INSTALLATION & OPERATION MANUAL

Atlas OH-10X

10,000 lb. Capacity Two-Post Overhead Lift

Atlas Automotive Equipment
www.atlasautoequipment.com
(866) 898-2604

Read this entire manual before operation begins.

Record below the following information which is located on the serial number data plate.

Serial No. _____
Model No. _____
Date of Installation _____

Contents

Specifications

OH-10X Clearfloor Direct-Drived Model Features (See Fig. 1)

- Direct-drive design minimizes the lift wear on parts and breakdown ratio.
- Dual hydraulic direct-drive cylinders are designed and made on ANSI standards utilizing oil seal in cylinder.
- Self-lubricating UHMW Polyethylene sliders and bronze bushings.
- Single-point safety release, and dual safety lock design.
- Clear floor design, provide unobstructed floor space.
- Overhead safety shut-off device.
- Symmetric arm design.
- Stackable adapters 1.5”, 3”, 6” are standard equipment.

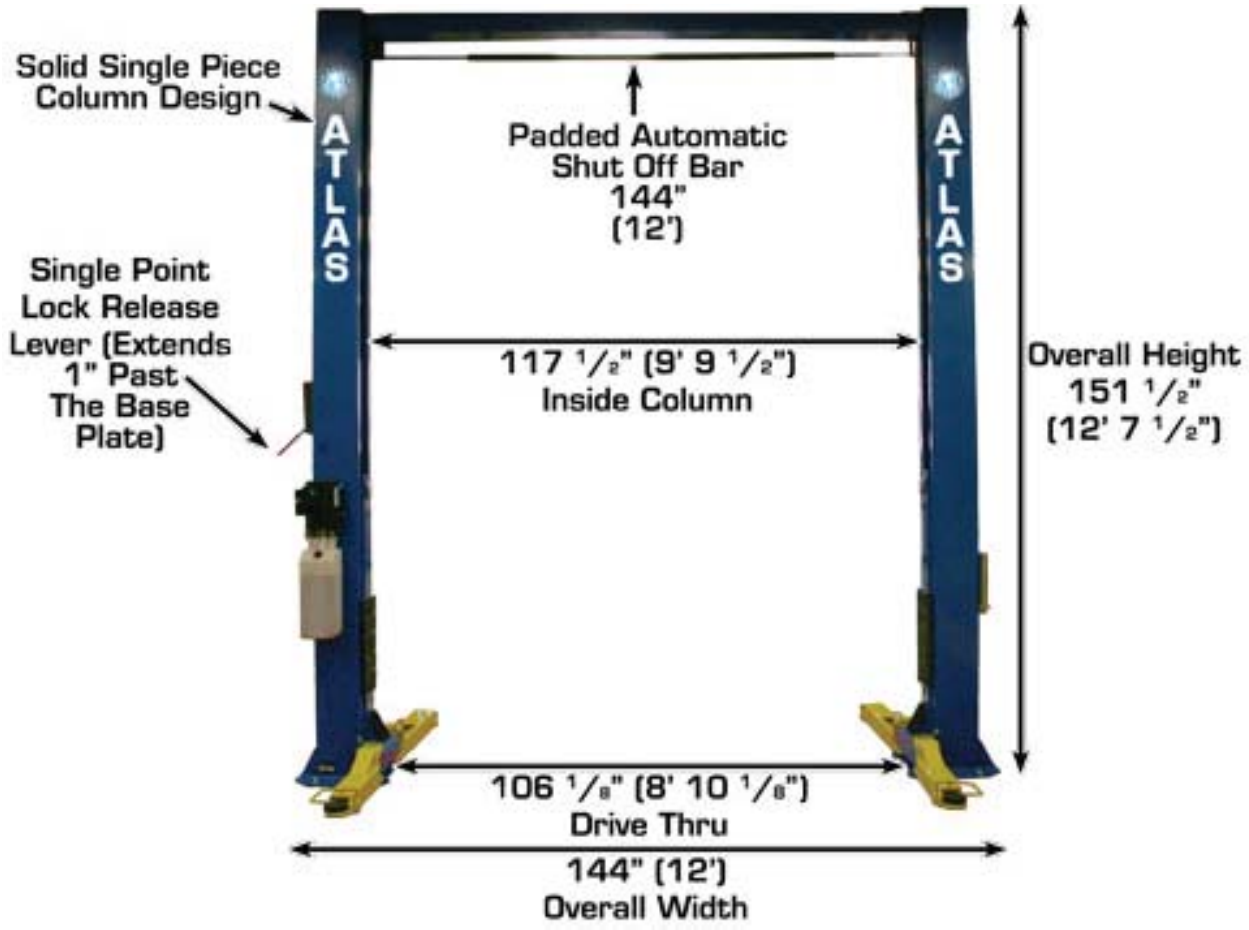


Fig. 1

OH-10X Specifications

Model	Style	Lifting Capacity	Lifting Time	Lifting Height	Overall Height	Overall Width	Width Between Columns	Minimum Pad Height	Gross Weight	Motor
OH-10X	Clear floor Direct-drive	10,000lbs	60S	74 1/4”-84”	151 1/2”	144”	117 1/2”	4 1/4”	1,730lbs	3.0 HP

Arm Swing View

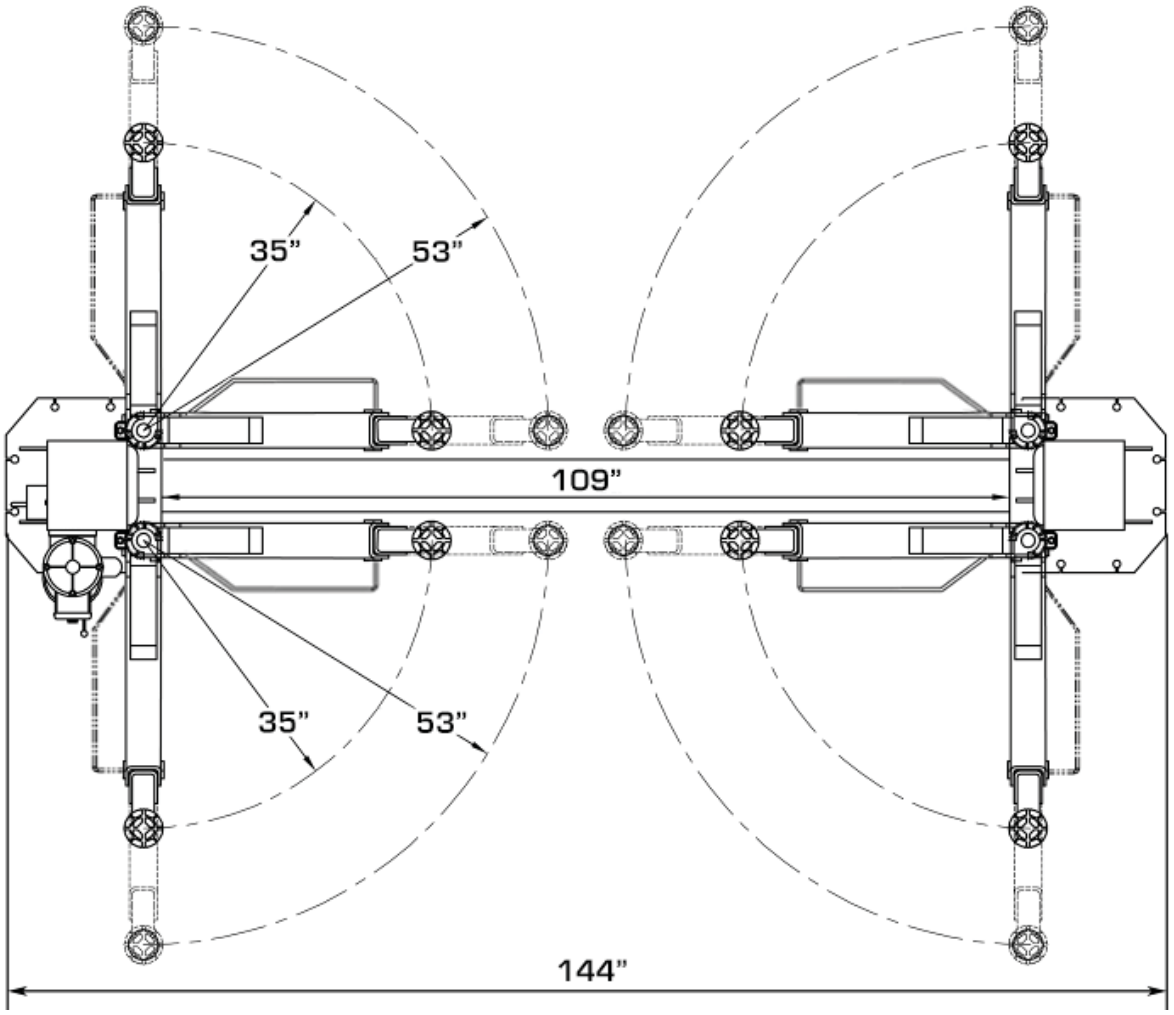


Fig. 2

Installation Requirement

Tools Required

Rotary Hammer Drill (Φ19)

Carpenter's Chalk

Hammer

Screw Drivers

Level Bar

Tape Measure (25ft)

Crescent Wrench (12")

Pliers

Ratchet Spanner With Socket (28#)

Allen Head Wrench (3#, 6#)

Wrench set
(10#, 13#, 14#, 15#, 17#, 19#, 24#, 27#)

Vise Grips

Fig. 3

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 have 4 inches minimum and must be totally cured before lift installation.
2. Concrete must be in good condition and must have a test strength 3,000psi minimum.
3. Floors must be level and no cracks.

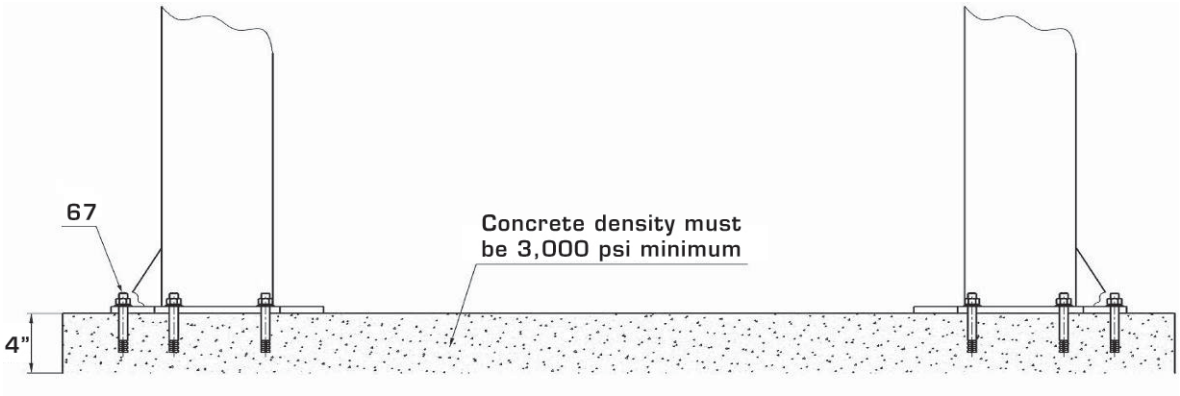


Fig. 4

Power Supply

220 volt single phase 30 amp breaker with minimum of 10 gauge wire

Steps Of Installation

A. Location of Installation

Double check the installation site (concrete, layout, space size etc.) for the lift installation.

B. Use a carpenter’s chalk line to establish installation layout of base plate (See Fig. 5).

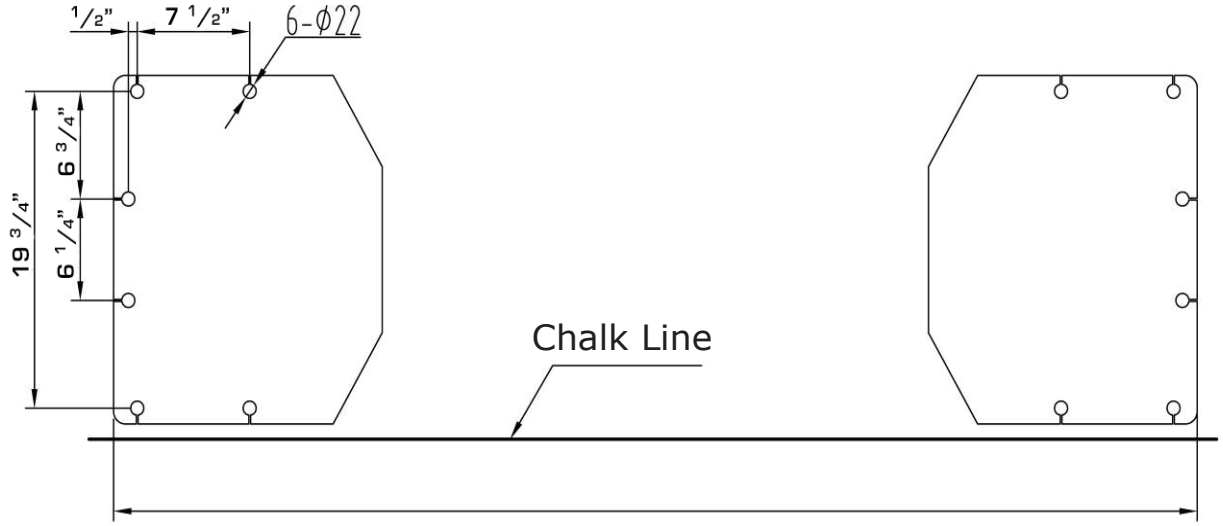


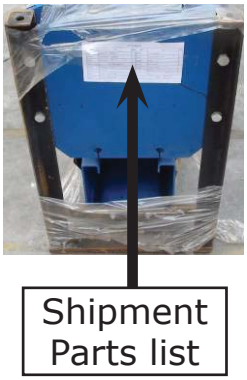
Fig. 5

C. Check the parts before assembly

1. Packaged lift and hydraulic power unit **(see Fig. 6)**

Fig. 6

2. Move the lift aside with a fork lift or hoist, and open the outer packing carefully. **(See Fig. 7).**



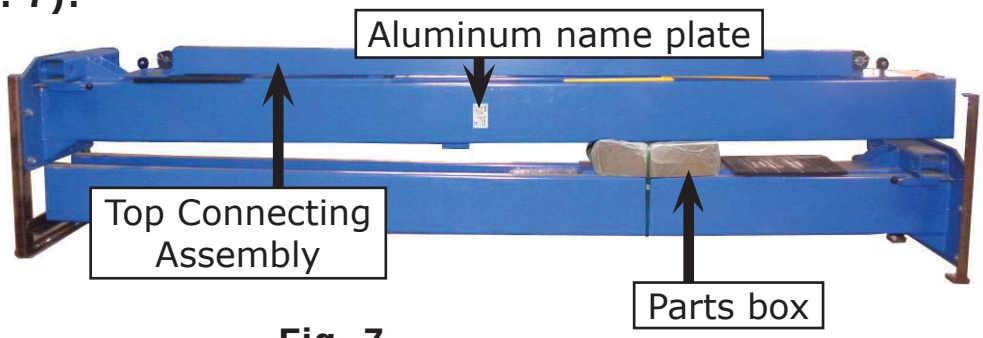


Fig. 7

3. Remove the parts from upper inside of the column and set the parts aside.
4. Loosen the bolts on the upper package stand and take off the upper column with a forklift or hoist and remove the package stand.
5. Move the parts aside and check the shipment parts list. **(See Fig. 8, 9)**.

Fig. 8 - Parts in the shipment parts list

Fig. 9 - Parts in the parts box (77)

6. Check the parts of the parts bag according to parts bag list **(See Fig. 10).**

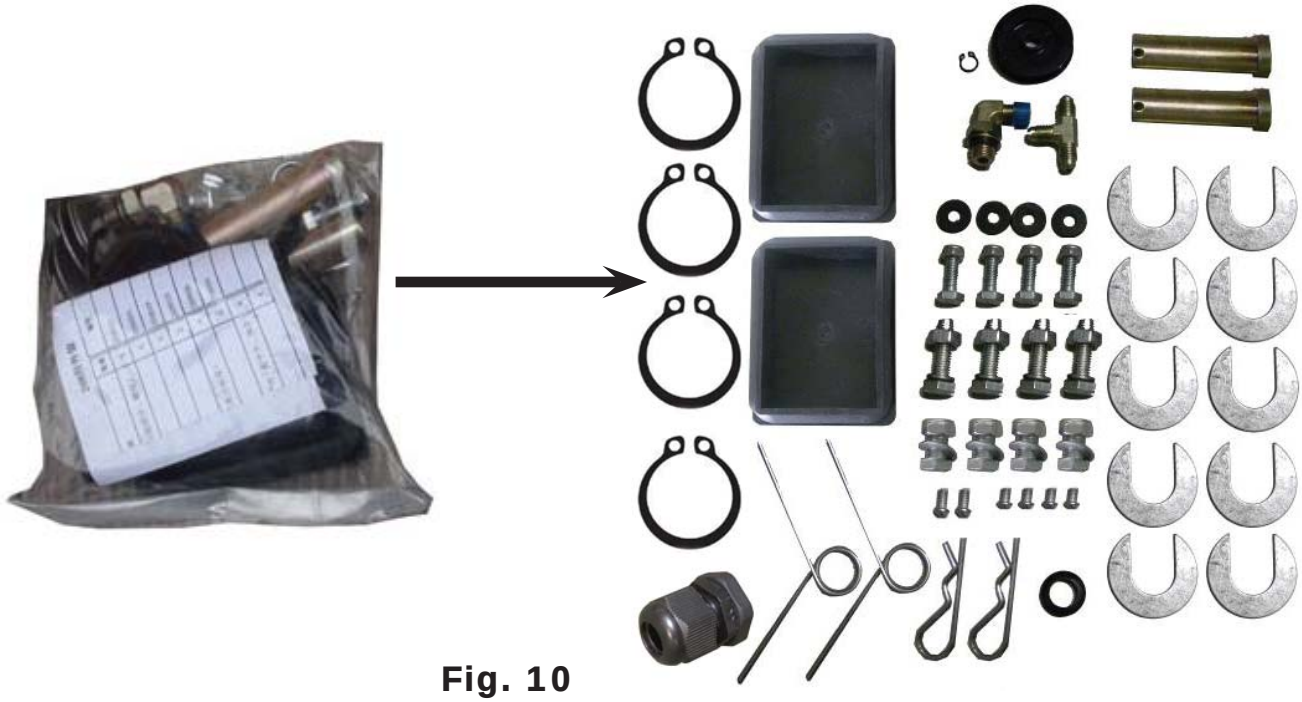


Fig. 10

D. Position power side column

Set the columns vertically on the installation site parallel of each other. Position the power side column according to the actual installation site **(See Fig. 11).**

Note: Figure 11 appears to have the columns lying down. They are supposed to be in the upright position.

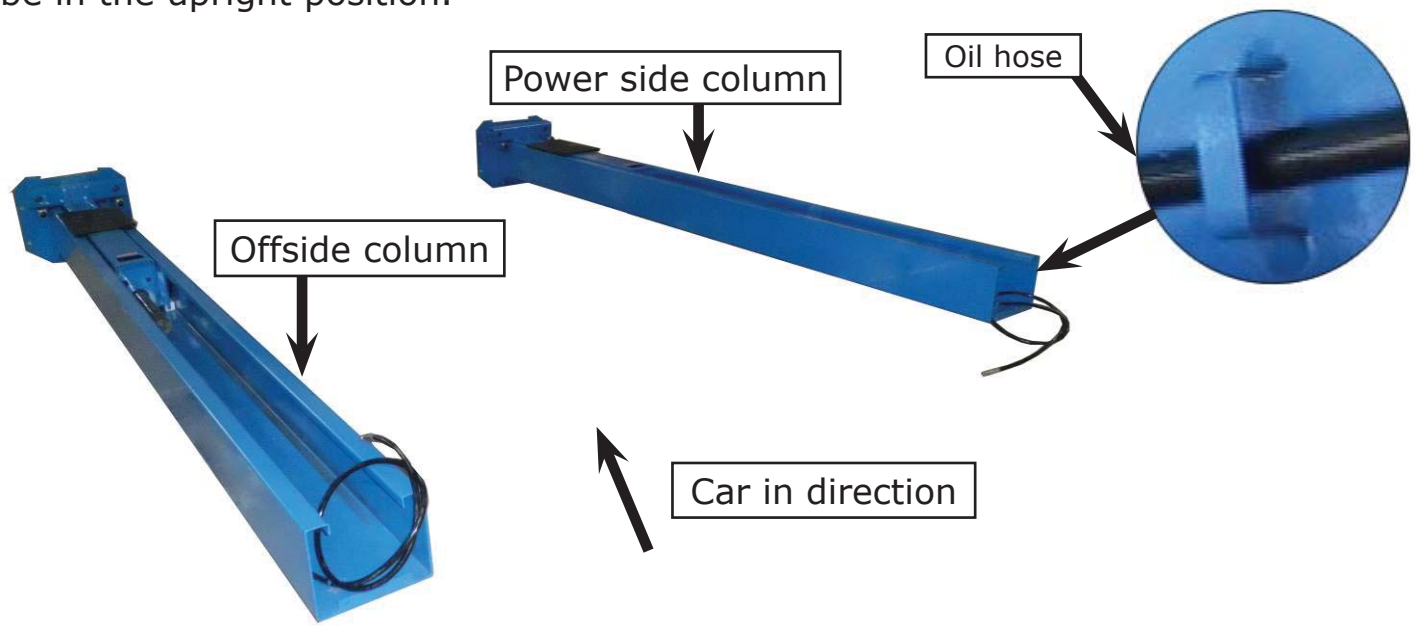


Fig. 11

E. Connecting the oil hoses

Slide the carriages up and connect the cylinder fittings using Teflon tape. Connect the oil hoses to the cylinders.

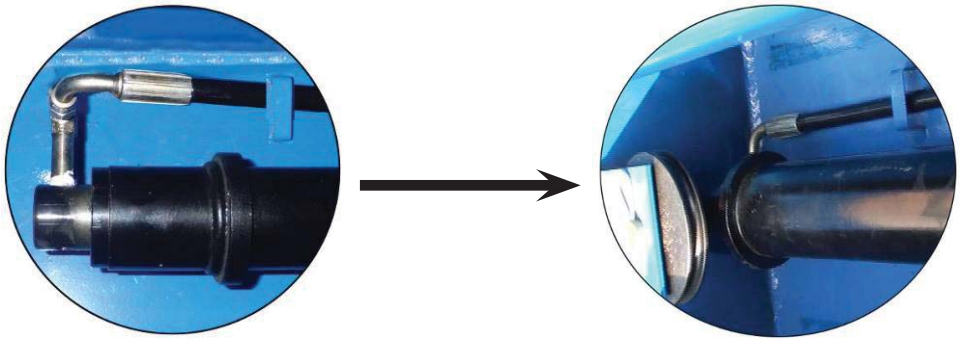


Fig. 12

F. Connect the equalizing cables

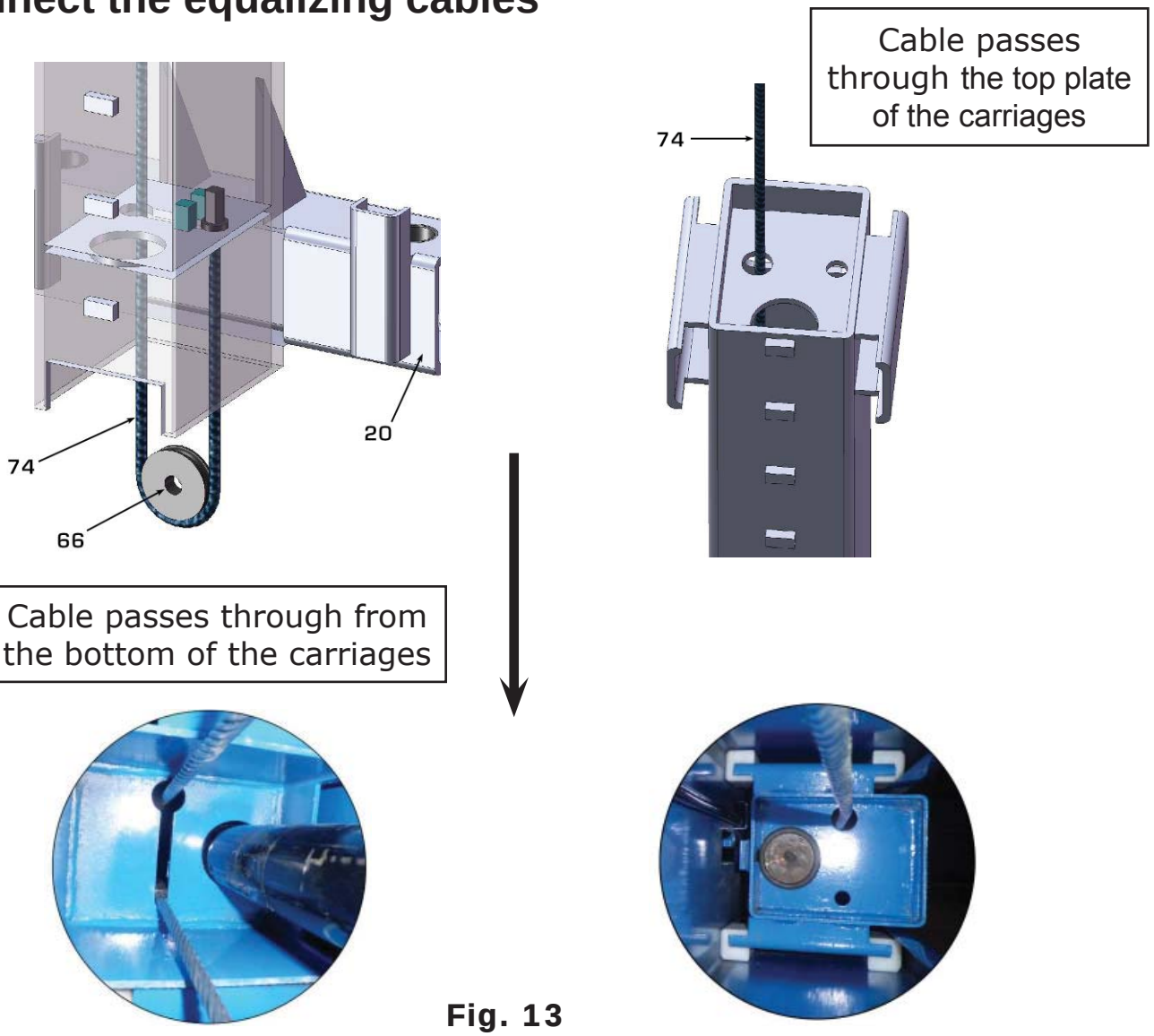


Fig. 13

G. Position columns

Position the columns upright on the installation layout. Drill holes for the power side column only. Install the anchor bolts. Do not tighten the anchor bolts. Position the offside column parallel to the power side column at the approximate width.

Do not drill holes until overhead beam is installed **(See Fig. 14)**.

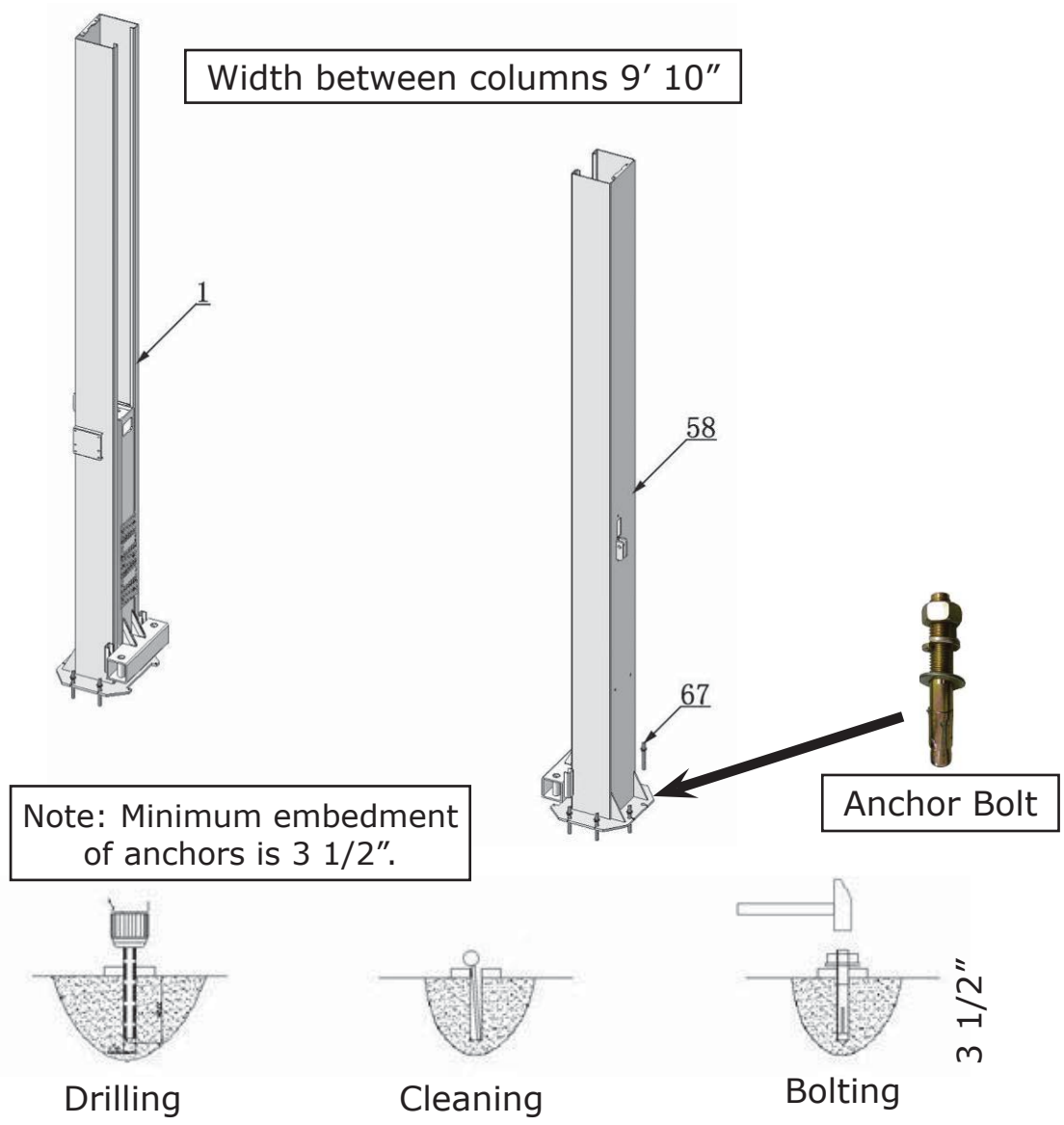


Fig. 14

If the top of the anchor exceeds 2 inches above the floor grade, you **DO NOT** have enough embedment.

H. Assemble overhead top beams (See Fig. 15).

Fig. 15

I. Check the columns for plumb with a 4ft. level bar.

Adjust with the shims and tighten the anchor bolts between 60 and 86 foot pounds. **(See Fig. 16)**.

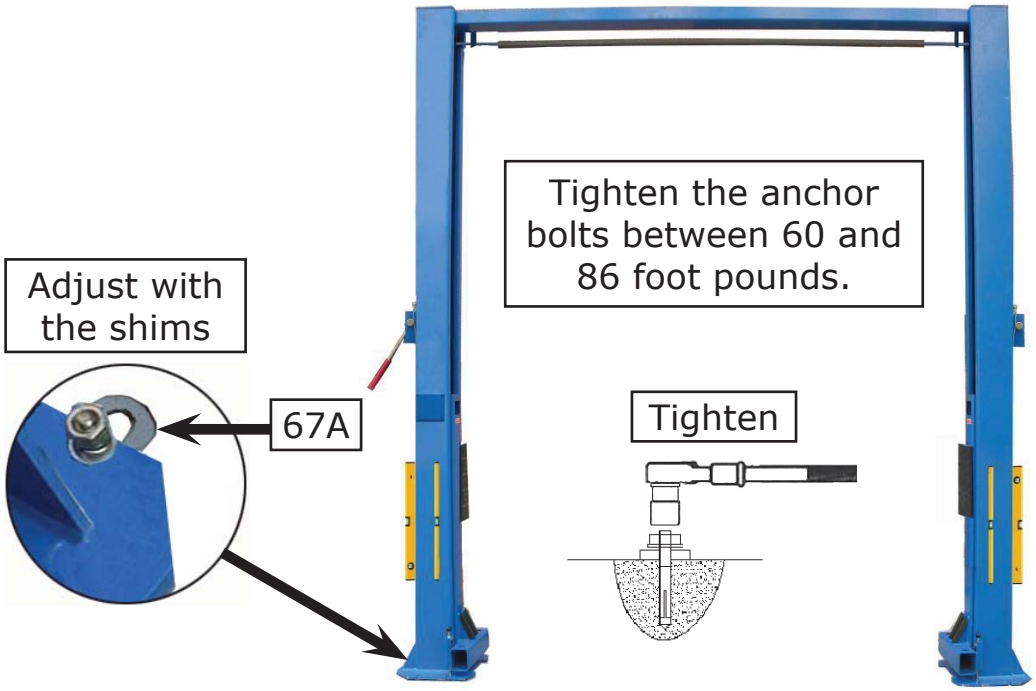


Fig. 16

J. Install the limit switch control bar and limit switch (See Fig. 17).

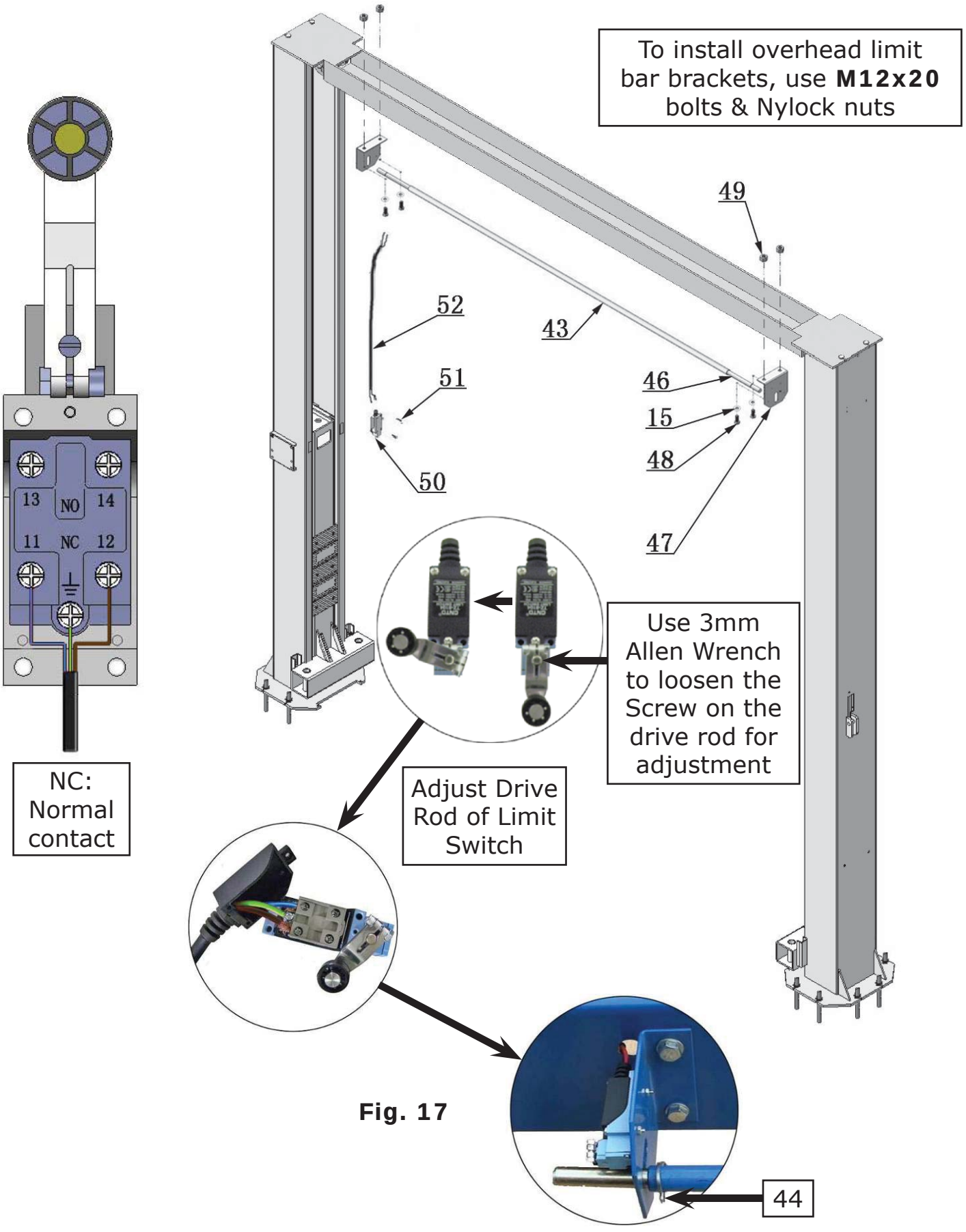


Fig. 17

K. Install safety cable (See Fig. 18).

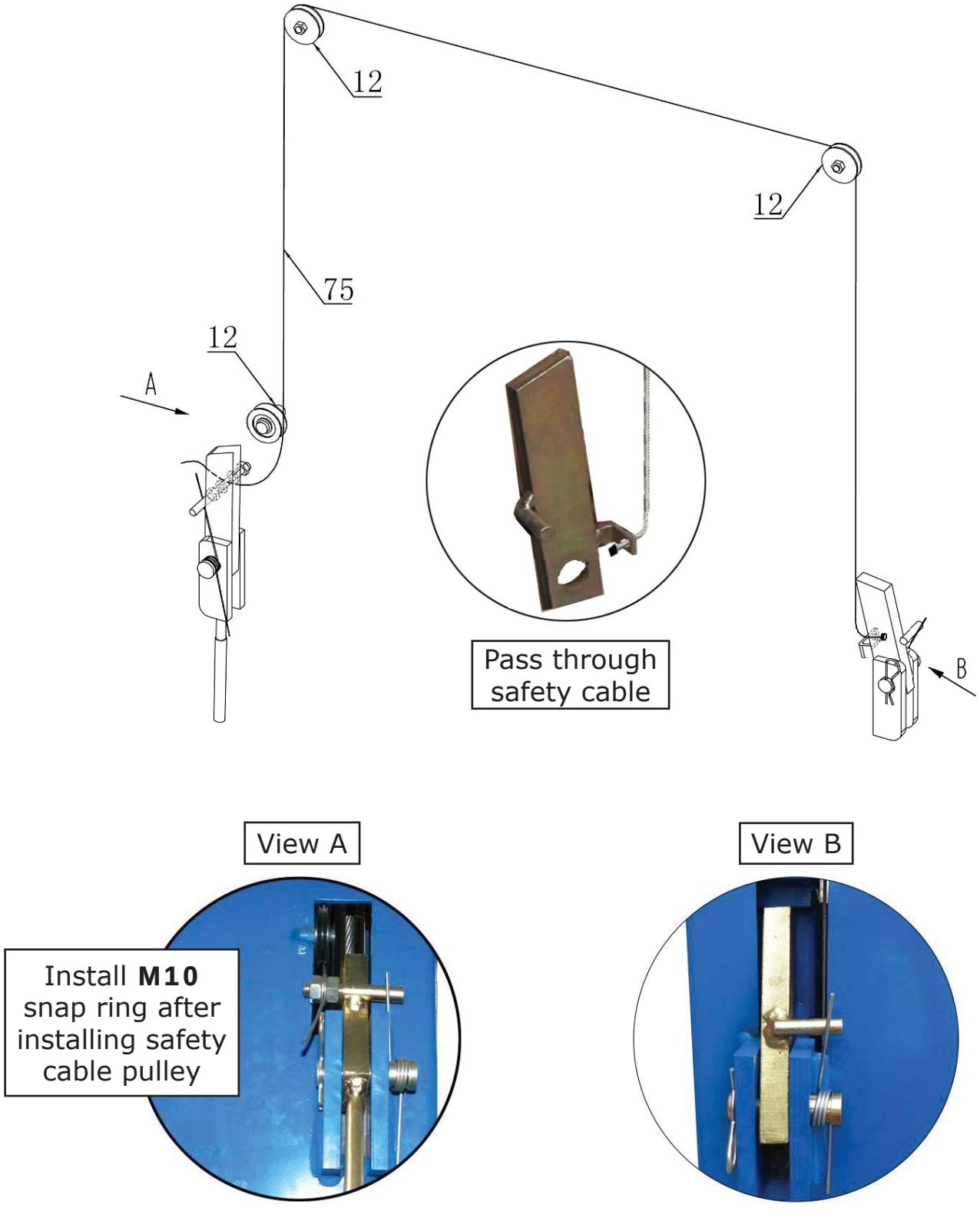


Fig 18

L. Install cables (See Fig. 19).

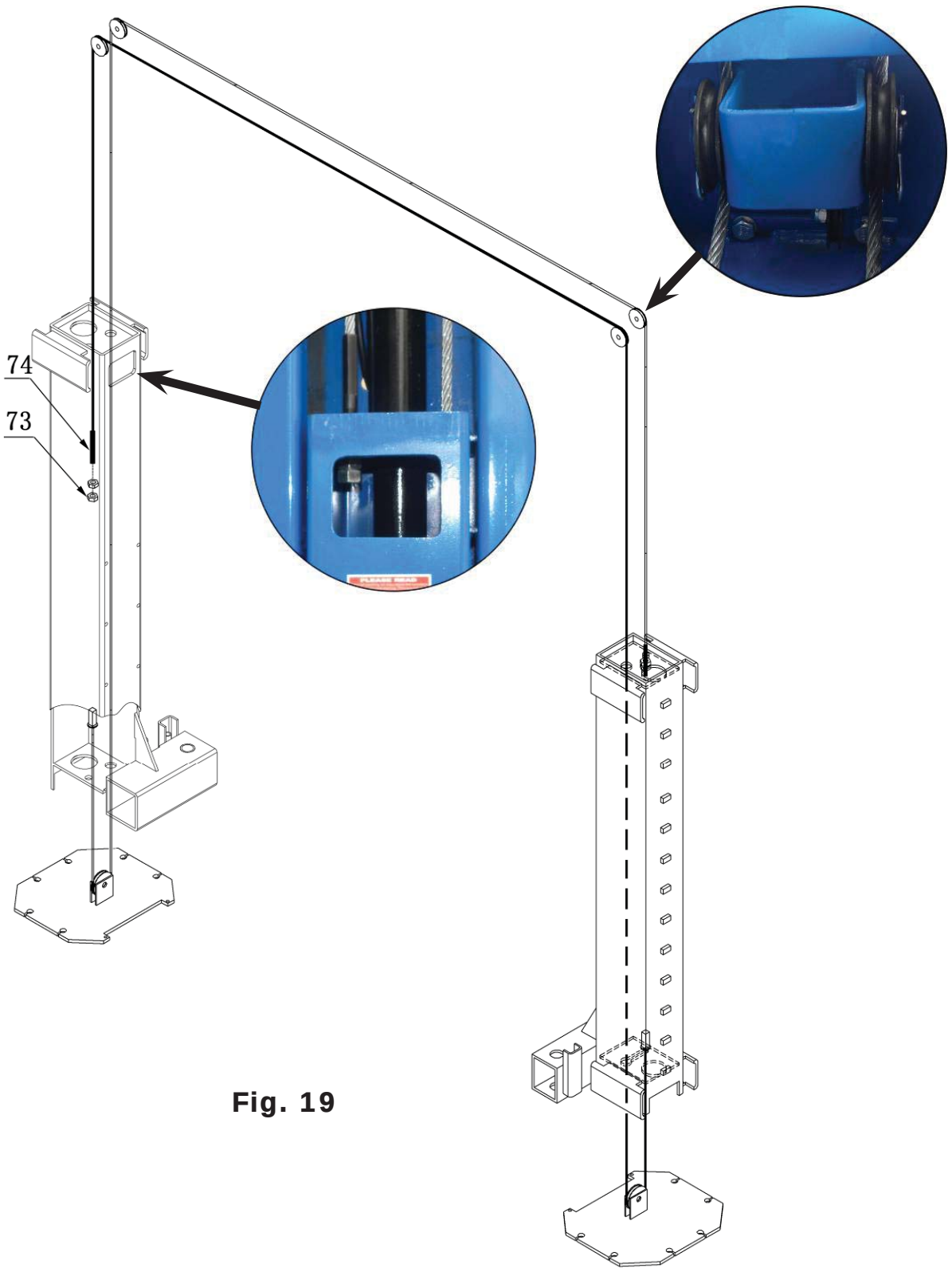


Fig. 19

M. Oil Hose Assembly (See Fig. 20).

Note: Hose 69 is the shortest (170”), hose 71 is medium length (212”), and hose 71A is the longest (218”). Hose 71A goes from the T-Fitting to the non-power side cylinder. Where the hose connects to the “T” offsets it closer to the power unit and makes for an easier install with less stretching of the hoses.

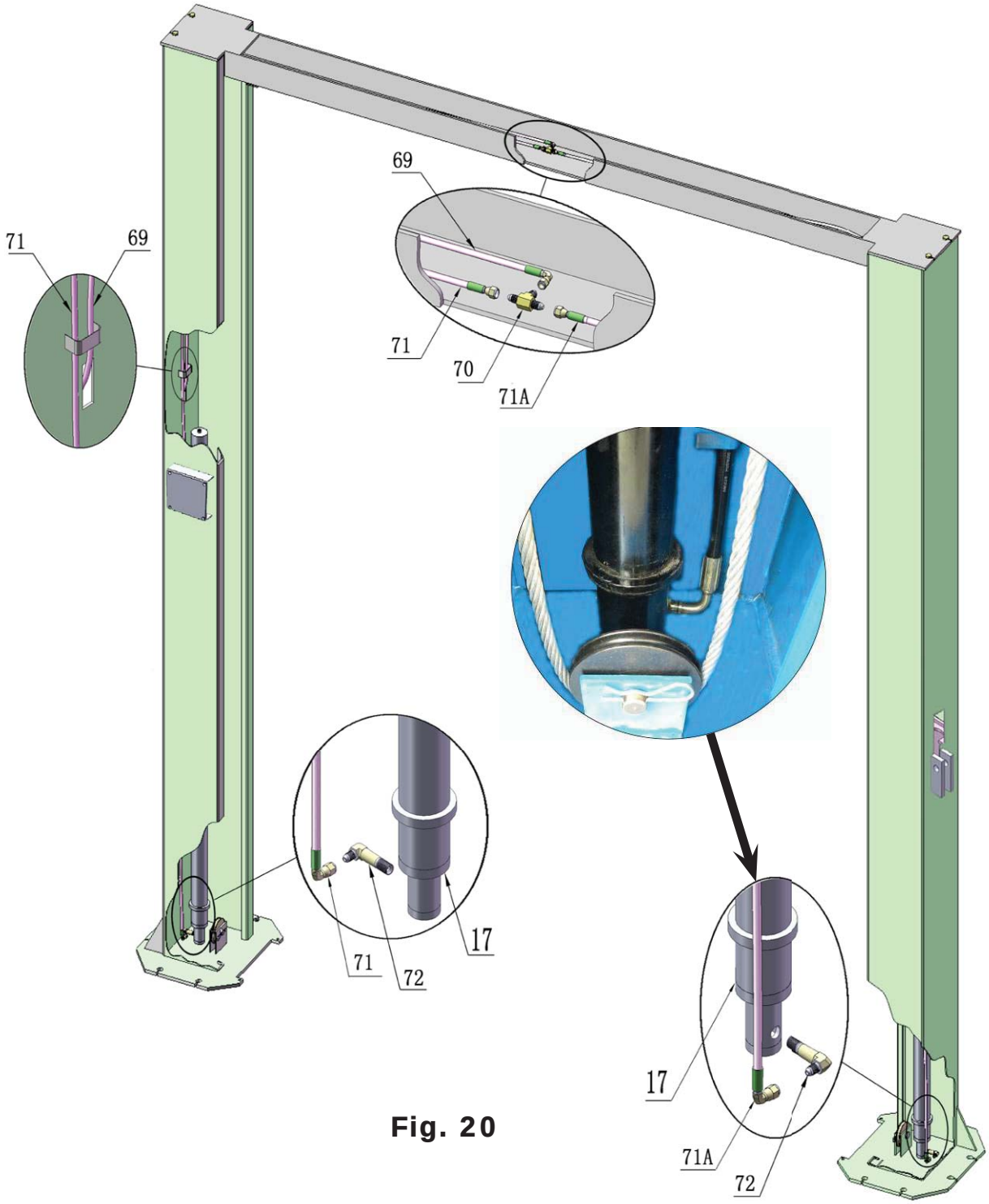


Fig. 20

N. Install power unit and oil hoses (See Fig. 21)

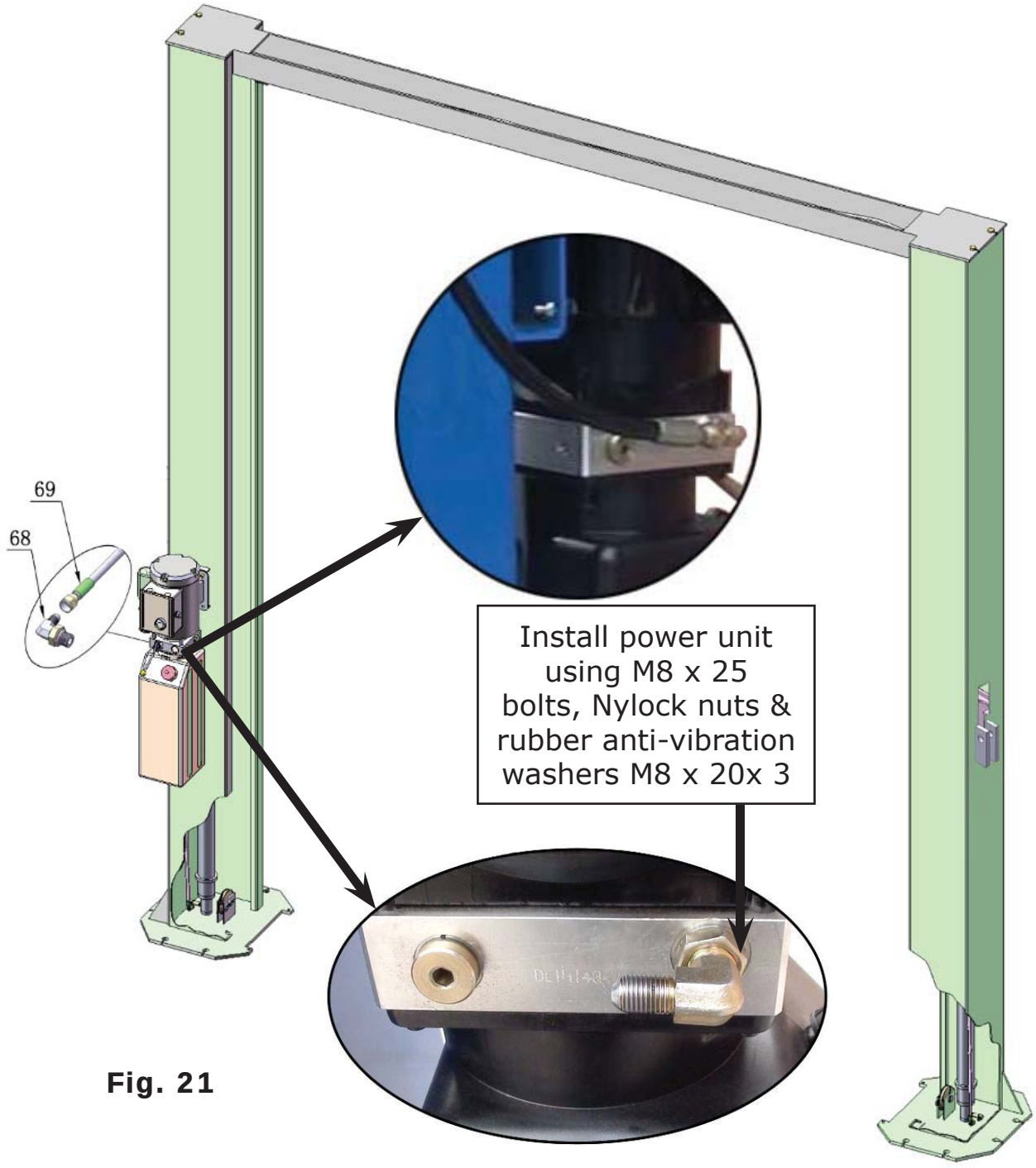


Fig. 21

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

Note: Use hydraulic fluid series AW32.

O. Install lifting arms and adjust the arm locks

1. Install the lifting arms **(See Fig. 22).**
2. Lower the carriages down to the lowest position. Then use a 17mm wrench to loosen the nut on the arm lock **(See Fig. 23).**

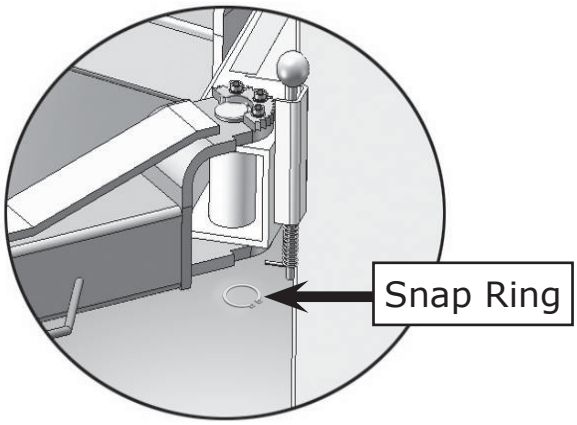


Fig. 22

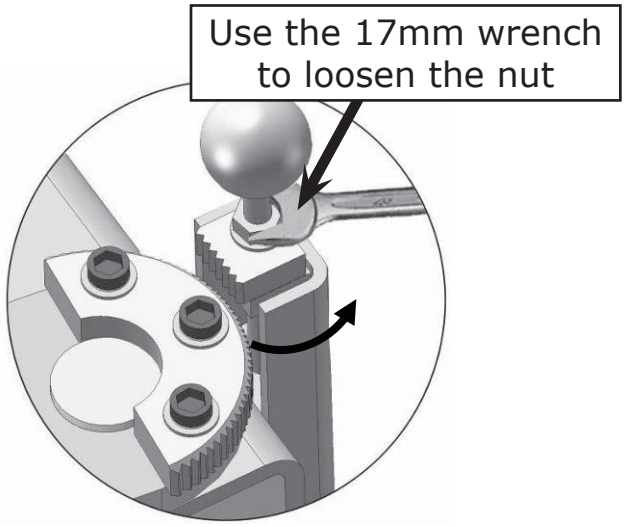


Fig. 23

3. Adjust the arm lock in the direction of the arrow **(See Fig. 24)**
4. Adjust the moon gear and arm lock so that it meshes and then tighten the nut on the arm lock **(See Fig. 25).**

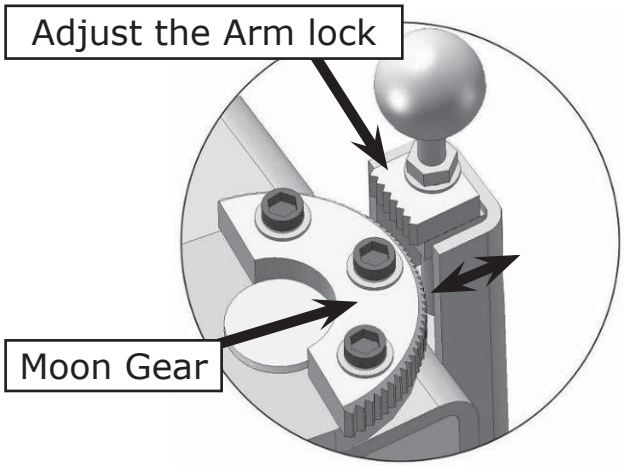


Fig. 24

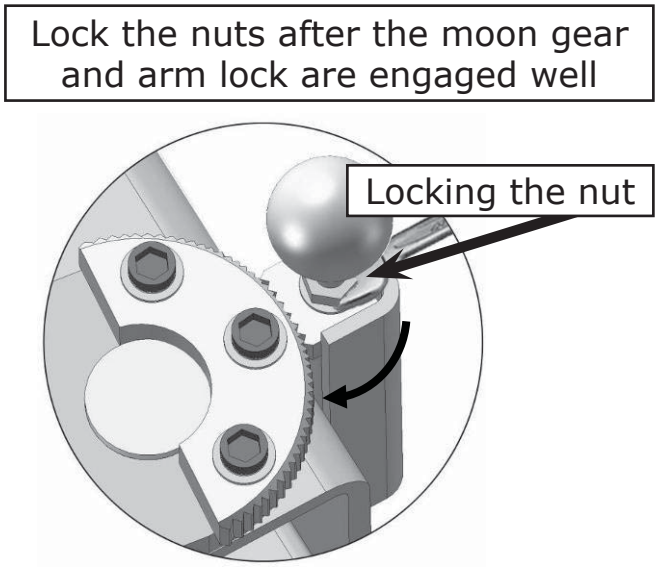


Fig. 25

P. Install Electrical System (See Fig. 26, 27, 28)

Connect the power source according to the data plate on the Power Unit.

Remove the short “Pig Tail” wire connected to the AC contactor terminals. This wire was used to test the motor after production.

Atlas Single Phase Motor

Please Note: This motor is powered by Alternating Current and the terminals on the AC contactor are not wire color specific. There are no positive or negative terminals.

1. Connect the two power supply **(incoming)** wires ***(black & white)*** to terminals on the AC contactor marked **L2 & L3**.
2. Connect the two motor wires to terminals on the AC contactor marked **T2, T3**. **These wires are already connected from the factory.**
3. Connect the short wire **A2** to **L3** on the AC contactor. **This wire is already connected from the factory.**
4. Remove the **entire** wire that connects from the **“UP” button** to **A1** on the AC contactor.
5. Connect one of the wires **(does not matter which one)** on the Limit Switch to the **“UP” button** and connect the remaining Limit Switch wire to terminal **A1** on the AC contactor.

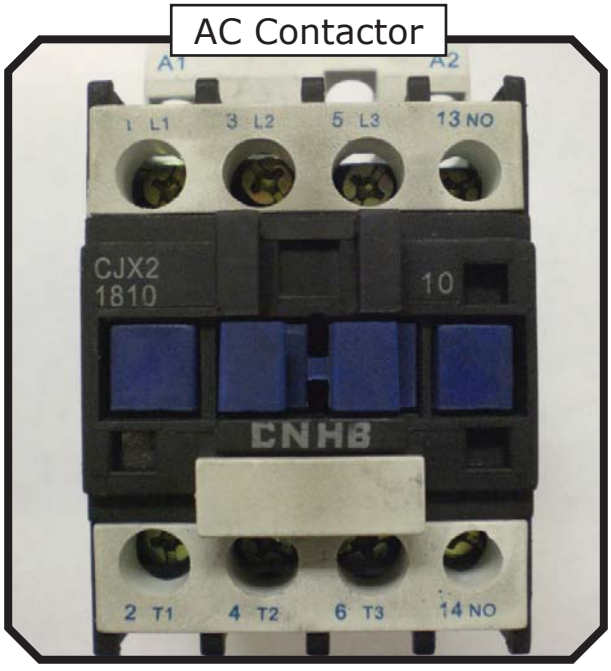


Fig. 26

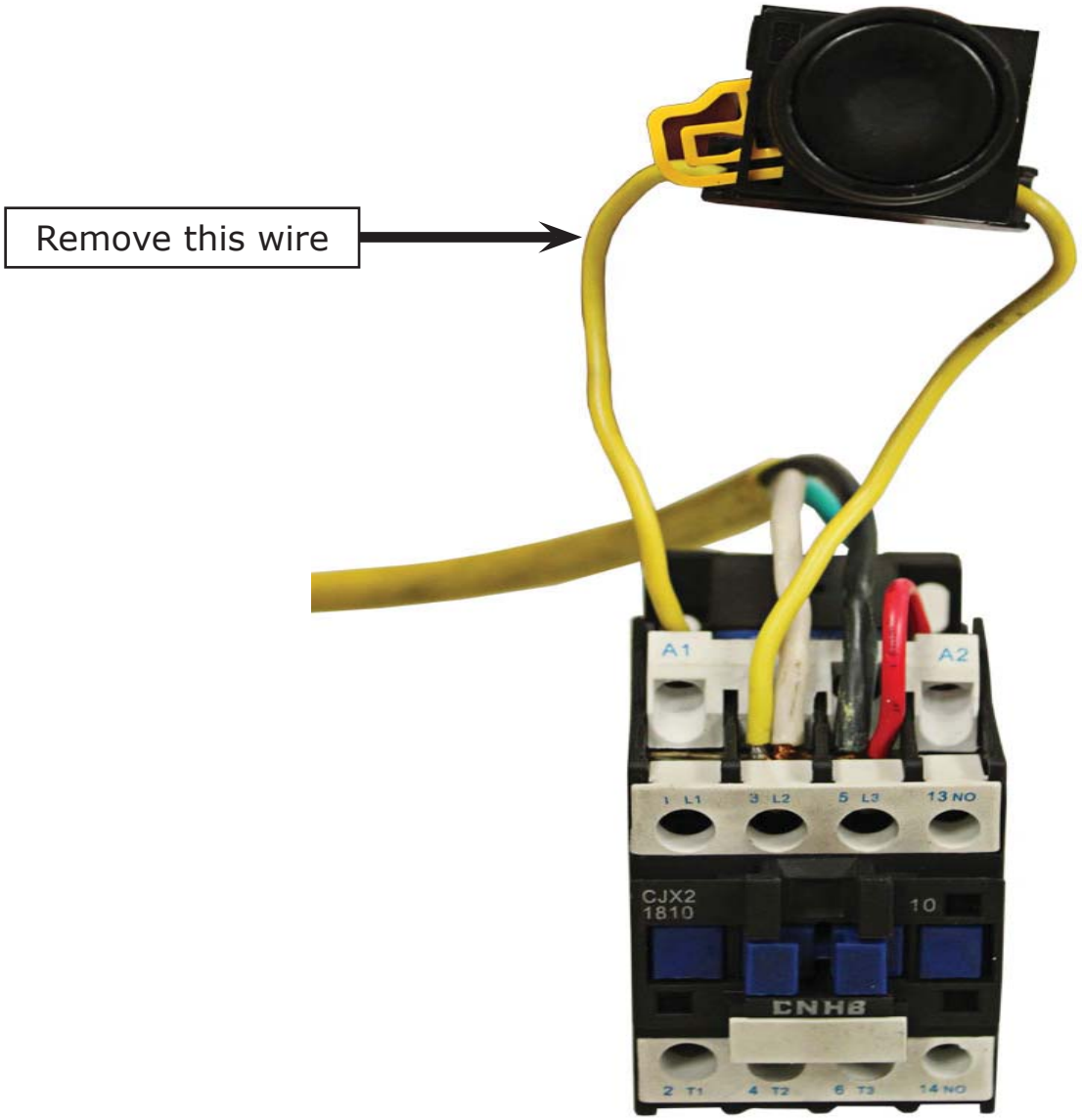

Remove this wire
A1
A2
1 L1
3 L2
5 L3
13 NO
CJX2
1810
10
CNH8
2 T1
4 T2
6 T3
14 NO

Fig. 27

Limit Switch-Connect wires to 11 & 12 (NC) on the Limit Switch

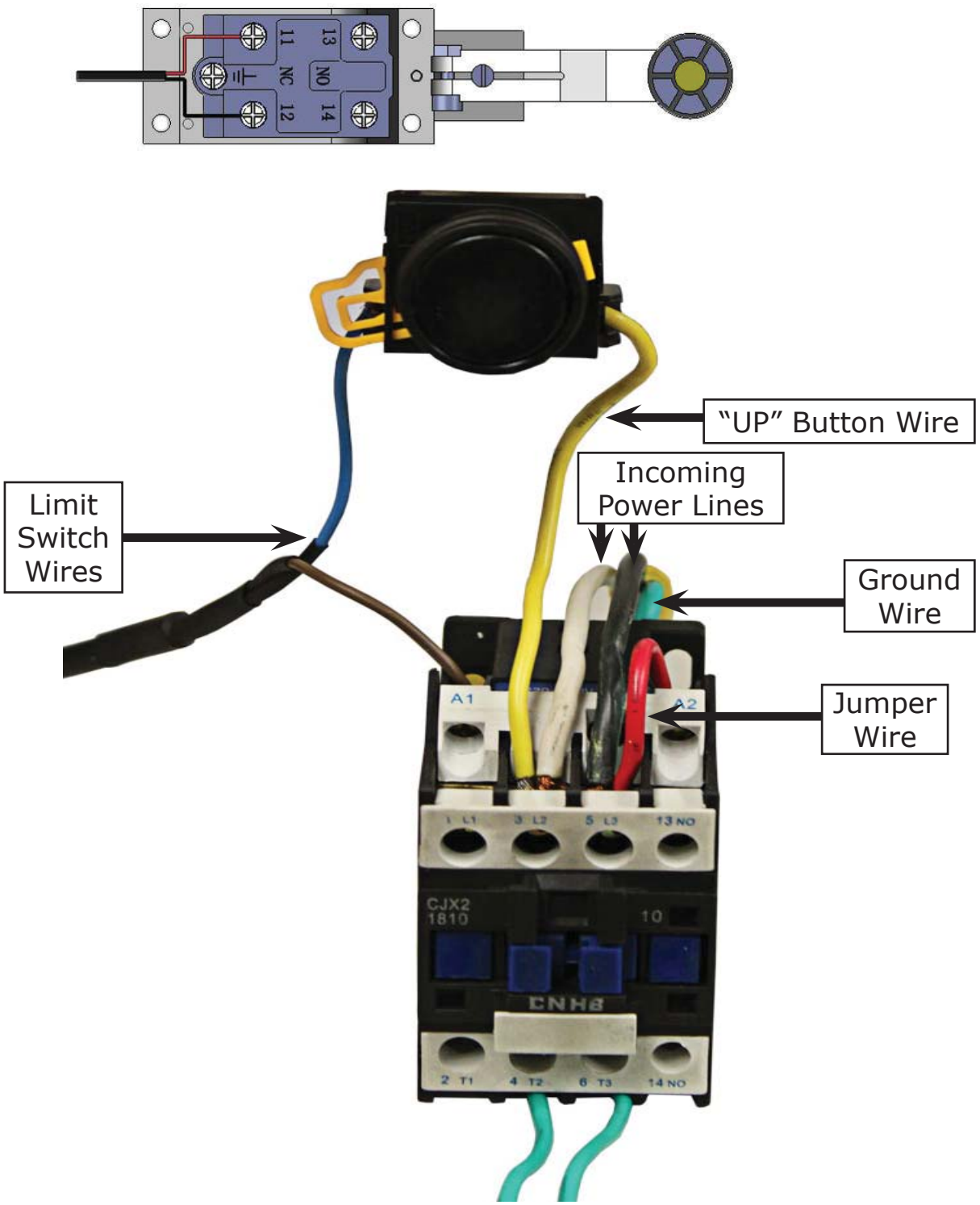


Fig. 28

Exploded View

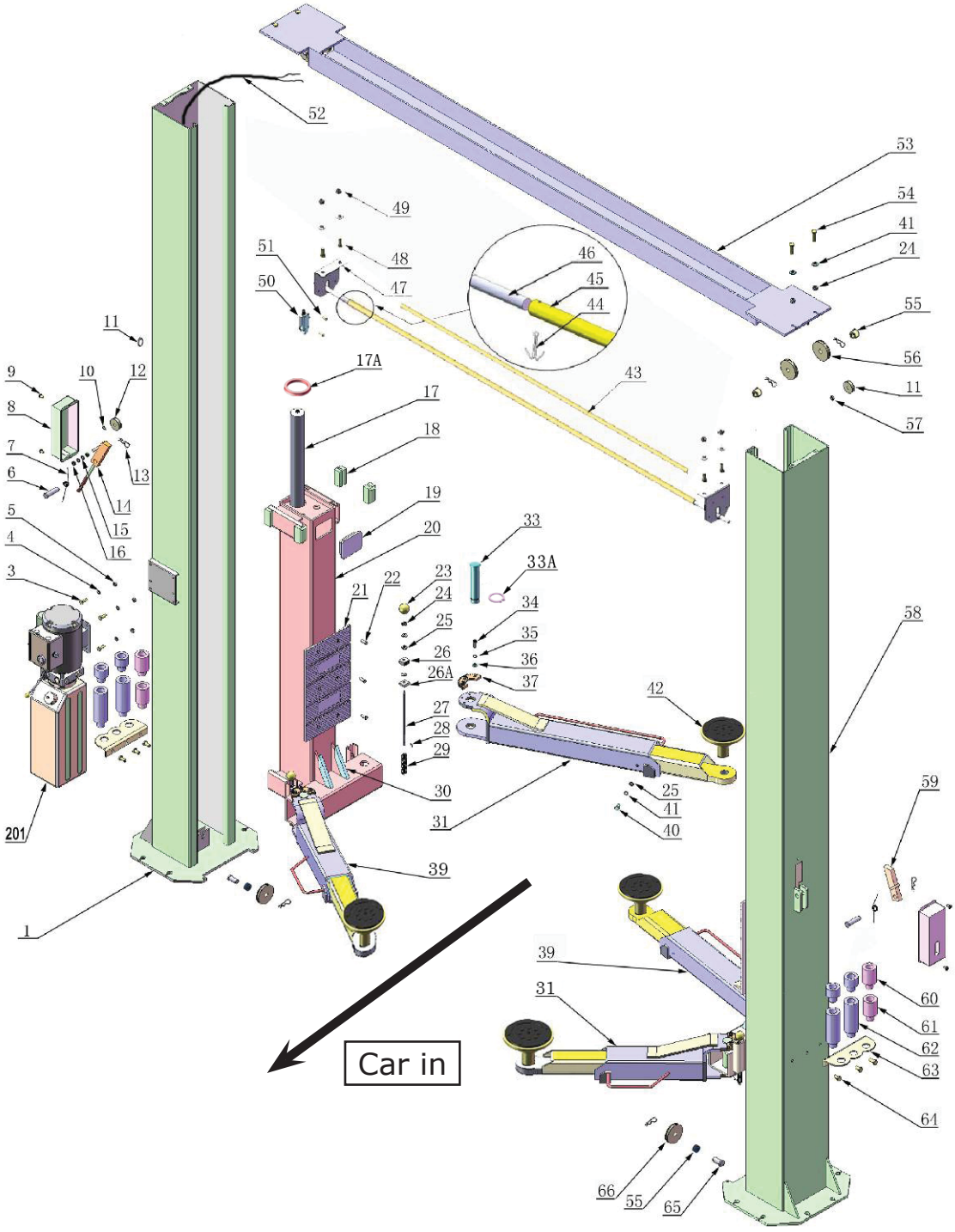


Fig. 29

Cylinders

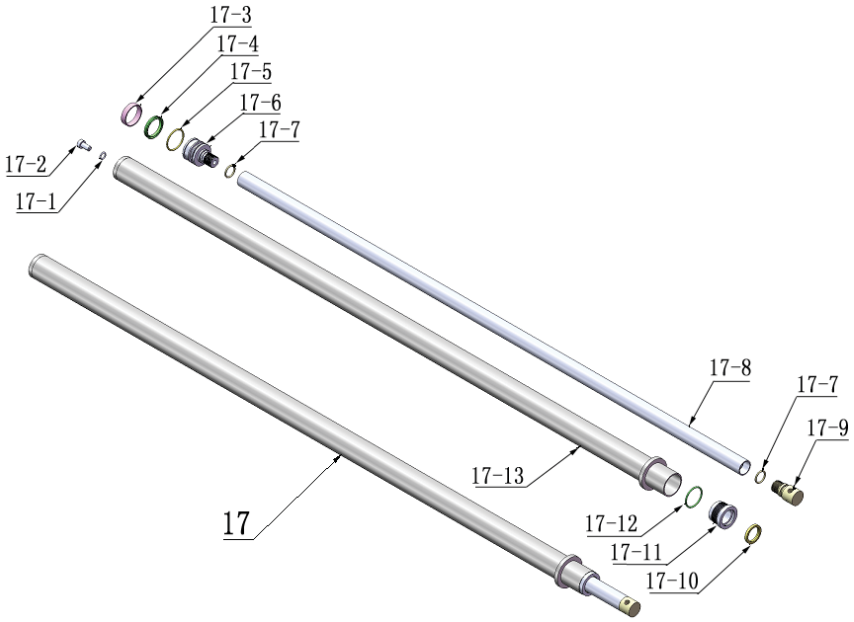


Fig. 30

Spx Hydraulic Power Unit, 220V/60Hz, Single phase

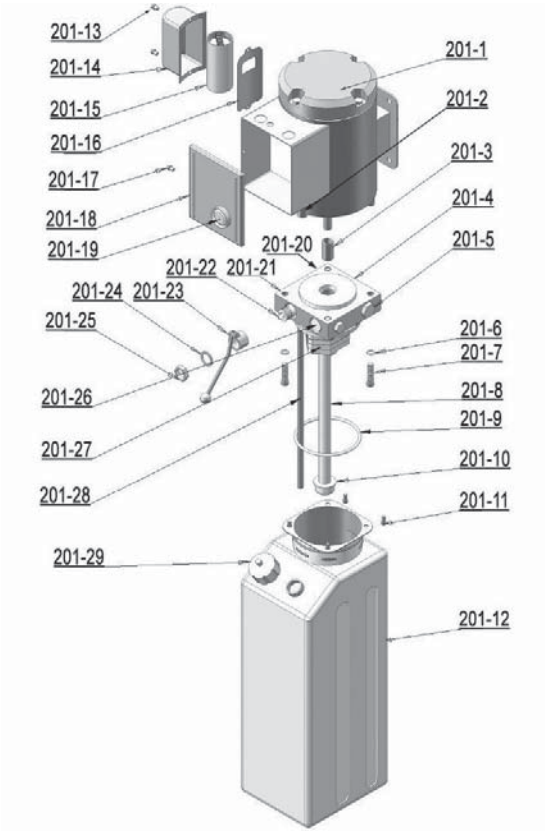


Fig. 31

Atlas Hydraulic Power, Unit 220V/60Hz, Single phase

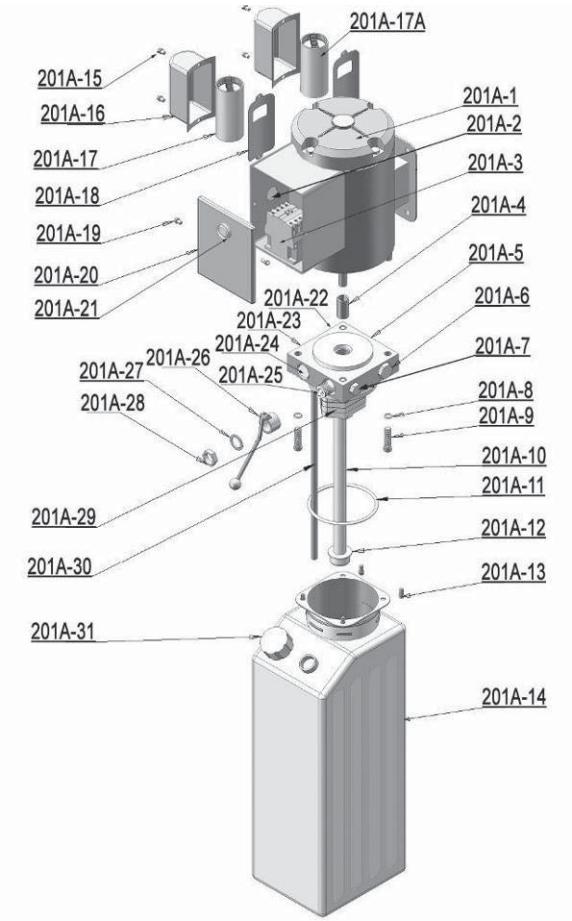


Fig. 32

Illustration of hydraulic valve for SPX & Atlas power unit

a. SPX manual power unit, 220V/50HZ, Single phase (See Fig. 33)

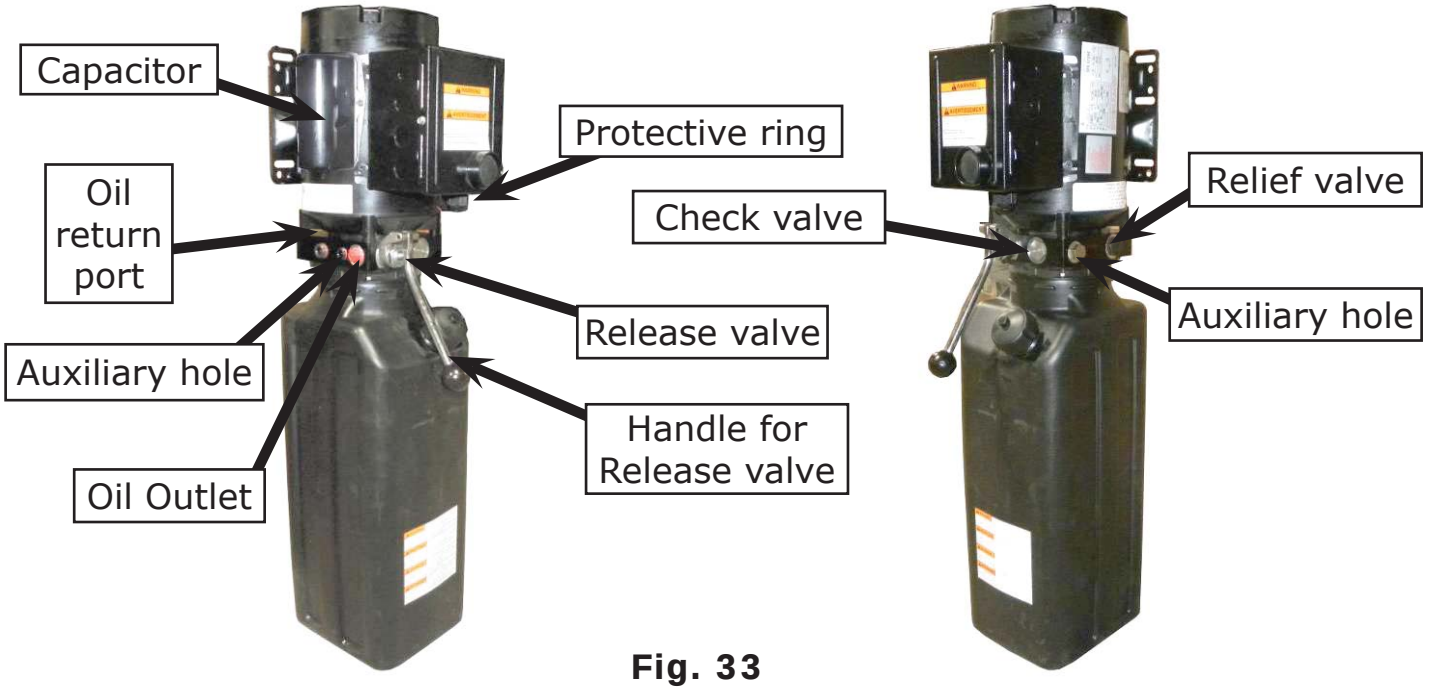


Fig. 33

b. Atlas manual power unit, 220V/50HZ, Single phase (See Fig. 34)

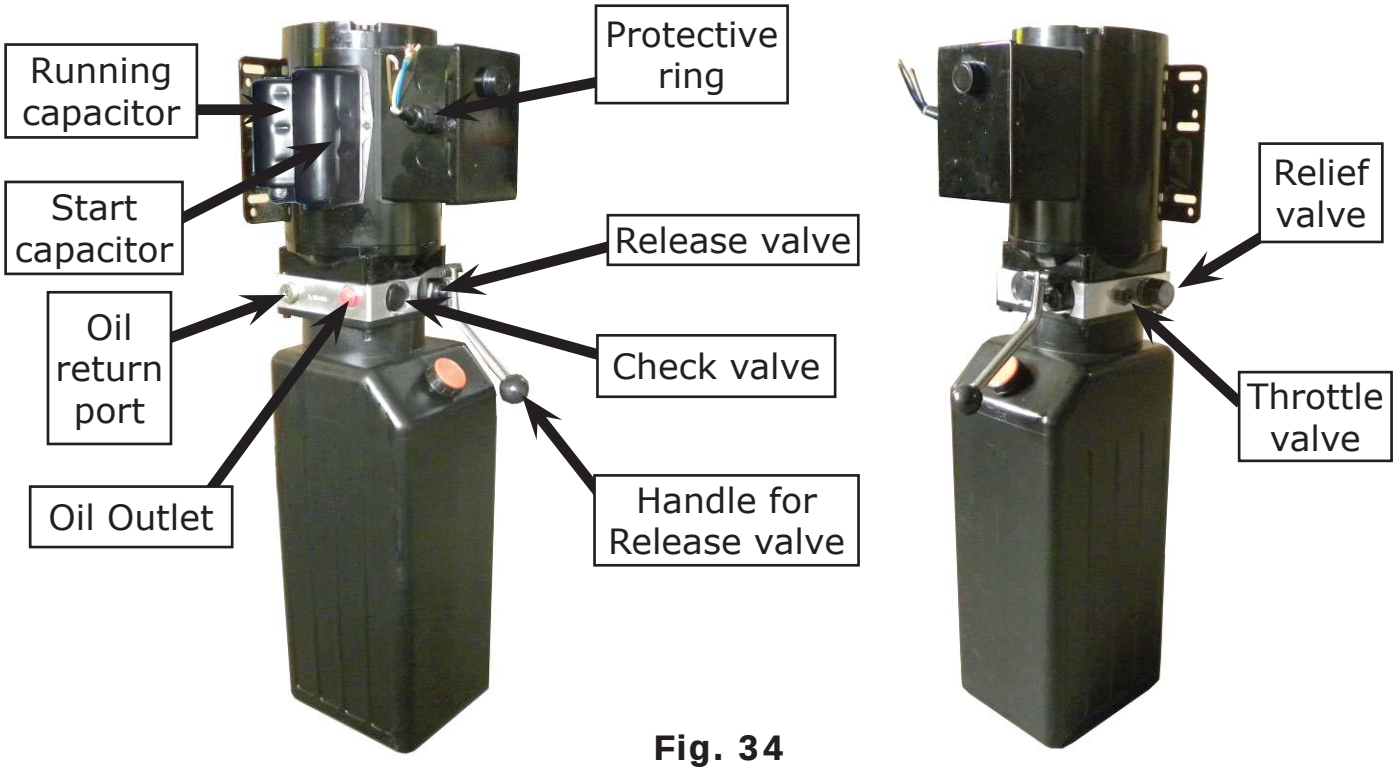


Fig. 34

Test Run

1. **Adjust the synchronizing cables (See Fig. 35)**

Use one wrench to hold the cable fitting and another wrench to tighten the cable nut. Make sure the cables have the same tension so the two carriages lift at the same time. Replace the covers on the carriages. **If the carriages do not lift at the same time, tighten the cable nut as seen in figure 40 and tighten the locking nut.**

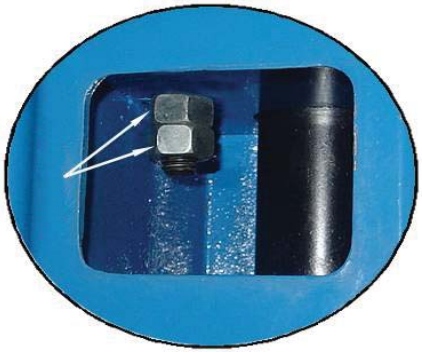


Fig. 35

2. **Adjust safety cable**

Lift the carriages and lock at the same height, pull the safety cable and then release a little, and then tighten the cable nuts. Make sure the safety locks click at the same time.

3. **Bleeding air**

This hydraulic system is designed to bleed air by loosening the bleeding screw. Lift the carriages to about 12 inches and loosen the bleeding plug, lower the lift until fluid comes out. Tighten the screws after bleeding **(See Fig. 36)**.

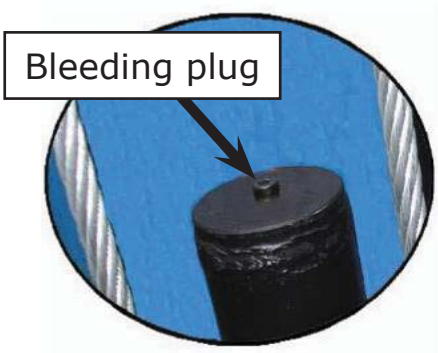
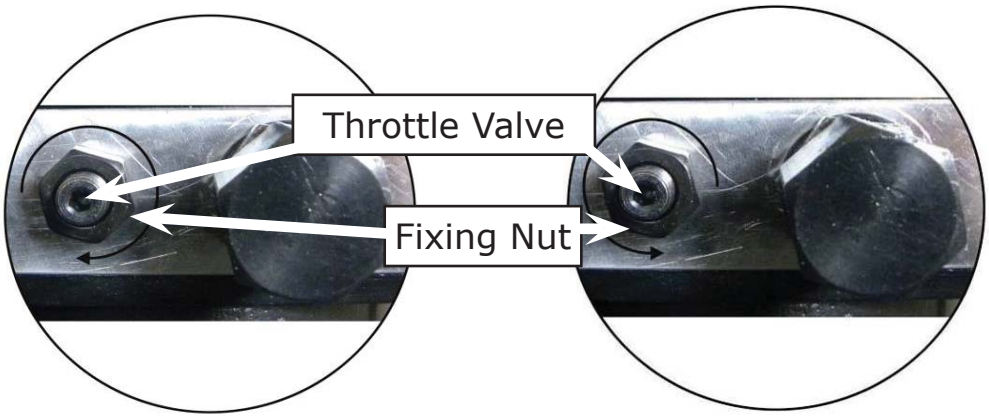


Fig. 36

4. **Adjust the lowering speed (Only for ATLAS power unit) (Adjust with a load on the lift)**

You can adjust the lowering speed of the lift if necessary: Loosen the locking nut on the throttle valve, and then turn the throttle valve clockwise to decrease the lowering speed, or counterclockwise to increase the lowering speed. Do not forget to tighten the locking nut after the lower speed adjustment has been completed.



Clockwise to decrease the down speed

Fig. 37

Counterclockwise to increase the down speed

5. **Test with load**

After finishing the above adjustment, test run the lift with a load. Run the lift in the low position several times and then run the lift to the top completely.

NOTE: If the lift vibrates on the way up with a load, lubricate all pulley shafts and wear blocks. If the lift vibrates on the way down, the cylinders need to be bled again.

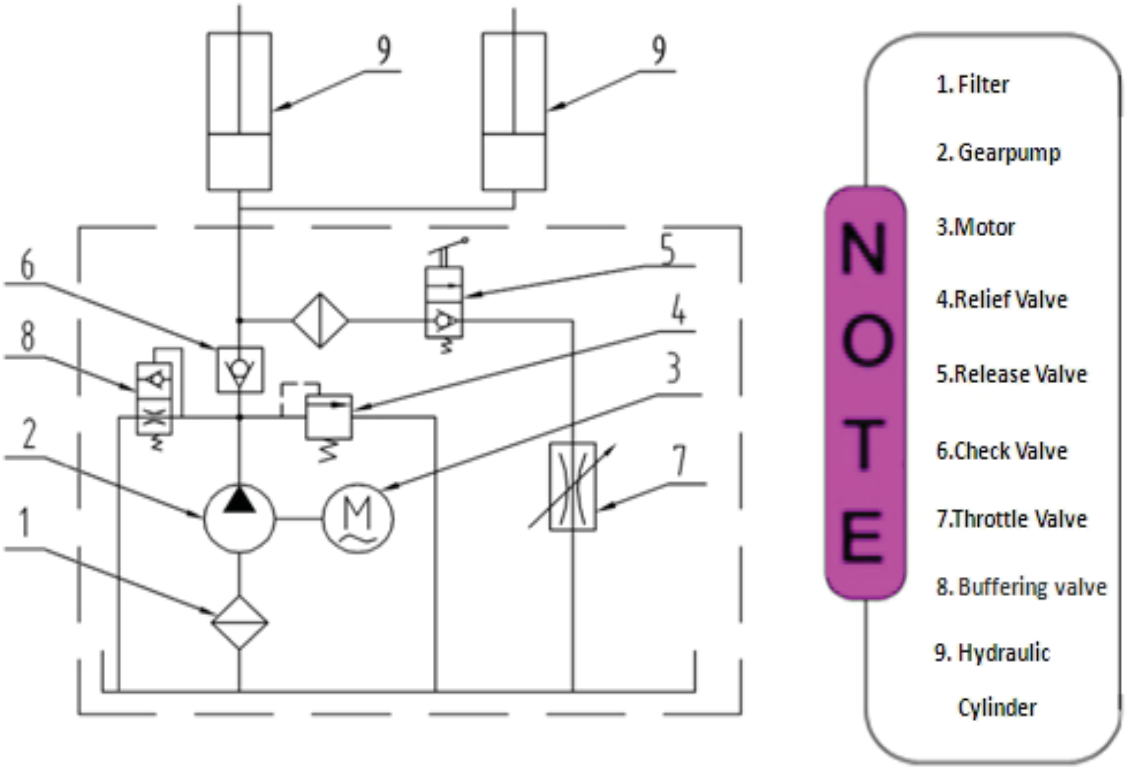


Fig. 38 Hydraulic System

Operation Instructions

Please read the safety tips carefully before operating the lift

To lift vehicle

1. Keep work area clean around and under 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 points;

Note: The four lift arms must at the same time contact the vehicle's lifting point where manufacturers recommended

7. Press the **UP** button until the lift pads contact underside of vehicle totally. Recheck to make sure vehicle is secure;
8. 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.

Note: The lift must always be on the safety locks!!!!!

To lower vehicle

1. Keep area free of clutter;
2. Press the button of **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.

Maintenance Schedule

Monthly:

1. Re-torque the anchor bolts to 65-86 ft lbs;
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 do 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) equal tension of the cables to insure level lifting.
3. Check columns are plumb.
4. Check rubber pads and replace as necessary.
5. Check safety device (locks) and make sure they are in good operating condition.

Trouble Shooting

TROUBLE	CAUSE	REMEDY
Motor does not run	1. Button does not work	1. Replace button
	2. Wiring connections are not in good condition	2.Repair all wiring connections
	3. Motor burned out	3. Repair or replace motor
	4. Height Limit Switch is damaged	4.Replace the Limit Switch
	5. AC Contactor burned out	5. Replace AC Contactor
Motor runs but the lift is not raised	1. Motor runs in reverse rotation	1.Reverse two power wire
	2. Gear Pump out of operation	2.Repair or replace
	3. Release Valve 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
Lift does not stay up	1. Release Valve out of work	Repair or replace
	2. Relief Valve or Check Valve leakage	
	3. Cylinder or Fittings leaks	
Lift raises slowly	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
	4. Gear Pump leaks	4. Replace Pump
	5. Overload lifting	5. Check load
Lift cannot lower	1. Safety device are locking	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

Oh-10X Parts List

Item	Part#	Description	Qty.	Note
1	211001	Power side Column	1	
201	209002	Manual Power Unit	1	
3	209003	Hex Bolt	4	
4	209004	Rubber Ring	4	
5	209005	Nylok Nut	4	
6	206002	Safety Pin	2	
7	209007	Safety Spring	2	
8	209008	Safety Cover	2	
9	209009	Cup Head Bolt	4	
10	209010	Snap Ring	1	
11	620059	Protective ring	1	
12	209049	Plastic small pulley	3	
13	209012	Hair Pin	8	
14	209013	Power side Safety Lock	1	
15	206006	Washer	6	
16	206023A	Hex Nut	2	
17	209014	Cylinder	2	
17A	209111	Protective ring for cylinder	2	
18	209015	Slider Block	16	
19	209016	Carriage Plastic Cover	2	
20	211002	Carriage	2	
21	209018	Protective Rubber	2	
22	209019	Bolt	12	
23	209020	Plastic Ball	4	
24	209021	Hex Nut	12	

Item	Part#	Description	Qty.	Note
25	209022	Washer	8	
26	209023A	Arm Lock	4	
26A	201041	Limit ring	4	
27	209024	Arm Lock Bar	4	
28	209025	Hair Pin	4	
29	209026	Spring	4	
30	209027	Protective Rubber Set	4	
31	209028A	Lifting Arm - Rear Right	2	
31A	209179	Outer Arm - Rear Right	2	
31B	209136B	Inner Arm - Rear Right	2	
33	203105A	Arm Pin	4	
33A	520023	Snap Ring	4	
34	209032	Socket Bolt	12	
35	209034	Lock Washer	18	
36	209033	Washer	12	
37	209035	Moon Gear	4	
39	209037A	Lifting Arm - Rear Left	2	
39A	209186	Outer Arm - Rear Left	2	
39B	209140A	Inner Arm - Rear Left	2	
40	209038	Hex Bolt	6	
41	209039	Lock Washer	8	
42	217114A	Rubber Pad Assembly	4	
42A	420138	Socket bolt	4	
42B	209134	Rubber Pad	4	
42C	680030B	Rubber Pad Frame	4	
43	206025A	Foam Cushion	1	
44	201005	Split pin	2	
45	206025C	Connecting Pin for Control Bar	2	
46	202011	Control Bar	1	
47	206042	Control Bar Bracket	2	

Item	Part#	Description	Qty.	Note
48	206041	Hex Bolt	4	
49	206023	Nylok Nut	4	
50	206013	Limit Switch	1	
51	206011	Cup Head Bolt	2	
52	209184	Wire Cable	1	
53	211011A	Top Beam	1	
54	209046	Hex Bolt	4	
55	209057A	Bronze Bush	6	
56	209057	Small Pulley	4	
57	209056	Nylok Nut	2	
58	211012	Offside Column	1	
59	211013	Offside Safety Lock	1	
60	209051B	Stackable Adapter(1.5”)	4	
61	209052B	Stackable Adapter (2.5”)	4	
62	209053B	Stackable Adapter (5”)	4	
63	209054A	Stackable Adapter Bracket	2	
64	209055	Hex Bolt	6	
65	209044	Pin For Pulley	2	
66	209045	Big Pulley	2	
67	209059B	Anchor Bolt	12	
67A	620065	Shim	10	
Parts List for Oil Hose, Fitting & Cable				
68	209060	90° Fitting for power unit	1	
69	211014	Oil hose (4310mm)	1	
70	211016	T- fitting	1	
71	211015A	Oil hose (5380mm)	1	
71A	211020	Oil hose (5530mm)	1	
72	211017	Extend 90° fitting for Cylinder	2	
73	209066	Cable Nut	4	

Item	Part#	Description	Qty.	Note
74	211018A	Cable	2	
75	211019A	Safety Cable	1	
77	209502B	Parts Box	1	
Parts for Cylinder				
17-1	209069	O-Ring	2	
17-2	209070	Bleeding Plug	2	
17-3	209071	Support Ring	2	
17-4	209072	Y-Ring	2	
17-5	209073	O-Ring	2	
17-6	209074	Piston Rod	2	
17-7	209075	0-Ring	4	
17-8	209076	Piston Rod	2	
17-9	209077	Piston Rod Fitting	2	
17-10	209078	Dust Ring	2	
17-11	209079	Head Cup	2	
17-12	209080	O-Ying	2	
17-13	209081	Bore Weldment	2	

Item	Part#	Description	Qty.	Note
Parts for SPX hydraulic power unit, 220V/60Hz/1 phase				
201-1	209082	Motor	1	
201-2	209109	Protective ring	1	
201-3	209083	Motor connecting shaft	1	
201-4	209084	Valve body	1	
201-5	209085	Relief valve	1	
201-6	209086	Lock washer	4	
201-7	209087	Allen bolt	4	
201-8	209088	Inlet pipe	1	
201-9	209089	O-Ring	1	
201-10	209090	Filter	1	
201-11	209091	Bolt	4	
201-12	209092	Reservoir	1	
201-13	209093	Bolt	2	
201-14	209094	Cover of capacitor	1	
201-15	209095	Capacitor	1	
201-16	209096	Rubber gasket	1	
201-17	209097	Bolt	1	
201-18	209098	Cover of motor terminal box	1	
201-19	209099	Push button	1	
201-20	209110	Oil return port	1	
201-21	209100	Oil outlet	1	
201-22	209101	Release valve	1	
201-23	209102	Handle for release valve	1	
201-24	209103	Washer	1	
201-25	209104	Nut	1	
201-26	209105	Check valve	1	
201-27	209106	Gear pump	1	
201-28	209107	Oil return pipe	1	
201-29	209108	Filler cap	1	

Item	Part#	Description	Qty.	Note
Parts for Atlas hydraulic power unit, 220V/60Hz/1 phase				
201A-1	209082A	Motor	1	
201A-2	209109	Protective ring	1	
201A-3	209112	AC contactor	1	
201A-4	209083A	Motor connecting shaft	1	
201A-5	209084A	Valve body	1	
201A-6	209085A	Relief valve	1	
201A-7	209113	Throttle valve	1	
201A-8	209086A	Lock washer	4	
201A-9	209087A	Allen bolt	4	
201A-10	209088A	Inlet pipe	1	
201A-11	209089A	O-Ring	1	
201A-12	209090A	Filter	1	
201A-13	209091A	Allen bolt	4	
201A-14	209092A	Reservoir	1	
201A-15	209093A	Cup head bolt with washer	4	
201A-16	209094A	Cover of capacitor	2	
201A-17	209095A	Start capacitor	1	
201A-17A	209095B	Run capacitor	1	
201A-18	209096A	Rubber gasket	2	
201A-19	209097A	Cup head bolt with washer	2	
201A-20	209098A	Cover of motor terminal box	1	
201A-21	209099A	Push button	1	
201A-22	209110A	Oil return port	1	
201A-23	209100A	Oil outlet	1	
201A-24	209105A	Check valve	1	

201A-25	209101A	Release valve	1	
201A-26	209102A	Handle for release valve	1	
201A-27	209103A	Washer	1	
201A-28	209104A	Nut	1	
201A-29	209106A	Gear pump	1	
201A-30	209107A	Oil return pipe	1	
201A-31	209108A	Filler cap	1	

Warranty

This item is warranted for five (5) years on structural components, two (2) years on hydraulic cylinders, and one (1) year on electric or air / hydraulic power units from invoice date. Wear items are covered by a 90 day warranty.

This LIMITED warranty policy does **not include a labor** warranty.

NOTE: ALL WARRANTY CLAIMS MUST BE PRE-APPROVED BY THE MANUFACTURER TO BE VALID.

The Manufacturer shall repair or replace at their option for this period those parts returned to the factory freight prepaid, which prove after inspection to be defective. This warranty will not apply unless the product is installed, used and maintained in accordance with the Manufacturers installation, operation and maintenance instructions.

This warranty applies to the ORIGINAL purchaser only, and is non-transferable. The warranty covers the products to be free of defects in material and workmanship but, does not cover normal maintenance or adjustments, damage or malfunction caused by: improper handling, installation, abuse, misuse, negligence, carelessness of operation or normal wear and tear. In addition, this warranty does not cover equipment when repairs or alterations have been made or attempted to the Manufacturer's products.

THIS WARRANTY IS EXCLUSIVE AND IS LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OR MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS FROM A PARTICULAR PURPOSE, AND ALL SUCH IMPLIED WARRANTIES ARE EXPRESSLY EXCLUDED.

THE REMEDIES DESCRIBED ARE EXCLUSIVE AND IN NO EVENT SHALL THE MANUFACTURER, NOR ANY SALES AGENT OR OTHER COMPANY AFFILIATED WITH IT OR THEM, BE LIABLE FOR SPECIAL CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OF OR DELAY IN PERFORMANCE OF THIS WARRANTY. THIS INCLUDES, BUT IS NOT LIMITED TO, LOSS OF PROFIT, RENTAL OR SUBSTITUTE EQUIPMENT OR OTHER COMMERCIAL LOSS.

PRICES: Prices and specifications are subject to change without notice. All orders will be invoiced at prices prevailing at time of shipment. Prices do not include any local, state or federal taxes.

RETURNS: Products may not be returned without prior written approval from the Manufacturer.

DUE TO THE COMPETITIVENESS OF THE SELLING PRICE OF THESE LIFTS, THIS WARRANTY POLICY WILL BE STRICTLY ADMINISTERED AND ADHERED TO.