

Installation And Service Manual



TWO POST LIFT Model:OH-9/OH-9H,OH-10/OH-10H

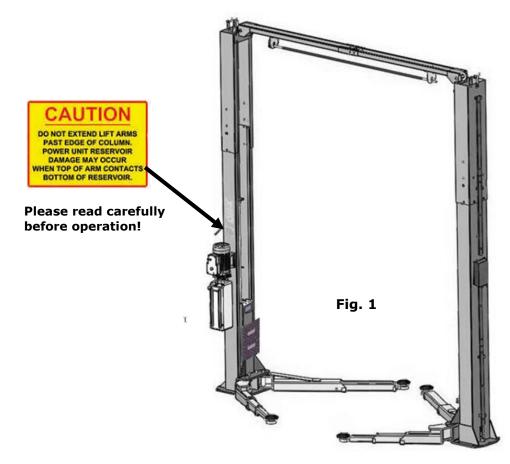
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I. PRODUCT FEATURES AND SPECIFICATIONS

CLEAR-FLOOR DIRECT-DRIVED MODEL FEATURES Model OH-9(H), OH-10(H) (See Fig. 1)

- · Direct-drived design, minimize the lift wear parts and breakdown ratio
- · Dual hydraulic cylinders, designed and made as standards, utilizing oil seal in cylinder
- \cdot Self- lubricating UHMW Polyethylene sliders and bronze bush
- \cdot Single-point safety release, and dual safety design
- . Clear-floor design, provide unobstructed floor use
- . Overhead safety shut-off device prevents vehicle damage
- · Super-asymmetric arms design can fit extremely wide vehicles, stackable rubber pads
- . Standard adjustable heights accommodates varying ceiling heights



OH-9, OH-9H,OH-10,OH-10H SPECIFICATIONS

Model	Style	Lifting Capacity	Lifting Time	Lifting Height	Overall Height	Overall Width	Width Between Columns	Minimum Pad Height	Motor	
OH-9		9,000 lbs 56S	142-1/2 "/150-1/2"							
OH-9H	Clear-floor	5,000 155	505	71 1/2"-84 1/2"	71 1/2"-84 1/2"	166-5/8"/174-1/2"	135″	112 1/4″		
OH-10	Direct-drived		10,000 lbs	56S	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	142-1/2 "/150-1/2"	100	112 1/ 1	3 1/2"-12 1/2"	2.0 HP
OH-10H		10,000 103	505		166-5/8"/174-1/2"					

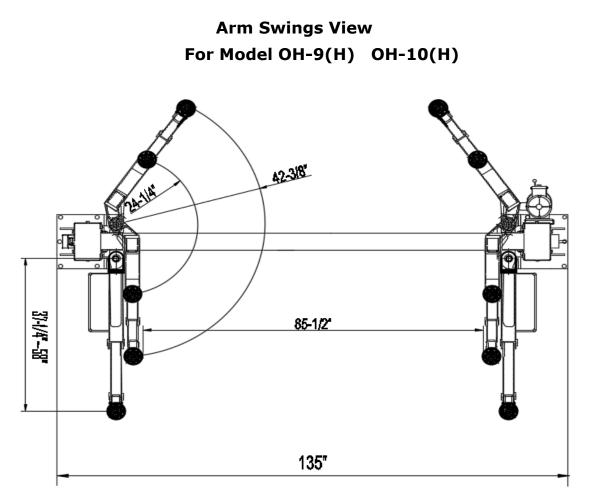


Fig 2

Attention! Please make sure to place the arms in correct position before car drive in !

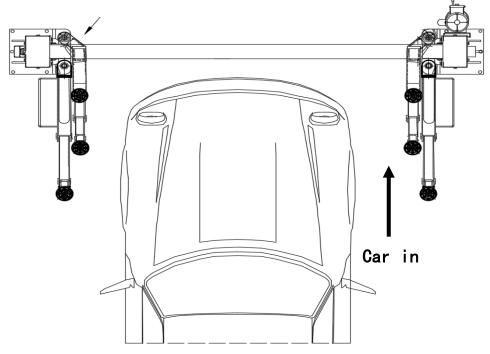
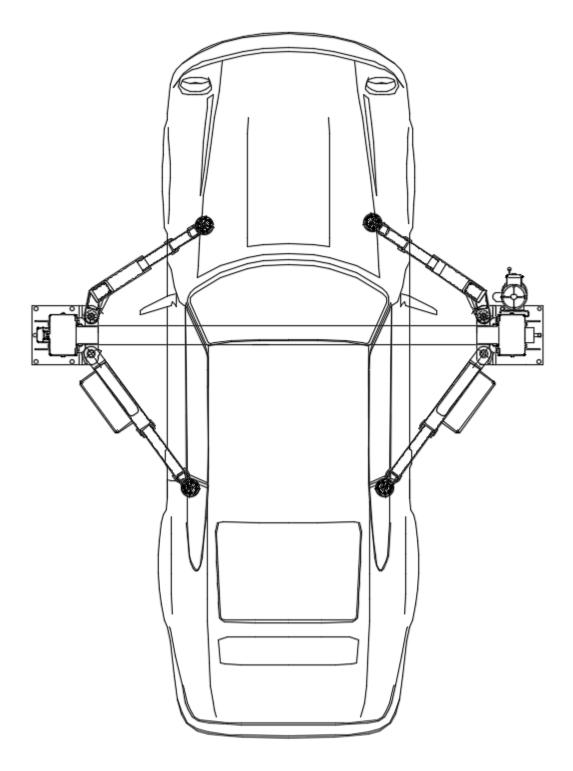


Fig 3



Swing and extending the arms to the lifting point of vehicle

Fig.4

II. INSTALLATION REQUIREMENT

A. TOOLS REQUIRED

✓ Rotary Hammer Drill (Φ19)



✓ Hammer



✓ Level Bar

•0 ••• 0•

✓ English Spanner (12")



✓ Ratchet Spanner With Socket (28[#])



✓ Wrench set
(8[#], 10[#], 13[#], 14[#], 17[#], 19[#], 24[#])





✓ Screw Sets



✓ Tape Measure (7.5m)



✓ Pliers



✓ Socket Head Wrench $(3^{\#}, 5^{\#}, 8^{\#})$



✓ Lock Wrench

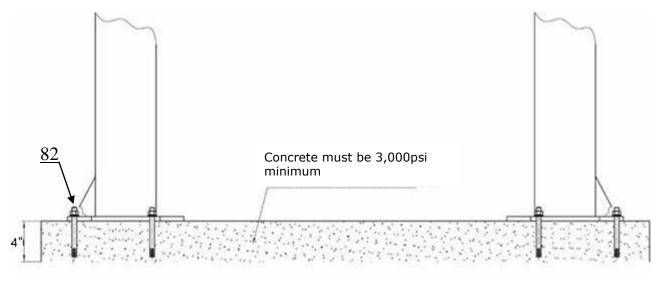


Fig. 5

B. SPECIFICATIONS OF CONCRETE (See Fig. 6)

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

Fig. 6

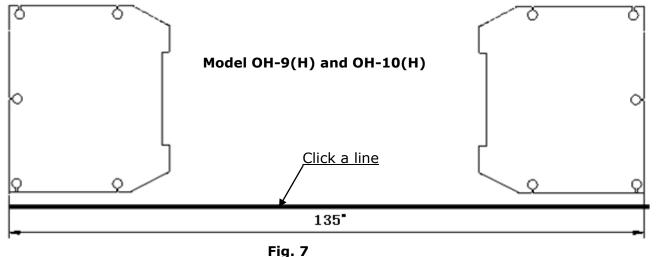
The electrical source must be 2.0HP minimum. The source cable size must be 2.5mm² and in good condition of contacting with floor.

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 base-plate (See Fig.7).





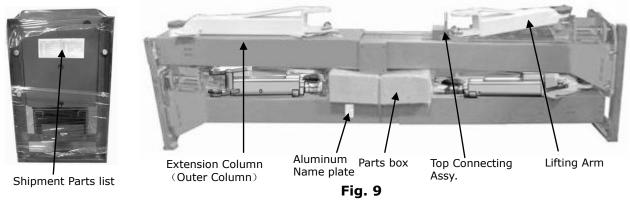
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C. Check the parts before assembly.

1. Packaged lift and hydraulic power unit (See Fig. 8).



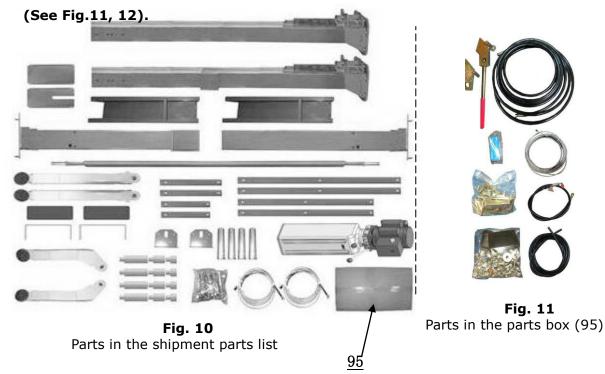
2. Move aside the lift with fork lift or hoist, and open the extension packing carefully, take off the lifting arms and parts box from upper and inside the column, then move them to location nearby installation site, check the parts according to the shipment parts list (See Fig.9).



3. Loose the screws of the upper package stand, take off the upper extension columns, take out the parts in the inner column and remove the package stand

6

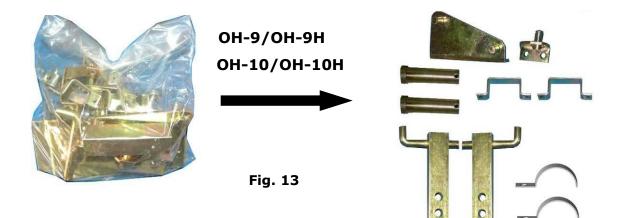
4. Move aside the parts and check the parts according to the shipment parts list



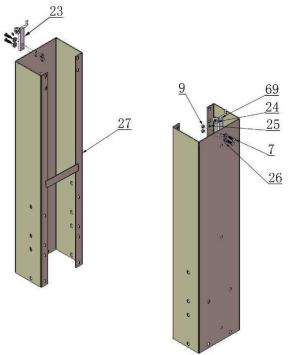
5. Open the bag 1 of parts and check the parts according to parts box list (See Fig. 12).



6. Open the bag 2 of parts and check the parts according to parts bag list (See Fig. 13).



D. Install parts of extension columns (See Fig. 14).

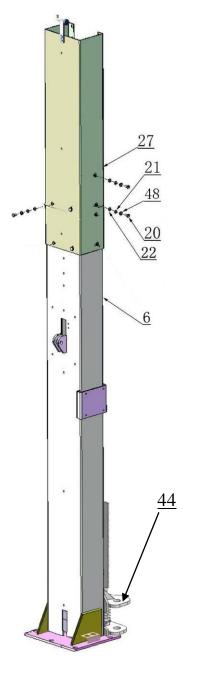




E. Position powerside column

Lay down two columns on the installation site paralleled, position the power-side column according to the actual installation site. Usually, it is suggested to install power-side column on the front-right side from which vehicles are driven to the lift. This lift is designed with 2-Section columns. Adjustable height according to the ceiling height and connecting the inner and extension columns.

- 1. When the ceiling height is less than 3850mm (151 1/2") for OH-9, 4460mm (175 5/8") for OH-9H, connecting the extension columns with the upper hole (See Fig.15).
- 2. When the ceiling height is over 3850mm (151 1/2") for OH-9, 4460mm (175 5/8") for OH-9H, connecting the extension columns with the lower hole **(See Fig.16)**.





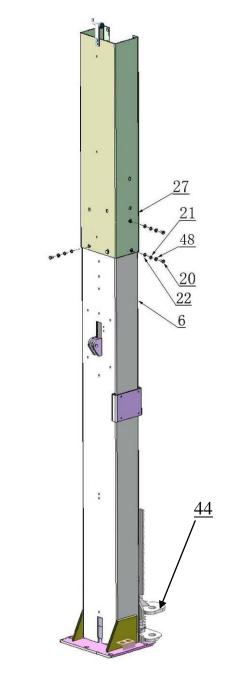
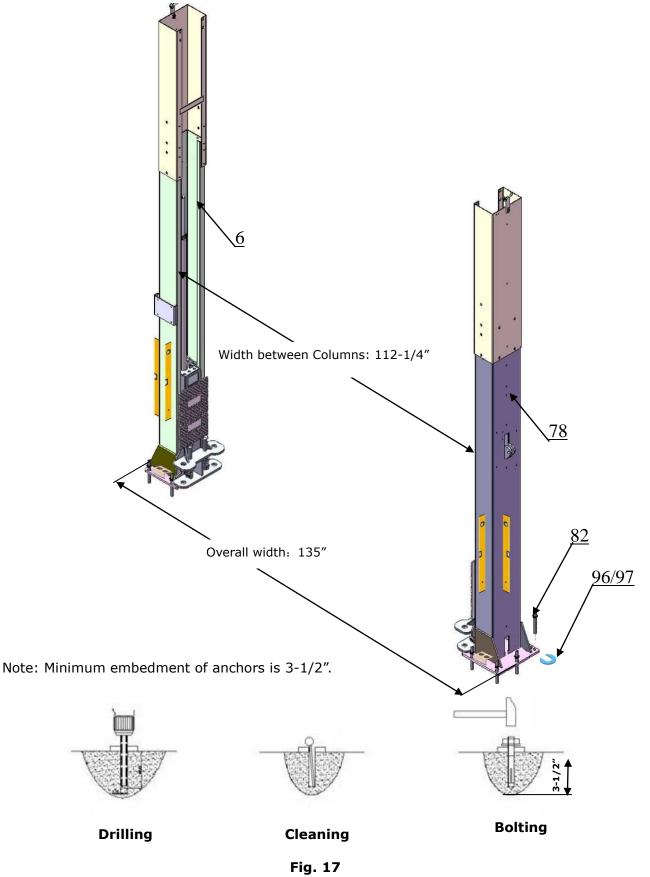


Fig. 16 High Setting

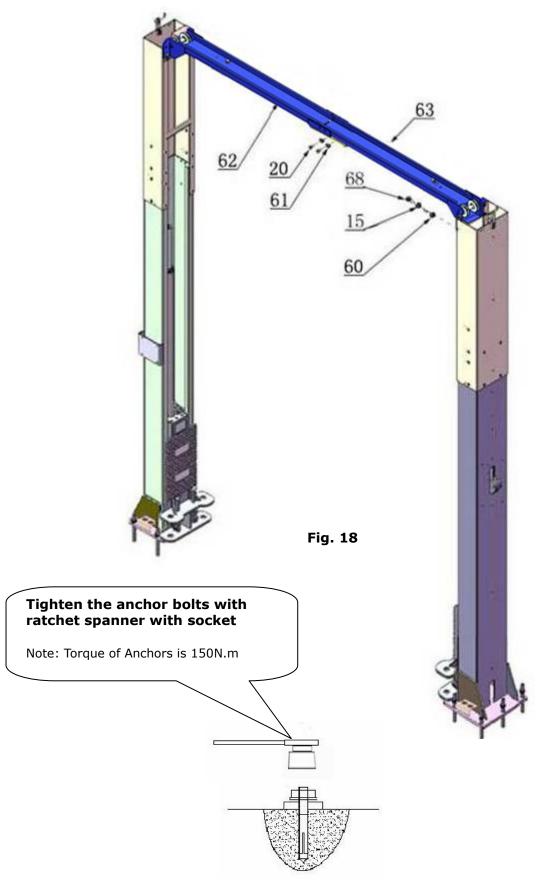
F. Position columns (See Fig. 17)

Position the columns on the installation layout of base-plate, Install the anchor bolts. Check the Columns plumpness with level bar, and adjusting with the shims if the columns are not vertical. Do not tighten the Anchor Bolts.

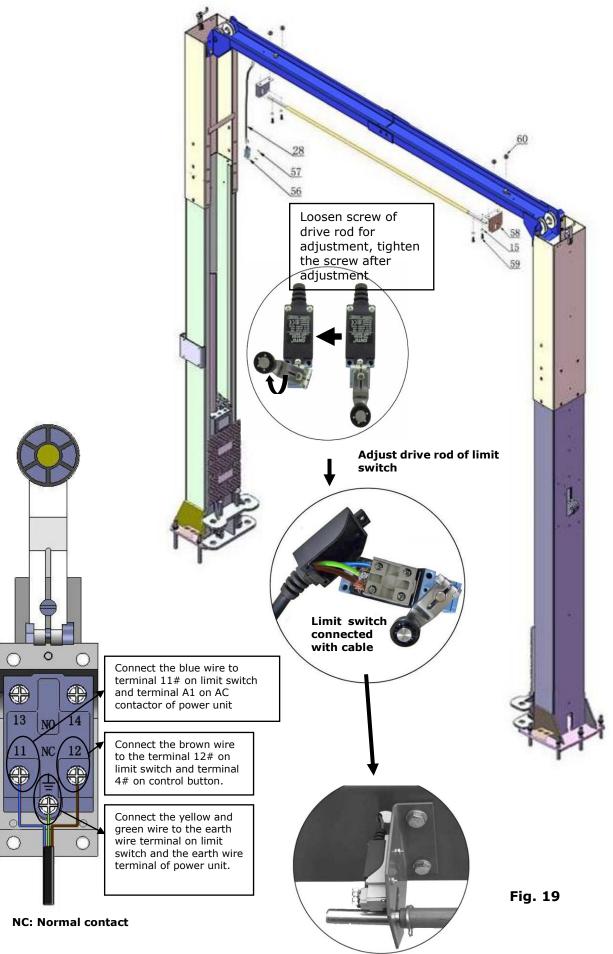


G. Install overhead top beam

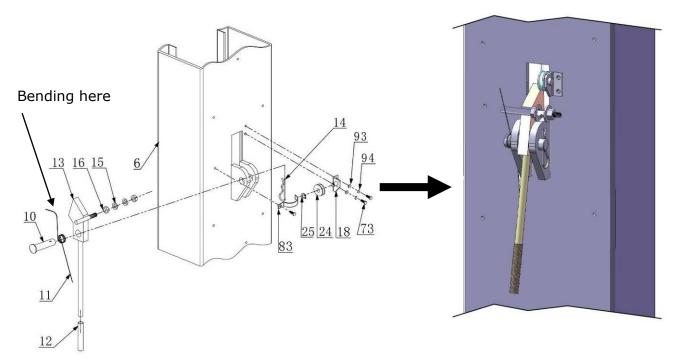
 With help of the hook of top beam, put one side of top beam on top of the extension column and connecting the top beam to extension column by bolts, tighten the bolts. Then assemble the connecting bracket (See Fig. 18).



H. Installing the limit switch control bar and limit switch (See Fig. 19).



I. Install safety device (See Fig. 20 & Fig. 21).





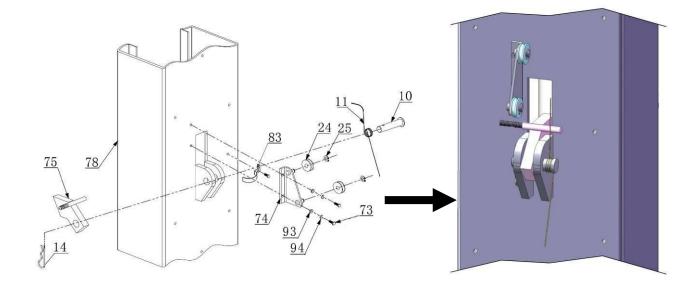


Fig. 21 Offside Safety Device

J. Lift the carriages up to about one meter high by hand and make them be locked at the same level (See Fig. 22).

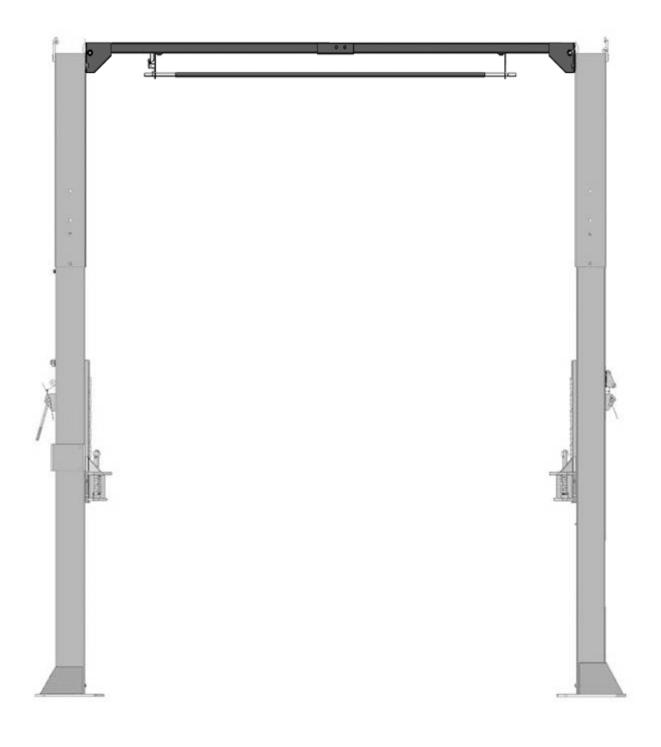
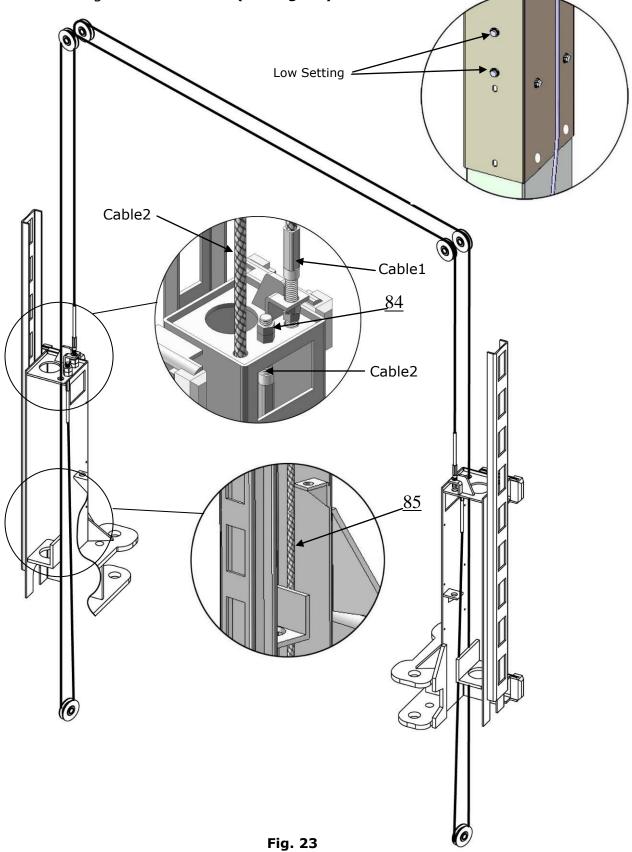


Fig. 22

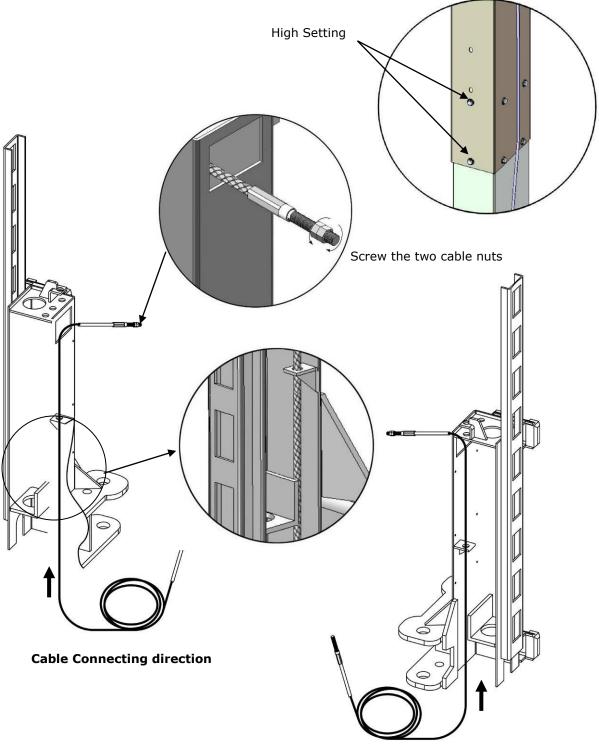
K. Install cables

1. Low setting cable connection (See Fig. 23).



2. High setting cable connection

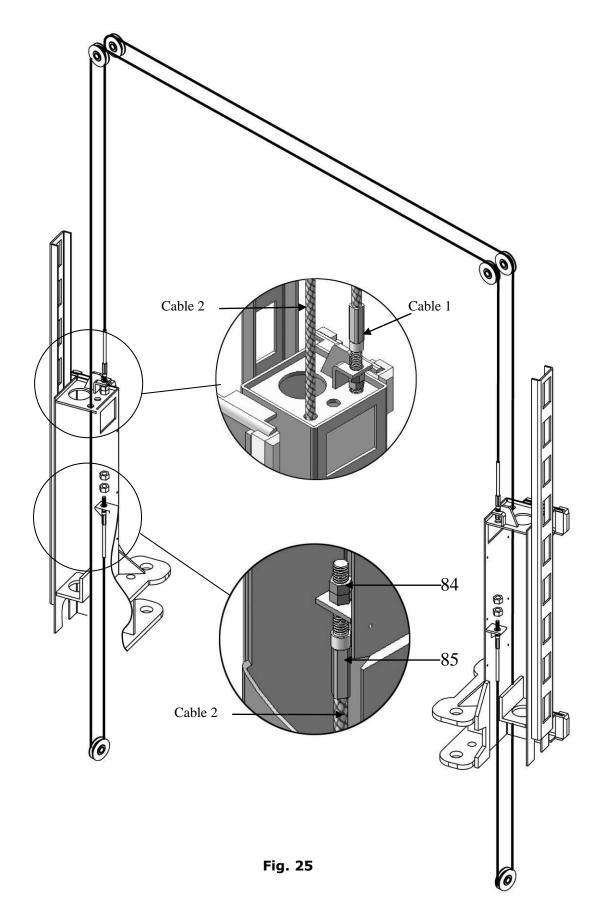
2.1. Cable pass through from the bottom of the carriages and be pulled out from the open of carriages, then screw the two cable nuts (See Fig. 26).



Cable connecting direction

Fig. 24

2.2 Connecting cable for high setting (See Fig. 25).



L. Install hydraulic power unit and oil hose assy. (See Fig. 26).

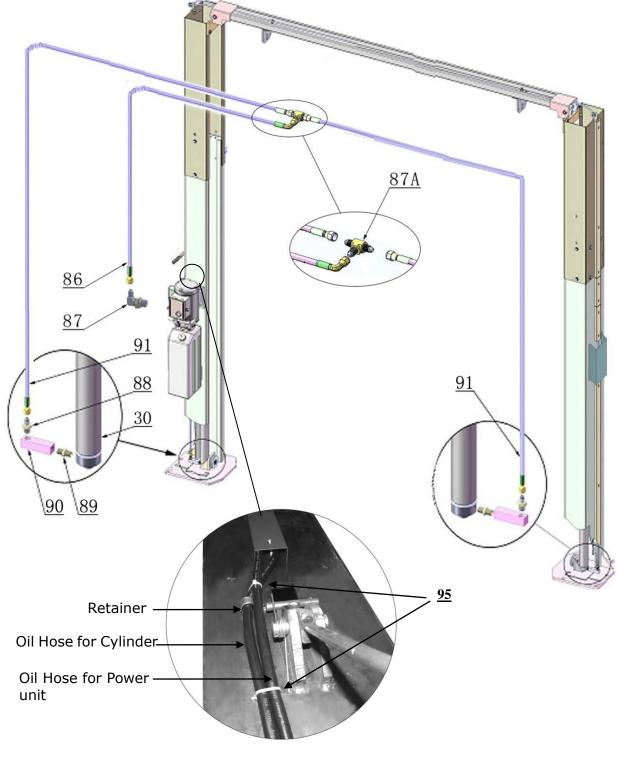


Fig. 26

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

M. Install safety cable (See Fig. 27)

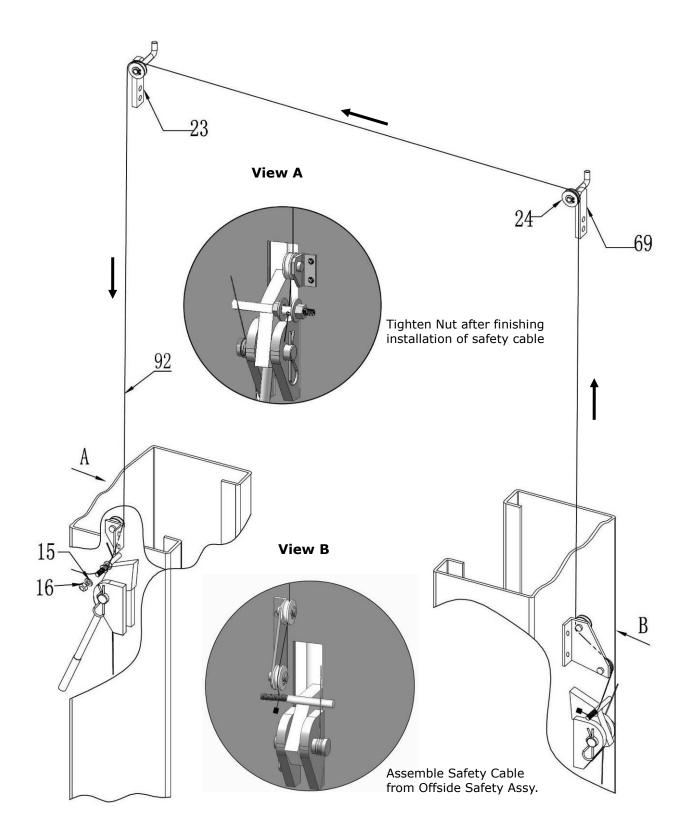
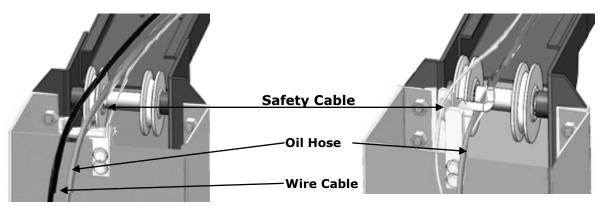


Fig. 27

N. Oil Hose & Protective Covers

1. Install Oil Hose.

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

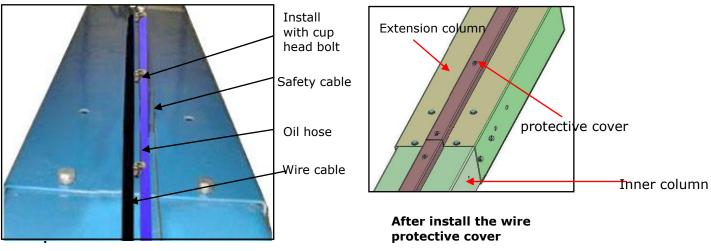


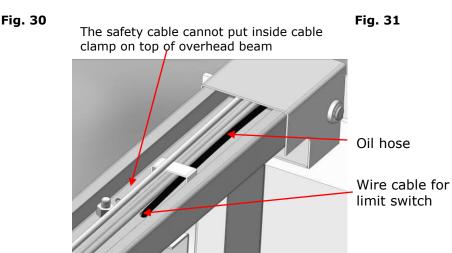
Powerside Safety Device Fig. 28

Offside Safety Device Fig. 29

2. Install safety cable, oil hose and protective cover (See Fig. 30 & Fig. 31 & Fig. 32).

Note: Install the protective cover on the extension column with M6*35 cup head bolt, Install the protective cover on the inner column with M6*40 cup head bolt.

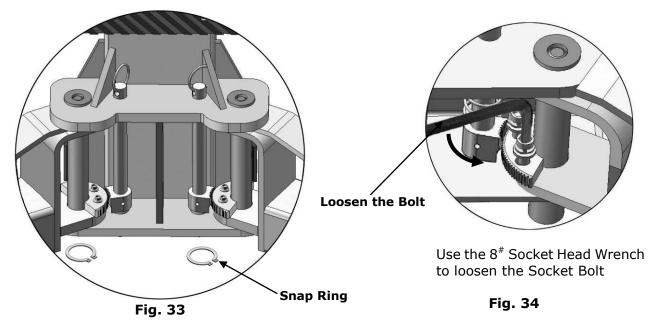




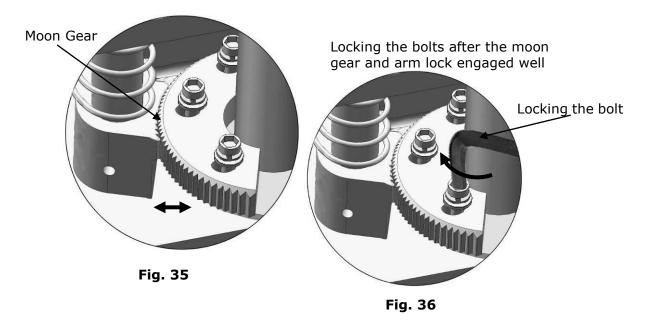


O. Install lifting arms and adjust the arm locks.

- 1. Install the lifting arms (See Fig. 33).
- 2. Lowing the carriages down to the lowest position, then use the $8^{\#}$ socket head wrench to loosen the socket bolt (See Fig. 34).



3. Adjust the arm lock as direction of arrow (See Fig. 35)



4. Adjust moon gear and arm lock to make it to be meshed, then tighten the socket bolts of arm lock (See Fig. 36).

P. 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#.

Q. Install electrical system

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

Note: 1. Install well the limit switch.

- 2. For the safety of operators, the power wiring must contact the floor well.
- **3.** Pay attention to the direction of rotations when using three phase motors.

Single phase motor (See Fig. 37).

- 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. Terminal 4# of control button is connected with terminals A1of AC contactor; Terminal 3# of control button is connected with terminals L1of AC contactor.

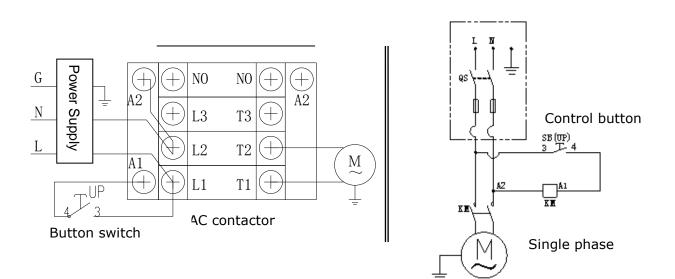


Fig. 37

IV. EXPLODED VIEW



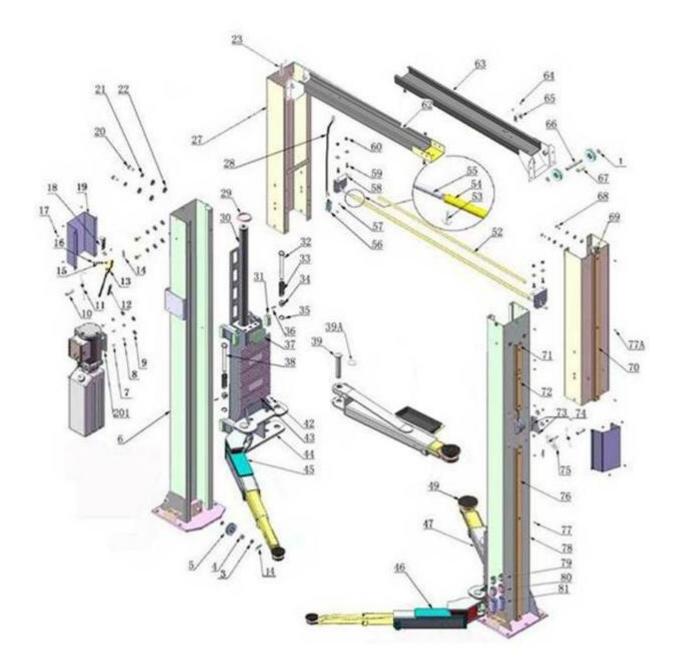


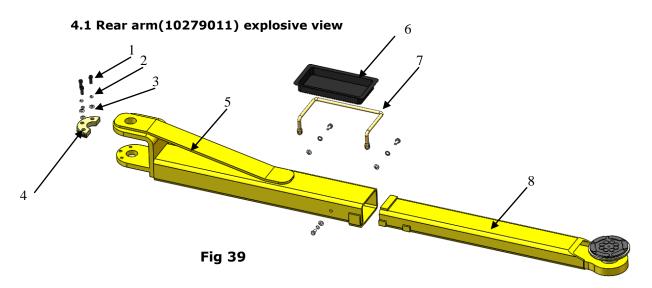
Fig. 38

IX. PARTS LIST FOR OH-9 and OH-9H

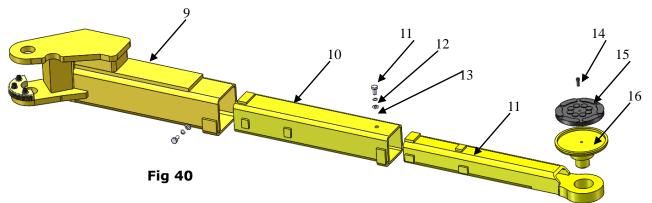
TL a	Dout#	Description	QTY					
Item	Part#	Description	OH-9	OH-9H	OH-10	OH-10H		
1	10206019	Snap Ring	4	4	4	4		
3	10209128	Washer φ19	4	4	4	4		
4	10209057B	Bronze Bush For Pulley	6	6	6	6		
5	11206020	Pulley	6	6	6	6		
6	11206001C		1	1	0	0		
6	11279001	Power-side Inner Column assembly	0	0	1	1		
7	10209003	Hex Bolt	8	8	8	8		
8	10209004	Rubber Ring	4	4	4	4		
9	10209005	Self locking Nut	8	8	8	8		
10	11206002	Safety Pin	2	2	2	2		
11	10209007A	Safety Spring	2	2	2	2		
12	10206003A	Handle Protective Plastic cushion	1	1	1	1		
13	11206004	Power-side Safety Lock assembly	1	1	1	1		
14	10209012	Hair Pinφ3.2	4	4	4	4		
15	10206006	Washer	22	22	22	22		
16	10206023A	Hex Nut	2	2	2	2		
17	10209009	Cup Head Bolt	10	10	10	10		
18	11206004A	Safety Pulley Bracket with 2 assembly	1	1	1	1		
19	10206081	Safety Cover assembly	2	2	2	2		
20	10209126	Hex Bolt	20	20	24	24		
21	10209022	Washer	52	52	52	52		
22	10209021	Hex Nut	20	20	20	20		
23	11206010	Safety Pulley Bracket assembly	1	1	1	1		
24	10206009	Plastic Pulley	5	5	5	5		
25	10209010	Snap Ring	5	5	5	5		
26	10209033	Washer	16	16	16	16		
	11206151		2	0	0	0		
	11206152		0	2	0	0		
27	11279003	Extension Column	0	0	2	0		
	11279008		0	0	0	2		
	10206137		1	0	1	0		
28	10206138	Wire Cable	0	1	0	1		
29	10209111	Protective Ring For Cylinder	2	2	2	2		
30	11217056	Hydraulic Cylinder	2	2	2	2		
31	10209015	Slider Block	16	16	16	16		
32	11206046A	Arm Lock Bar (left)	2	2	2	2		
33	10206050A	Spring	4	4	4	4		
34	10217044	Arm Lock	4	4	4	4		

Ttom	tem Part# Description			Qty		I
Item		Description	OH-9	OH-9H	OH-10	OH-10H
35	206032	Snap Ring φ25	4	4	4	4
36	10206036	Hair Pin φ6*40	4	4	4	4
37	10209016	Carriage Plastic Cover	2	2	2	2
38	11206046B	Arm Lock Bar (right)	2	2	2	2
39	11217168	Arm pin assy	4	4	4	4
39A	10520023	Snap Ring	4	4	4	4
40	10206048	Socket Bolt	12	12	12	12
41	11206049	Moon Gear	4	4	4	4
42	10209019	Screw	12	12	12	12
43	10209018	Protective Rubber	2	2	2	2
44	11279004	Carriage ass	2	2	2	2
45	10279010	Outer Arm assy - Front right (drop-in)	1	1	1	1
46	10279009	Outer Arm assy - Front left	1	1	1	1
47	10279011	Rear arms assy	2	2	2	2
48	10209039	Lock washer	32	32	32	32
49	10201046A	Rubber Pad Assy.	4	4	4	4
50	10209034	Lock washer	12	12	12	12
51	10201002	Hex Bolt	12	12	12	12
52	10206025A	Foam Cushion with handle	1	1	1	1
53	10201005	Split Pin	2	2	2	2
54	11206129	Control Bar	1	1	1	1
55	11206025C	Connecting Pin for Control Bar	2	2	2	2
56	10206013	Limit Switch	1	1	1	1
57	10206011	Cup Head Bolt	2	2	2	2
58	11206042	Control Bar Support Bracket	2	2	2	2
59	10206041	Hex Bolt	4	4	4	4
60	10206023	Self locking Nut	12	12	12	12
61	10209056	Self locking Nut	6	6	6	6
62	11206195	Top Beam assembly(Part A)	1	1	1	1
63	11206196	Top Beam assembly(Part B)	1	1	1	1
64	10206028	Cup Head Bolt	4	4	4	4
65	11206029	Retainer	2	2	2	2
66	11206021	Pin For Pulley	2	2	2	2
67	11206022	Top Pulley Tube	2	2	2	2
68	10206024	Hex Bolt	8	8	8	8
69	11206010A	Safety Pulley Bracket assembly	1	1	1	1
70	11206085	Protective Cover(L=1240mm)	2	0	2	0
70	11206086	Protective Cover(L=1850mm)	0	2	0	2

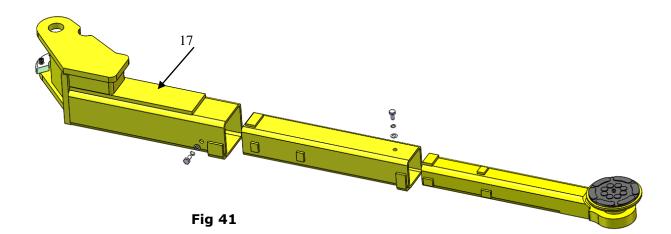
	"	_	Qty.						
Item	Part#	Description	OH-9	OH-9H	OH-10	OH-10H			
71	11206084	Protective Cover(L=200mm)	2	2	2	2			
72	11206083	Protective Cover(L=385mm)	2	2	2	2			
73	10640050	Socket bolt	4	4	4	4			
74	11206008C	Safety Pulley Bracket assembly	1	1	1	1			
75	11206026A	Offside Safety Lock assembly	1	1	1	1			
76	11206080	Protective Cover(L=1565mm)	2	2	2	2			
77	10206079	Cup Head Bolt	14	14	14	14			
77A	10206110	Cup Head Bolt	6	6	6	6			
70	11206030C		1	1	0	0			
78	11279002	Offside Inner column assembly	0	0	1	1			
79	11209051B	Stackable Adapter (1.5")	4	4	4	4			
80	11209052B	Stackable Adapter (2.5")	4	4	4	4			
81	11209053B	Stackable Adapter assembly(5")	4	4	4	4			
82	10209059	Anchor Bolt	10	10	10	10			
83	11217048	Retainer	2	2	2	2			
84	10209066	Hex Nut	8	8	8	8			
05	10206064A	Cable l=10030mm	2	0	0	2			
85	10206064B	Cable L=11250mm	0	2	0	2			
0.0	10206132	Oil hose(4470mm)	1	0	1	0			
86	10206133	Oil hose(5080mm	0	1	0	1			
87	10209060	90 $^{\circ}$ fitting for power unit	1	1	1	1			
87A	10211016	T fitting	1	1	1	1			
88	10209064	Straight Fitting	2	2	2	2			
89	10206062	Straight Fitting	2	2	2	2			
90	10233009	Pipe Fitting	2	2	2	2			
01	10206130	Oil Hose(L=5350mm)	2	0	2	0			
91	10206131	Oil Hose(L=5960mm)	0	2	0	2			
02	10260149	Safety cable L=7450mm	1	0	1	0			
92	10206065A	Safety cable L=8670mm	0	1	0	1			
93	10420045	Washer φ6	14	14	14	14			
94	10209149	Lock washer φ6	4	4	4	4			
05	10279500	Doute how	1	0	1	0			
95	10279501	Parts box	0	1	0	1			
96	10620065	Shim (2mm)	10	10	10	10			
97	10201090	Shim (1mm)	10	10	10	10			
201	071101	Power unit(manual)	1	1	1	1			



4.2 Left front arm(10279009)explosive view



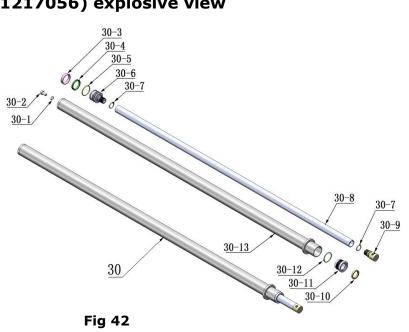
4.3 Right front arm(10279010)explosive view



No	Part no	Name	QTY	No	Part no	Name	QTY
1	10206048	Hex nut	12	10	10201002	Hex nut	10
2	10209039	Elastic medium	12	11	10209034	Elastic medium	6
3	10209022	washer	12	12	10209033	washer	6
4	11206192	Rear arm ass	2	13	11201049	Front inner arm ass	2

No	Part no	Name	QTY	No	Part no	Name	QTY
5	10206156	Tool tray	2	14	10420138	Hex nut	4
6	11206154	Rear guard bar	2	15	10209134	Rubber pad tray	4
7	11206193	Rear inner arm ass	2	16	11680030	Support pad ass	4
8	11206183	Right front rear arm ass	1	17	11206182	Left front arm ass	1
9	11206189	Front middle arm ass	2				

Cylinder(11217056) explosive view

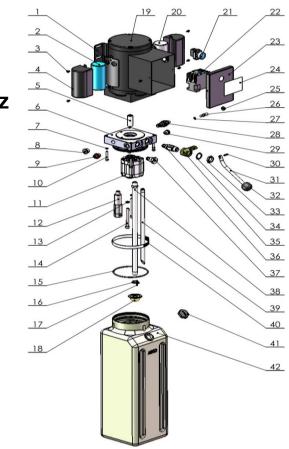


Part list for cylinder

No	Part no	Name	Qty	No	Part no	Name	QTY
30-1	10209069	O-ring	2	30-8	11217076	Piston rod	2
30-2	10209070	Bleeding Plug	2	30-9	11209077	Piston Rod Fitting	2
30-3	10209071	Support Ring	2	30-10	10209078	Dust wing	2
30-4	10209072	Y-ring	2	30-11	11209079	cover	2
30-5	10209073	O-ring	2	30-12	10209080	O ring	2
30-6	11209074	Piston	2	30-13	11209081A	Bore Weldment	2
30-7	10209075	O-Ring	2				

Power unit(071101,) explosive view

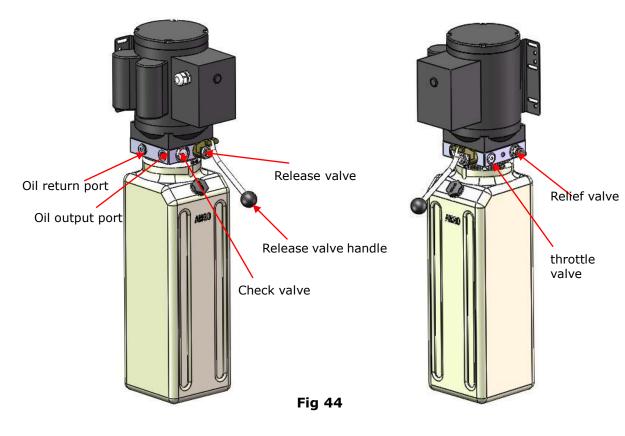
Fig 41



single phase,220V/60HZ

Part list of power unit(220V/60HZ/single phase)

-								
No	Part no	Name	Qty		No	Part no	Name	Qty
1	814001	Rubber pad	2		22	4103005	AC contractor	1
2	814001	Starting capacitor	1		23	8140028	Motor wiring cover	1
3	420148	Hex nut with	6		24	7111106	AMGO plate	1
4	814000	Capacitor cover	2		25	8140029	Nut	1
5	814003 63	Motor connecting shaft	1		26	8140045 9	Throttle valve core	1
6	814003	manifold block	1		27	1020906	O ring	1
7	102091	Elastic medium	4		28	8140026	Relief valve	1
8	814002	Inner iron plug	1		29	8140028	Hex iron plug	1
9	814002	Plastic plug	1		30	8140045	Elastic shaft pin	1
10	850901	Hex nut	4		31	8140045	Release handle	1
11	814002 80	Gear pump	1		32	1020902 0	Rack handle plastic ball	1
12	814002	Trimmer valve	1		33	8140012	Release valve nut	1
13	102090	washer	2		34	8140012	Release valve	1
14	814002	Hex nut	2		35	8140044	valve seat(<mark>short</mark>)	1
15	814003	O-ring	1		36	070001	Release valve	1
16	102091	belt	1		37	8140026	Check valve	1
17	850901	magnet	1		38	8140028	Oil suction hose	1
18	814002	Filter net	1		39	8140028	Oil return hose	1
19	814002	Steel plate motor	1		40	8140036	Steel hoop	1
20	814000	Running capacitor	1		41	8140026	Oil tank cover	1
21	104200	Button switch	1		42	8140027	Oil tank	1



V. TEST RUN

1. Adjust synchronous cable (See Fig. 45)

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.

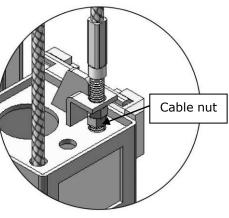


Fig. 45

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. Bleeding air

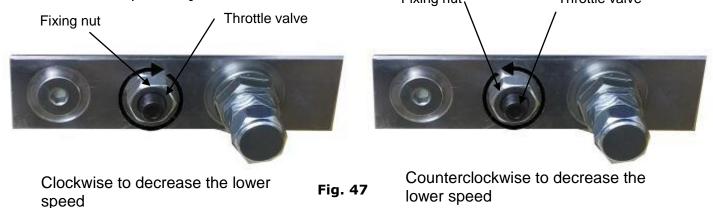
This hydraulic system is designed to bleeding air by loosing the bleeding plug. Lifting the carriages to about 1 meter height, and loose the bleeding plug, the air would be bled automatically, then tighten the plug after bleeding, the lift would work stably and smoothly, otherwise repeat bleeding **(See Fig. 46)**.





4. Adjust the lower speed

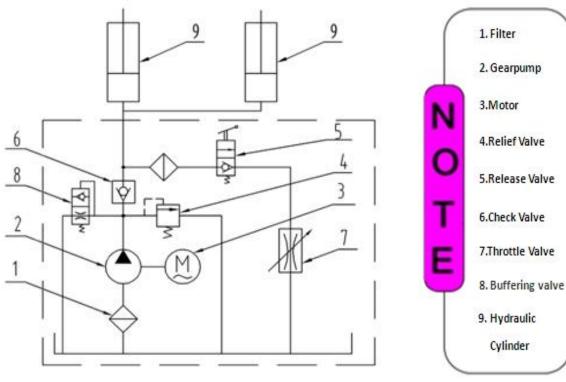
You can adjust the lower speed of the lift if needing: Loosen the fixing nut of the throttle valve, and then turn the throttle valve clockwise to decrease the lower speed, or counterclockwise to increase the lower speed. Do not forget to tighten the fixing nut after the lower speed adjustment has been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



5. Test with load

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

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



Hydraulic System

Fig.48

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 contact the vehicle's lifting point at the same time where manufacturers recommended

- Push button UP until the lift pads contact underside of vehicle totally. Recheck to make sure vehicle is secure;
- 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 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		
	1. Button does not work	1. Replace button		
	2. Wiring connections are not in good	2.Repair all wiring connections		
Motor does not	condition			
	3. Motor burned out	3. Repair or replace motor		
run	4. Height Limit Switch is damaged	4.Replace the Limit Switch		
	5. AC contactor burned out	5. Replace AC Contactor		
	1 Mahan mura in ununga untation			
	1. Motor runs in reverse rotation	1.Reverse two power wire		
Motor runs but	2. Gear Pump out of operation	2.Repair or replace		
the lift is not	3. Release Valve in damage	3. Repair or replace		
raised	4. Relief Valve or Check Valve in damage	4.Repair or replace		
	5. Low oil level	5.Fill tank		
	1. Release Valve out of work			
Lift does not	2. Relief Valve or Check Valve leakage	Repair or replace		
stay up	3. Cylinder or Fittings leaks			
	1. Oil line is jammed	1. Clean the oil line		
	2. Motor running on low voltage	2. Check Electrical System		
	3. Oil mixed with air	3. Fill tank		
Lift raises slowly	4. Gear Pump leaks	4. Replace Pump		
	5. Overload lifting	5. Check load		
	1. Safety device are in activated	1. Release the safeties		
	2. Release Valve in damage	2. Repair or replace		
Lift cannot lower	3. Safety cable broken	3. Replace		
	4. Oil system is jammed	4. Clean the oil system		



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