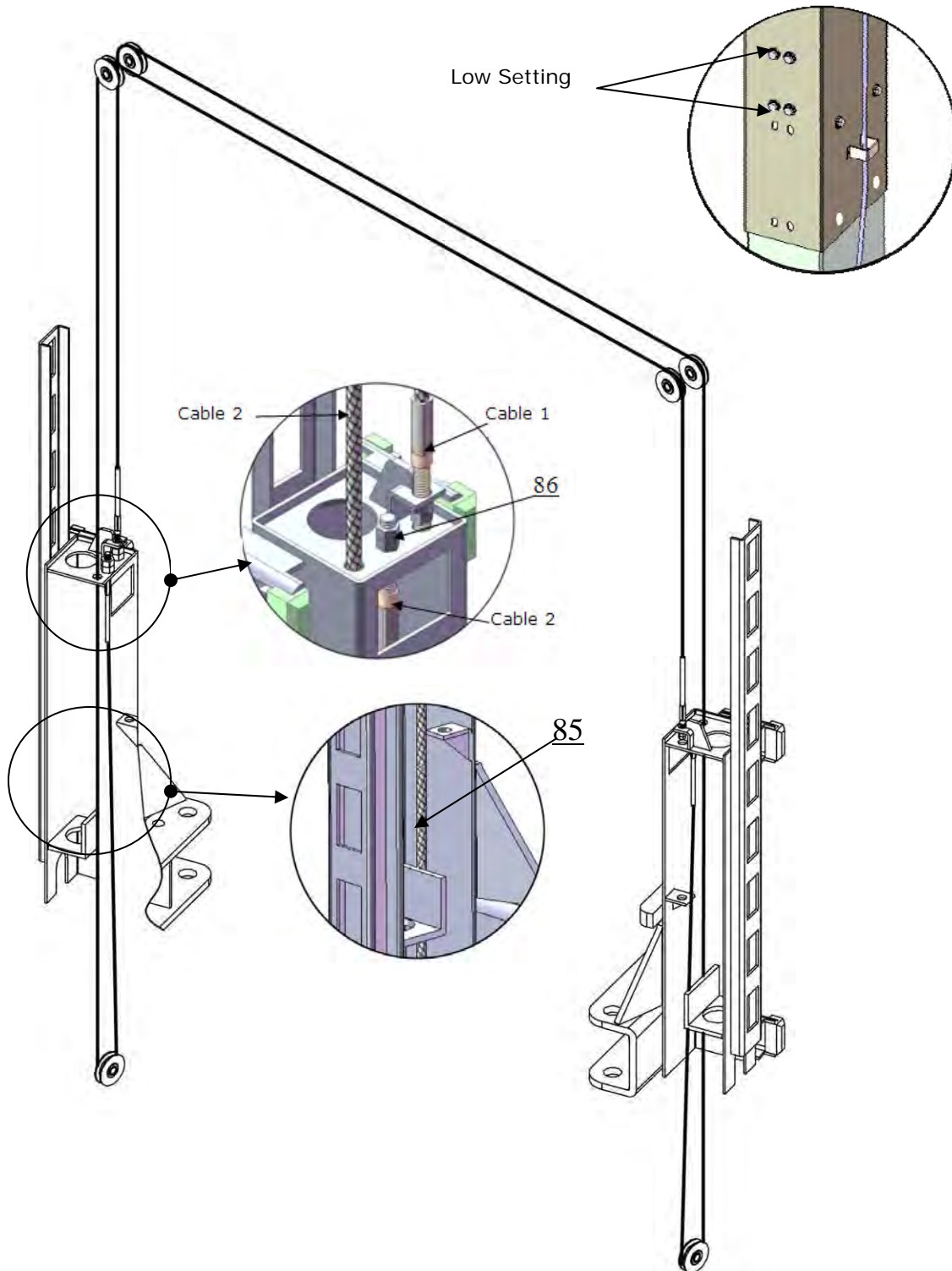


Fig. 23

b. For the high setting cable connection (See Fig. 24).

1. Cable pass through from the bottom of the carriages and are pulled out from the openings of carriages, then install the two Cable Nuts

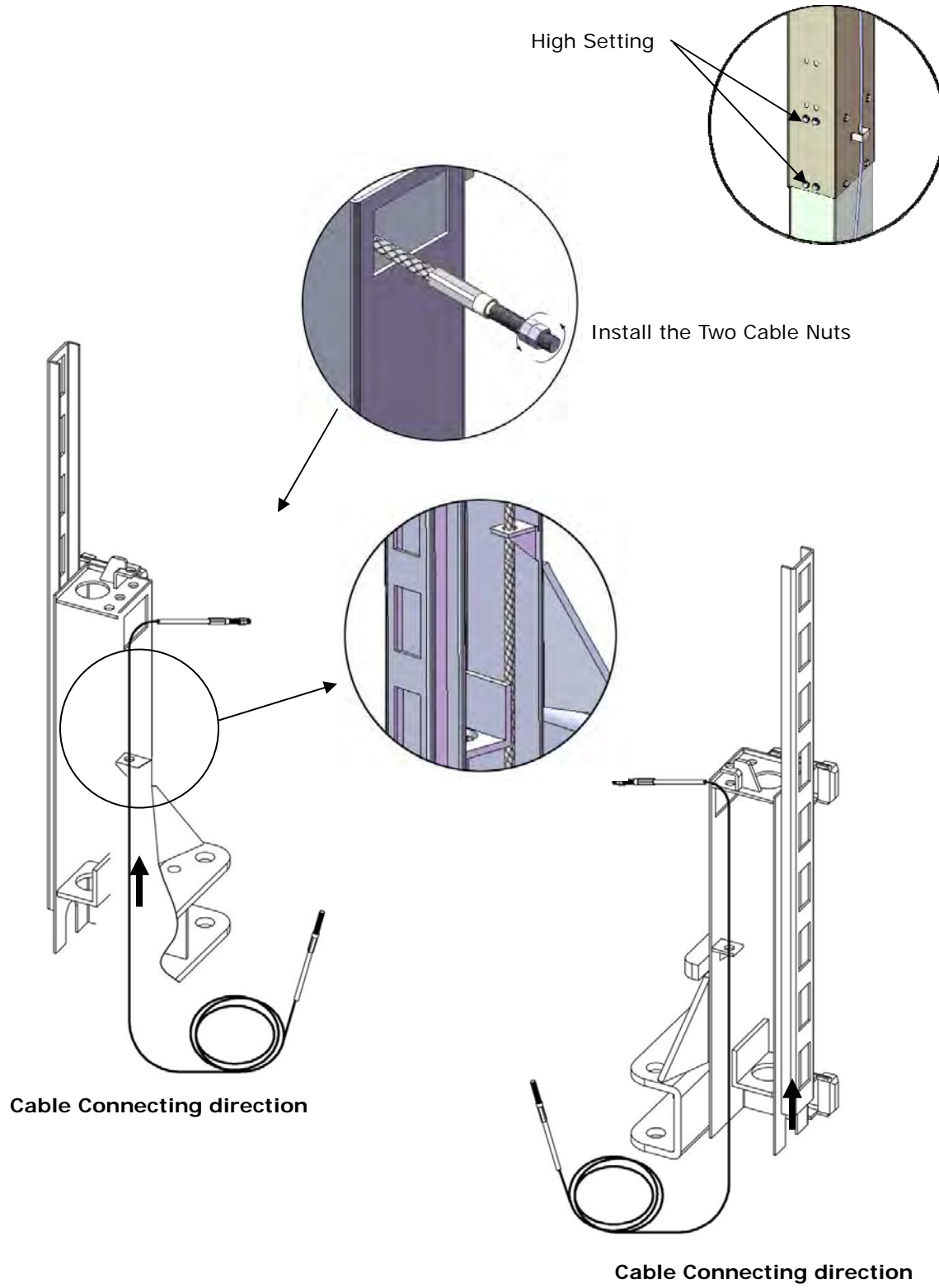


Fig. 24

2. Connecting Cable for high setting (See Fig. 25).

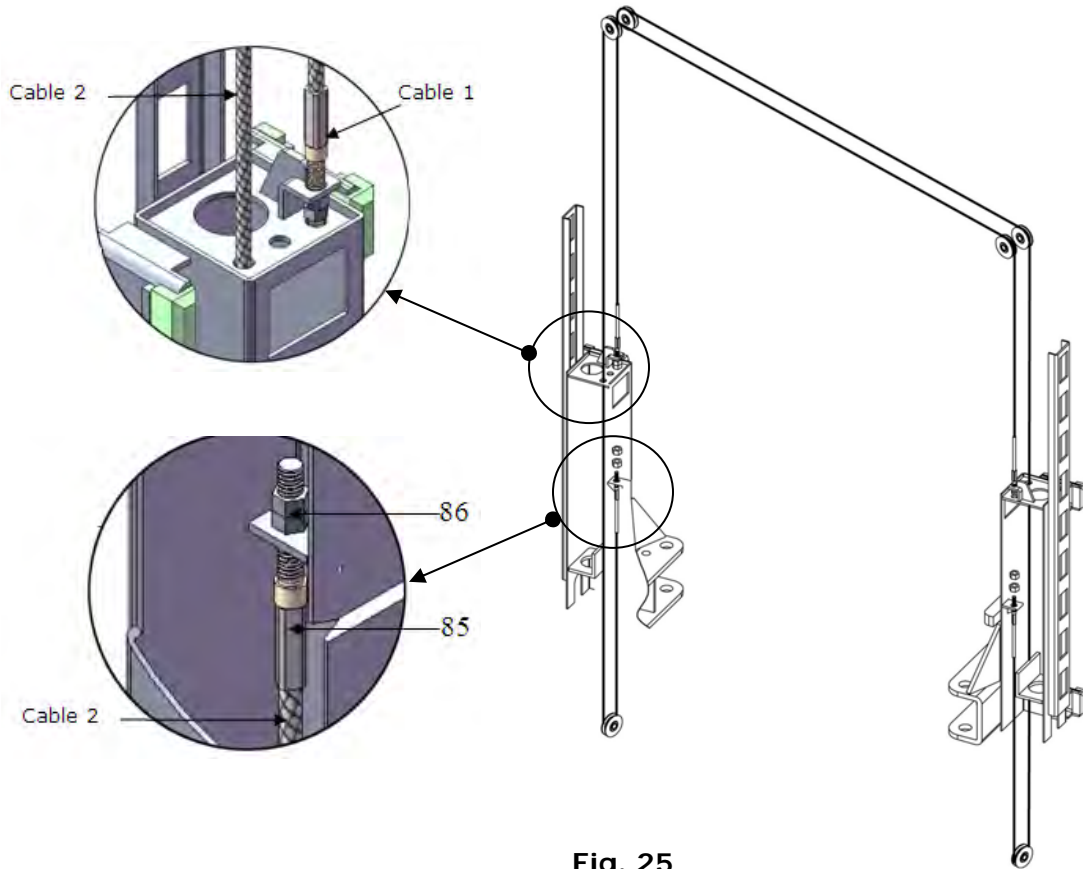


Fig. 25

L. Install Hydraulic Power Unit and Oil Hose Assembly (See Fig. 26).

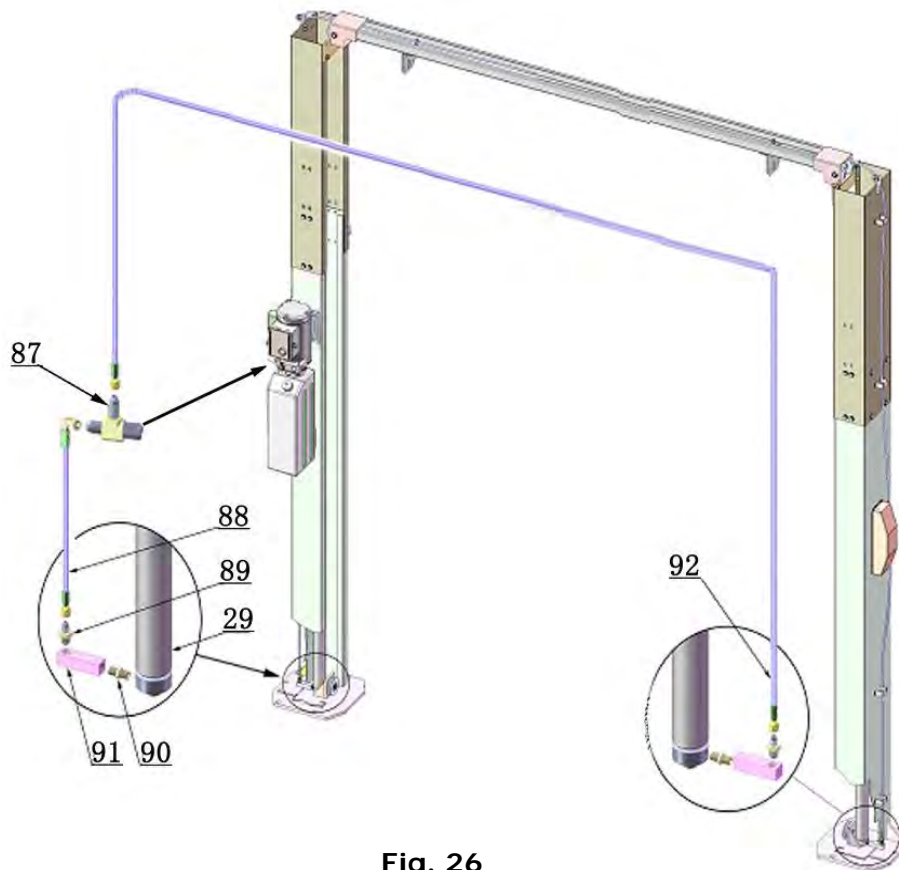
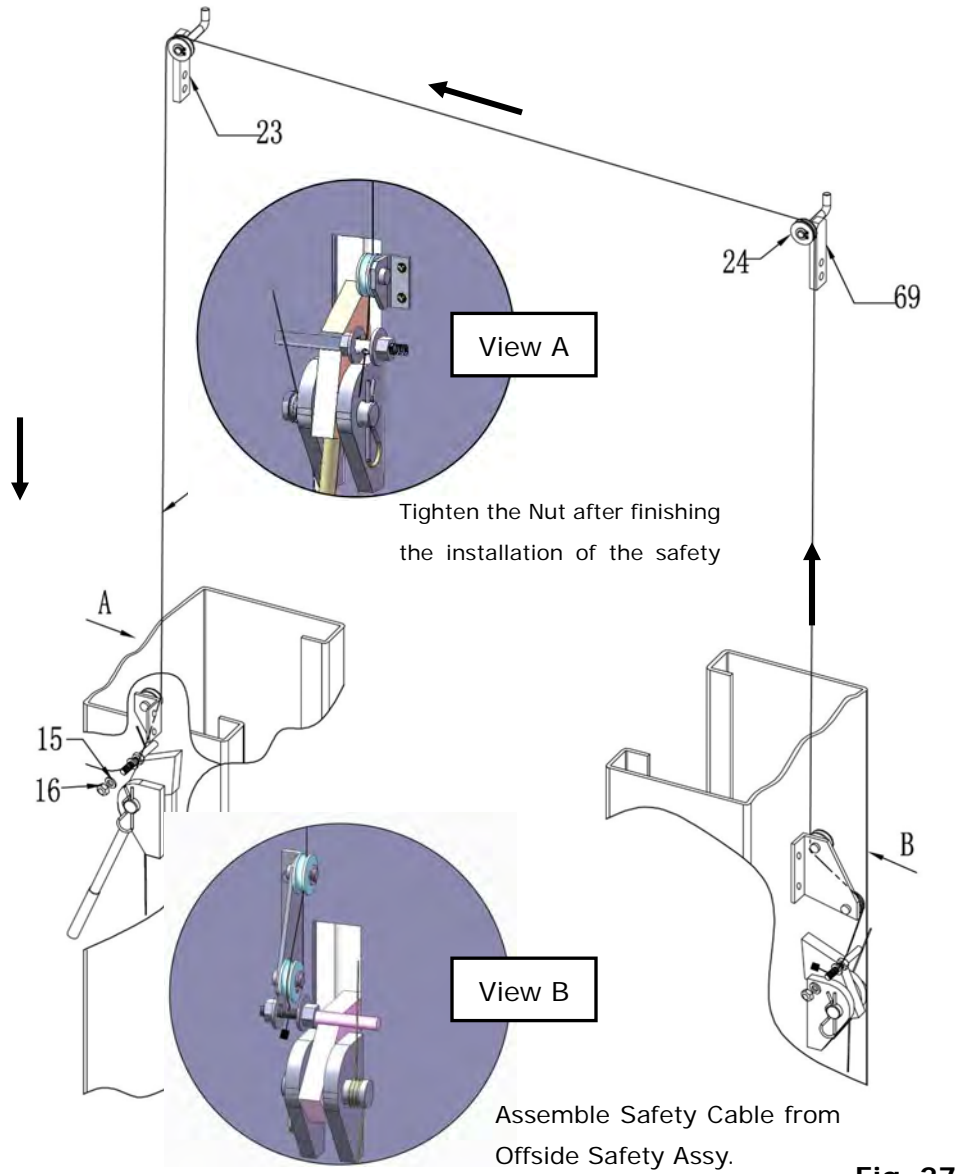


Fig. 26

**M. Install Safety Cable (See Fig. 27)**

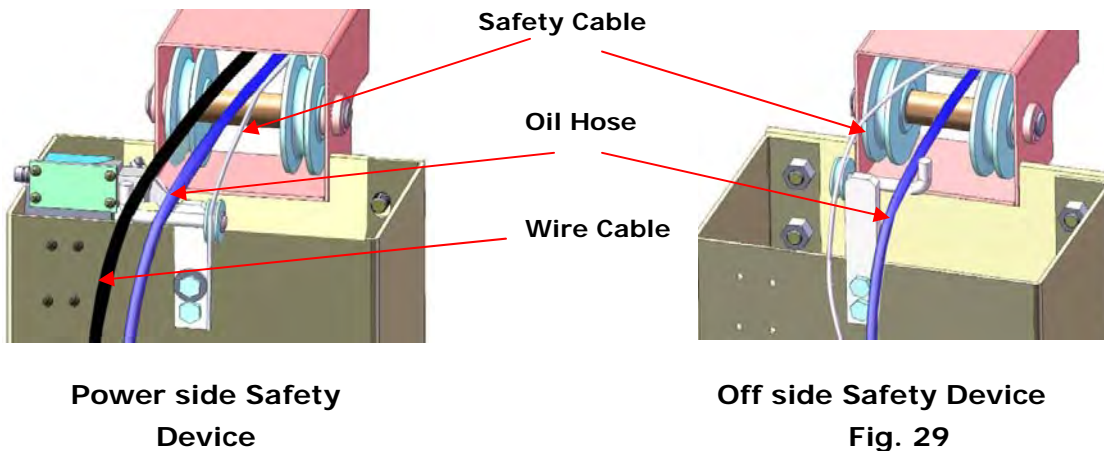


**Fig. 27**

**N. Assembly Cable Retainer**

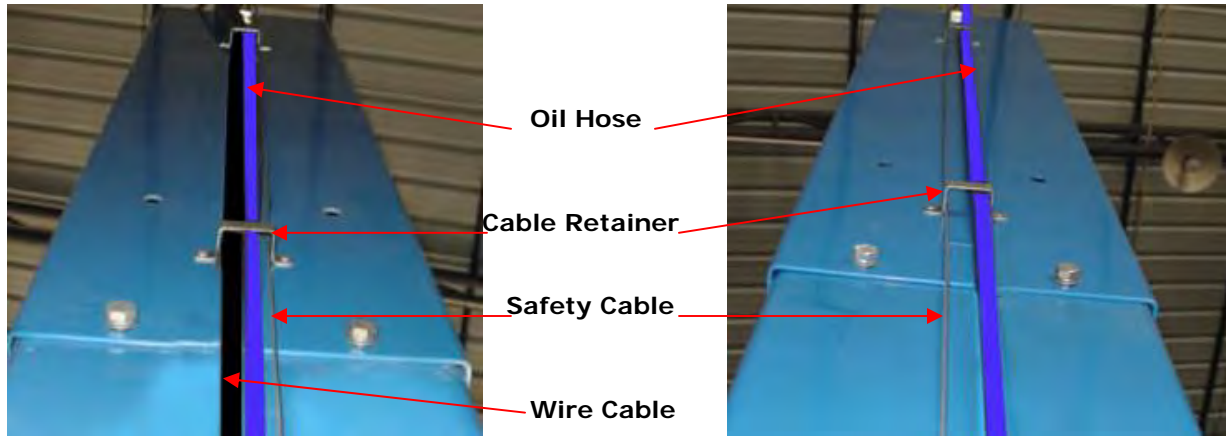
1. Install Oil Hose.

**Note:** Don't cross the oil hose and safety cable together (See Fig. 28 & Fig. 29).



**Fig. 29**

2. Install Safety Cable and Oil Hose. (See Fig. 30 & Fig. 31 & Fig. 32)



Power side Safety Device

Fig. 30

Off side Safety Device

Fig. 31

The Safety Cable can not be installed inside cable clamp on top of Overhead Beam

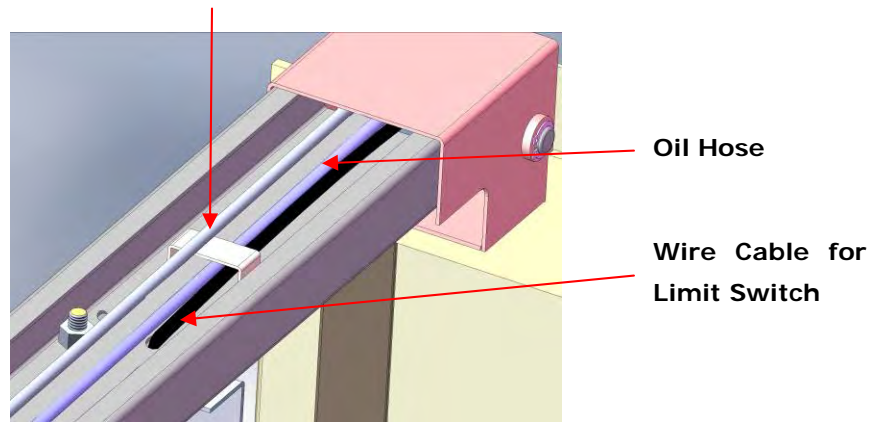


Fig. 32

O. Install Lifting Arms (See Fig. 33).

1. Install the Lifting Arms, adjust the Teeth of Arm Locks assembly so that it meshes with the Gear of Lifting Arm.
2. Tighten all the hydraulic fittings, and fill the Reservoir with Hydraulic Oil.

**Note: In consideration of Power Unit's durability, please use Hydraulic Oil #46 or #32**

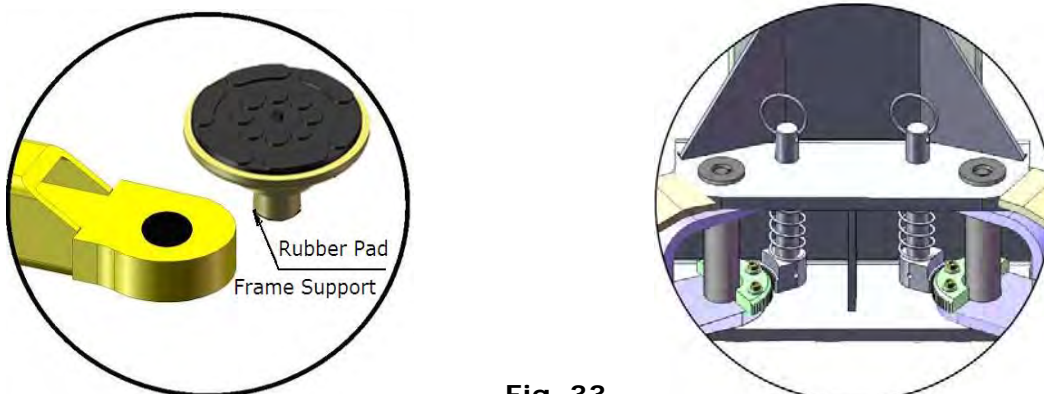


Fig. 33

## P. Install Electrical System

Connect the power according to the data plate on the Power Unit.

**Note: 1. The power wiring must be grounded to avoid electrical shock**

### Single phase motor (See Fig. 34).

1. Connect the two power supply lines (fire wire **L** and zero wire **N**) to terminals on the AC contactor marked **L1, L2**.
2. Connect the two motor wires to terminals of AC contactor marked **T1, T2**.
3. Connect the jumper wire **A2** to **L2** on the AC contactor.
4. Connect the Limit Switch: Remove the line on Connecting Terminal **4#** of control button and **A1** of AC contactor first (See Fig. 35), connect wire **12#** Limit Switch with Terminal **4#** of control button and connect wire **11#** with terminals **A1** of AC contactor. (See Fig. 36)

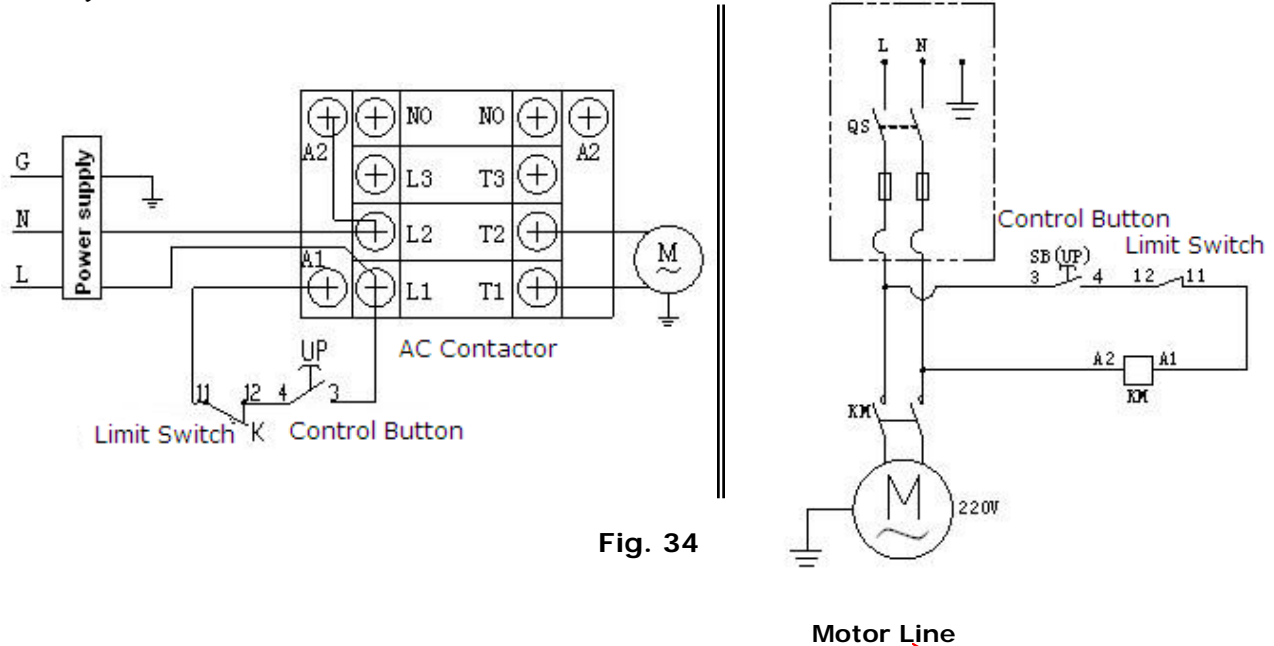


Fig. 34

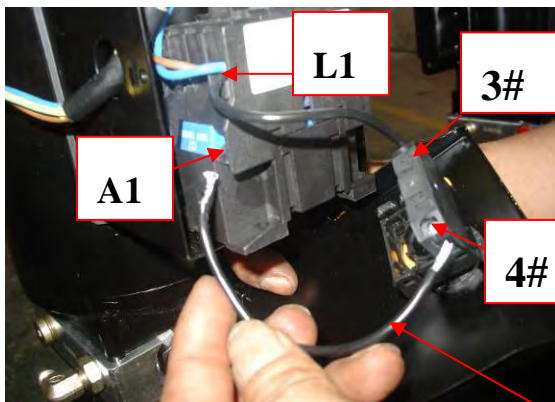


Fig. 35

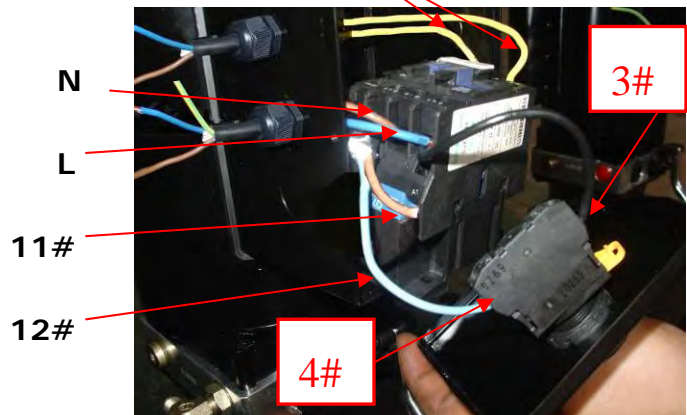


Fig. 36

Remove this line before connecting the Limit Switch

# IV. EXPLODED VIEW

## Model OH-9000

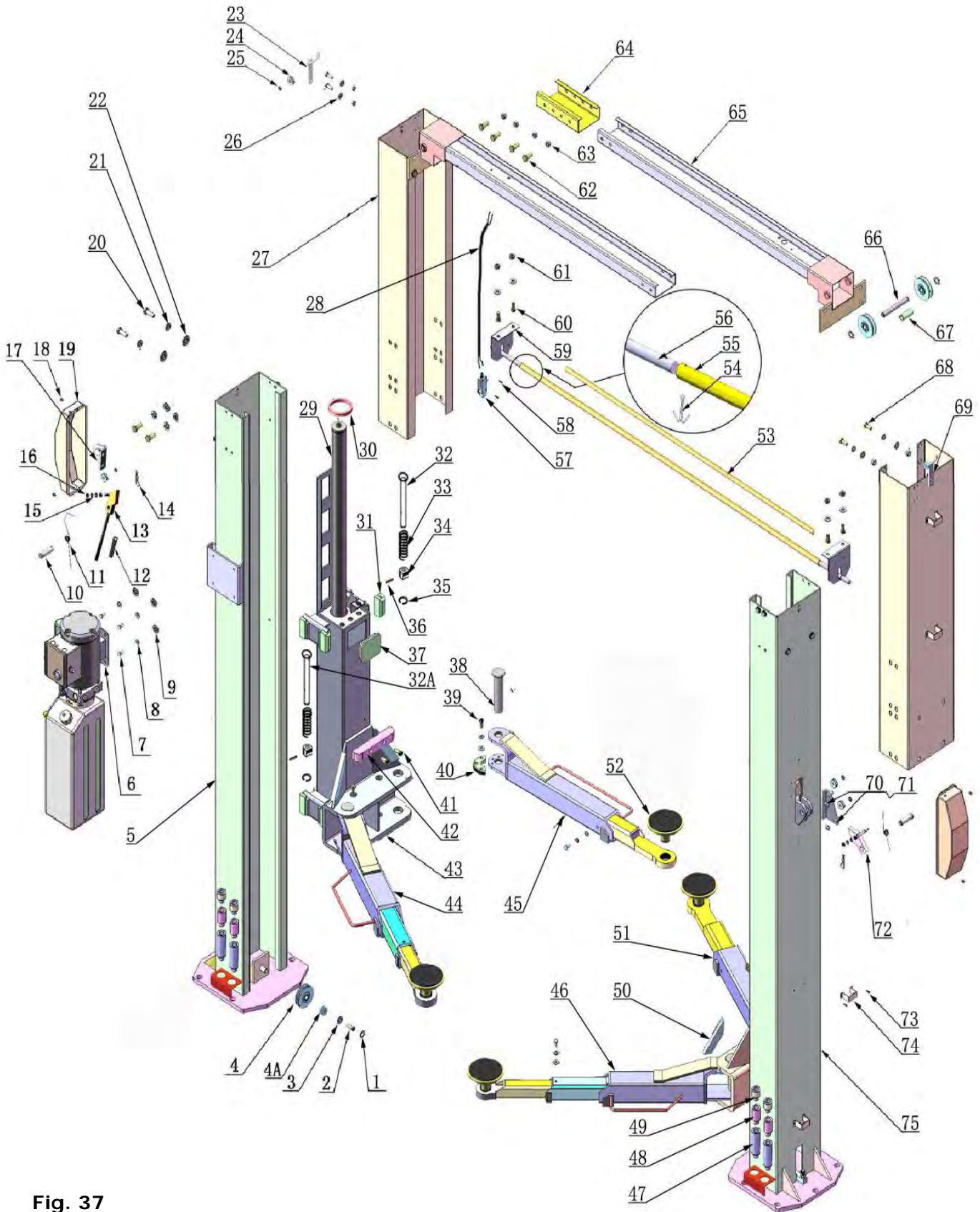


Fig. 37

### Cylinders

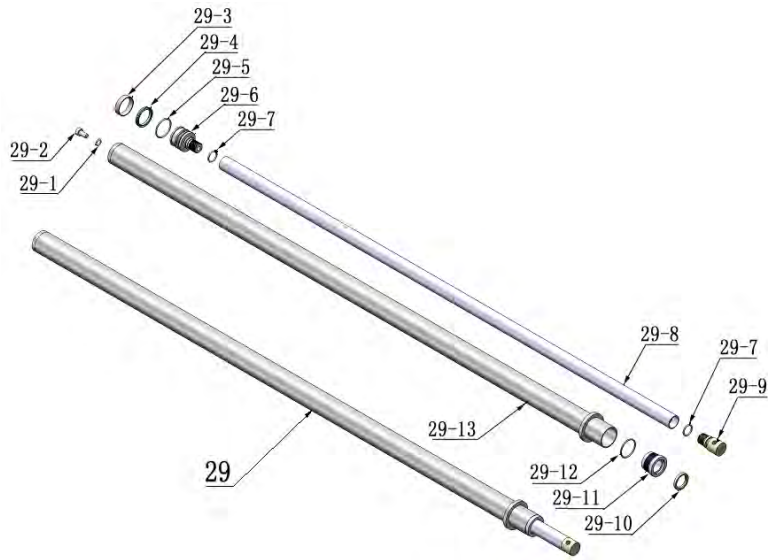


Fig. 38

### Hydraulic Power Unit

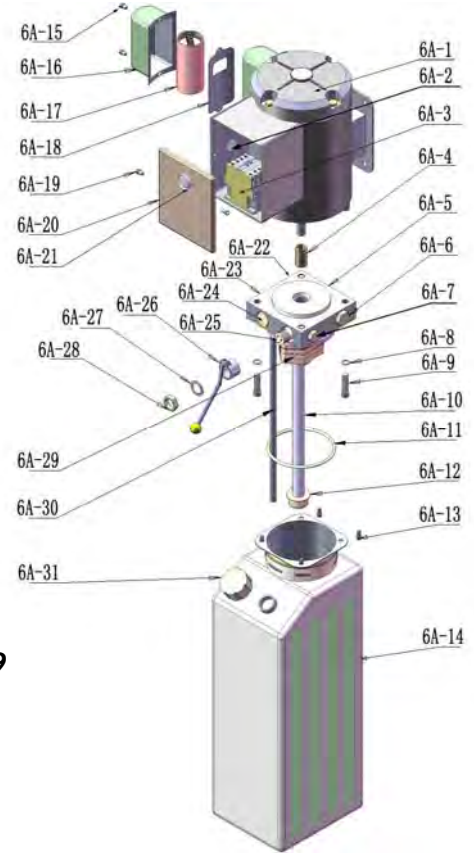


Fig. 39

### Illustration of Hydraulic Valve for hydraulic power unit



Fig. 40

## V. TEST RUN

### 1. Adjust Cables (See Fig. 41)

Use vise grips to hold the cable fitting, meanwhile  
Use a ratchet to tighten the cable nut.  
Make sure the two cables have the same tension  
so the safety locks click at the same time.  
Place the plastic cover on the carriage.

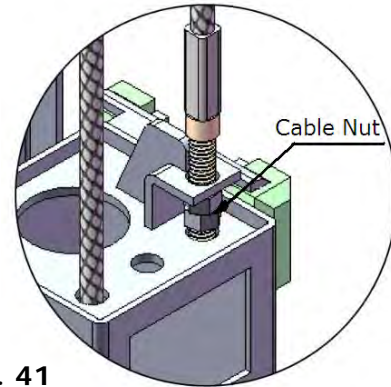


Fig. 41

**If the carriage does not synchronize when lifting, re-adjust**

**(See Fig. 42 & Fig. 43)**

- Press **UP** button to lift the carriages up to the first safety lock. If one carriage is higher than the safety lock, lower until both carriages are on the safety locks.
- Loosen the cable by adjusting the lock nuts, release the safety lock on the side that the carriage is in higher position. The other side safety lock is in engaged. Then lower the lift, the side with carriage in lower position would be locked, and the other side is unlocked. Continue to lower the lift until both carriages are at the same level.
- Tighten the cable nut on the cables, and tighten the safety cable with the lock nuts, try to lift again, adjust the cables if needed.

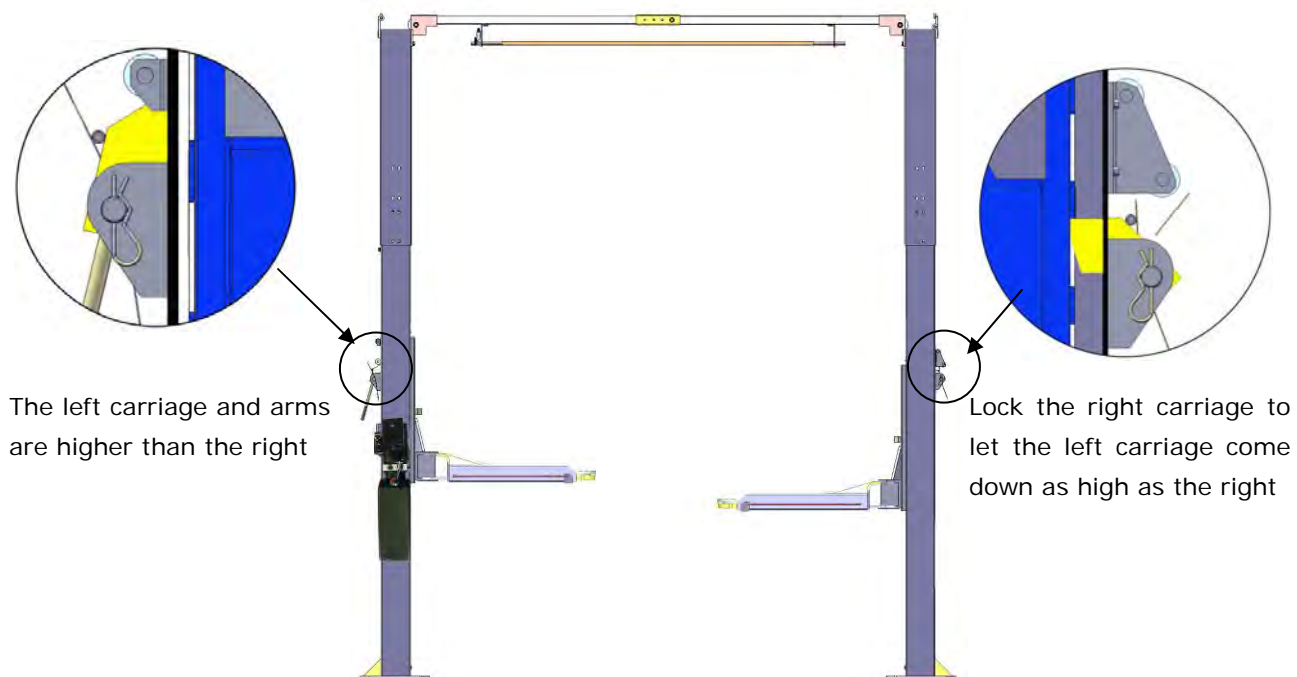
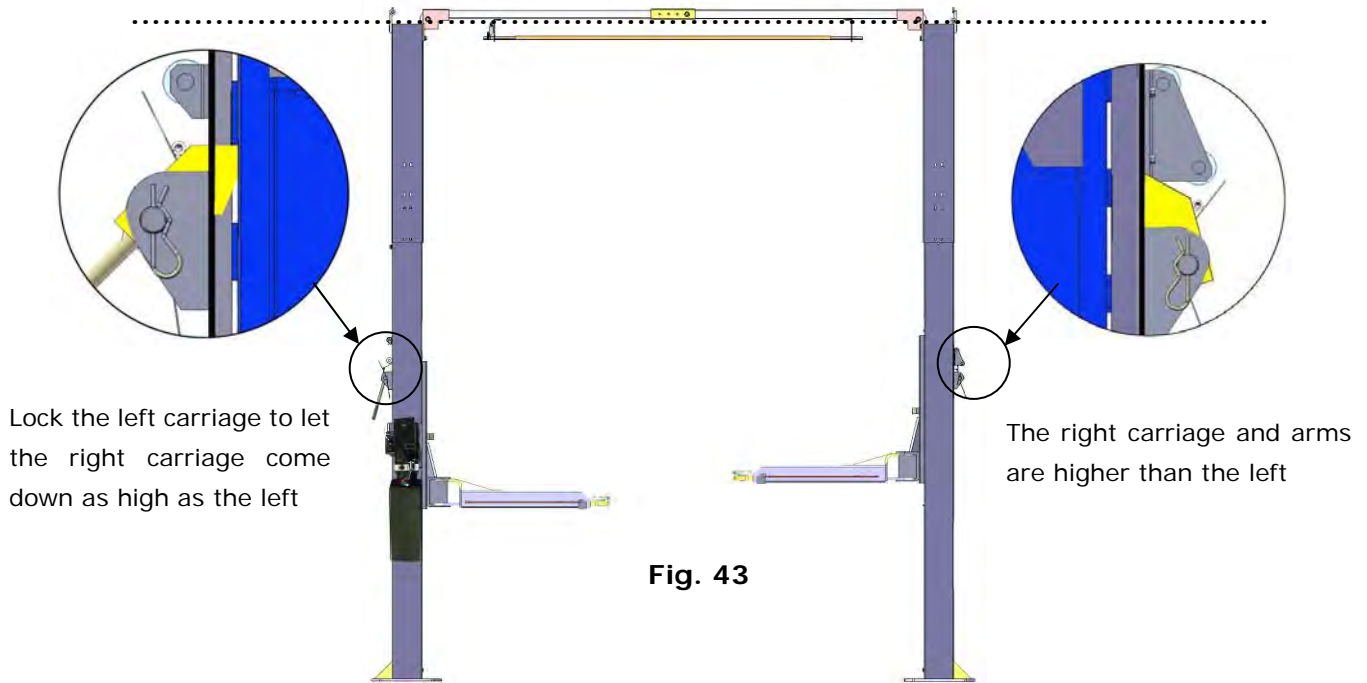


Fig. 42

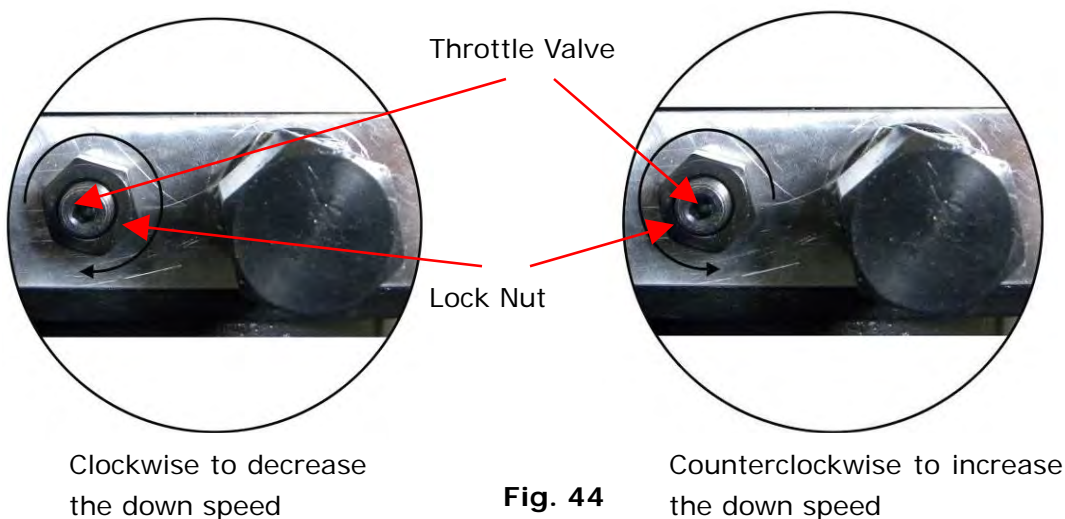


## 2. Adjust Safety Cable

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 always works properly.

## 3. Adjust the lower speed

You can adjust the lower speed of the lift if needed: Loosen the Lock 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 Lock Nut after the lower speed adjustment has been done.



#### 4. Test with load

After finishing the above adjustment, test the lift with load. Run the lift in low position several times first, make sure the carriages can raise and lower at the same speed. Does Safety Device lock at the same time? Then test run the lift to the top.

**NOTE: The lift may vibrate on the way down with a load. There may be air trapped in the cylinders. This will cease after repeated up and down cycles.**

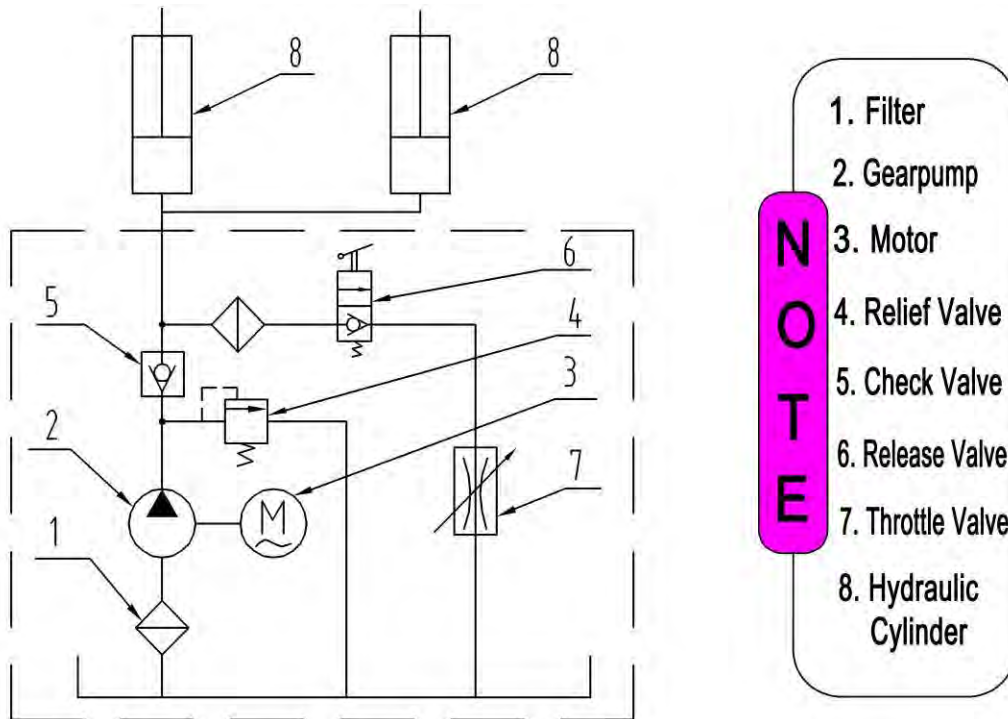


Fig. 45 Hydraulic System

## VI. OPERATION INSTRUCTIONS

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

### **To lift vehicle**

1. Keep work area near the lift clean
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 make contact at the same time on the vehicle's lifting points. Refer manufacturers recommended lifting points**

7. Press the **UP** button until the lift pads contact the underside of vehicle. Check 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 lock. The vehicle is ready to repair.

### **To lower vehicle**

1. Be sure there are no obstructions under or around lift;
2. Press the button of **UP** to raise the vehicle slightly, and then release the safety device, lower vehicle by pushing the 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 100-150 torque pounds
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 (lightly) 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 plumb.
4. Check Rubber Pads and replace as necessary.
5. Check Safety device and make sure proper condition.

## . 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>
Does not lower	<ol style="list-style-type: none"> <li>1. Safety device are activated</li> <li>2. Release Valve damaged</li> <li>3. Safety cable broken</li> <li>4. Oil system is blocked</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. Parts List for Model 209C and 209CH (See Fig. 37 & Fig. 4)**

Item.	Part No.	Description	Qty.		Note
			209C	209CH	
1	206019	Snap Ring	6	6	
2	206058	Bolt	2	2	
3	206059	Washer	2	2	
4	206020	Pulley	6	6	
4A	2170120	Bronze Bush For Pulley	6	6	
5	206001	Power side Inner Post	1	1	
6	209002	Hydraulic Power Unit	1	1	
7	209003	Hex Bolt	8	8	
8	209004	Rubber Ring	4	4	
9	209005	Nylon Lock Nut	8	8	
10	206002	Safety Pin	2	2	
11	209007	Safety Spring	2	2	
12	206003	Handle Protective Plastic cushion	1	1	
13	206004	Power side Safety Assy.	1	1	
14	209012	Hair Pin	2	2	
15	206006	Washer	24	24	
16	206023A	Hex Nut	4	4	
17	206004A	Safety Pulley Bracket	1	1	
18	209009	Cup Head Bolt	4	4	
19	206005	Safety Cover	2	2	
20	209038	Hex Bolt	26	26	
21	209039	Lock Washer	38	38	
22	209022	Washer	38	38	
23	206010	Safety Pulley Bracket	1	1	
24	206009	Plastic Pulley	5	5	
25	209010	Snap Ring	5	5	
26	209033	Washer	4	4	
27	206008	Outer Post	2	0	
	206008A		0	2	
28	206015A	Wire Cable	1	0	
	206015B		0	1	
29	217056	Hydraulic Cylinder	2	2	
30	209111	Protective Ring For Cylinder	2	2	
31	206044	Slider	16	16	
32	206046A	Arm Lock Bar	2	2	

Item.	Part No.	Description	Qty.		Note
			209C	209CH	
32A	206046B	Arm Lock Bar	2	2	
33	206050A	Spring	4	4	
34	217044	Teeth	4	4	
35	206032	Snap Ring	4	4	
36	206036	Hair Pin	4	4	
37	209016	Carriage Plastic Cover	2	2	
38	217047	Lifting Arm Pin	4	4	
39	206048	Socket Bolt	12	12	
40	206049	Gear	4	4	
41	206046	Self-tapping Screw	4	4	
42	206045	Protective Rubber	2	2	
43	206052A	Lifting Head	2	2	
44	206075	Lifting Arm – Front Right (drop-in)	1	1	
45	206076	Lifting Arm – Rear Right (drop-in)	1	1	
46	206077	Lifting Arm – Front Left (drop-in)	1	1	
47	209053	Stackable Adapter (6")	4	4	
48	209052	Stackable Adapter (3")	4	4	
49	209051	Stackable Adapter (1.5")	4	4	
50	206072	Protective Rubber Set	4	4	
51	206078	Lifting Arm – Rear Left (drop-in)	1	1	
52	680030	Rubber Pad Frame Support	4	4	
53	206025A	Foam Cushion	1	1	
54	201005	Split Pin	2	2	
55	206025	Control Bar	1	1	
56	206025C	Connecting Pin for Control Bar	2	2	
57	206013	Limit Switch	1	1	
58	206011	Cup Head Bolt	2	2	
59	206042	Control Bar Support Bracket	2	2	
60	206041	Hex Bolt	4	4	
61	206023	Nylon Lock Nut	12	12	
62	206017	Hex Bolt	8	8	
63	209056	Nylon Lock Nut	8	8	
64	206016	Connecting Bracket	1	1	
65	206018	Top Beam W/Bracket	2	2	
66	206021	Pin For Pulley	2	2	
67	206022	Top Pulley Tube	2	2	

Item.	Part No.	Description	Qty.		Note
			209C	209CH	
68	206024	Hex Bolt	8	8	
69	206010A	Safety Pulley Bracket	1	1	
70	206008A	Hex Bolt	4	4	
71	206008B	Safety Pulley Bracket	1	1	
72	206026	Offside Safety Assy.	1	1	
73	206028	Cup Head Bolt	20	20	
74	206029	Retainer	10	10	
75	206030	Offside Inner Post	1	1	
76	209059	Anchor Bolts	10	10	
<b>Optional Arms With Screwed Rubber Pads (See Fig. 37)</b>					
77	206037A	Lifting Arm – Rear Right (screw-in)	1	1	
78	206053A	Lifting Arm – Front Right (screw-in)	1	1	
79	206031	Inner Screw Assy.	4	4	
80	206032	Snap Ring	4	4	
81	206034	Outer Screw	4	4	
82	206033	Snap Ring	8	8	
83	206055A	Lifting Arm – Front Left (screw-in)	1	1	
84	206039A	Lifting Arm – Rear Left (screw-in)	1	1	
<b>Parts For Oil Hose, Fitting &amp; Cable (See Fig. 23, Fig. 24, Fig. 25, Fig. 26)</b>					
85	206064A	Cable	2	0	
	206064B		0	2	
86	209066	Cable Nut	8	8	
87	206073	T- Fitting For Power Unit	1	1	
88	206074	Hose	1	1	
89	209064	Straight Fitting	2	2	
90	206062	Straight Fitting	2	2	
91	233009	Pipe Fitting	2	2	
92	206061A	Hose	1	0	
	206061B		0	1	
93	206065	Safety Cable	1	0	
	206065A		0	1	
<b>Parts For Hydraulic Cylinder (See Fig. 38)</b>					
29-1	209069	O-Ring	2	2	
29-2	209070	Bleeding Plug	2	2	
29-3	209071	Support Ring	2	2	
29-4	209072	Y-Ring	2	2	

Item.	Part No.	Description	Qty.		Note
			209C	209CH	
29-5	209073	O-Ring	2	2	
29-6	209074	Piston	2	2	
29-7	209075	O-Ring	2	2	
29-8	209076A	Piston Rod	2	2	
29-9	209077	Piston Rod Fitting	2	2	
29-10	209078	Dust Ring	2	2	
29-11	209079	Head Cap	2	2	
29-12	209080	O-Ring	2	2	
29-13	209081A	Bore Weldment	2	2	
<b>Parts For Power Unit (See Fig. 39)</b>					
6A-1	209082A	Motor	1	1	
6A-2	209109	Protective Ring	1	1	
6A-3	209112	AC contactor	1	1	
6A-4	209083A	Motor Connecting Shaft	1	1	
6A-5	209084A	Valve Body	1	1	
6A-6	209085A	Relief Valve	1	1	
6A-7	209113	Throttle valve	1	1	
6A-8	209086A	Spring Washer	4	4	
6A-9	209087A	Socket Bolt	4	4	
6A-10	209088A	Inlet Pipe	1	1	
6A-11	209089A	O-Ring	1	1	
6A-12	209090A	Filter	1	1	
6A-13	209091A	Socket bolt	4	4	
6A-14	209092A	Reservoir	1	1	
6A-15	209093A	Cup Head Bolt With Washer	4	4	
6A-16	209094A	Cover of Capacitor	2	2	
6A-17	209095A	Capacitor	2	2	
6A-18	209096A	Rubber Gasket	2	2	
6A-19	209097A	Cup Head Bolt With Washer	2	2	
6A-20	209098A	Cover of Motor Terminal Box	1	1	
6A-21	209099A	Push Button	1	1	
6A-22	209110A	Oil Return Port	1	1	
6A-23	209100A	Oil Outlet	1	1	
6A-24	209105A	Check Valve	1	1	
6A-25	209101A	Release Valve	1	1	
6A-26	209102A	Handle For Release Valve	1	1	
6A-27	209103A	Washer	1	1	
6A-28	209104A	Hex Nut	1	1	
6A-29	209106A	Gear Pump	1	1	
6A-30	209107A	Oil Return Pipe	1	1	
6A-31	209108A	Filler Cap	1	1	