



W10-HD Installation & Operation Manual

10,000 lb. Capacity Overhead Asymmetric Two Post Lift



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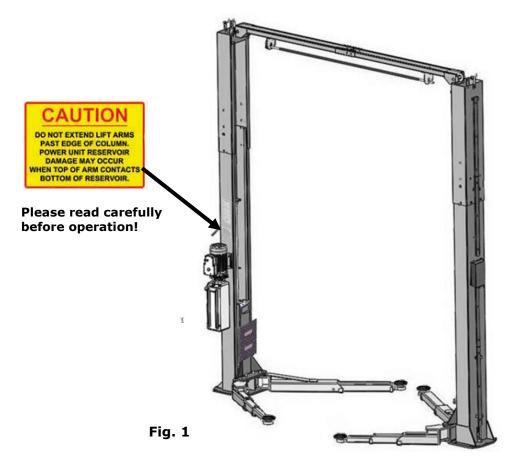
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I. PRODUCT FEATURES AND SPECIFICATIONS

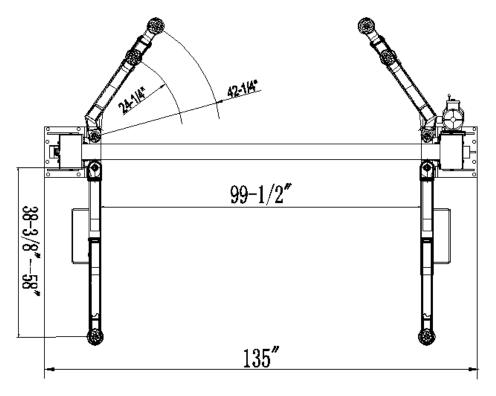
CLEAR-FLOOR DIRECT-DRIVED MODEL FEATURES Model W10-HD (See Fig. 1)

- · Direct-drived design, minimize the lift spare parts and breakdown ratio
- Dual hydraulic cylinders, designed and made as ANSI standards, utilizing imported oil seal in cylinder
- \cdot Self- lubricating UHMW Polyethylene sliders and bronze bush
- · 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 accommodate varying ceiling heights



W10-HD SPECIFICATIONS

Model	Style	Lifting Capacity	Lifting Time	Lifting Height	Overall Height	Overall Width	Width Between Columns	Minimum Pad Height	Motor
W10-HD	Clear-floor Direct-drived	10,000 lbs	56S	71 1/2"-84 1/2"	142-1/2"/150-1/2"	135″	112 1/4″	3 1/2"-12 1/2"	2.0 HP





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

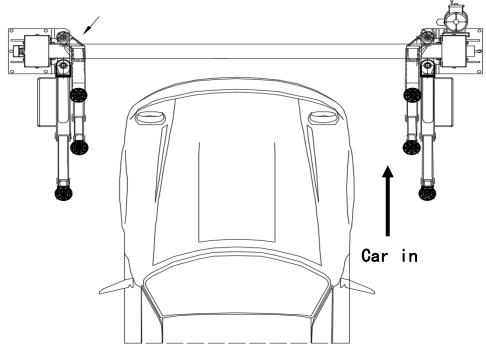


Fig 3

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[#])



✓ Carpenter's Chalk



✓ Screw Sets



✓ Tape Measure (7.5m)



✓ Pliers



✓ Socket Head Wrench (3[#], 5[#], 8[#])



✓ Lock Wrench





B. Equipment storage and installation requirements.

The equipment should be stored or installed in a shady, normal temperature, ventilated and dry place.

C. The equipment should be unload and transfer by forklift.



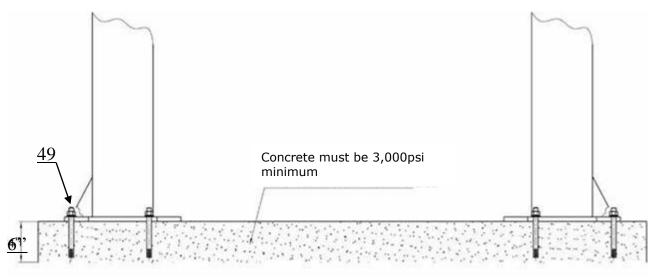


Fig.5

D. 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 6" 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.

Fig. 6

E. POWER SUPPLY

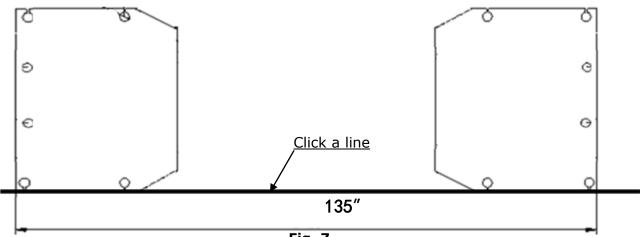
The electrical source must be 2.0HP minimum. The source cable size must be 2.5mm² and in good condition of contacting with floor.

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).





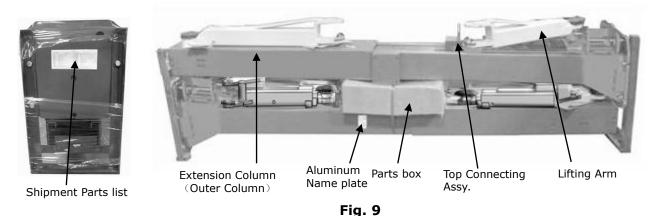
C. Check the parts before assembly.

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



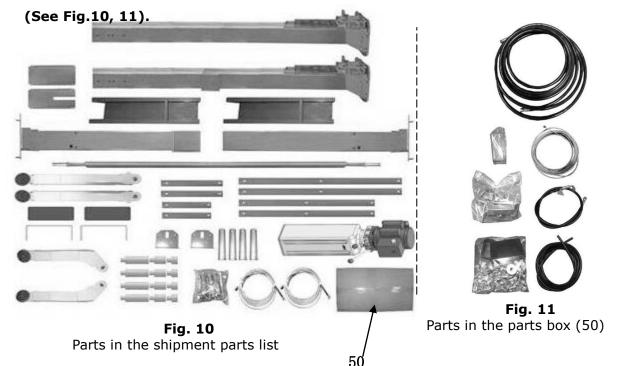


2. Move aside the lift with fork lift or hoist, and open the extension packing carefully, take off the lifting arms and parts box from upper and inside the column, then move them to location nearby installation site, check the parts according to the shipment parts list (See Fig.9).





- 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.
- 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).

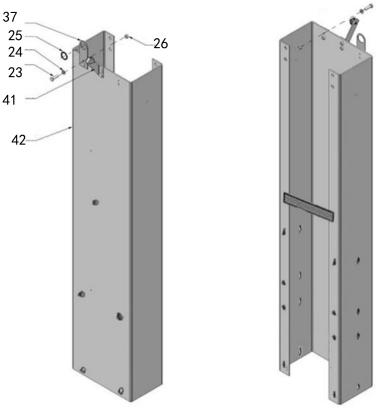


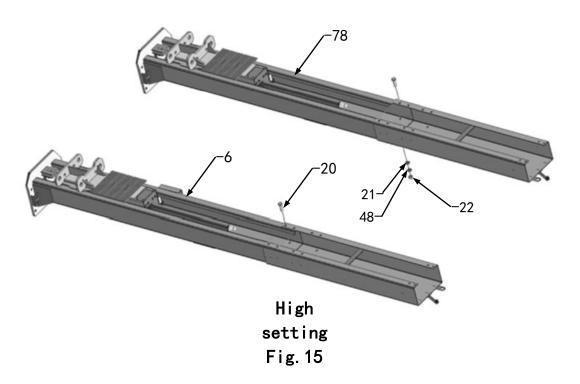
Fig. 14

E. Position powerside column

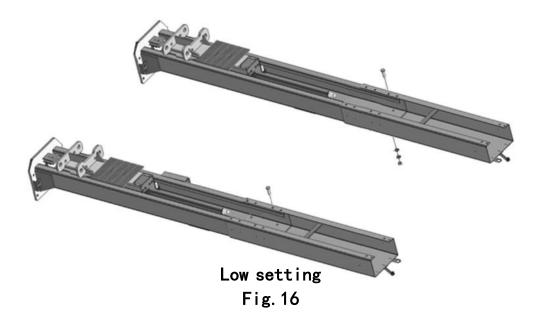
Lay down two columns on the installation site paralleled, position the power-side column according to the actual installation site. Usually, it is suggested to install power-side column on the front-right side from which vehicles are driven to the lift. This lift is designed with 2-Section columns. Adjustable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

W10-HD: Not suitable for installation when the height of the workshop is less than 143-4 / 4 "; only low setting installation for height between 143-5 / 4" -151-5 / 8 "; the height of the workshop is greater than 151 -5/8 ", installation can be in both high and low setting;

1. High setting installation, choose the low holes of the outer column and install with the inner column.

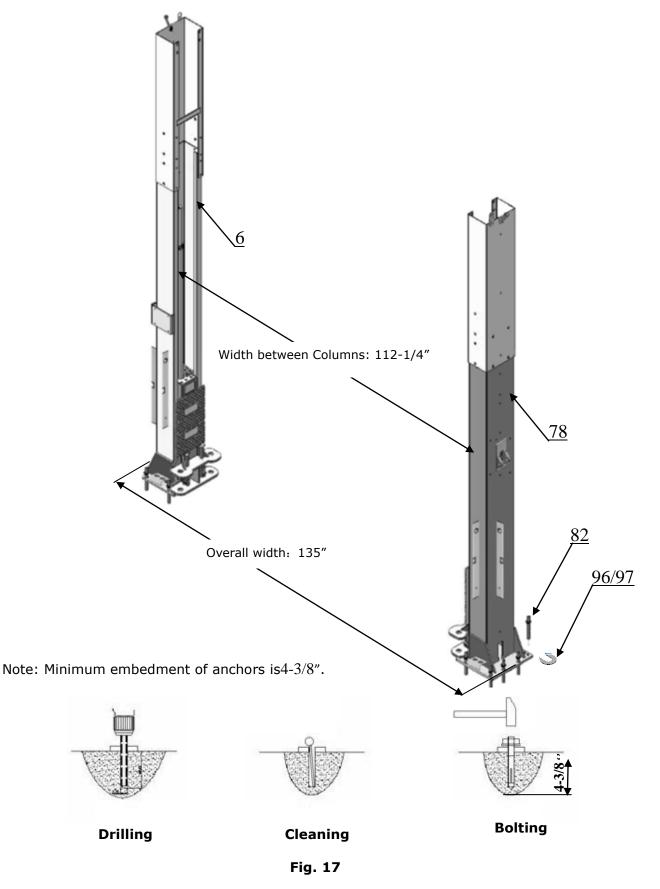


2. Low setting installation, choose the high position holes of the outer column and install with the inner column. (See Fig.16).



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

1. The hook on the top coupling assembly is hung on the outer column to lock the screws, and then the top beam is installed **(See Fig. 18)**.

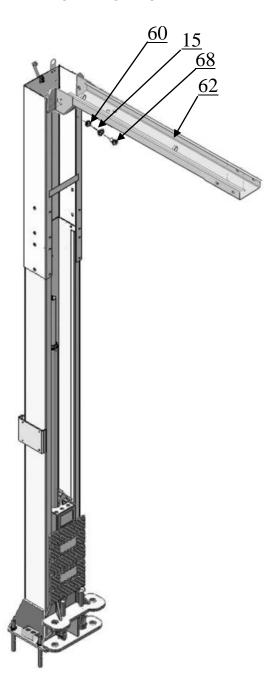


Fig. 18

2. Install the top beam, fixed the anchor bolts

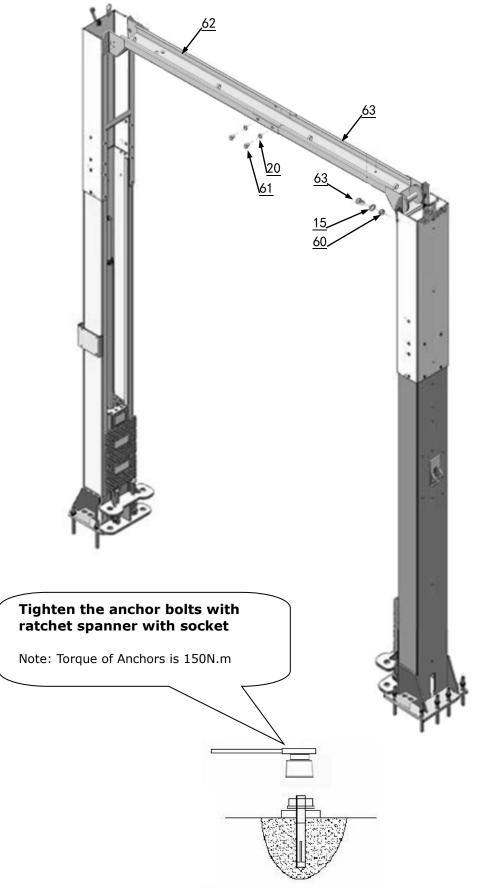
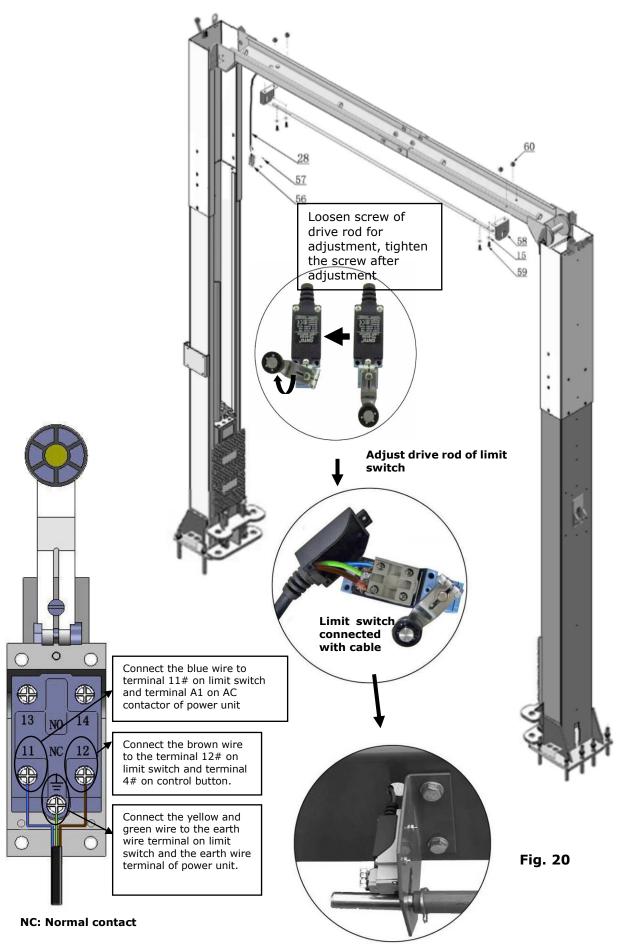
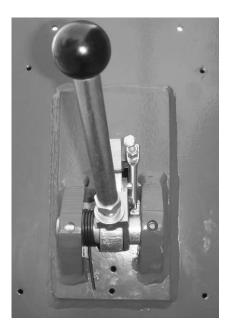


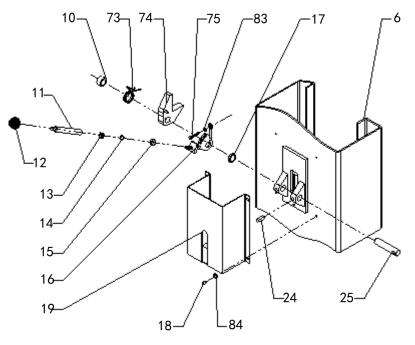
Fig. 19

H. Installing the limit switch control bar and limit switch (See Fig. 20).



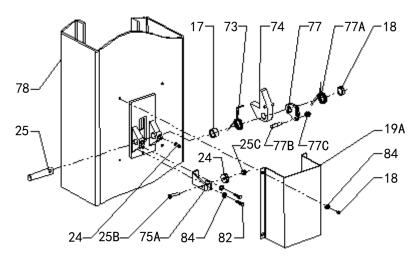
I. Install safety device (See Fig. 20 & Fig. 21).





Powerside safety device Fig.21





Offside safety device Fig.22

J. Lift the carriages up and make them be locked at the same level (See Fig. 23).

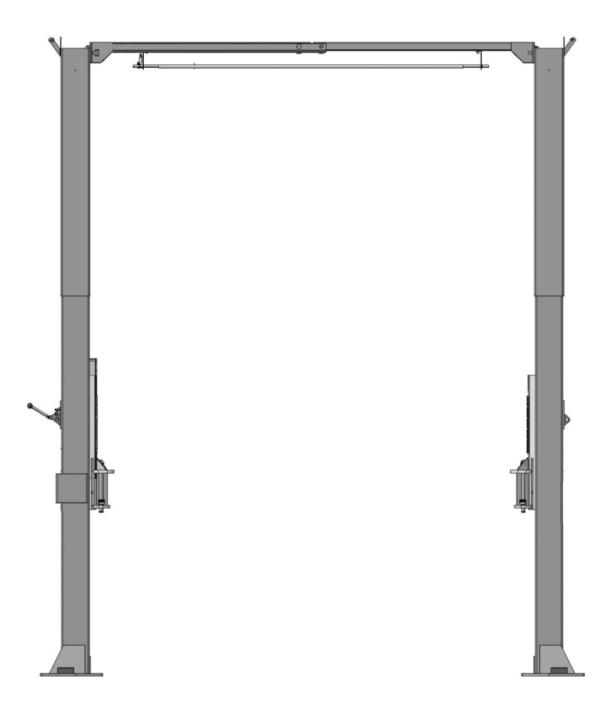
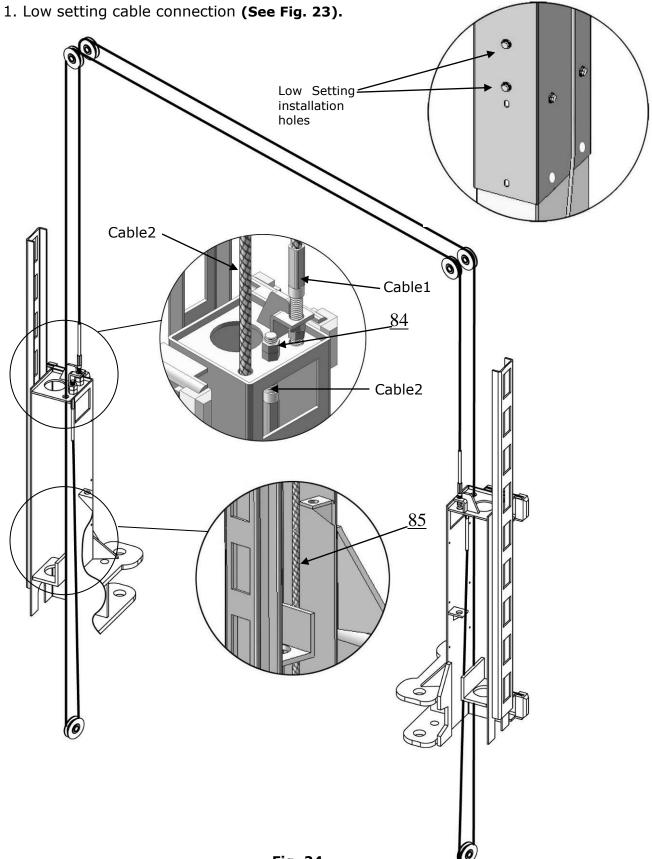


Fig. 23

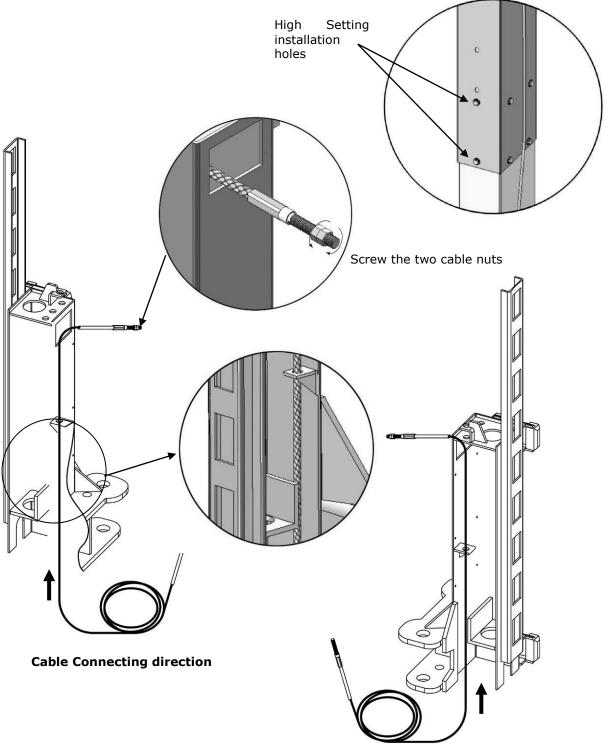
K. Install cables





2. High setting cable connection

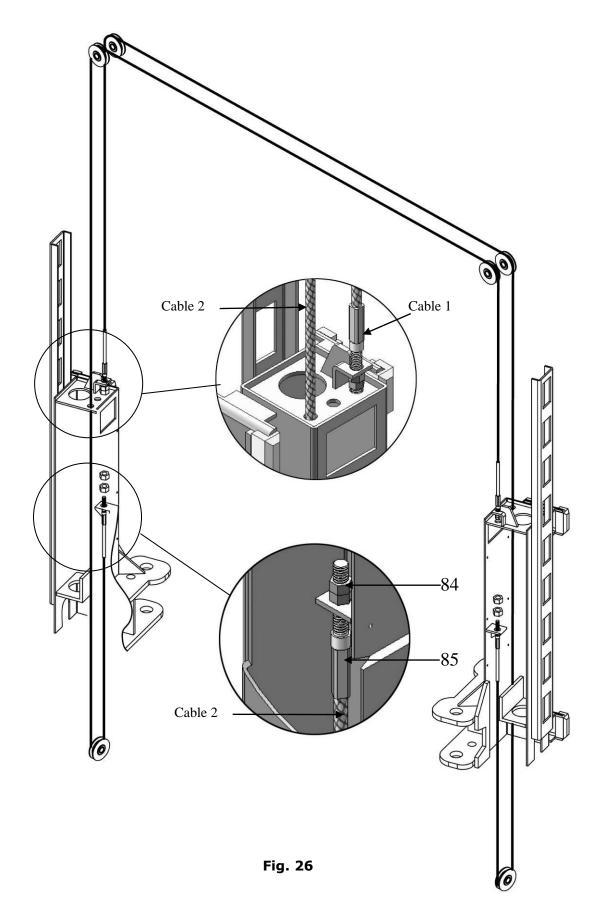
2.1. Cable pass through from the bottom of the carriages and be pulled out from the open of carriages, then screw the two cable nuts (See Fig. 25).



Cable connecting direction

Fig. 25

2.2 Connecting cable for high setting (See Fig. 26).



L. Install oil hose. (See Fig. 27).

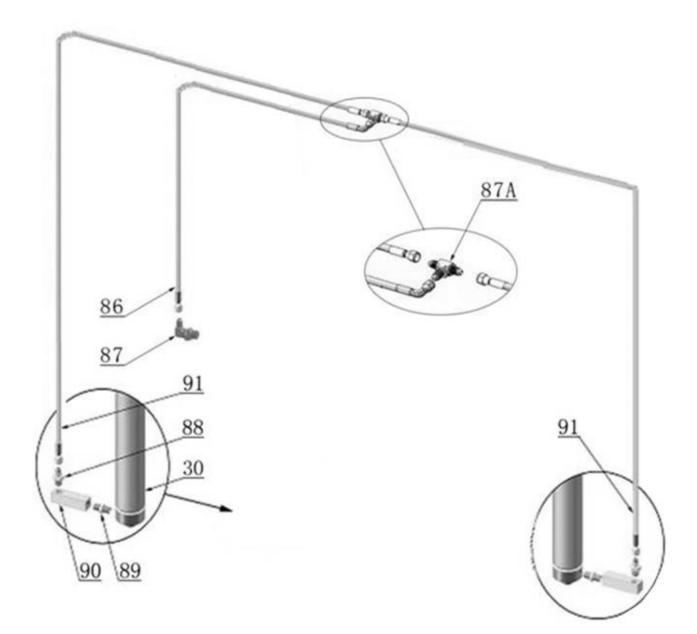
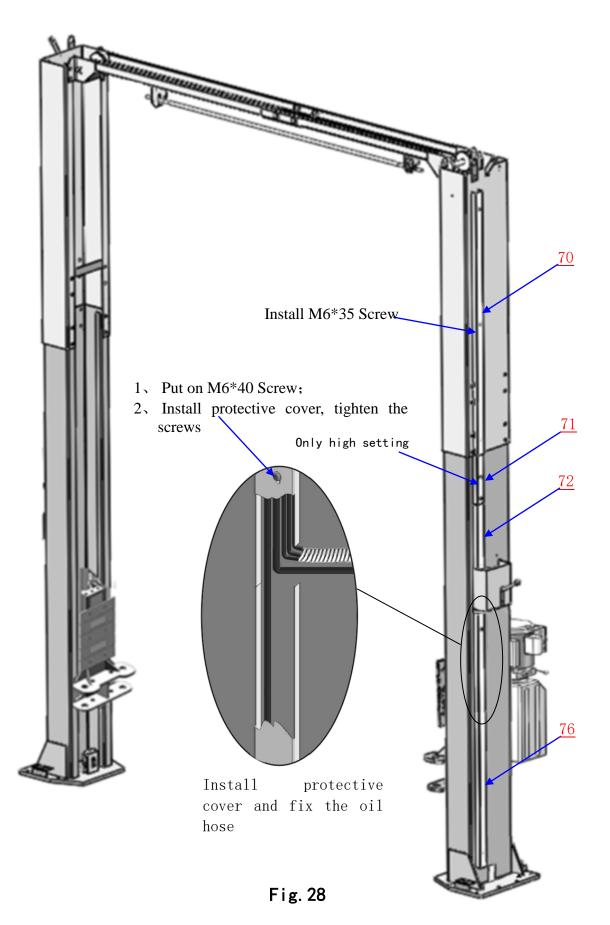


Fig. 27

M. Install protective cover. (Fig.28)



19

N. Install safety cable (See Fig. 29)

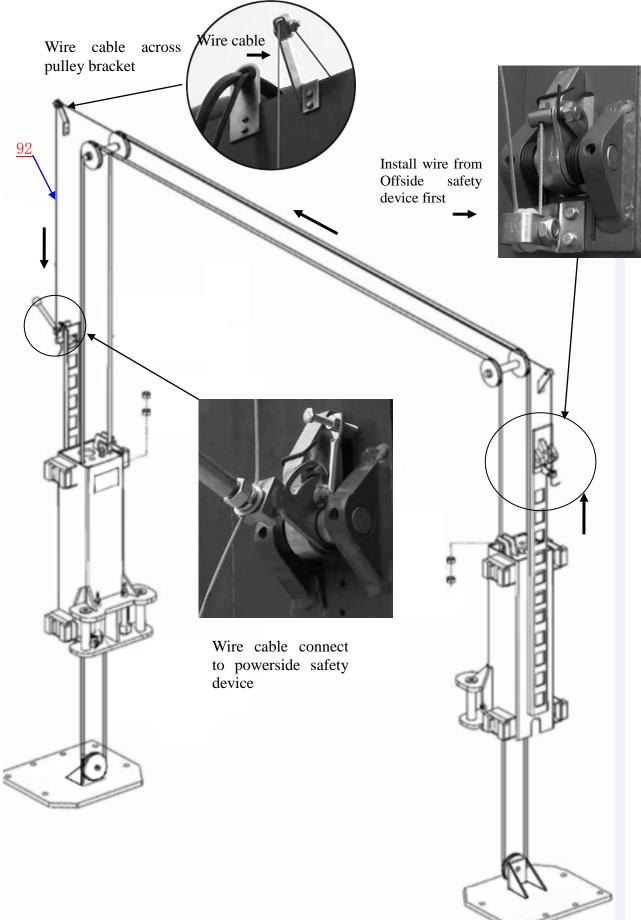


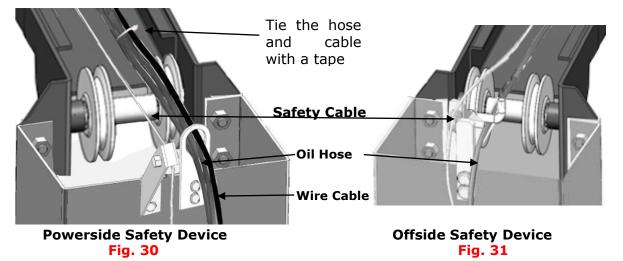
Fig. 29

O. Install Protective Covers

Note: Requirement of installation for oil hose and safety device.

1. Install Oil Hose.

Note: Don't cross the oil hose and safety cable together (See Fig. 30 & Fig. 31).



2. Install safety cable, oil hose and protective cover (See Fig. 32 & Fig. 33 & Fig. 34).

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.

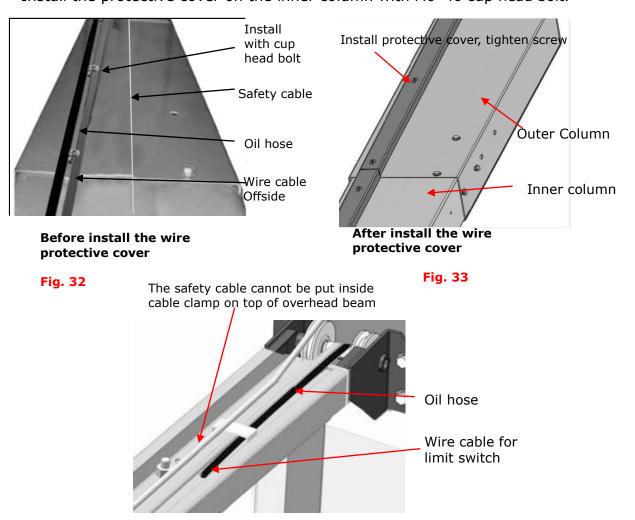
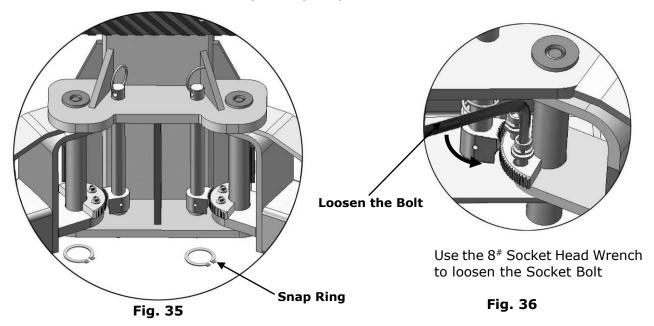


Fig. 34

P. Install lifting arms and adjust the arm locks.

- 1. Install the lifting arms (See Fig. 35).
- 2. Lowing the carriages down to the lowest position, then use the $8^{\#}$ socket head wrench to loosen the socket bolt (See Fig. 36).



3. Adjust the arm lock as direction of arrow (See Fig. 37)

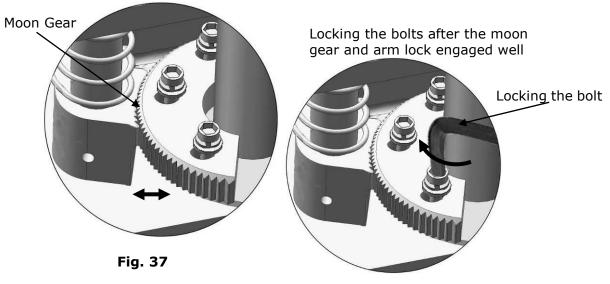


Fig. 38

4. Adjust moon gear and arm lock to make it to be meshed, then tighten the socket bolts of arm lock (See Fig. 38).

Q. 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#.

R. Install electrical system

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

- Note: 1. Install 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 wiring (See Fig. 39).

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

Power unit motor wiring diagram

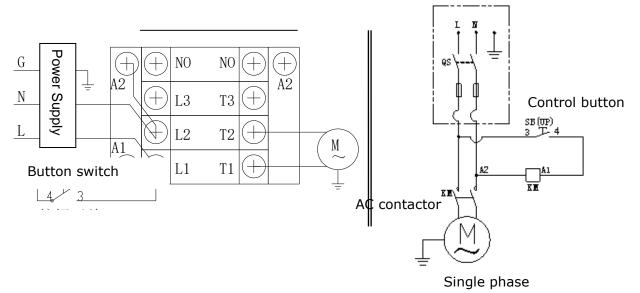


Fig. 39

IV. EXPLODED VIEW

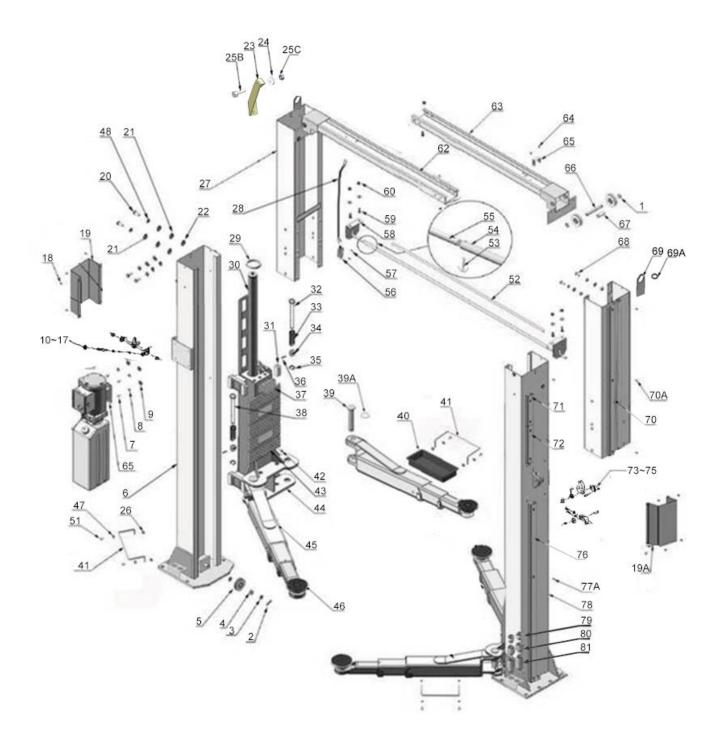


Fig. 40

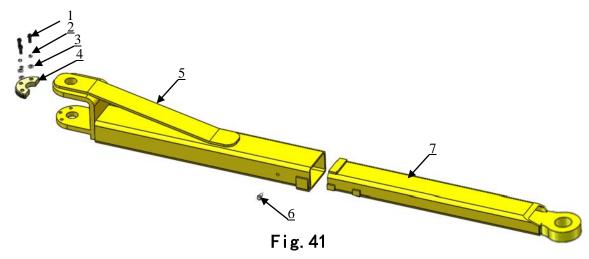
PARTS LIST FOR W10-HD

Item	em Part# Description		W10-HD	NOTE
1	10206019	Snap Ring	4	
2	10209012	Elastic latch	2	
3	10209128	Washer φ20	4	
4	10209057B	Bronze Bush for Pulley	6	
5	11206020	Pulley	6	
6	11279023	Power-side Inner Column	1	
7	10209003	Hex Bolt	8	
8	10209004	Rubber Ring	4	
9	10209005	Self-locking Nut	8	
10	11217436	Safety device spacer	2	
11	11217006	Safety device control stick	1	
12	10217005	Plastic ball	1	
13	10206023A	Hex bolt	1	
14	10420026	Washer	1	
15	10206006	Washer	27	
16	11217009	Safety device	1	
17	11217012	Safety device spacer	2	
18	10209009	Cup head screw	10	
19	11217405	Cover for powerside safety device	1	
19A	11217406	Cover for offside safety device	1	
20	10209126	Hex Bolt	20	
21	10209022	Washer	40	
22	10209021	Hex Nut	20	
23	11217026	Wire cable Bracket	2	
24	10206009	Plastic Pulley	3	
25	10217013	Hex bolt	8	
25A	10420018	Self-locking nut	8	
25B	10209046	Hex bolt	3	
25C	10209056	Self-locking nut	3	
26	10209033	Washer	12	
27	11203221	Extension Column	2	
28	10206137	Wire Cable	1	
29	10209111	Protective Ring for Cylinder	2	
30	11217056	Cylinder	2	
31	10209015	Slider Block	16	
32	11206046A	Arm Lock Bar (left)	2	
33	10206050A	Spring	4	

34	10217044	Arm Lock	4	
35	206032	Snap Ring φ25	4	
36	10206036	Hair Pin φ6*40	4	
37	10209016	Carriage Plastic Cover	2	
38	11206046B	Arm Lock Bar (right)	2	
39	11217168	Arm pin assy.	4	
39A	10520023	Snap Ring	4	
40	10206190	Tool tray	2	
41	11206191	Toe guard bar	4	
42	10209019	Screw	12	
43	10209018	Protective Rubber	2	
44	11279004	Carriage	2	
45	10279010	Front right Arm	1	
45A	10279009	Front left Arm	1	
46	10201046A	Rubber pad assy.	4	
46A	10420138	Hex bolt	4	
46B	10209134	Rubber pad	4	
46C	11680030C	Rubber pad bracket	4	
47	10209034	Washer	14	
48	10209039	washer	32	
49	10209059B	Anchor bolt	12	
50	10206500B	Parts box	1	
51	10201002	Hex Bolt	14	
52	10206025A	Foam Cushion with handle	1	
53	10201005	Split Pin	2	
54	11206129	Control Bar	1	
55	11206025C	Connecting Pin for Control Bar	2	
56	10206013	Limit Switch	1	
57	10206011	Cup Head Bolt	2	
58	11206042	Control Bar Support Bracket	2	
59	10206041	Hex Bolt	4	
60	10206023	Self-locking Nut	12	
61	10209056	Self-locking Nut	4	
62	11206205	Top Beam (Part A)	1	
63	11206206	Top Beam (Part B)	1	
64	10206028	Cup Head Bolt	4	
65	071101	Power unit	1	
66	11206021	Pin for Pulley	2	
67	11206022	Top Pulley spacer	2	
68	10206024	Hex Bolt	8	
69	11217024	Oil hose retainer	2	

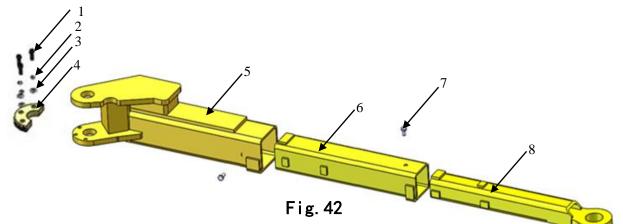
69A	1061K074	Wire guard	2	
70	11203752	Wire protective cover	2	
70A	10206110	Cup head bolt	6	
71	11206084	Protective Cover(L=200mm)	2	
72	11206083	Protective Cover(L=385mm)	2	
73	11217004	Active safety control block	1	
74	11217029	Safety Pulley Bracket	1	
75	10217008	Torsion spring	1	
76	11217031	Driven safety control block	1	
76A	10217032	Wire cable connecting pin	1	
76B	10217033	Tension nut	1	
77	10203778	Protective Cover	2	
77A	10206079	Cup Head Bolt	14	
78	11279024	Offside Inner column	1	
79	11209051B	Stackable Adapter (1.5")	4	
80	11209052B	Stackable Adapter (2.5")	4	
81	11209053B	Stackable Adapter (5")	4	
82	10217066	Anchor Bolt	2	
83	10209149	Washer	2	
84	10420045	Washer	18	
85	10206064A	Cable l=10030mm	2	
86	10206132	Oil hose(4470mm)	2	
87	10209060	90° fitting for power unit	1	
87A	10211016	T fitting	1	
88	10209064	Straight Fitting	2	
89	10206062	Straight Fitting	2	
90	10233009	hose Fitting	2	
91	10206130	Oil Hose(L=5350mm)	2	
92	10260149	Safety cable L=7450mm	1	
93	10209066	Hex bolt	8	
04	10201090	Shim (2mm)	10	
94	10620065	Shim (1mm)	10	
95	10209152	Таре	4	
96	10279011	Rear Arm assy.	2	

4.1 Rear arm assy. (10279011) explosive view



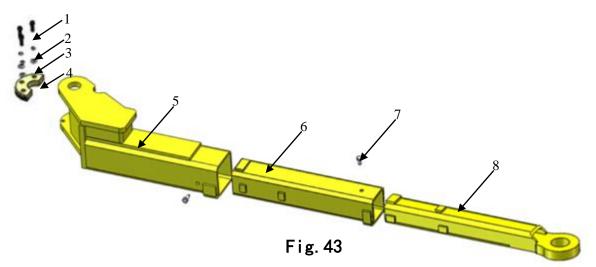
No	Part no	Name	QTY	No	Part no	Name	QTY
1	10206048	Hex nut	6	5	11206192	Rear outer arm	2
2	10209039	washer	6	6	10201149	Cup head bolt	2
3	10209022	washer	6	7	11206193	Rear inner arm	2
4	11206049	Moon gear	2				

4.2 Left front arm assy. (10279009) explosive view



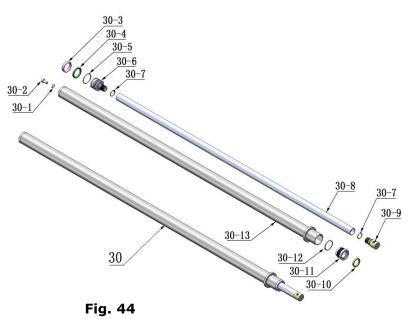
No	Part no	Name	QTY	No	Part no	Name	QTY
1	10206048	Hex nut	3	5	11206183	Rear outer arm	1
2	10209039	washer	3	6	11206189	Front middle arm	1
3	10209022	washer	3	7	10201149	Cup head bolt	2
4	11206049	Moon gear	1	8	11201049A	Front inner arm	1

4.3 Right front arm assy. (10279010) explosive view



Νο	Part no	Name	QTY	No	Part no	Name	QTY
1	10206048	Hex nut	3	5	11206182	Front left outer arm	1
2	10209039	washer	3	6	11206189	Front middle arm	1
3	10209022	washer	3	7	10201149	Cup head bolt	2
4	11206049	Moon gear	1	8	11201049A	Front inner arm	1

4.4 Cylinder (11217056) explosive view



Part list for cylinder

				_		1
No	Part no	Name	QTY		No	Pa
30-1	10209069	O-ring	2		30-8	112
30-2	10209070	Bleeding Plug	2		30-9	112
30-3	10209071	Support Ring	2		30-10	102
30-4	10209072	Y-ring	2		30-11	112
30-5	10209073	O-ring	2		30-12	102
30-6	11209074	Piston	2		30-13	1120
30-7	10209075	O-Ring	2			

No	Part no	Name	QTY
30-8	11217076	Piston rod	2
30-9	11209077	Piston Rod Fitting	2
30-10	10209078	Dust wing	2
30-11	11209079	cover	2
30-12	10209080	O ring	2
30-13	11209081A	Bore Weldment	2

Power unit (071101) explosive view

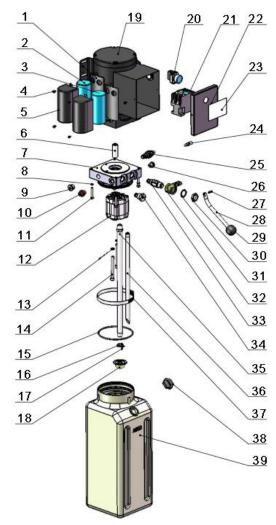
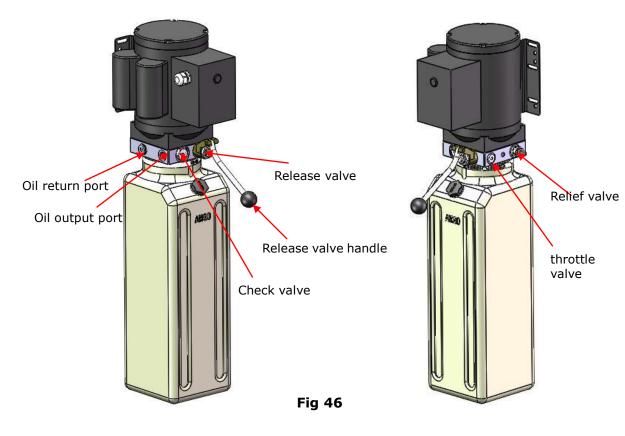


Fig. 45

single phase,220V/60Hz

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

No	Part no	Name	QTY	No	Part no	Name	QTY
1	81400180	Rubber pad	2	22	81400287	AC contractor	1
2	81400130	Starting capacitor	1	23	71111104	Motor wiring cover	1
3	81400088	Running capacitor	1	24	81400560	Throttle valve	1
4	10420148	Screw with washer	4	25	81400266	Relief valve	1
5	81400066	Capacitor cover	2	26	81400284	Plug	1
6	81400363	Motor connector	1	27	10720118	Elastic pin	1
7	090101	Manifold block	1	28	81400451	Release handle	1
8	10209149	Washer	4	29	10209020	Plastic ball	1
9	81400276	Plug	1	30	81400421	Release valve nut	1
10	81400259	Red plug	1	31	81400422	Release handle	1
11	85090142	Hex bolt	4	32	81400449	valve seat(short)	1
12	81400280	Gear pump	1	33	81400567	Release valve	1
13	10209034	washer	2	34	81400566	Check washer	1
14	81400295	Hex nut	2	35	81400288	Oil suction hose	1
15	81400365	O-ring	1	36	81400289	Oil return hose	1
16	10209152	Таре	1	37	81400364	Hose clamp	1
17	85090167	Magnet	1	38	81400263	Oil tank cap	1
18	81400290	Filter	1	39	81400275	Oil tank	1
19	81400413	Motor	1				
20	10420070	Button switch	1				
21	41030055	AC contractor	1				



V. TEST RUN

1. Adjust synchronous cable (See Fig. 47)

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 carriages 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.

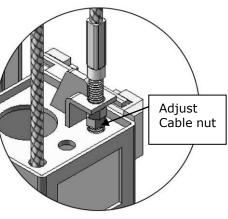


Fig. 47

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

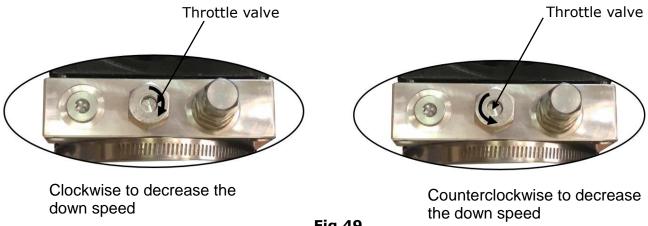
This hydraulic system is designed to bleeding air by loosing the bleeding plug. Lifting the carriages to about 1 meter height, and loose the bleeding plug, the air would be bled automatically, then tighten the plug after bleeding, the lift would work stably and smoothly, otherwise repeat bleeding **(See Fig. 48)**.





4. Adjust the lower speed

You can adjust the lower speed of the lift if needing: Turn the Throttle Valve in clockwise direction to decrease the lower speed, or increase the speed in counterclockwise direction.

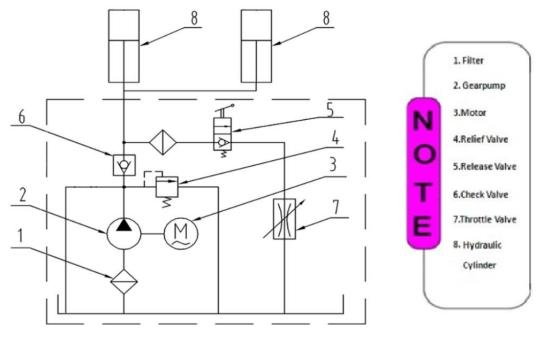




5. Test with load

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.50

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.

Note: In order to extend the service life of the cylinder and seals, raise the machine to top at least once a day

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.

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			
run	3. Motor burned out	3. Repair or replace motor		
Tun	4. Height Limit Switch is damaged	4.Replace the Limit Switch		
	5. AC contactor burned out	5. Replace AC Contactor		
	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		
laiseu	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		
Lift raises slowly	3. Oil mixed with air	3. Fill tank		
Lift raises slowly	4. Gear Pump leaks	4. Replace Pump		
	5. Overload lifting	5. Check load		

VIII.TROUBLE SHOOTING

Lift cannot lower	1. Safety device are in activated	1. Release the safeties
	2. Release Valve in damage	2. Repair or replace
	3. Safety cable broken	3. Replace
	4. Oil system is jammed	4. Clean the oil system

IX. Lift disposal

When the car lift cannot meet the requirements for normal use and needs to be disposed, it should follow local laws and regulations.