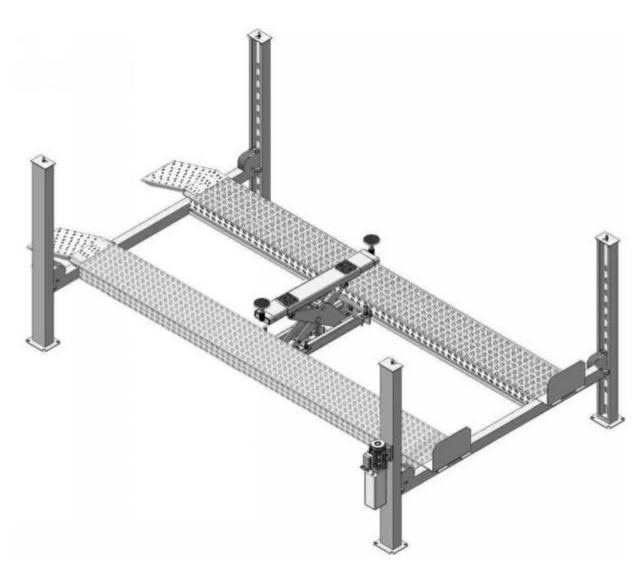


Installation And Service Manual

Original



FOUR POST LIFT

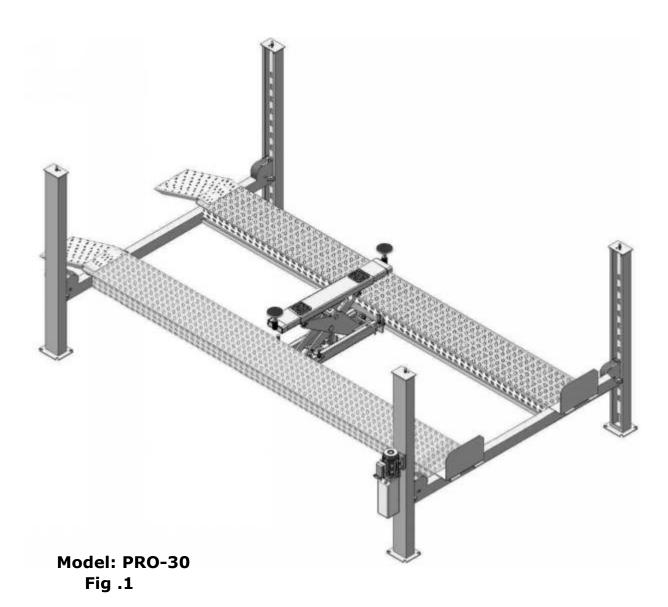
Model: PRO-30 PRO-30E

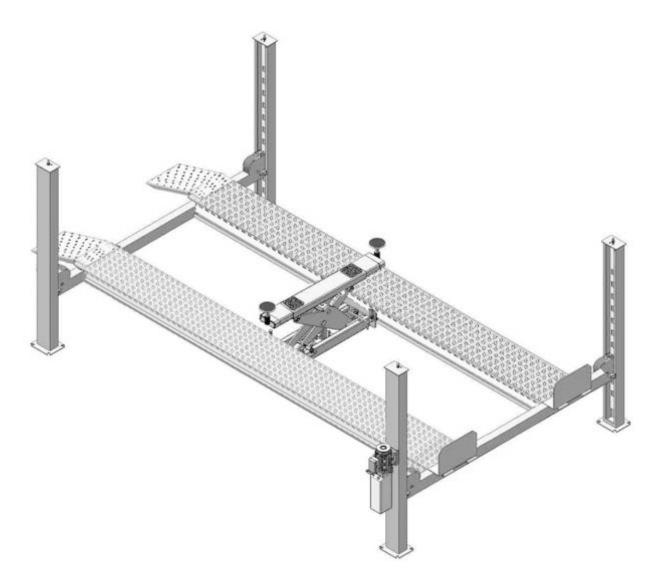
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Operation Instruction
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Trouble Shooting
List Disposal

I. PRODUCT FEATURES AND SPECIFICATIONS

- Manual control system
- Mechanical self-lock and pneumatic safety release
- Manual hydraulic power system, cable-drived.
- Strengthen and Non-skid diamond platforms.
- Adjustable platform and adjustable safety lock ladders.
- Optional Jack: With Pneumatic hydraulic pump.





Model: PRO-30E Fig .2

MODEL SPECIFICATIONS

Model	Lifting Capacity	Lifting Height	Lifting Time	Overall Length (Inc. Ramps)	Overall Width	Width Between Columns	Motor
PRO-30	20000lba	74 2/4"	1160	307 1/8"	149-3/8"	121 2/4"	2.0HP
PRO-30E	30000lbs	74-3/4"	116S	367 1/8"	149-3/8	131-3/4"	2.002

II. INSTALLATION REQUIREMEN A TOOLS REQUIRED

✓ Rotary Hammer Drill (Ф3/4)



✓ Hammer



✓ English Spanner (12")



✓ Wrench Set:

$$(10^{#}, 12^{#}, 13^{#}, 14^{#}, 17^{#}, 19^{#}, 24^{#}, 30^{#})$$



✓ Ratchet Spanner With Socket (28#)



✓ Carpenter's Chalk
✓ Screw Sets

√ Tape Measure (295-1/4")



✓ Pliers



✓ Lock Wrench



✓ Socket Head Wrench (3*, 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 7-7/8" 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 3,000 psi minimum.
- 3. Floors must be level and no cracks.

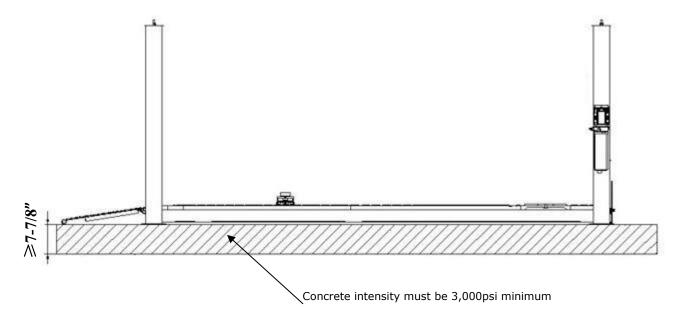


Fig. 4

C. AIR SUPPLY

Air pressure requirement: 0.5Mpa~0.8Mpa, Air line size $\Phi 8 * \Phi 6$.

D. POWER SUPPLY

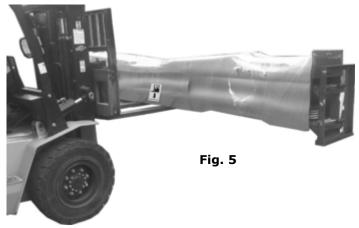
The electrical source must be 2HP minimum. The source cable size must be 2.5mm² and in good condition of contacting with floor.

III. STEPS OF INSTALLATION

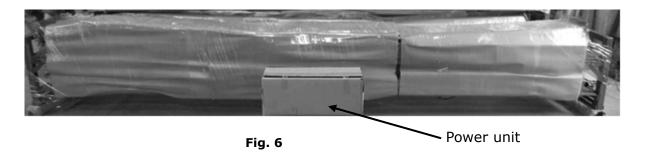
A. Location of installation

Check and insure the installation location (concrete, layout, space size etc.) is suitable for lift installation.

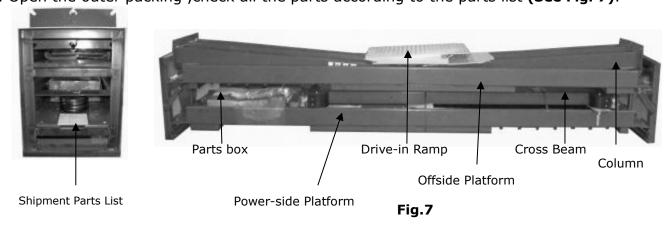
- B. Check the parts before assembly
- 1. The equipment should be unload and transfer by forklift. (See Fig. 5)



2. Received lift with hydraulic power unit (See Fig. 6).



3. Open the outer packing ,check all the parts according to the parts list (See Fig. 7).



4. Take off the Drive-in Ramps and Columns (See Fig.8).



- 5. Loose the screws of the upper package stand, take off the offside platform, take out the parts inside the power side platform, then remove the package stand.
- 6. Move aside the parts and check the parts according to the shipment parts list (See Fig. 9).



Fig.9

7. Open the parts box and check the parts according to the parts box list (**See Fig. 10**).



Fig. 10

8. Check the Parts bag according to the parts bag list (See Fig. 11).



Parts bag 1







Parts bag 2





Fig.11

C. Use a carpenter's chalk line to establish installation layout , make sure the size is right and base is flat (see Fig. 12).

Note: Reserve space before and behind the installation site.

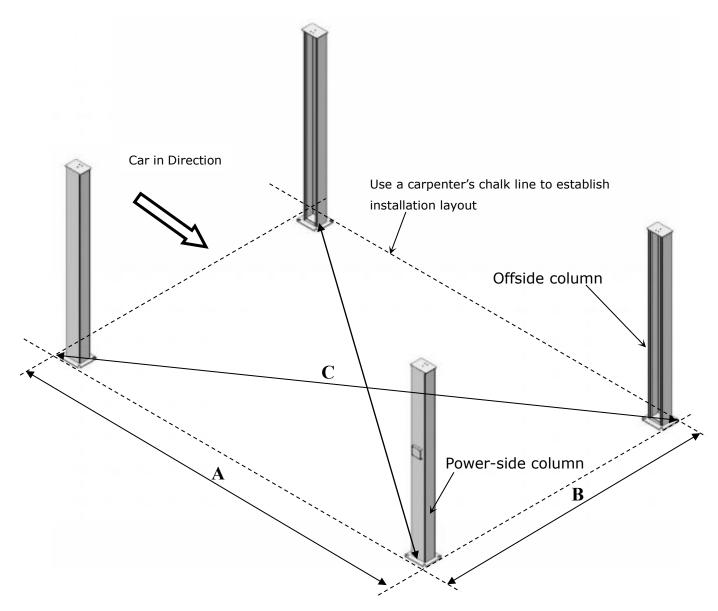
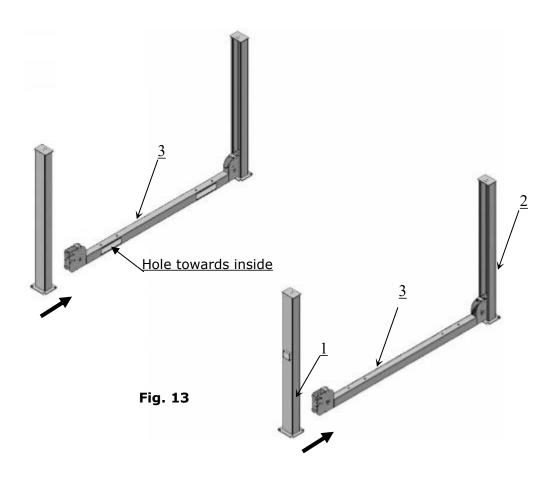


Fig. 12

Model	А	В	С
PRO-30	256-1/2"	149-3/8"	296-3/4"
PRO-30E	316-1/2"	149-3/8"	350″

D. Install cross beams (See Fig. 13).



E. Fix the anchor bolts



2. Using the prescribed rotary hammer drill, and drill all the anchor holes and install the anchor bolts, do not tighten the anchor bolts first (See Fig. 15).

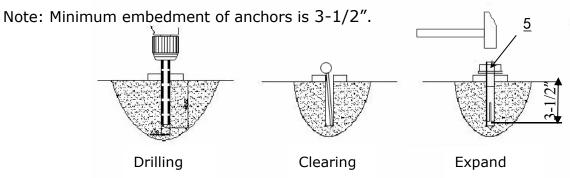
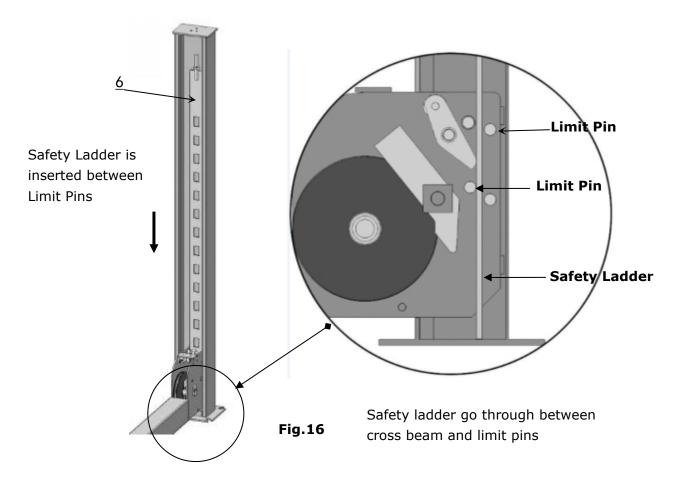


Fig. 15

F. Install the safety ladders

1. Take off the pulley safety cover and unscrew the four upper nuts of the Safety Ladders, and then adjust the four lower nuts to be at the same position, then install the safety ladders(See Fig. 16).



2. Install safety ladders (See Fig. 17)

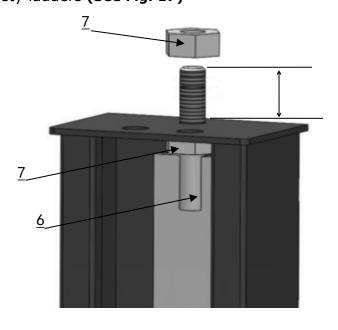


Fig. 17

This height should be same for four safety ladders

Safety ladder pass through the hole of the top plate, then tighten the two nuts

G. Put the Cross Beams at the same height (See Fig. 18).

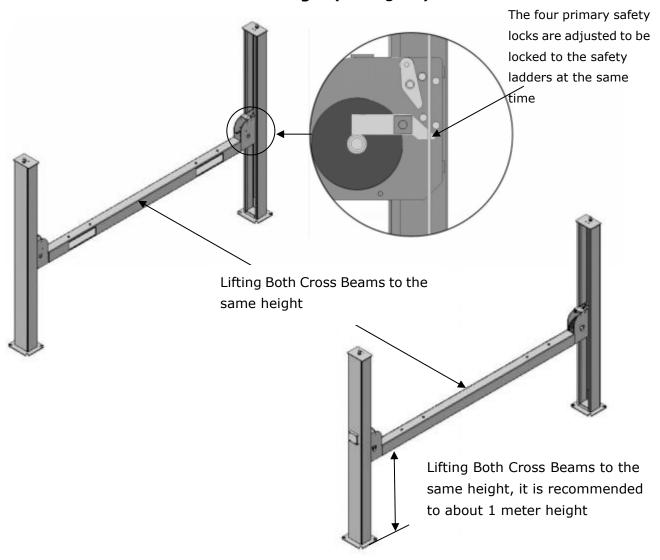
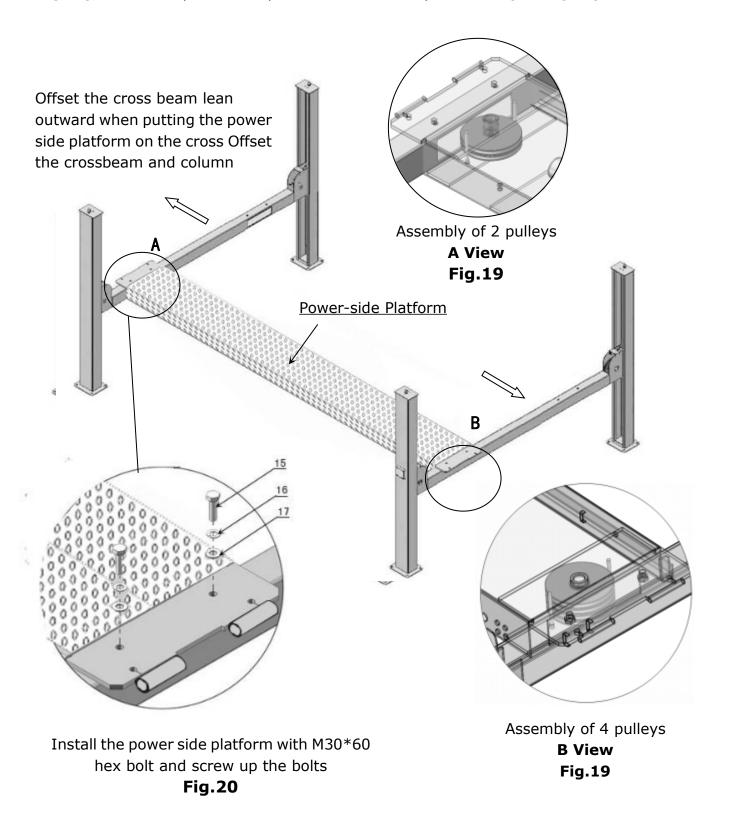


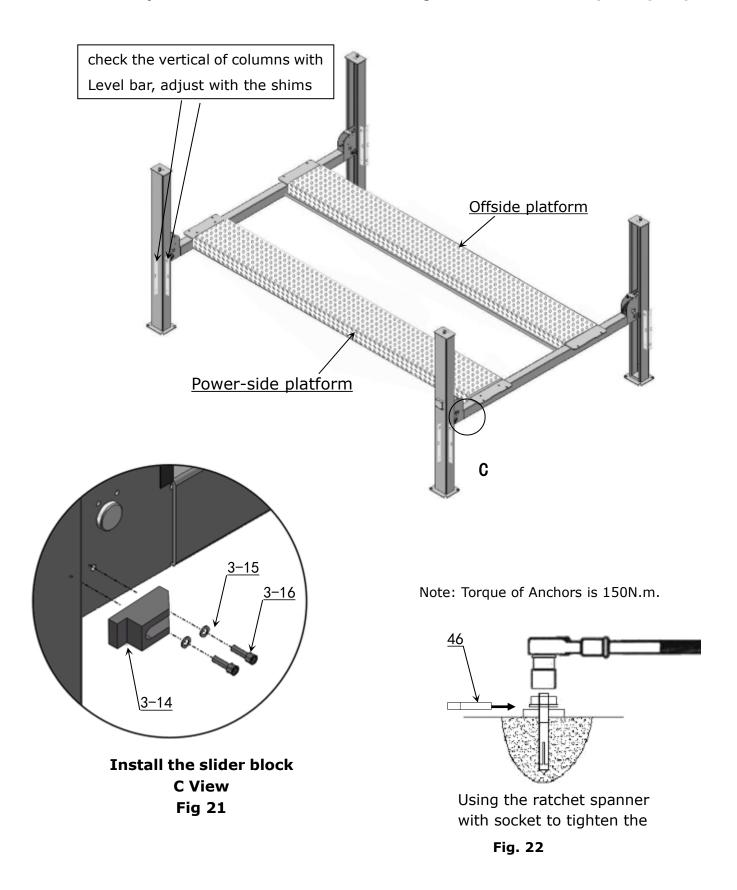
Fig. 18

H. Install power side platform.

1. Put the power-side platform upon the cross beams by fork lift or manual, offset the cross beams to the outside till the pulleys of both platforms can set up into the cross beam (See Fig.19), Install the power side platform and screw up the bolts (See Fig.20)

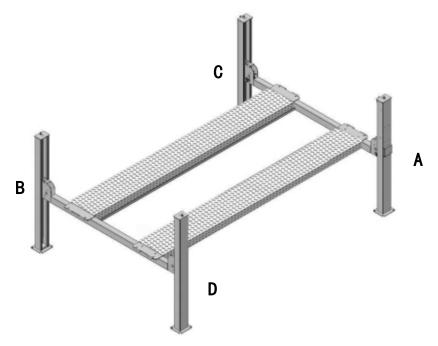


I. Assemble offside platform and slider block. (see Fig.21), check the vertical of columns with Level bar, adjust with the shims if not, and then tighten the anchor bolts (See Fig. 22)

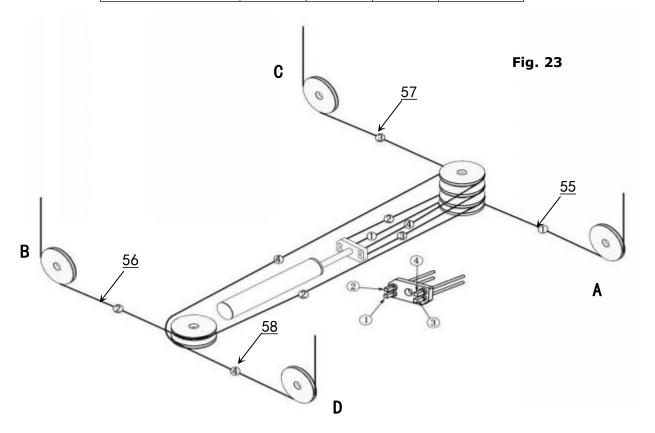


J. Install cables (See Fig. 23)

1. Pass through the cables from the platform to the columns according to the number of the cables



No. Cable	1	2	3	4
PRO-30 Length	201-3/8"	531-7/8"	287"	445-7/8"
(inc. connecting fitting)				
PRO-30E Length	259-1/2"	639-3/8"	338"	564"
(inc. connecting fitting)	239-1/2	039-3/6	330	304



2. The cable pass through the cross beam to top plate of columns and be screwed with cable nuts (See Fig. 24, Fig.25), then install cable limit pin (See Fig.26)

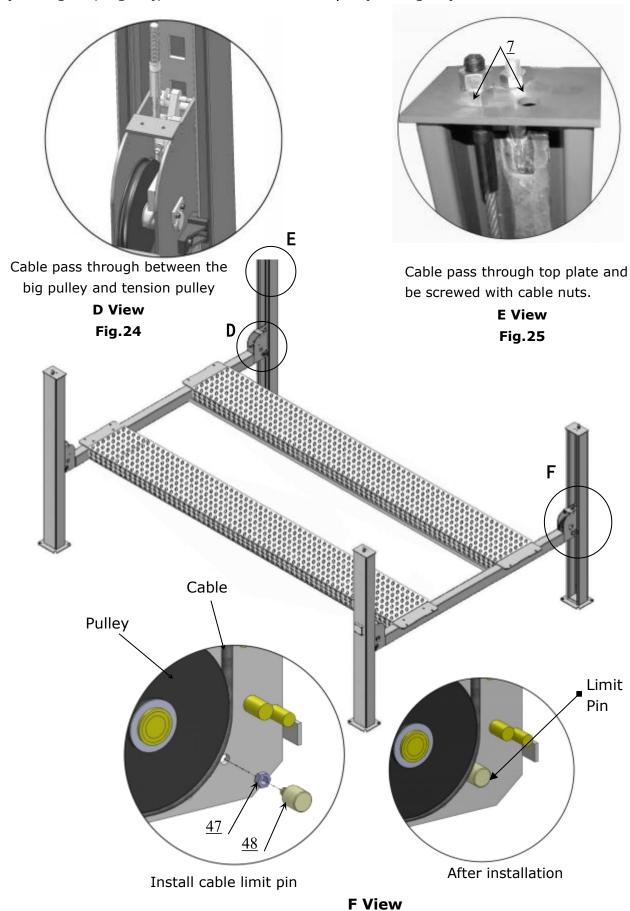
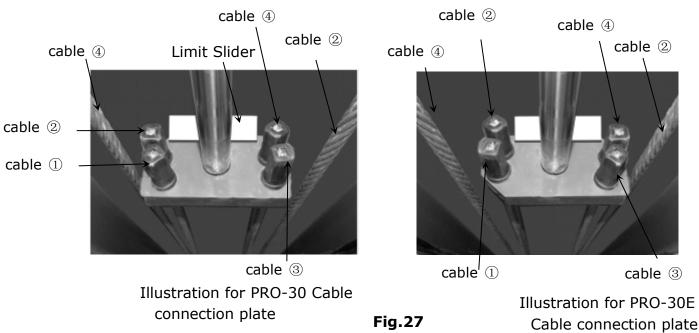
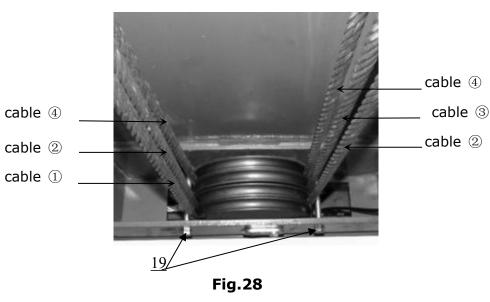
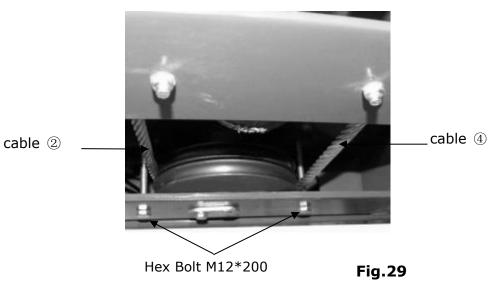


Fig. 26

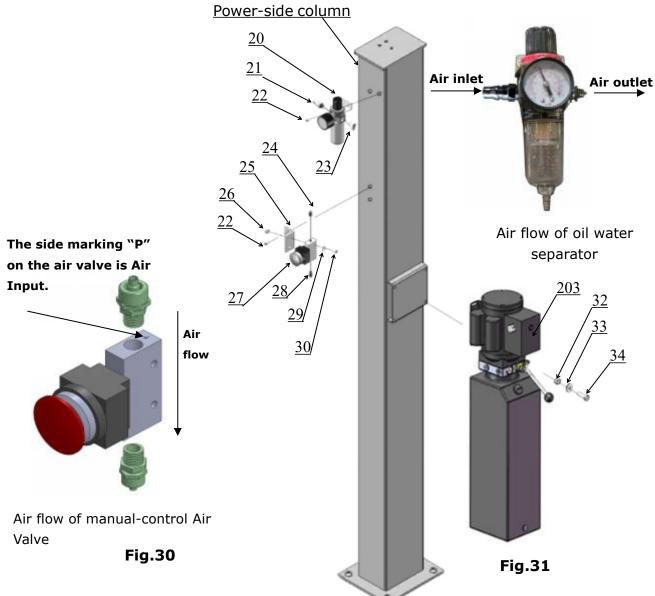
3. Illustration for platform cables (See Fig. 27, Fig.28, Fig.29)







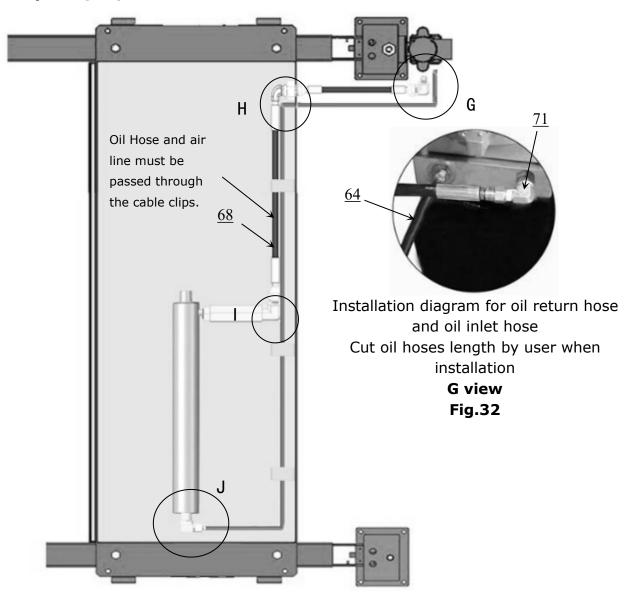
K. Install oil-water separator, manual control air valve and power unit (See Fig. 30, Fig.31)



Part#	Description	QTY	
10420145	Oil/water separator AFR-2000	1	
10420146	Straight fitting for air line	1	
10209009	Cup head bolt	10	
10420076	90 ⁰ fitting for air line	1	
10420159	Straight fitting for air line	1	
11420160	Fixing plate of Manual control valve	1	
10420161	Self locking nut	2	
10420162	Manual control air valve	1	
10420163	Straight fitting for air line	1	
10420148	Washer	4	
10420164	Cup head bolt	2	
071102	Manual hydraulic power unit	1	
10209005	Self locking nut	14	
10209004	Rubber ring	4	
10209003	Hex bolt	4	
	10420145 10420146 10209009 10420076 10420159 11420160 10420161 10420162 10420163 10420148 10420164 071102 10209005 10209004	10420145 Oil/water separator AFR-2000 10420146 Straight fitting for air line 10209009 Cup head bolt 10420076 90° fitting for air line 10420159 Straight fitting for air line 11420160 Fixing plate of Manual control valve 10420161 Self locking nut 10420162 Manual control air valve 10420163 Straight fitting for air line 10420148 Washer 10420144 Cup head bolt 071102 Manual hydraulic power unit 10209005 Self locking nut 10209004 Rubber ring	

L. Install hydraulic system (See Fig. 32, Fig.33, Fig.34)

Note: Oil hoses and oil return pipe connected to oil cylinder must be passed above the cable and cylinder inlet port must swing upward to avoid the oil hose and oil return pipe scratched by cable (see Fig.34)

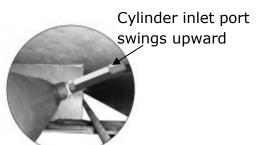




Assembly of oil return pipe

J View

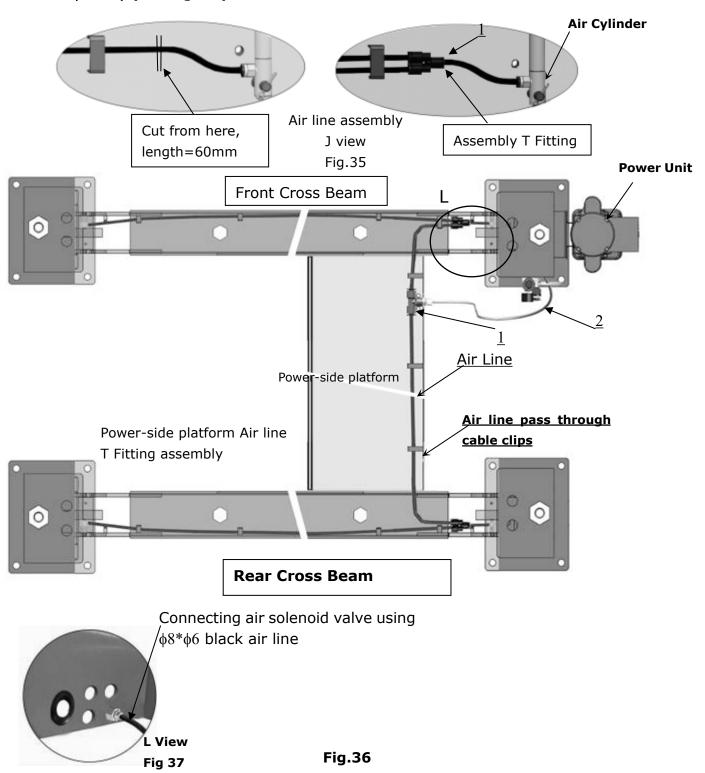
Fig.34



I View Fig.33

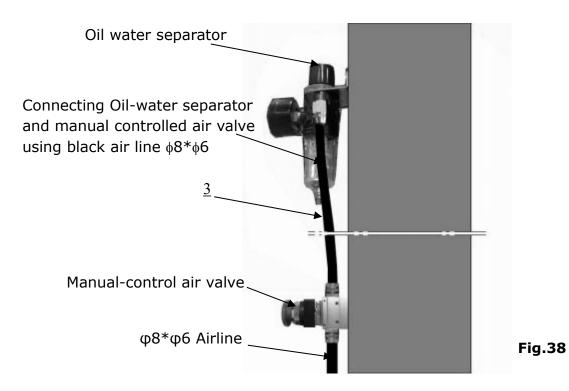
M. Install air-line system

- 1. Cut $\phi 8*\phi 6$ black air line on the front and rear cross beam (cut the air line at the position about 60mm from air cylinder) , and then connect to T-fitting.(See Fig.35)
- 2. Connecting front and rear cross beam cylinders by using $\phi 8*\phi 6$ black air line (the actual length of air line can be cut by user) (**See Fig.36**)
- 3. Connecting air solenoid valve using $\phi 8*\phi 6$ black air line (the actual length of air line can be cut by user) (See Fig. 37)

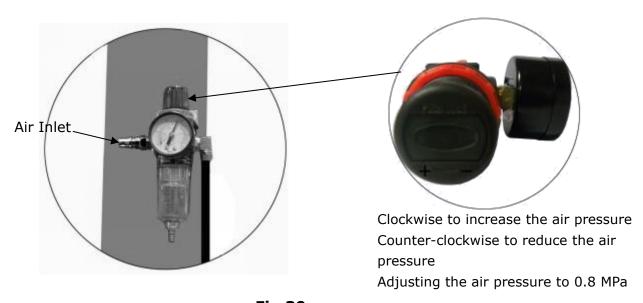


Item	Part#	Description	PRO-30	PRO-30E
1	85090120	T- FITTING For Air Line	3	3
2	10481013	Air Line φ6*φ8*10000mm (black)	1	0
	10481065	Air Lineφ6*φ8*11600mm(black)	0	1
3	10420167A	φ8*φ6*460mm black air line	1	1

4. Connect Airline with oil-water separator and manual control air valve. (See Fig.38)



5. Connecting air inlet (Air supply pressure 5 kg/cm²- 8 kg/cm²), adjusting the air pressure of Oil-water separator to 0.8 MPa (**See Fig.39**)

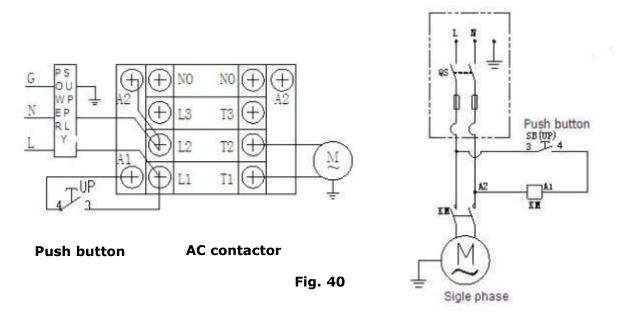


N. Install Electrical System

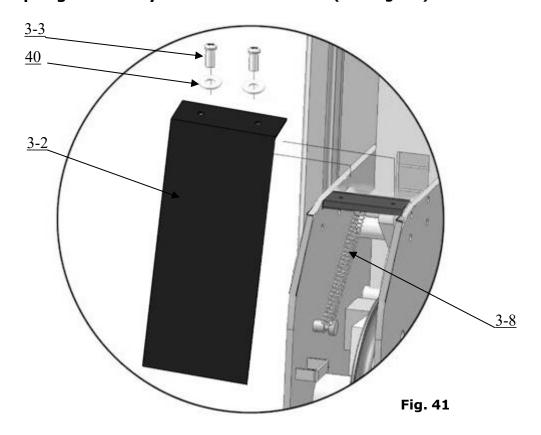
Connect the power source on the data plate of Motor.

Single phase motor (See Fig. 40).

- Connecting the two power supply lines (fire wire L and zero 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** of AC contactor to **L2**.
- 4 .Connect the two push button wires to the terminals of AC contactor marked A1,L1



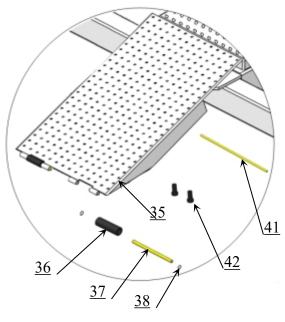
O. Install spring and safety cover of cross beam (See Fig. 41)



P. Install Drive-in ramp, Tire stop plate. (See Fig. 42, Fig. 43)

Install Drive-in ramp

Install Tire stop plate



54B 54A 54A

Fig.42

Fig. 43

Q. Install Extension Kit (optional)

1. Lift the equipment to about 1400mm from ground, lock it to the safety ladder, remove the cable limit bolts and platform fixing bolts (see Fig.39, Fig 40)

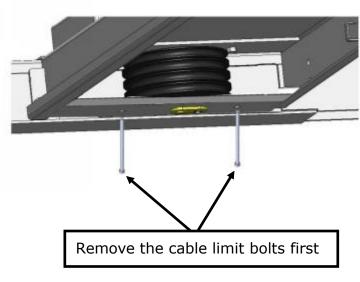


Fig.44

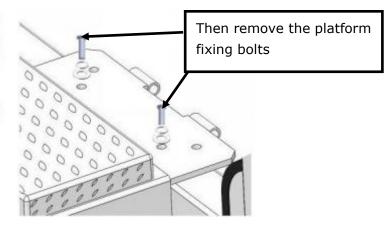
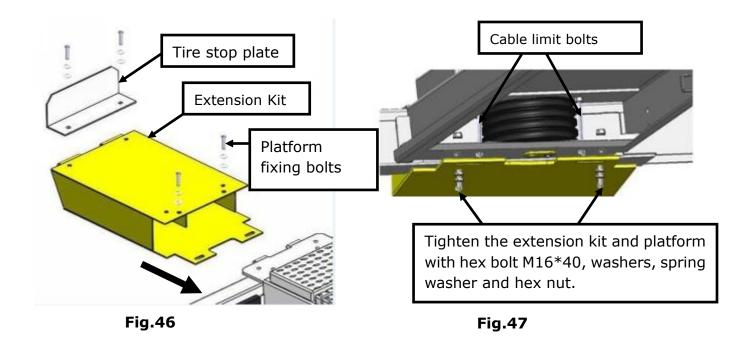


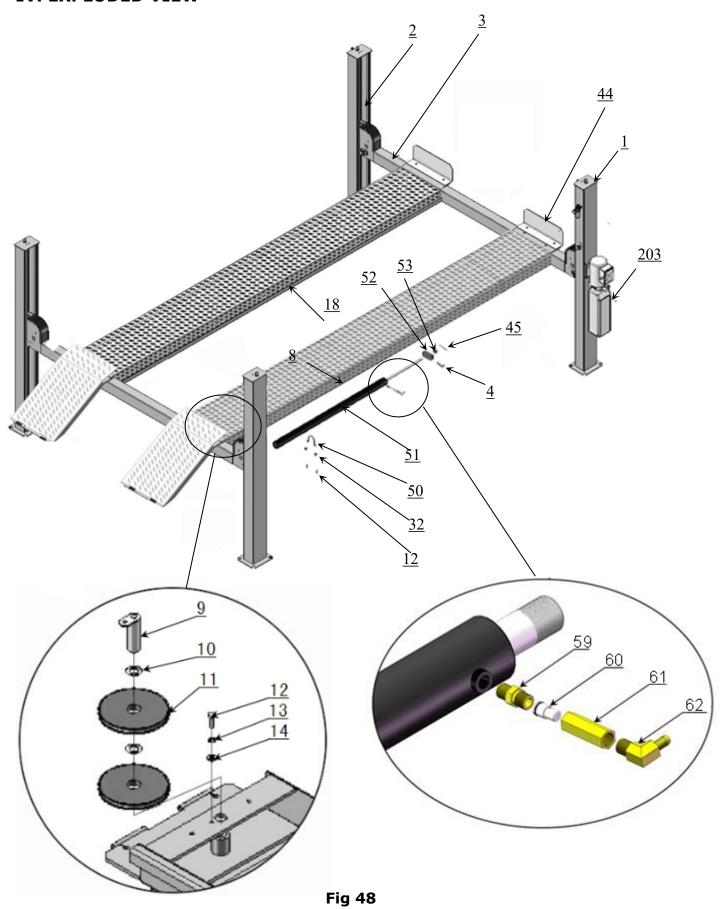
Fig.45

2. Put the extension kits into the platform, then tighten with the bolts. (see Fig. 46, Fig. 47)



Item.	Part#	Description	Quantity	Available for
1	1043001	Extension Kit	1set (2 pcs)	PRO-30

IV. EXPLODED VIEW

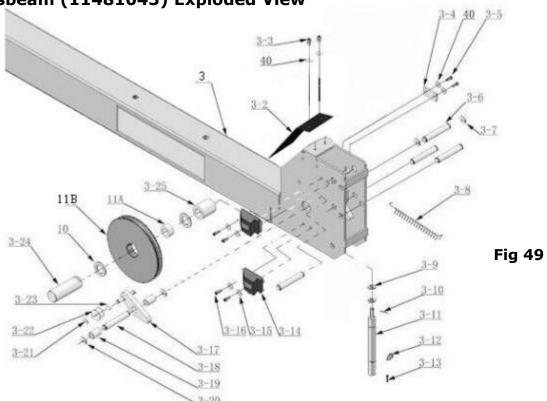


Parts list for PRO-30 PRO-30E

arts list	for PRO-30	PRO-30E		
Item	Part#	Description	PRO-30	PRO-30E
1	11481641	Power side Column	1	1
2	11481640	Offside Column	3	3
3	10481076	Cross Beam Assy.	2	2
4	10481023	Slider block	1	1
5	10201140	Anchor Bolt 3/4*6-1/2	16	16
6	11481036	Safety Ladder	4	4
7	10481018	Hex Nut M33*3.5	16	16
_	11481041		1	0
8	11481067	Power-side Platform	0	1
9	11481035	Pulley shaft	2	2
10	10481069	Pulley washerφ115*φ76*2	8	8
10A	10481021	Pulley washerφ120*φ76*10 (HK017)	4	4
11	11481639	Pulley	6	6
11A	10481025	Bronze Bush φ85*φ75*30	10	10
11B	11481617	Pulley	4	4
12	10209043	Hex bolt M8*20	4	4
13	10209039	φ10 Spring Washer	2	2
14	10209022	φ10*1.5 Washer	2	2
15	10481004	Hex bolt M30*60	8	8
16	10481006	φ30 Spring Washer	8	8
17	10481005	φ30 Washer	8	8
17	11481042	φ36 Washer	1	0
18	11481068	Offside platform	0	1
19	10481017	Hex bolt M12*200	4	4
20	10420145	Oil-water separator	1	1
21	10420146	Straight fitting for air line	1	1
22	10209009	Cup head bolt M6*8	10	10
23	10420076	90° fitting for air line	1	1
24	10420070	Straight fitting for air line	1	1
25	11420160	Fixing plate of Manual control valve	1	1
26	10420161	Self locking nut M4	2	2
27	10420162	Manual control air valve	1	1
28	10420163	Straight fitting for air line	1	1
29	10420148	φ4 Washer	4	4
30	10420146	Cut head bolt M4*30	2	2
203	071102	Manual hydraulic power unit	1	1
32	10209005	Self locking nut M8	14	14
33	10209003	Rubber ring φ8*20*3	4	4
34	10209004	Hex Bolt M8*25	4	4
35	11481044	Drive-in ramp	2	2
	10620063	·	4	4
36		Drive-in ramp pulley	_	
37	11620043	Drive-in ramp pulley pin	4	4
38	10209010	φ10 Snap ring	12	12
39	10420156	Protecting ring φ24	1	1

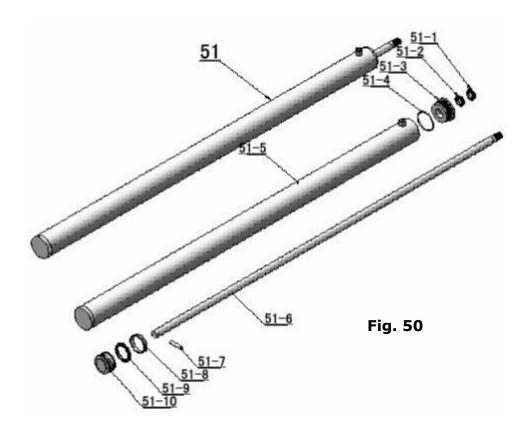
Item	Part#	Description	PRO-30	PRO-30E
40	10420045	φ6 Washer	20	20
41	11481016	Pin for Drive-in ramp	2	2
42	10420005	Fixing bolt M5*8	4	4
43	10481500	Parts box	1	1
44	11481638	Tire stop plate	2	2
45	10481020	Split pin φ5*60	1	1
46	10620065/1	0201090 Shim (2mm/1mm)	20/each	20/each
47	10209056	Self locking nut M10	4	4
48	11481046	Cable limit pin	4	4
49	10420016B	Platform lock plate φ40*2*1500mm	1	1
50	11481034	Fixed ring for cylinder	1	1
51	10481045	Cylinder φ120*1650	1	1
F2	11481673	Culinday connection plate	1	0
52	11481084	Cylinder connecting plate	0	1
53	10481019	Hex nut M39*4	1	1
54	10481001	Hex screw M24	4	4
54A	10481002	φ24 Spring Washer	4	4
54B	10481003	φ24 Washer	4	4
	10481007	① Cable φ19*5065mm	1	0
55	10481060	① Cable φ19*6590mm	0	1
F.C	10481010	② Cable φ19*13255mm	1	0
56	10481063	② Cable φ19*16340mm	0	1
F-7	10481008	③ Cable φ19*7035mm	1	0
57	10481061	③ Cable φ19*8585mm	0	1
го	10481009	④ Cable φ19*11275mm	1	0
58	10481062	④ Cable φ19*14325mm	0	1
59	10420243	Straight fitting	1	1
60	10420245	Straight fitting	1	1
61	10420247	Compensation Valve	1	1
62	10201020	90 ⁰ Fitting	1	1
63	10420166	90 ^o Fitting	1	1
6.4	10481013	Oil Return pipe (black) φ6*φ8*7300mm	1	0
64	10481066	Oil Return pipe (black)φ6*φ8*8825mm	0	1
65	10420243	Straight fitting	1	1
66	10420245	Straight fitting	1	1
67	10481022	90 ⁰ Fitting	1	1
60	10481012	Oil hose 5/16"*3635mm	1	0
68	10481064	Oil hose 5/16"*5160mm	0	1
69	10420120	Extended straight fitting	1	1
70	10460038	Oil Hose 5/16"*1500mm	1	1
71	10209060	90 ⁰ Fitting for power unit	1	1

4.1 Crossbeam (11481043) Exploded View



Item	Part#	Description	QTY
3-1	11481043	Cross Beam Assy.	2
3-2	11481618	Cross Beam Cover	4
3-3	10209009	Cup Head Bolt M6*8	8
3-4	10420044	Limit Plate	4
3-5	10420138	Socket Bolt M6*16	8
3-6	11481029	φ16 Pin	12
3-7	10420037	φ16 Snap Ring	24
3-8	10420033	Spring	4
3-9	10209021	Hex Nut M10	8
3-10	10420049	Split Pin φ2*16	4
3-11	10420048	Air Cylinder	4
3-12	10420047	Fitting for Air Cylinder	4
3-13	10420046	Split Pin φ4*30	4
3-14	10481070	Slider Block (HK020)	16
3-15	10209033	φ8 Washer	40
3-16	10420043	Socket Bolt M8*20	32
3-17	11420175	Slack-cable safety lock (Left/right)	2 each
3-18	11481028	φ30 Pin	8
3-19	11481032	Pin Bush For Slack-cable Safety Lock	8
3-20	10610008	φ30 Snap Ring	16
3-21	10209010	φ10 Snap Ring	4
3-22	10420035	Tension Pulley	4
3-23	11420174	Spacer	4
3-24	11481030	Pulley shaft	4
3-25	11481031	Pulley Bush	4

4.2 Cylinder (10481045) Exploded View



Item	Part#	Description	QTY
51-1	10209078A	Dust Ring	1
51-2	10620046	Y- Ring	1
51-3	11481053	Head Cap	1
51-4	10481039	O- Ring	1
51-5	11481055	Bore Weldment	1
51-6	11481049	Piston Rod	1
51-7	11481040	Pin	1
51-8	10520056	Support Ring	1
51-9	10520055	Y- Ring	1
51-10	11481054	Piston	1

4.3 Power Unit (81513021/81513025) Exploded View

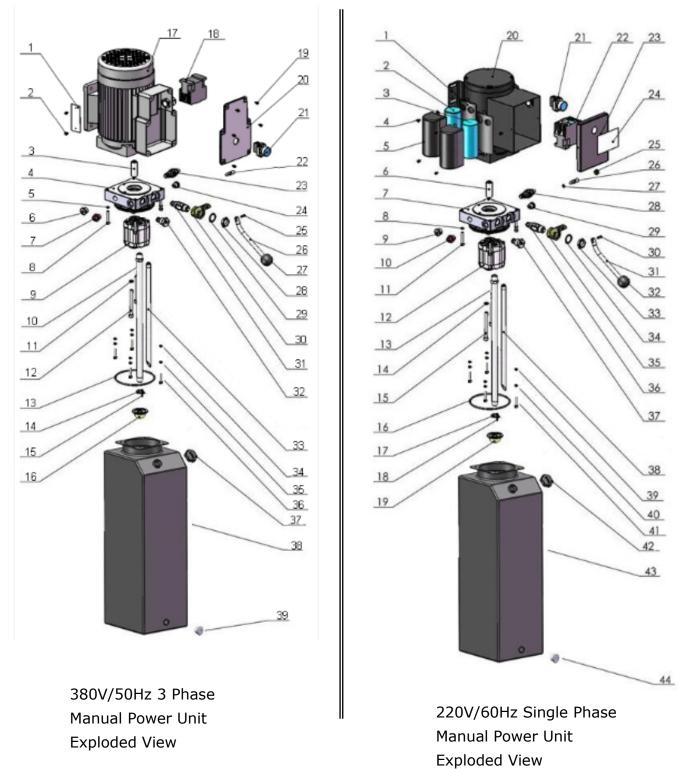


Fig.51

Part lift for 380V/50Hz 3 Phase Manual Power Unit

Item	Part#	Description	QTY
1	71150051	AMGO name plate	1
2	81400300	Cup Head Bolt	2
3	81400363	Motor Connecting Shaft	1
4	81400369	Manifold block	1
5	10209149	Spring Washerφ6	4
6	81400276	Iron plug	1
7	81400259	Red rubber plug	1
8	85090142	Socket bolt	4
9	81400292	Gear Pump	1
10	81400366	Oil suction pipe	1
11	10209034	Spring washer φ8	2
12	81400295	Socket Bolt	2
13	81400365	O Ring	1
14	10209152	Ties	1
15	85090167	Magnet	1
16	81400290	Filter	1
17	81400309	Motor	1
18	81400348	AC Contactor	1
19	420148	Cup head bolt with washer	6
20	81400208	Cover of Motor Terminal Box	1
21	10420070	Push button	1
22	81400560	Throttle valve	1
23	81400266	Relief valve	1
24	81400284	Iron Plug	1
25	10720118	Elastic Latch	1
26	81400451	Handle of Release Valve	1
27	10209020	Plastic Ball	1
28	81400125	Release valve Nut	1
29	81400422	Self-lock washer	1
30	81400449	Valve Seat	1
31	81400567	Release Valve	1
32	81400566	Check Valve	1
33	81400367	Oil return pipe	1
34	10420152	φ5 washer	4
35	10209143	φ5 Spring Washer	4
36	81400438	Hex Bolt	4
37	81400263	Hose clamp	1
38	81400493	Oil tank	1
39	81400276	Iron Plug	1

Part lift for 220V/60Hz Single Phase Manual Power Unit

Item	Part#	Description	QTY
1	81400180	Rubber pad	2
2	81400130	Start capacitor	1
3	81400088	Run capacitor	1
4	10420148	Cup head bolt	6
5	81400066	Capacitor cap	2
6	81400363	Motor Connecting Shaft	1
7	81400369	Manifold block	1
8	10209149	Spring washer	4
9	81400276	Iron plug	1
10	81400259	Red rubber plug	1
11	85090142	Socket bolt	4
12	81400292	Gear Pump	1
13	81400366	Oil suction pipe	1
14	10209034	Spring washer	2
15	81400295	Socket bolt	2
16	81400365	O Ring	1
17	10209152	Ties	1
18	85090167	Magnet	1
19	81400290	Filter	1
20	81400413	Motor	1
21	10420070	Push button	1
22	41030055	AC contactor	1
23	81400287	Cover of Motor Terminal Box	1
24	71111168	Sticker for AMGO Power unit	1
25	81400560	Throttle valve	1
26	81400266	Relief valve	1
27	81400284	Iron plug	1
28	10720118	Elastic Latch	1
29	81400451	Handle of Release Valve	1
30	10209020	Plastic ball	1
31	81400125	Release valve nut	1
32	81400422	Self-locking washer	1
33	81400449	Valve seat	1
34	81400567	Release valve	1
35	81400566	Check valve	1
36	81400367	Oil return pipe	1
37	10420152	Washer	4
38	10209143	Spring washer	4
39	81400438	Hex bolt	4
40	81400263	Oil tank cap	1
41	81400493	Oil tank	1
42	81400276	Iron plug	1

Illustration of Hydraulic Valve for power unit (See Fig.52)

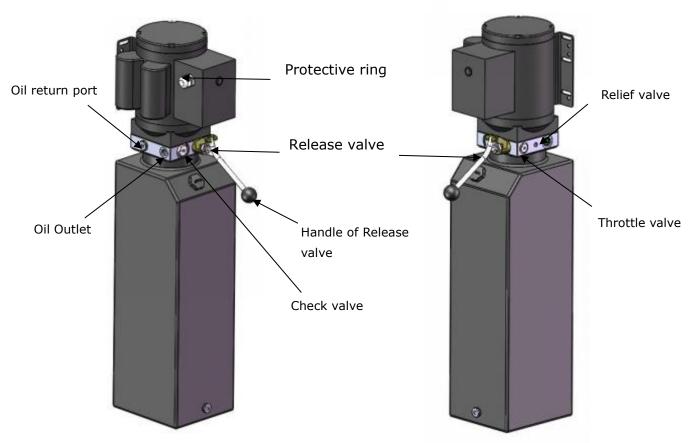


Fig.52

V. TEST RUN

- 1. Fill the reservoir with approximately 26L Hydraulic Oil (**Note**: In consideration of Power Unit's durability, please use **Hydraulic Oil 46#**).
- 2. Press the button on the power unit, the Cables will be strained. Check whether the Cables match the Pulley. Make sure the Cables are not across.
- 3. Press the release handle of the power unit to lock the Cross-beam to the safety ladders, and then adjust the platforms to be level by adjusting the nuts of Safety Ladders.
- 4. Adjust the cable fitting Hex nuts to make platforms and four safety locks work synchronously. Lift up and down for several times, meanwhile do the synchronous adjustment till the four Safety Devices can be locked and released at the same time.
- 5. Adjust the clearance between the post and the plastic slider of Cross-beam to about 2mm, and then tighten the fixing nut of slider.
- 6. After finishing the above adjustment, testing the lift with load. Lift the Platforms in low position first, make sure the Platforms can be up and down synchronously and the Safety Device can be locked and released synchronously. And then raise the lift to the top completely. If there are anything improper, repeat the above adjustment.

Circuit Diagram of Hydraulic System

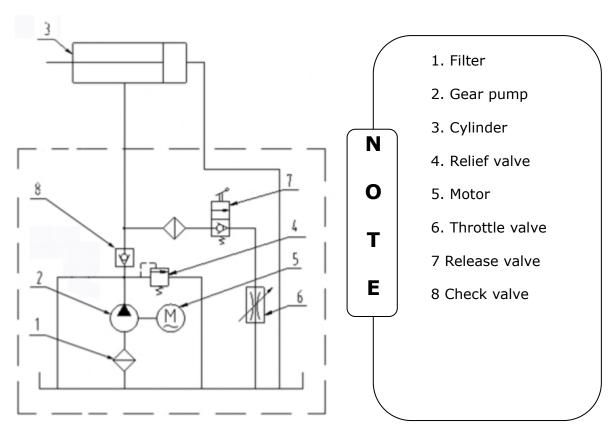


Fig.53

VI. OPERATION INSTRUCTIONS

To lift vehicle

- 1. Keep clean of environment near the lift;
- 2. Drive vehicle to the Platform and put on the brake;
- 3. Turn on the power and press the button, raise the lift to the working position;

Note: make sure the vehicle is steady when the lift is raised.

4. Press the Handle of release valve to lock the lift in the safety position. Make sure the Safety device is locked at the same height.

To lower vehicle

- 1. Be sure the clearance of around and under the lift, only leaving operator in lift area;
- 2. Press the button, the lift will be raised for 3-5 seconds, and then press the button of Manual-controlled air valve by hand to make sure the safety device released, press the handle of release valve by the other hand then the lift starts being lowered automatically;
- 3. Drive away the vehicle when the lift is lowered to the lowest position.
- 4. Turn off the power.

VII. MAINTENANCE SCHEDULE

Monthly:

- 1. Re-torque the anchor bolts to 150 Nm;
- 2. Lubricate cable with lubricant;
- 3. Check all cable connection, bolts and pins to insure proper mounting;
- 4. Make a visual inspection of all hydraulic hoses/lines for possible wear or leakage;
- 5. Lubricate all Rollers, Safety devices 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 to insure level lifting.
- 3. Check the vertical of columns.

VIII. TROUBLE SHOOTING

TROUBLE	CAUSE	REMEDY
Motor does not run	1. Start Button does not work	1.Press start button.
	2.Wiring connections are not in good	2.Repair all wiring connections
	condition	
	3. Motor burned out	3.Repair or replace motor
	4. AC contactor burned out	4.Replace AC contactor
	5. Height limit switch is damaged	5.Replace
	1.Motor runs in reverse rotation	1 Dovorce two newer wire
Motor runs but the lift is not raised	Release valve in damage	1.Reverse two power wire 2.Repair or replace
	3. Gear pump in damage	3.Repair or replace
	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
Lift raises	3. Oil mixed with Air	3. Fill tank
too slow	4.Pump leaks	4.Replace Pump
	5.Overload lifting	5.Check load
	1. Safety device are in activated	1. Release the safeties
Lift cannot	2. Release valve damaged	2. Replace or repair
lower	3. Air Cylinder damaged	3.Replace the cylinder
7	4. Air line leaks	4. Check the air line

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.



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