AMGO® Hydraulics

Original

# Installation And Service Manual

## TWO POST LIFT
## Model:BP-9

**Cargo Claims**

If there is any missing or damaged product during transportation, the buyer must notate on the shipping paperwork or refuse the shipment. NOTATE ALL DAMAGE OR REFUSE DAMAGED SHIPMENT!

⚠ DANGER

Read the entire contents of this manual before using this product. Failure to follow instructions and safety precautions could result in serious injury or even death. Make sure all other operators also read this manual. Keep this manual near the machine so that it can be seen by all users. By proceeding with installation and operation, you agree that you are fully understand the contents of this manual and take full responsibility for the use of the product.

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**Explanation of the safety warning symbols used in this manual**

⚠DANGER Risk of death or injury

⚠WARNING Dangerous or unsafe practices that may result in death or injury

⚠CAUTION Dangerous or unsafe practices that may result in personal injury, product damage or property damage

ATTENTION Conditions that may result in damage to products or property

# PROFILE

The two post lift is a commonly used vehicle repair and maintenance tool that uses a pneumatic hydraulic or electric system that can lift the car up to a certain height so that the vehicle can be placed in a suitable position for inspection and repair. Car lifts can be divided into pneumatic and electric, which have the characteristics of safe and reliable, simple structure and quick installation.

This instruction manual is specially prepared for you. Your new lift is the product of over a decade of continuous research, testing and development and is the most technologically advanced lift on the market today.

**Please make sure to read through this manual before operating the lift.**

Record the information on the nameplate label here:

Model No.: _____

Serial No.: _____

Manufacturer date: _____

# WARRANTY

The warranty period for the steel structure part of new car lift is 5 years, hydraulic components, bronze bushings, sliders are warranty for 3 years, and electrical components and sync cable, lock release cable are warranty for 2 years. Rubber pads are without warranty. During the warranty period, the manufacturer will repair or replace the defective parts free of charge including shipping costs.

This warranty does not cover damage caused by normal wear and tear, improper use, damage in transit, or damage caused by lack of maintenance.

This warranty is unique and supersedes what is expressed and implied in all other warranties. The manufacturer shall not be liable for any particular, indirect or accidental damage resulting in breach of or delay in the execution of the warranty.

The manufacturer reserves the right to design and improve the product and has no obligation to make notice of the changes in advance.

The product warranty based on the above clause is based on the model number and serial number of the equipment. This information must be provided in conjunction with all warranty information at the time of service and warranty.

# SAFETY WARNING LABEL




Fig 1

# IMPORTANT SAFETY INSTRUCTIONS

In order to properly maintain your product and ensure operator safety, it is the responsibility of the product owner to read and follow these instructions!

1. Ensure product installation complies with all applicable local regulations and rules, such as Occupational Safety and Health Administration regulations and electrical codes.
2. Ensure that all operators are properly trained, know how to operate the unit safely, and are properly supervised.
3. Do not operate the lift until you are sure all parts are in place and operating correctly.
4. Keep your hands and feet away from the machine. Keep hands and feet away from any moving parts. Keep your feet away from the lift as it descends to avoid pressing on pointed objects.
5. Keep the work area clean. A cluttered workspace can lead to injuries.
6. The machine is only approved for indoor installation and use. Outdoor installation is prohibited.
7. Only trained operators are allowed to handle the lift machine. All untrained persons must stay away from the workplace. Never allow untrained persons to handle or operate the machine.
8. Use the lift properly. Use the lift in the correct way.
9. Warning! Keep persons and objects from the lift when lifting the a vehicle.
10. If the vehicle is at risk of falling, make sure no one is around the lift.
11. Before preparing to approach or service the vehicle, ensure that the safety device is in effect.
12. Dress appropriately when operating machines, and consider wearing non-slip steel-toe shoes for added safety.
13. Beware of electric shock. In order to protect the operator from electric shock, the lift in use must be grounded. Do not connect the green wire to the terminal. This is the ground wire.
14. Danger! The power supply used in this type of lift has high voltage. Please disconnect the power supply before any circuit repair. Unplug in case the power supply is accidentally switched on during maintenance.
15. Warning! There is a risk of explosion. There are parts in the equipment that produce arc light and spark. Do not operate near flammable gas. This machine should not be placed in the lounge or basement.
16. Maintain with care. Keep the machine clean for better and safer operation. Perform proper lubrication and maintenance procedures according to the manual. Keep

handles or buttons clean, dry, and free of oil.

17. Stay alert. Use common sense to observe what you are doing and stay alert.
18. Check for damaged parts. Check for adjustments to moving parts, damage to parts, or anything that may affect their operation. Do not use the machine if the parts are damaged.
19. Do not remove relevant safety parts from the machine. Do not use a lift if it is damaged or missing.
20. Only operate the lift at temperature between 41°F to 104°F (5°C to 40°C).

⚠DANGER Be very careful when installing, operating, maintaining or repairing this equipment. Failure to comply may result in property damage, product damage, injury or (in very rare cases) death. Ensure that only authorized personnel operate the equipment. All repairs must be carried out by an authorized technician. Do not modify the machine, this voids the warranty and increases the probability of personal injury or property damage. Ensure to read and follow this instructions on the label.

# I. PRODUCT FEATURES AND SPECIFICATIONS

## FLOORPLATE CHAIN-DRIVE MODEL FEATURES Model

**BP-9**

. Compact Floor-plate design, provide unobstructed floor space

· Dual hydraulic cylinders is designed and manufactured according to standard, utilizing imported seals

· Self- lubricating UHMW Polyethylene sliders and bronze bush · Singl e-point safety release, and dual safety design

· 4 three-stage arms design, single screw rubber pads·

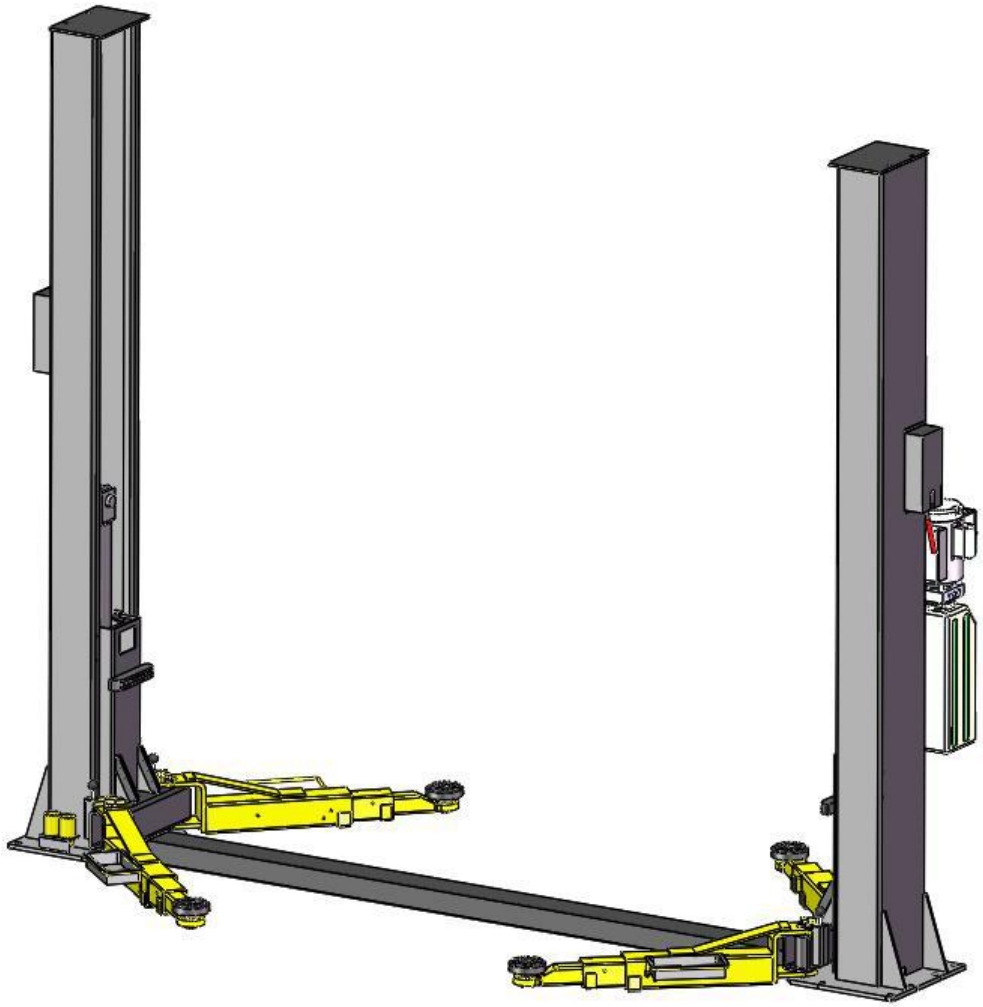


**Fig. 2**

## MODEL BP-9 SPECIFICATIONS

| Model | Lifting Capacity | Lifting Time | Max Lifting Height | | Max safety lock height | | Overall Height | Overall Width | Width Between Columns | Minimum Pad Height | Motor |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Without extension adapter | Include extension adapter | Without extension adapter | Include extension adapter | | | | | |
| BP-9 | 9000lbs | 37S | 71 7/16" -72 11/16" | 74 7/16" -75 11/16" | 69 13/16"-71 1/8" | 72 13/16"--74 1/16" | 108" | 131 7/8" | 109 7/16" | 3 1/2" | 2.0HP |

**Arm Swings View**

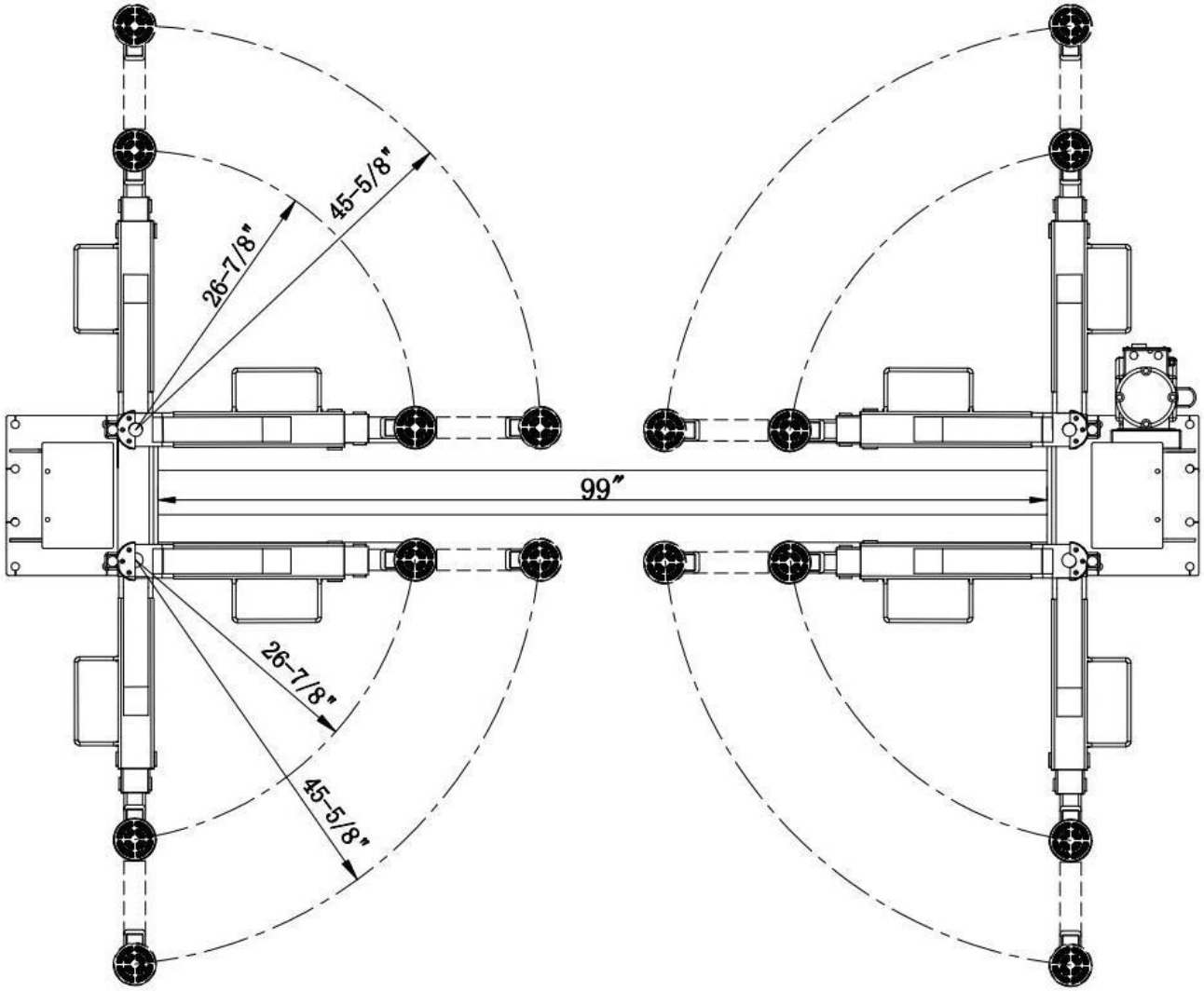



**Fig. 3**

⚠CAUTION When driving the vehicle into the lift, ensure that it is positioned in middle of two columns. Any contact with the lift could result in damage to either the vehicle or lift.

## II. INSTALLATION REQUIREMENT

### A. TOOLS REQUIRED

- ✓ Rotary Hammer Drill (Φ19)



- ✓ Carpenter's Chalk



- ✓ Hammer



- ✓ Screw Sets



- ✓ Level Bar



- ✓ Tape Measure (7.5m)



- ✓ English Spanner (12")



- ✓ Pliers



- ✓ Ratchet Spanner With Socket (28#)



- ✓ Socket Head Wrench (6#)



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



- √ Lock Wrench



**Fig. 4**

## B. Equipment storage and installation requirements.

1 . Store the equipment in a dry, non-moldy, non-flammable environment.
2 . The lift is only approved for indoor installation and use, and outdoor installation is prohibited.
3 . When installing the device, take safety precautions according to the instructions to avoid device damage.
4 . Do not install the device outdoors if the installation area is not protected.
5 . During installation, all parts should be fastened to ensure the stability and smooth operation of the machine.
6 . After installation, the whole machine should be checked to make sure that every component is working properly.

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

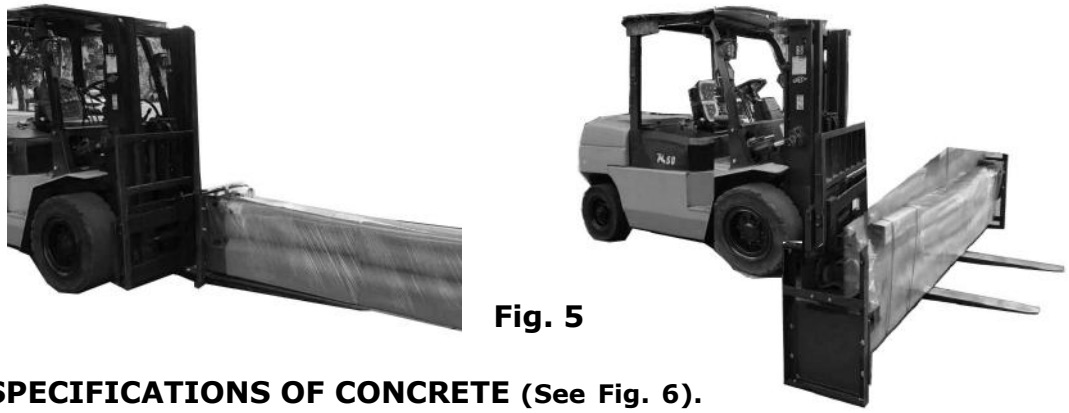


**Fig. 5**

**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 4" minimum and without reinforcing steel bars, and must be dried completely before the installation.
2. Concrete must be in good condition and must be of test strength 3,000psi (210kg/cm²) minimum.
3. Floors must be level and no cracks.
4. Do not install the lift on asphalt or any surface other than concrete.

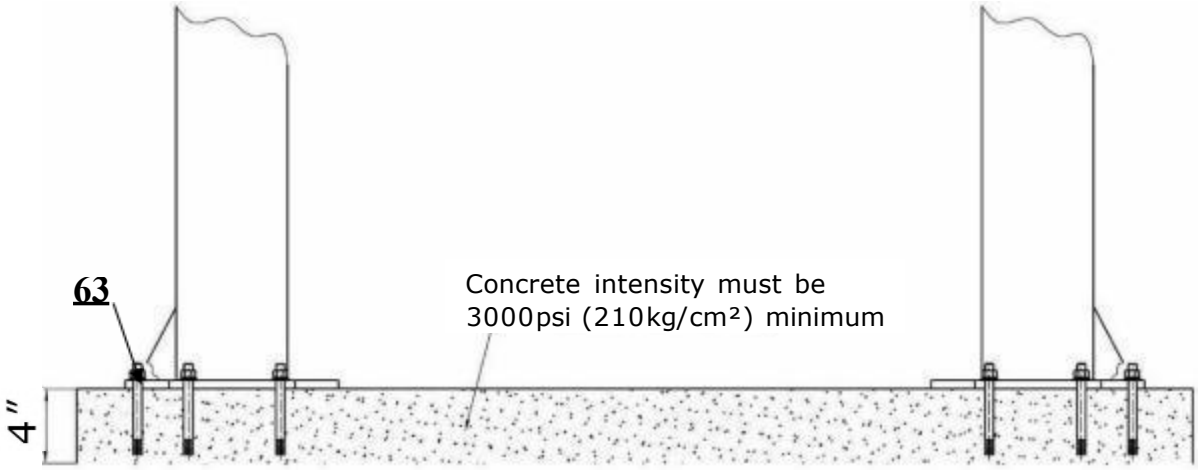



**Fig. 6**

**E. POWER SUPPLY**

1. You are required to use a licensed and qualified electrician for the installation process.
2. The power supply capacity must be more than 3.0HP, with a cord larger than 12AWG, and must be properly grounded.

⚠DANGER All electrical wiring must be performed by a licensed and certified electrician. Attempting to connect the circuit without proper certification may result in damage to the lift or electrocution, resulting in serious injury or death.

## III. STEPS OF INSTALLATION

### A. Location of installation

1. Installation space: Ensure there is enough space for the lift. Accurately measure the front, back, side and top mounting dimensions and refer to the below figure data(See Fig. 7).
2. Overhead obstacle: Check for overhead obstacles, such as building supports, heaters, lights, wires, and low ceilings, etc..
3. Installation: The lift is only approved for indoor installation and use, and outdoor installation is prohibited.
4. Floor: Install lift only on flat concrete floor. Do not install on asphalt or any other surface.

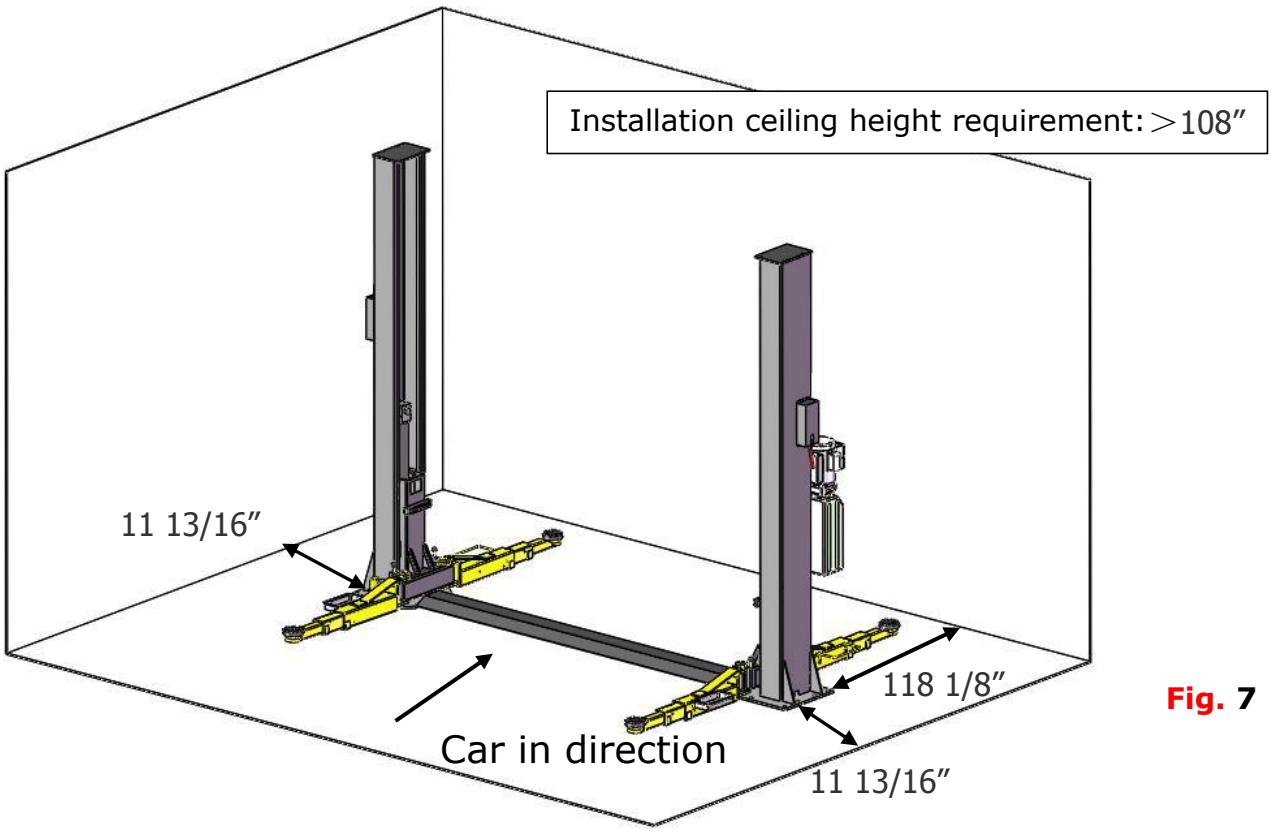



**Fig. 7**

⚠CAUTION Installing the lift on a surface with slopes more than 3° could lead to injury or even death. This lift is designed for installation on a flat and level surface only. (Defined as no more than 10mm difference over the installation area). If the floor cannot be leveled, consider changing installation locations.

B. Use a carpenter's chalk line to establish installation layout of base-plate (See Fig. 8).

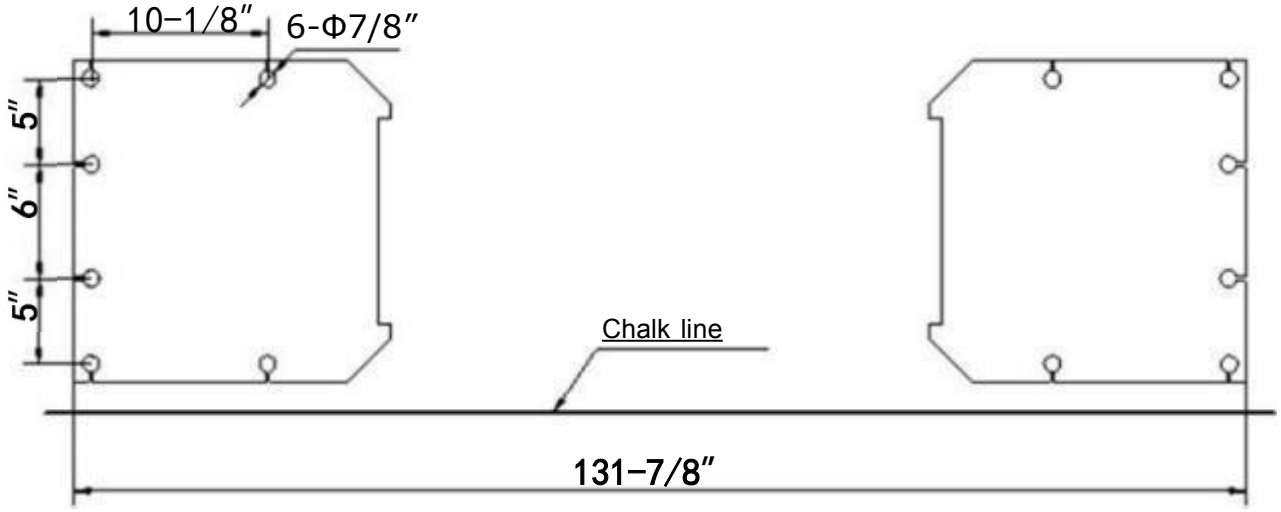



**Fig. 8**

**C. Check the parts before assembly.**

1. Packaged lift and hydraulic power unit (See Fig. 9).

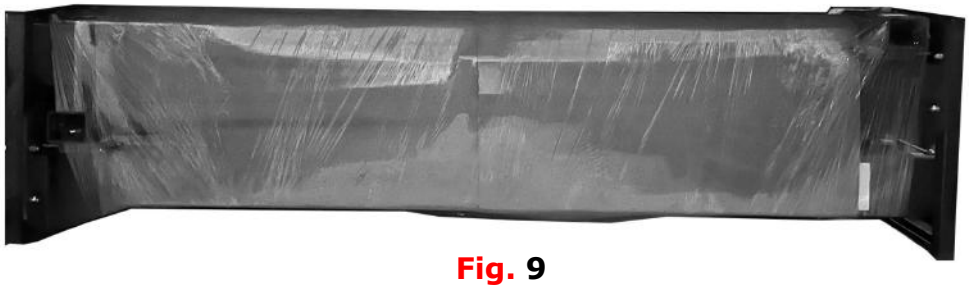


**Fig. 9**

2. Move the lift aside with forklift or hoist, and open the outer packing carefully, take off the parts from upper and inside the column, take out the parts box, check the parts according to the shipment parts list(See Fig. 10)

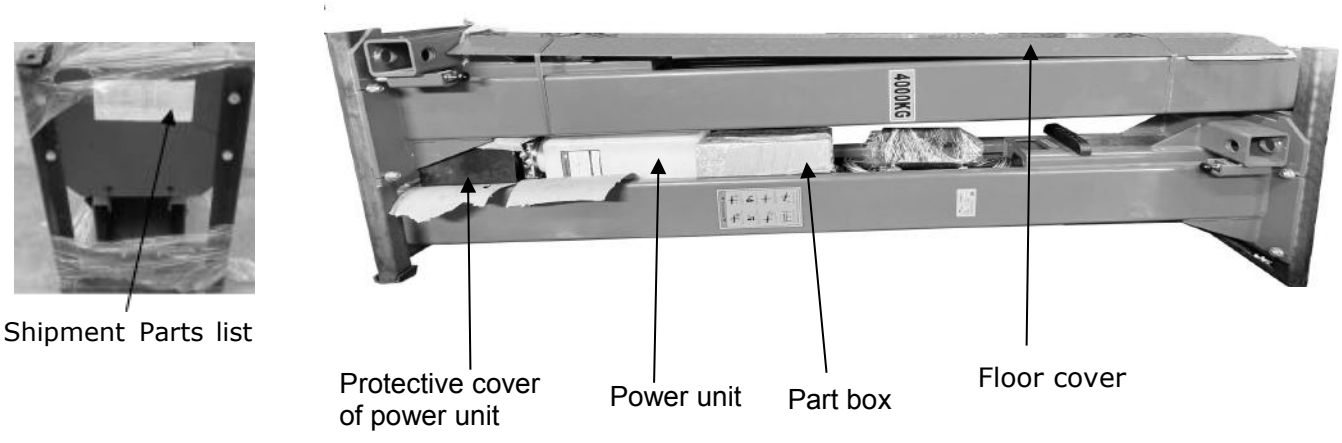



**Fig. 10**

3. Loosen the screws of the upper package stand, take off the upper column and remove the package stand.

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

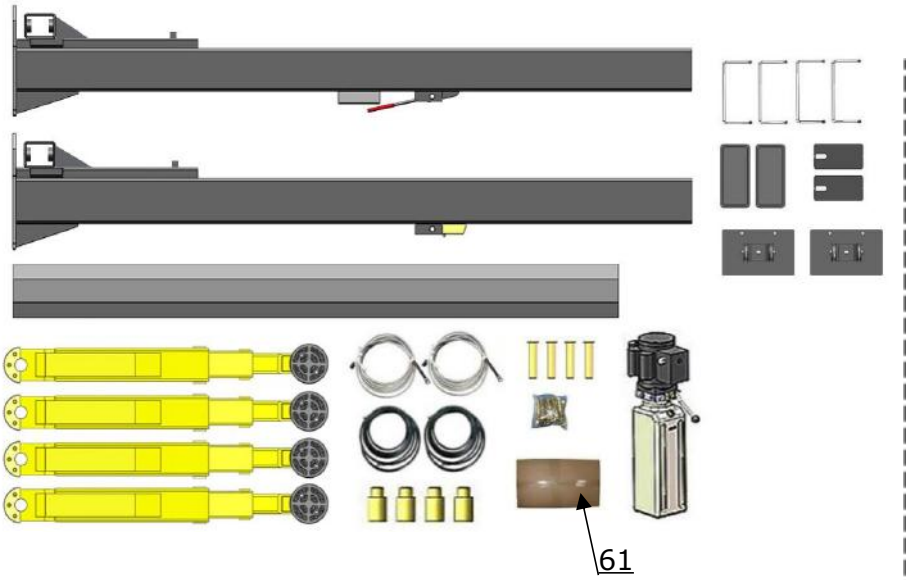



**Fig. 11**



Parts in the parts box (61)

**Fig. 12**

5. Open the carton of parts and check the parts according to parts box list **(See Fig. 13).**

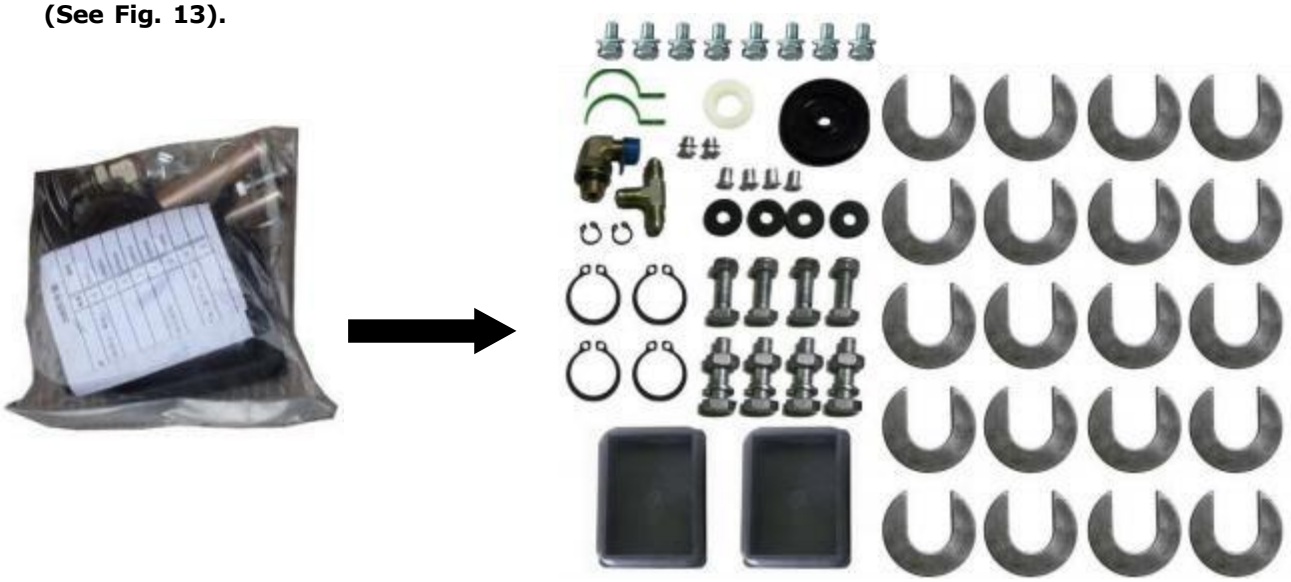


**Fig. 13**

## D. Position power-side columns

Lay down two columns on the installation site parallelly, 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 **(See Fig. 14).**

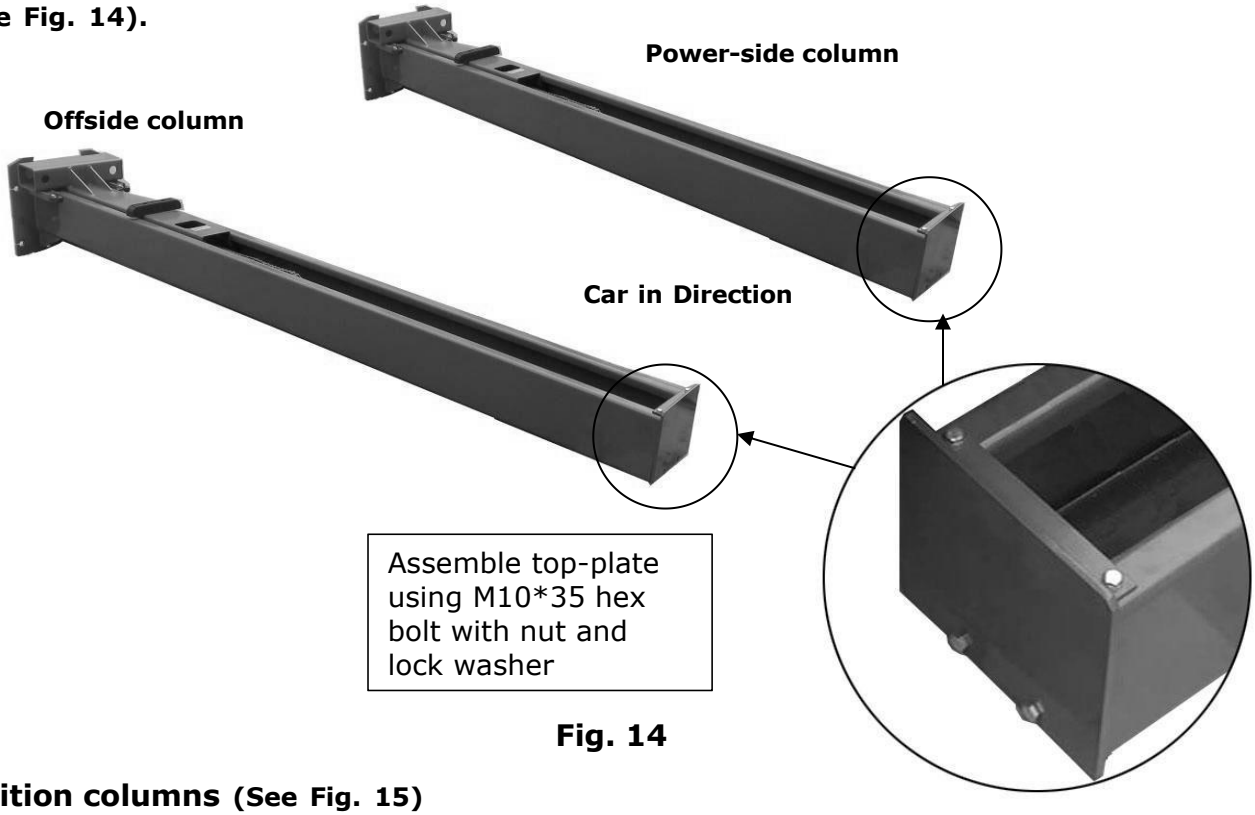



**Fig. 14**

## E. Position columns (See Fig. 15)

Check the columns plumbness with level bar, and adjusting with the shims if the columns are not vertical.

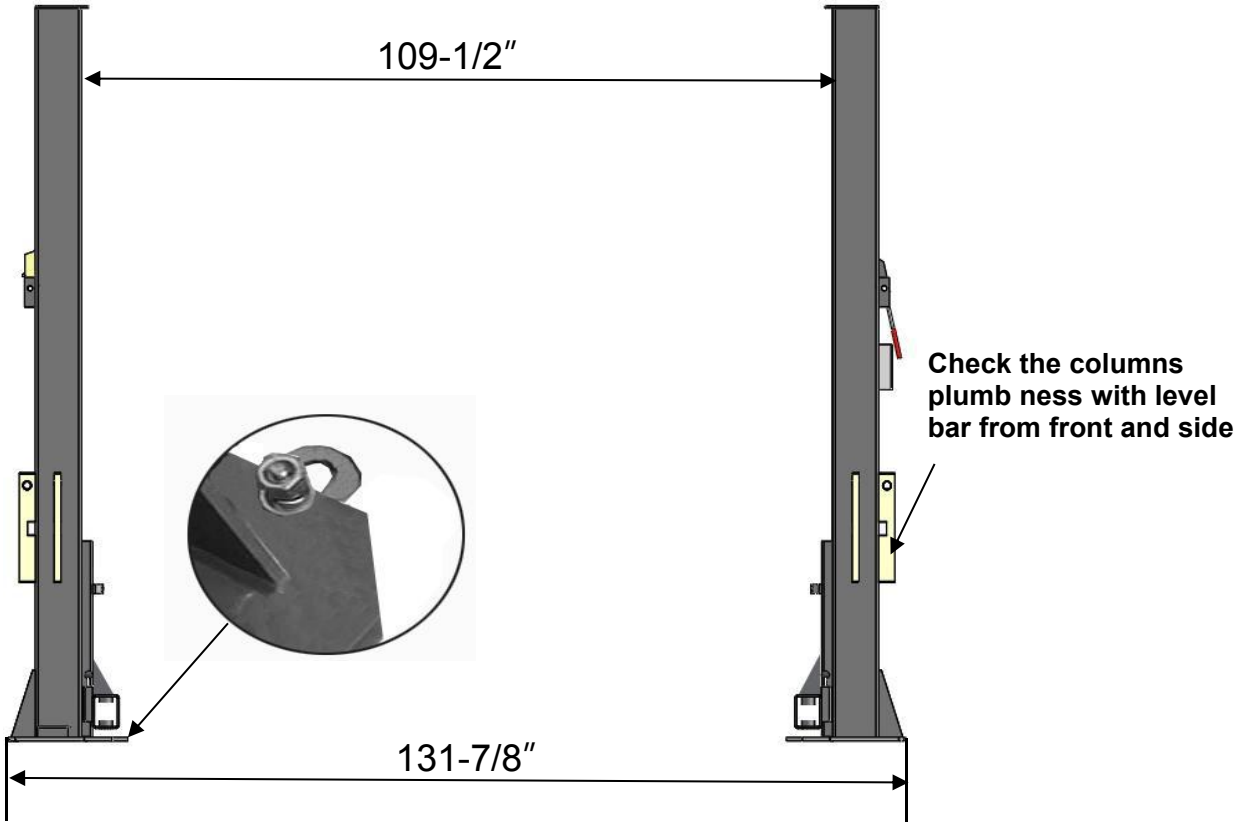



**Fig. 15**

**F. Fix anchor bolts**

1. Prepare anchor bolts **(See Fig. 16)**.

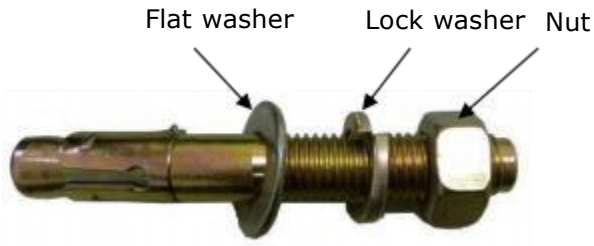



**Fig. 16**

2. Using the prescribed rotary hammer drill, and drill all the anchor holes and install the anchor bolts. Then tighten the anchor bolts (See Fig. 17).

**Note:** Torque of Anchors is 150N.m .Minimum embedment of Anchors is 3-1/2''.

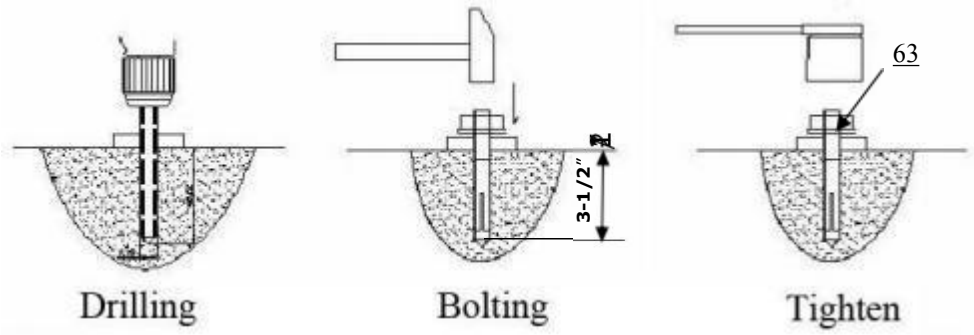



**Fig. 17**

**G.** Lift the carriages up by hand and make them be locked at the same level.

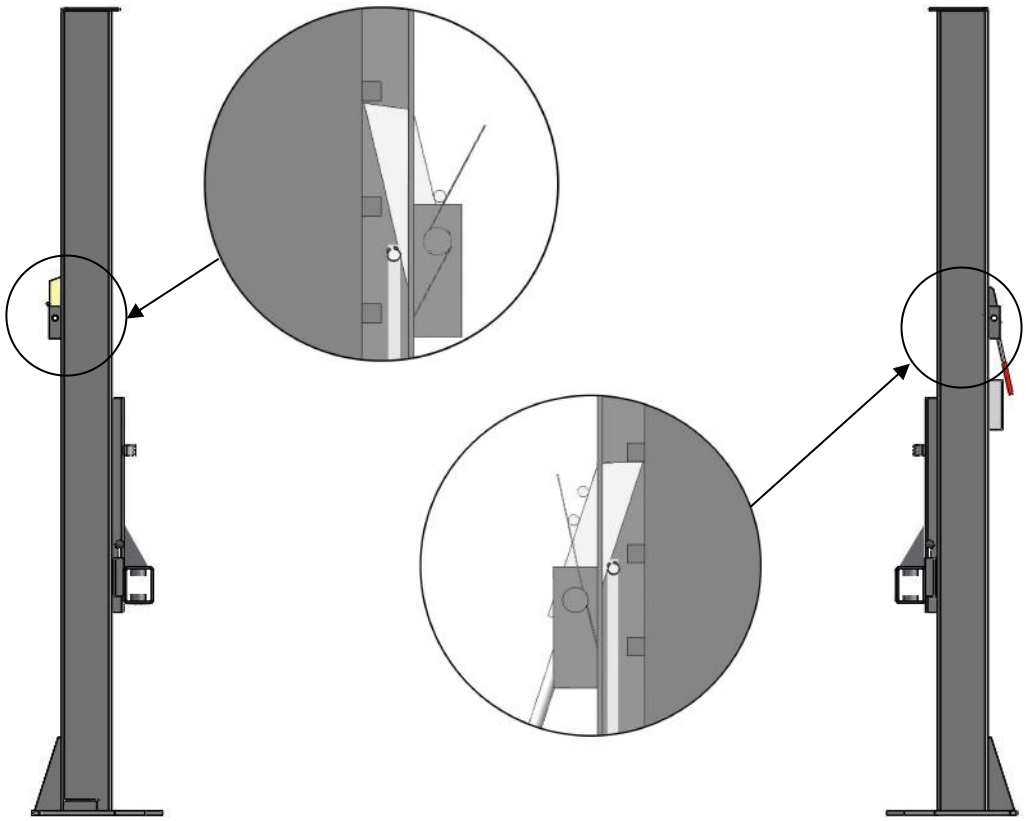


**Fig. 18**

## H.Connecting the cables

1. Connect the cables follow step **a** to **f**. (See Fig. 19).

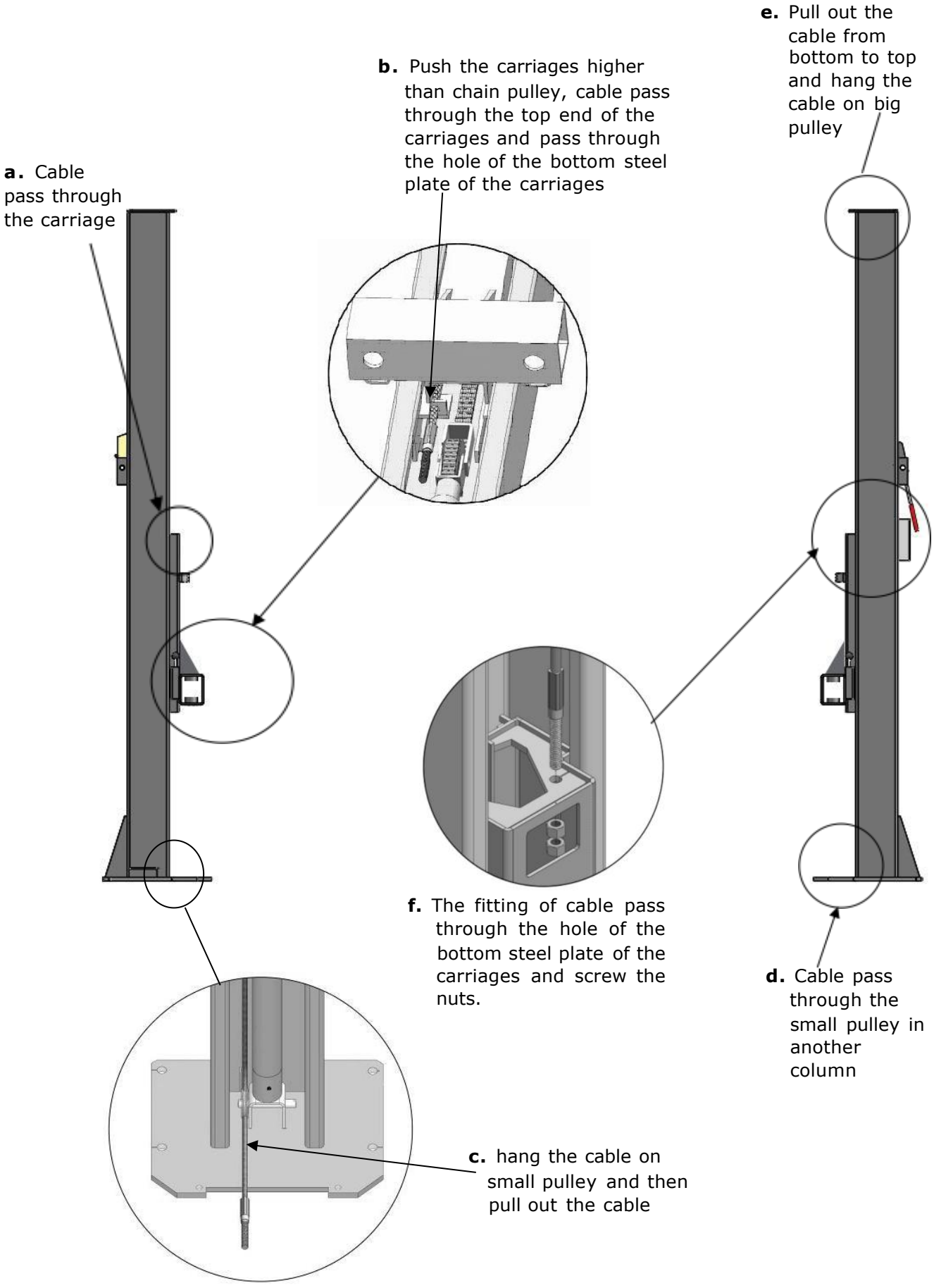



**Fig. 19**

## I. Install cable (See Fig. 20)

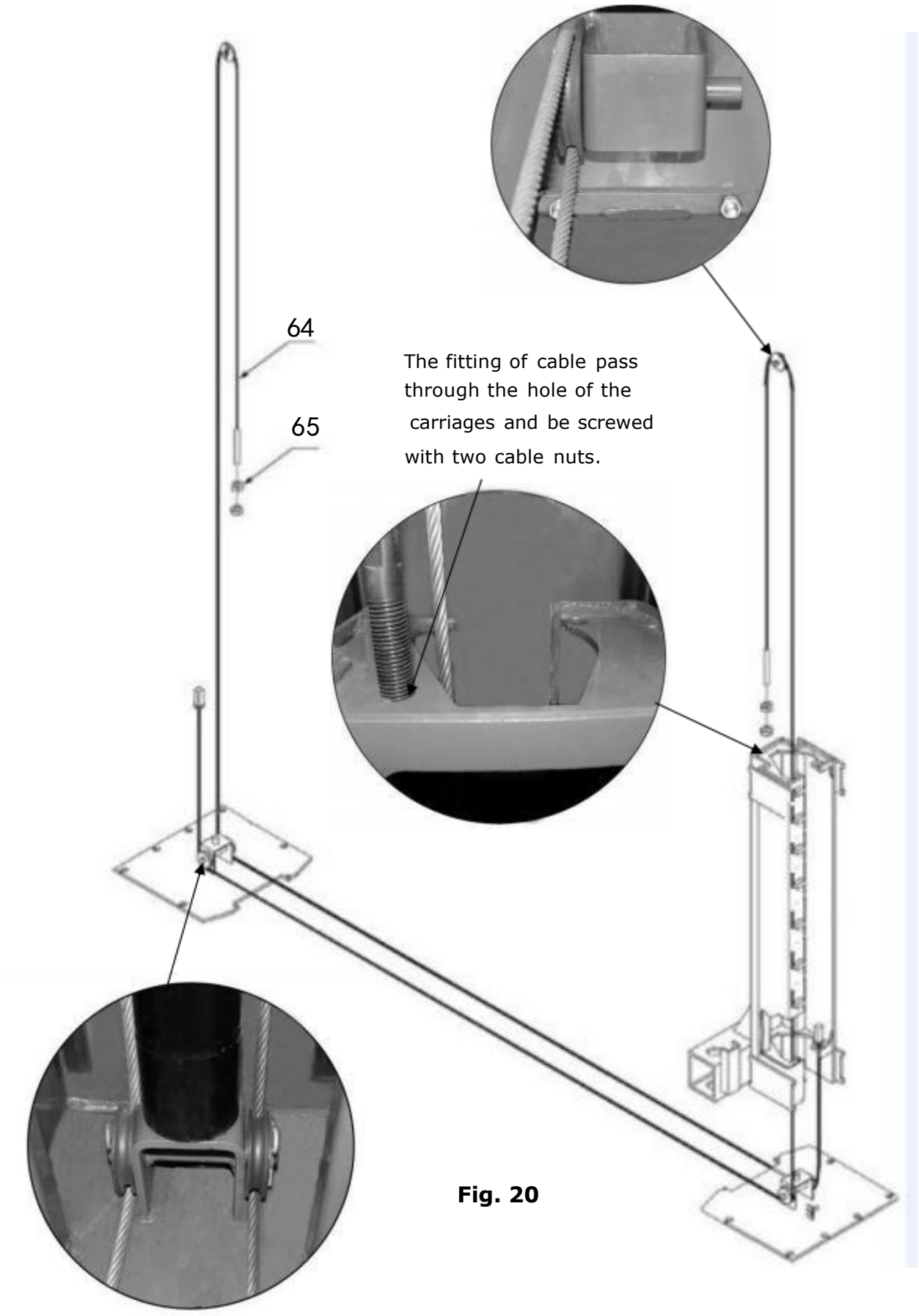



**Fig. 20**

**J. Assembly oil hose assy. (See Fig. 21)**

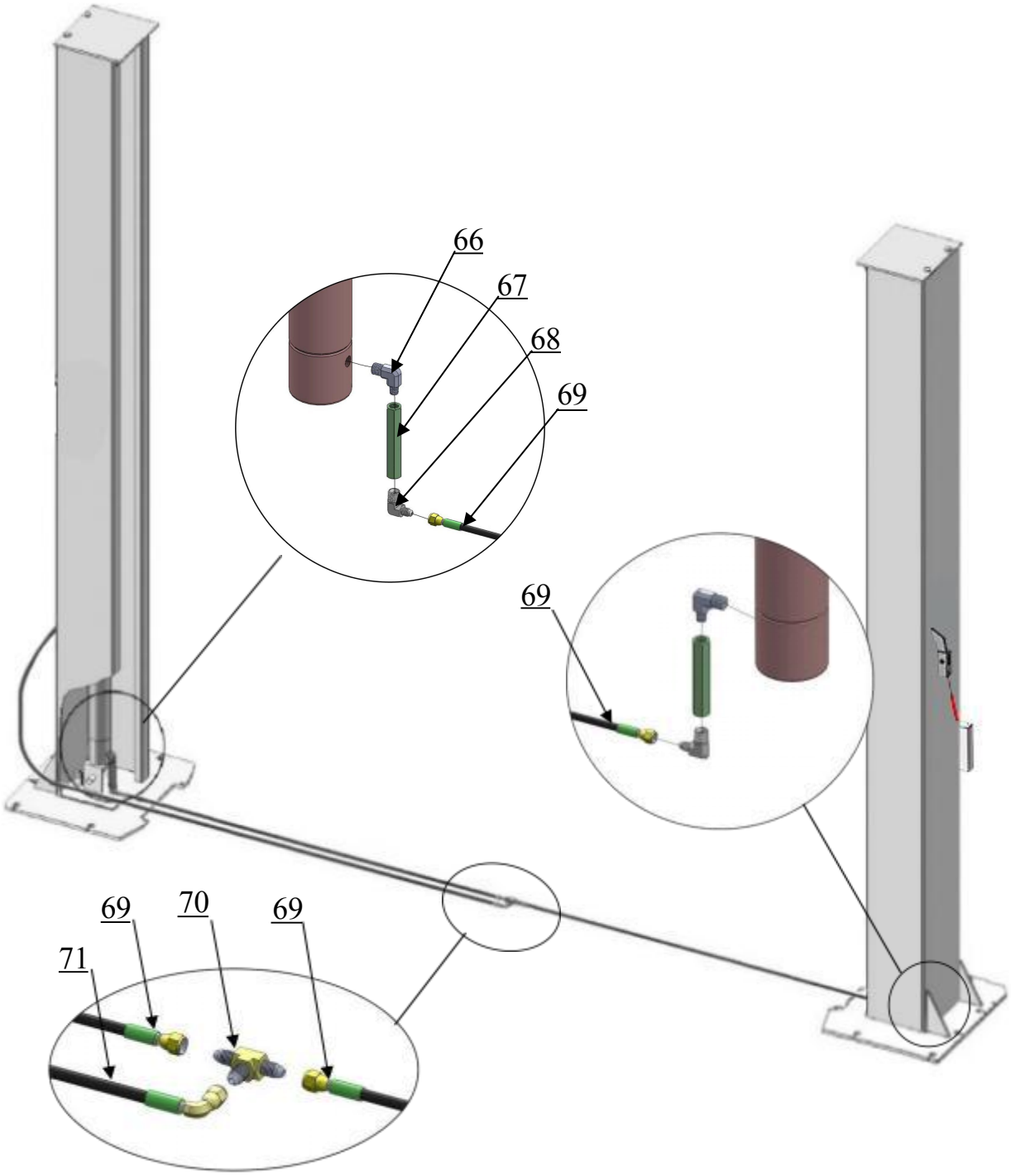



**Fig. 21**

**K. Install hydraulic power unit and oil hose assy. (See Fig. 22).**

Note: Tighten oil hose and power unit fittings, avoid oil leakage. The oil hose of power unit should be fixed with retainer.

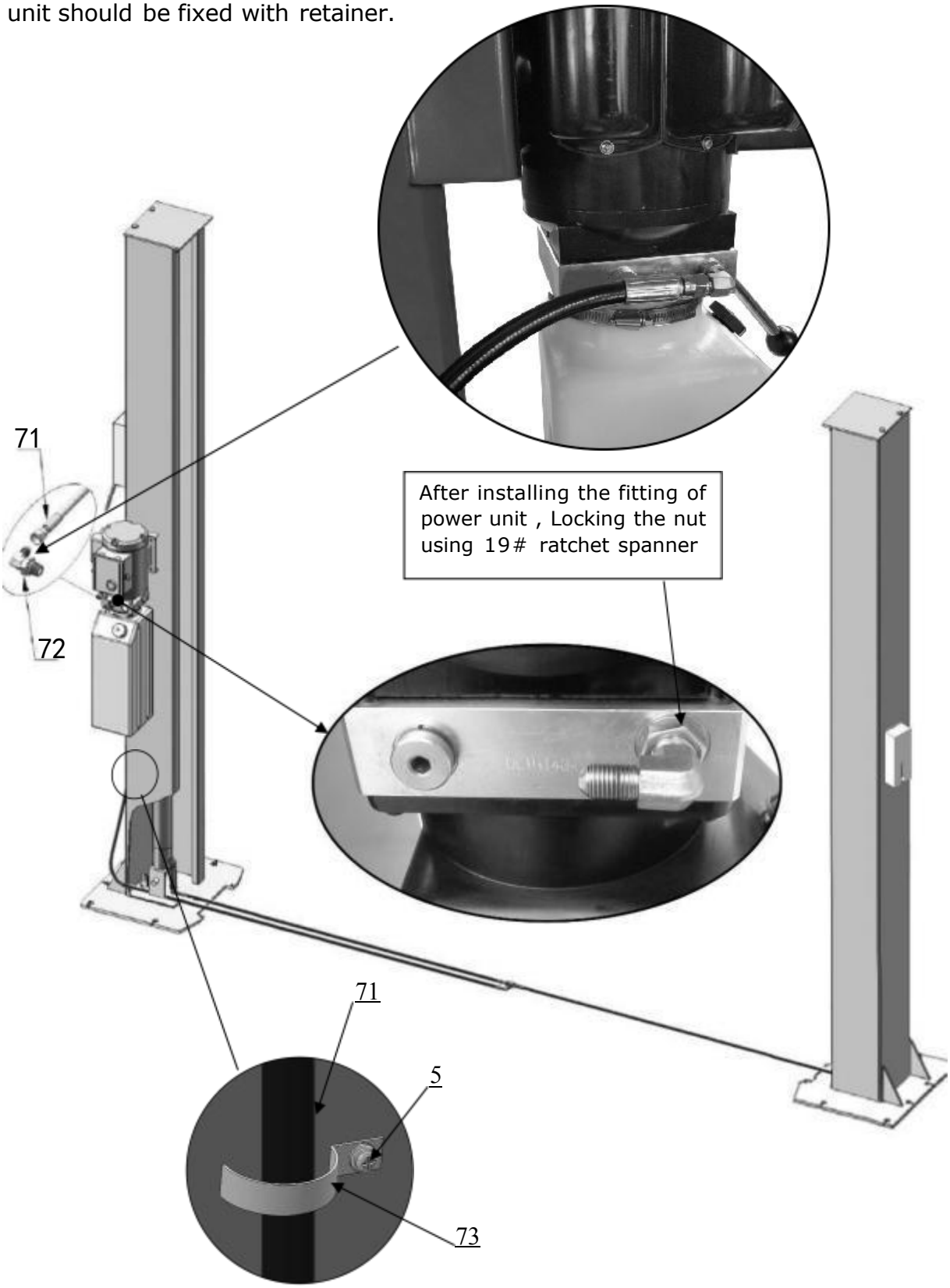



**Fig. 22**

**L. Install safety cable (See Fig. 23).**

**NOTE:** 1. Assemble lock release cable from off-side safety assy.

2. Pay attention to the connecting direction of lock release cable.

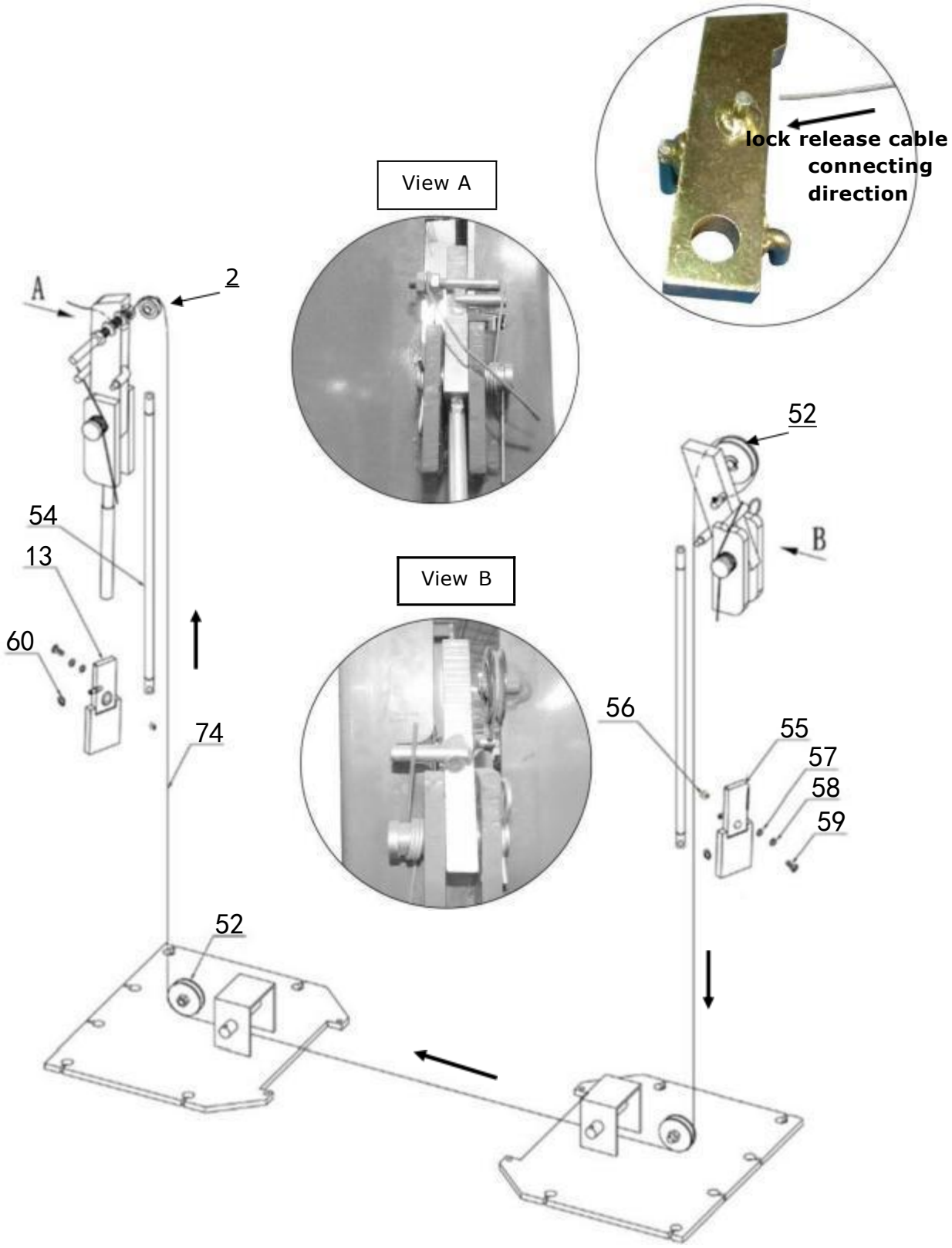



**Fig. 23**

**M. Assemble floor cover and protective rubber sets (See Fig. 24).**

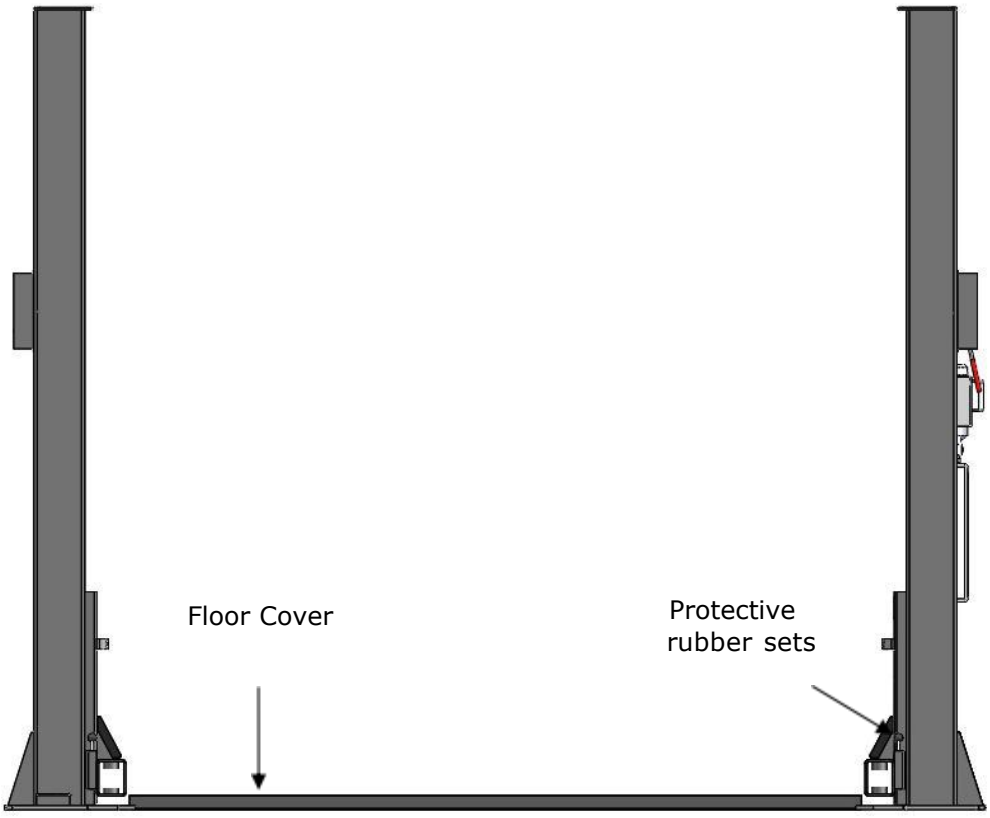



**Fig. 24**

## N. Install lifting arms and adjust the arm locks

1. After installing the lifting arms (See Fig.25).

2. Lowing down the carriage to the lowest position, use 17# spanner to loose fixed nut(see Fig.26),

3. Adjust the arm lock follow the arrow direction(see Fig.27),

4. Tighten the screws until arm lock and moon gear match in good condition. (see Fig.28).

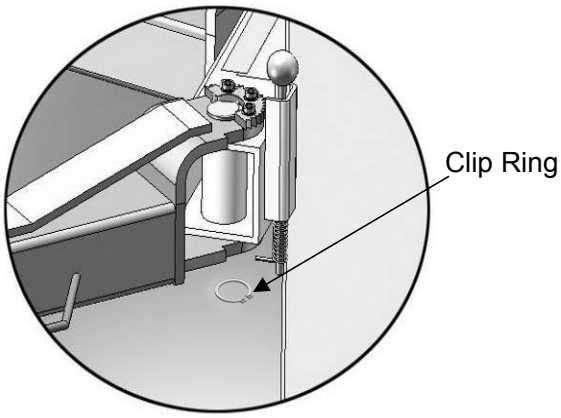
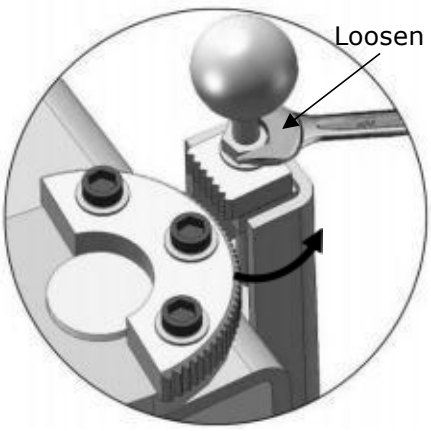
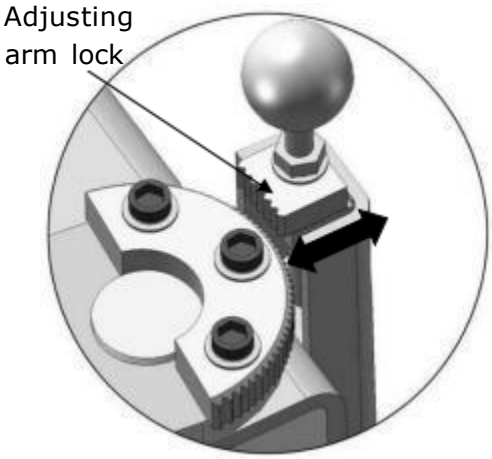



**Fig. 25**



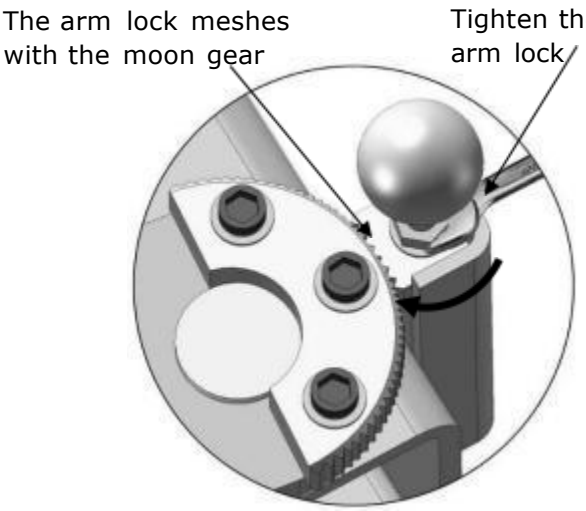

Loosen the nut with a 17# spanner

**Fig. 26**




Adjust gear and arm lock engagement.

**Fig. 27**




After gear and arm lock engagement, use a spanner to lock the nut.

**Fig. 28**

⚠ DANGER The lift should not be operated until the gears are fully engaged, and it is important to regularly check and adjust the arm restraint gears on all four arms. Failure to do so may result in vehicle damage, injury, or even death.

⚠ WARNING Each arm restraint assembly must be inspected and adjusted before you use the Lift each and every time. Do not operate the Lift if any of the four arm restraint systems are not functioning properly. Replace any broken components or components with broken teeth with authorized replacement parts only.

**O.Install guardrail**

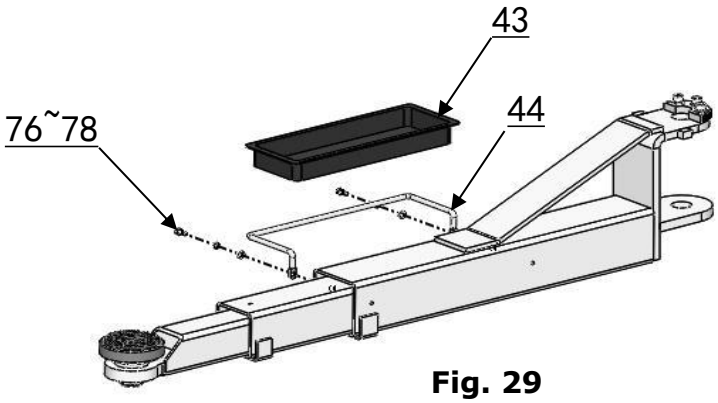



**Fig. 29**

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

**Note: In consideration of Power Unit's durability and keep the equipment running in the perfect condition, please use Hydraulic Oil 46#.**

**Q.Connect the power with schematic circuit diagram according to the requirement on the motor plate. Note : need to install limit switch, to ensure the safety of operator, the lift must be grounded.**

**Single phase motor (see fig.30,31)**

1. Connect the two hot wires of power supply respectively to the terminals of AC contactor marked L1 and L3 .
2. Ground wire connect with the ground wire bar.

**Internal wiring diagram of limit switch: The cable has been connected.**

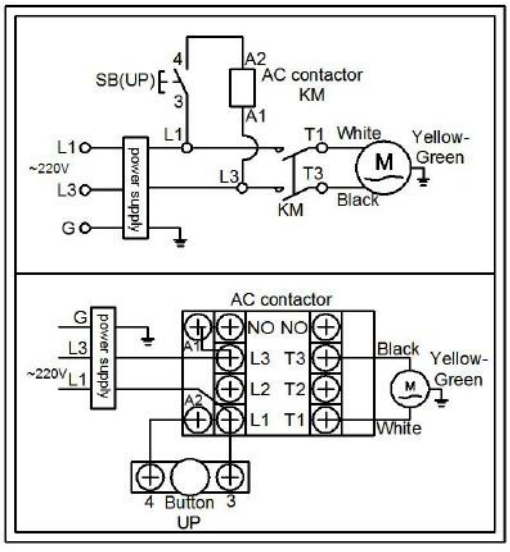



**Fig. 30**

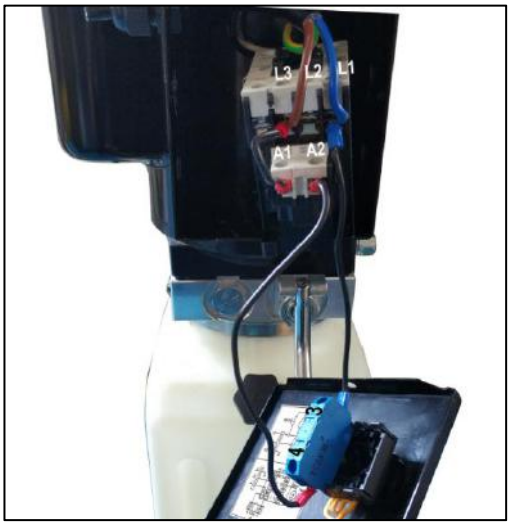



**Fig. 31**

⚠ DANGER All wiring must be performed by a licensed, certified Electrician. Do not perform any maintenance or installation of the lift without first ensuring that the main power supply has been disconnected from the lift and that it cannot be re-energized until all procedures have been completed.

⚠ DANGER Do not use the lift if the wires are damaged or severely worn. If the vehicle rises without noticing damage or extreme wear, carefully lower the vehicle to the ground. Once the lift is on the ground, remove it, disconnect the power, and arrange for protection.

## IV. EXPLODED VIEW

**Model BP-9**

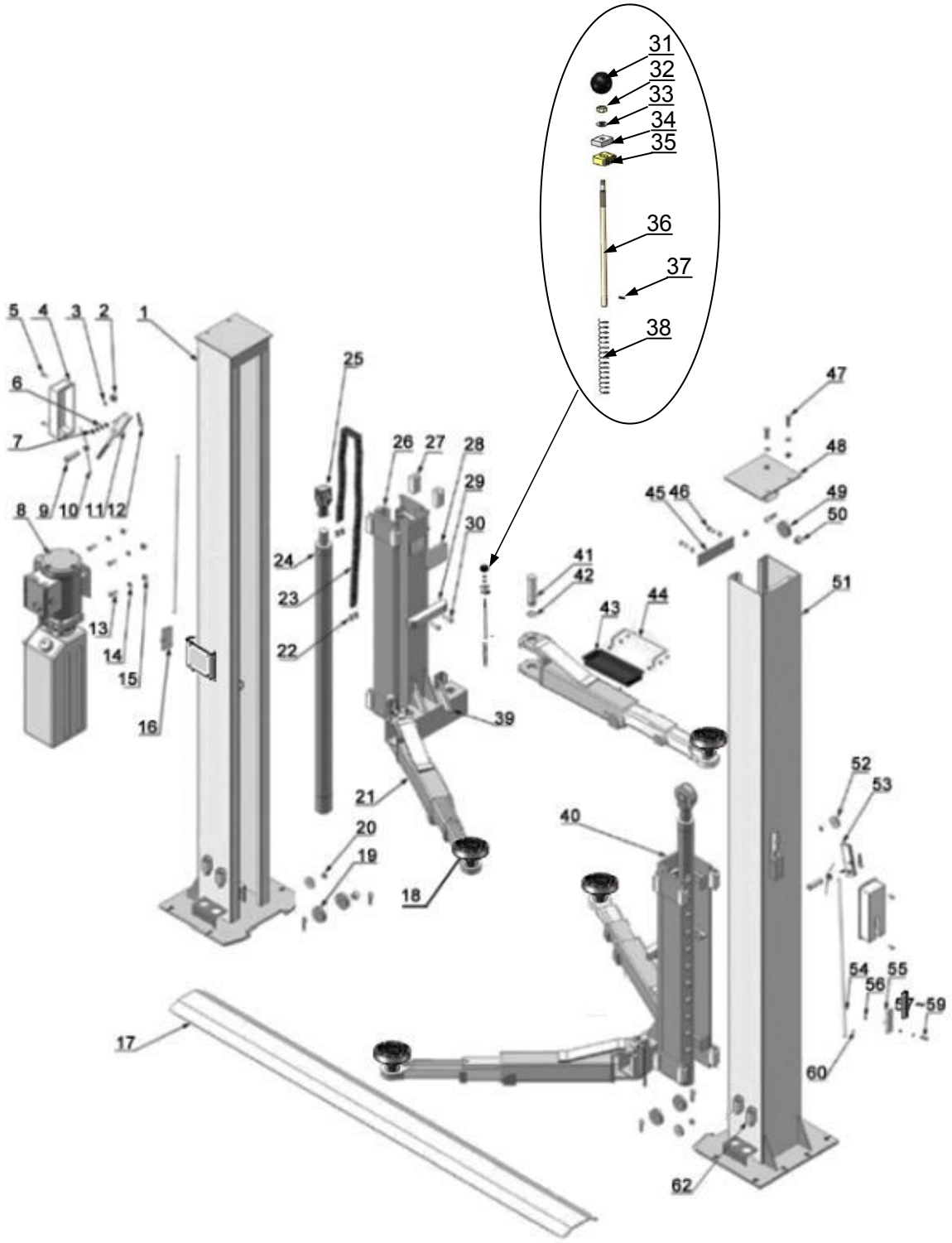



**Fig. 32**

## PARTS LIST

| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 11205039-01 | Power-side column | 1 |
| 2 | 10209011 | Plastic pulley for safety device(white) | 1 |
| 3 | 10209010 | Clip ring φ10 | 2 |
| 4 | 10209008 | Safety device protect cover | 2 |
| 5 | 10209009 | Round head bolt M6*8 | 6 |
| 6 | 10206006 | Flat Washer φ12 | 2 |
| 7 | 10206023A | Hex nut M12 | 2 |
| 8 | | Manual power unit | 1 |
| 9 | 1102011004A | Safety pin | 2 |
| 10 | 10209007 | Torsional spring | 2 |
| 11 | 11203263 | Power-side safety main lock | 1 |
| 12 | 11209012 | Snap pin | 8 |
| 13 | 11203261 | Power-side safety device | 1 |
| 14 | 10209005 | Self locking nut M8 | 4 |
| 15 | 10209004 | Rubber ring φ8*20*3 | 4 |
| 16 | 10209005 | Hex bolt M8x30 | 4 |
| 17 | 11205002 | Floor cover | 1 |
| 18 | 20803 | Single screw rubber pads assy. | 4 |
| 19 | 1102011001 | Pulley Φ80 | 4 |
| 20 | 10209056 | Self locking nut M10 | 2 |
| 21 | 10201043A-01 | Lifting arm assy | 4 |
| 22 | 10201010 | Chain connector | 4 |
| 23 | 10201009A | Chain | 2 |
| 24 | 10201008B-01 | Cylinder | 2 |
| 25 | 11203176 | Chain Pulley Support Assy. | 2 |
| 26 | 11205041 | Power side carriage | 1 |
| 27 | 10206044 | Slider Block | 16 |
| 28 | 10209016 | Carriage plastic cover | 2 |
| 29 | 10206045 | Protective rubber | 2 |
| 30 | 10206046 | Self-tapping screw | 4 |
| 31 | 10209020 | Plastic Ball | 4 |
| 32 | 10209021 | Hex nut M10 | 8 |
| 33 | 10209022 | Flat Washer φ10 | 10 |
| 34 | 10209023A | Arm lock | 4 |
| 35 | 11201041 | Limit Plate | 4 |
| 36 | 11209024 | Arm Lock Handle | 4 |
| 37 | 10209025 | Cotter pin | 4 |
| 38 | 10209026 | Spring | 4 |
| 39 | 10209027 | Protective rubber set | 4 |
| 40 | 11205042 | Offside carriage | 1 |
| 41 | 11209030A | Lifting arm pin | 4 |
| 42 | 10520023 | Clip ring φ38 | 4 |

| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 43 | 10206190 | Tool tray (Short) | 2 |
| 44 | 11206191 | Short guardrail | 4 |
| 45 | 11205005 | Connecting plate | 2 |
| 46 | 10209003 | Hex Bolt M8*25 | 4 |
| 47 | 10209046 | Hex Bolt M10*35 | 4 |
| 48 | 11205006-01 | Top plate | 2 |
| 49 | 1102012001 | Pulley Φ100 | 2 |
| 50 | 1002011001 | Bush φ22*φ19*14 | 6 |
| 51 | 11205040-01 | Off-side column | 1 |
| 52 | 10209049 | Plastic pulley (black) | 3 |
| 53 | 11203264 | Offside safety device | 1 |
| 54 | 11203784 | Coupling | 2 |
| 55 | 11203262 | Safety block (Secondly) | 1 |
| 56 | 10420018 | Self locking nut M6 | 2 |
| 57 | 10420045 | Flat Washer φ6 | 2 |
| 58 | 10209149 | Lock washer φ6 | 2 |
| 59 | 10217013 | Hex bolt M6*20 | 2 |
| 60 | 10420049 | Cotter pin φ2*16 | 4 |
| 61 | 10205500A | Part box | 1 |
| 62 | 1102015004A-01 | Stackable Adapter (3") | 4 |
| 63 | 10209059 | Anchor bolt 3/4 " *5-1/2 " | 12 |
| 64 | 10205009 | Cable φ8*7900mm | 2 |
| 65 | 10209066 | Hex bolt M16 | 4 |
| 66 | 10207024 | 90° Fitting 3/8NPT(M)*1/4NPT(M) | 2 |
| 67 | 11201082 | Extended Straight Fitting L=98mm | 2 |
| 68 | 10420097 | 90° Fitting 1/4NPT(M)*1/4JIC(M) | 2 |
| 69 | 10207034 | Oil Hose 1/4*54 3/4" | 2 |
| 70 | 10211016 | T Fitting | 1 |
| 71 | 10209059-01 | Oil hose 1/4*117 3/8" | 1 |
| 72 | 10209060 | 90° Fitting for Power Unit | 1 |
| 73 | 11217048 | Retainer | 2 |
| 74 | 10205010 | Lock release cable | 1 |
| 75 | 10217002 | Hex Bolt M8 | 4 |
| 76 | 10209034 | Lock washer φ8 | 12 |
| 77 | 10209033 | Flat Washer φ8 | 12 |
| 78 | 10201002 | Hex bolt M8*16 | 8 |
| 79 | 10201090 | Shim(1mm) | 10 |
| | 10620065 | Shim(2mm) | 10 |

## 4.1 Chain pulley seat assy. exploded view（11203176）:

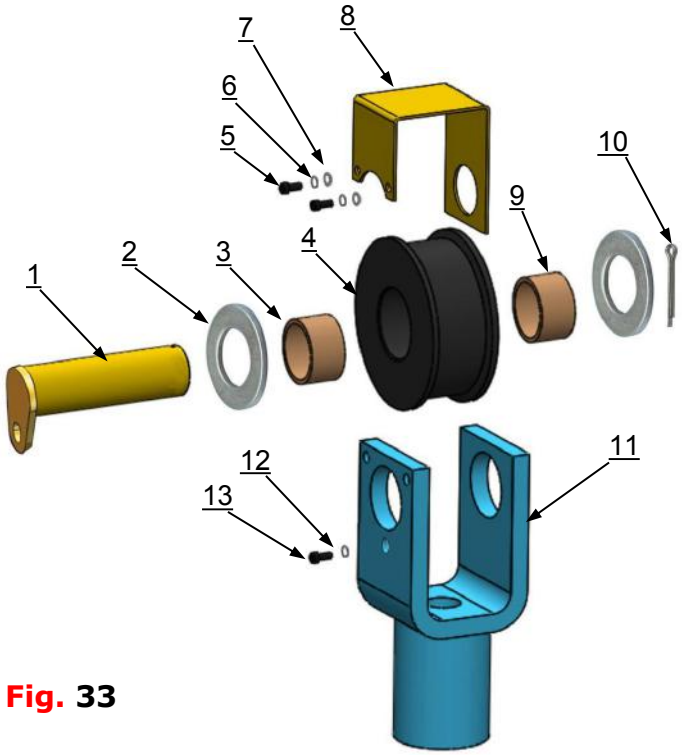
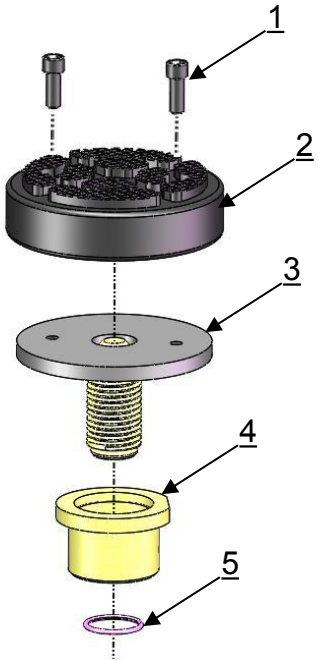



**Fig. 33**

| Item | Part No. | Description | QTY. |
|---|---|---|---|
| 1 | 1102015001A | Pin for chain pulley | 2 |
| 2 | 10640109 | Flat Washer φ44*φ25.5*2 | 4 |
| 3 | 10203004A | Bronze bush φ31*φ25.1*21 | 4 |
| 4 | 1102023002 | Chain Pulley φ105*41 | 2 |
| 5 | 81400438 | Socket bolt M5*10 | 4 |
| 6 | 10209143 | Spring Washer Φ5 | 4 |
| 7 | 10420152 | Flat Washer Φ5 | 4 |
| 8 | 11201152 | Chain stop plate | 2 |
| 9 | 10217020 | Bronze bush φ31*φ25.1*16 | 2 |
| 10 | 10201005 | Cotter pin(φ4*50) | 2 |
| 11 | 1102035001A-01 | Chain pulley seat | 2 |
| 12 | 10209034 | Lock washer φ8 | 1 |
| 13 | 1004544012 | Hex Bolt M8*16 | 1 |

## 4.2 Single Screw Rubber Pad Assy. Exploded View（20803）:




| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 10720061 | Socket Bolt M8*15 | 8 |
| 2 | 10203043 | Rubber Pad | 4 |
| 3 | 1101043003A | Support frame | 4 |
| 4 | 1106031001-01 | Adjusting sleeve | 4 |
| 5 | 10203041 | Snap ringφ23*φ28*φ2.5 | 4 |

**Fig. 34**

## 4.3 Lifting arm(1020143A-01) exploded view:

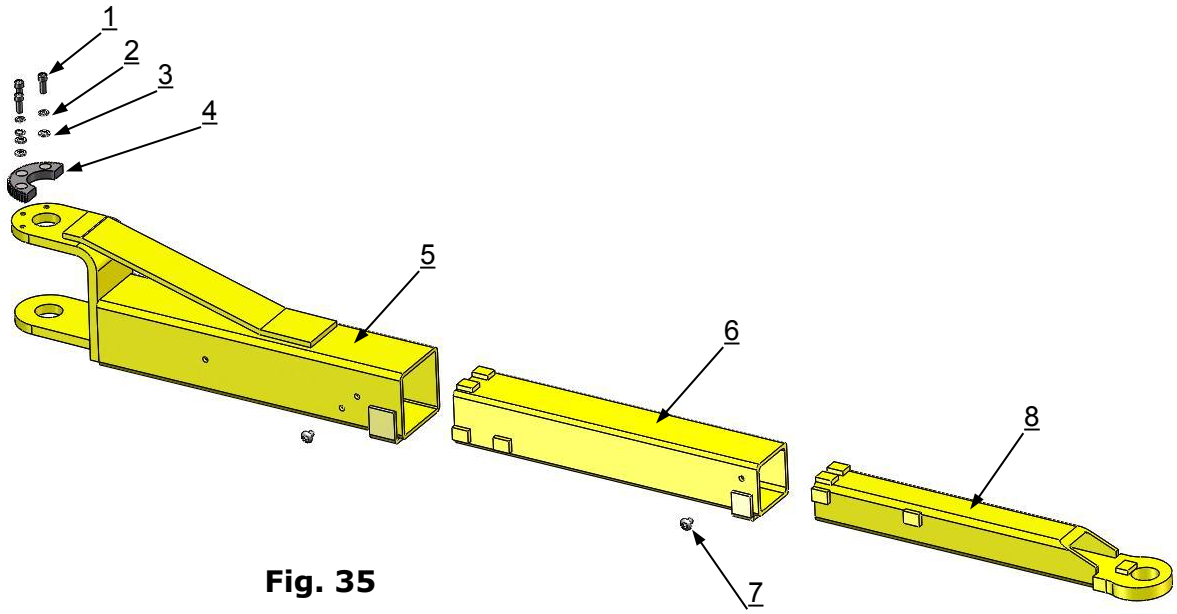



**Fig. 35**

| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 10209032 | Socket bolt | 12 |
| 2 | 10209034 | Lock washer | 12 |
| 3 | 10209033 | Washer | 12 |
| 4 | 11209035 | Moon gear | 4 |
| 5 | 11201047 | Outer arm assy | 4 |
| 6 | 11201048-01 | Middle arm assy | 4 |
| 7 | 10201149 | Screw M8*12 | 8 |
| 8 | 1102014005-01 | Inner arm assy | 4 |

## 4.4 Cylinders(10201008B-01) exploded view:

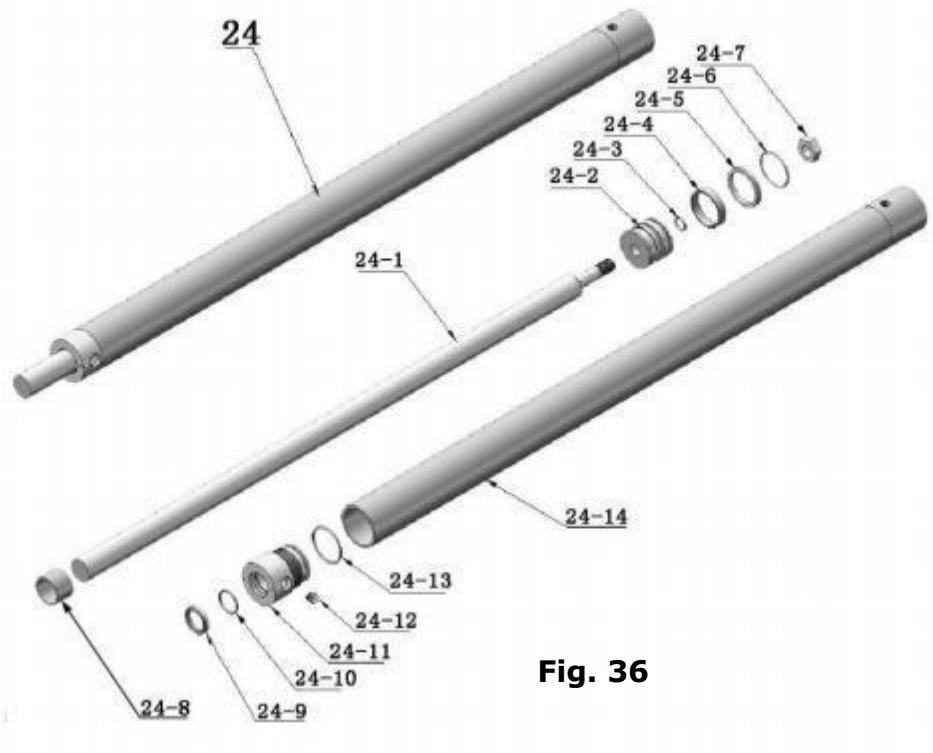



**Fig. 36**

**Part list for Cylinder**

| Item | Part No. | Description | Qty. |
|---|---|---|---|
| 24-1 | 1102016013 | Piston rod | 2 |
| 24-2 | 1102016015 | Piston | 2 |
| 24-3 | 10206069 | O ringΦ21*3.1 | 2 |
| 24-4 | 10217071 | Support ringΦ49*Φ55*3*12.5 | 2 |
| 24-5 | 1002016003 | Y ring OSIΦ45*Φ55*6 | 2 |
| 24-6 | 10217073 | O ringΦ49*3.1 | 2 |
| 24-7 | 10206071 | Hex Nut | 2 |
| 24-8 | 1102016011 | Piston rod adjusting sleeve | 2 |
| 24-9 | 1002016002 | Dusty ring Φ43*Φ35*5 | 2 |
| 24-10 | 10217300 | O ringΦ35*3.5 | 2 |
| 24-11 | 1102016016 | End cover | 2 |
| 24-12 | 10201034 | Bleeding plug | 2 |
| 24-13 | 10580070 | O ring Φ50*3.55 | 2 |
| 24-14 | 11201036B-01 | Cylinder weldment | 2 |

### 4.5 Illustration of hydraulic valve for hydraulic power unit

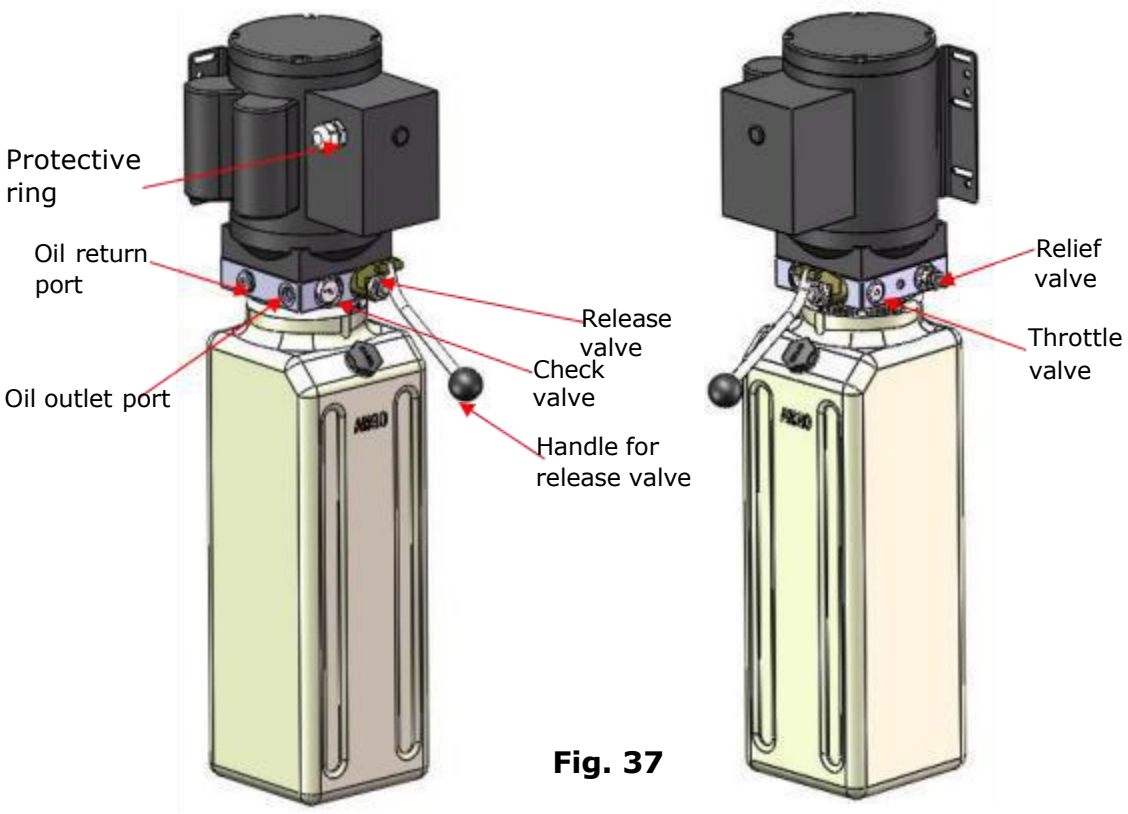



**Fig. 37**

## V. TEST RUN

### 1. Adjustment of synchronous cable (See Fig.38)

Push button "**UP**" to lift the carriages up to the position that the cable nut is over chain pulley and lock the two vehicle carriages on the same grating of safety lock. Use wrench to hold the cable fitting, meanwhile use ratchet spanner to tighten the cable nut until the two cables are in the same tension.

If the two vehicle carriages do not Synchronized when lifting and lowering, please screw and tighten the cable nut on the lower side carriage.

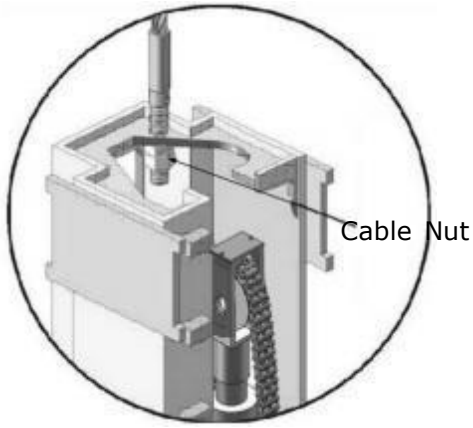



**Fig. 38**

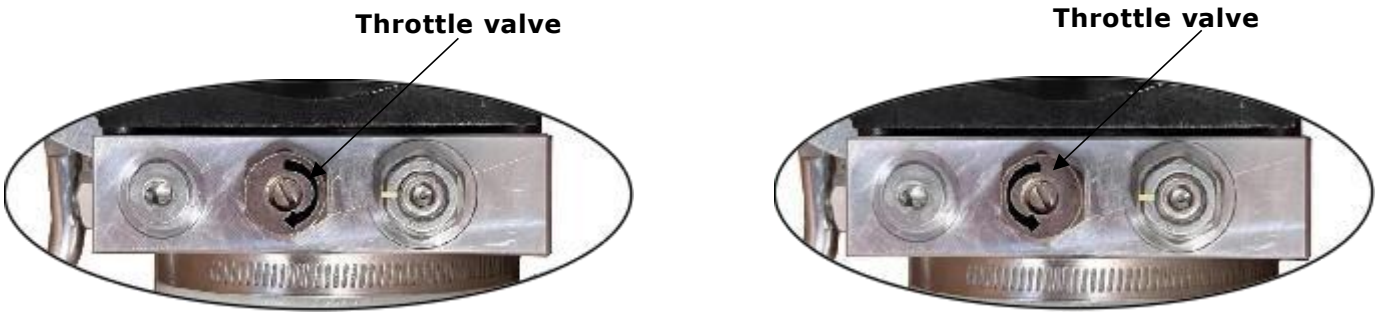
### 2. Adjust safety cable

Rise the vehicle carriages and lock them at the same height, strain the safety cable and then release a little, and then tighten the safety cable nuts. Make sure the safety device can always lock the carriages properly.

At last, install the plastic cover of the safety device.

### 3. Adjust the lowering speed

You can adjust the lowering speed of the lift if needing: screw the throttle valve clockwise to decrease the lowering speed, or counterclockwise to increase the lowering speed.




Adjust clockwise, decrease lowering speed  Counterclockwise, increase lowering speed

**Fig. 39**

### 4. 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 is 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.**

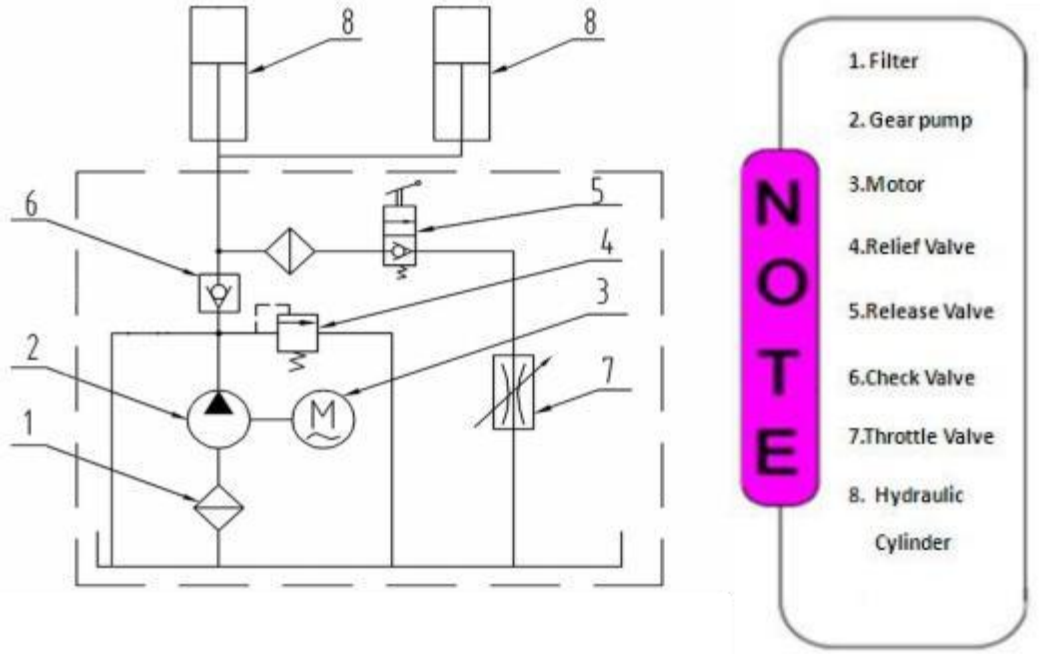



**Fig. 40**

**Hydraulic System**

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

7. Push button "**UP"** 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.

**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 cylinders and seals, raise the machine to the highest at least once every 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.
6. Check the oil level of power unit and ensure is normal;
7. Check the moon gear and arm lock and ensure in proper condition.

### Oil cylinder maintenance:

In order to extend the service life of the oil cylinder, please operate according to the following requirements.

1. Recommend to use N46 anti-wear hydraulic oil.
2. The hydraulic oil of the lifts should be replaced regularly during using. Replace the hydraulic oil 3 months after the first installation, Replace the hydraulic oil once a year afterwards.
3. Make at least one full trip raising and lowering per day. For exhausting the air from the system, which could effectively avoid the corrosion of the cylinder and damage to the seals caused by presence of air or water in the system.
4. Protect the outer surface of the oil cylinder's piston rod from bumping and scratching, and timely clean up the debris on the oil cylinder dust-ring and the piston rod.

## VIII.TROUBLE SHOOTING

| TROUBLE | CAUSE | REMEDY |
|---|---|---|
| Motor does not run | 1. Button does not work<br>2. Wiring connections are not in good condition<br>3. Motor burned out<br>4. AC contactor in damage | 1. Replace button<br>2.Repair all wiring connections<br>3. Repair or replace motor<br>4. Replace or replace |
| Motor runs but the lift is not raised | 1. Motor runs in reverse rotation<br>2. Gear pump out of operation<br>3. Release valve in damage<br>4. Relief valve or check valve in damage<br>5. Low oil level | 1.Reverse two power wire<br>2.Repair or replace<br>3. Repair or replace<br>4.Repair or replace<br>5.Fill tank |
| Lift does not stay up | 1. Release valve out of work<br>2. Relief valve or check Valve leakage<br>3. Cylinder or fittings leaks | Repair or replace |
| Lift raises slowly | 1. Oil line is jammed<br>2. Motor running on low voltage<br>3. Oil mixed with air<br>4. Gear Pump leaks<br>5. Overload lifting | 1. Clean the oil line<br>2. Check electrical system<br>3. Fill tank<br>4. Replace pump<br>5. Check load |
| Lift cannot lower | 1. Safety device are locking.<br>2. Release valve in damage<br>3. Safety cable broken<br>4. Oil system is jammed | 1. Release the safeties<br>2. Repair or replace<br>3. Replace<br>4. Clean the oil system |

⚠ WARNING Lifts are dangerous when operated by inexperienced or distracted individuals. Operators must be fully aware that lifting a car is a potentially life-threatening operation, especially if mandatory safety precautions are disregarded.

# IX. CAR LIFT SAFETY TIPS

Put these safety tips in a place where you can always alert the operator. Please reference to the lift manufacturer's manual for specific information about the lift.

1. Check the lift daily. If the machine breaks down or has damaged parts, do not operate, and use the parts of original equipment to repair.
2. Do not overload the lift. The rated weight of the manufacturer design is indicated on the label of the lift.
3. Position control of the vehicle and operation of the lift can only be done by a trained and authorized person.
4. You can not lift a car with people inside. When the lift is working, the customer or other people should not be around the machine.
5. Keep the place around the lift clear of obstacles, lubricants, grease, garbage and other debris for a long time.
6. Before driving the car into the lift, put the lifting arm and rubber pad in the proper position to ensure barrier-free space. Do not hit or run over the lift arm and rubber pad of the lift, otherwise it will cause damage to the lift machine or the car.
7. Rise the lift to the required height for operation. **Note**, if you are working under a car, raise the lift high enough and mare sure the safety device has locked.
8. Note, removing(or installing) parts from a car can cause a sudden shift of gravity that is unstable for the raised car. Reference to the car manufacturer's service manual as a recommended procedure when removing parts from the car.
9. Before lower the lift , make sure that the tool tray, tool rack, etc.are removed from under the car. Open the lock before lowering the lift.
10. Before removing the car from the lift, put the lifting arm and rubber pad in place to open an unobstructed exit.
11. When not in use, be sure to unplug the lift from the power socket. Never pull the plug out only using the wire. Grab the plug and pull it out to disconnect.
12. To reduce the risk of fire, do not operate the lift near open containers of flammable liquids (gasoline).
13. To reduce the risk of electric shock, do not install and use the lift in wet or exposed to rain.

# X. LIFT DISPOSAL

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

AMGO Hydraulics

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