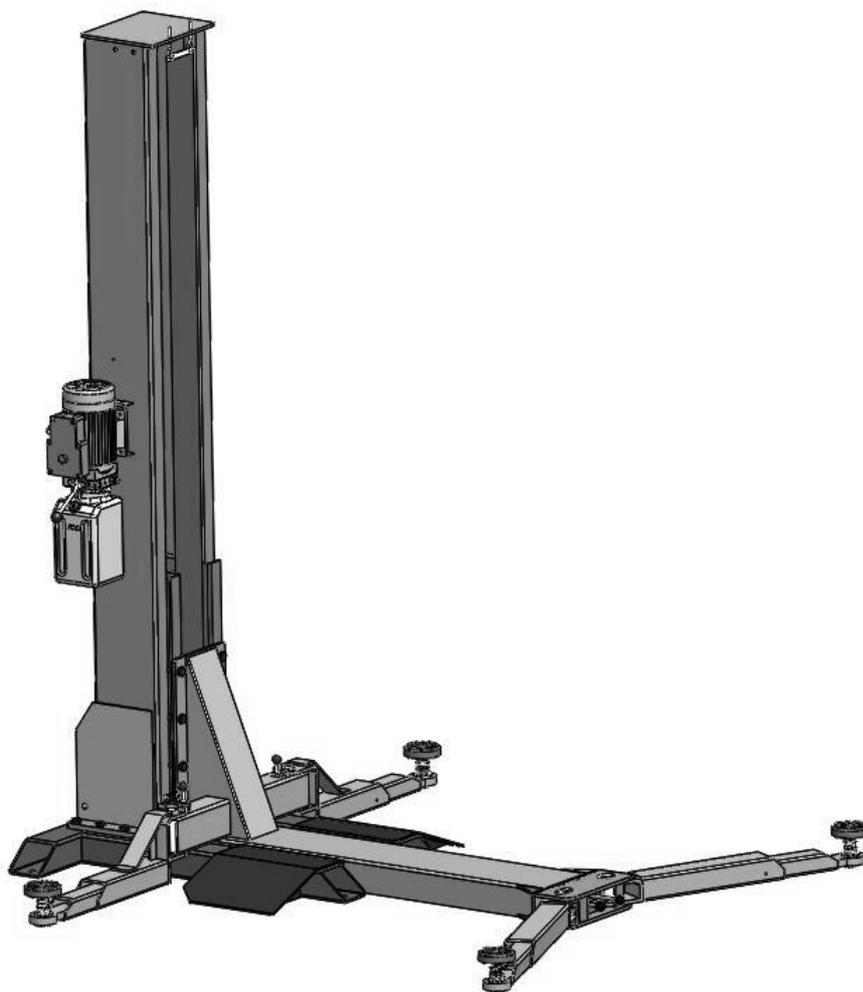


AMGO  [®] **Hydraulics**

Installation And Service Manual



SINGLE POST LIFT
Model:SL-6

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I. PRODUCT FEATURES AND SPECIFICATIONS

CHAIN-DRIVE SINGLE POST MODEL SL-6 FEATURES

- Compact design.
- Hydraulic cylinders, designed and made on ANSI standard, utilizing NOK oil seal in cylinder.
- Self-lubricating UHMW Polyethylene sliders and bronze bush.
- Manual release safety lock, two-stage lock system
- Super-symmetric arms design with 3-stages front arms and 2-stages rear arms.
- Stackable and screwed type rubber pad.

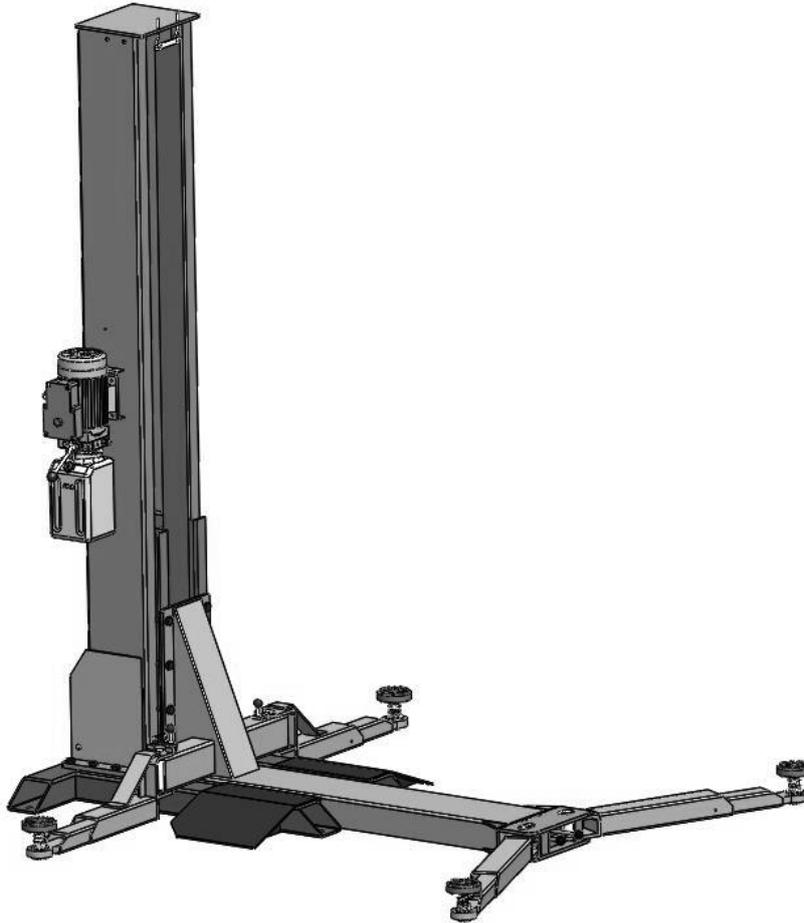


Fig.1

MODEL SL-6 SPECIFICATIONS

Model	Style	Lifting Capacity	Lifting Time	Lifting Height	Overall Height	Overall Width	Minimum Pad Height	Motor
SL-6	Chain-driven	6,000 lbs	32S	71 7/8"-77 1/8"	108 7/8"	80"	4 1/8"-9 1/4"	2.0HP

Arm Swings View

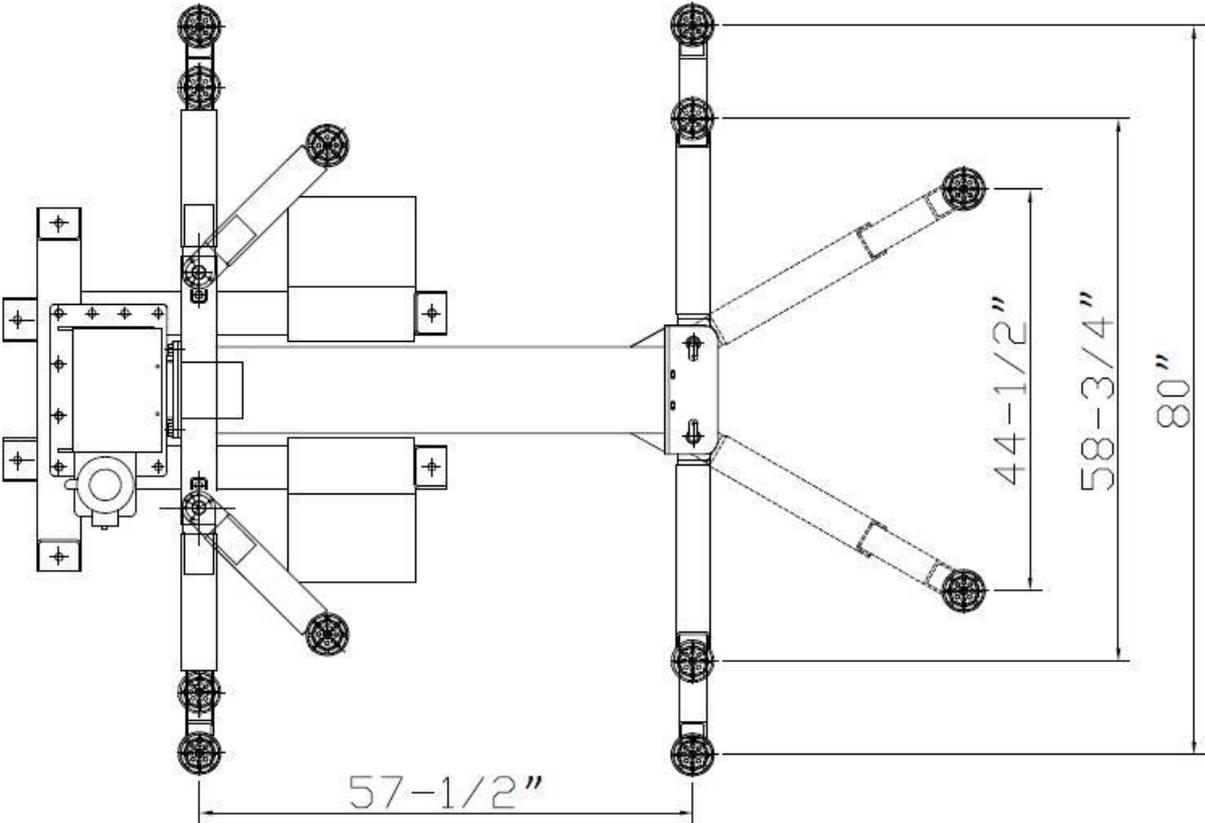


Fig.2

II. INSTALLATION REQUIREMENT

A. TOOLS REQUIRED

- ✓ Rotary Hammer Drill($\Phi 19$)



- ✓ Hammer



- ✓ Level Bar



- ✓ English Spanner(12")



- ✓ Wrench set: (10", 13", 14", 12", 17", 19", 24", 30")



- ✓ Carpenter's Chalk



- ✓ Screw sets



- ✓ Tape Measure(7.5mm)



- ✓ Pliers



- ✓ Socket Head Wrench: (4", 5", 6")



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 4" 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 minimum.
3. Floors must be level and no cracks.

C. POWER SUPPLY

The electrical source must be 2HP minimum. The source cable size must be 2.5mm² and in good condition of contacting with floor.

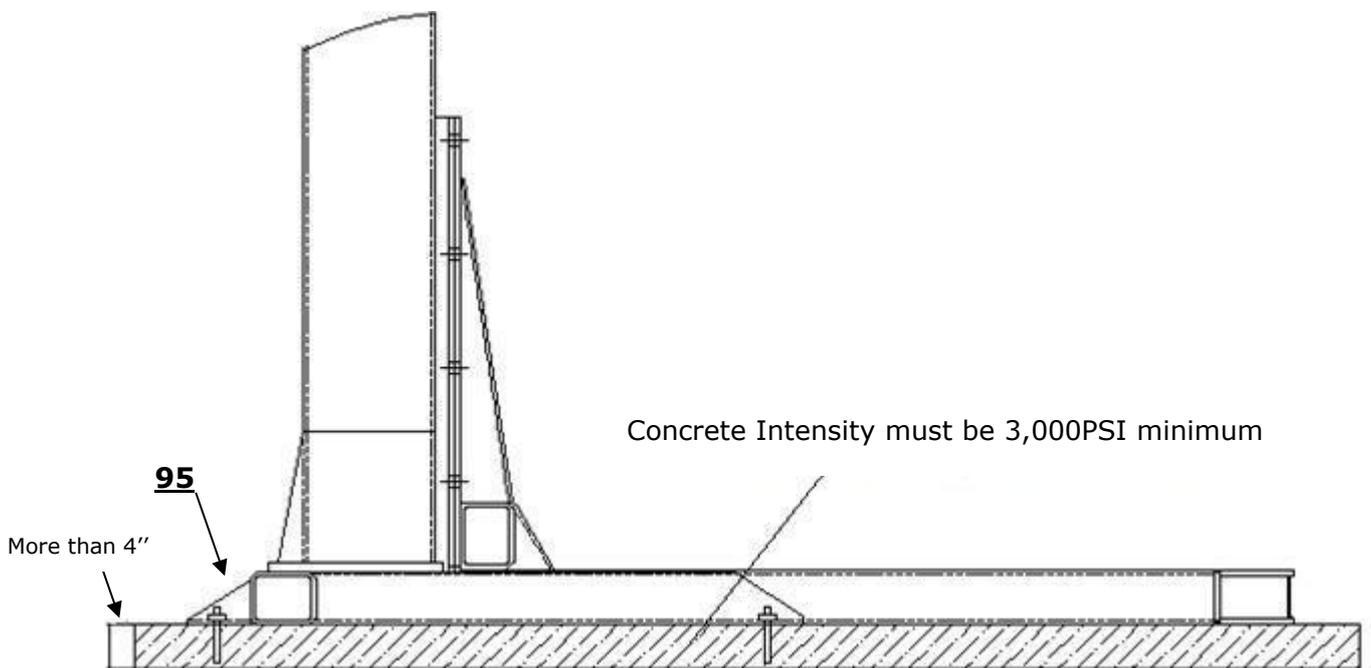


Fig.4

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. Check the parts before assembly

1. Packaged lift and hydraulic power unit (See Fig. 5)

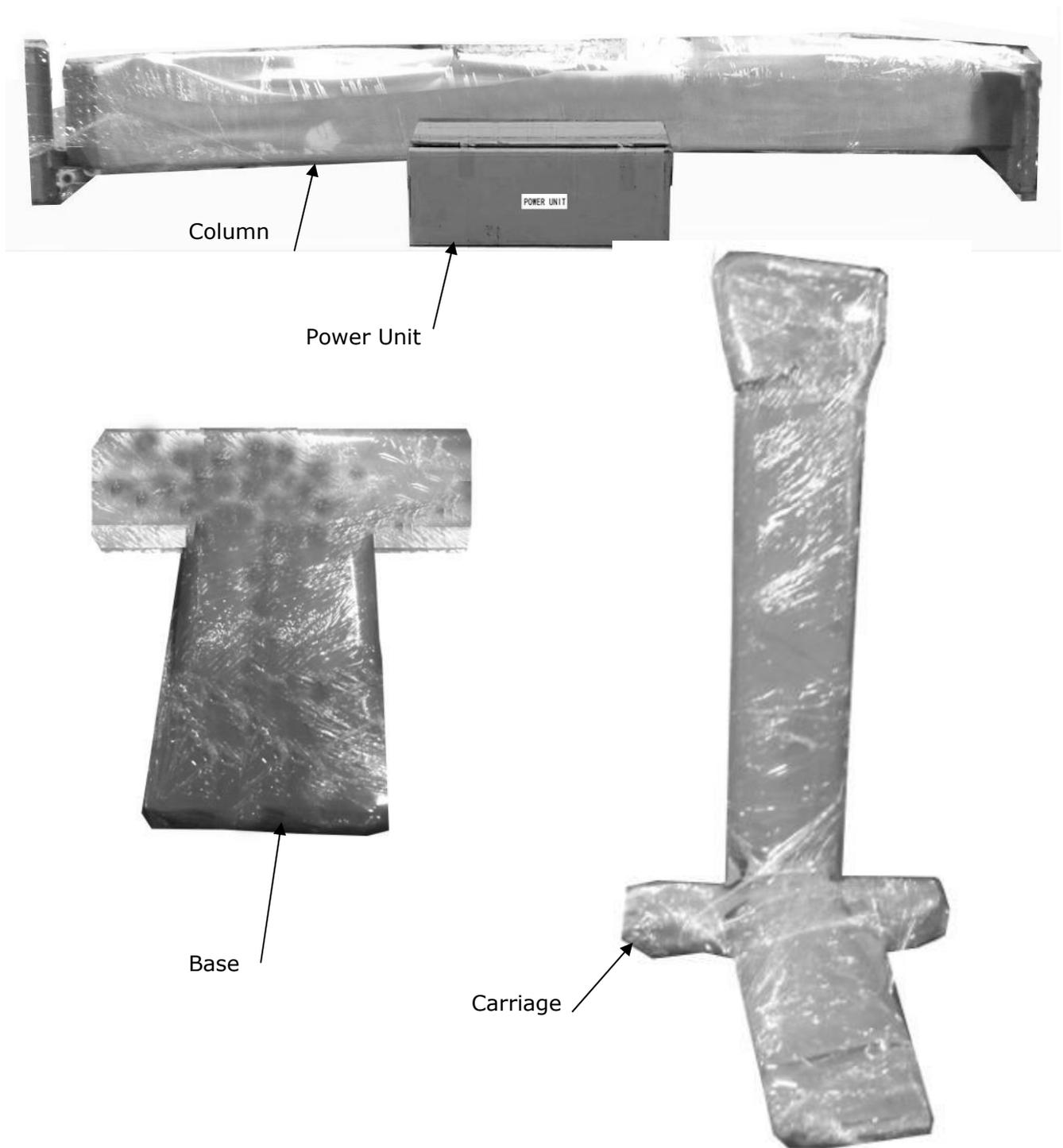


Fig.5

2. Take off the packaging on the machine. Take off the packing rack.
3. Move aside the parts and check the parts according to the shipment parts list(See Fig.6 & 7)

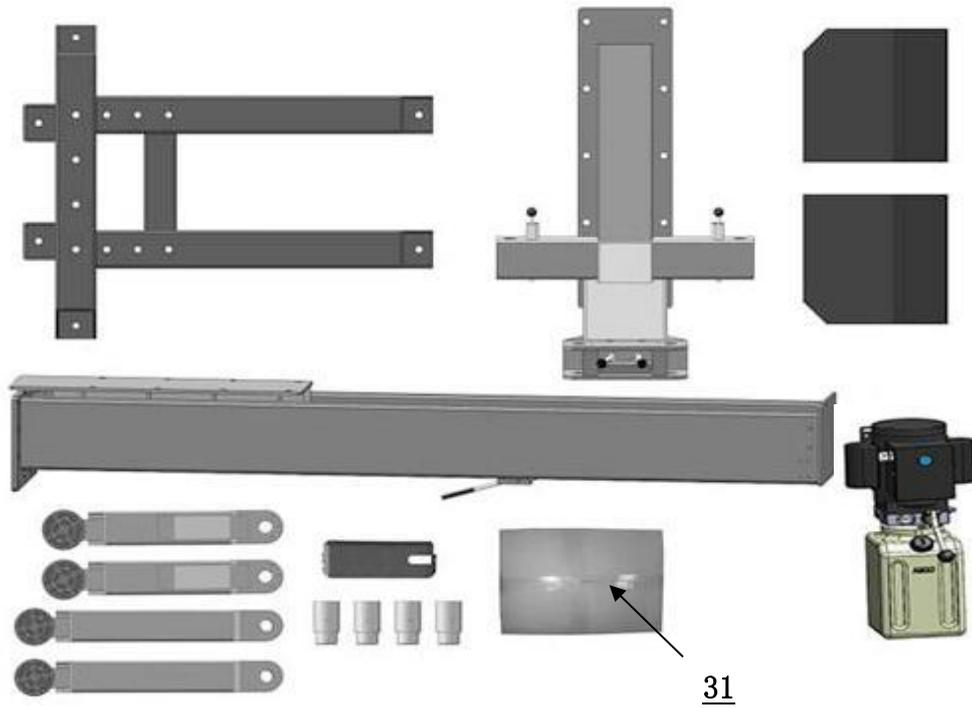


Fig.6



Fig.7

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



Fig.8

C. Lay the base flat to the ground, confirm installation place according to the ground state, the main purpose is to save space. (See Fig.9)

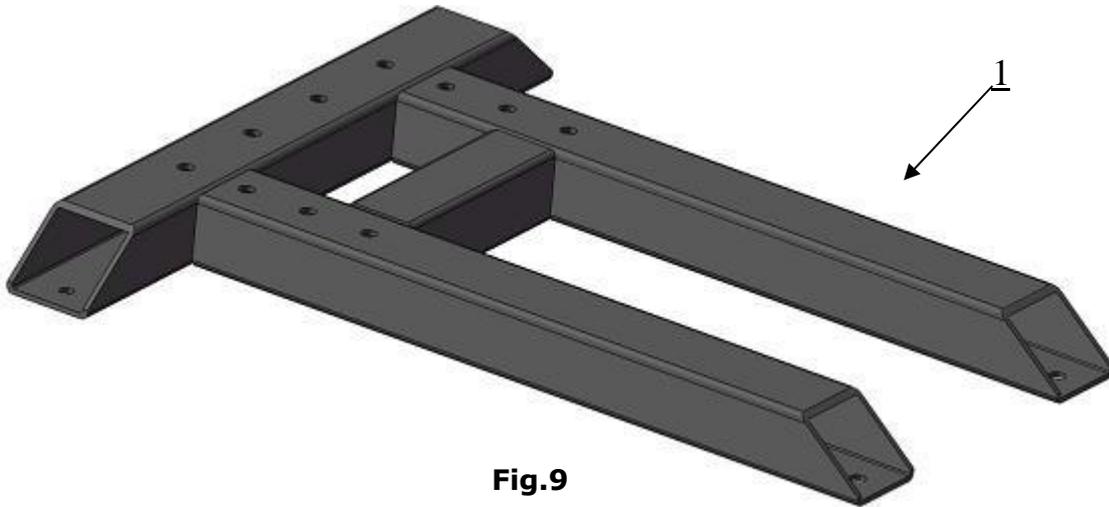


Fig.9

D. Install column and lift platform

1. Lay the column flat to the ground.(See Fig.10)

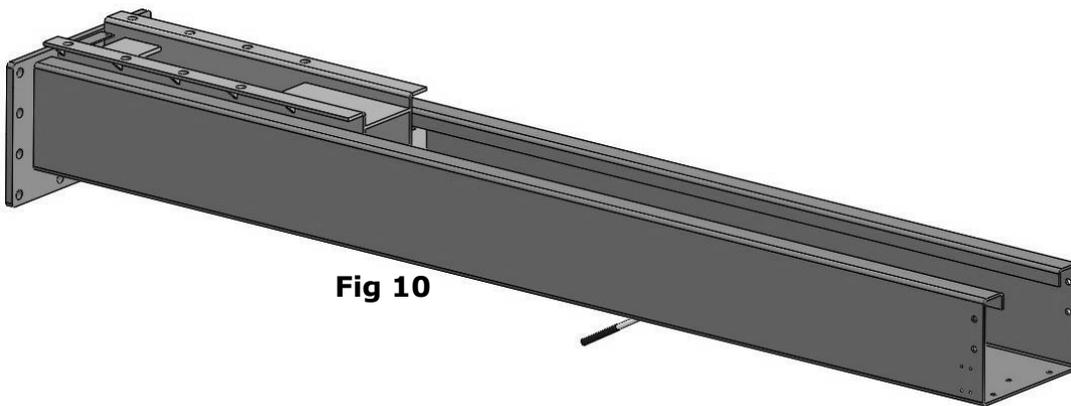
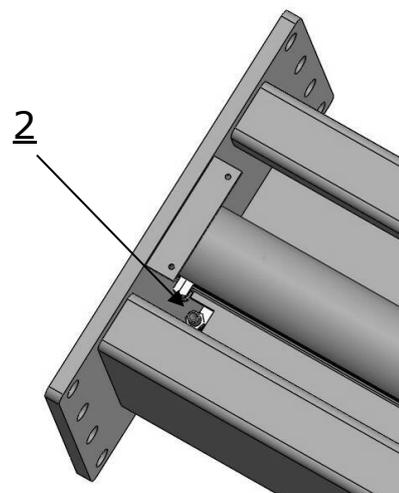
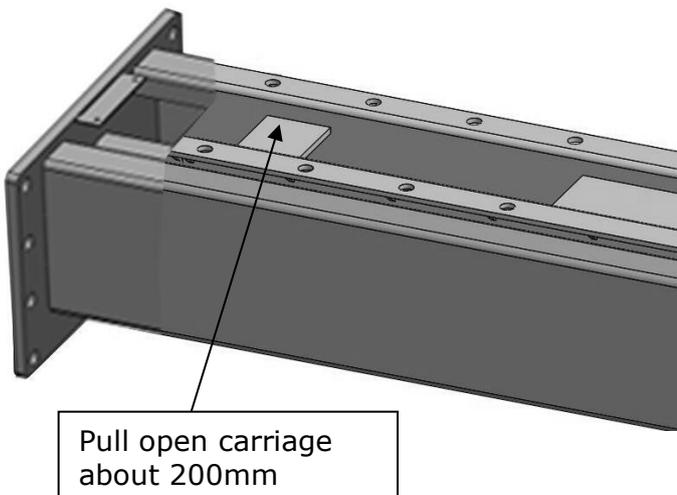


Fig 10

2. Connecting oil hose of cylinder(See Fig.11)



Connect oil hose to cylinder connector

Fig.11

3. Fix column to the base plate. (See Fig.12)

4. Fix lifting platform to carriage.(See Fig.13)

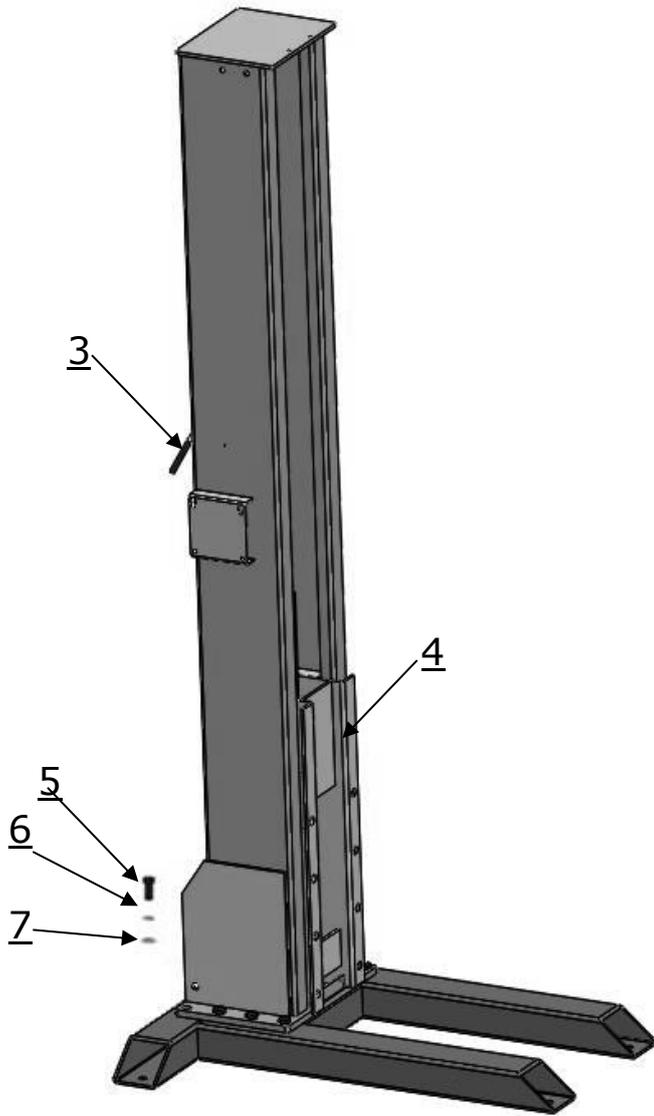


Fig.12

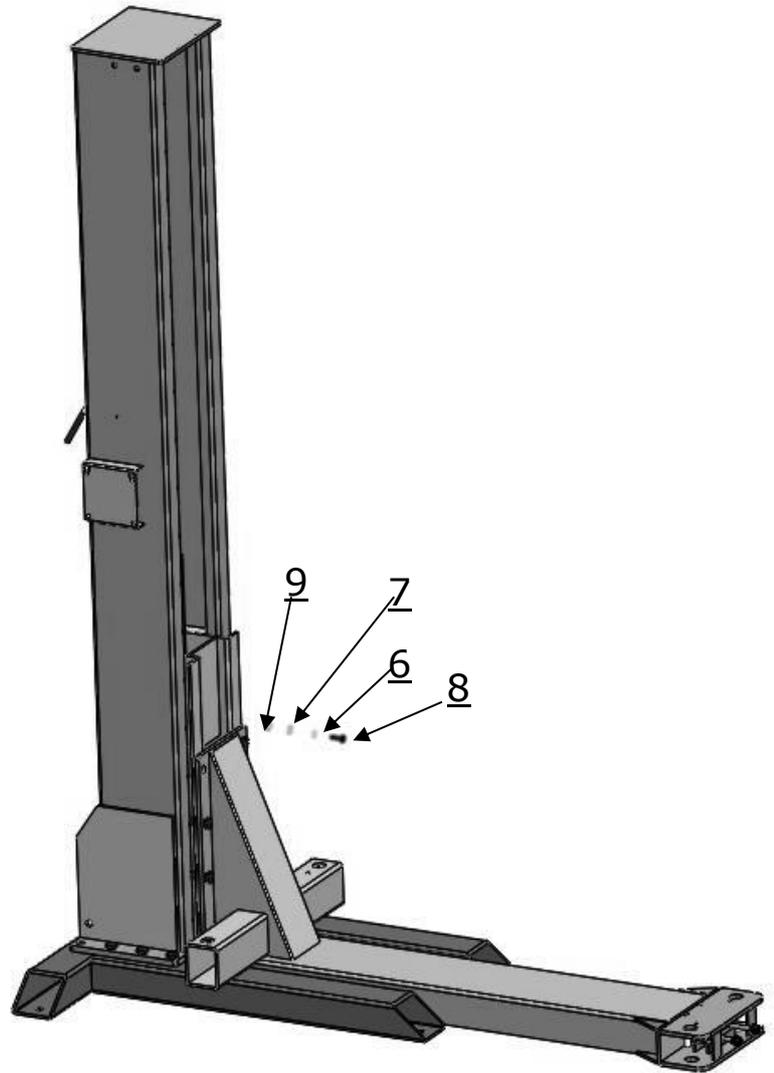


Fig.13

E. Install motor fixed plate, power unit and oil hose(See Fig.14)

Note: Tighten the oil hose fitting and power unit fitting to avoid oil leakage; Pay attention to the direction of power unit fitting.

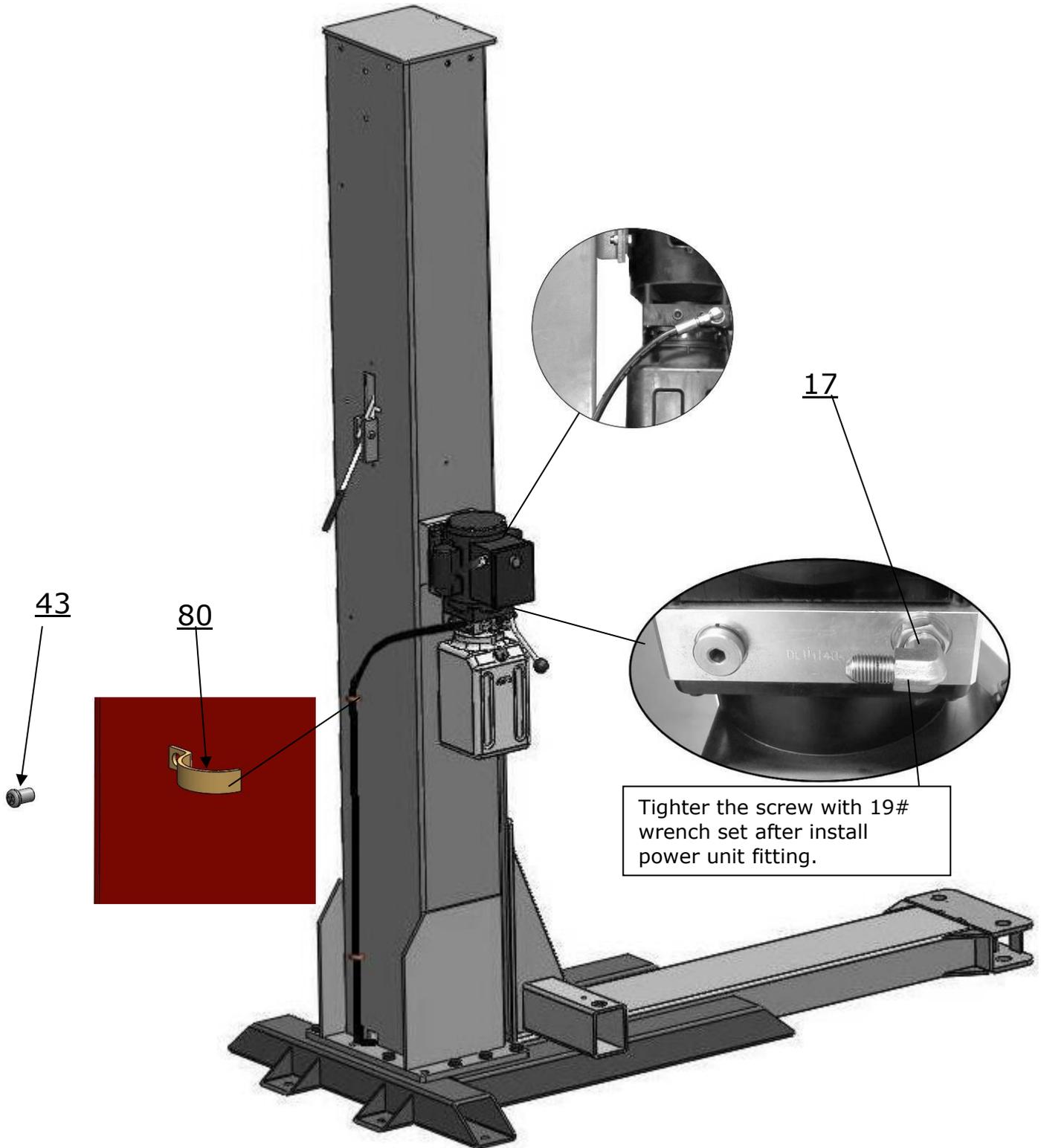


Fig.14

F. Install plastic barrier (See Fig.15)

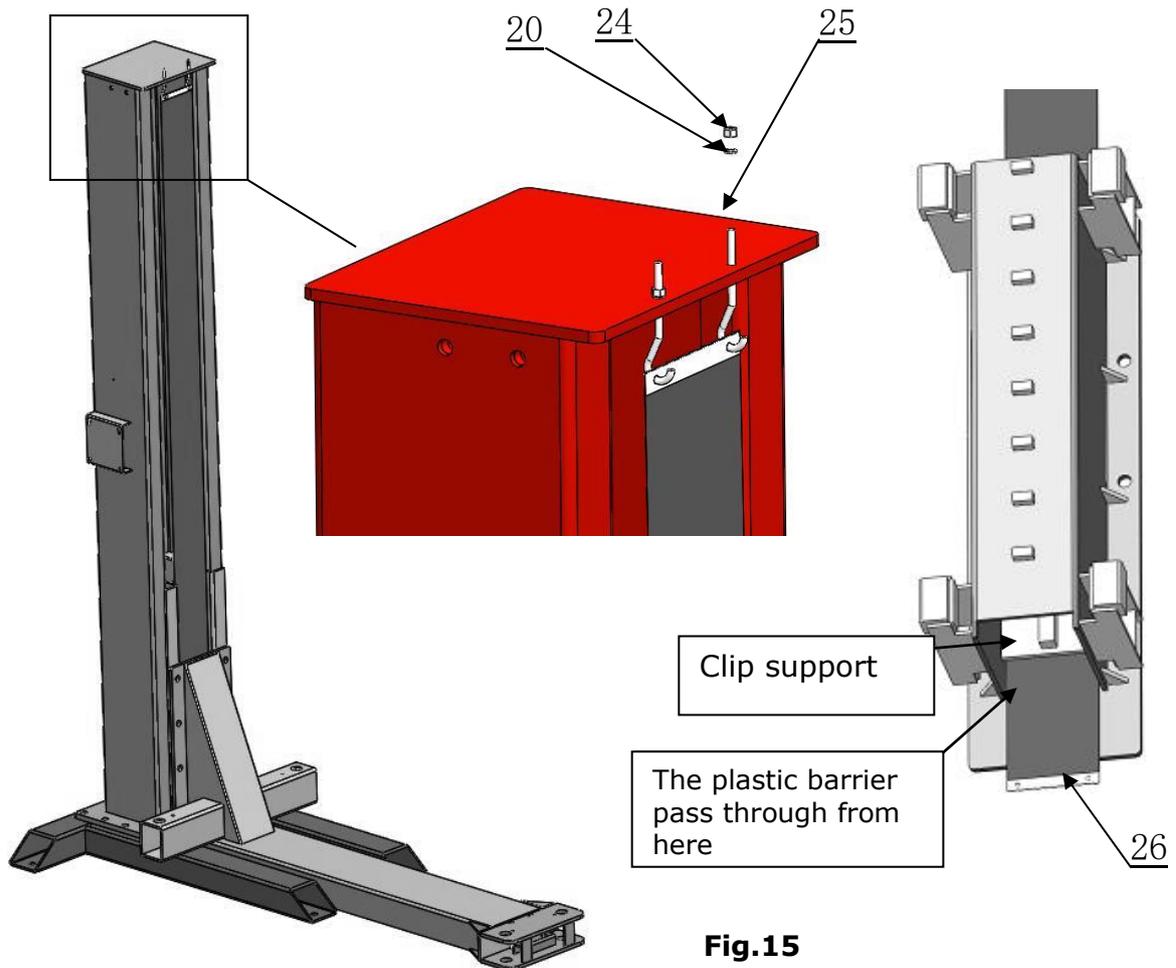


Fig.15

G. Connect the power source according to the data on plate of power unit
Note: For the safety of operators, the power wiring must contact the floor well

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. Connecting terminal A1 of AC connector to terminal 4# of push button;
 Connecting terminal L1 of AC connector to terminal 3# of push button;

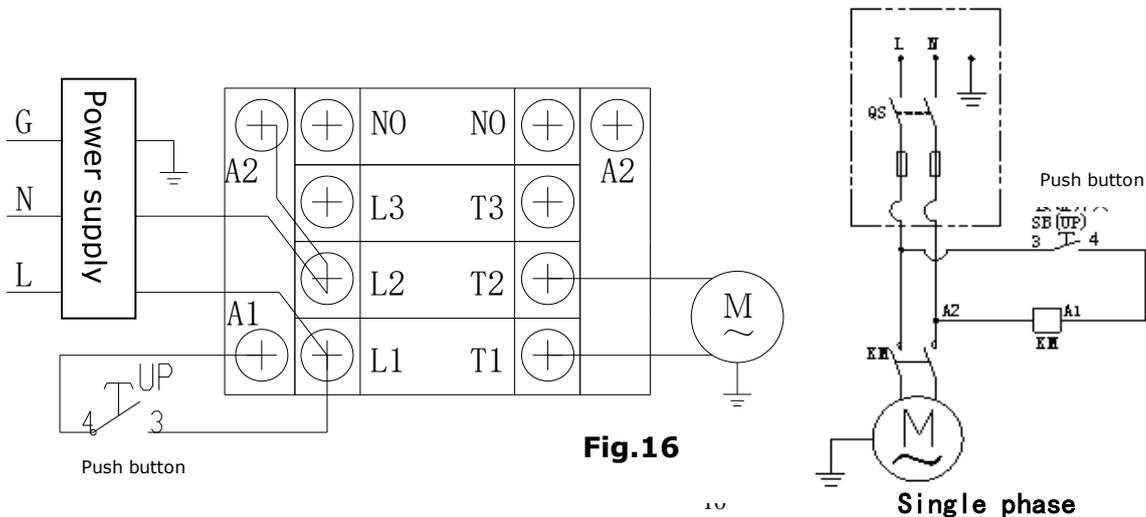
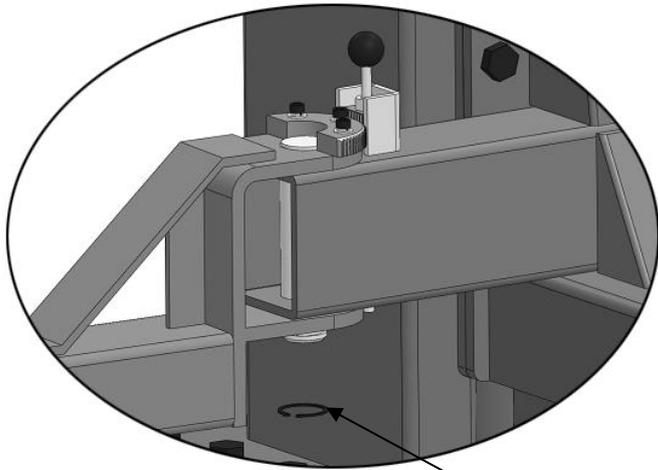


Fig.16

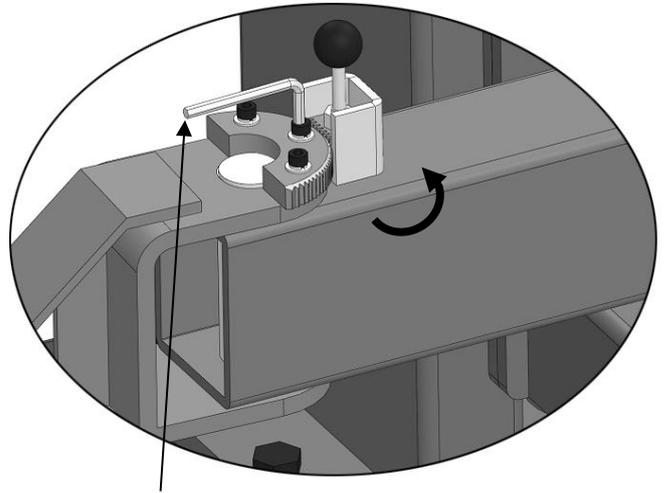
Single phase

H. Install lifting arms(see Fig.17); Lowering the carriages down to the lowest position, then use the 6# wrench to loosen the nut (See Fig. 18)Adjust the arm lock as arrow direction (See Fig. 19). Adjust moon gear and arm lock to make it to be good engagement, then tighten the nut of arm lock (See Fig. 20).



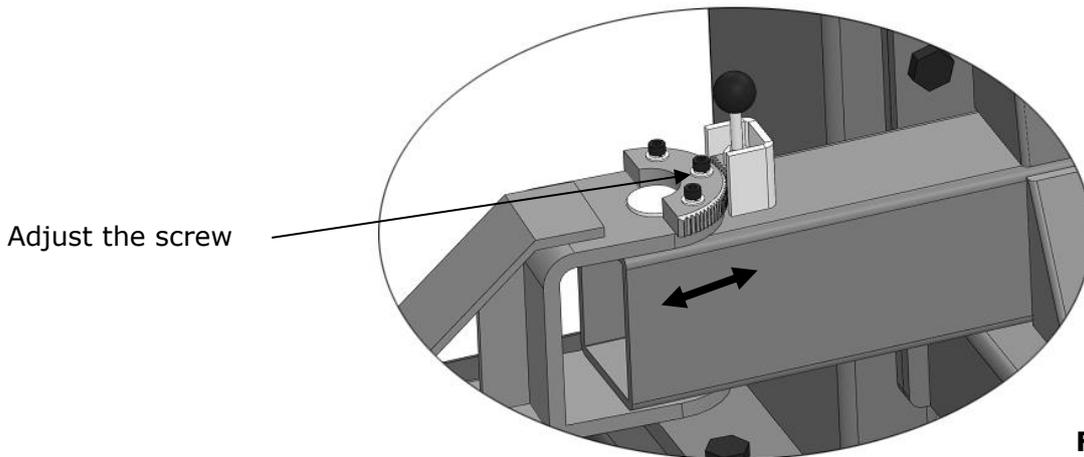
Snap Ring

Fig.17



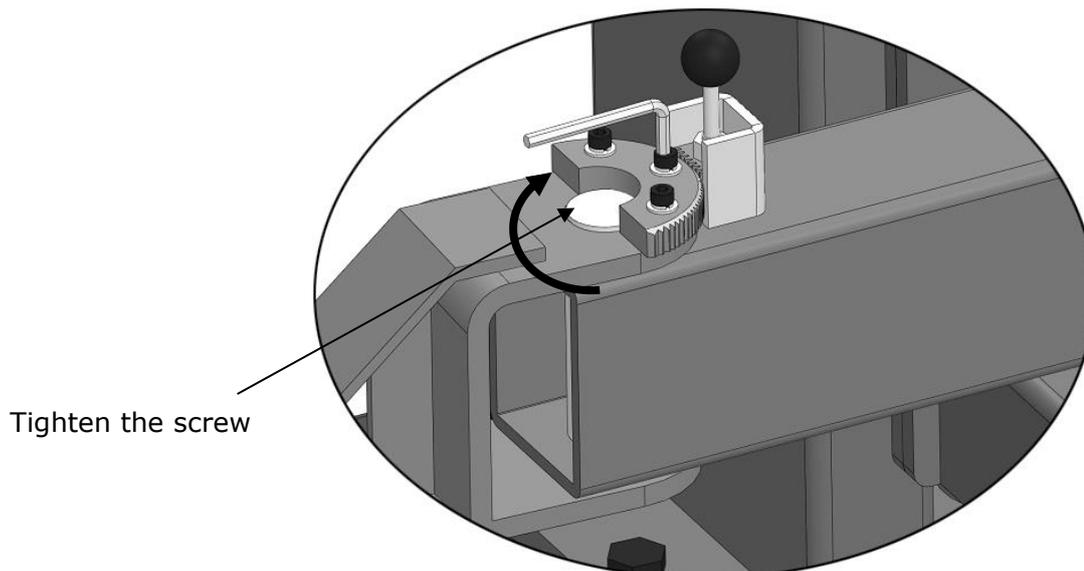
Loosen the screw

Fig.18



Adjust the screw

Fig.19



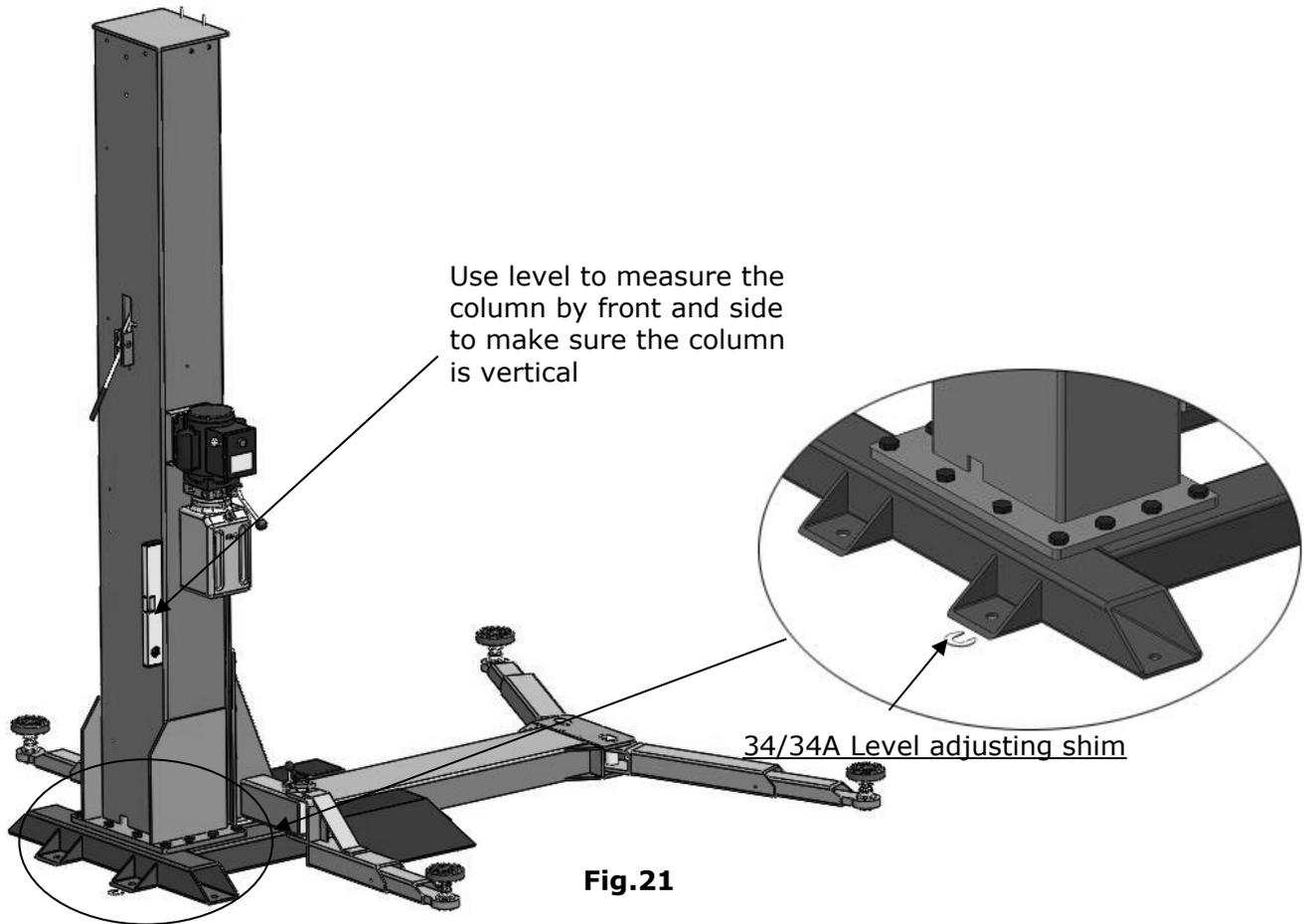
Tighten the screw

Fig.20

I. 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#.

J. Using level to measure and adjust the column to be vertical .



H. Fix the anchor bolts



1. Prepare the anchor bolts (**See Fig. 22**)..
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. 23**).

Note: Torque of Anchors is 150N.m .Minimum embedment of Anchors is 3-1/2"

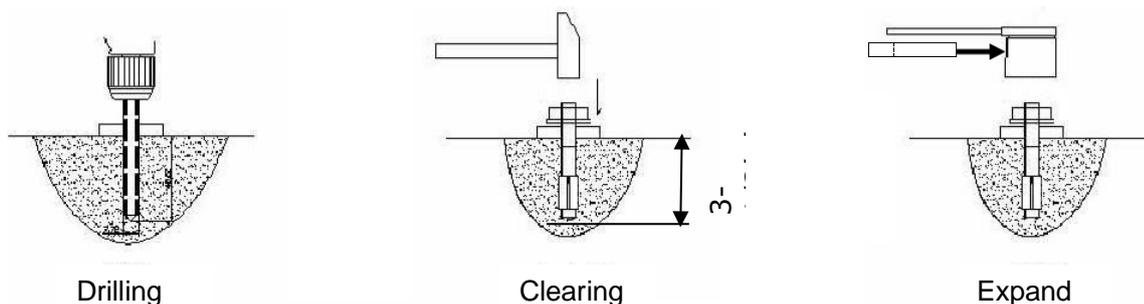
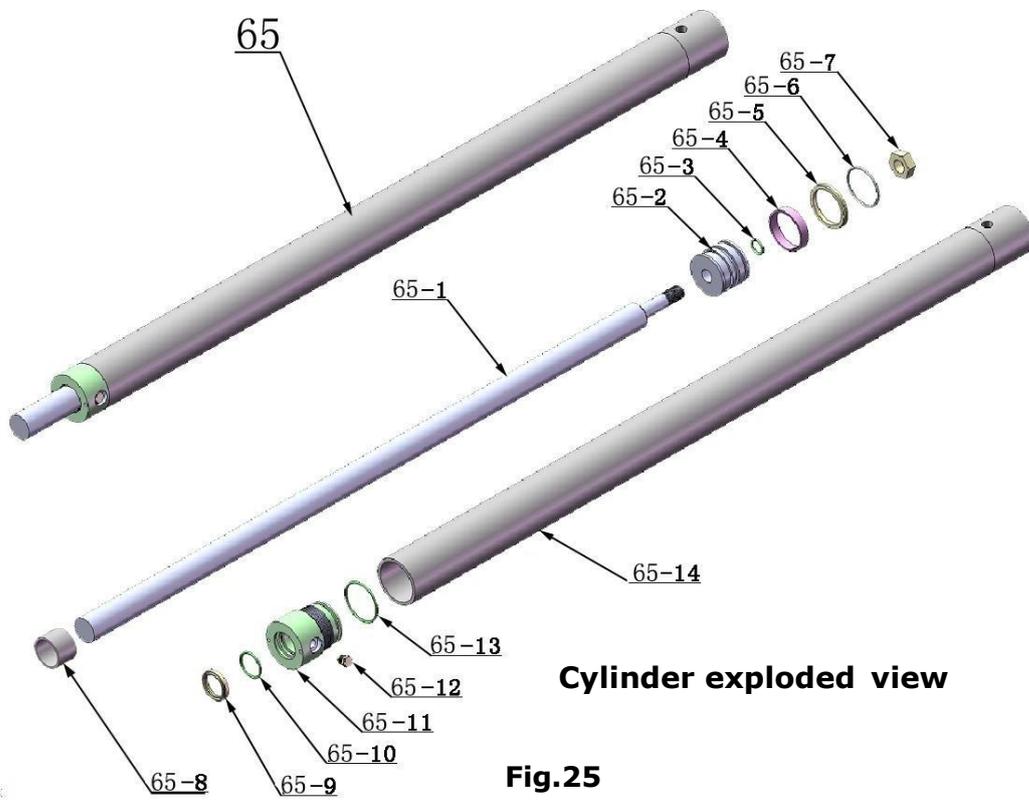


Fig.23



**Exploded view of manual power unit
110V/60Hz/1 phase**

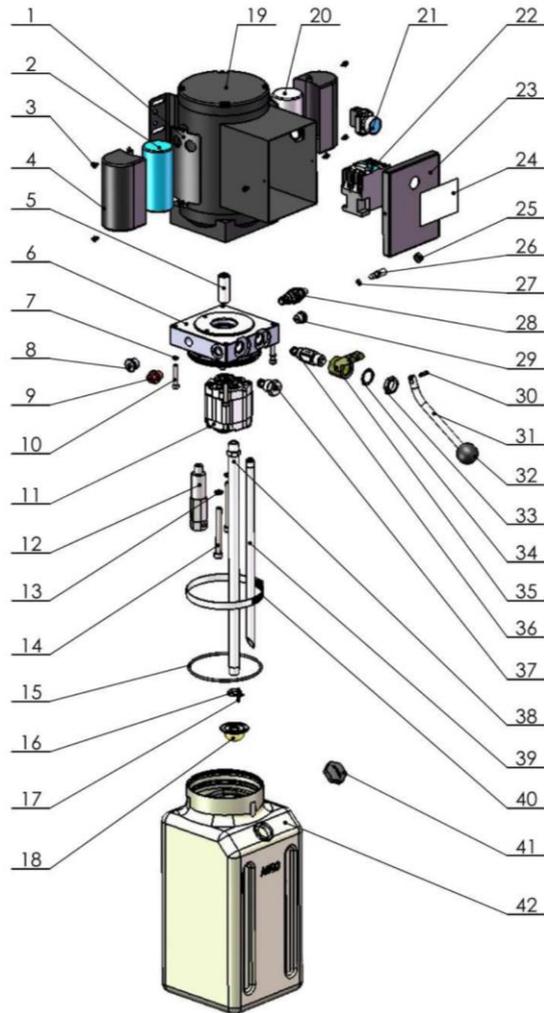
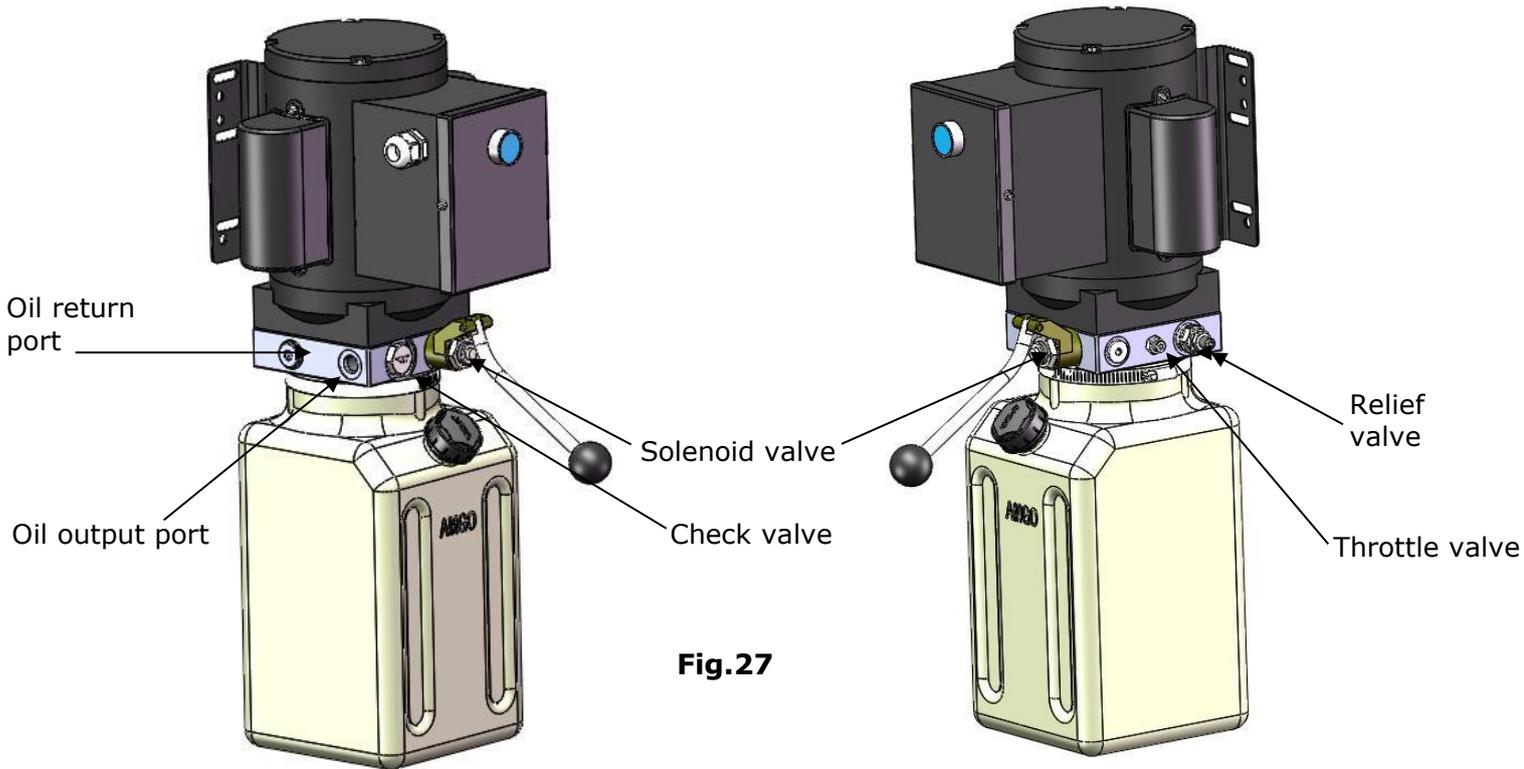


Fig.26

Illustration of hydraulic valve for hydraulic power unit

Power unit of 110V/60Hz/1PH(Fig.27)



V. TEST RUN

1. Adjust the lower speed (See Fig.28)

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.

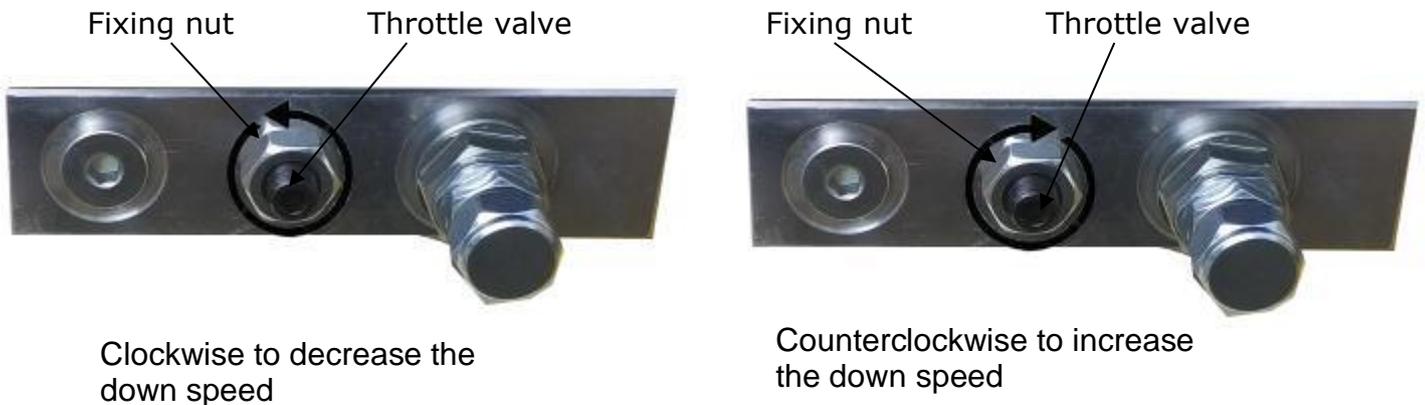


Fig.28

2. 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 without abnormal phenomena. 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.

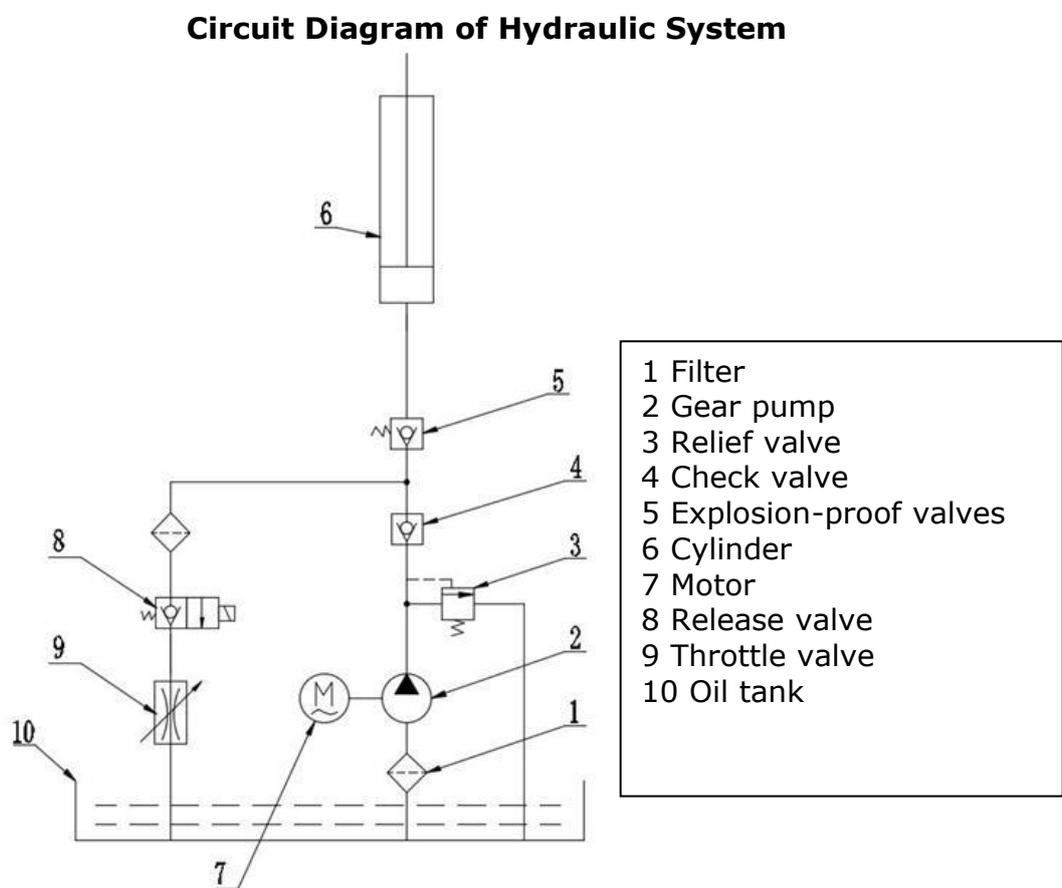


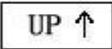
Fig.29

VI. OPERATION INSTRUCTIONS

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 beside of the lifting arm, cab should at the other side of the column;
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. Turn on the power QS1 and push the button , raise the lift until the rubber pad full contact the car and ensure it's safe.
8. Continue raise the vehicle to the desired height and make sure the vehicle is steady when the lift is rising, then release the "Up" button.
9. Press the button  to low down the lift onto the safety lock. Confirm the safety device at normal working condition, then the vehicle is ready to repair.

To lower vehicle

1. Be sure the clearance 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 the down button; stop lowering when above ground 300mm, at this moment should push button "K" at side, then buzzer will ring and lift lower to ground
3. Open the arms and position them to the shortest length;
4. Drive away the vehicle.

VII. MAINTENANCE SCHEDULE

Monthly:

1. Re-torque the anchor bolts to 150 N.M;
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. AC contactor burned out 4. Motor burned out 	<ol style="list-style-type: none"> 1. Replace button 2. Repair all wiring connection 3. Repair or replace contactor 4. Repair or replace motor
Motor runs but the lift is not raised	<ol style="list-style-type: none"> 1. Motor runs in reverse rotation 2. Release valve in damage 3. Gear pump 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 too slow	<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 5. Hydraulic solenoid valve out of work 	<ol style="list-style-type: none"> 1. Release the safeties 2. Repair or replace 3. Replace 4. Clean the oil system 5. Replace the solenoid valve

IX. PARTS LIST FOR SL-6

Item	Part#	Description	QTY.	Note	
1	101023	Base assembly	1		
2	201020	90° Fitting for Cylinder	1		
3	101014	Column assembly	1		
4	101015	Carriage assembly	1		
5	101002	Hex Bolt	10		
6	201114	Lock Washer	18		
7	209128	Washer	18		
8	101001	Hex Bolt	8		
9	420175	Hex Nut	8		
10	101012	Connect pin assembly	2		
11	101005	Arm pin assembly	2		
12	101011	Control handle assembly	2		
13	420043	Hex bolt	4		
14	720003	Compressed spring	1		
15	101009	Dead plate for rack	2		
16	101008	Rack	2		
17	209060	90° Fitting for Hydraulic Power Unit	1		
18	206013A	Limit Switch	1		
19	206011	Cup Head Bolt	4		
20	420045	Washer	4		
20 A		203054	Rubber Pad Assy.	4	
	21	201060	O-Ring	8	
	21A	203024	Adjustment Tube	4	
	22	203042	Elastic Collar	8	
	22A	203025	Adjustment Screw	4	
	23	203041	Elastic Collar	4	
	23A	203026	Rubber Pad Frame	4	
	23B	203043	Rubber Pad For Double Screw	4	
23C	420043	Hex Socket Bolt	8		
24	420018	Self Locking Nut	2		
25	203117	Adjustment Screw With Hook	2		
26	101026	Plastic Baffle assembly	1		
27	203090	Hydraulic Solenoid Valve Wire Cable	1		
28	420168	White Winding Tape	2		
29	1080003 0	Limit Switch Wire Cable	1		
30	102001	Motor Wire Cable	1		
31	101500	Parts box	1		
32	209145	Cup head bolt	2		
33	102003	Oil Hose (two straight)	1		
34	620065	Adjusting Shim	10		
34A	201090	Adjusting Shim	10		

Item	Part#	Description	QTY.	Note
35	209059	Anchor Bolt	6	
36	101013	Top Plate assembly	1	
37	206023	Self Locking Nut	4	
38	217069	Hex Bolt	4	
39	206079	Cap Head Bolt	6	
40	209012	Spring Pin	1	
41	203002	Power Side Safety Device	1	
42	209007	Safety Spring	1	
43	209009	Cap Head Bolt	8	
44	209008	Safety Cover	1	
45	206002	Safety Pin	1	
46	206003A	Rubber handle sleeve	1	
47	203013	Coupling	1	
48	610026	Self Locking Nut	1	
49	203015	Power-side Safety Block assembly	1	
50	205026	Hex Socket Bolt	1	
51	51A	101019	Outer Main Arm	2
	51B	101020	Outer Secondary Arm	2
52	680003	Hex Bolt	2	
53	53A	203101	Inner Main Arm	2
	53B	102006	Inner Secondary Arm	2
54	209034	Lock Washer	18	
55	209033	Washer	6	
56	203035	Stackable Adapter Set	1	
56A	203034	Stackable Adapter	4	
57	101024	Drive-in Ramps assembly	1	
58	101007	Chain	1	
59	207007	Chain Pulley	1	
60	207008	Chain Pulley Assy.	1	
61	420132	Bronze Bush For Chain Pulley	2	
62	207006	Pin For Chain Pulley	1	
63	217188	Slider Block	8	
64	201010A	Chain Connector	2	
64A	201005	Split Pin	1	
65	207010	Hydraulic Cylinder	1	
66	101025	Drive-in Ramps assembly	1	
67	209030A	Lifting Arm Pin assembly	2	
68	209020	Plastic Ball	4	
69	209021	Hex Socket Bolt	2	
69A	209039	Lock Washer	2	
70	209023A	Arm Lock	2	
71	201041	Limit Shim	2	
72	101010	Arm Lock Bar	2	
73	209032	Hex Socket Bolt	12	
73A	209035	Moon Gear	4	

Item	Part#	Description	QTY.	Note
74	520023	Snap Ring	2	
75	209026	Spring	2	
76	209025	Spring Pin	4	
77	101016	Lifting Platform Assy.	1	
78	201002	Hex Socket Bolt	4	
79	101006	Screw	2	
80	217048	Cable clap	2	
200	071103	Hydraulic Power Unit	1	
Parts For Hydraulic Cylinder				
65-1	207027	Piston Rod	2	
65-2	207028	Piston	2	
65-3	206069	O-Ring	2	
65-4	620053	Support Ring	2	
65-5	620054	Y-Ring	2	
65-6	630027	O-ring	2	
65-7	206071	Hex Nut	2	
65-8	207029	Hydraulic Cylinder Adjustment Tube	2	
65-9	217078	Dust Ring	2	
65-10	520058	O-Ring	2	
65-11	207030	Head Cap	2	
65-12	201034	Bleeding Plug	2	
65-13	207031	O-Ring	2	
65-14	207032	Cylinder Tube	2	
Parts For Manual Power Unit 110V/60Hz/1 Phase				
1	81400180	Rubber pad	2	
2	81400073	Start capacitor	1	
3	420148	Cup Head Bolt With Washer	6	
4	81400066	Cover of capacitor	2	
5	81400363	Motor connecting shaft	1	
6	81400362	Manifold block	1	
7	10209149	Wash	4	
8	81400276	Hex bolt	1	
9	81400259	End plug	1	
10	85090142	Red plastic plug	4	
11	81400312	Gear pump	1	
12	81400294	Buffer valve	1	
13	10209034	Washer	2	
14	81400295	Socket bolt	2	
15	81400365	O ring	1	
16	10209152	Tie	1	
17	85090167	Magnet	1	
18	81400290	Filter	1	
19	81400412	Motor	1	
20	81400086	Run capacitor	1	
21	10420070	Push button	1	
22	41030055	AC connector	1	
23	81400287	Cover of Motor Terminal Box	1	
24	71111106	AMGO Sticker	1	
25	81400296	Nut	1	
26	81400459	Throttle valve body	1	
27	10209069	O ring	1	

28	81400266	Relief valve	1	
29	81400284	Plug	1	
30	81400452	Pin	1	
31	81400451	Handle for release valve	1	
32	10209020	Plastic ball	1	
33	81400125	Nut for release valve	1	
34	81400124	Shim for release valve	1	
35	81400449	Valve seat	1	
36	070001	Release valve	1	
37	070002	Check valve	1	
38	81400375	Oil suction pipe	1	
39	81400376	Oil return pipe	1	
40	81400364	Clamps	1	
41	81400263	Oil tank cap	1	
42	81400320	Oil tank	1	



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