

*We follow the way that wheel moving!*

# TYRE CHANGER

## INSTRUCTION & MAINTENANCE MANUAL



Read this entire manual carefully and completely  
before installation or operation of the tire changer

# TYRE CHANGER INSTRUCTION MANUAL

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# Tyre Changer

## Warning

This instruction manual is important for the machine, please read carefully before installation and use; also it is important for safe use and machine maintenance of machine. Please keep this manual properly in order to further maintenance of the machine.

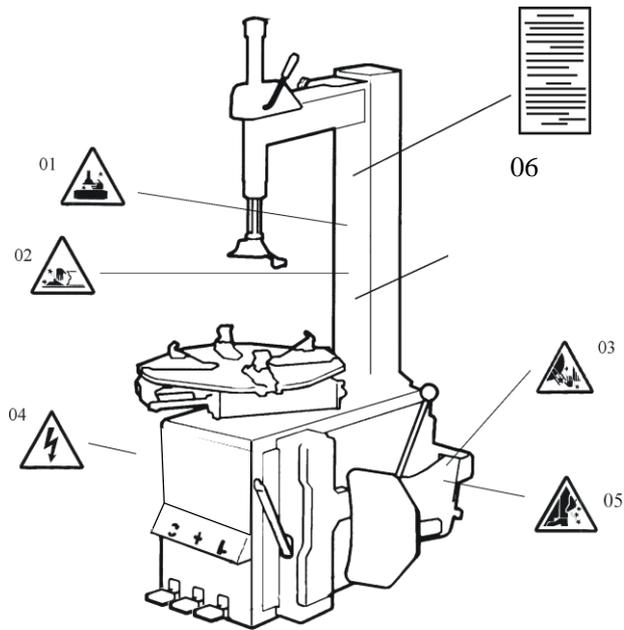
## 1. Introduction:

Application Range: The automatic tyre changer is especially designed for demounting / mounting tyres from wheel rims.

**Caution: Please use the machine only for purpose for which it is designed, don't use it for other purposes.**

Manufacturer shall not be liable for any damage or injury caused by failure to comply with these regulations.

**Safety regulation:** Use of this machine is especially reserved to trained and qualified professional persons, those who already read the introduction manual carefully, or someone have the experience for operating similar machinery. Any changes and beyond the scope of use on this machine without manufacturer's permission or do not according to the manual, may cause the malfunction and damage to machine, manufacturer can cancel warranty coverage for above. If some parts are damaged due to some reason, please replace them according to the spare parts list. (Attention: warranty is one year after manufactures' delivery date; warranty excludes the easy-broken parts)



## 2. Safety Warnings:

- 01 Don't put hands under the Mounting head/demounting head during operation;
- 02 Don't put hands between the jaws during operation;
- 03 Don't put hands in the tyre bead when demounting the tyre;
- 04 Make sure and to check the system is equipped with a good grounding circuit;
- 05 Don't put feet between the Bead Breaker shovel and the body during operation;
- 06 Warning instruction

Security warning labels

### Caution:

When the security warning labels are defaced or off, please recovery them in time!

Do not allow to operate when the security warning labels are missed or imperfect.

Do not allow to set any objects to obscure the security warning labels.

Clients can self-set the warning labels (as right picture show) at any necessary positions.



### 3. Technical data

|                                  |                                    |
|----------------------------------|------------------------------------|
| External locking rim dimensions  | 10~21 "                            |
| Internal locking rim dimensions  | 12~24 "                            |
| Max. Wheel diameter              | 1040mm (41 " )                     |
| Max. Wheel width                 | 355mm(14 " )                       |
| Working Pressure                 | 8-10bar                            |
| Power supply                     | 110V (1ph)/ 220V (1ph)/ 380V (3ph) |
| Optional Motor power             | 0.75/0.55/1.1 kw                   |
| Max. Rotating Torque (Turntable) | 1078 Nm                            |
| Overall Dimension                | 960*760*930 mm                     |
| Noise Level                      | <75 dB                             |

Remark:

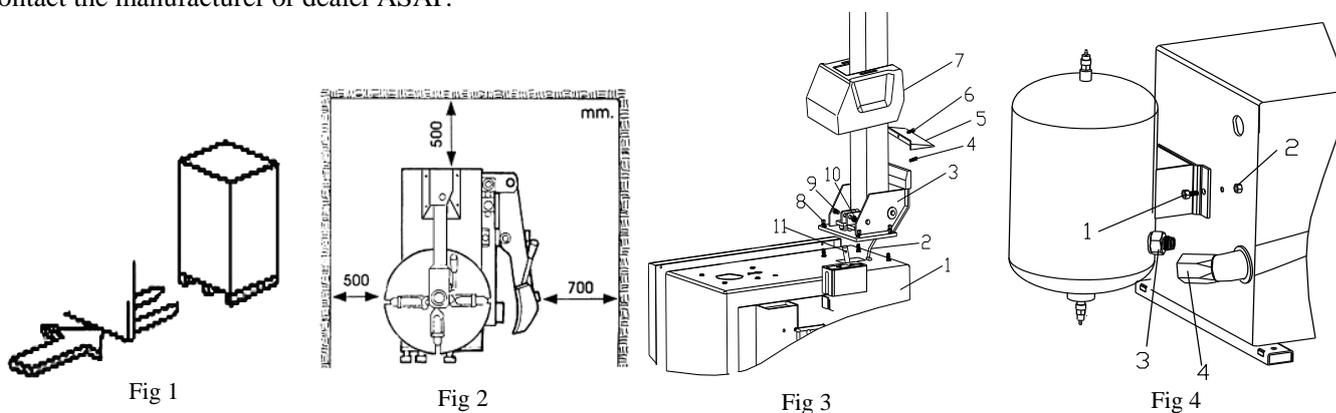
**Rim dimensions defined at above table are based on the iron wheel rims. Aluminum rims are thicker than the iron wheel rims, so here above rim dimensions are just for the reference.**

### 4. Transport:

When transporting, the machine should be with original package and placed according to the mark on the package. For the already packaged machine should be handled with a corresponding tonnage forklift for loading and unloading. The location to insert the fork feet shown as **Fig 1**

### 5. Unpacking & Inspection:

Pull out the nail which is nailed on the plate with tip jaw; unpack the carton and plastic cover. Check and make sure all parts shown on the spare parts list are included. If any parts are missing or broken, please do not use the machine and contact the manufacturer or dealer ASAP.



### 6. Workplace requirements:

Choose workplace in compliance with safety regulations. Connect power supply and air source according to manual and workplace must have good air condition; in order to make the machine run well, its workplace requires at least clear space from each wall shown as **Fig 2**. If installing it outdoor, it must be protected by roof against rain and sunshine.

**Warning: the machine with motor must not be operated in explosive atmosphere.**

## 7. Position and installation:

### 7.1 Install the column (accessories details refer to the exploded drawing)

- 1) Tools preparation
- 2) Place the tilting seat (3, Fig 3) on the body (1, Fig 3) with 4 bolts (M12), push air hose (2, Fig 3) through the hole of the column. Tighten 4 self-locking nut(8, Fig 3).
- 3) Insert screw (9, Fig 3) into the holes of both column and tilting cylinder shaft (11, Fig 3), tighten it with self-locking nut (10, Fig 3).
- 4) Unscrew the two bolts on the left cover and remove the cover, connect air hose (2, Fig 3) previously mentioned to the side holes which control the tilting 5-way valve. Fix the left cover.
- 5) Fix the plastic cover (7, Fig 3) with two bolts (4, Fig 3).
- 6) Mount the plastic back cover (5, Fig 3) on the column with screw (6, Fig 3).

### 7.2 Install the air tank assembly

- 1) Unscrew the left cover, fix air tank with machine body by bolt(1) and nut(2)
- 2) Fix metal pipe (4) with connector (3), make sure there is no air leakage, shown as Fig 4.

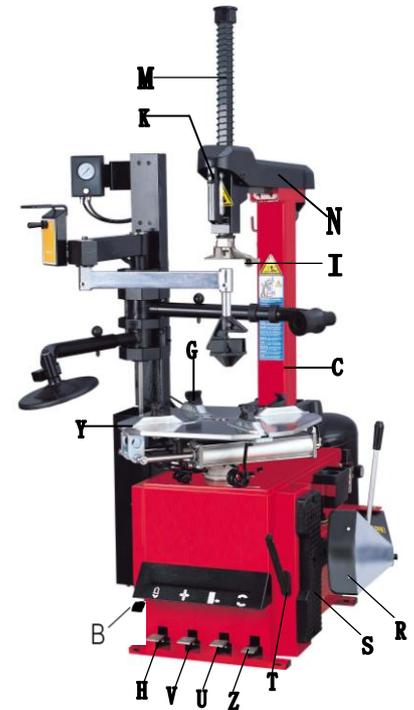


Fig E

## 8. Electricity and Pneumatic connections:

**Warning: Before installation and connection, check to be sure that the electricity power supply corresponds to the machine technical data. All the installation of electric and pneumatic devices must be operated by a professional electrician.**

Connect the compressed air connector which is on the machine right side with compressed air system. The electric grid that the machine connects to must have fuses protection device and good outer cover grounding protection. Install the leakage automatic air switch on the main power supply, leakage current is set at 30A

**Caution: No power plug for this machine, the user should self-connect one power plug no less than 16A as well as in line with the machine voltage. Or directly connect with the power supply according to the above requirements.**

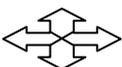
## 9. Adjusting operation:



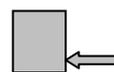
Tilting pedal (H)



Turntable Rotation pedal (Z)



Jaws open and close pedal(V)



Bead Breaker pedal(U)



Rapid Tire Inflation Pedal (B)

Please note: below operation refer to **Fig E**

Tread the Turntable Rotation Pedal (Z), Turntable (Y) clockwise rotation;

Lift up the Turntable Rotation Pedal (Z), Turntable (Y) counterclockwise rotation.

Tread Bead Breaker Pedal (U), Bead Breaker shovel (R) compress; release Bead Breaker Pedal (U), Bead Breaker shovel (R) back to original position.

Tread totally down Jaws open and close Pedal (V), four clamps (G) on the turntable open; Tread again, four clamps (G) close. When the pedal is in the middle position, the four clamps stop moving.

Depress pneumatic locking button (K) to lock the Slide arm (N) and Vertical arm (M).

Tread the Bead Breaker pedal (H), the tilting column (C) backwards down; depress again, the tilting column return.

Tyre changer operation is consisted of three parts:

- 1) Demounting the tyre bead
- 2) Demounting the tyre
- 3) Mounting the tyre

Caution: Before any operations, don't wear loose clothing and wear protective hat, gloves, and skid-proof shoes. Ensure to exhaust the air in the tyre completely, and remove all the wheel weights from the rim.

### 9.1. Breaking the tyre bead:

Ensure to exhaust the air in the tyre completely, place the tyre against the rubber buffer (S). Bring the shovel (F) against the bead about 10mm from the edge of the rim shown as **Fig 5**. Depress Bead breaker Pedal (U) to push paddle into tyre.

Repeat the above operations on different positions around the tyre and both sides of tyre until tyre bead is released completely.

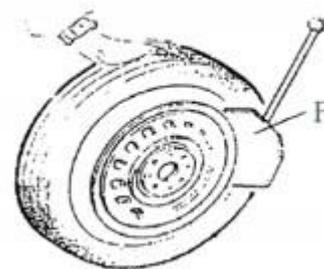


Fig 5

### 9.2. Demounting the tyre :

Ensure to remove all the weights on the wheel rim and to exhaust the air in the tyre completely before this operation. Apply lubricating grease (or similar lubricant) around the tyre bead. Without the lubricant may lead to badly wear and tear on tyre.

Clamp the wheel methods shown as below regarded to the ruled dimension:

a- to clamp the wheel from outside:

Depress the Jaws open and close Pedal (V) halfway down to middle, positioning for the four clamps (G) by reference scale on the Turntable (Y); put the tyre on turntable, hold the rim, and depress the Jaws open and close Pedal (V) until the wheel is secured by the jaws.

b- to clamp the wheel from inside:

Positioning for the four clamps (G) and let them all closed. Put the tyre on the turntable and depress the Jaws open and close Pedal (V) to open the clamps thereby lock the wheel in place.

**Caution: Check to make sure the wheel firmly secured by the four clamps before next step.**

Lower the Vertical Arm (M) until the Mounting head/demounting head (I) rests next to the edge of the rim, flip pneumatic locking button (K) to lock the Vertical Arm (M) and Horizontal arm in position, and control the distance from Mounting head/demounting head to the edge of wheel rim about 2-3 mm. Insert the Lifting Lever (T) between the tyre bead and the front section of the mounting head/demounting head (I), and move the tyre above the mounting head/demounting head as shown as **Fig 6**.

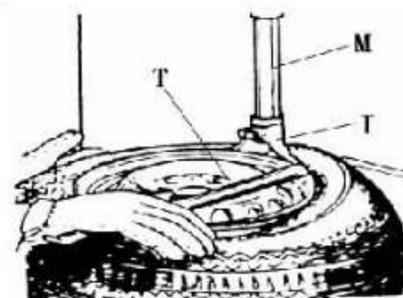


Fig 6

**Caution: Chains, bracelets, loose clothes and anything else close to the rotating parts will bring danger to the operator.**

With the Lifting Lever held in position, depress the Turntable Rotation Pedal (Z), rotate the Turntable (Y) in a clockwise direction until the tyre is completely separated from the wheel rim.

For the other side tyre demounting, keep using the lifting lever to lift the tyre, make the other side tyre separated from the wheel rim. Depress the Tilting pedal (H), the column backward down, take out the tyre.

### 9.3. Mounting the tyre :

**Caution: Check to make sure that the tyre and the wheel rim are of same size before mounting the tyre.**

To avoid any damage on type, lubricate the tyre bead and the wheel rim with the lubrication recommended by manufacturer. Put on the tyre and check the situation.

**Caution: When clamp the wheel rim, don't put your hands on the wheel rim to avoid injury during this operation.**

Lock the Hexagonal Vertical Mounting Arm, put the tyre on the rim, let the Rocker Arm back to place as demounting the tyre. And let one side of tyre down bead above the rear section of the Mounting head/demounting head, the other side under the front section of the Mounting head/demounting head. Suppress the tyre with hands or help arm, and then spin the turntable for mounting the tyre down bead.

Repeat the above operation for mounting the tyre up bead. (Fig 7)

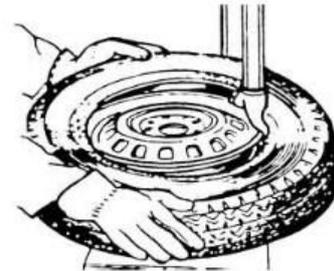


Fig 7

### 10. Help Arm 007B

The help arm 007B is an auxiliary device for tire changer, it is used to help to demount and mount tires.

**Before any operation of this machine, the operator is requested to read the manual carefully. Do not attempt any operations that are not stated in it. Manufacturer will not be responsible for any injury or damage caused by improper operation. Please keep the manual handy for consulting.**

#### 10.1 Technical Data

|                   |                |
|-------------------|----------------|
| Work Pressure     | 8~10 bar       |
| Weight            | 110kg          |
| Package dimension | 1550*550*310mm |
| Noise Level       | LpA<75db       |



#### 10.2. Safety Regulations

This device is especially reserved to trained professional personnel or somebody who has experiences on mechanical operation and read this manual carefully. This device must be used together with our tire changers, we are not sure it can work with others. Manufacturer won't be responsible for any unauthorized modification

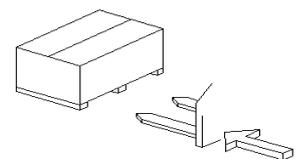


Fig 8

#### 10.3. Installation

##### Notice!

The installation of this auxiliary device should be done by professional personnel. Before assembly, disconnect the device from power supply and air source.

##### 10.3.1. Transport

Move the device with a forklift truck as illustrated in Fig 8.

##### 10.3.2. Unpacking

When unpacking, check and make sure all parts shown on the packing list are included. If any parts are missing or broken, please call the manufacturer or the dealer asap. Please keep the package out of children's reach.

### 10.3.3. Workplace Requirement

**Fig 9** shows the minimum distance (cm) from walls after assembly this auxiliary device. Please choose the right place to install it. And note keep at least 500mm from all direction for operation.

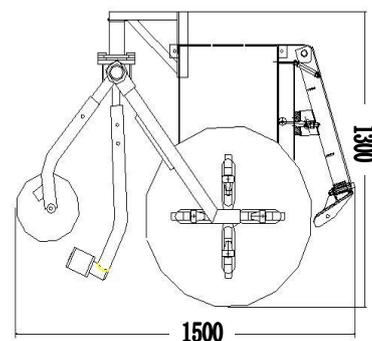


Fig 9

### 10.3.4 Assembly

Please install the the 007B help arm on the machine body as following steps:

- 1) Disconnect the tire changer from power supply and air source.
- 2) Remove the left cover of the body from the tire changer;
- 3) Install the upper support and bottom support on the help arm; Install the help arm on the tire changer with screw 1 and washer 2;(Fig 10)
  - 1、 screw M10x 30    2、 washer  $\phi$  10
- 4) Install the tire pressing rotating arm 1, tire pressing head(upper) 2, rise-fall switch handle 3, tire lifting roller 4, tire pressing head(bottom) 5, tire pressing roller 6, tire pressing arm 8 separately on the help arm.(Fig 11)
- 5) Connect the air hose $\phi$  6mm to the corresponding T-join through the rear hole of the body.
- 6) fix the left cover of the body back.

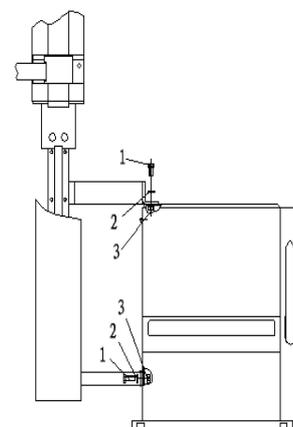


Fig 10

### 10.4. Functional Parts

**Fig 11** shows functional parts of the 007B device:

- 1-tire pressing rotating arm
- 2-tire pressing head (upper)
- 3-rise-fall switch handle
- 4-tire lifting roller
- 5-tire pressing head (bottom)
- 6-tire pressing roller
- 8-tire pressing arm

**The specifications for switch handle of help arm 007B:**

The rise-fall switch handle (3, **Fig 11**) is to adjust the tire pressing rotating arm (1, **Fig 11**) when mounting and demounting tires.

### 10.5. Trial operation

The 007B device must connect with the air compressor, and the air pressure from 8 bar to 10 bar is desirable.

1) Lift the rise-fall switch handle(3, **Fig 11**) up, the tire pressing rotating arm (1, **Fig 11**) should rise. Down the rise-fall switch handle (3, **Fig 11**), the tire pressing rotating arm (1, **Fig 11**) should lower.

2) Bring the tire pressing rotating arm 1 to the center of the turntable, adjust the tire pressing rotating arm 1 by the rise-fall switch handle 3 to fix the tire with the tire pressing head (low) 5.

3) Operate the rise-fall switch handle (3, **Fig 11**) to adjust the tire pressing roller (6, **Fig 11**), make it get touch with the tire's arc to facilitate the mounting and demounting operations.

**Safety warning label:**

**Warning: Unreadable and missing warning labels must be replaced immediately.**

**Do not use the tire changer if one or more labels are missing.**

**Do not add any object that could prevent the operator from seeing the labels.**

**Order the warning labels shown as below on the place where you need.**

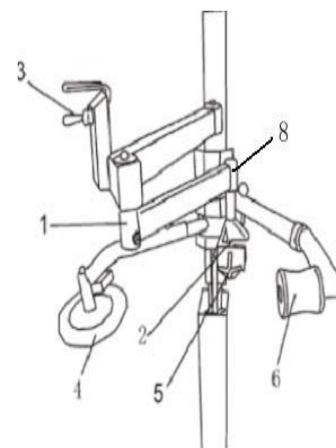


Fig 11

## 10.6. Operations

Mounting and demounting big flat tire is difficult work. By the help of 007B help arm to mount/demount the tire from the tire bead will make the operation easier. It is a good helper for tire changer.

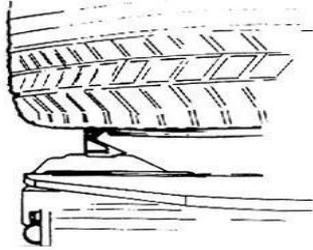


Fig 12

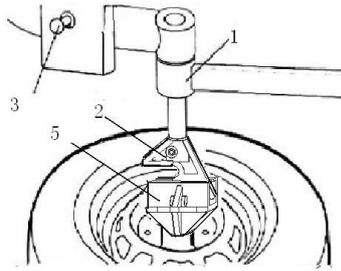


Fig 13

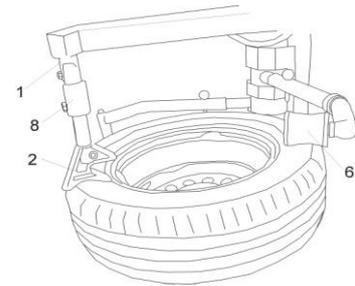


Fig 14

### 10.6.1. Fixing The Tire (function of central positioning)

- 1) Lubricate the bead according to the manual. Clamp the tire from outside (suggest to using the protection cover on the jaws)
- 2) Tread the corresponding pedal to open the jaws, and rotate the auxiliary arm to the non-working position;
- 3) Put the tire on the turntable, depress the corresponding pedal to close the jaws until they near the rim and touch with the tire.( Fig 12)
- 4) Insert the tire pressing head (upper) 2 and tire pressing head (bottom) 5 on the rotating arm 1;
- 5) Turn the rotating arm 1 to its working position. Fix the tire with the tire pressing head (upper) 2 and tire pressing head (bottom) 5 preparing for central positioning; ( Fig 13)
- 6) Lower the auxiliary arm slowly with the switch handle 3 until the tire pressing head (bottom) 5 get touch with the rim center. Then lower it about 1 cm once more to make the jaws touch the rim;
- 7) Tighten the jaws, and raise the auxiliary arm with the switch handle. Remove the tire pressing head (upper) 2 and tire pressing head (bottom) 5, turn the rotating arm 1 to its non-working position.

### 10.6.2. Demounting The Tire

#### 1). Loosen the beads with the tire pressing roller 6 again and again if necessary.

- a- Adjust the tire pressing roller (6) according to the tire dimension; (note: no touch on the tire rim)
- b- Down the switch handle 3 to lower the auxiliary arm, loosen the bead with the tire pressing roller 6. If need, change other positions to loosen ;(6, Fig 14)

**Notice: Lubricate the bead before your operation.**

- c- Raise the auxiliary arm after loosening, and push the rotating arm 1 to non-working position. Get preparation for demounting.

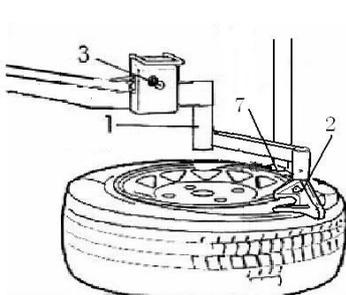


Fig 15

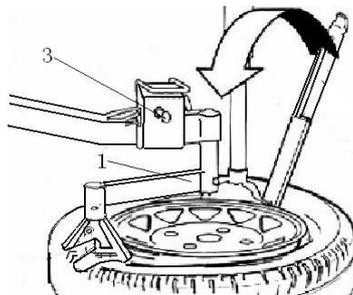


Fig 16

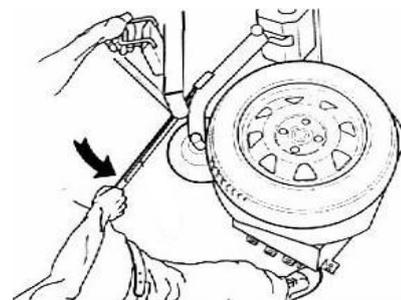


Fig 17

## 2). Demounting the upper bead

- a- Close the demount/mount head (7, Fig15) near from the tire as the manual stated. Move the rotating arm (1, Fig 15) to its working position.
- b- Move the tire pressing head (upper) (2, **Fig 15**) near from the demount/mount head, down the rise-fall switch handle to press the bead with the tire pressing head (upper) so as to place the demount/mount head. Insert the lifting lever according to the instruction of tire changer;
- c- Raise the auxiliary arm, mount the tire pressing head (upper) on the tire pressing arm (8 Fig 11) and rotate it to the opposite side of the mounting head. Press the tire with the switch handle to create enough space; hang the bead on the demount/mount head with the help of the lifting lever(Fig.16).
- d- Raise the auxiliary arm and push it to non-working position;
- e- Depress the corresponding pedal to turn the turntable in clockwise direction, and then the upper bead will be removed from the tire.

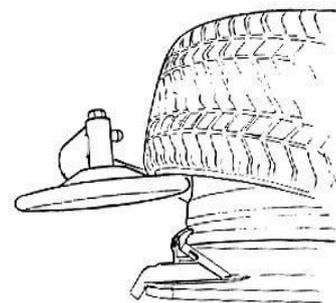


Fig 18

## 3). Loosening the bottom bead

- a- Bring the rotating arm to non-working position;
- b- Position the tire lifting roller under the tire, make sure it is near the edge of the rim but not touch it;
- c- Insert the lifting lever to the special hole and hold it to keep the tire lifting roller pressed against the tire;
- d- Depress the corresponding pedal to turn the turntable in clockwise direction, operate the switch handle to rise the auxiliary arm until the bottom bead remove from the rim completely; ( Fig 17)

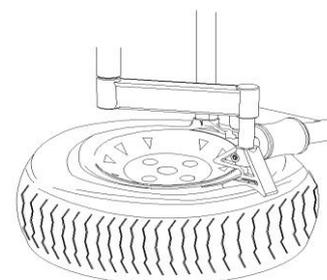


Fig 19

## 4). Demounting the bottom bead

**Note: With some tires, the bottom bead can be removed only by the tire lifting roller. To do this, continue the bead loosening procedure until the bead detach from the rim completely.**

**The tire lifting roller always facilitates the bead demounting especially for sports tires with wide tread.**

- a- Position the tire lifting roller and lift the bottom bead until it is in the drop center; ( Fig 18)
- b- Hang the bottom bead on the mounting head using the lifting lever;
- c- Remove the tire lifting roller and depress the corresponding pedal to turn the turntable in clockwise direction until the bottom bead detach from the rim completely.

### 10.6.3. Mounting the tire

- 1) Mount the bottom bead on the rim as the instruction of tire changer.

**Warning! Move the rotating arm to non-working position before operation so as to avoid the danger caused by collision!**

- 2) Rotate the roller support to move the tire pressing roller near the mounting head (about 3-4 cm). Position the tire pressing head (upper) about 90 degree with the mounting head. Lower the auxiliary arm to press the tire below the mounting head 3-5 mm with the tire pressing roller. Tread the corresponding pedal to turn the turntable in clockwise direction. Then the tire pressing head (upper) rotate together with the turntable to mount the tire.( Fig 19)

**Note: Pay special attention to this procedure. Make sure the tire pressing head (upper) and tire pressing roller don't touch the rim. Or it will cause damage to the rim caused by friction.**

## 11. Inflating the tire :

**Importance:** It is very dangerous during inflating operation, take carefully and comply with instruction. When inflating, it will turn to be extremely dangerous if problems happen to tyre or rim. The possible burst force tire goes upward and outward, the big power may cause injury or death of the operator or the people around.

Tyre may burst caused by following:

- 1) The wheel rim and the tyre are not of the same size;
- 2) The tyre or the wheel rim is damaged;
- 3) The pressure of tyre inflation is over the max. pressure recommended by manufacturer;
- 4) The operator fails to comply with the safety regulation;

Please operate as follows:

- 1) Remove the valve cap from the valve stem;
- 2) Check to make sure the air nozzle is pressed down completely over the threads of the valve stem.
- 3) Check to make sure that the tyre and the wheel rim are of the same size;
- 4) Lubricate both the tyre bead and the wheel rim, additional lubrication is required if needed;
- 5) Inflate the tyre with break, while inflating, check the pressure listed on the pressure gauge, also check whether the bead is fixed or not. Repeat operation above until the bead is secured; you need take special steps when inflating convex rim or double convex rim;
- 6) Continue inflating and check the air pressure frequently until to reach the required pressure.

**Note:** Never exceed the max. inflation pressure given by the tyre manufacturer.

**Keep hands and your body away from inflating tyres.**

**Only specially trained persons are allowed to perform the operations, do not allow other to operate or be near the tyre changer.**

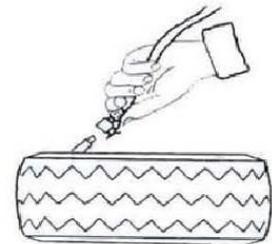


Fig 20

## 12. Moving machine:

Please use forklift to move the machine. Disconnect the tyre changer from the electricity power supply and pneumatic power supply, lift the base board and insert the feet of forklift. Then mount the tyre changer machine to a new position and fix it tightly.

Note: the place chosen for fixing the tyre changer must meet the safety regulation.

## 13. Maintenance:

**Caution:** only the professional persons can do the maintenance. To prolong the machine's life, maintain the machine timely according to the manual. Otherwise, it will impact the reliability of the machine or even cause injury to operator and others nearby.

**Caution:** before performing any maintenance, disconnect the tyre changer from the electric power supply and pneumatic power supply, and tread the Jaws open and close Pedal or Turntable Rotation Pedal for 3~4 times to evacuate all compressed air from the machine. Damaged parts must be replaced by professional persons with the spare parts provided by manufacturer.

- Clean the machine once every day after work. Clean the dirt on the turntable with diesel oil once per week and lubricate the slides and clamps.
- Following maintenance must be done at least once per month:  
Check oil level in Oil Fog Maker, please be filled with SAE30# oil if need. Unscrew with hex wrench (E). Based on connection of compressed air, first to tread Jaws open and close Pedal or Turntable Rotation Pedal 5-6 times, and then check whether oil in Oil Fog Maker drops down a drip of oil. For continuous operation, tread twice every time, drop down a drip of oil,

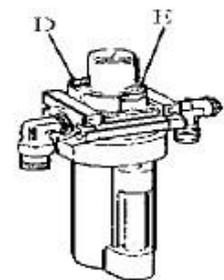


Fig 21

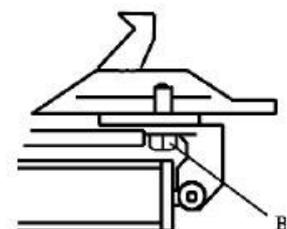


Fig 22

otherwise adjust the screw (D) that controlled oil enter with minus screwdriver.  
(Fig 21)

**Note:** After the first 20 days of use, retighten the jaws with tightening screws (B) on the Turntable (Fig 22)

**Note:** in the event of turntable lose power, check to see if the belt is tight as follow steps:

**Remove the left side cover by unscrewing the screws; adjust two screws located on the motor support, keep a suitable distance between motor support and motor base; tight the screws for the belt tension.(Fig 23)**

**Caution:** please disconnect the machine from electric power supply and pneumatic power supply.

**Note:** If Vertical Arm not be locked or not meet the requirement that 2-3mm from the bottom of Mounting head/demounting head to rim, please adjust Hexagonal Locking Plate, refer to Fig 24 and adjust the (X).

**Note:** In order to achieve the reliability of jaws and Bead Breaker shovel, operate as follows to keep their valves clean:

1. Remove the left side cover of the machine body by unscrewing the two screws;
2. Loosen the valve mufflers (A) which belong to Jaws open and close Pedal and Bead Breaker Pedal; **(Fig 25)**
3. Clean the mufflers with compressed air, please replace it referring to the spare parts list if it is damaged. **(Fig 25)**

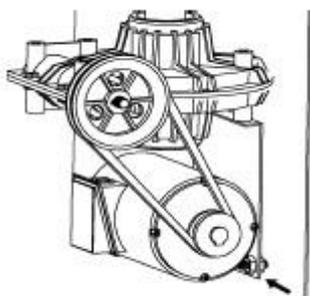


Fig 23

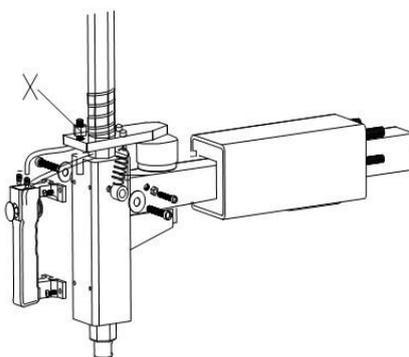


Fig 24

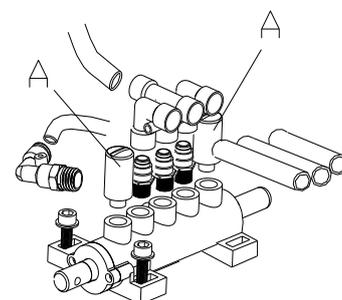


Fig 25

#### 14. Rapid tyre inflation system (only suitable for the IT-suffix version machine):

##### 14.1. Rapid Tire Inflation Device:

**Note:** before inflating operation, please make sure the pneumatic power supply connect well.

Before operation, must check the devices perform well as follow:

- a. Press Rapid Tire Inflation Pedal to the middle position (Fig 26, position 1), the inflating head should give air.
- b. Press Rapid Tire Inflation Pedal all the way down (Fig 26, position 2), a strong air blast should come from the holes in the four jaws' locking sliders. **(Fig 27)**

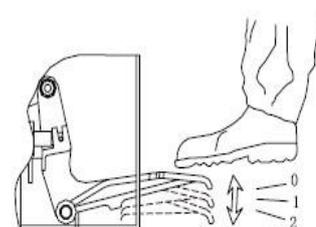


Fig 26

##### 14.2. Wheel rim lock and Tire inflation:

**Note:** A wheel can explode if:

- 1). the diameter of the rim is not exactly the same at the tyre's.
- 2). the rim or tyre are defective.
- 3). the tyre is inflated to a pressure higher than the maximum recommended by the manufacturer.
- 4). the operator does not observe the requisite safety regulations.

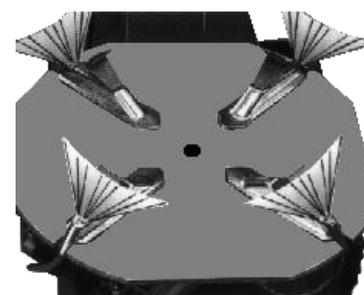


Fig 27

**14.3. Inflation for tire with inner tube:**

- 1). Remove the valve stem.
- 2). Check to be certain that tyre and rim diameter correspond.
- 3). Check to be certain that rim and beads are sufficiently lubricated.
- 4). Press the pedal down to the middle position to start inflation.
- 5). Release frequently the inflating pedal to check pressure on the manometer. If the air pressure is too high, press the button under the manometer for release the rest air until the correct pressure is reached.

**14.4. Inflation for tubeless tire:**

**Note: When inflating tubeless tire using a strong jet of air, the wheel must be clamped from the inside of the rim.**

- 1). Remove the valve stem.
- 2). Check to be certain that tire and rim diameter correspond.
- 3). Check to be certain that rim and beads are sufficiently lubricated.
- 4). Press the pedal down to the middle position to start inflation.
- 5). If the bead of the tyre is not well seated, due to a strong bead, lift tyre manually until the upper bead seals against the rim, then press the pedal all the way down. A strong jet of air will be released through the nozzles in the slides and this will help the bead seal.
- 6). Release the tyre, set the pedal back to the middle position and continue to inflate the tyre to the required pressure. If the air pressure is too high, press the button under the manometer for release the rest air until the correct pressure is reached.

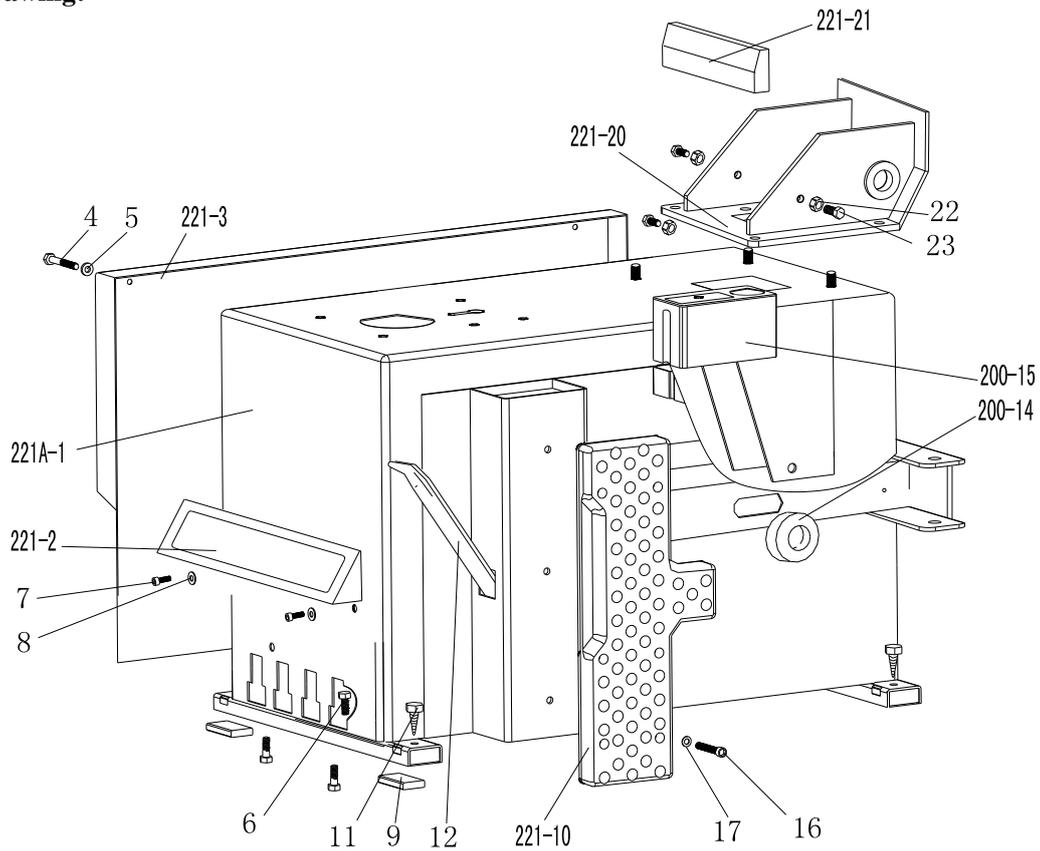
**Note:**

- 1). Failure to follow all warnings and instructions may lead to serious personal injury or death to operator or bystander. NEVER exceed 3.5 bar (50 psi) when seating beads or inflating tyres.**
- 2). If a higher tire inflation pressure is required, remove the wheel from the tyre changer and continue the inflation procedure with the wheel inside a special protection cage. NEVER exceed the maximum inflation pressure given by the tyre manufacturer.**
- 3). Only specially trained persons are allowed to perform these operations. Do not allow others to operate or be near to the tyre changer.**

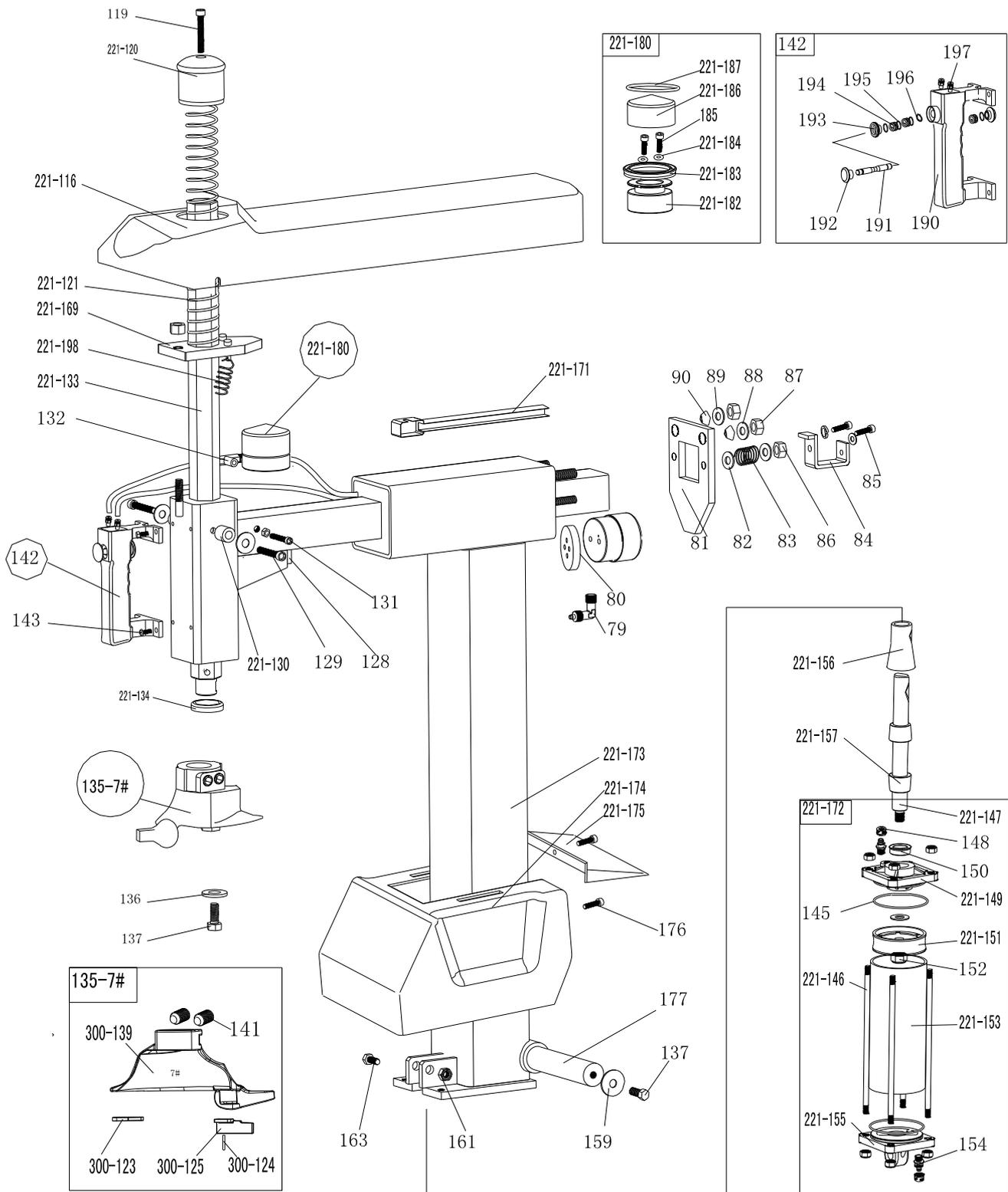
**15. Trouble shooting table:**

| <b>Problem</b>   | <b>Reason</b>  | <b>Solution</b>  |
|--|--|--|
| The turntable rotate just in one direction or can't rotate.  | Reverse Switch broken  | Replace the Reverse Switch   |
|  | Belt broken  | Replace the belt   |
|  | The Motor's malfunction  | Check the motor cable or terminal block wire;<br>Replace the motor if it was broken. |
| Demount or fix the wheel, the turntable can't lock (spin with wheel);<br>The jaws delay to open/close;<br>The turntable locks the rim incorrectly. | Leakage of Air network   | Check all the parts on the air network.  |
|  | The clamping cylinder can't work.  | Replace the cylinder piston.   |
|  | Worn jaws  | Replace the jaws.  |
|  | Broken washers of the chuck cylinder   | Replace it.  |
| The mounting head/demounting head always touch the rim during operation.   | The locking plate incorrectly adjust or unqualified.                         | Replace or adjust it.  |
|  | Screws on the chuck loose; the Vertical Arm can't be locked by Locking Plate | Tighten the screws; replace the Locking Plate.                                       |
| The Bead Breaker Pedal and Jaw open and close Pedal can't turn back to the original position.  | pedal spring broken  | Replace it.  |
| The Bead Breaker shovel operates difficultly.  | Jammed silencer  | Clean it or replace it.  |
|  | The washer on the Bead Breaker cylinder is broken.                           | Replace it.  |

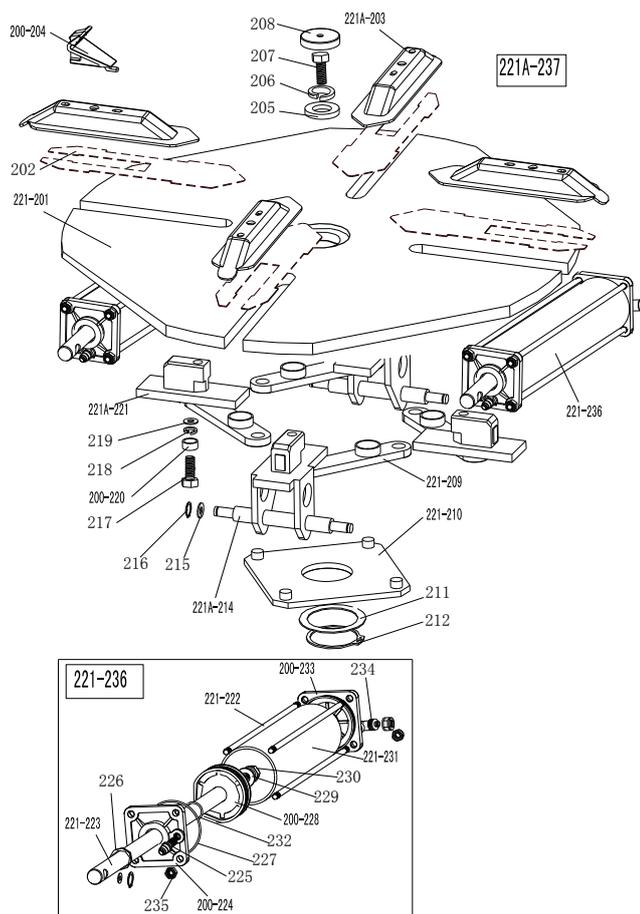
## 16. Exploded drawing:



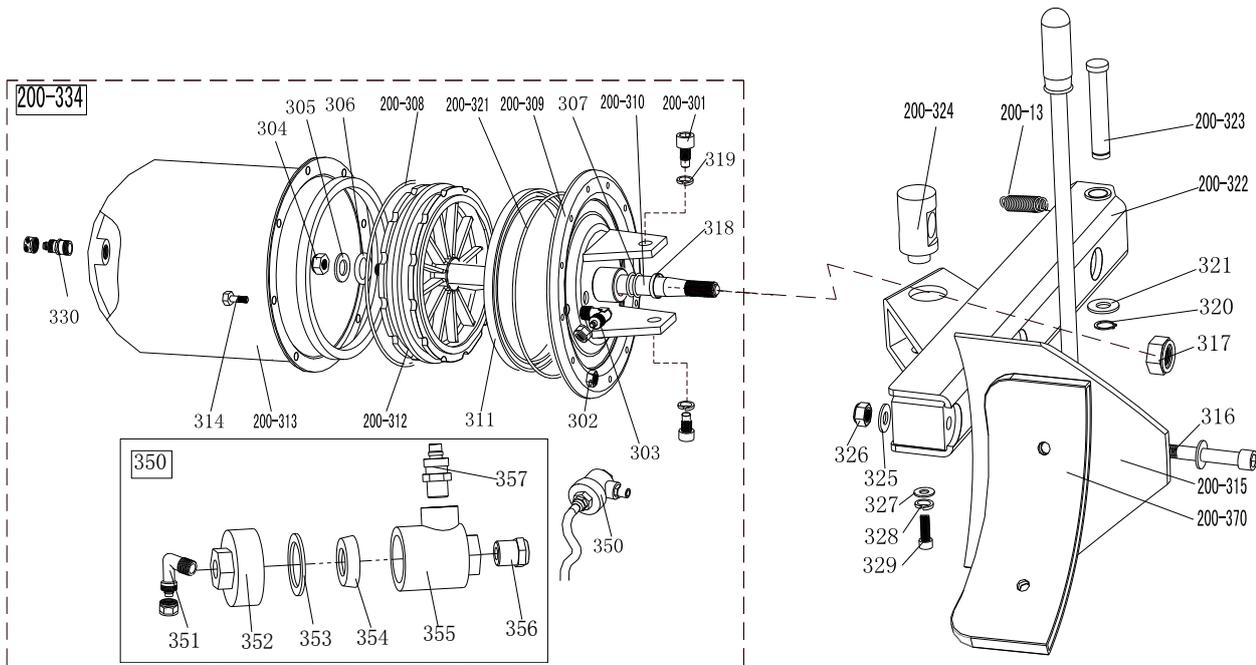
|        |                 |                            |
|--------|-----------------|----------------------------|
| 221A-1 | CX-221-010000-A | Machine body 221           |
| 221-2  | CZ-221-080000-0 | Pedal front cover          |
| 221-3  | CX-221-020000-A | Left cover                 |
| 4      | B-010-060101-0  | Hex socket head bolt M6x10 |
| 5      | B-040-061412-1  | Flat washer Ø6*14*1.2      |
| 6      | B-014-080251-0  | Outer hex bolt M8x25       |
| 7      | B-014-08201-0   | Hex socket head bolt M8x20 |
| 8      | B-040-082220-1  | Flat washer Ø 8*22*2       |
| 9      | C-221-500000-0  | Rubber foot buffer         |
| 221-10 | C-200-500000-0  | Bead breaker buffer        |
| 11     | B-027-060401-0  | Grounding screw M6x40      |
| 12     | C-200-580000-0  | Lifting lever              |
| 200-14 | C-200-510000-0  | Bead breaker arm rubber    |
| 200-15 | C-200-470000-0  | Oil-water box              |
| 16     | B-010-080201-0  | Hex socket head bolt M8x20 |
| 17     | B-040-081715-0  | Flat washer Ø8*17*1.5      |
| 221-20 | CX-221-010106-0 | Tilting seat               |
| 221-21 | C-221-820000-0  | Tilting protect cover      |
| 22     | B-001-100001-0  | Self-locking nut M10       |
| 23     | B-014-100251-0  | Outer hex bolt M10*25      |



|         |                 |                                      |         |                 |                                       |
|---------|-----------------|--------------------------------------|---------|-----------------|---------------------------------------|
| 79      | S-012-010806-0  | Quick union 1/8-Ø6                   | 221-149 | C-221-350100-0  | Tilting cylinder cover without handle |
| 80      | C-221-250600-0  | Locking cylinder plate               | 150     | S-005-020075-0  | V seal Ø20*28*7.5                     |
| 81      | CX-221-190000-0 | Horizontal arm locking plate         | 221-151 | C-221-350200-0  | Tilting cylinder piston               |
| 82      | B-040-081715-1  | Flat washer Φ8*17*1.5                | 152     | B-004-120071-0  | Nut ( silver ) M12*1.5*7              |
| 83      | C-221-410000-0  | Horizontal arm locking spring        | 221-153 | C-221-350500-0  | Tilting cylinder barrel               |
| 84      | CX-221-240000-0 | Horizontal arm block                 | 154     | S-010-010806-0  | Straight union 1/8-Ø6                 |
| 85      | B-014-080201-0  | Outer hex bolt M8*20                 | 221-155 | C-221-350300-0  | Tilting cylinder cover with handle    |
| 86      | B-001-080001-0  | Self-locking nut M8                  | 221-156 | CX-221-351000-0 | Tilting cylinder piston rod cover     |
| 87      | B-001-120001-0  | Self-locking nut M12                 | 221-157 | C-221-350700-0  | Tilting cylinder rubber sheath 1      |
| 88      | B-040-122520-1  | Flat washer Φ 12*25*2                | 137     | B-014-100251-0  | Outer hex bolt M10x25                 |
| 89      | B-040-122520-1  | Flat washer Φ 12*25*2                | 159     | B-040-104030-1  | Flat washer 10*40*3                   |
| 90      | C-221-230000-0  | Locking spacer                       | 161     | B-001-120001-0  | Self-locking nut M12                  |
| 221-116 | C-221-480000-0  | Horizontal arm protection back cover | 163     | B-014-120651-0  | Outer hex bolt M12x65                 |
| 119     | B-010-100501-0  | Hex socket head bolt M10*50          | 221-169 | CX-221-220000-0 | Hex locking board 221                 |
| 221-120 | C-228-490000-0  | Vertical arm cap 228                 | 221-171 | C-221-790000-0  | hose guide                            |
| 221-121 | C-228-390000-0  | Vertical arm spring                  | 221-172 | CW-105-021102-0 | Complete tilting cylinder             |
| 127     | B-007-120161-0  | Hex socket head bolt M12*16          | 221-173 | CX-221-250000-A | Column                                |
| 128     | C-221-200000-0  | Shock absorber                       | 221-174 | C-231-450000-0  | Column protection cover               |
| 129     | B-010-060351-0  | Hex socket head bolt M6x35           | 221-175 | C-221-460000-0  | Tilting Column back cover             |
| 221-130 | P-120-260000-0  | guide pulley                         | 176     | B-024-050161-1  | Cross head screw 5*16                 |
| 131     | B-010-060161-0  | Hex socket head bolt M6x16           | 177     | CX-221-260000-0 | Column shaft                          |
| 132     | S-017-010806-2  | T-union 1/8-2*O6                     | 221-180 |                 | Complete locking cylinder             |
| 221-133 | CX-221-160000-0 | Vertical arm                         | 221-182 | CZ-221-090100-0 | Complete locking cylinder piston      |
| 221-134 | C-228-520000-0  | Vertical arm washer                  | 221-183 | S-005-050065-0  | V seal Ø60*50*6.5                     |
| 135-7#  |                 | Complete mount/demount head 7#       | 221-184 | S-000-004200-0  | O seal Ø4*2                           |
| 300-139 | C-300-150000-0  | Mount/demount head 7#                | 185     | B-010-060551-0  | Hex socket head bolt M6x55            |
| 141     | B-007-120161-0  | Hex socket head bolt M12X16          | 221-186 | CX-221-090200-0 | Locking cylinder cover Ø60            |
| 300-123 | C-300-150300-0  | Mount/demount head flat protector    | 221-187 | S-000-059262-0  | O seal 60X2.65                        |
| 300-124 | C-200-150400-0  | Hex pin                              | 190     | C-221-210100-0  | Pneumatic handle switch plate         |
| 300-125 | C-300-150500-0  | Mount/demount head protector         | 191     | C-221-210200-0  | Pneumatic handle valve rod            |
|         |                 |                                      | 192     | C-221-210500-0  | Pneumatic valve rod cap               |
| 142     | CW-119-021100-0 | Complete Pneumatic locking switch    | 193     | C-221-210300-0  | Pneumatic handle cover                |
| 143     | B-010-060161-0  | Hex socket head bolt M6*16           | 194     | C-221-210400-0  | Pneumatic handle spacer               |
| 145     | S-000-068353-0  | O seal Ø68.26*3.53                   | 195     | S-000-007265-0  | O seal 7.5*2.65                       |
| 221-146 | C-221-350900-0  | Tilting cylinder threaded            | 196     | B-055-080001-0  | Snap ring Ø8                          |
| 221-147 | C-221-350200-0  | Tilting cylinder piston rod          | 197     | S-010-010806-0  | Straight union                        |
| 148     | B-001-080001-0  | Self-locking nut M8                  | 221-198 | C-221-400000-0  | Hex locking board spring              |

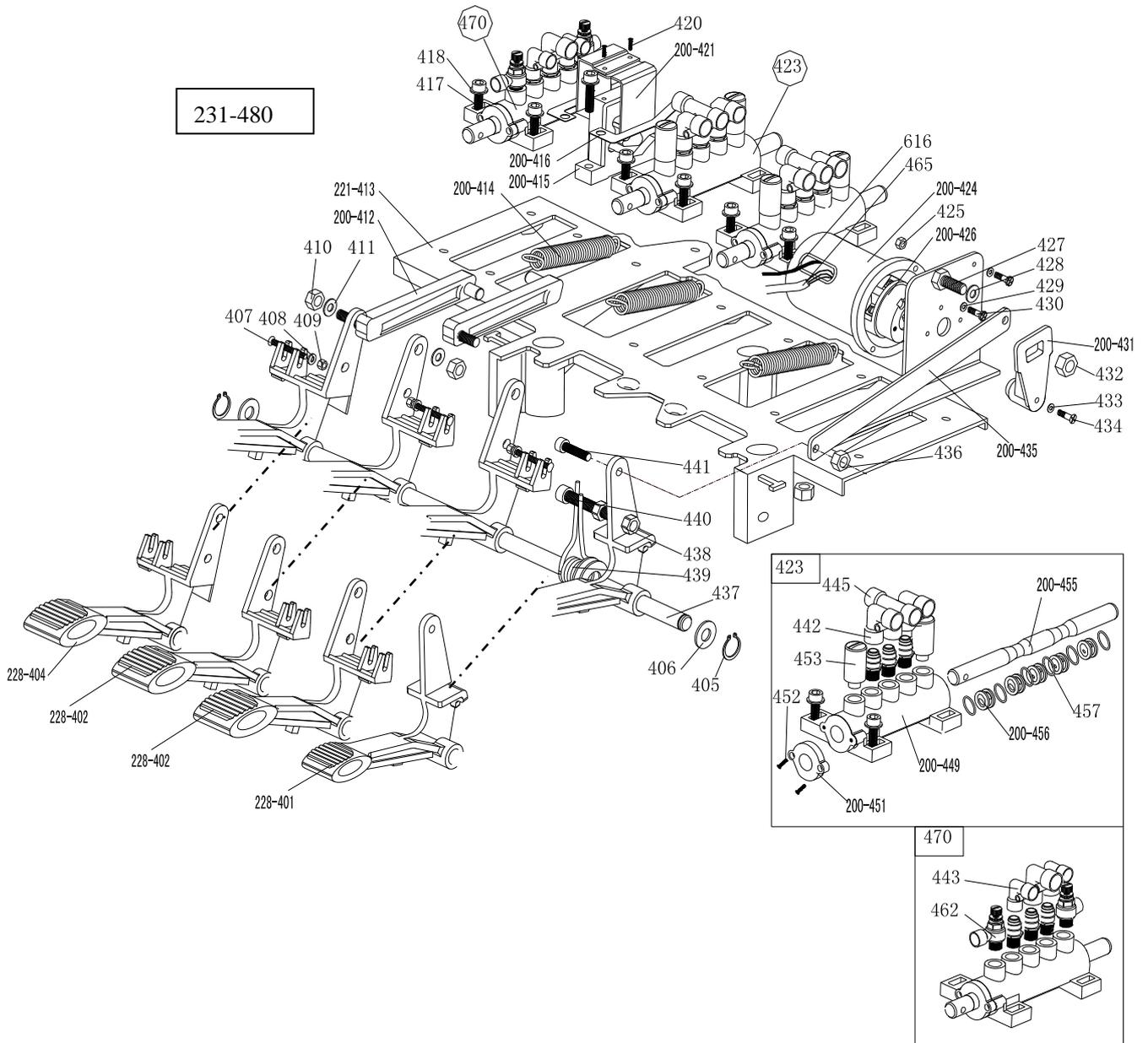


|          |                 |  |
|----------|-----------------|--|
| 221-201  | CX-221-130000-0 | Turntable 615                          |
| 202      | CX-221-120300-0 | Jaw sliding plate(optional)            |
| 221A-203 | CX-221-120000-A | Jaw cap assembly                       |
| 200-204  | C-200-570000-0  | Jaw 200                                |
| 205      | CX-200-140000-0 | Big washer                             |
| 206      | B-050-160000-0  | Spring washer Ø16                      |
| 207      | B-014-160401-0  | Outer hex bolt M16x40                  |
| 208      | C-200-440000-0  | Turntable cap                          |
| 221-209  | CX-221-310000-0 | Connection rod assembly 615            |
| 221-210  | CX-221-280000-0 | Square turntable 615                   |
| 211      | CX-200-290000-0 | Square turntable washer                |
| 212      | B-055-650001-0  | Snap ring Ø65(shaft)                   |
| 221A-214 | CX-221-110000-A | Jaw slide guide with pin 615A          |
| 215      | B-040-122520-1  | Flat washer Ø12X25X2                   |
| 216      | B-055-120001-0  | Snap ring Ø12(shaft)                   |
| 217      | B-014-120801-0  | Hex socket head bolt M12x80            |
| 218      | B-046-122050-1  | Teeth locking washer Ø12*1             |
| 221A-237 | CW-104-021100-A | Complete square turntable 615A         |
| 219      | B-040-123030-1  | Flat washer Ø12X30X3                   |
| 200-220  | CX-200-300000-0 | Connection rod nut                     |
| 221A-221 | CX-221-110100-A | Jaw slide guide without pin 615A       |
| 221-222  | C-221-100400-0  | Threaded connection rod 393            |
| 221-223  | C-221-100200-0  | Clamping cylinder piston rod 400       |
| 200-224  | C-200-100100-0  | Clamping cylinder cover without handle |
| 225      | S-011-010808-0  | Straight union 1/8"-Ø8                 |
| 226      | S-005-020075-0  | V- seal 20*28*7.5                      |
| 227      | S-000-063265-0  | O- seal 63*2.65                        |
| 200-228  | C-200-540000-0  | Clamping cylinder piston Ø70           |
| 229      | B-040-122520-1  | Flat washer Ø12X25X2                   |
| 230      | B-004-120071-1  | Nut M12X7X1.75                         |
| 221-231  | C-221-100500-0  | Clamping cylinder barrel 360           |
| 232      | S-000-019262-0  | O- seal Ø20X2.65                       |
| 200-233  | C-200-100300-0  | Clamping cylinder cover with handle    |
| 234      | S-018-010808-0  | Quick union 1/8-Ø8                     |
| 235      | B-001-080001-0  | Self-locking nut M8                    |
| 221-236  | CW-105-021101-0 | Complete clamping cylinder             |



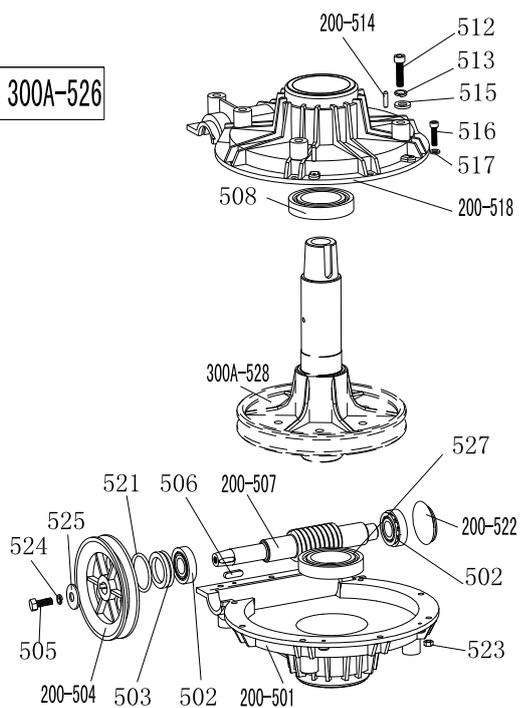
|         |                 |   |         |                 |  |
|---------|-----------------|---|---------|-----------------|--|
| 200-13  | C-200-360000-0  | Bead breaker arm spring                         | 320     | B-055-160001-0  | Snap ring Ø16                              |
| 200-301 | B-010-140301-0  | Hex socket head bolt M14x30                     | 321     | B-040-162820-1  | Flat washer                                |
| 302     | B-001-060001-0  | Self-locking nut M6                             | 200-321 | S-000-175500-0  | O-seal Ø173.4x5.3                          |
| 303     | S-018-010408-0  | Union (90°) 1/4-Ø8                              | 200-322 | CX-200-030000-0 | Bead breaker arm 200                       |
| 304     | B-004-160001-1  | Nut M16*1.5                                     | 200-323 | CX-200-040000-0 | Bead breaker pin                           |
| 305     | B-040-162820-1  | Flat washer Ø16*28*2                            | 200-324 | CX-200-050600-0 | Bead breaker cylinder rotating pin         |
| 306     | S-000-016265-0  | O-seal Ø 16*2.65                                | 325     | B-040-122520-1  | Flat washer Ø12*24*2                       |
| 307     | S-000-020265-0  | O-seal Ø 20*2.65                                | 326     | B-001-120001-0  | Self-locking M12                           |
| 200-308 | S-000-180500-0  | O-seal 180x5                                    | 327     | B-040-083030-1  | Flat washer Ø8*30*3                        |
| 200-309 | CX-200-050500-0 | Bead breaker cylinder cover assembly            | 328     | B-050-080000-0  | Spring washer Ø8                           |
| 200-310 | C-200-050100-0  | Bead breaker cylinder piston rod                | 329     | B-014-080201-0  | Outer hex bolt M8x20                       |
| 311     | S-005-168115-0  | V-seal 185X168X11.5                             | 330     | S-011-010808-0  | Straight union 1/8-Ø8                      |
| 200-312 | C-200-050200-0  | Bead breaker cylinder piston                    | 200-334 | CW-108-020000-0 | Complete bead breaker cylinder             |
| 200-313 | CX-200-050300-0 | Bead breaker cylinder barrel                    | 350     | CW-112-209800-0 | Bead breaker cylinder exhaust valve        |
| 314     | B-010-060161-0  | Hex socket head bolt M6x16                      | 351     | S-012-010808-0  | Union (90°) 1/8-Ø8                         |
| 200-315 | CX-200-070000-0 | Bead breaker shovel assembly                    | 352     | C-098-600200-0  | Bead breaker cylinder exhaust valve cover  |
| 316     | B-010-120901-0  | Hex socket head bolt M12x90                     | 353     | C-098-600400-0  | Seal washer                                |
| 317     | B-004-160001-1  | Self-locking nut M16*1.5                        | 354     | C-098-600300-0  | Bidirectional seal                         |
| 318     | U-006-000001-2  | Guide belt                                      | 355     | C-098-600100-0  | Bead breaker cylinder exhaust valve barrel |
| 200-370 | C-200-070600-0  | Bead breaker shovel protection cover (optional) | 356     | S-023-010401-6  | Muffler                                    |
| 319     | B-050-140000-0  | Spring washer Ø14                               | 357     | S-010-010408-0  | Straight union 1/4- Ø8                     |

231-480

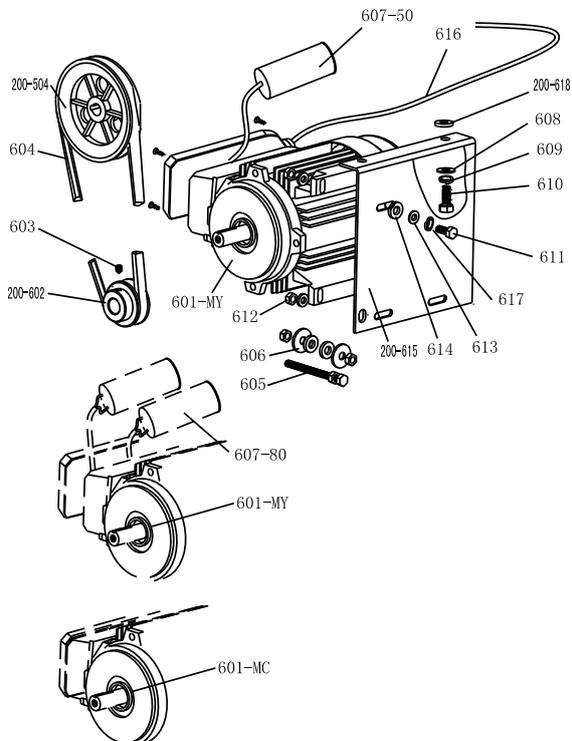


|         |                 |  |         |                 |                              |
|---------|-----------------|--|---------|-----------------|------------------------------|
| 228-401 | CX-228-060400-0 | Reverse switch pedal                           | 429     | B-040-040000-1  | Flat washer Ø 4              |
| 228-402 | CX-228-060300-0 | 5-way valve pedal(right)                       | 430     | B-024-040161-0  | Cross head screw M4*16       |
| 228-404 | CX-228-060200-0 | 5-way valve pedal(left)                        | 200-431 | C-200-530000-0  | Reverse switch handle        |
| 405     | B-055-120001-0  | Snap ring Ø12                                  | 432     | B-001-060001-0  | Self-locking nut M6          |
| 406     | B-040-122520-1  | Flat washer Ø12*24*2                           | 433     | B-040-030000-1  | Flat washer Ø3               |
| 407     | B-024-040301-0  | Cross head screw M4X30                         | 434     | B-017-030161-0  | Cross head screw M3X18       |
| 408     | B-040-040000-1  | Flat washer Ø 4                                | 200-435 | CX-200-060600-0 | Pedal connection rod         |
| 409     | B-001-040001-0  | Self-locking nut M4                            | 436     | B-001-080001-0  | Self-locking nut M8          |
| 410     | B-001-080001-0  | Self-locking nut M8                            | 437     | CX-200-060700-0 | Pedal front shaft            |
| 411     | B-040-081715-1  | Flat washer Ø8*17*1.5                          | 438     | B-004-080001-0  | Nut M8                       |
| 200-412 | C-200-061300-0  | Cam connection rod                             | 439     | C-200-370000-0  | Pedal twist spring           |
| 221-413 | C-221-060100-0  | Pedal suport board                             | 440     | B-010-080501-0  | Hex socket head bolt M8x50   |
| 200-414 | C-200-380000-0  | Pedal Spring                                   | 441     | B-010-080201-0  | Hex socket head bolt M8x20   |
| 200-415 | C-200-061500-0  | Cam  | 442     | S-012-010808-0  | Quick union1/8- Ø 8          |
| 200-416 | C-200-810000-0  | Cam washer                                     | 443     | S-012-010806-0  | Quick union1/8- Ø 6          |
| 417     | B-010-060201-0  | Hex socket head bolt M6x20                     | 445     | S-016-010808-2  | Quick T-union1/8-2* Ø 8      |
| 418     | B-040-061210-1  | Flat washer Ø6                                 | 200-449 | C-200-060901-0  | 5-way valve barrel (right)   |
| 420     | B-019-290121-0  | Cross head self tapping screw 2.9*12           | 200-451 | C-200-061100-0  | 5-way valve cover            |
| 200-421 | CX-200-060500-0 | Cam cover                                      | 452     | B-024-290-121-0 | Cross head ST2.9*14          |
| 423     | CW-110-020001-0 | Complete 5-way valve for Bead breaker cylinder | 453     | S-023-010801-0  | Muffler 1/8"                 |
|         |                 |  | 200-455 | CX-200-061200-0 | 5-way valve rod              |
| 200-424 | C-200-061400-0  | Reverse switch cover                           | 200-456 | C-200-061000-0  | 5-way valve rod spacer       |
| 425     | B-004-040001-0  | Nut M4   | 457     | S-000-012400-0  | O seal 12*20*4               |
| 200-426 | S-060-016000-1  | Reverse switch                                 | 462     | S-030-010806-0  | Throttle valve               |
| 427     | B-010-060201-0  | Hex socket head bolt M6x20                     | 470     | CW-110-021102-0 | Complete tilting 5-way valve |
| 428     | B-040-061210-1  | Flat washer Ø 6X12X1                           | 465     | CZ-000-103150-0 | Power supply cable           |
| 231-480 | CW-109-023100-0 | Complete 4-pedals assembly 231                 | 616     | CZ-000-205150-0 | Motor cable                  |

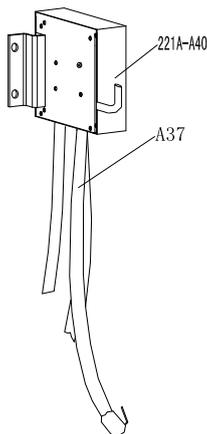
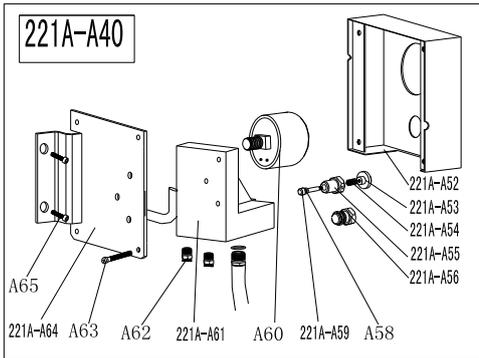
300A-526



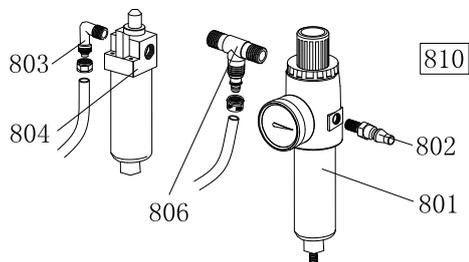
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| 200-501  | C-300-320302-0  | Gear box lower cover       |
| 502      | S-040-030204-0  | Bearing 30204              |
| 503      | S-005-020080-1  | Gear box seal φ20*35*8     |
| 200-504  | C-200-320500-0  | Gear Belt pulley           |
| 505      | B-014-080251-0  | Outer hex bolt M8×25       |
| 506      | B-065-006020-0  | Key washer 6×20            |
| 200-507  | C-200-320400-0  | Worm rod                   |
| 508      | S-040-006010-0  | Bearing 6010               |
| 512      | B-014-100551-0  | Outer hex bolt M10×55      |
| 513      | B-050-100000-0  | Spring washer Ø10          |
| 200-514  | B-060-006020-0  | Pin 6X20                   |
| 515      | B-040-102020-1  | Flat washer Ø10*20*2       |
| 516      | B-010-060201-0  | Hex socket head bolt M6×20 |
| 517      | B-040-061412-1  | Flat washer Ø 6*14*1.2     |
| 200-518  | C-300-320301-0  | Gear box upper cover       |
| 521      | S-000-027310-0  | O-seal Ø 27.8*3.1          |
| 200-522  | C-200-320700-0  | Oil resistant seal         |
| 523      | B-001-060001-0  | Self-locking nut M6        |
| 524      | B-050-080000-0  | Spring washer Ø 8          |
| 525      | B-040-083030-1  | Flat washer Ø 8*30*3       |
| 300A-526 | CW-107-030001-A | Complete gear box          |
| 527      | S-040-006028-0  | Bearing 6208               |
| 300A-528 | C-300-320100-0  | Worm gear                  |



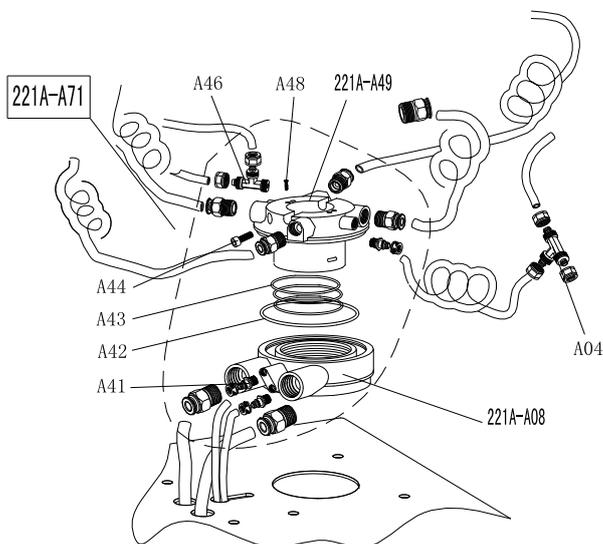
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| 200-504 | C-200-320500-0  | Gear Belt pulley           |
| 601-MC  | S-050-220110-5  | Motor 220V/50HZ            |
| 601-MY  | S-050-230075-0  | Motor 220v                 |
| 200-602 | CX-200-330000-0 | Motor Belt pulley          |
| 603     | B-007-080121-0  | Hex socket head bolt M8×12 |
| 604     | S-042-000686-0  | Tyre changer belt A-28     |
| 605     | B-014-080651-0  | Outer hex bolt M8X65       |
| 606     | B-040-083030-1  | Flat washer Ø8X30X3        |
| 607-80  | S-063-008000-0  | Capacitor 80µf, 110V       |
| 607-50  | S-063-005000-0  | Capacitor 50µf, 220V       |
| 608     | B-040-102020-1  | Flat washer Ø10X20X2       |
| 609     | B-050-100000-0  | Spring washer Ø10          |
| 610     | B-014-100251-0  | Outer hex bolt M10X25      |
| 611     | B-014-080351-0  | Outer hex bolt M8X35       |
| 612     | B-004-080001-0  | Nut M8                     |
| 613     | B-040-082220-1  | Flat washer φ8X22X2        |
| 614     | C-200-560000-0  | Motor rubber washer        |
| 200-615 | CX-200-340000-2 | Motor support              |
| 616     | CZ-000-205150-0 | Motor cable 5x1.0          |
| 617     | B-050-080000-0  | Spring washer φ8           |
| 200-618 | C-200-560000-0  | Motor rubber buffer        |



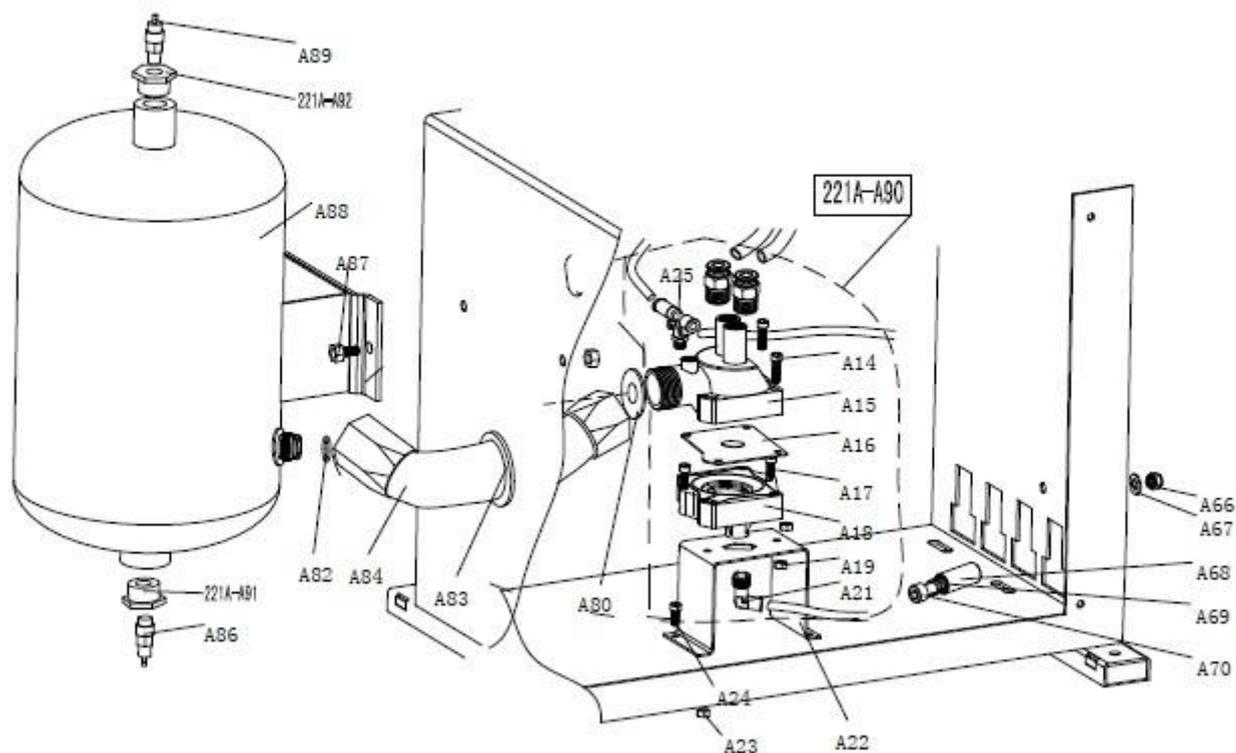
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| 221A-A52 | C-221-700000-A  | Pressure gauge box Φ60      |
| 221A-A53 | C-221-690300-A  | Button                      |
| 221A-A54 | C-221-690400-A  | Button spring               |
| 221A-A55 | C-221-690100-A  | Button valve                |
| 221A-A56 | B-007-180081-R  | Hex socket head bolt 1/8*8  |
| A58      | S-000-004200-0  | O-seal 4*2                  |
| 221A-A59 | C-221-690200-A  | Button rod                  |
| A60      | S-038-000020-0  | Pressure gauge 10kg         |
| 221A-A61 | C-221-680000-A  | Seat with holes             |
| A62      | S-010-010808-0  | Quick stright union 1/8-Ø8  |
| A63      | B-017-040301-0  | cross head screw M4*30      |
| 221A-A64 | CX-221-710000-A | Pressure gauge box support  |
| A65      | B-010-060161-0  | Hex socket head bolt M6*16  |
| A37      | S-035-014150-0  | Rubber hose 1.5 with clip   |
| 221A-A40 | CW-118-022100-0 | Complete pressure gauge box |



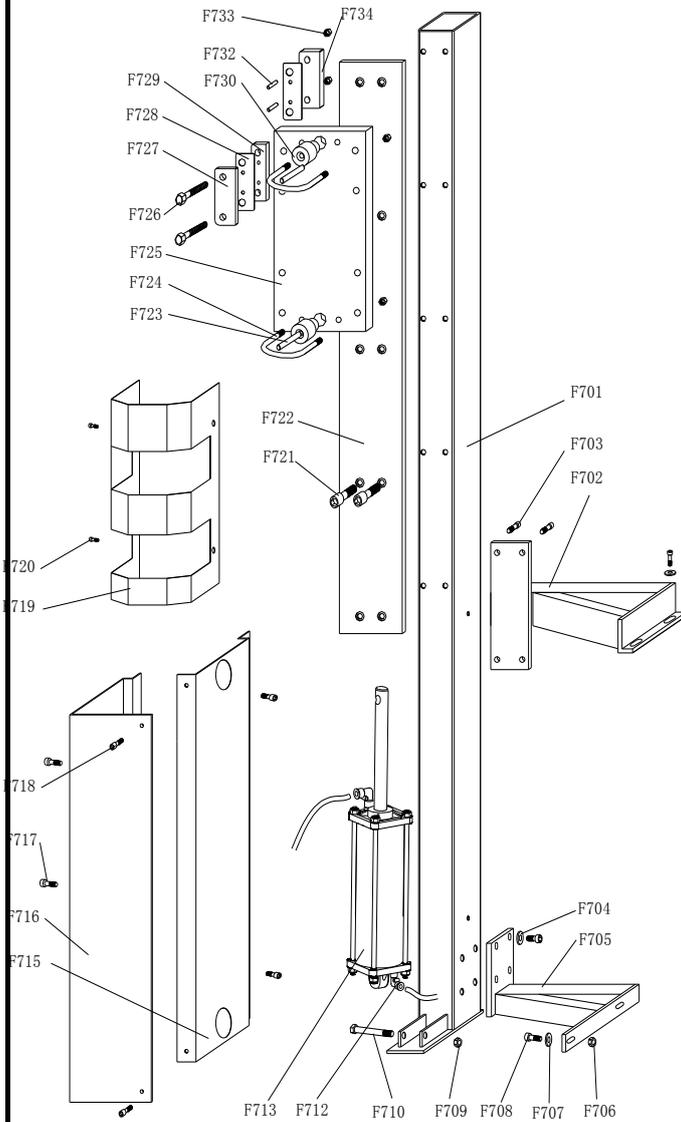
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| 810 | CW-114-0200<br>05-0 | Complete oil fog maker 2000 |
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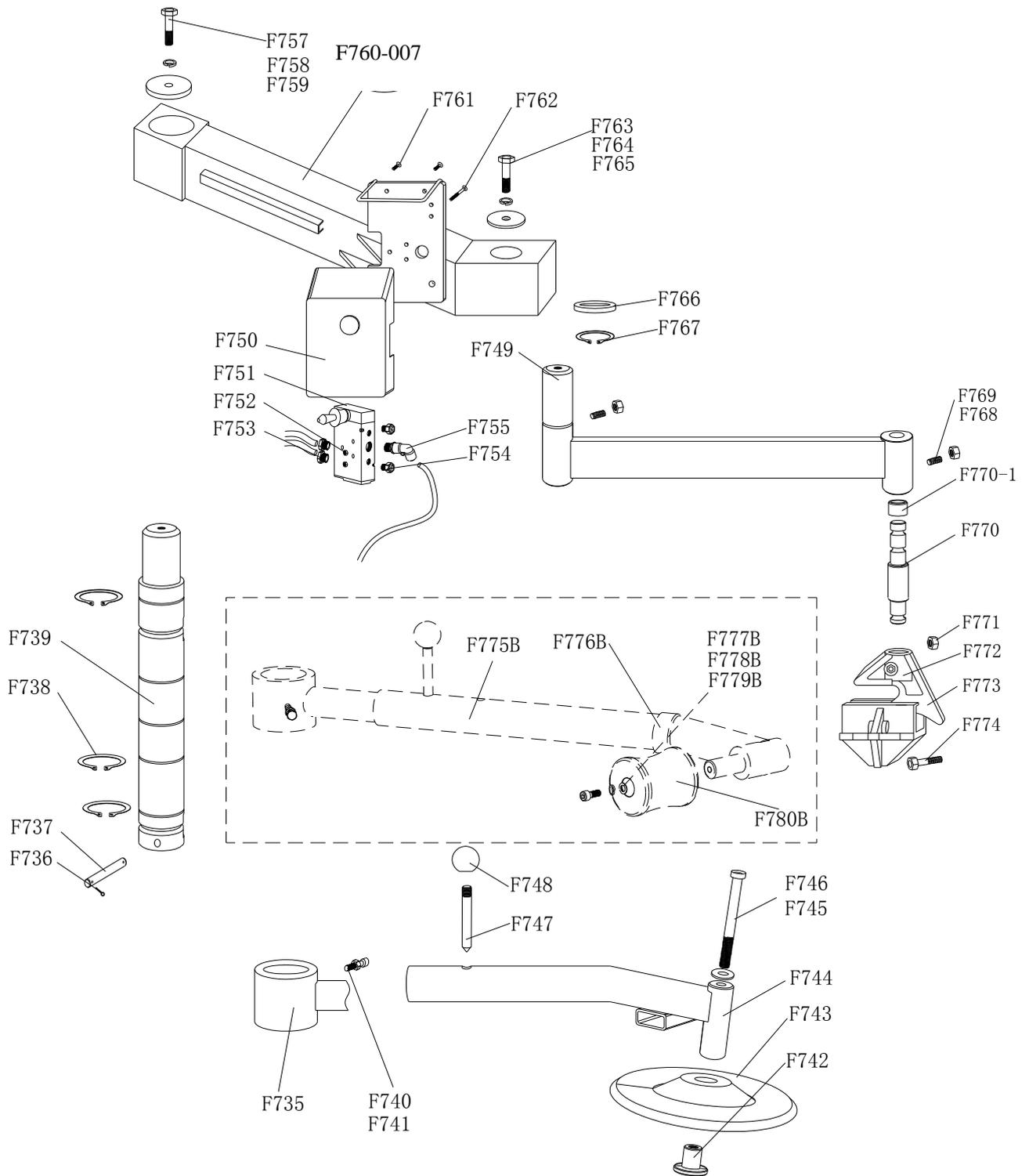
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|----------|-----------------|-----------------------------|
| 221A-A08 | CX-221-430100-A | Rotating valve casing (A )  |
| A04      | S-015-000008-3  | T-union 3* Ø 8              |
| A41      | S-011-010808-0  | Straight union 1/8-Ø8       |
| A42      | S-000-089200-0  | O-seal Ø89*2                |
| A43      | S-000-062280-2  | O-seal Ø62*2.8              |
| A44      | B-010-060201-0  | Hex socket head bolt M6X20  |
| A46      | S-015-010808-2  | T-union 1/8-2*Ø8            |
| A48      | B-007-040061-0  | Hex socket head bolt M4*6   |
| 221A-A49 | CX-221-430200-A | Rotating valve mandrel (A)  |
| 221A-A71 | CW-106-022102-A | Complete Rotating valve (A) |



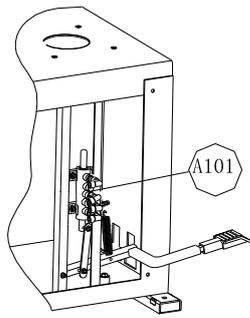
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| A14      | B-010-060301-0  | Hex socket head bolt M6*30         |
| A15      | C-221-600500-A  | Exhaust valve barrel               |
| A16      | C-221-600700-A  | Exhaust valve rubber washer        |
| A17      | B-010-060301-0  | Hex socket head bolt M6*30         |
| A18      | C-221-600600-A  | Exhaust valve cover                |
| A19      | B-001-060001-0  | Self-locking nut M6                |
| A21      | S-012-010408-0  | Quick union 1/4-Ø8                 |
| A22      | CX-221-600800-A | Exhaust valve support              |
| A23      | B-001-060001-0  | Self-locking nut M6                |
| A24      | B-010-060161-0  | Hex socket head bolt M6*16         |
| A25      | S-030-010450-0  | One way valve (EPCVB 8-01)1/8-2*Ø8 |
| A66      | B-001-100001-0  | Self-locking nut M10               |
| A67      | B-040-102020-1  | Flat washer Ø10*20*2               |
| A68      | CX-221-620300-A | Limit spring plate                 |
| A69      | C-201-670000-A  | Limit spring                       |
| A70      | B-010-100601-0  | Hex socket head bolt M10*60        |
| A80      | C-221-601000-A  | Rubber washer Ø18*34*2             |
| A82      | S-000-01625-0   | O-seal Ø16*2.65                    |
| A83      | C-221-720000-A  | Hose protector                     |
| A84      | C-221-601100-A  | Metal hose                         |
| A86      | S-030-010400-0  | Water discharge valve              |
| A87      | B-014-100251-0  | Outer hex bolt M10*25              |
| A88      | CX-221-610000-A | Air-tank assembly                  |
| A89      | S-030-030800-0  | Safety valve                       |
| 221A-A90 | CW-112-022101-0 | Complete exhaust valve             |
| 221A-A91 | CX-221-61050-A  | Air-tank down union                |
| 221A-A92 | CX-221-610600-A | Air-tank up union                  |



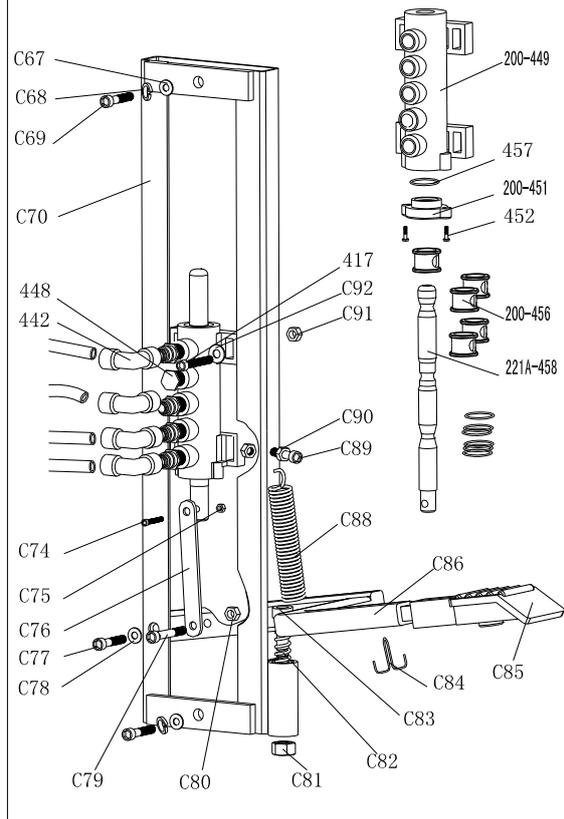
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|------|-----------------|--------------------------------------|
| F701 | CX-007-010000-0 | Column 007 help arm                  |
| F702 | CX-007-120000-0 | Upper support ( 007 help arm Column) |
| F703 | B-010-080201-0  | Hex socket head bolt M8*20           |
| F704 | B-040-081715-1  | Flat washer $\phi 8 \times 17$       |
| F705 | CX-007-130000-0 | Low support ( 007 help arm Column)   |
| F706 | B-001-100001-0  | Self-locking nut M10                 |
| F707 | B-040-102020-1  | Flat washer $\phi 10 \times 20$      |
| F708 | B-014-100251-0  | Outer hex bolt M10*25                |
| F709 | B-001-100001-0  | Self-locking nut M10                 |
| F710 | B-014-100601-0  | Outer hex bolt M10*60                |
| F712 | S-012-010806-0  | Quick union 1/8- $\phi 6$            |
| F713 | C-007-330000-0  | Rise-fall cylinder                   |
| F715 | CC-007-300200-0 | 007 help arm protection 1-2          |
| F716 | CC-007-300100-0 | 007 help arm protection 1-1          |
| F717 | B-010-060101-0  | Hex socket head bolt M6*10           |
| F718 | B-010-050101-0  | Hex socket head bolt M5*10           |
| F719 | CZ-007-280000-0 | 007 protection 3                     |
| F720 | B-010-060101-0  | Hex socket head bolt M6*10           |
| F721 | B-010-080201-0  | Hex socket head bolt M8*20           |
| F722 | CZ-007-020000-0 | Guide track                          |
| F723 | CZ-007-100000-0 | Positioning pin                      |
| F724 | C-007-110000-0  | Locking rod                          |
| F725 | CX-007-030000-0 | Slipping board                       |
| F726 | B-014-100601-0  | Outer hex bolt M10*60                |
| F727 | CX-007-040000-0 | Friction plate inside                |
| F728 |                 | Guide plate                          |
| F729 | CX-007-070000-0 | Friction plate' isolation block      |
| F730 | CX-007-090000-0 | Positioning sheath                   |
| F731 |                 | Nut M8                               |
| F732 | CZ-007-080000-0 | Guide plate positioning pin          |
| F733 | B-001-100001-0  | Self-locking nut M10                 |
| F734 | CX-007-050000-0 | Friction plate outside               |



|      |                 |                                |          |                 |                                   |
|------|-----------------|--------------------------------|----------|-----------------|-----------------------------------|
| F735 | CX-007-210000-0 | Rotating arm support           | F759     | CX-007-180800-0 | control arm plate washer          |
| F736 | B-070-032018-0  | Split pin 3.2X18               | F760-007 | CX-007-180000-0 | 007 control arm                   |
| F737 | CX-007-140000-0 | Connection pin                 | F761     | B-019-420161-0  | Cross head screw 4.2*16           |
| F738 | B-055-600001-0  | Snap ring Ø60                  | F762     | B-017-040301-0  | Cross head screw 4*30             |
| F739 | CX-007-200000-0 | Rise-fall main shaft           | F763     | B-014-100251-0  | Outer hex bolt M10*25             |
| F740 | B-014-080251-0  | Outer hex bolt M8*25           | F764     | B-050-100000-0  | Spring washer φ10                 |
| F741 |                 | Nut M8                         | F765     | CX-007-260000-0 | Rotating shaft washer             |
| F742 | CX-005-110000-0 | Tire lifting roller center hud | F766     | CX-007-270000-0 | Snap ring washer                  |
| F743 | C-005-100000-0  | Tire lifting roller            | F767     | B-055-400001-0  | Snap ring φ40                     |
| F744 | CX-007-220000-0 | Pipe assembly                  | F768     | B-004-100001-1  | Nut M10                           |
| F745 | B-040-123030-1  | Flat washer Ø12*30*3           | F769     | B-007-100201-0  | Hex socket head bolt 10*20        |
| F746 | B-010-121201-0  | Hex socket head bolt M12*120   | F770     | CX-006-210000-0 | Tire pressing head rotating shaft |
| F747 | CX-007-230100-0 | Pin                            | F771     | B-001-060001-0  | Self-locking nut M6               |
| F748 | C-007-230200-0  | Pin block                      | F772     | C-008-090100-0  | Tire pressing head(upper)         |
| F749 | CX-007-250000-0 | Tire pressing rotating arm 007 | F773     | C-008-090200-0  | Tire pressing head(low)           |
| F750 | C-007-181000-0  | Control valve protection cover | F774     | B-010-060301-0  | Hex socket head bolt M6*30        |
| F751 | S-030-010818-0  | Control valve                  | F775B    | CZ-007-240000-0 | Tire pressing pipe assembly       |
| F752 | B-004-040001-1  | Nut M4                         | F776B    | C-000-001021-0  | Tire pressing arm washer          |
| F753 | S-010-010406-0  | Quick union 1/4-φ6             | F777B    | B-010-080201-0  | Hex socket head bolt M8*20        |
| F754 | S-023-010801-0  | Muffler 1/8 ( copper)          | F778B    | B-050-080000-0  | Spring washer Ø8                  |
| F755 | S-012-010406-0  | Quick union 1/4-φ6             | F779B    | B-040-083030-1  | Flat washer Ø8*30                 |
| F757 | B-014-100251-0  | Outer hex bolt M10*25          | F780B    | C-008-080000-0  | Tire pressing roller              |
| F758 | B-050-100000-0  | Spring washer φ10              | F770-1   | CC-231-030802-0 | Rotating shaft spacer             |

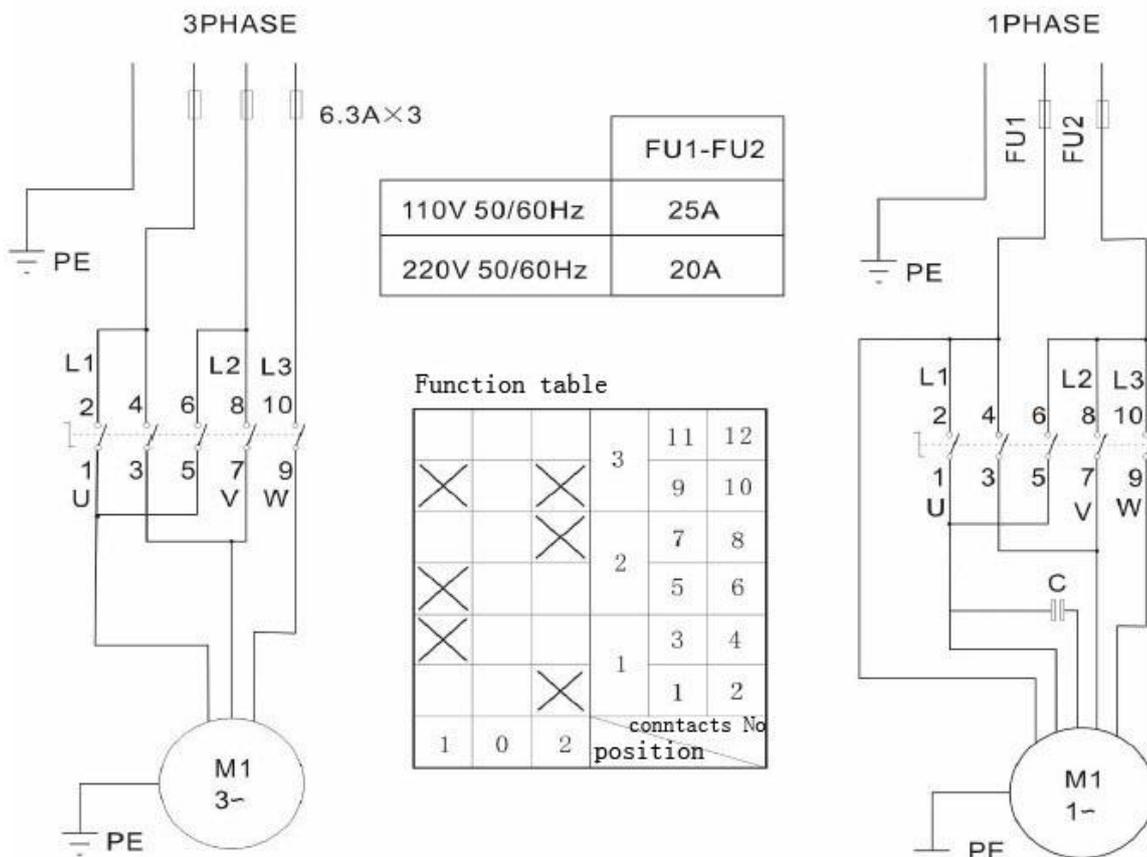


A101



|          |                 |                                     |
|----------|-----------------|-------------------------------------|
| C67      | B-040-081715-1  | Flat washer Ø8X17X1.2               |
| C67      | B-040-081715-1  | Flat washer Ø8X17X1.2               |
| C68      | B-050-080000-0  | Spring washer Ø8                    |
| C69      | B-010-080251-0  | Hex socket head bolt M8*25          |
| C70      | CX-221-620000-A | 5th inflating pedal suport assembly |
| 448      | B-007-180081-R  | Hex socket head bolt 1/8*8          |
| 442      | S-012-010808-0  | Quick union 1/8-Ø8                  |
| C74      | B-010-050201-0  | Hex socket head bolt M5*20          |
| C75      | B-001-050001-0  | Self-locking nut M5                 |
| C76      | CX-221-660000-A | Inflating 5-way valve rod           |
| C77      | B-010-060251-0  | Hex socket head bolt M6*25          |
| C78      | B-040-061210-1  | Flat washer Ø6*12*1                 |
| C79      | B-010-060251-0  | Hex socket head bolt M6*25          |
| C80      | B-004-060001-1  | Nut(black) M6                       |
| C81      | B-001-100001-0  | Self-locking nut M10                |
| C82      | C-221-670000-A  | Limit spring                        |
| C83      | CX-221-620400-A | Positioning bolt M10X55             |
| C84      | B-070-040040-0  | Splitpin 4X40                       |
| C85      | C-221-640000-A  | Pedal rubber                        |
| C86      | CX-221-630000-A | Inflating pedal rod                 |
| C88      | C-200-380000-0  | Pedal Spring                        |
| C89      | B-010-060251-0  | Hex socket head bolt M6*25          |
| C90      | B-004-060001-1  | Nuta(silver) M6                     |
| 417      | B-010-060201-0  | Hex socket head bolt M6x20          |
| C91      | B-001-060001-0  | Self-locking nut M6                 |
| C92      | B-040-061210-1  | Flat washer Ø6X12X1                 |
| 200-449  | C-200-060901-0  | 5-way valve barrel                  |
| 200-451  | C-200-061100-0  | 5-way valve cover                   |
| 452      | B-024-290121-0  | cross head screw ST2.9*16           |
| 200-456  | C-200-061000-0  | 5-way valve rod spacer              |
| 457      | S-000-012400-0  | O-seal 12X20X4                      |
| 221A-458 | CX-221-650000-A | 5-way valve rod A                   |
| A101     | CW-109-021110-A | Complete inflating pedal            |

17. Circuit diagram:



18. Pneumatic drawing:

