



Atlas 409-HP Super Deluxe 4-Post Storage Lift

INSTALLATION & OPERATION MANUAL



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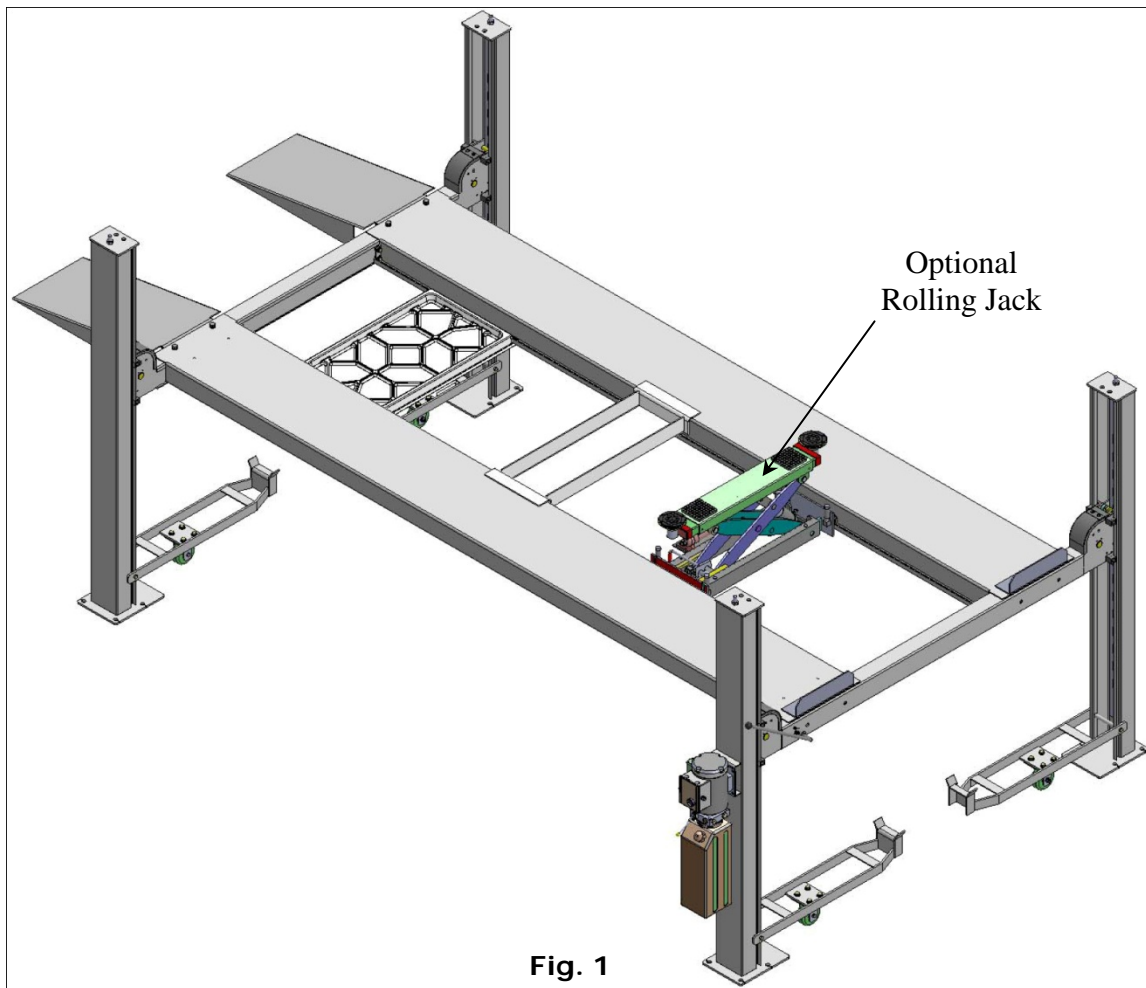
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I. PRODUCT FEATURES AND SPECIFICATIONS

4-POST MODEL 409-HP FEATURES

- Single point manual safety release.
- Four mechanical locking devices, each equipped with both primary and secondary safety locks.
- Skid proof diamond plate platforms and adjustable safety lock ladders.



Model	Lifting Capacity	Lifting Height	Lifting Time	Overall Length (Inc. Ramps)	Overall Width	Width Between Columns	Gross Weight	Motor
409-HP	9,000 LBS.	2172mm (85 1/2")	122S	5857mm (230 5/8")	3206mm (126 1/4")	2860mm (112 5/8")	990Kg 2180 lbs	110V, 1.5HP

II. INSTALLATION REQUIREMENTS

A. TOOLS REQUIRED

- ✓ Screw Drivers



- ✓ Level Bar



- ✓ Crescent Wrench (12")



- ✓ Ratchet Spanner With Socket (28mm)



- ✓ Wrench set (mm)

(12#, 13#, 14#, 15#, 17#, 19#, 24#, 30#)



- ✓ Tape Measure (25')



- ✓ Pliers



- ✓ Lock Wrench



- ✓ Allen Wrenches (mm)

(3#, 5#, 6#, 8#)



Fig. 2

B. SPECIFICATIONS OF CONCRETE (See Fig. 3)

1. Concrete must be in good condition and must have a of test strength of 3,000psi (4" minimum).
2. **Floors must be relatively level.**

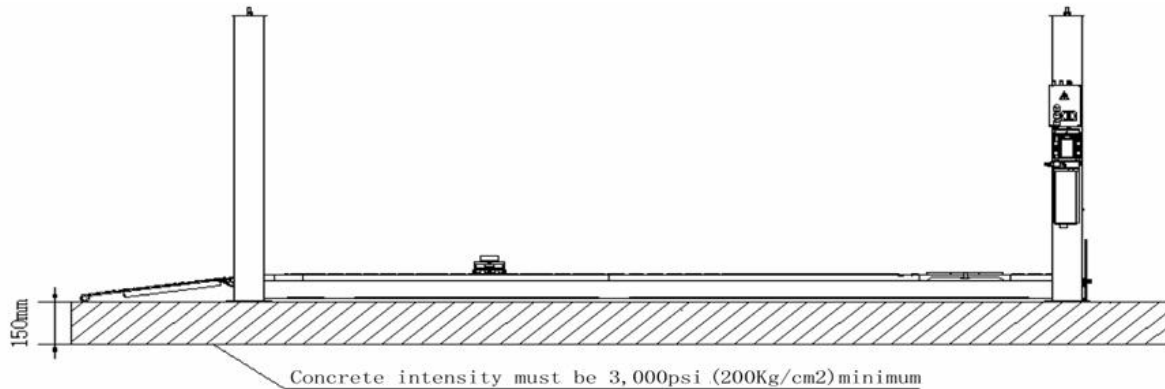


Fig. 3

C. POWER SUPPLY

The electrical source must be 110V. 20AMP breaker minimum is required. Electrical cord is supplied with the 110V power unit. If a longer cord is needed to reach the electrical supply, use only a commercial grade extension cord not exceeding 20 ft., or use a minimum 10 gauge cord with a 20AMP plug. The original cord may be removed from the A/C contactor and the replacement cord inserted into the same legs on the A/C contactor.

III. STEPS FOR INSTALLATION

A. Location of installation

Check 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. 4).



Fig. 4

2. Open the outer packing carefully; check the parts according to the shipment list. (See Fig. 5).

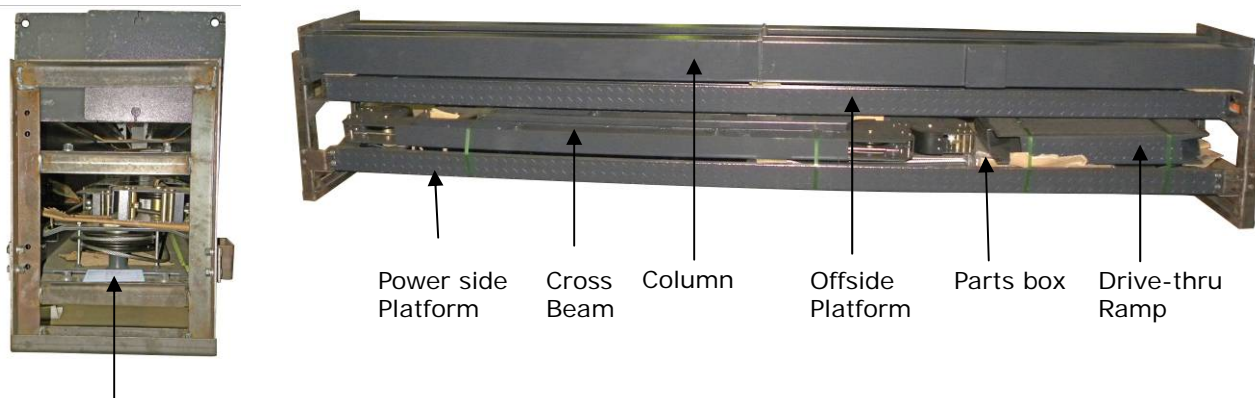


Fig. 5

Shipment Parts List

3. Remove the approach ramps and the four columns (See Fig. 6).

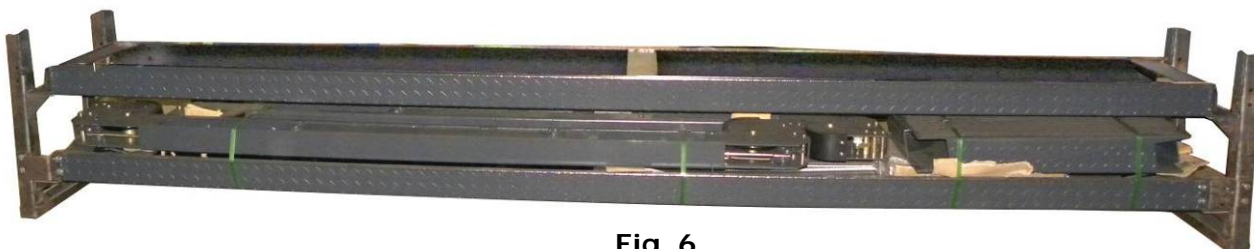


Fig. 6

4. Loosen the screws on the upper package stand, remove the offside platform, take out the parts inside the power side (cylinder) platform and remove the package stand.

5. Move the parts to the side and check the parts according to the shipment parts list (See Fig. 7).

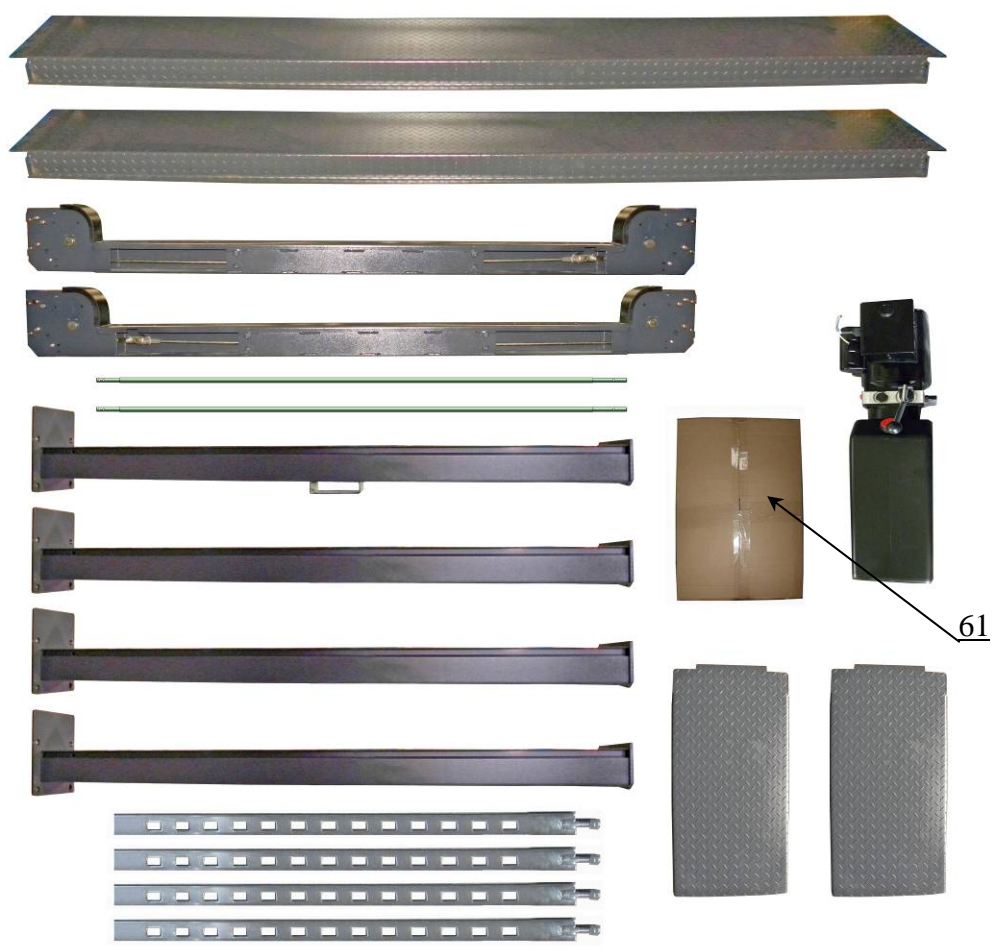


Fig. 7

6. Open the box of parts and check the parts according to the parts box list (See Fig. 8).

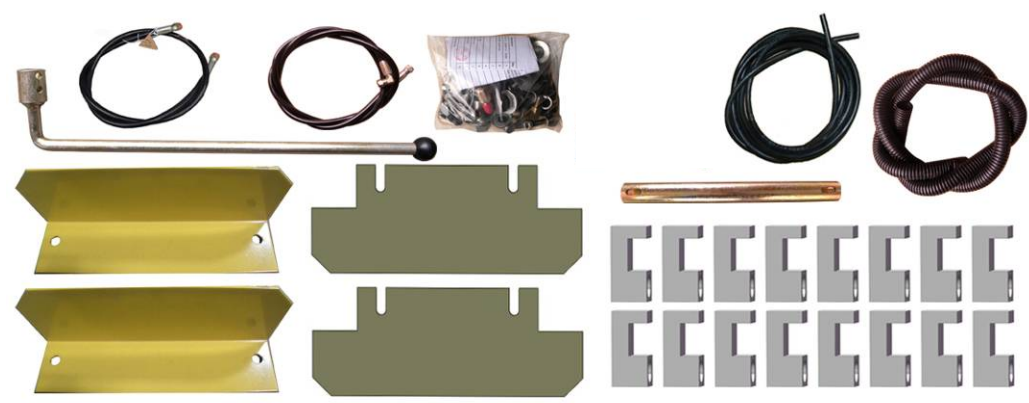


Fig. 8

7. Check the parts in the parts bag according to the parts bag list (See Fig. 9).



Fig. 9

C. Install cross beams (See Fig.10, Fig.11).

Installation Note: For the operator's convenience, the power unit may be installed on any of the four corners. However, the power unit column (with motor bracket) and the power side platform (with cylinder) must always stay together on the same side. Example: The power unit is positioned on the driver's front or rear (left front/left rear corner) and the power side (with cylinder) platform must be installed the left side.

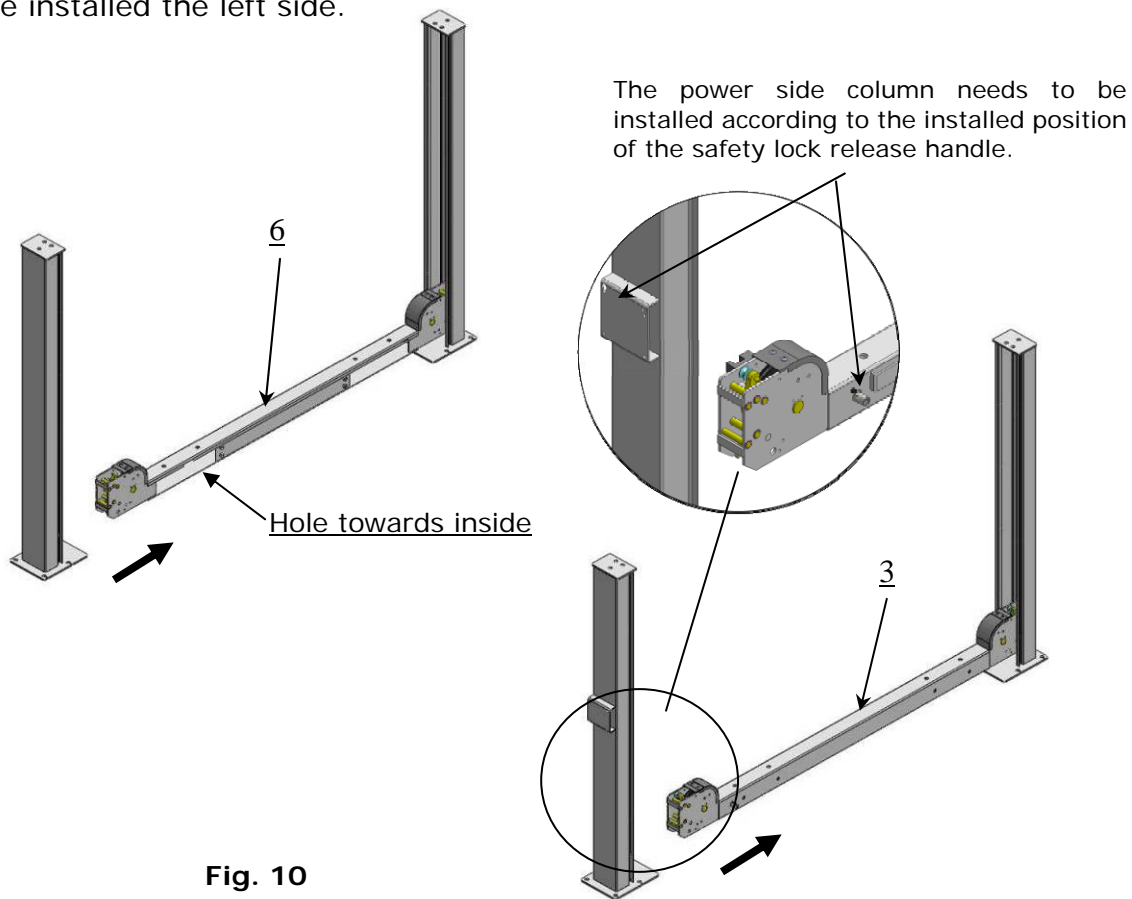


Fig. 10

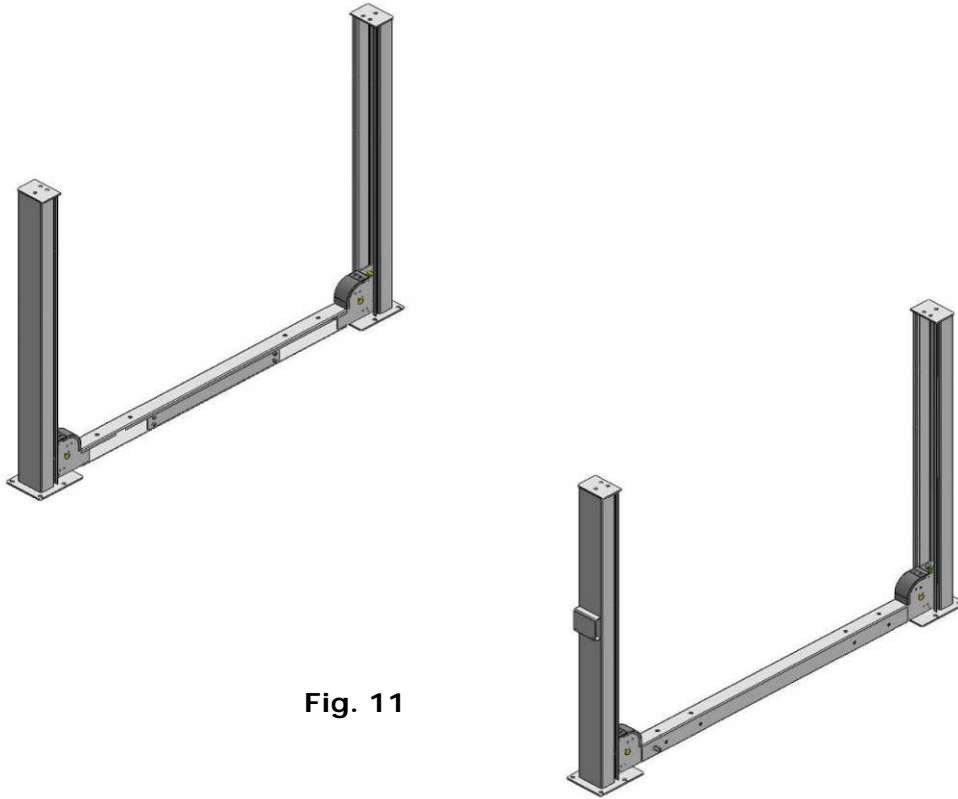


Fig. 11

D. Install the Safety Ladders.

1. Remove the pulley covers and unscrew one nut from each of the safety lock ladders, and adjust the four lower nuts to the same position. Install the safety ladders (See Fig. 12).

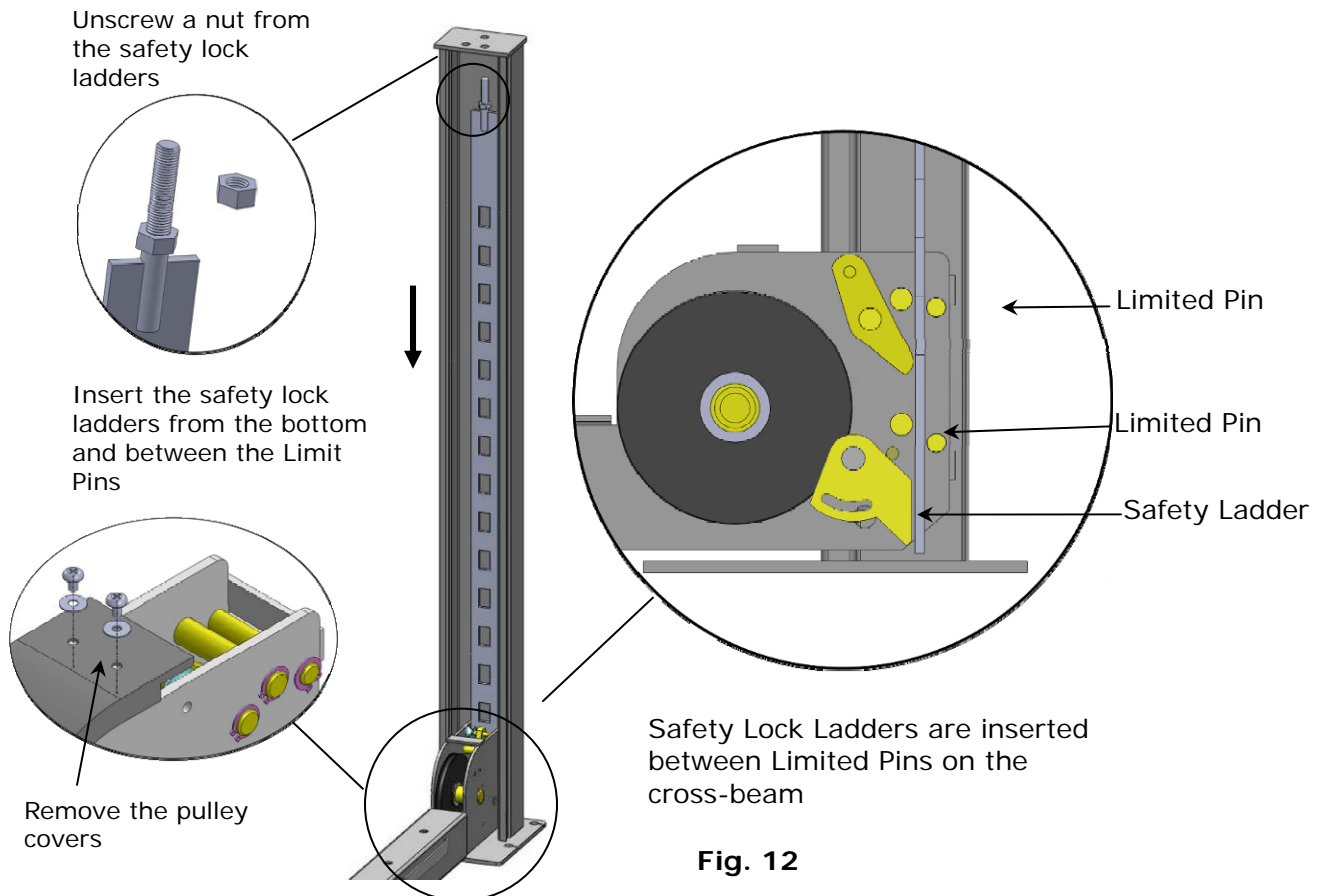
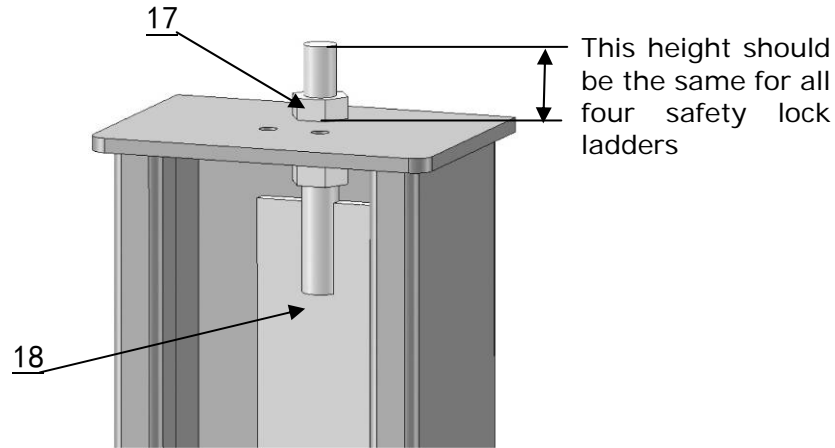


Fig. 12

2. Install the Safety Lock Ladders (See Fig. 13).



Safety lock ladders pass through the hole on the top plate. Tighten the two nuts on each safety lock ladder

Fig. 13

E. Install the cross beams at the same height and lock on the safety lock ladders (See Fig. 14).

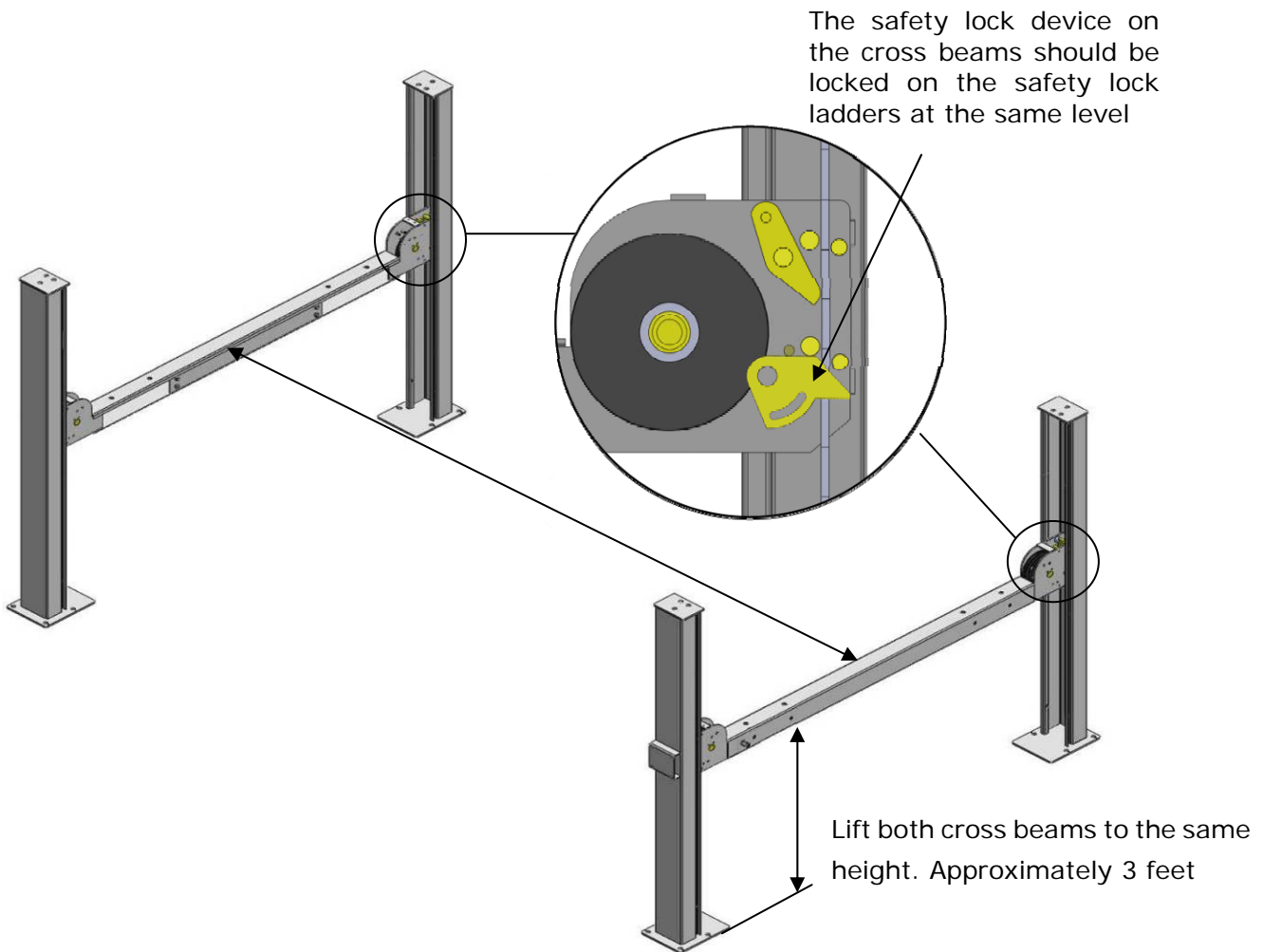


Fig. 14

F. Install the Power Side and Offside Platforms.

Note: Before installing the power side platform, pull the cylinder ram (not the whole cylinder) out until it stops.

1. Install the power side platform on the cross beams by a fork lift or other lifting device, offset the cross beams (**spread opposite corners**) to the outside until the pulleys on both platforms can rest into the cross beams' slots (**See Fig.15**), Install the power side platform and install the bolts (**See Fig.16**). Do not tighten bolts until the offside platform is installed.
2. Pull the cross beams back together and install the offside platform.

NOTE: Pull cylinder ram out completely before installing hydraulic hoses.

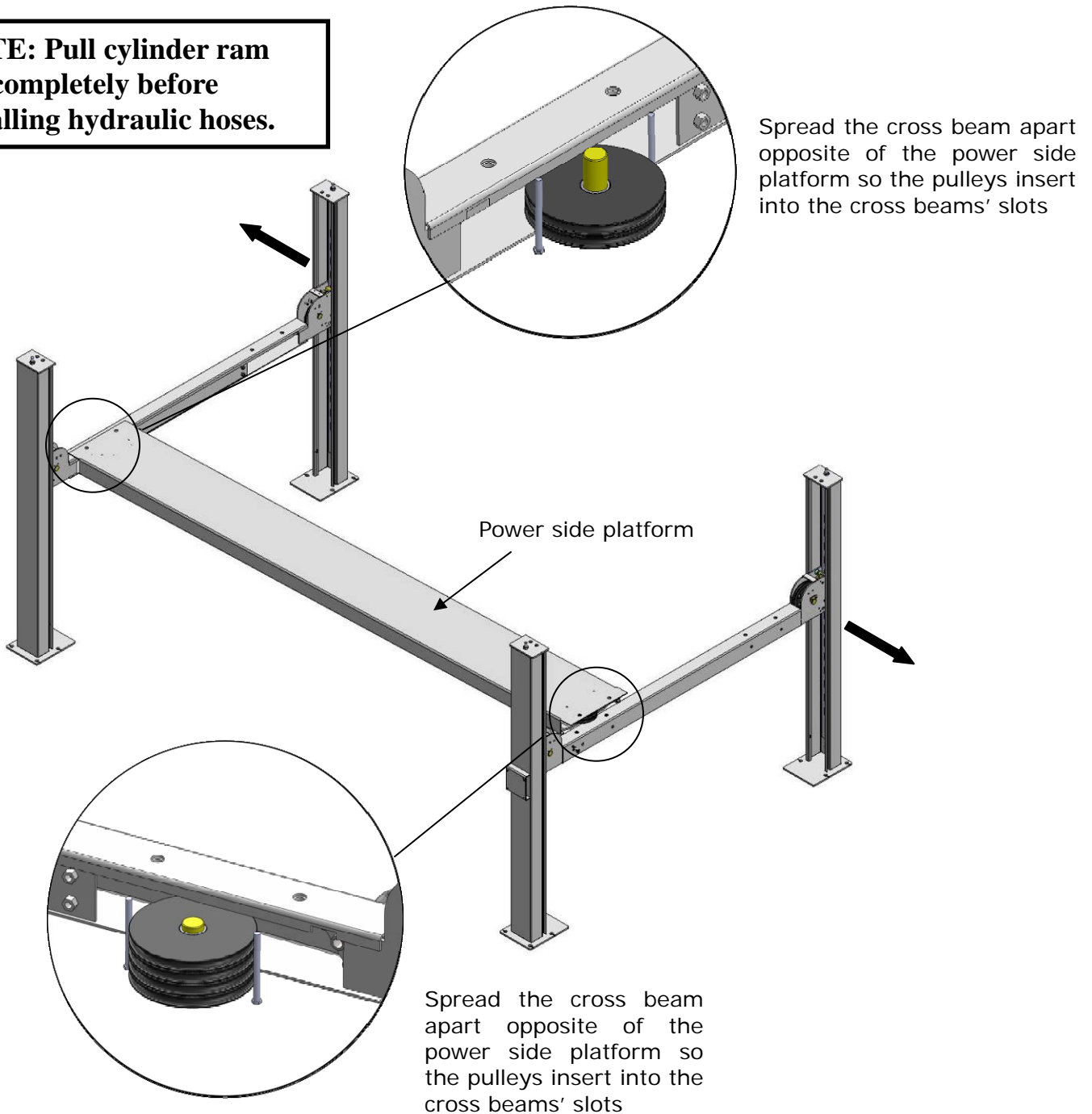


Fig. 15

3. Install wheel stop plates with bolts and washers on the platforms. Tighten the platforms on cross beam **B** with bolts and washers. Tighten the wheel stop plates on cross beam **A** with bolts and washers

Note: The bolts for the wheel stop plates are longer. Pay attention when choosing the bolts (**See Fig.16**)

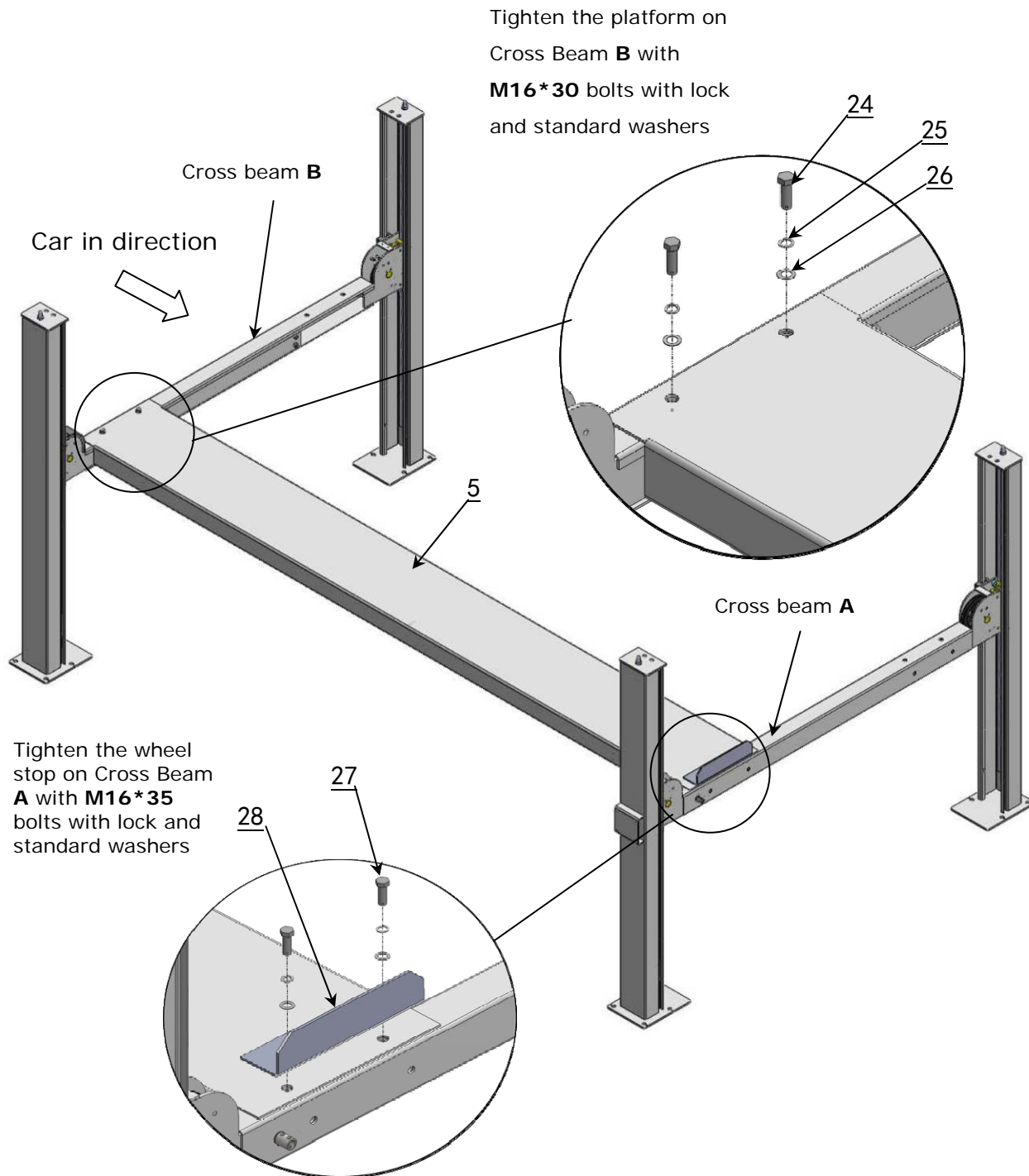
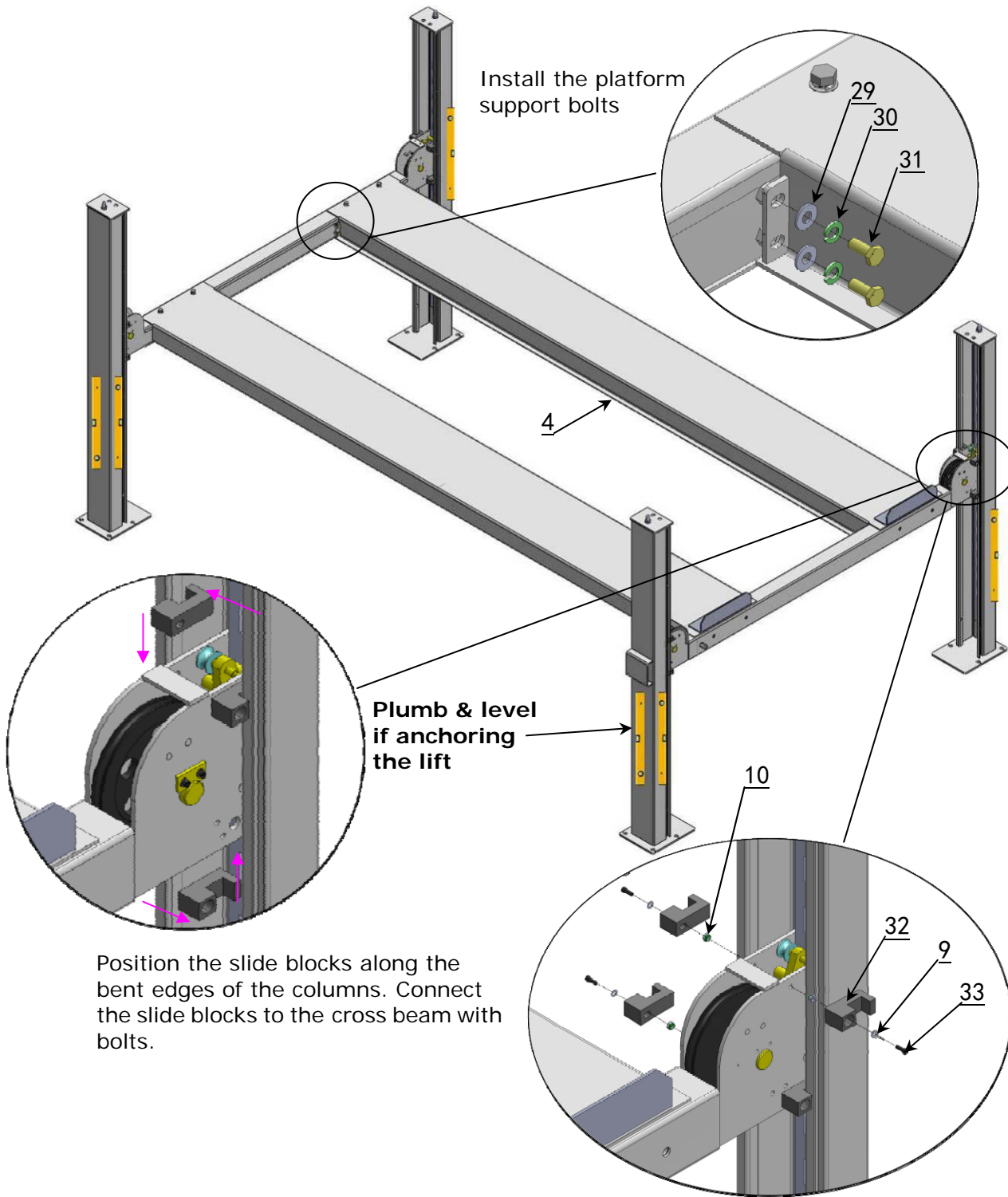


Fig. 16

G. Install the Platform Support Bolts and the Cross Beam Guide Blocks (See Fig. 17).

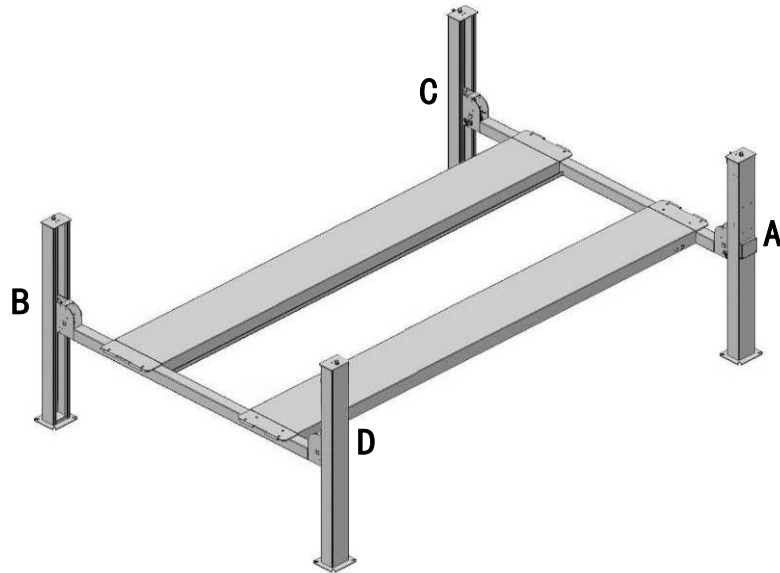


Note: DO NOT completely tighten the slide blocks.

Fig. 17

H. Cable installation

1. Pass the cables through the platform to the columns according to the letter on the cables (See Fig. 18).



NO.	A	B	C	D
Cable				
Length (includes the cable ends)	3370mm 132 5/8"	9735mm 383 1/4"	4945mm 194 5/8"	8170mm 321 5/8"

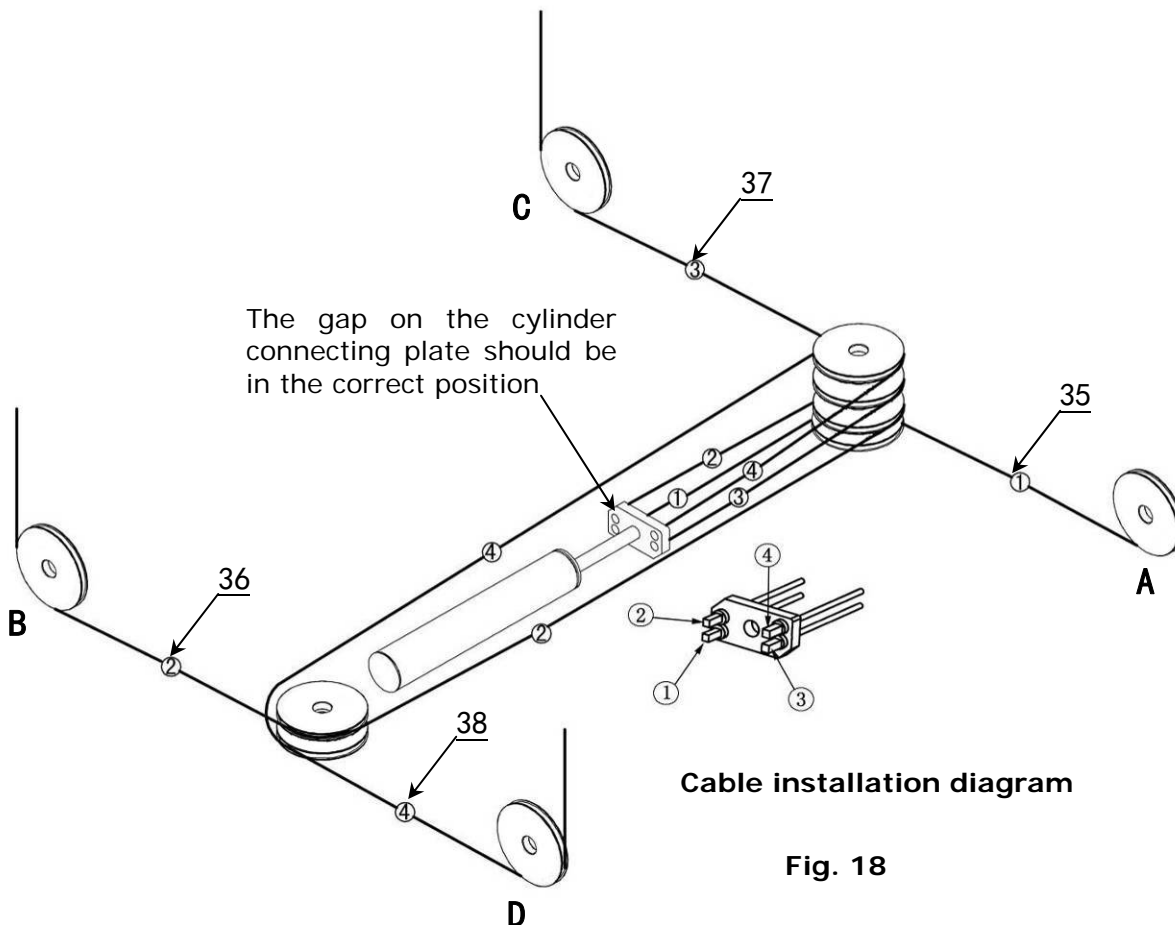
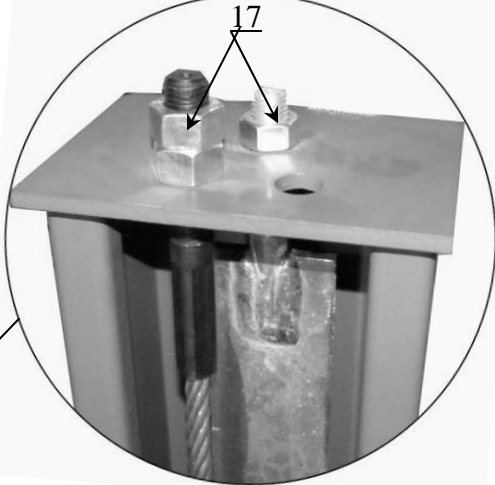
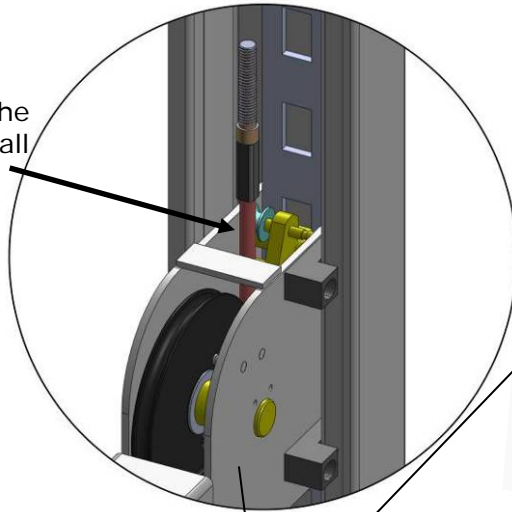


Fig. 18

2. The cable goes through the cross beam to the top plates on the columns (See Fig. 19).

Cable goes between the big pulley and the small secondary lock pulley



Cable pass through top plate and be screwed with cable nuts.

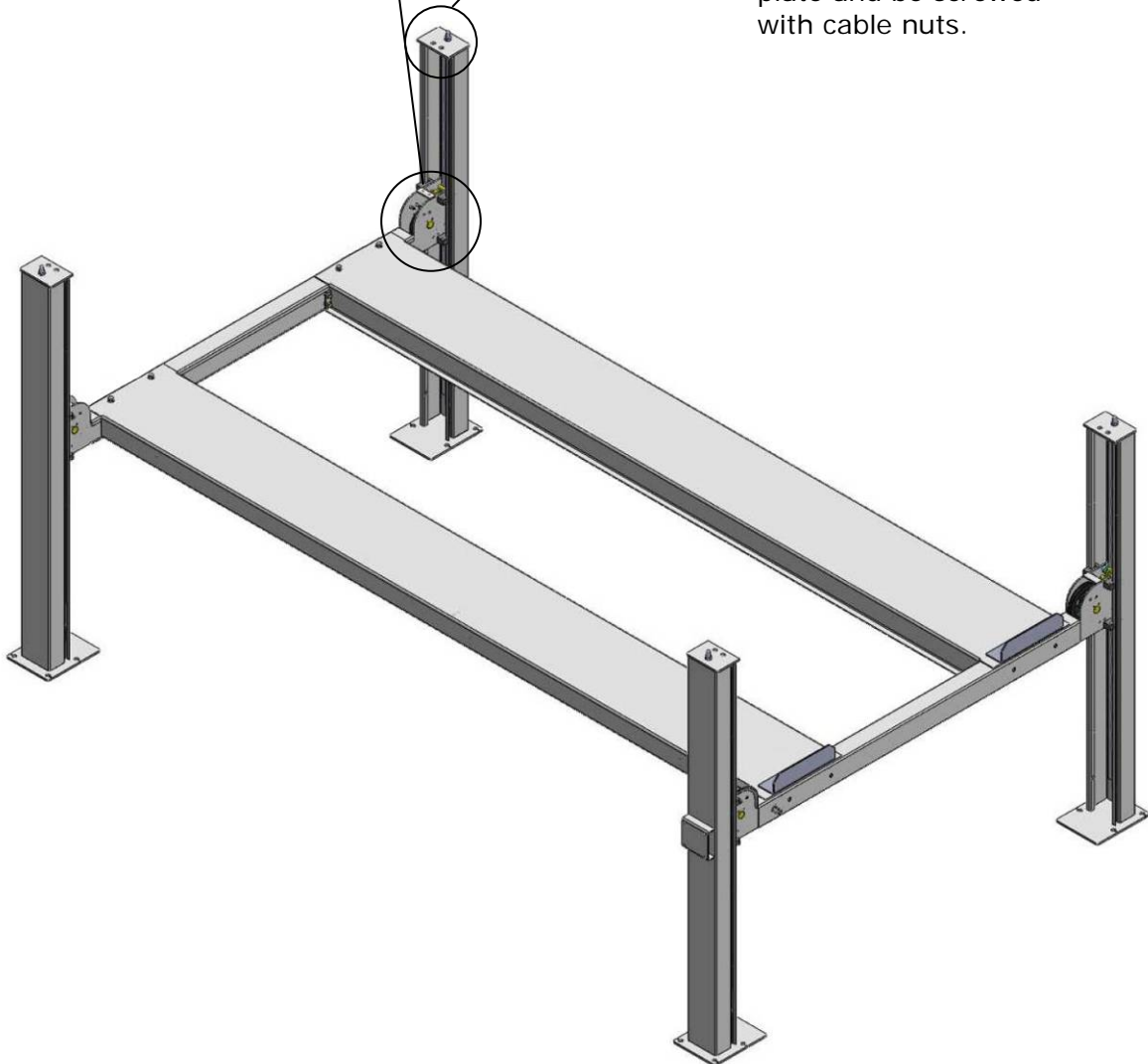


Fig. 19

3. Illustration for cables under the platform (See Fig. 20).

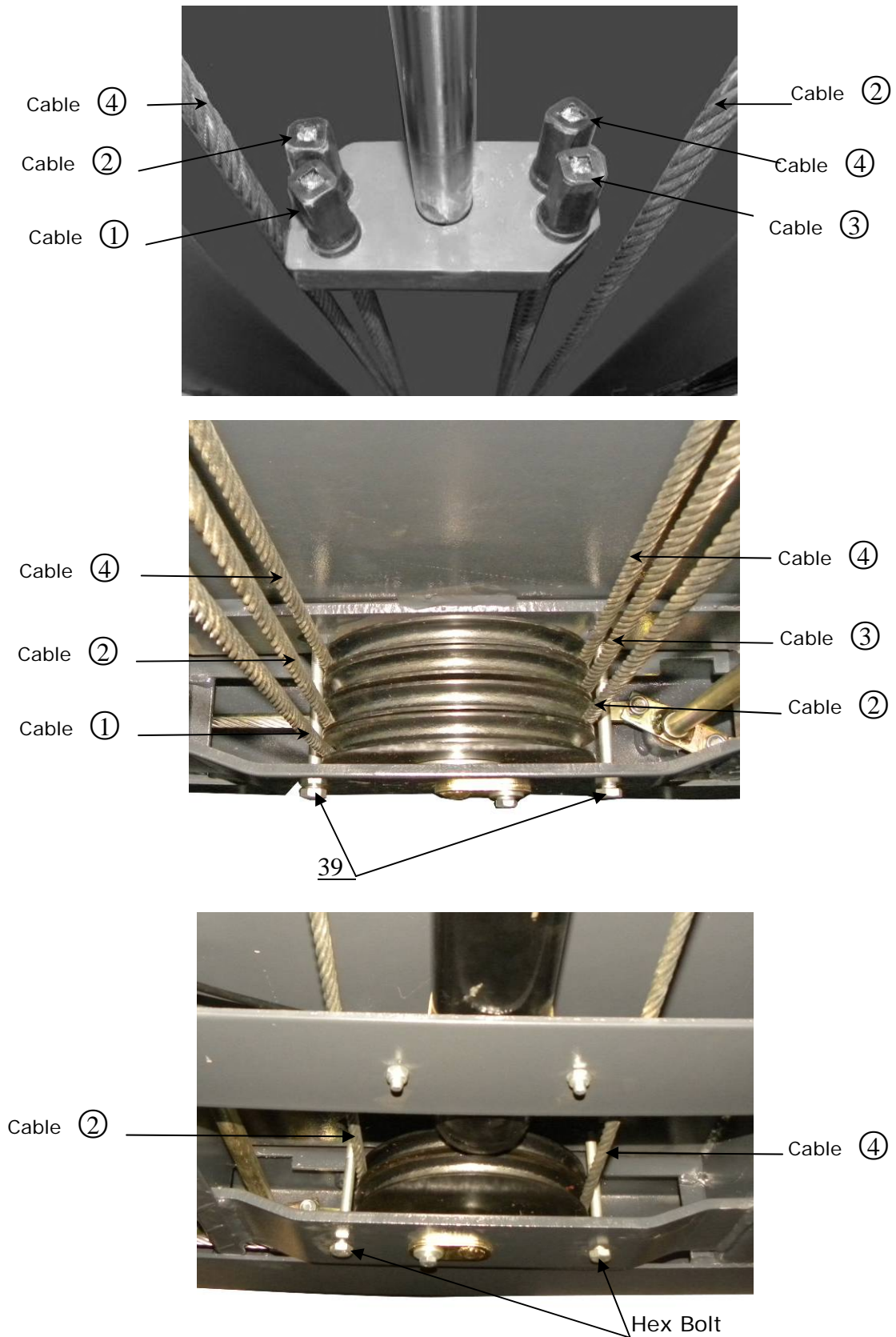
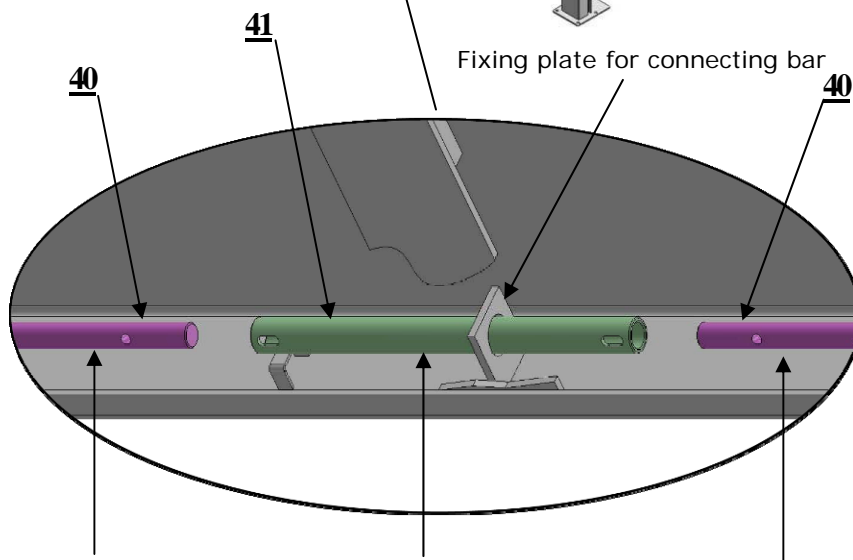
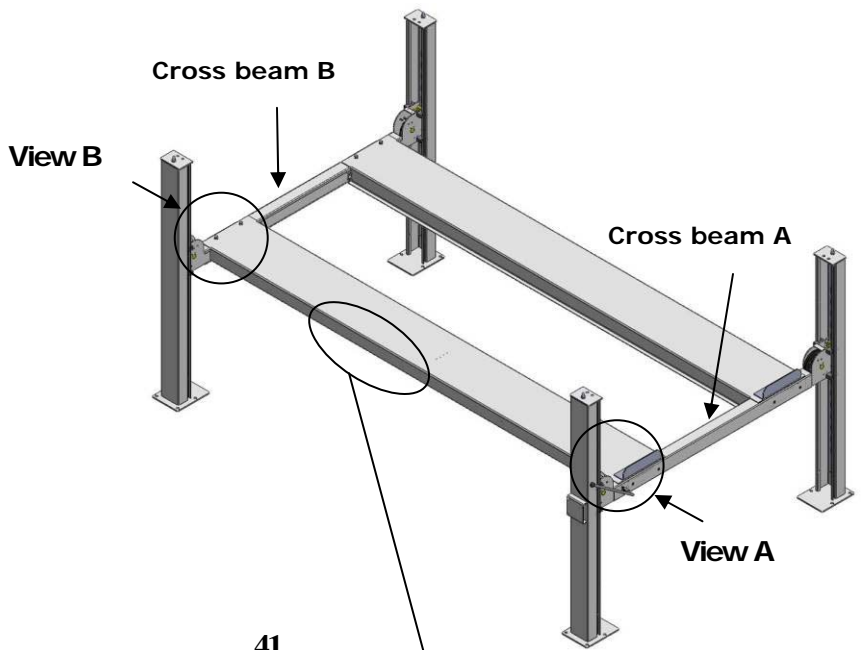


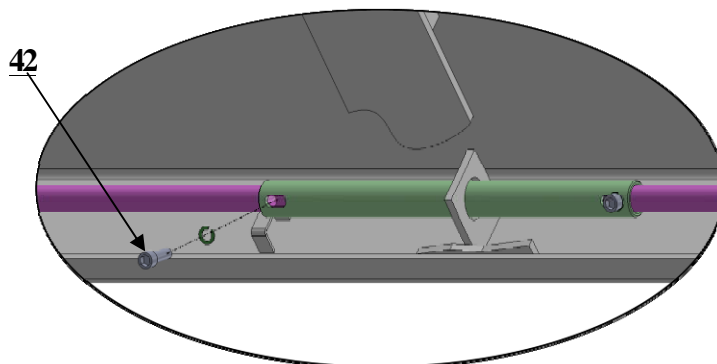
Fig. 20

I. Installation for the connecting bar, safety lock device and release handle (See Fig. 21).

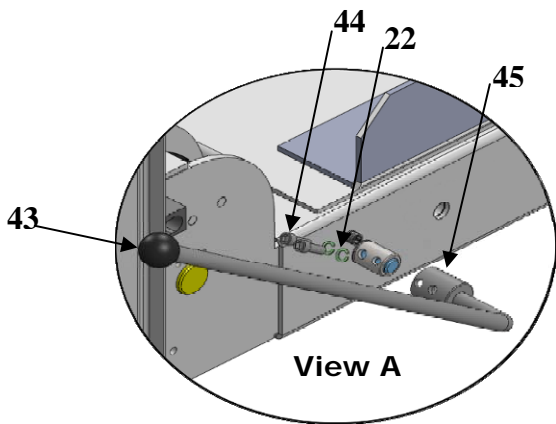
Fig. 21



Pass through the connecting tube from the fixing plate

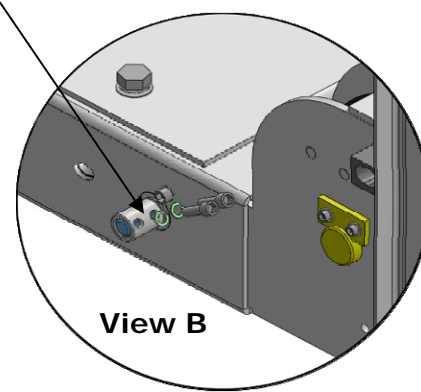


Connect the tube and bar with M8*25 bolts and washers



Install lock release handle to the connecting bar with M8*35 bolts and washers on crossbeam **A**.

Safety lock rotated device assy.



Install M8*35 bolts and washers on crossbeam **B**.

J. Install power unit

Install power unit on the column with the motor bracket. (See Fig. 22).

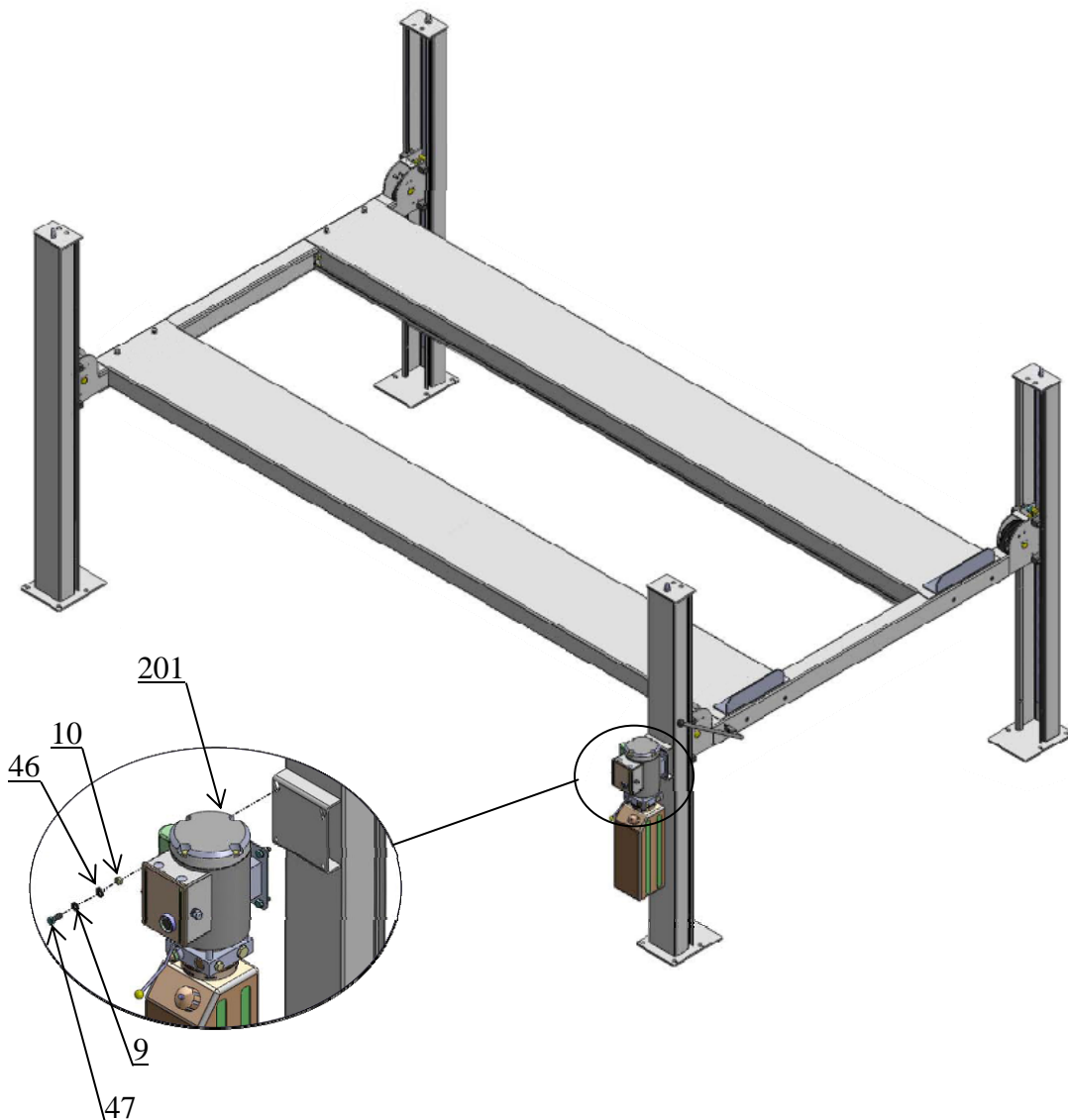
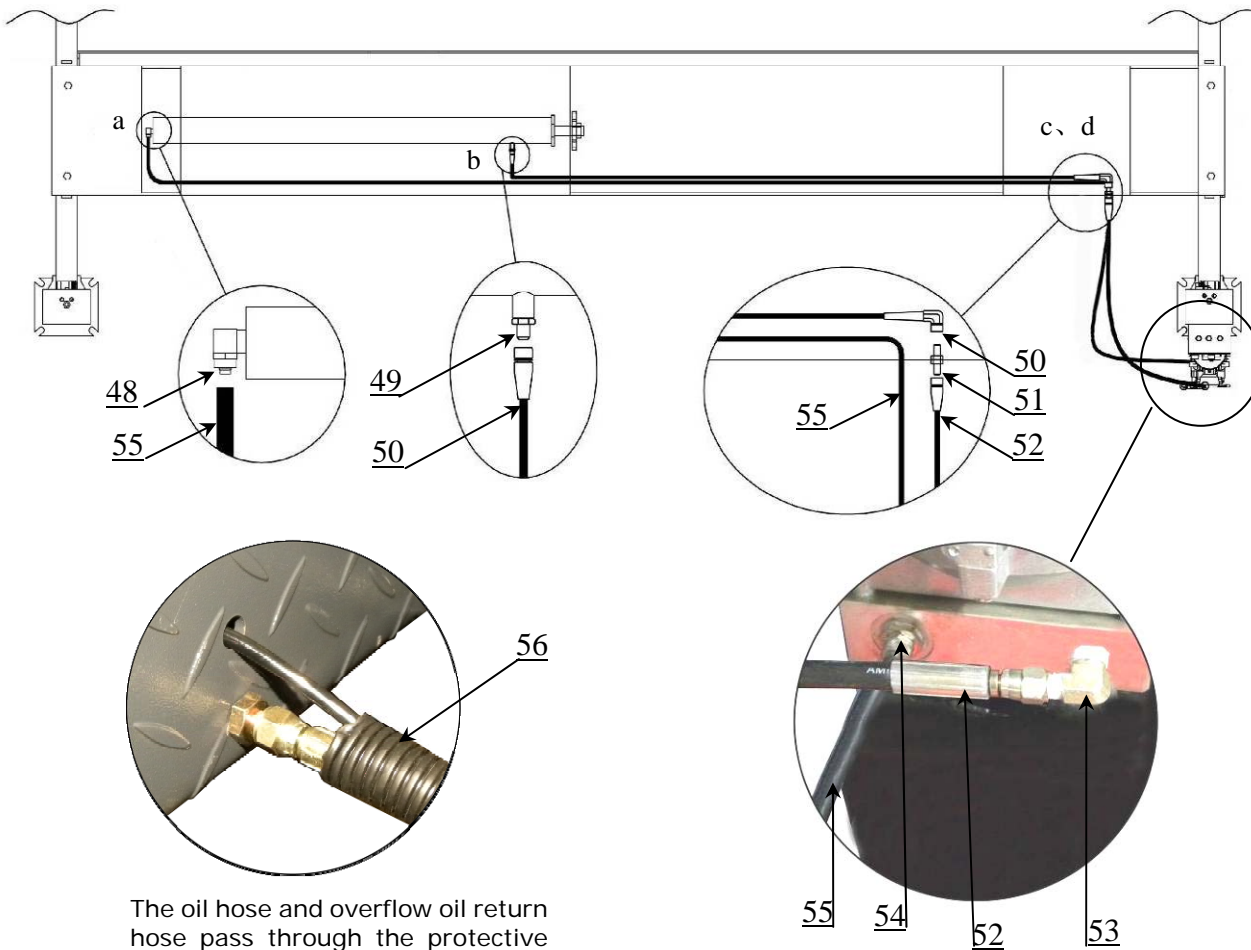
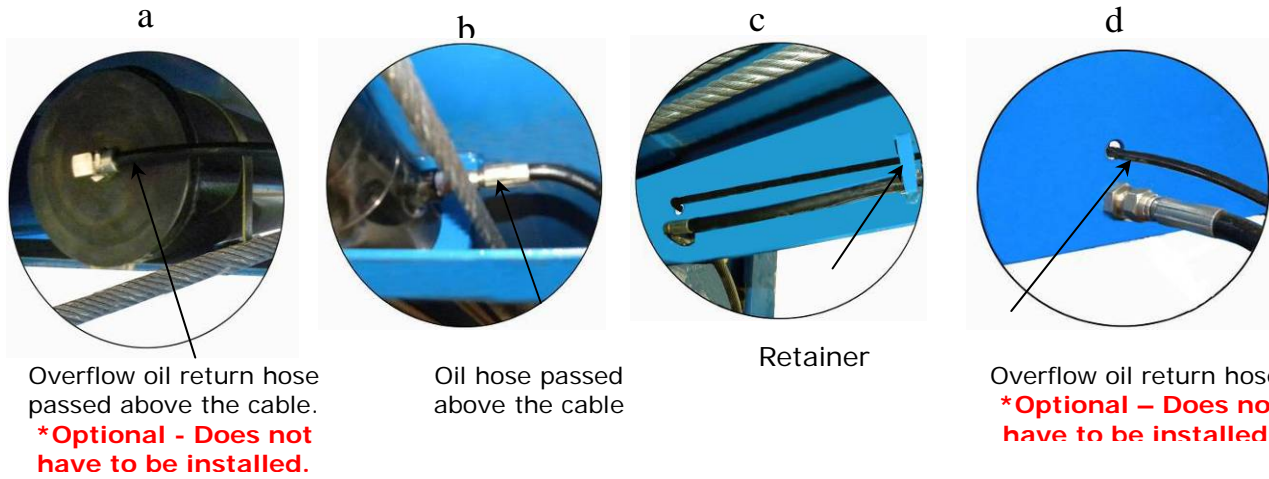


Fig. 22

K. Install Hydraulic System (See Fig. 23)

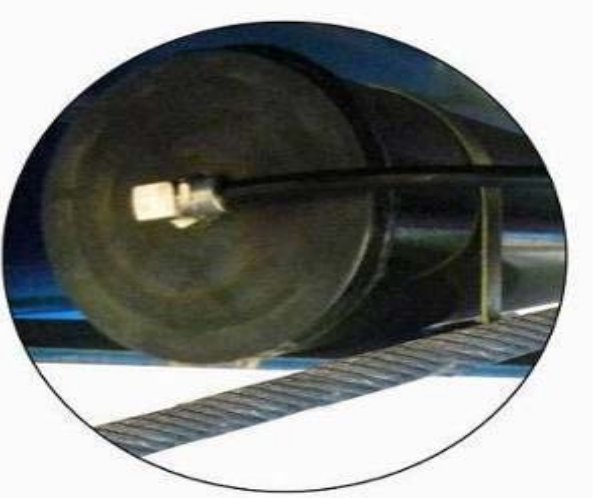
Note: Oil hoses connected to the oil cylinder must be passed above the cable to avoid the oil hose being scratched by the cable.



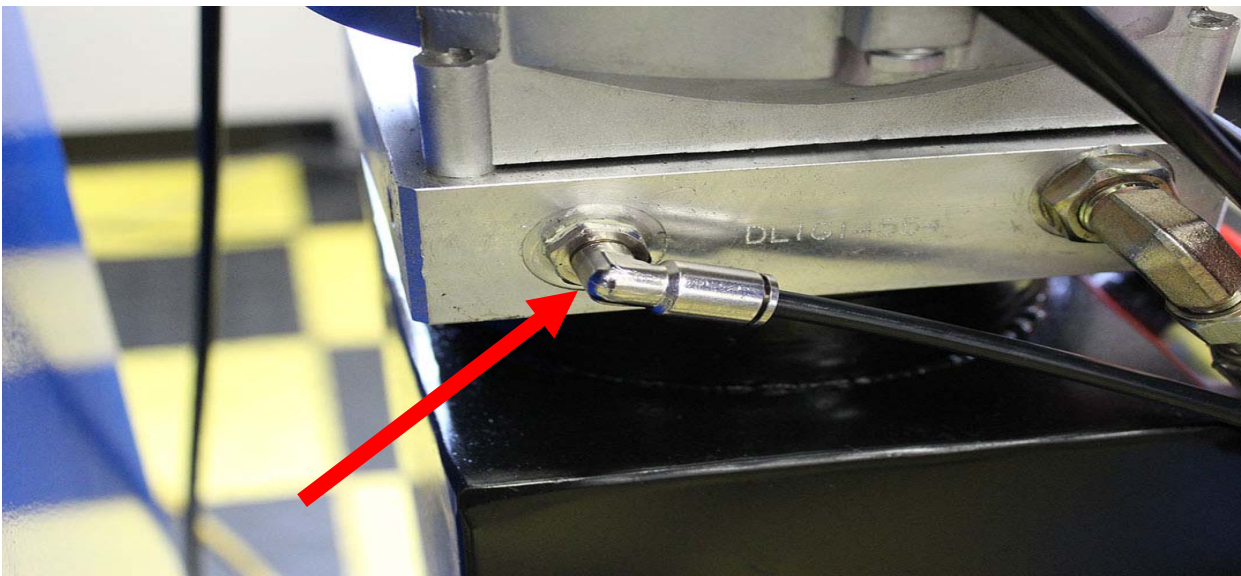
The oil hose and overflow oil return hose pass through the protective hose and connect to the power unit

Fig. 23

Optional Overflow Oil Return Hose Installation



This installation guide shows how to connect a 90 degree fitting and plastic line/hose to the rear of the cylinder. This line is then connected to the Power Unit (see below).



This is an **option** and is not necessary for your lift to function properly. Atlas cylinders and seal are manufactured to exact tolerances. In the unlikely event that a leak were to develop in the cylinder cup seal, the hydraulic fluid leaking past that seal would drip on the floor. This optional line (if installed) would trap any fluid leaking past the cup seal and return leaked oil to the fluid reservoir. Certain countries (not the USA) require these "overflow" lines to be installed. We believe that if the cylinder were to develop a leak, it would be advantageous to "see the leak" and take steps to replace a cylinder seal. The installation of this optional "overflow" line would prevent the user to observe any cylinder leakage.

L. Install spring and safety cover on the cross beams (See Fig. 24).

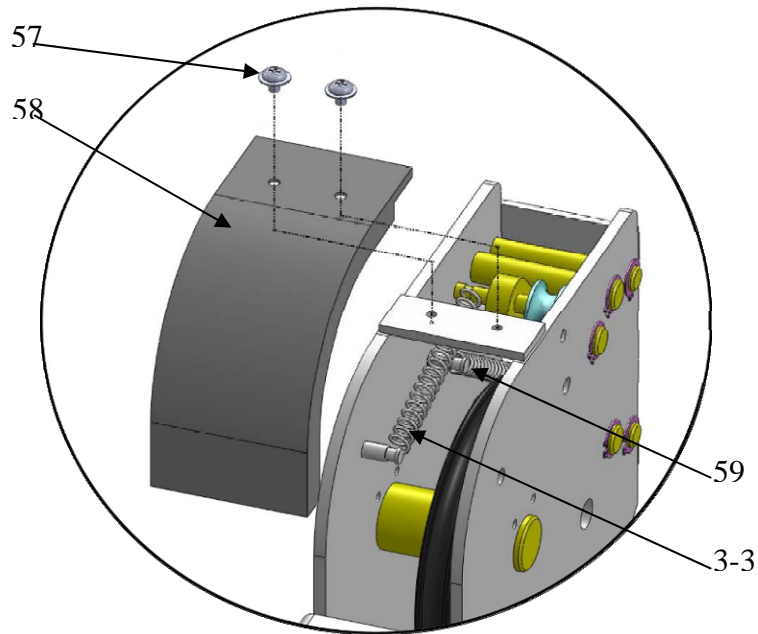


Fig. 24

M. Install drive-in ramps (See Fig. 25).

According to the below diagram install the M16*30 bolts and attach the drive-in ramps.

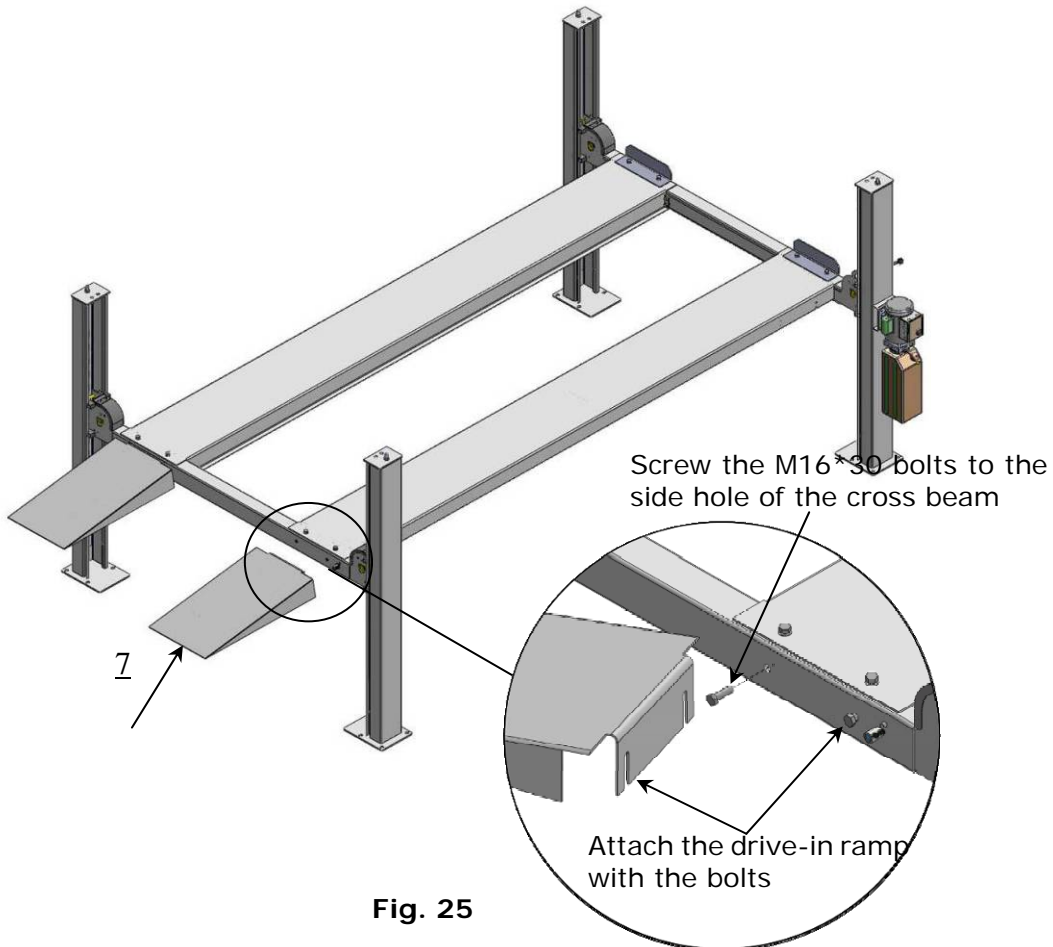


Fig. 25

N. Install rear wheel stop plates (See Fig. 26)

After driving the vehicle on the lift, take off the drive-in ramps; install wheel stop plates to the drive-in ramp position.

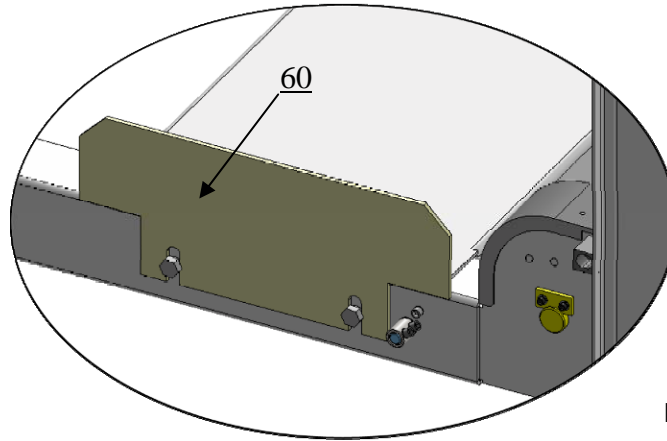


Fig. 26

Installation For Optional Kits.

1. Install optional caster kit (See Fig. 27)

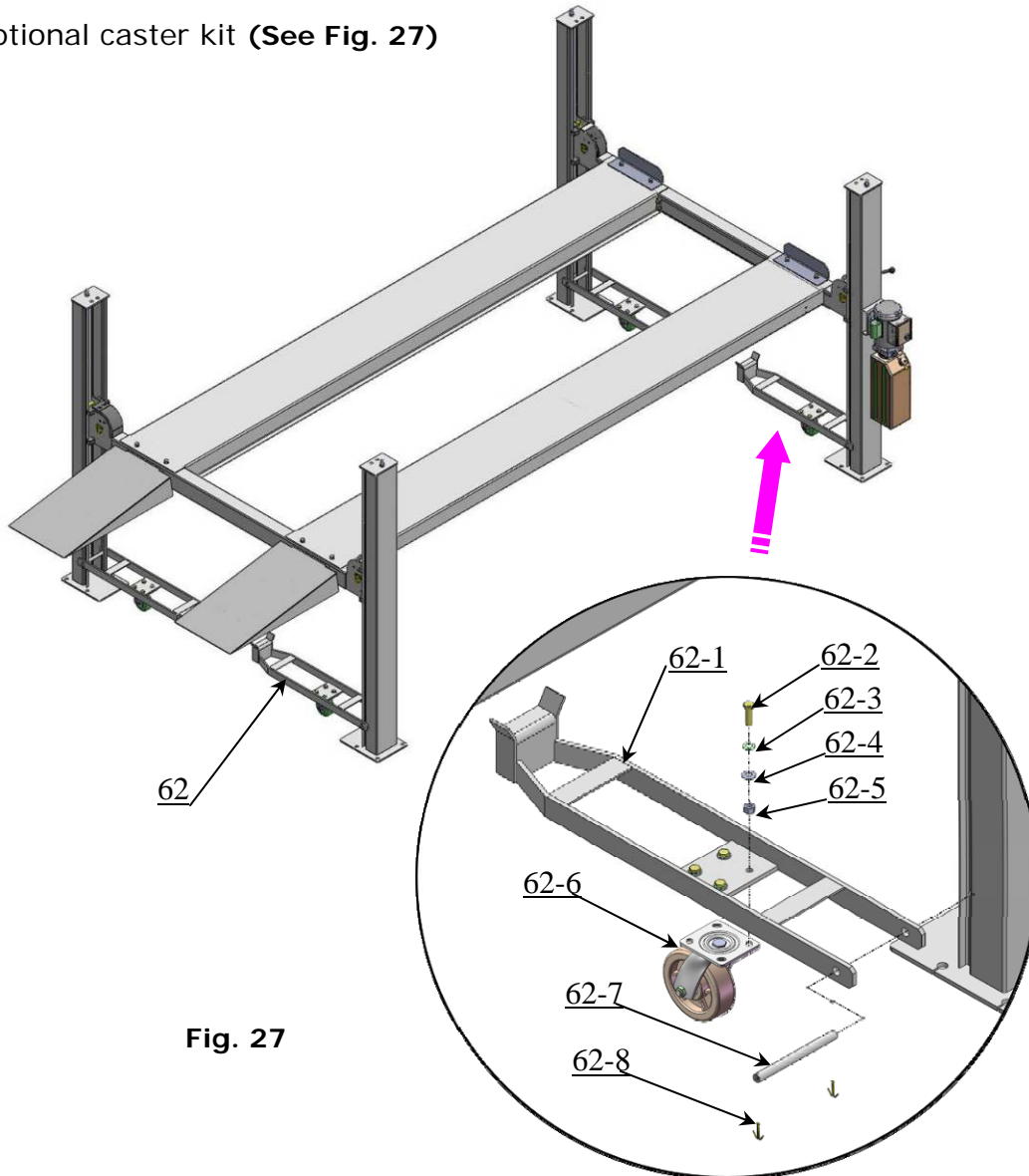


Fig. 27

2. Install steel jack tray, plastic oil pans and **optional** rolling jacks. (See Fig. 28).

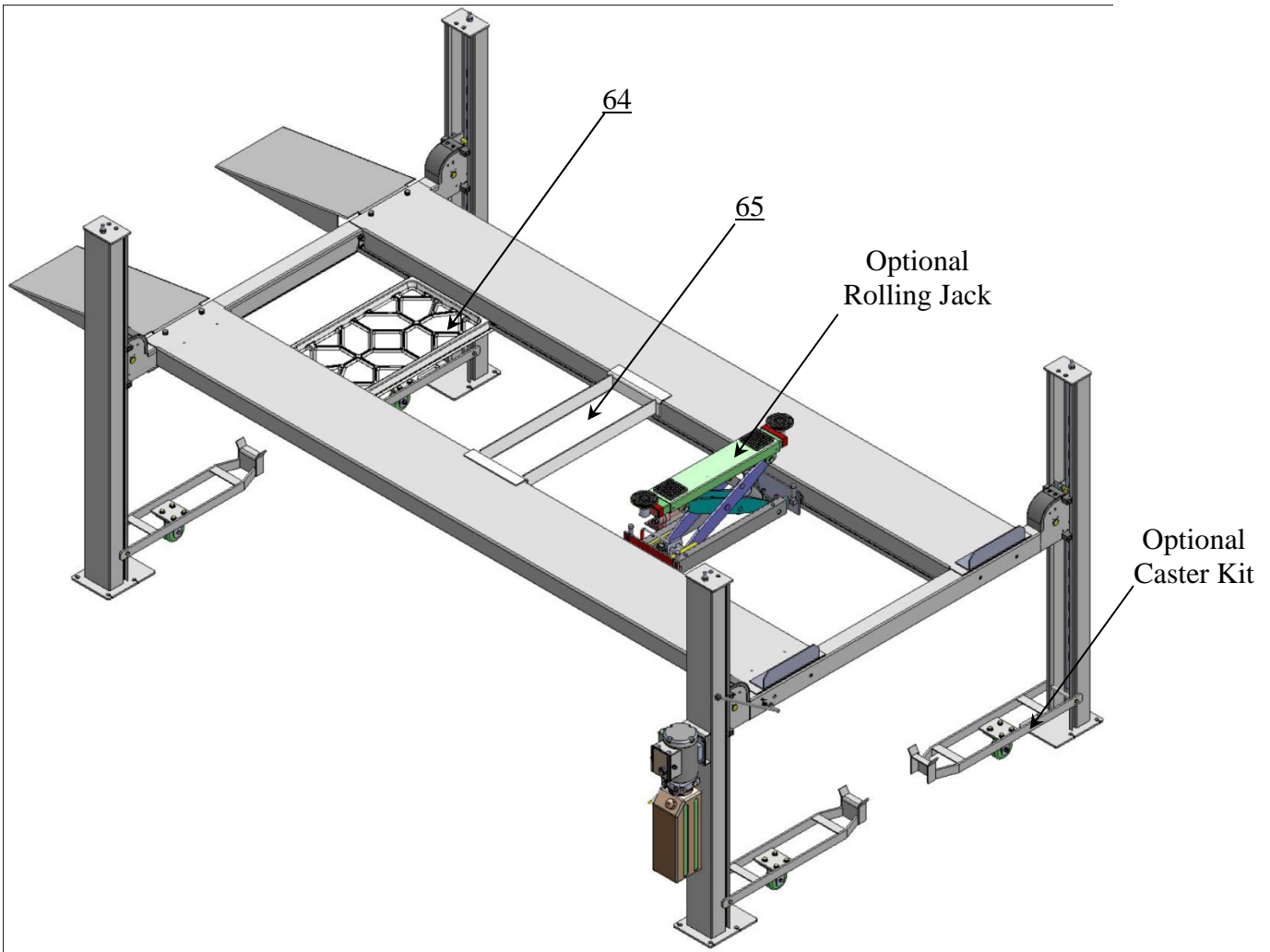


Fig. 28

IV. EXPLODED VIEW

Model 409-HP

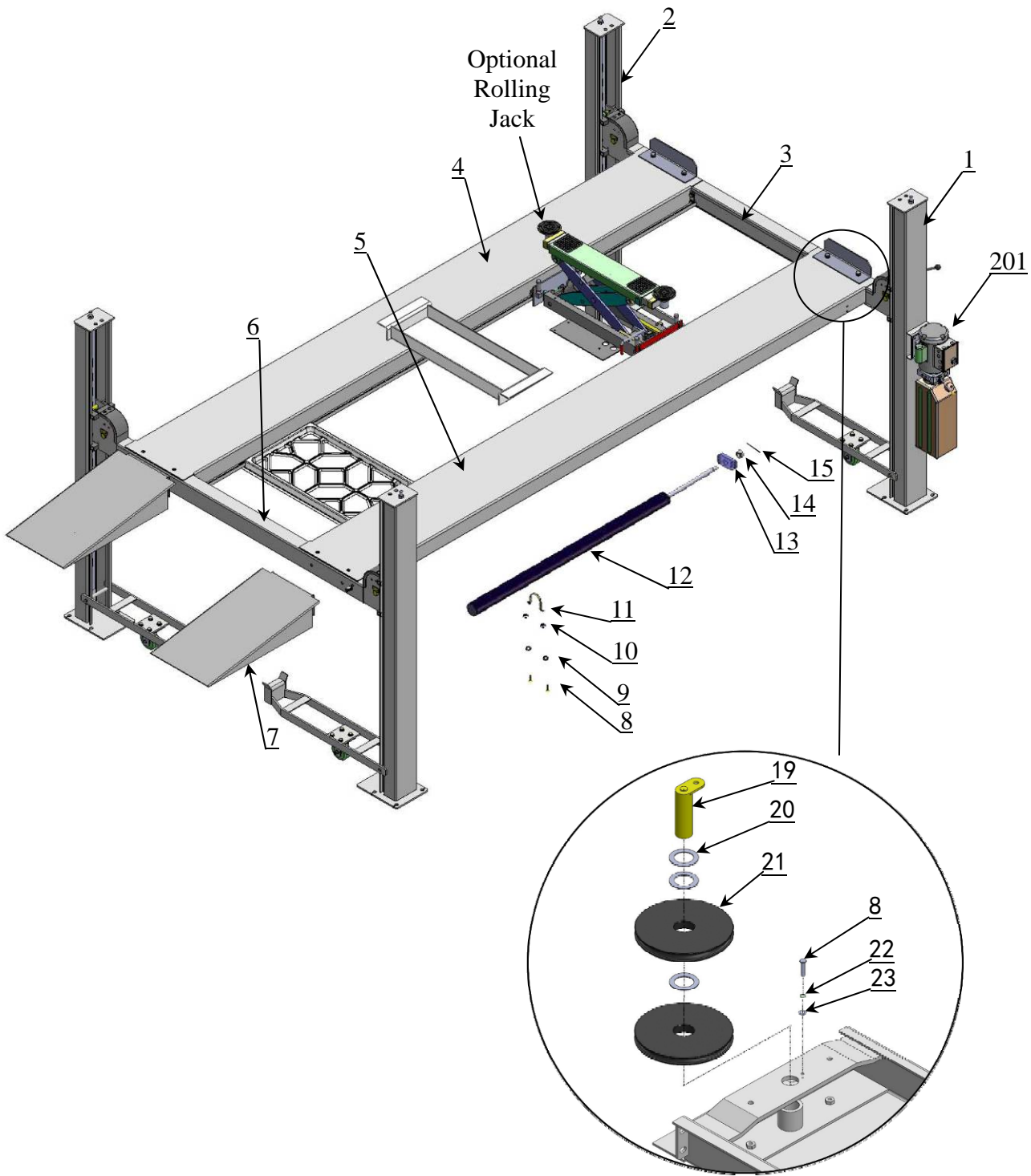


Fig. 29

CROSS BEAM

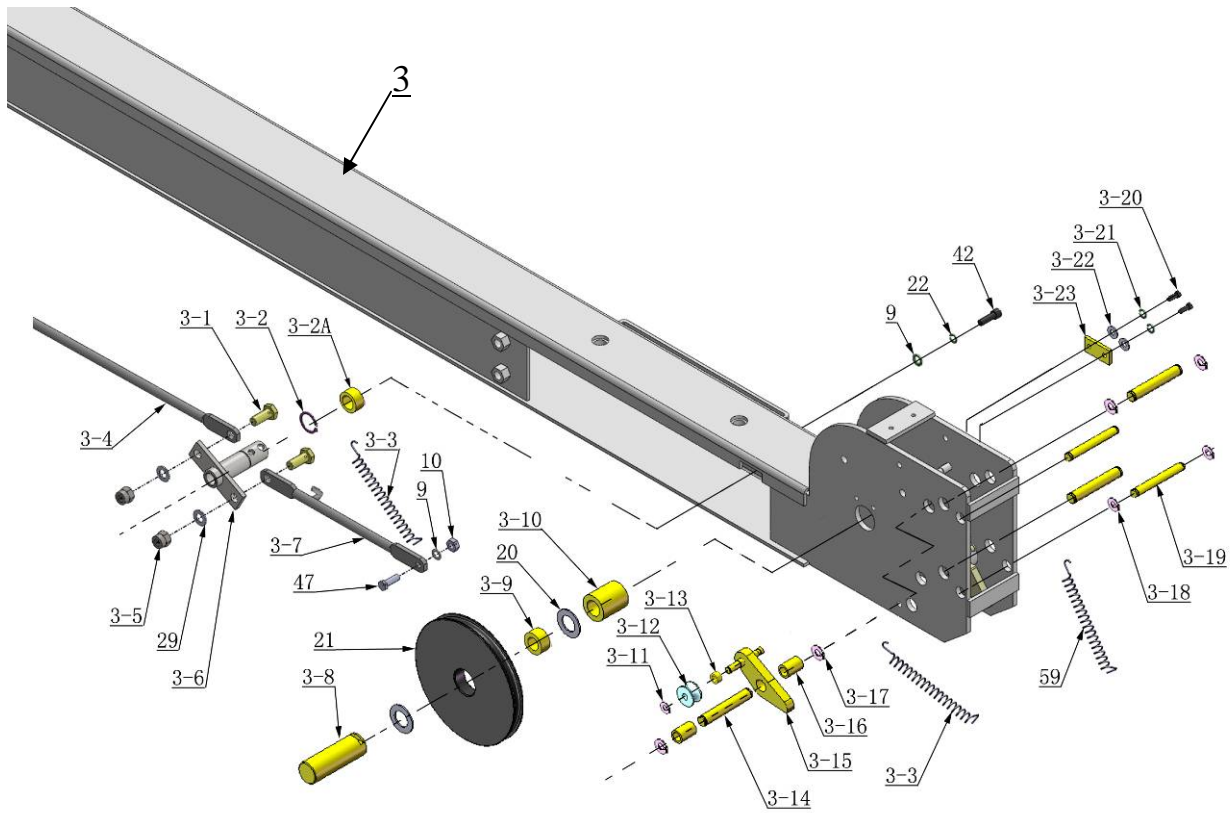


Fig. 30

CYLINDERS

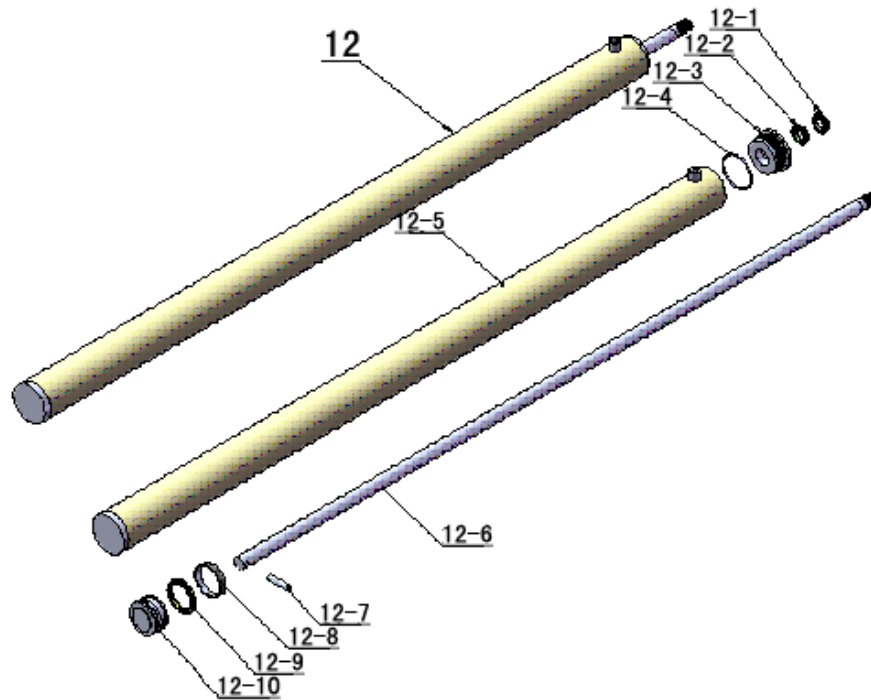


Fig. 31

ATLAS MANUAL POWER UNIT

110V/60HZ/1 phase

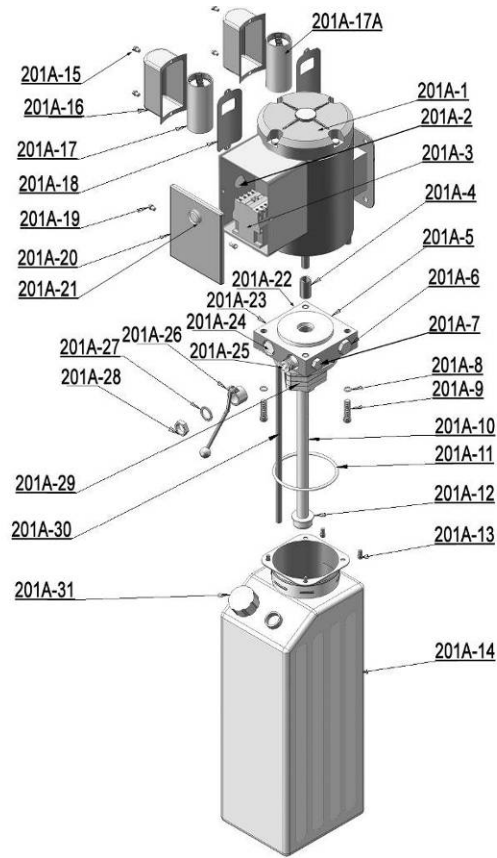


Fig. 32

ATLAS hydraulic power unit 110V/60HZ, single phase.

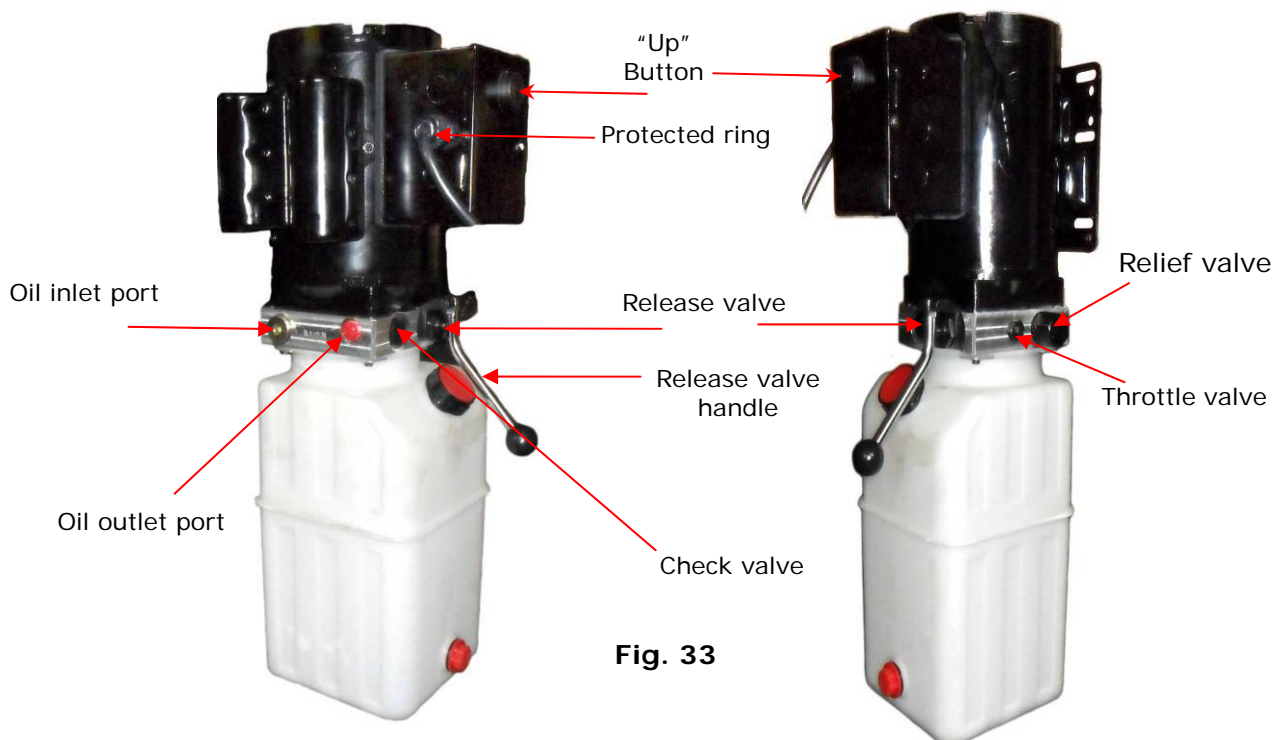


Fig. 33

V. TEST RUN

1. Fill the reservoir with approximately 3 gallons of hydraulic oil (**Note:** In consideration of the power unit's durability and performance please use **(Hydraulic Oil AW32)**.
<http://www.gregsmithequipment.com/Whats-The-Best-Oil-For-My-Lift>
2. Press the "UP" button, the cables will tighten. Double check the cables and confirm they are in the proper pulley positions.
3. Press the release valve handle on the power unit to lock the cross-beams to the safety ladders. To level the platforms, adjust the safety/lock ladder nuts.
4. **Cable adjustment:** With the platforms on their locks; tighten all 4 cable nuts until the 4 cables have the same tension. **Note:** Do not over-tighten the cables.
5. Lower the lift to ground level. Raise the lift and listen for the locks to click/synchronize at the same time. Adjust as needed. This step may need to be repeated several times until the locks click/synchronize at the same time. **Note: After lifting with a load, the cables may need to be readjusted.**

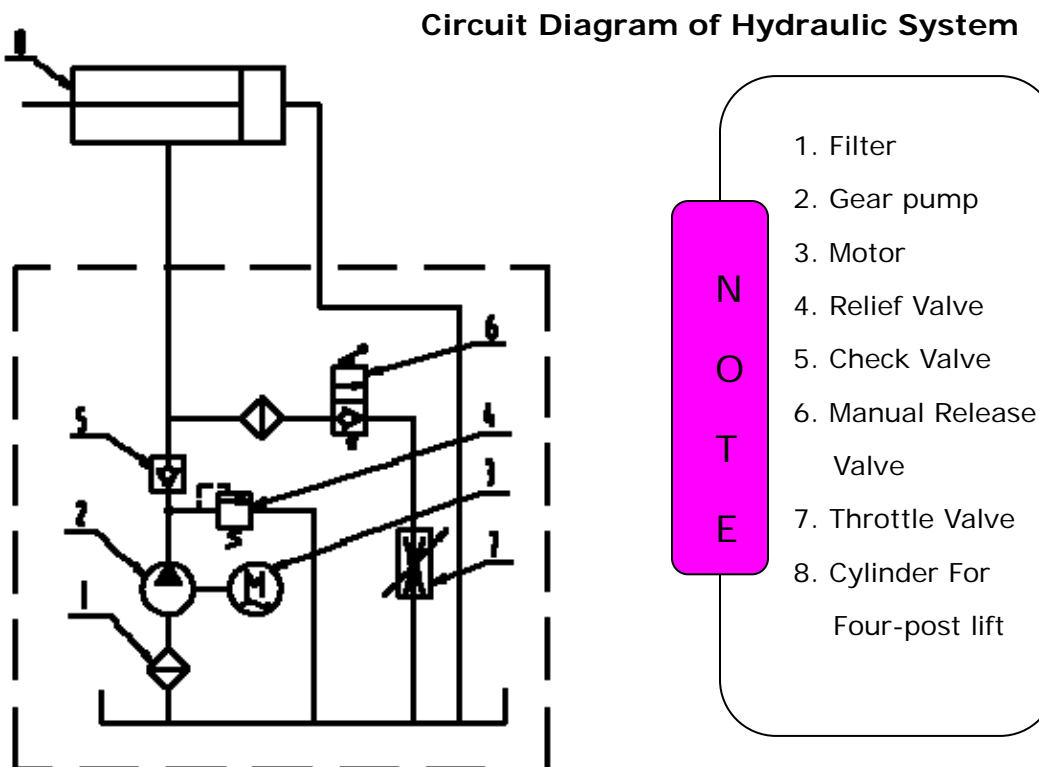


Fig. 34

VI. OPERATION INSTRUCTIONS

To lift vehicle

1. Keep work area clean around and near the lift.
2. Carefully drive vehicle on lift.
3. Remove the drive-in ramps and install wheel stop plates.
4. With power on press the **"UP"** button, raise the lift to the desired height.

Note: Make sure the vehicle is not in neutral.

5. Press the lowering/release valve handle until the lift is locked into position.

To lower vehicle

1. Make sure nothing is under the lift before lowering.
2. Press the **"UP"** button until the lift is off of the locks and pull the safety lock handle, press the lower/release valve handle with the other hand.
3. Remove the safety stop plates. Install the ramps. Slowly back the vehicle off of the lift.

VII. MAINTENANCE SCHEDULE

Monthly:

1. Lubricate cable with a spray lubricant;
2. Check all cable connection, bolts and pins to insure proper mounting;
3. Make a visual inspection of all hydraulic hoses/lines for possible wear or leakage;
4. Lubricate all rollers, safety devices with 90wt. gear oil or equivalent.

Every six months:

1. Make a visual inspection of all moving parts for possible wear, interference or damage.
2. Check and adjust as necessary, the cable tension to insure level lifting.

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. Motor burned out 4. AC contactor burned out 	<ol style="list-style-type: none"> 1. Replace switch 2. Repair all wiring connections 3. Repair or replace motor 4. Replace AC contactor
Motor runs but the lift is not raised	<ol style="list-style-type: none"> 1. Release valve in damage 2. Gear pump in damage 3. Relief valve or check valve in damage 4. Low oil level 	<ol style="list-style-type: none"> 1. Repair or replace 2. Repair or replace 3. Repair or replace 4. Fill tank
Lift does not stay up	<ol style="list-style-type: none"> 1. Release valve leaking 2. Relief valve or check valve leakage. 3. Cylinder or fittings leaks 	Repair or replace. Locks will support runways.
Lift raises too slow	<ol style="list-style-type: none"> 1. Oil line is clogged 2. Motor running on low voltage 3. Oil mixed with Air 4. Pump leaks 5. Overload lifting 	<ol style="list-style-type: none"> 1. Clean the oil line 2. Check electrical system 3. Fill tank and bleed system 4. Repair or replace pump 5. Check weight of load
Lift will not lower	<ol style="list-style-type: none"> 1. Safety device are not released 2. Release valve damaged 	<ol style="list-style-type: none"> 1. Raise lift and release locks. 2. Repair or replace

IX. PARTS LIST FOR MODEL 409-HP

Item	Part#	Description	QTY.	Note
1	410074	Power side Column	1	
2	410075	Offside Column	3	
3	410050	Cross Beam A	1	
4	410076	Offside Platform	1	
5	410077	Power side Platform	1	
6	410053	Cross Beam B	1	
7	410007	Drive-in ramp	2	
8	209043	Hex Bolt	4	
9	209033	Washer	28	
10	209005	Nylok Nut	26	
11	410090	Cylinder fixed ring	1	
12	410070	Cylinder	1	
13	420013	Cylinder connecting plate	1	
14	420014	Hex Nut	1	
15	201005	Split Pin	1	
200	410095	Manual power unit	1	
17	420175A	Hex nut	16	
18	410073	Safety ladder	4	
19	420022A	Pulley pin assy.	2	
20	420023A	Washer	14	
21	420024B	Pulley	10	
22	209034	Lock washer	10	
23	420144	Washer	2	
24	410013	Hex Bolt	8	
25	420137	Lock washer	8	
26	420029	Washer	8	
27	410014	Hex Bolt	4	
28	410015	Tire stop plate	2	
29	206006	Washer	12	
30	420026	Lock washer	8	
31	206041	Hex Bolt	8	
32	410016A	Plastic block	16	
33	410017	Socket bolt	16	
34	620065	Shim	20	
35	410065	Cable ①	1	
36	410066	Cable ②	1	
37	410067	Cable ③	1	
38	410068	Cable ④	1	
39	420020B	Hex Bolt	4	

Item	Part#	Description	QTY.	Note
40	410069	Connecting bar for safety device	2	
41	410024	Connecting tube	1	
42	209032	Socket bolt	4	
43	217005	Plastic ball	1	
44	410025	Socket bolt	4	
45	410026	Safety release handle	1	
46	209004	Rubber ring	4	
47	209003	Hex Bolt	8	
48	420166	90° Fitting	1	
49	420119	Straight Fitting for cylinder	1	
50	410071	Oil hose	1	
51	420120	Extend straight fitting with nut	1	
52	420121	Oil hose	1	
53	209060	90° Fitting for power unit	1	
54	420095	Straight fitting	1	
55	410072	Oil return hose	1	
56	410036	Protective hose	1	
57	209145A	Cup head bolt with washer	8	
58	410029	Plastic cover for cross beam	4	
59	410030	Spring	4	
60	410094	Wheel stop plate	2	
61	410502	Parts box	1	
Optional kits				
62	410037A	Caster kits	4	
63	410038	Motor fixing bracket	1	
64	410095	Plastic oil pan (standard equip)	3	
65	410062	Steel Jack tray (standard equip)	1	
66		Rolling Jack	1	
Parts for optional caster kits				
62-1	410042A	Support bracket	4	
62-2	209125	Hex bolt	16	
62-3	209039	Lock washer	16	
62-4	209022	Washer	16	
62-5	209021	Hex nut	16	
62-6	410035	Plastic wheel	4	
62-7	410034	Connecting pin	4	
62-8	209012	Hair Pin	8	
Parts For Cross Beam				
3-1	206024	Hex bolt	4	
3-2	206032	Snap ring	2	
3-2A	217020	Bronze bush	2	
3-3	420033	Spring	6	
3-4	410063	Connecting bar for safety lock	2	

Item	Part#	Description	QTY.	Note
3-5	206023	Nylok Nut	4	
3-6	410032	Safety lock rotated device assy.	2	
3-7	410064	Connecting bar assy. for safety lock	2	
3-8	420041A	Pulley Pin	4	
3-9	420132A	Pulley Bush	10	
3-10	420040A	Pulley pin sleeve	4	
3-11	209010	Snap ring	4	
3-12	420035	Tension pulley	4	
3-13	420174	Spacer	4	
3-14	420171	Pin	12	
3-15	420175	Slack-cable safety lock (Left & Right)	2/ea.	
3-16	420172	Pin Bush For Slack-cable safety lock	8	
3-17	206019	Snap ring	24	
3-18	420037	Snap ring	16	
3-19	420038	Pin	8	
3-20	420138	Socket Bolt	8	
3-21	209149	Lock washer	8	
3-22	420045	Washer	8	
3-23	420044	Stop block	4	
Parts For Cylinder				
12-1	420059	Dust Ring	1	
12-2	420060	Y- Ring	1	
12-3	410082	Head Cap	1	
12-4	410083	O- Ring	1	
12-5	410078	Bore Weldment	1	
12-6	410079	Piston Rod	1	
12-7	410085	Pin	1	
12-8	410086	Support Ring	1	
12-9	410087	Y- Ring	1	
12-10	410088	Piston	1	
Parts For PEAK Manual Power Unit, 110V/60Hz/1 phase				
200-1	209119A	Motor	1	
200-2	209109	Protective Ring	1	
200-3	209112	AC Contactor	1	
200-4	209083A	Motor Connecting Shaft	1	
200-5	209084A	Valve Body	1	
200-6	209085A	Relief Valve	1	
200-7	209113	Throttle Valve	1	
200-8	209086A	Lock Washer	4	
200-9	209087A	Socket Bolt	4	
200-10	209120A	Inlet Pipe	1	
200-11	209089A	O-ring	1	
200-12	209090A	Filter	1	

Item	Part#	Description	QTY.	Note
200-13	209091A	Socket Bolt	4	
200-14	209092	Reservoir (10 Liter)	1	
200-15	209093A	Cup Head Bolt with washer	4	
200-16	209094A	Cover of Capacitor	2	
200-17	209122A	Start Capacitor	1	
200-17A	209123A	Running Capacitor	1	
200-18	209096A	Rubber Gasket	2	
200-19	209097A	Cup Head Bolt with washer	2	
200-20	209098A	Cover of Motor Terminal Box	1	
200-21	209099A	Control Button	1	
200-22	209110A	Oil Return Port	1	
200-23	209100A	Oil Outlet	1	
200-24	209105A	Check Valve	1	
200-25	209101A	Release Valve	1	
200-26	209102A	Release Valve Handle	1	
200-27	209103A	Washer	1	
200-28	209104A	Hex Nut	1	
200-29	209124A	Gear pump	1	
200-30	209125A	Oil Return Pipe	1	
200-31	209108	Filler Cap	1	