

Installation And Service Manual

TWO POST LIFT Model:BP-9X, BP-10

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

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 and plastic parts are under warranty for 3 years, and electrical components and sync cable, lock release cable warranty for 2 year.

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 5°C to 40°C(41°F to 104°F).

 **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

FLOOR PLATE CHAIN-DRIVEN MODEL FEATURES

MODEL BP-9X, BP-10 (See Fig.2)

- Compact design, provide unobstructed floor space;
- Dual hydraulic cylinders, designed and made to high standard, utilizing imported oil seal in cylinder.;
- Self-lubricating UHMW Polyethylene sliders and bronze bush.
- Single-point safety release, and dual safety design.
- With 4pcs three stages arms, double screw rubber pads.

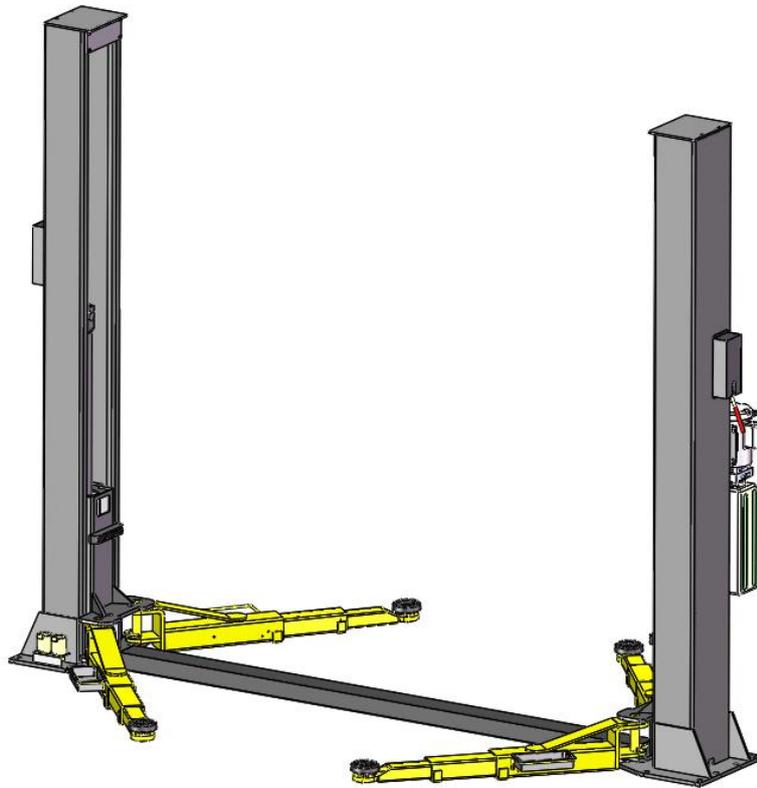


Fig. 2

MODEL BP-9X, BP-10 SPECIFICATIONS

| Model | Lifting Capacity | Lifting Time | Max Lifting Height | | Max safety lock height | | Overall Height | Overall Width | Minimum Pad Height | Motor |
|-------|------------------|--------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------|---------------|--------------------|-------|
| | | | Without extension adapter | Include extension adapter | Without extension adapter | Include extension adapter | | | | |
| BP-9X | 9000lbs | 49s | 76 9/16"~78 7/16" | 79 9/16"~81 7/16" | 75"~76 7/8" | 78"~79 7/8" | 111 7/8" | 136 1/4" | 3 3/4" | 2.0HP |
| BP-10 | 10000lbs | 62s | 76 9/16"~78 7/16" | 79 9/16"~81 7/16" | 75"~76 7/8" | 78"~79 7/8" | 111 7/8" | 139 1/8" | 3 3/4" | 2.0HP |

Arm Swings View

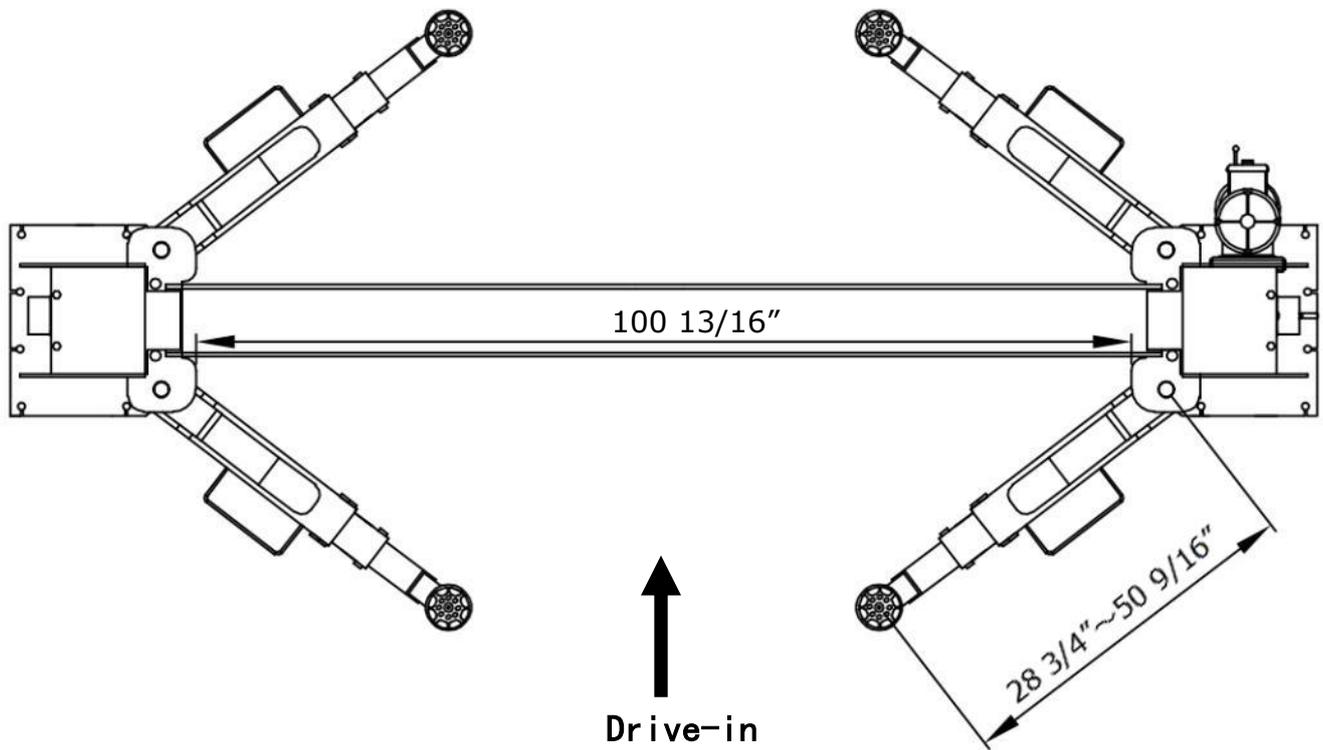


Fig. 3

⚠ CAUTION When driving the vehicle, stay in the middle between the columns. If you hit any part of the lift, you could damage the car or lift.

II. INSTALLATION REQUIREMENT

A. TOOLS REQUIRED

- ✓ Rotary Hammer Drill (Φ19)



- ✓ Hammer



- ✓ Level Bar



- ✓ English Spanner (12")



- ✓ Ratchet Spanner With Socket (28#)



R

Wrench set

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



- ✓ Carpenter's Chalk



- ✓ Screw Sets



- ✓ Tape Measure (7.5m)



- ✓ Pliers



- ✓ Socket Head Wrench (3#, 6#)



R

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 3,000ps minimum.
3. Floors must be level without cracks.
4. Do not install the lift on asphalt or any surface other than concrete.

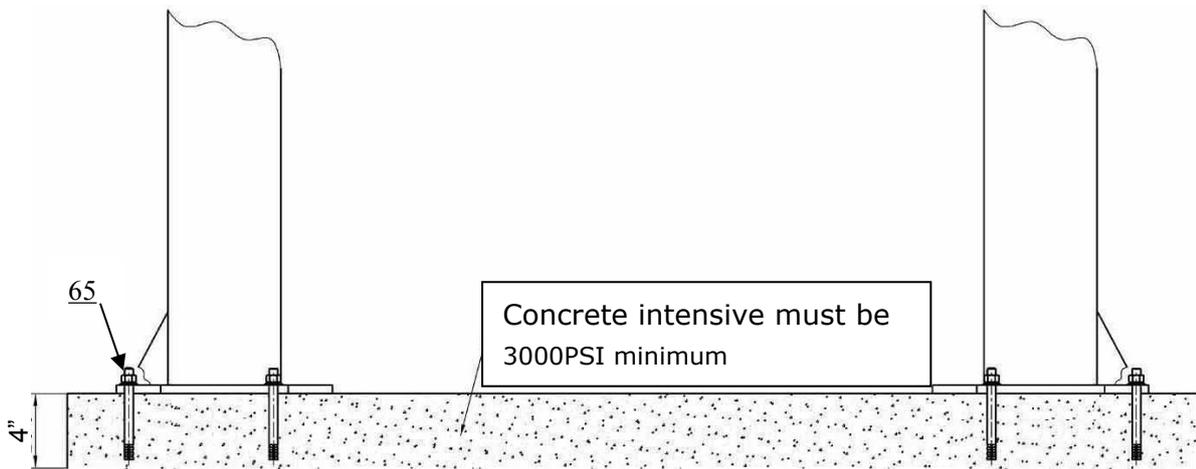


Fig. 6

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.

III. INSTALLATION STEPS

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.

Installation ceiling height requirement: $> 111 \frac{7}{8}''$

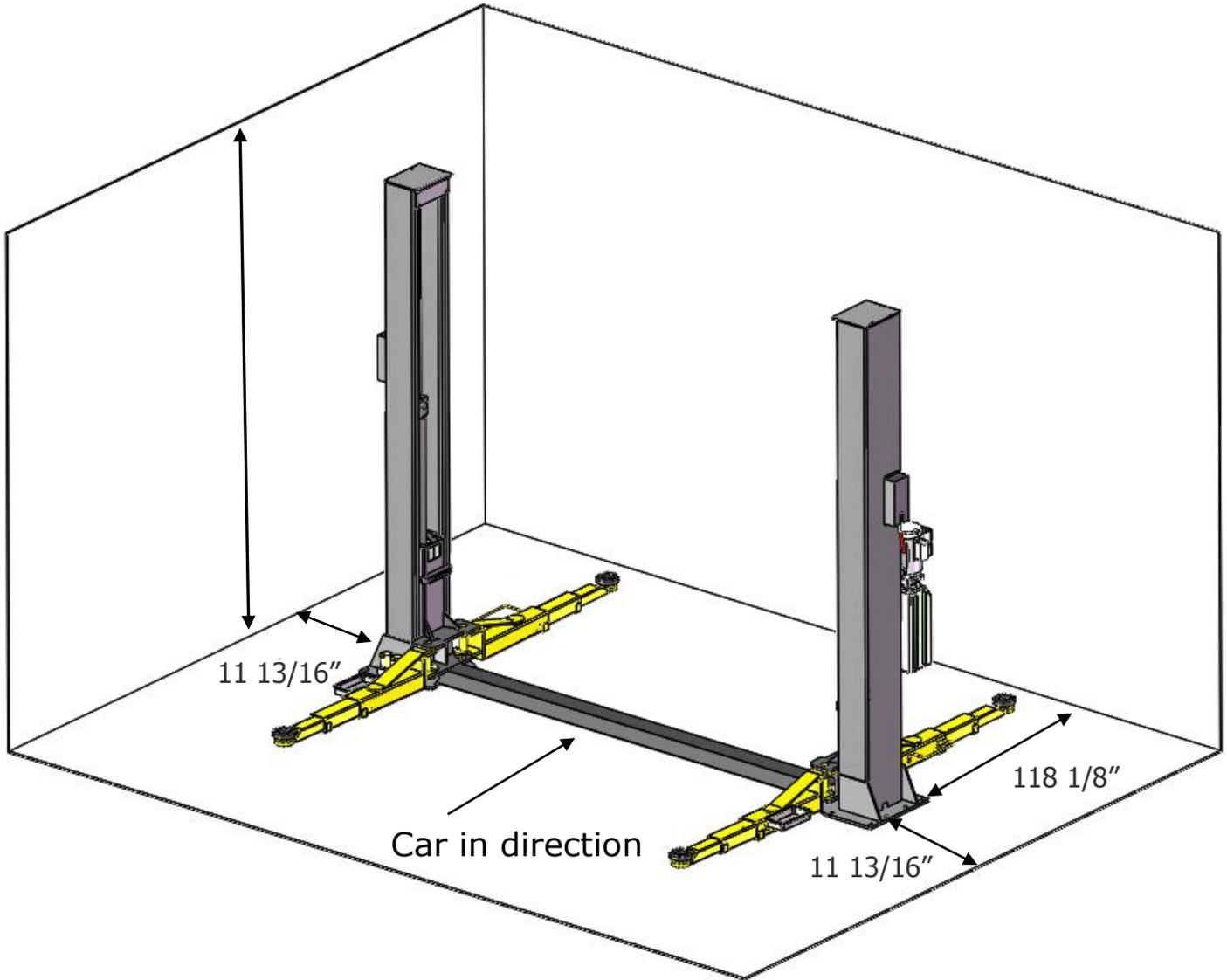
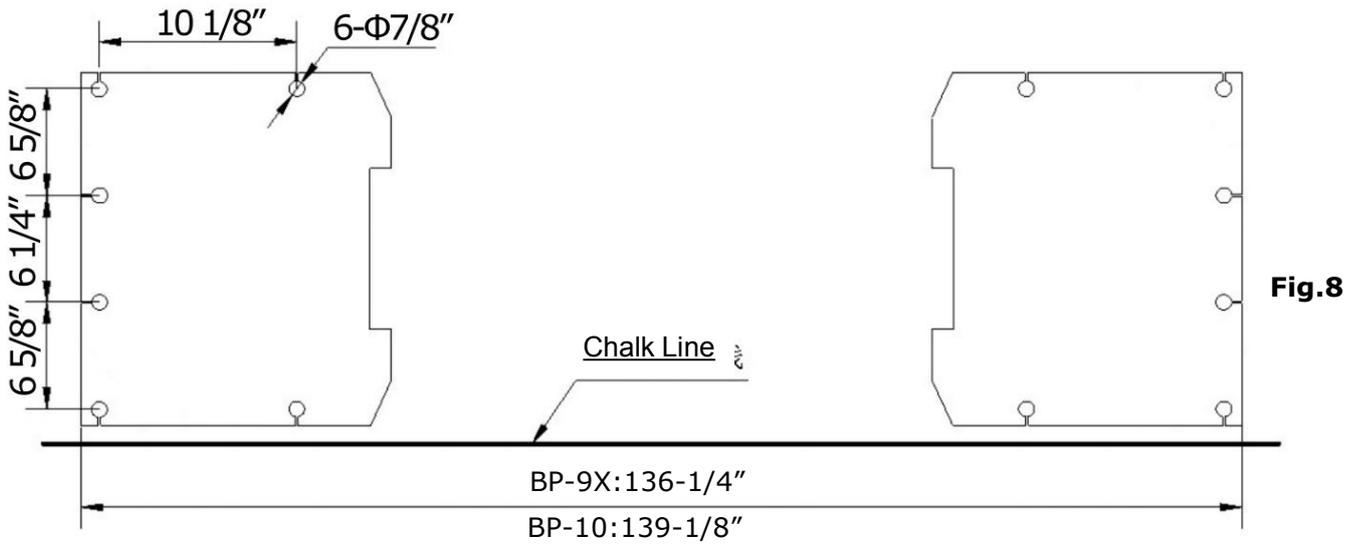


Fig.7

⚠ 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 $\frac{3}{8}''$ 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).



C. Check the parts before assembly
(The following figure shows the installation of BP-9X as an example)

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



Fig. 9

2. Move the lift aside with a fork lift 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).

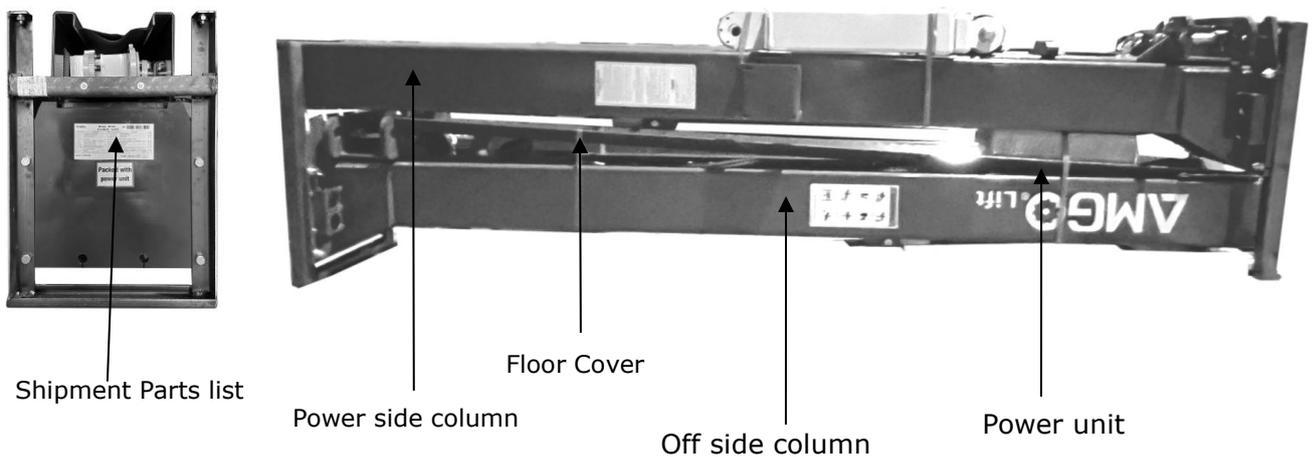


Fig. 10

- Loose the screws of the upper package stand, take off the upper column and remove the package stand.
- Move aside the parts and check the parts according to the shipment parts list (See Fig. 11, 12).

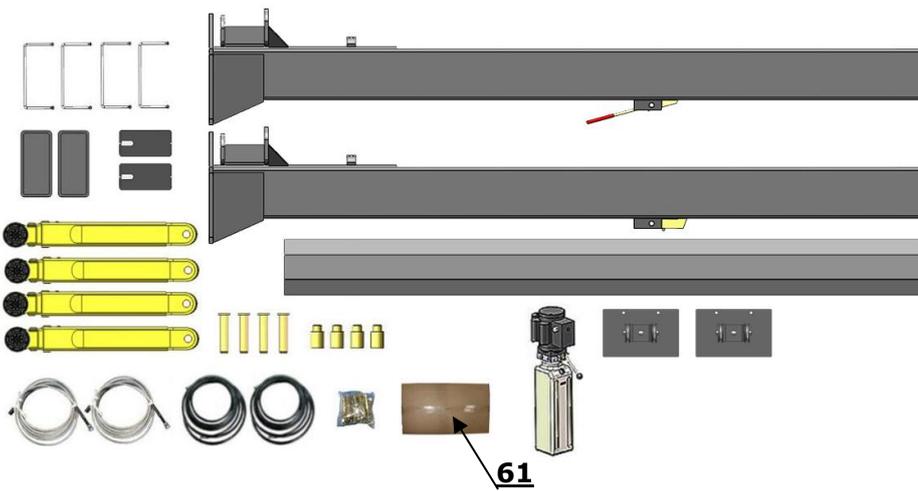


Fig. 11
Parts in the shipment parts list



Fig. 12
Parts in the parts box (61)

- Open the bag of parts and check the parts of the parts bag according to parts bag list (See Fig. 13).

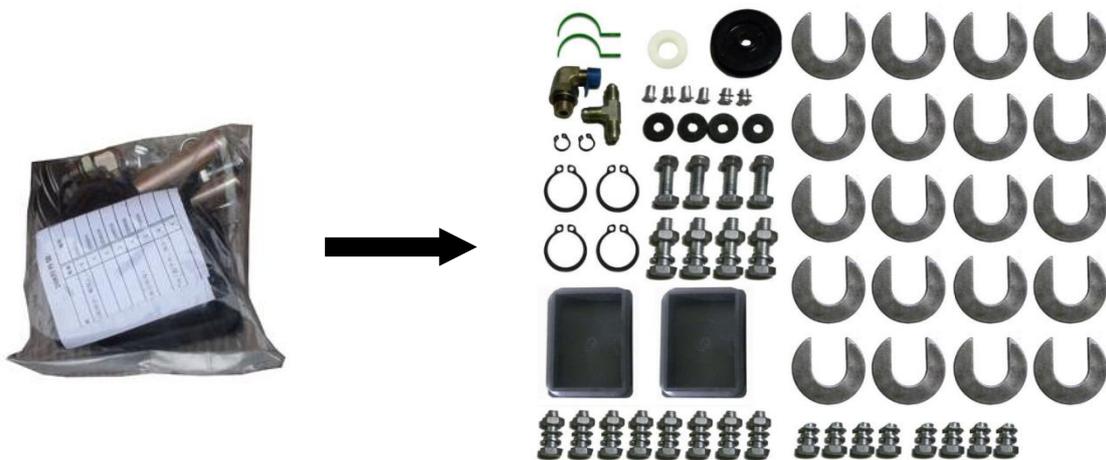


Fig. 13

- D.** 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

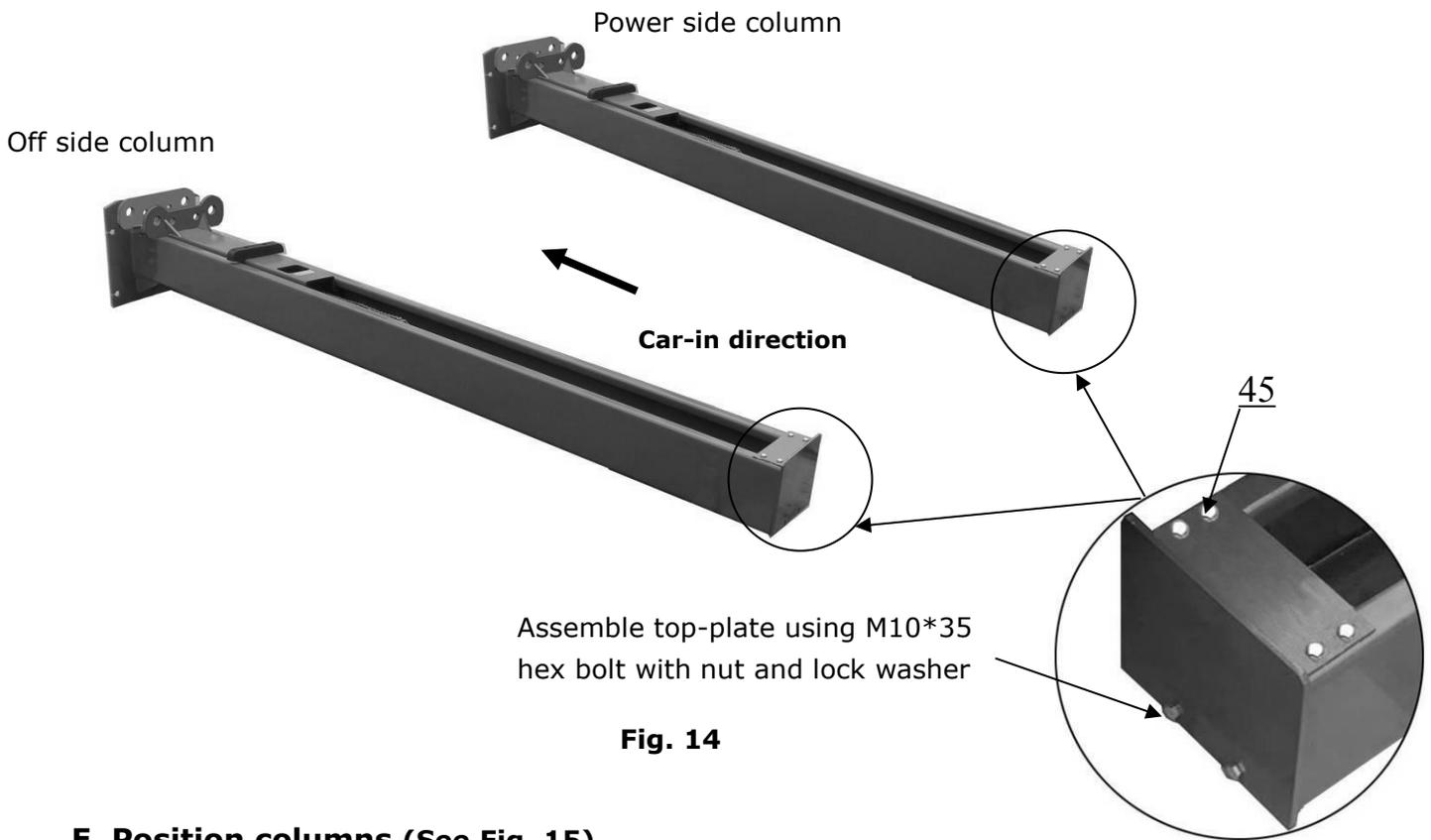


Fig. 14

E. Position columns (See Fig. 15)

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

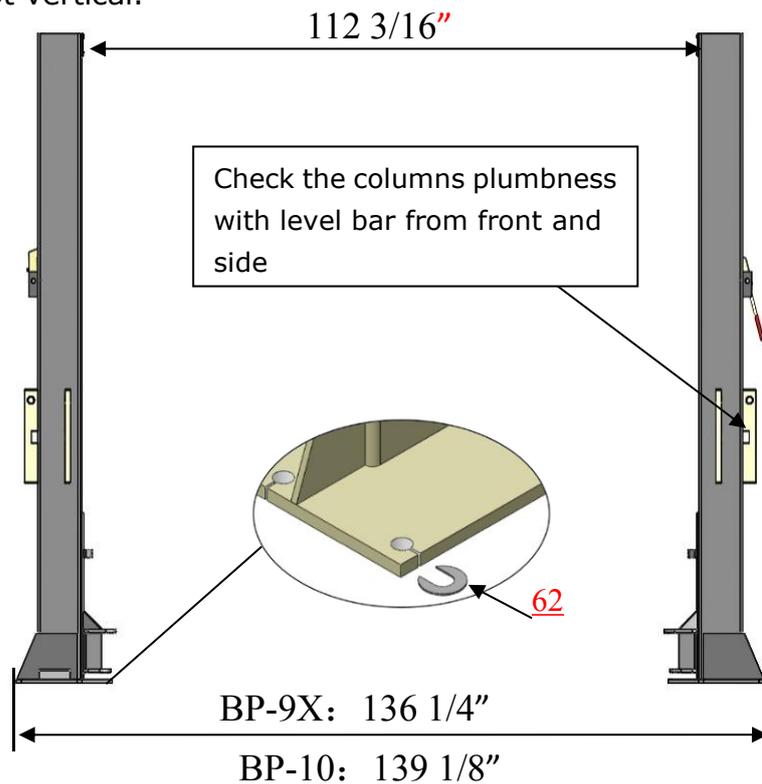


Fig. 15

F. Fix anchor bolts

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

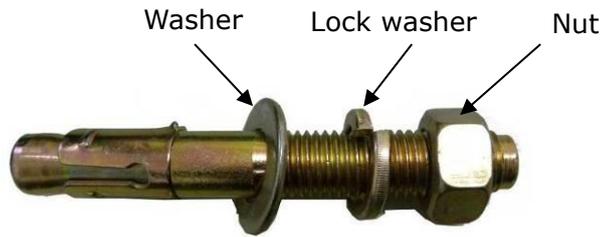


Fig.16

2. Use 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 90mm.

Note: Minimum embedment of anchors is 3 1/2".

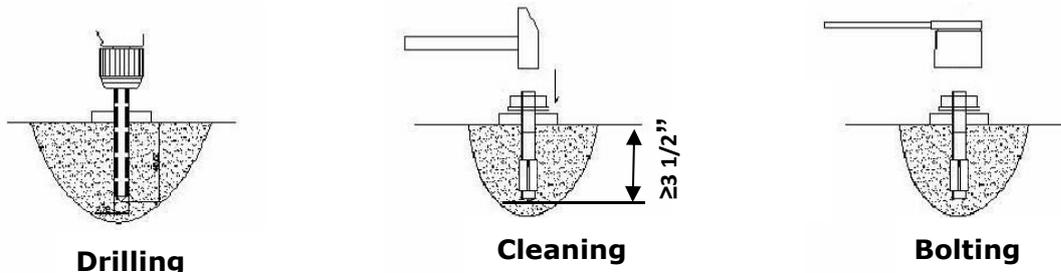


Fig.17

G. Lift the carriages up to be locked at the same level safety devices.

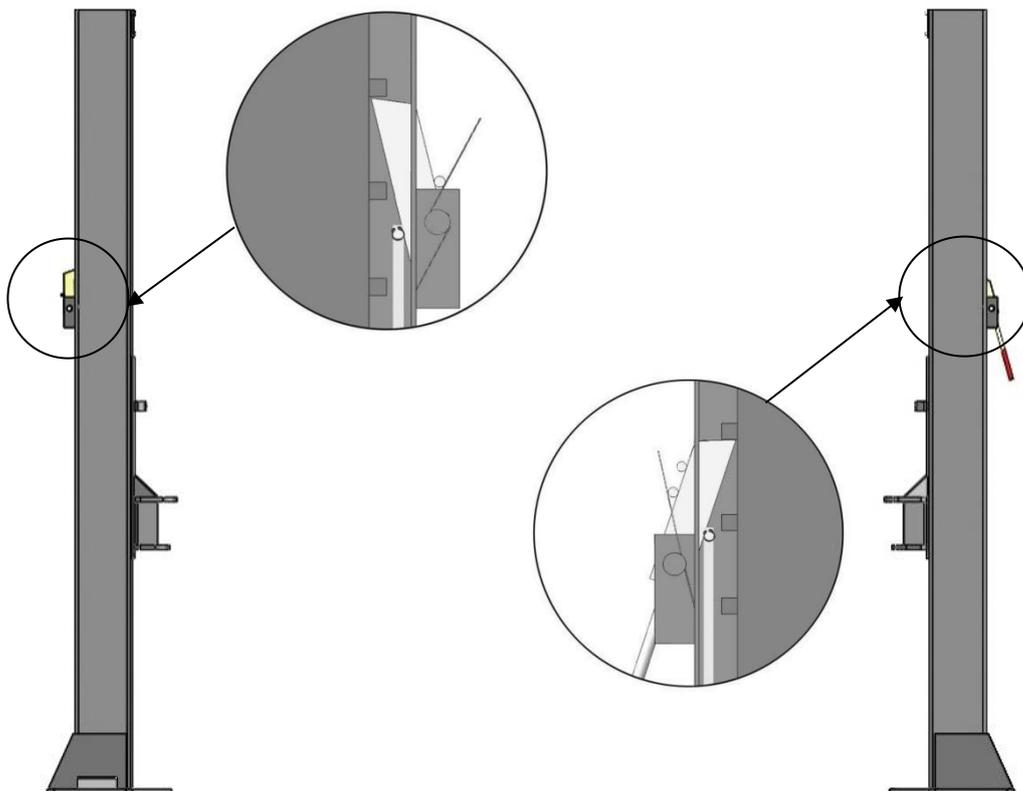


Fig.18

H. Install the cables

1. Connect the cables follow step **a** to **f**. (See Fig. 17).

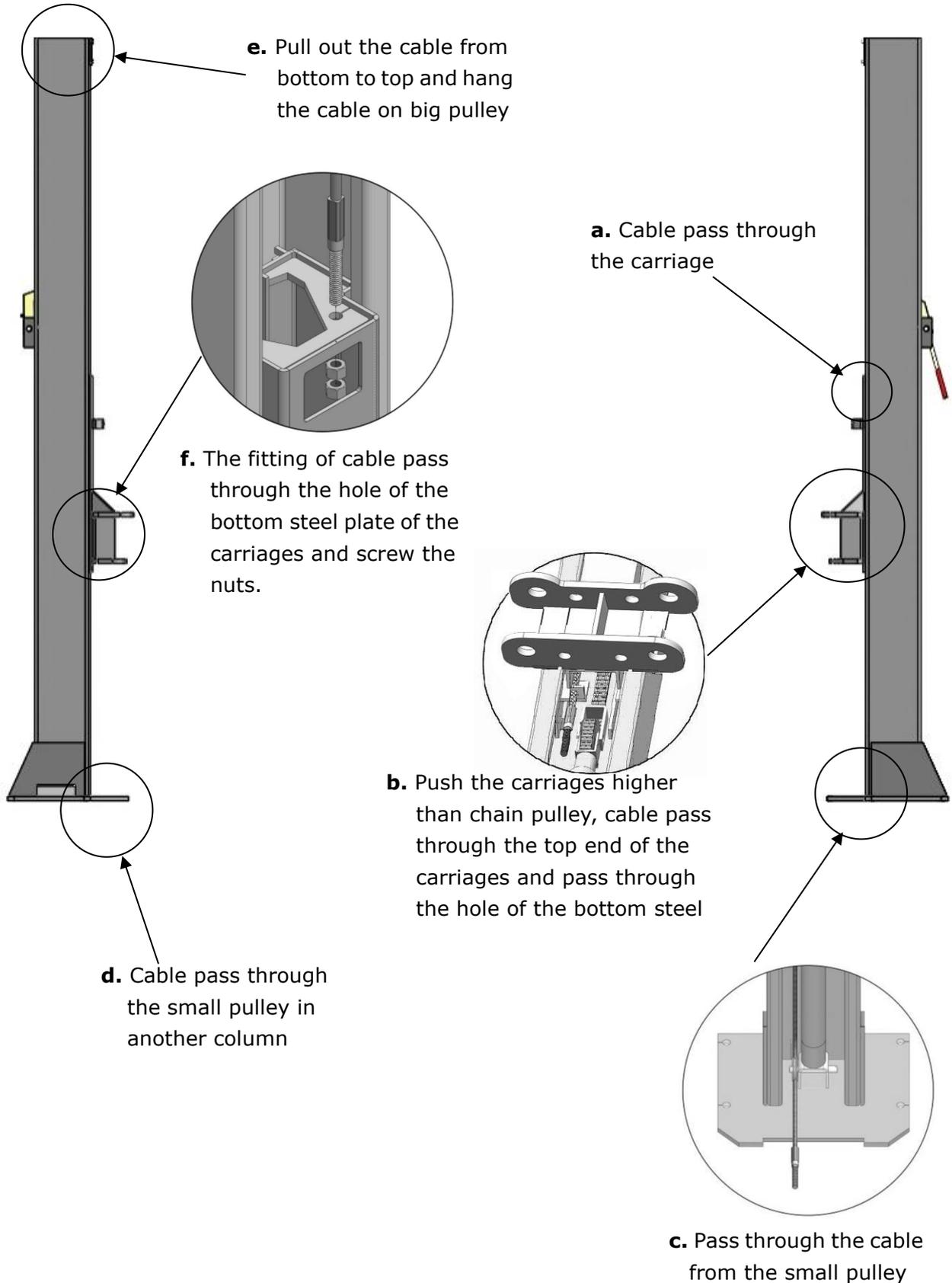
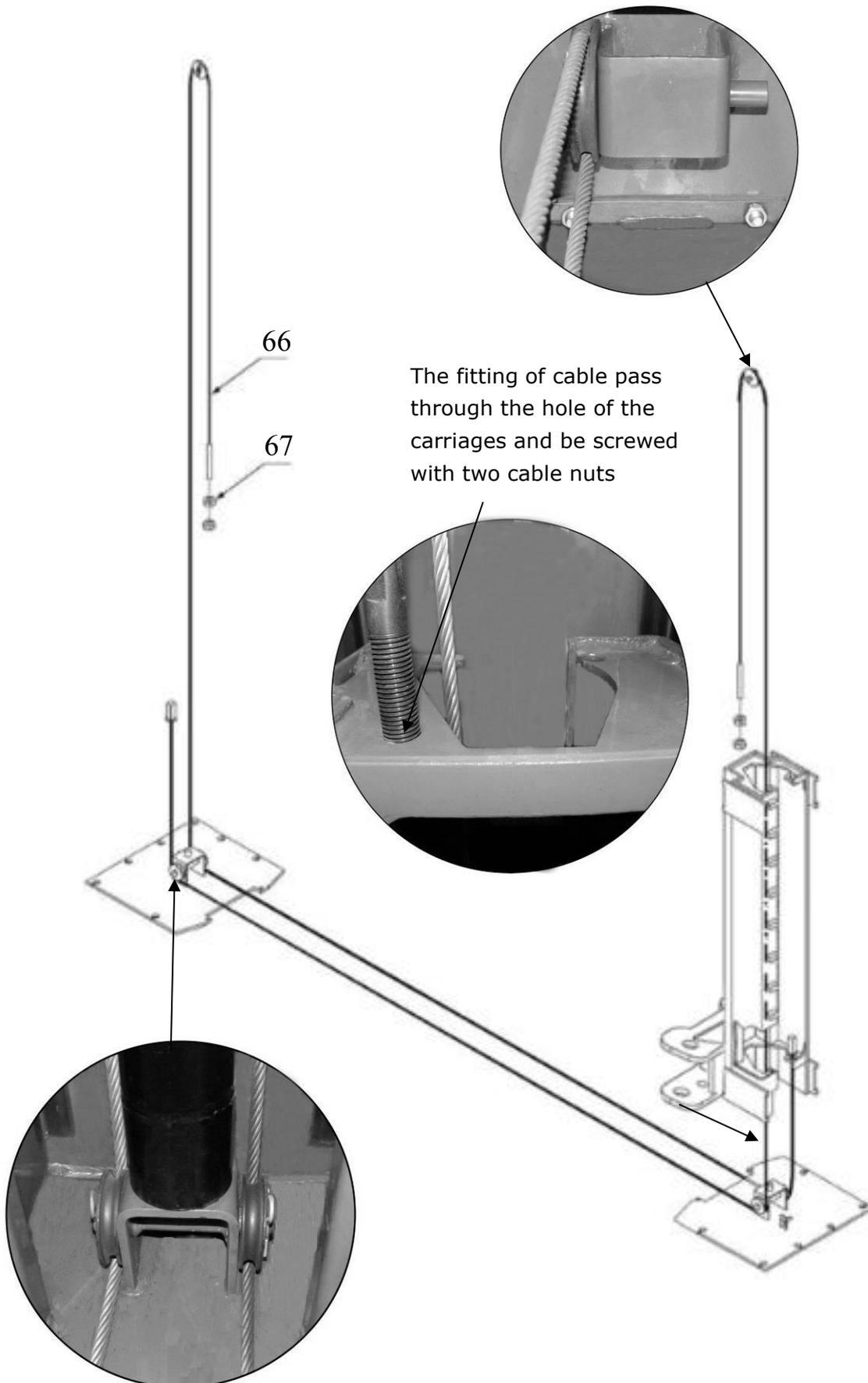


Fig.19

2. Assemble cables (See Fig. 20)



I. Assemble oil hose assy.

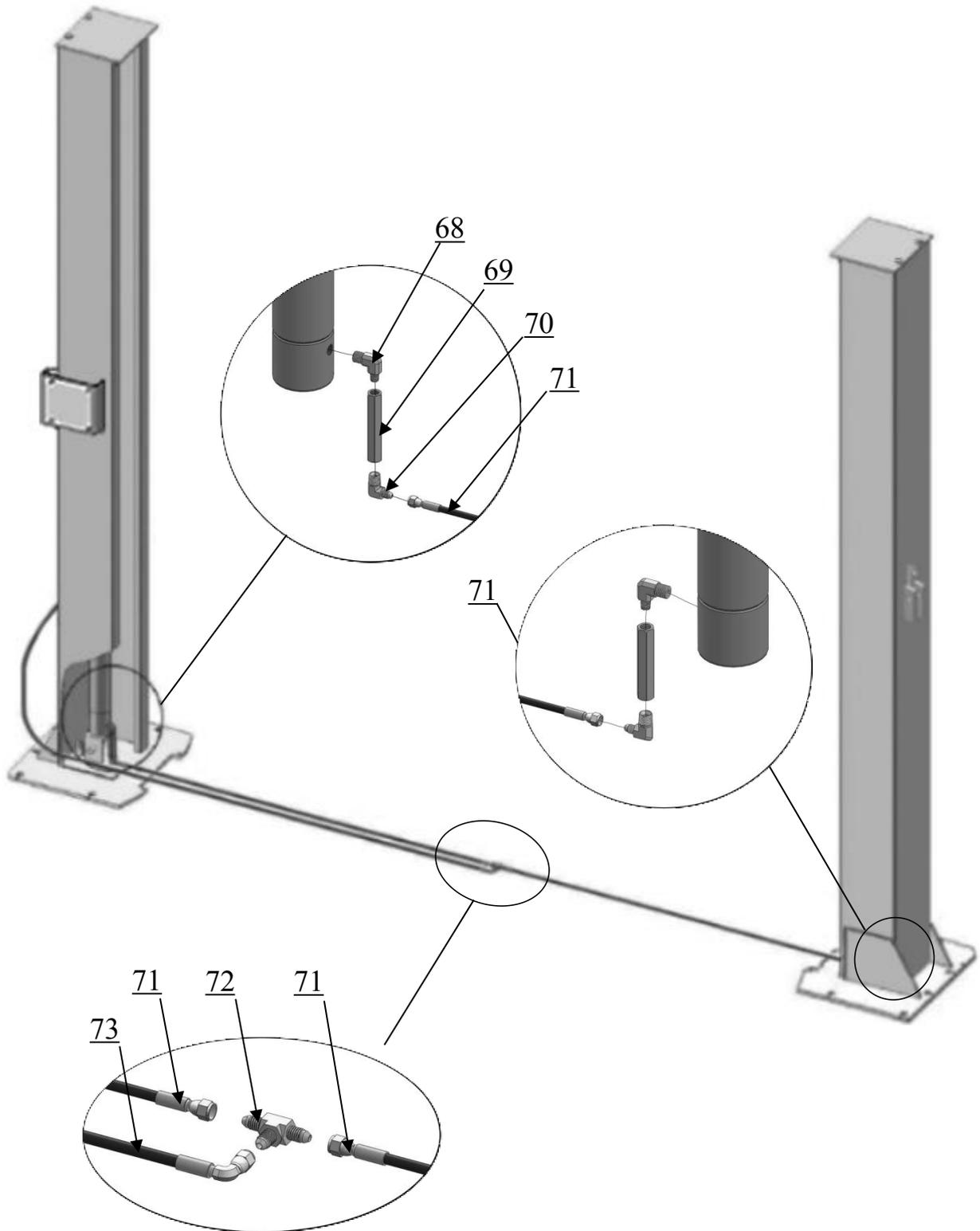


Fig.21

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

Tighten all the hydraulic fittings and fix the oil hose by retainer.

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

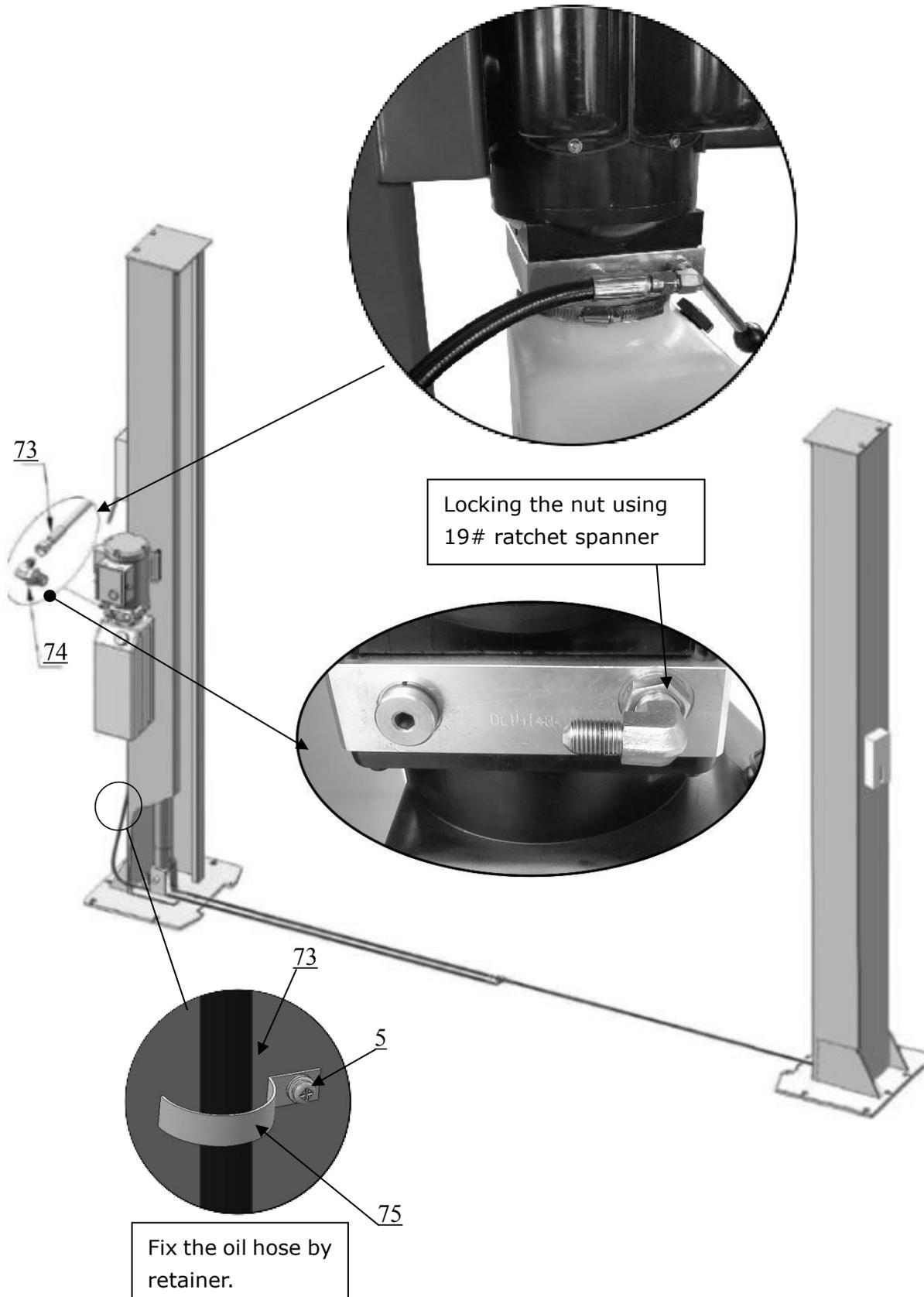


Fig.22

L. Install lock release cable (See Fig. 23).

- NOTE:** 1. Assemble lock release cable from off side safety device;
2. Pay attention to the connecting direction of safety cable.

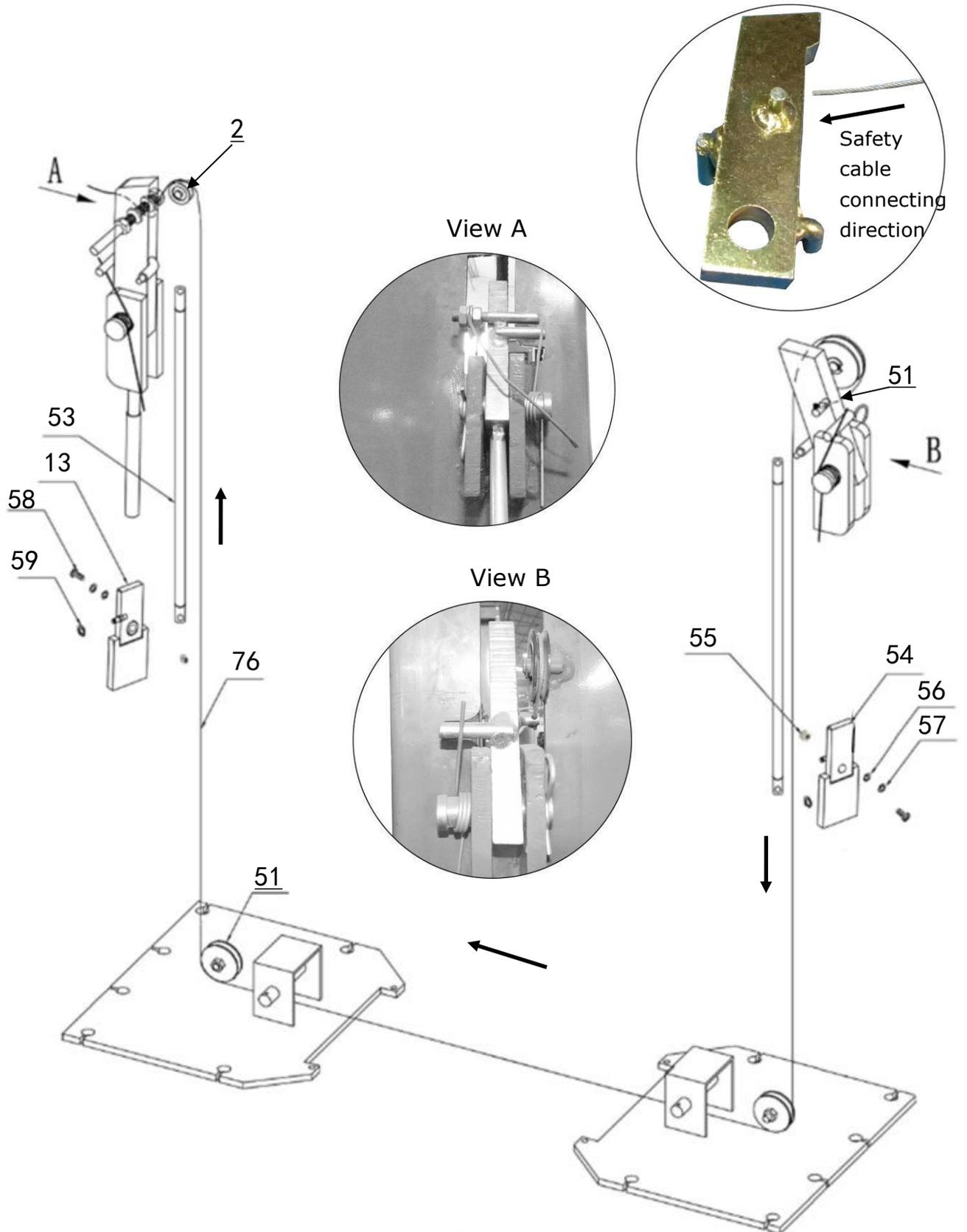


Fig.23

M. Install floor cover (See Fig. 24).

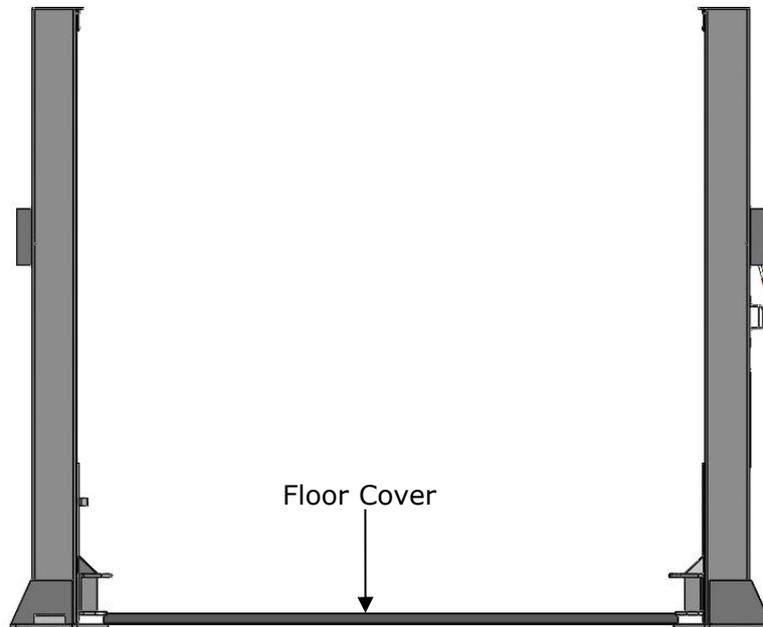


Fig.24

N. Install lifting arms

- 1. Install the lifting arm according to Figure 25, fix the arm pin with clip ring and install the toe guard to the rear lifting arms;**

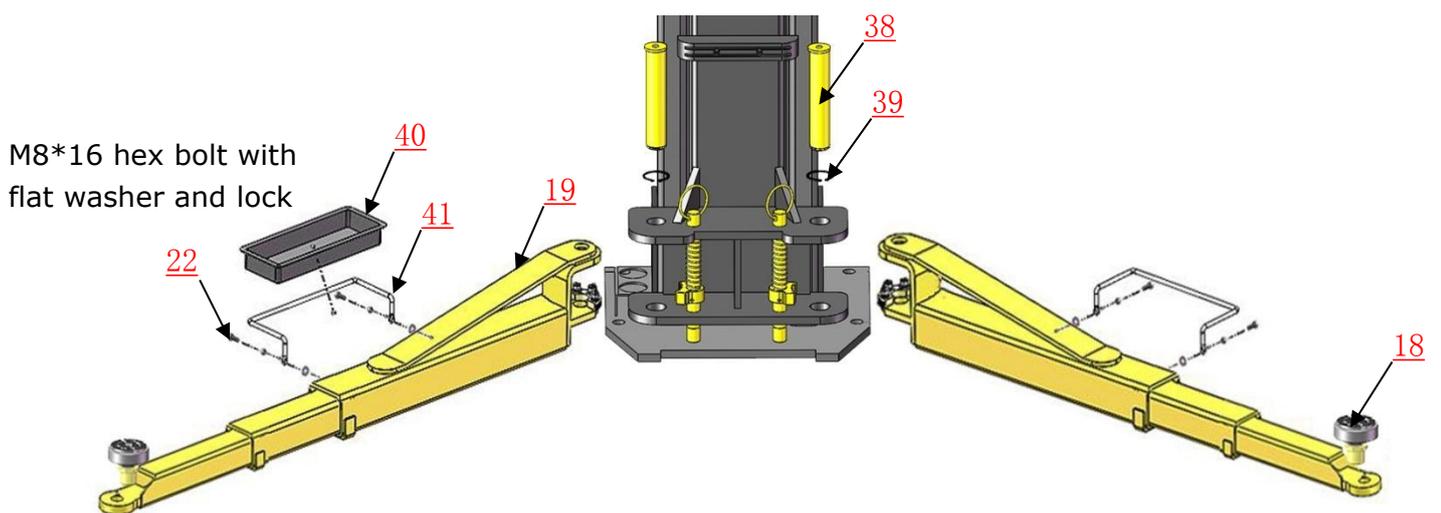
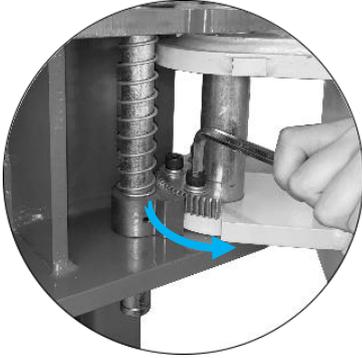


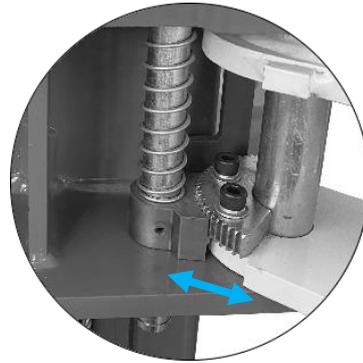
Fig.25

2. Lower the carriages to its lowest, then use 8# wrench to loosen the socket nut(fig 26), and adjust the moon gear following the arrow direction (fig 27) till the moon gear and arm lock are well engaged, then tighten the socket nut (fig 28).



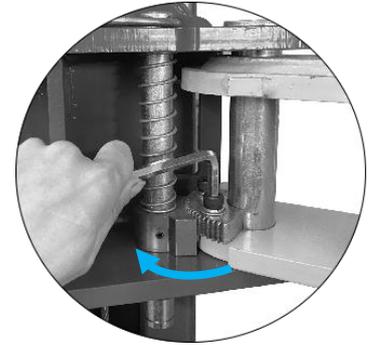
1. Use 8# wrench to loosen the socket nut

Fig.26



2. Adjust the engagement of moon gear and arm lock

Fig.27



1. Tighten the nut after engaged.

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. Tighten all the hydraulic fittings and fill the power unit with hydraulic oil (to ensure the service life of the hydraulic system and ensure the best operation of the equipment, please add No. 46 high-quality anti-wear hydraulic oil).

P. Connect the power with schematic circuit diagram according to the requirement on the motor plate. Note: To ensure the safety of operator, the lift must be grounded, test the lift after installation to check if works fine.r.

Single phase motor (See Fig.29)

Connect the two hot wires of power supply respectively to the terminals of AC contactor marked L1 and L3 .Earth wire(yellow and green wire) is connected with the earth wire terminal of the motor.

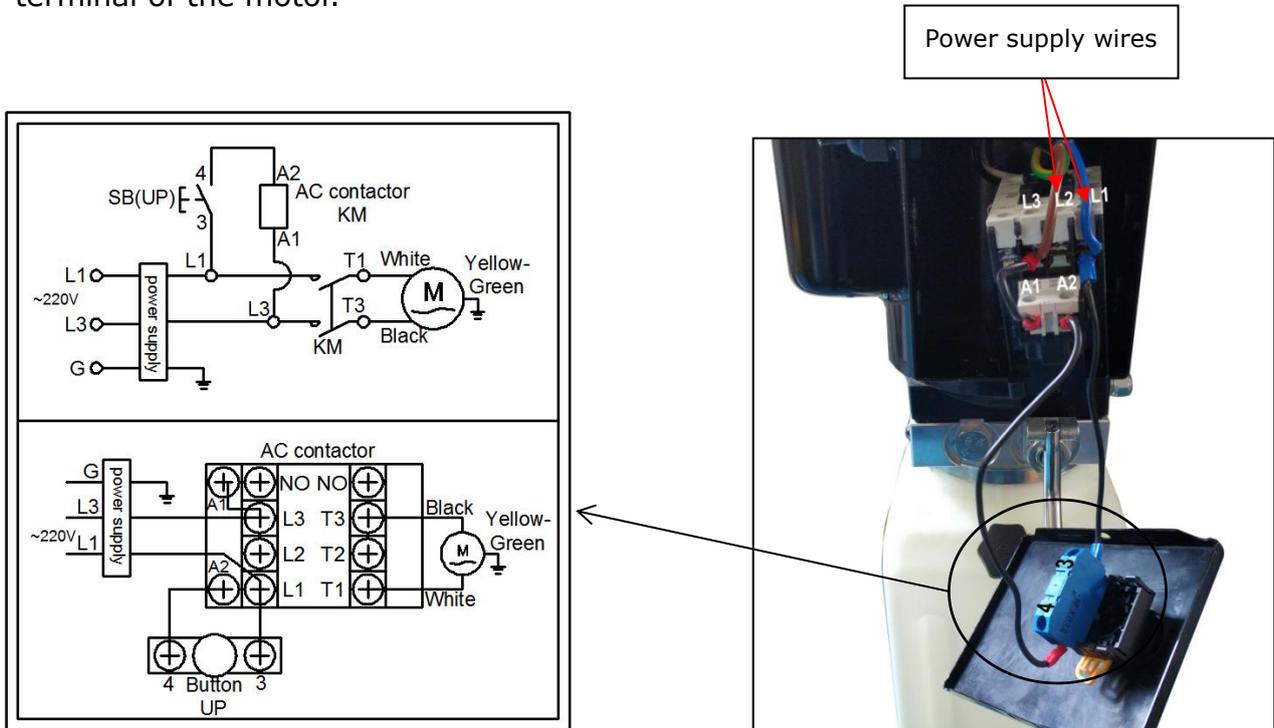


Fig.29

⚠ DANGER All electrical wiring must be performed by a licensed and certified electrician. Before ensuring the main power has disconnected from the lift and cannot be re-applied until all procedures have been completed, don not perform any maintenance or installation to the lift.

⚠ 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

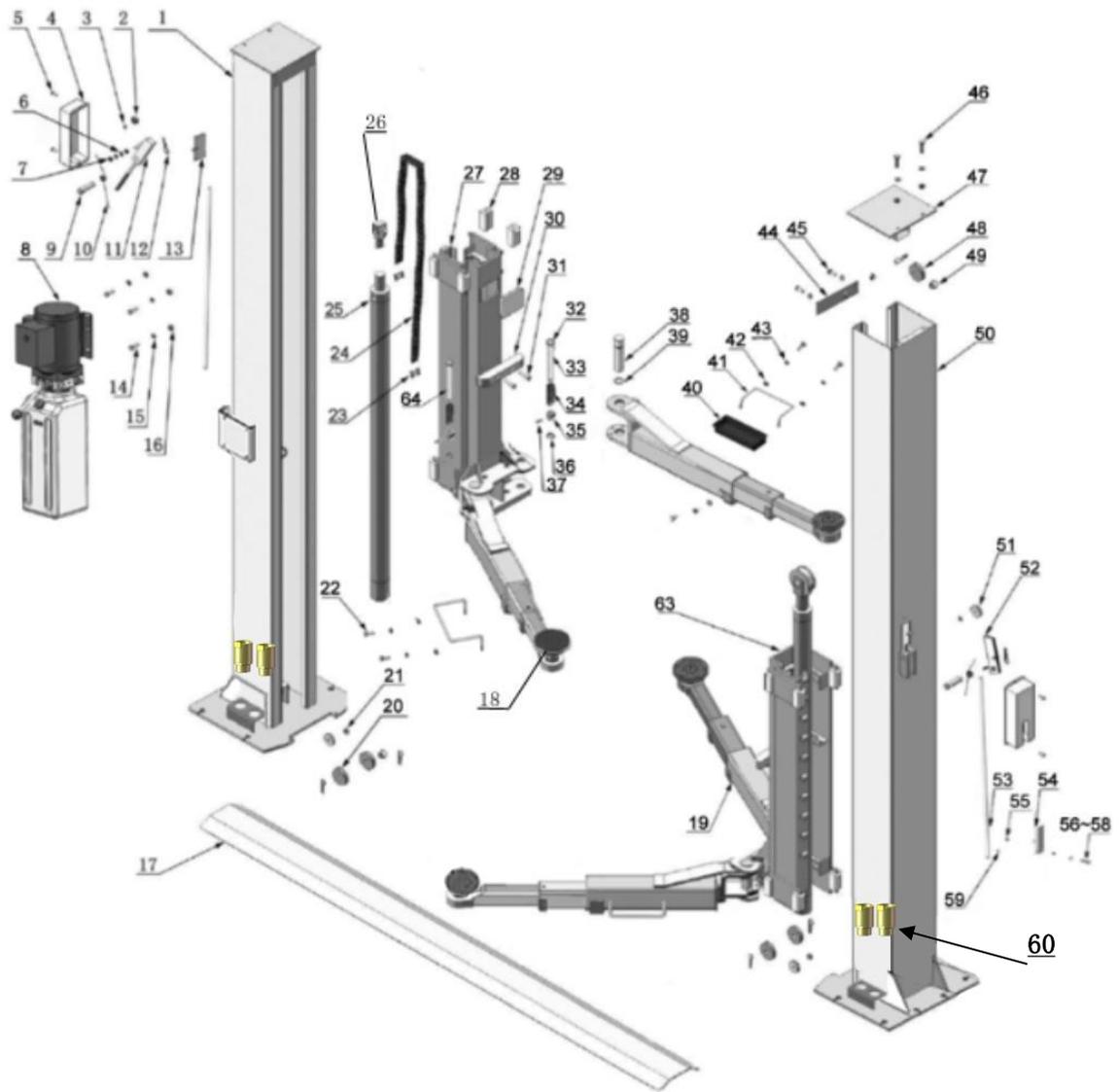


Fig.30

PARTS LIST

| Item | Part No. | Description | Qty | |
|------|--------------|------------------------------|-------|-------|
| | | | BP-9X | BP-10 |
| 1 | 11203257-01 | Power side column | 1 | 0 |
| | 11203259-01 | | 0 | 1 |
| 2 | 10209011 | Safety device pulley (white) | 1 | 1 |
| 3 | 10209010 | φ10 clip ring | 2 | 2 |
| 4 | 10209008 | Safety cover | 2 | 2 |
| 5 | 10209009 | Round head bolt M6*8 | 6 | 6 |
| 6 | 10206006 | φ12 flat washer | 2 | 2 |
| 7 | 10206023A | Hex nut M12 | 2 | 2 |
| 8 | | Power unit | 1 | 1 |
| 9 | 1102011004A | Safety block pin | 2 | 2 |
| 10 | 10209007 | Spring | 2 | 2 |
| 11 | 11203263 | Power side safety device | 1 | 1 |
| 12 | 10209012 | Cotter pin | 8 | 8 |
| 13 | 11203261 | Power side safety block | 1 | 1 |
| 14 | 1061K050 | Hex bolt M8x30 | 4 | 4 |
| 15 | 10209004 | Rubber ring (φ8*20*3) | 4 | 4 |
| 16 | 10209005 | Nylok nut M8 | 8 | 8 |
| 17 | 11203003 | Floor cover | 1 | 1 |
| 18 | 1101043008 | Rubber pad assy. | 4 | 4 |
| 19 | 11203132-01 | Lifting arm assy. | 4 | 4 |
| 20 | 1102011001 | Pulley φ80 | 4 | 4 |
| 21 | 10209056 | Nylok nut M10 | 2 | 2 |
| 22 | 10201002 | Hex bolt M8*16 | 10 | 10 |
| 23 | 1102041002 | Chain pin φ12*43 | 4 | 4 |
| 24 | 1002045001 | Chain BL644 | 2 | 2 |
| 25 | 10201008 | Cylinder assy. | 2 | 2 |
| | 10203078 | | 0 | 2 |
| 26 | 11203176 | Chain pulley seat assy. | 2 | 2 |
| 27 | 11203267-02 | Power side carriage | 1 | 0 |
| | 11203265-02 | | 0 | 1 |
| 28 | 10209015 | Slider block | 16 | 16 |
| 29 | 10209016 | Carriage plastic cover | 2 | 2 |
| 30 | 10206045 | Protective rubber | 4 | 4 |
| 31 | 10206046 | Screw M4.5*50 | 4 | 4 |
| 32 | 10209153 | Arm lock handle pull ring | 4 | 4 |
| 33 | 11217046A-01 | Arm lock handle (left) | 2 | 2 |
| 34 | 10217045 | Spring φ26*φ31*φ2.5 | 4 | 4 |
| 35 | 10217044-01 | Arm lock | 4 | 4 |
| 36 | 10206032 | Clip ringφ25 | 4 | 4 |
| 37 | 10206036 | φ6*40 elastic pin | 4 | 4 |
| 38 | 11217168-01 | Arm pin | 4 | 4 |
| 39 | 10520023 | Clip ring φ38 | 4 | 4 |
| 40 | 10206190 | Tool tray | 2 | 2 |
| 41 | 11206191 | Toe guard | 4 | 4 |
| 42 | 10209033 | φ8 flat washer | 20 | 12 |

| Item | Part No. | Description | Qty | |
|------|----------------|---------------------------------|-------|-------|
| | | | BP-9X | BP-10 |
| 43 | 10209034 | φ8 lock washer | 18 | 10 |
| 44 | 11203009 | Connecting board | 2 | 2 |
| 45 | 10209003 | Hex bolt M8*25 | 8 | 8 |
| 46 | 10209046 | Hex bolt M10*35 | 4 | 4 |
| 46A | 10209039 | φ10 lock washer | 4 | 4 |
| 46B | 10209021 | M10 hex nut | 4 | 4 |
| 47 | 11203010 | Top plate | 2 | 0 |
| | 11203077A | | 0 | 2 |
| 48 | 1102012001 | Pulley φ100 | 2 | 2 |
| 49 | 1002011001 | Bushing φ22*φ19*14 | 6 | 6 |
| 50 | 11203258-01 | Off side column | 1 | 0 |
| | 11203260-01 | | 0 | 1 |
| 51 | 10209049 | Plastic pulley (black) | 3 | 3 |
| 52 | 11203264 | Off side safety device | 1 | 1 |
| 53 | 11203784 | Coupling bar | 2 | 2 |
| 54 | 11203262 | Off side safety block | 1 | 1 |
| 55 | 10420018 | Nylok nut M6 | 2 | 2 |
| 56 | 10420045 | Flat washer φ6 | 2 | 2 |
| 57 | 10209149 | Lock washer φ6 | 2 | 2 |
| 58 | 10217013 | Hex bolt M6*20 | 2 | 2 |
| 59 | 10420049 | Cotter pin φ2*16 | 4 | 4 |
| 60 | 1102214016A-01 | 3 " extension adapter | 4 | 4 |
| 61 | 10203501B | Parts box | 1 | 0 |
| | 10203502A | | 0 | 1 |
| 62 | 10201090 | Shim (1mm) | 10 | 10 |
| | 10620065 | Shim (2mm) | 10 | 10 |
| 63 | 11203268-02 | Off side carriage | 1 | 0 |
| | 11203266-02 | | 0 | 1 |
| 64 | 11217046-01 | Arm lock handle (right) | 2 | 2 |
| 65 | 10209059 | Anchor bolts 3/4*5-1/2 | 12 | 12 |
| 66 | 10203020 | Sync cable assy. φ9.52*8225mm | 2 | 0 |
| | 10203069 | Sync cable assy. φ9.52*8290mm | 0 | 2 |
| 67 | 10209066 | Hex nut M16 | 4 | 4 |
| 68 | 10207024 | 90° fitting 3/8NPT(M)*1/4NPT(M) | 2 | 2 |
| 69 | 11201082 | Straight fitting L=98mm | 2 | 2 |
| 70 | 10420097 | 90° fitting 1/4NPT(M)*1/4JIC(M) | 2 | 2 |
| 71 | 10203109 | Oil hose assy. 1/4*1445mm | 2 | 0 |
| | 10203107 | Oil hose assy 1/4*1475mm | 0 | 2 |
| 72 | 10211016 | T fitting | 1 | 1 |
| 73 | 10201081-01 | Oil hose assy 1/4*2980mm | 1 | 0 |
| | 10203106-01 | Oil hose assy 1/4*3050mm | 0 | 1 |
| 74 | 10209060 | Power unit 90° fitting | 1 | 1 |
| 75 | 11217048 | Retainer | 2 | 2 |
| 76 | 10203021 | Lock release cable φ2.5*7250mm | 1 | 0 |
| | 10203071 | Lock release cable φ2.5*7325mm | 0 | 1 |

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

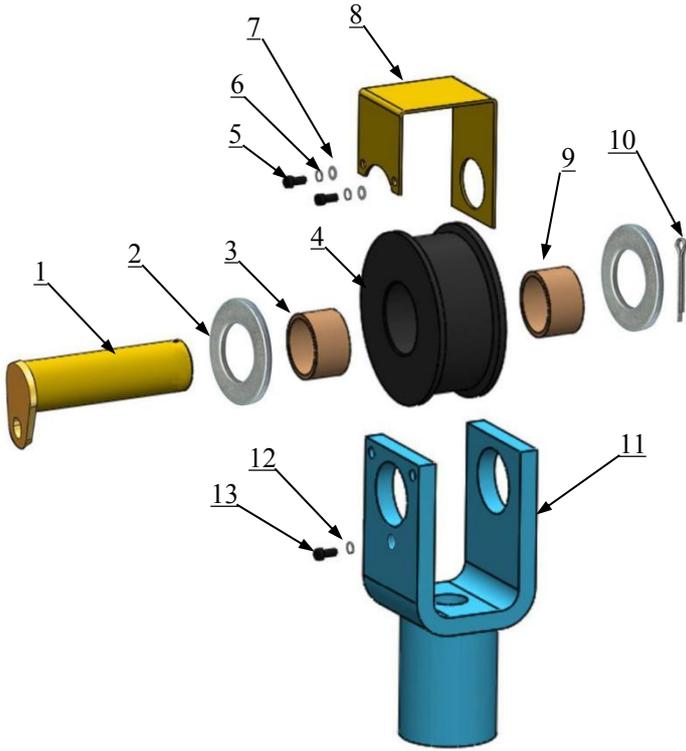


Fig. 31

| Item | Part No. | Description | Qty. |
|------|-------------|---|------|
| 1 | 1102015001A | Pin for chain pulley | 2 |
| 2 | 10640109 | Washer $\phi 44 * \phi 25.5 * 2$ | 4 |
| 3 | 10203004A | Bronze bush $\phi 31 * \phi 25.1 * 21$ | 2 |
| 4 | 1102023002 | Chain Pulley $\phi 105 * 41$ | 2 |
| 5 | 81400438 | Socket bolt M5*10 | 4 |
| 6 | 10209143 | Lock Washer $\Phi 5$ | 4 |
| 7 | 10420152 | Flat Washer $\Phi 5$ | 4 |
| 8 | 11201152 | Chain stop plate | 2 |
| 9 | 10217020 | Bronze bush $\phi 31 * \phi 25.1 * 16$ | 2 |
| 10 | 10201005 | Split pin($\phi 4 * 50$) | 2 |
| 11 | 11201143-01 | Chain pulley seat | 2 |
| 12 | 10209034 | Lock Washer $\Phi 8$ | 2 |
| 13 | 1004544012 | Hex bolt M8*16 | 2 |

4.1 Rubber pad assy. exploded view (1101043008)

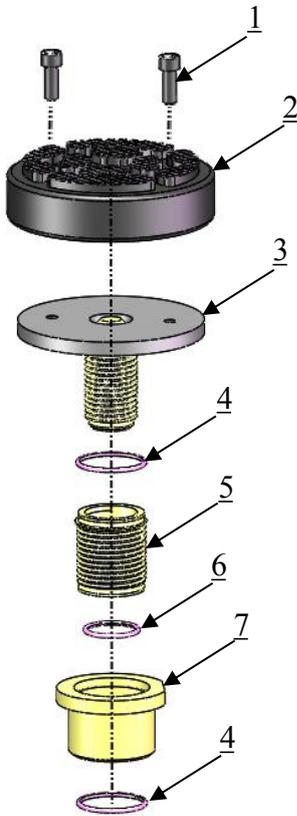


Fig. 32

| Item | Part No. | Description | Qty. |
|------|-------------|--|------|
| 1 | 10720061 | M8*15 socket screw | 8 |
| 2 | 10203043 | Double screw rubber pad | 4 |
| 3 | 1101043003A | Support frame | 4 |
| 4 | 10203042 | Elastic ring $\Phi 36.5 * \Phi 41.5 * \Phi 2.5$ | 8 |
| 5 | 1101043006 | Adjusting rod | 4 |
| 6 | 10203041 | Elastic ring $\Phi 23 * \Phi 28 * \Phi 2.5$ | 4 |
| 7 | 1101043004 | Adjusting sleeve | 4 |

4.3 Lifting arm assy. (11203132-01) exploded view

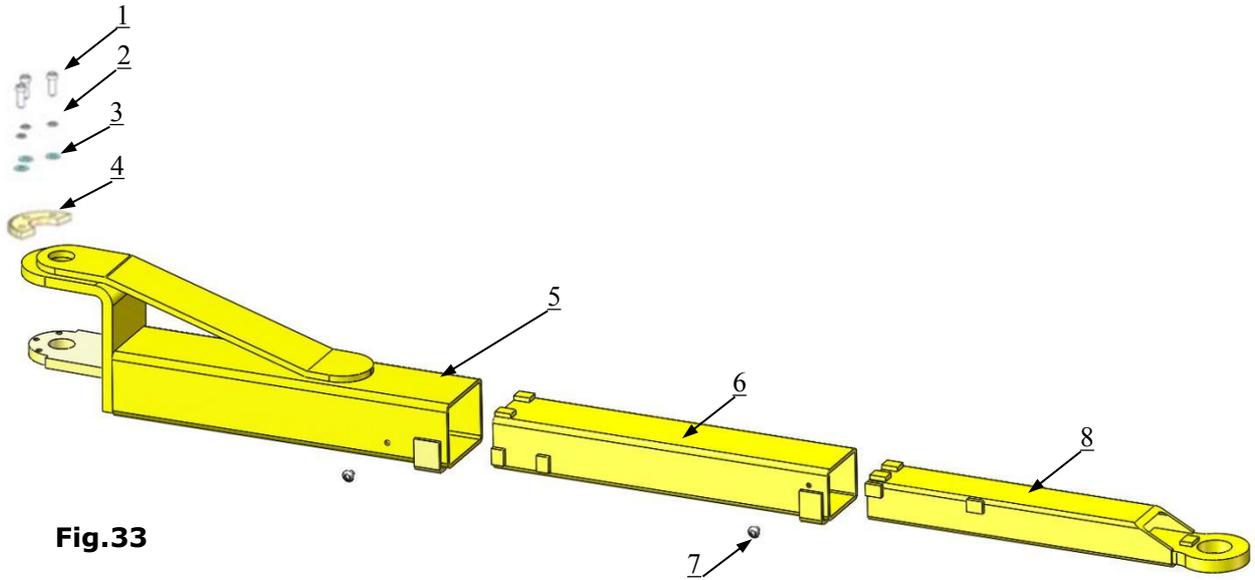


Fig.33

| Item | Part No. | Description | Qty. |
|------|-------------|-----------------------|------|
| 1 | 10206048 | Socket bolt M10*30 | 12 |
| 2 | 10209039 | Lock washer φ10 | 12 |
| 3 | 10209022 | Flat washer φ10 | 12 |
| 4 | 11206049 | Moon gear | 4 |
| 5 | 11203146 | Outer arm | 4 |
| 6 | 11203147-01 | Middle arm | 4 |
| 7 | 10201149 | Round head bolt M8*12 | 8 |
| 8 | 10203151-02 | Inner arm | 4 |

4.4 Cylinders Assy. exploded view

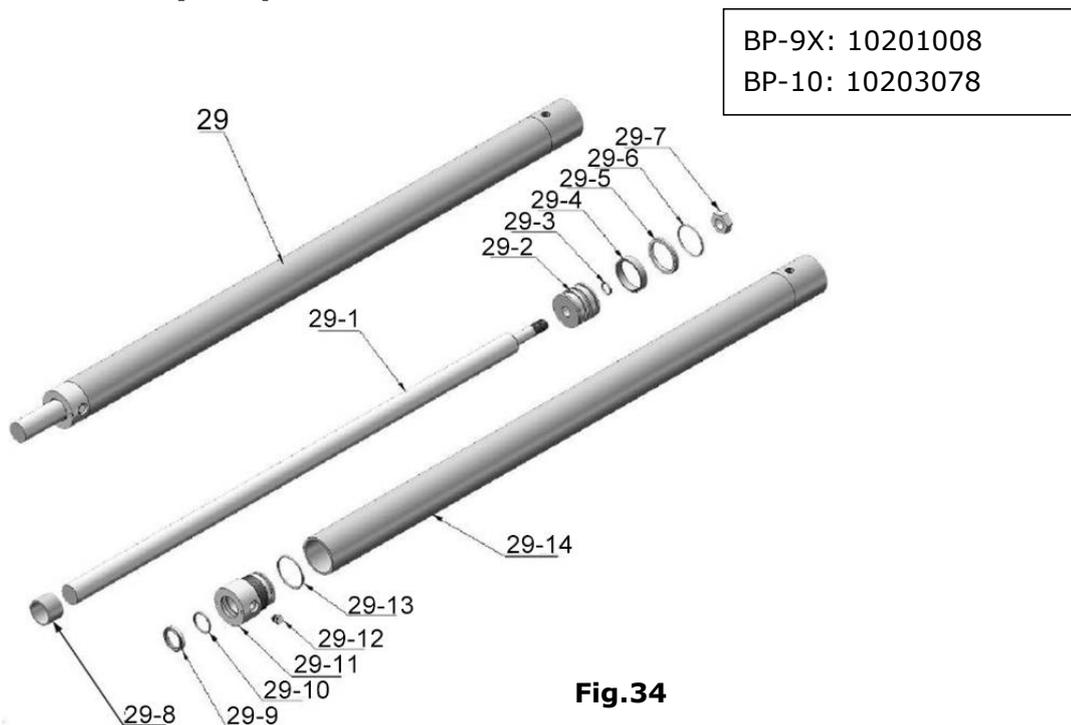


Fig.34

| Item | Part No. | Description | Qty | |
|-------|-------------|-------------------|-------|-------|
| | | | BP-9X | BP-10 |
| 29-1 | 11201027 | Piston rod | 2 | 2 |
| 29-2 | 11201028 | Piston | 2 | 0 |
| | 11203079 | | 0 | 2 |
| 29-3 | 10206069 | O ring | 2 | 2 |
| 29-4 | 10201029 | Dust ring | 2 | 0 |
| | 10203080 | | 0 | 2 |
| 29-5 | 10201030-01 | Y ring USH | 2 | 0 |
| | 10410087-01 | | 0 | 2 |
| 29-6 | 10201031 | O ring | 2 | 0 |
| | 10203082 | | 0 | 2 |
| 29-7 | 10206071 | Hex nut | 2 | 2 |
| 29-8 | 11201037 | Piston rod sleeve | 2 | 2 |
| 29-9 | 10209078 | Dust ring | 2 | 2 |
| 29-10 | 10201032 | O ring | 2 | 2 |
| 29-11 | 11201033 | Head cap | 2 | 0 |
| | 11203083 | | 0 | 2 |
| 29-12 | 10201034 | Muffler | 2 | 2 |
| 29-13 | 10201035 | O ring | 2 | 0 |
| | 10203084 | | 0 | 2 |
| 29-14 | 11201036 | Bole weldment | 2 | 0 |
| | 11203085 | | 0 | 2 |

4.5 Illustration of hydraulic valve for hydraulic power unit

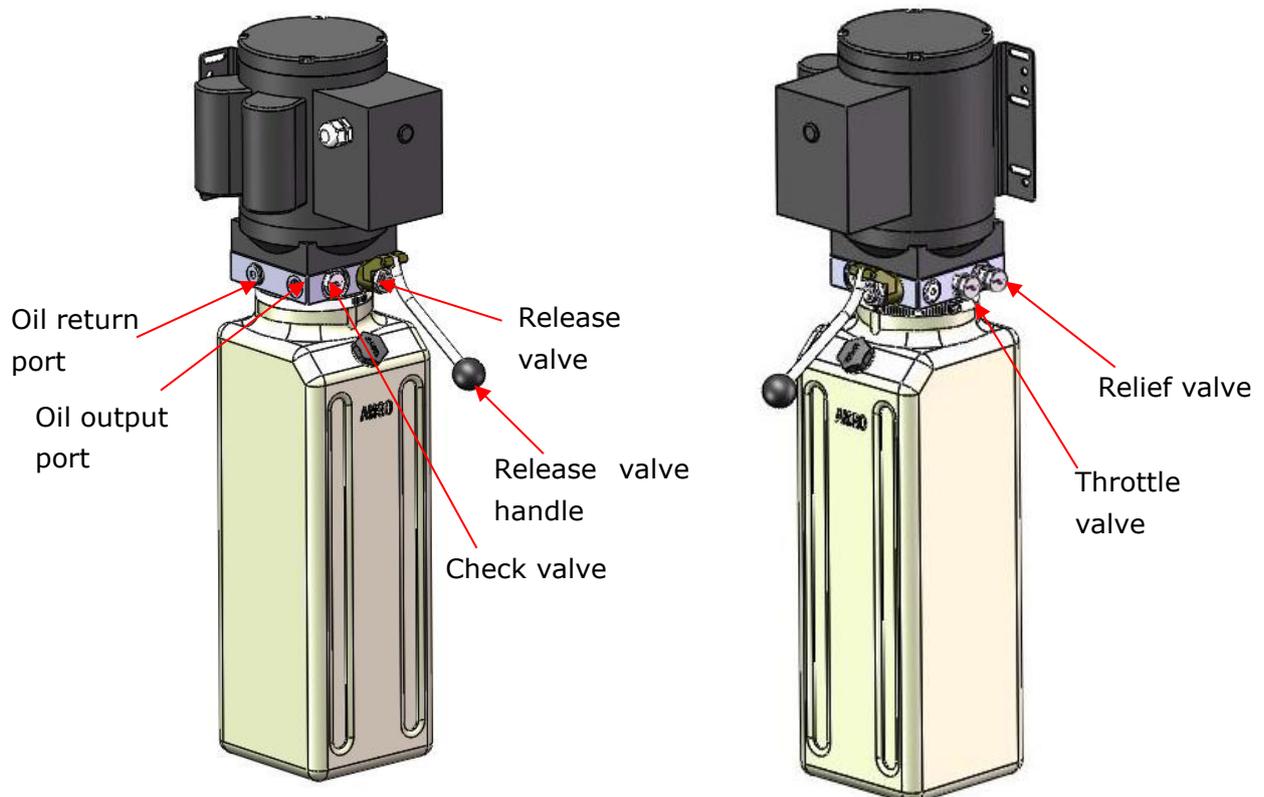


Fig.35

V. TEST RUN

1. Adjustment of sync cable (See Fig.36)

Use wrench to hold the cable fitting, meanwhile using ratchet spanner to tighten the cable nut until the two cables are in the same tension.

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

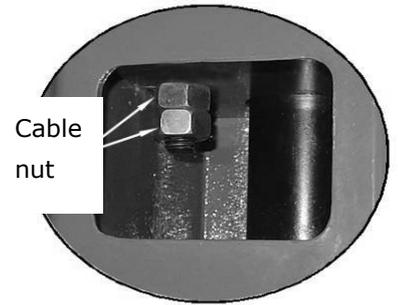


Fig. 36

2. Adjust lock release cable

Rise the vehicle carriages and lock them at the same height, strain the lock release cable and then release a little, and then tighten the 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 necessary: screw the throttle valve clockwise to decrease the lowering speed, or counterclockwise to increase the lowering speed.

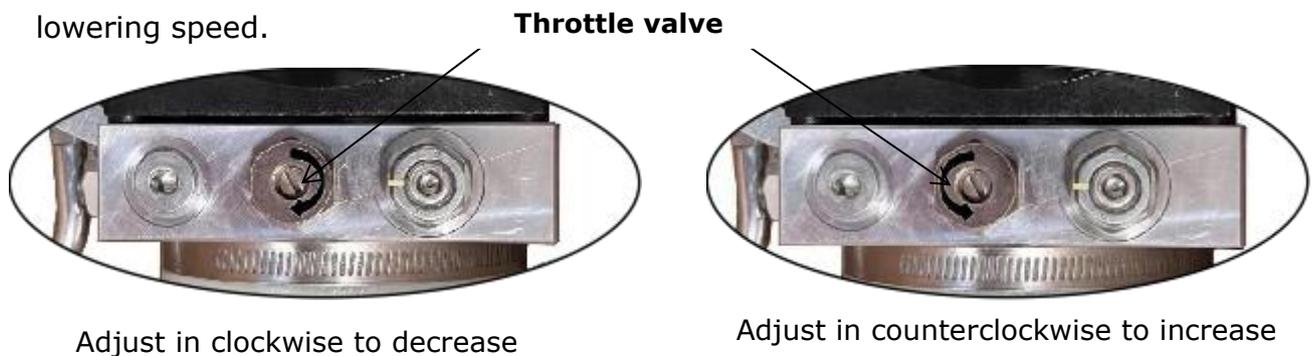


Fig. 37

⚠ WARNING Do not lift vehicles that exceed the rated capacity of the lift. Only trained personnel are authorized to operate the lift.

5. Test with load

After finishing the above adjustment, test the lift with load. Raise the lift in low position for several times firstly, make sure the lift can be raised and lowered synchronously, and the safety device can be locked and released synchronously. And then raise the lift to the top position completely. If there is anything improper, repeat the above adjustment.

NOTE: It may be vibrated when lifting at start, lifting it with load for several times, the air would be bled and the vibration would be disappeared automatically.

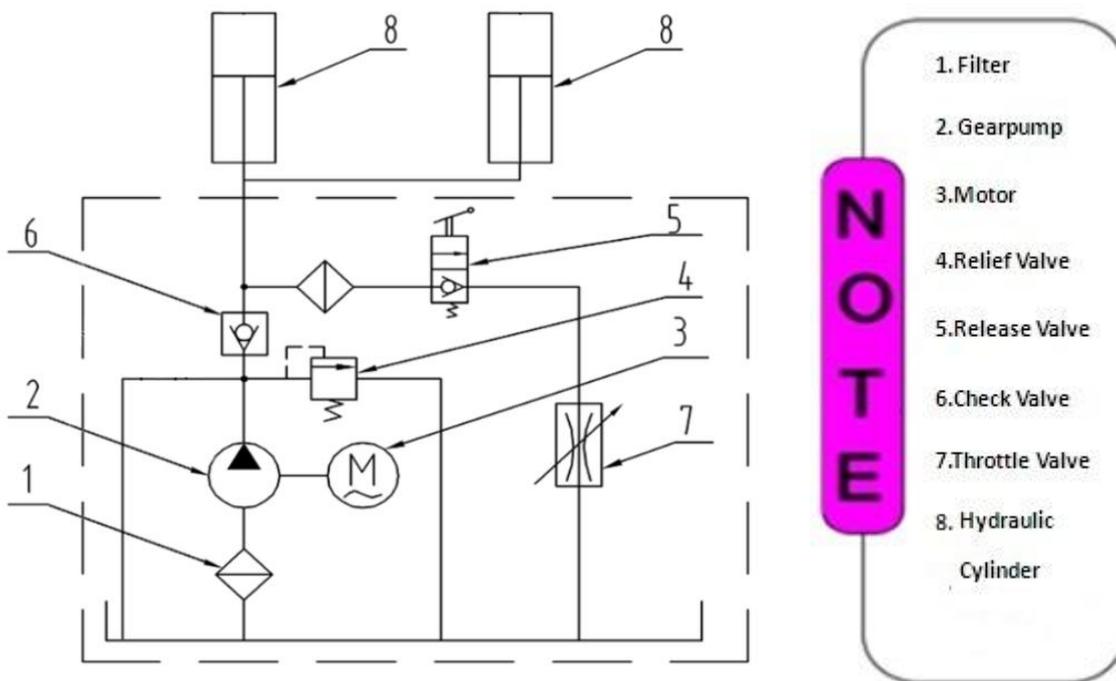


Fig. 38 Hydraulic System

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.

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

 **WARNING** It is unsafe to work when the lift without locking at safety device after it has been raised. The vehicle may fall, potentially causing damage the vehicle and lift, even causing injury or death to someone nearby.

 **DANGER** When using the lifting points on the chassis recommended by the vehicle manufacturer, be sure to follow the instructions carefully. If you don't, the vehicle can become unstable and fall, which can damage the vehicle and lift, injure or even kill anyone under the vehicle.

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 the vertical of columns.
4. Check rubber pads and replace as necessary.
5. Check safety device and make sure 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.

 **DANGER** Make sure the lift is completely disconnected from power supply before any maintenance performance. If there is any external electrical lock/shutdown devices, make sure to implement before any maintenance performance. The contact with high voltage/current, may cause injury or even death.

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. Height Limit Switch is damaged 5. AC Contactor burned out | <ol style="list-style-type: none"> 1. Replace button 2.Repair all wiring connections 3. Repair or replace motor 4.Replace the Limit Switch 5. Replace AC Contactor |
| Motor runs but the lift is not raised | <ol style="list-style-type: none"> 1. Motor runs in reverse rotation 2. Gear Pump out of operation 3. Release Valve in damage 4. Relief Valve or Check Valve in damage 5. Low oil level | <ol style="list-style-type: none"> 1.Reverse two power wire 2.Repair or replace 3. Repair or replace 4.Repair or replace 5.Fill tank |
| Lift does not stay up | <ol style="list-style-type: none"> 1. Release Valve out of work 2. Relief Valve or Check Valve leakage 3. Cylinder or Fittings leaks | Repair or replace |
| Lift raises slowly | <ol style="list-style-type: none"> 1. Oil line is jammed 2. Motor running on low voltage 3. Oil mixed with Air 4. Gear Pump leaks 5. Overload lifting | <ol style="list-style-type: none"> 1. Clean the oil line 2. Check electrical system 3. Fill tank 4. Replace Pump 5. Check load |
| Lift cannot lower | <ol style="list-style-type: none"> 1. Safety device are locking 2. Release Valve in damage 3. Safety cable broken 4. Oil system is jammed | <ol style="list-style-type: none"> 1. Release the safeties 2. Repair or replace 3. Replace 4. Clean the oil system |

⚠️WARNING A lift would be dangerous if operated by inexperienced or distracted operators. Operators should be fully aware that lifting a vehicle is a potentially life-threatening operation, especially if ignoring the mandatory safety precautions.

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 make 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.

X. LIFT DISPOSAL

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



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TX Division: 4310 Adler Dr., Suite #200, Dallas, TX 75211, USA

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