

- |                             |                         |
|-----------------------------|-------------------------|
| 1. Moveable control part    | 2. Crossing switch      |
| 3. Block plate switch       | 4. Pedal switch         |
| 5. Electrical switch        | 6. Mixing electric box  |
| 7. Tool box                 | 8. Oil tank             |
| 9. Hydraulic pressure valve | 10. Circumvolve envelop |
| 11. Pressure watch          | 12. Worm wheel box      |
| 13. Belt cover              | 14. Swing arm           |
| 15. Block plate             | 16. Locking paws        |
| 17. Decompression           | 18. Plate               |
| 19. Orientation part        | 20. Tool arm            |
| 21. A lifting car           | 22. Paralleling board   |
| 23. Tool arm hook           | 24. Tool arm slide way  |
| 25. Paralleling side way    | 26. Condole ear         |

## 1.1 Technical parameters

Specifications	Parameters
Lift height	900~1300mm
Exterior size	2400×1920×830mm
Machine weight	500kg
The range of bold plate	14"~26"
Hydraulic pressure pump power unit	1.1kw 220v/380v/1PH/3PH
Gear motor	.8kw 220v/380v/1PH/3PH
Speed	7.34 r/min
Moveable control operation supply	24V
The range of the iron circle	14"~26"

## 2 Operation

### 2.1 Locking tighten of the tire

- ⌘ Put the tire on the lifting car. Move the car.
- ⌘ Automatically fixing heart blocking plate will produce high pressure (Fig2.1).The range of the adjusting is 2-20 mp. Pressure watch will show the pressure. If the wheel circle is very thin. You should reduce the pressure.
- ⌘ If mounting/demounting the truck tire, the pressure meter is lower than 18MPa, turn the pressure switch up so that to increase the pressure.

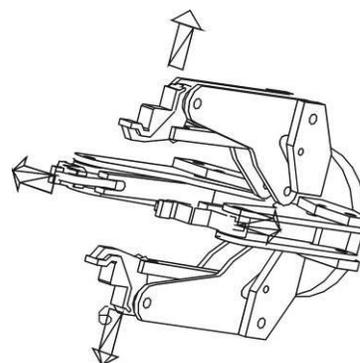
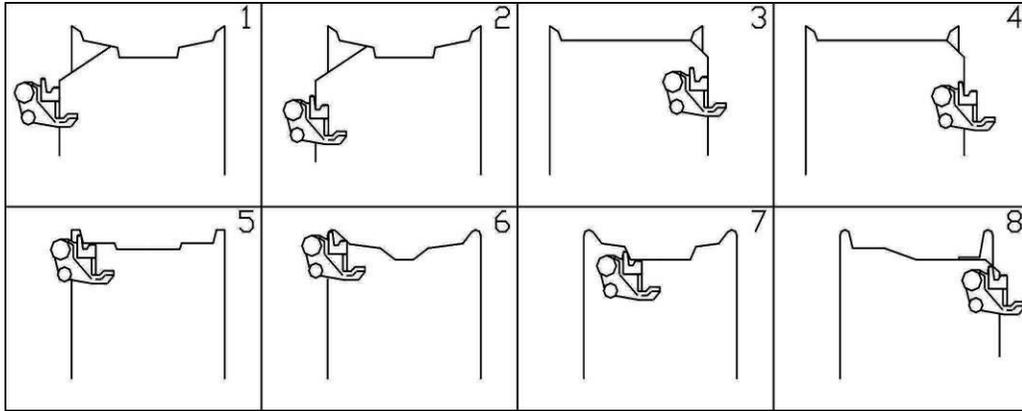


Fig2.1

**Note: Blocking plate can lock all kinds of wheel circle from 14" to 26".**

### 2.2 Ways of using locking tighten paws.

There are four locking tighten paws in the blocking plate. It can lock the different kinds of wheel circle. There are many different kinds of ways of locking according to the wheel (see the following pictures).



Usually vacuum tire use the 1 and 2 methods and the tire with press bar use the 3 and 4 methods.

### 2.3 Use the tool arm

- 1) The tool arm has four holes. The first hole can mount/demount the tire of 40-56" . Enter the 2-4 hole after you rotate 360°
- 2) The second hole can mount/demount the tire of 30-40" . 3) The third hole can mount/demount the tire of 22-36" .
- 4) The fourth hole can mount/demount the tire of 14-22"

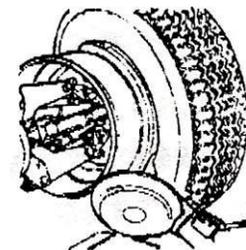
### 2.4 Removing and fixing the tire without inner tube.

#### 2.4.1 Reducing the pressure and lubricating.

- 1) Check if the locking tighten hook hooks the lifting board. The removing and fixing hook mustn't be in the position of working.
- 2) Make sure the tire has been clipped; there is no air in the tire.
- 3) Adjust the position of the tire. The plate has just been away from the rim. Make it be close to the rim.
- 4) When you turn around the tire, move the tool arm and press the tire down until tire is separated with the rim.
- 5) Put more lubricant between the rim and edge of the tire.
- 6) Make the plate prick up the tool arms, put the plate on the other side of the tire, until other side of the tire is separated with the rim, put some lubricant in it.

#### Attention:

**Lubricant must be put, when you reduce the pressure outside, you should follow anti-clockwise direction. When you reduce the pressure inside, you should follow clockwise direction. When you reduce the pressure inside, removing and fixing hook must be in the position of Fig2.2.**



### 2.4.2 Removing the tire without inner tube

- 1) Move the tool arm to the outside of the tire , make removing hook face the tire Make sure that locking tighten hook has tightened . Orientation parts are in its position.
- 2) Adjusting the position between removing hook and the tire. The removing hook must be in the position between the edge of the tire and the rim. Move the fool arms so that the removing hook can insert the tire at the same time, it can pull the edge of the tire outside.
- 3) Press the tire , move the tool arms outside little by little .Repeat this action , let the removing hook swing downward so that the removing hook can pull the edge of the tire(Fig2.3).
- 4) Turn the tire in the anti-clockwise direction, until whole tire has been separated.
- 5) Move the tool arm to the inside, pull the edge of the inner tube, also move it to the outside of the rim. Turn the tire , until the edge of inside separated from the rim.(Fig2.4)
- 6) We can use plate to remove the edge of the inside tire by pushing the edge of the tire out of the rim. Press the tire down. Make the plate between the rim and the edge of the tire. Turn the tire (Fig2.5). You can see crow to help you.

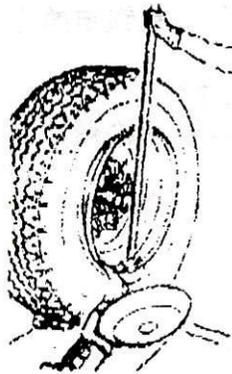


Fig2.3

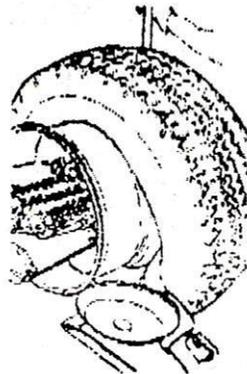


Fig2.4

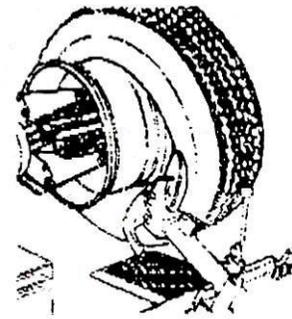


Fig2.5

#### Attention:

**You must be concentrated, examine the movement parts carefully, and avoid it from damage.**

**Examine the tire when it was weighted. Adjust the position of tool head and rim. Removing and fixing hook must be in the position of 4-5. When you use plates.**

### 2.4.3 Fixing the tire without inner tube

- 1) Lubricate the wheel circle and the edge of tire.
- 2) Tighten the outside of the tire in the highest position by using wheel circle clip (Fig2.6).

- 3) Adjust the position of iron circle by using the lifting car. Make sure that the wheel circle clip is in the highest position of rim. Adjust the angle of the tire, and make the tire and rim cross together.
- 4) Adjust the position of removing and fixing hook. The position of it must be between rim and the edge of the tire. The distance to the edge of tire is about 5mm (Fig2.7). Turn the tire in the clockwise direction. The tire is fixed.
- 5) Prick up the tool arm; unload wheel circle clip push the tire inside. Fix the wheel circle clip on the rim and turn it to the upward of the removing and fixing hook (Fig2.8).
- 6) Adjust the position of the removing and fixing hook and make it between the edge of tire and rim. The distance to the rim is about 5mm. Turn the tire, until the outside edge of the tire has been fixed.
- 7) Take out the removing and fixing hook. Take the wheel circle clip out.

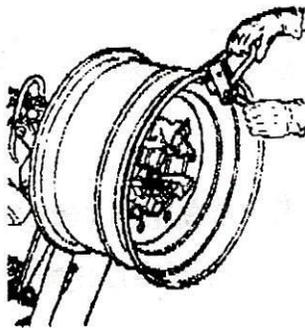


Fig2.6

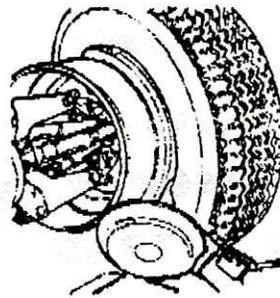
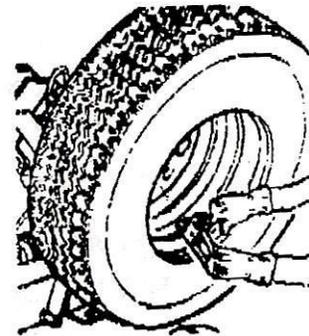


Fig2.7

Fig2.8



#### **Attention:**

**When you remove and fix the tire. Orientation and Locking tighten hook of tool arm must be in the position of working.**

## **2.5 Removing and fixing the tire with inner tube.**

### **2.5.1 The lubricant of the tire with inner tube.**

- 1) When you let the air out, open the pipe of the fixing gas mouth, press it in the tire, so that there isn't obstruct.
- 2) Repeat 2.4.1 action.

**Notice: Because there is inside tire in it. After finishing the action of reducing pressure, you should stop moving the plate, so that use won't damage the inside tire. The clamping force can be adjusted when mounting/demounting the tire, the pressure of pumping station is adjusted to 20Mpa, the pressure relay30 is adjusted to 18 MPa, during mounting/demounting the tire, you may turn the pressure switch up. Please must turn the pressure switch down after finish demounting tire.**

### 2.5.2 Removing the tire with inner tube.

- 1) Removing the outside edge of the tire. The same as 2.4.2. Hook the edge of the tire with removing and fixing hook. Insert a crown, sledge the outside edge of the tire by pressing the crown down, and lower the tire down. The distance between the head of the removing and fixing hook and the edge of the tire is about 5mm (Fig2.9). Turn the tire in the anti-clockwise direction; you can remove the outside edge of the tire.
- 2) Removing the inside edge of the tire: Pick up the tool arm, lower the tire down and make it touch the lifting car. Move the lifting car outside, you can take the tire out by using the lifting car, you can get the inside tire out. After doing it, the action is just the same as the course (Fig2.10). Remove the inside edge of the tire.

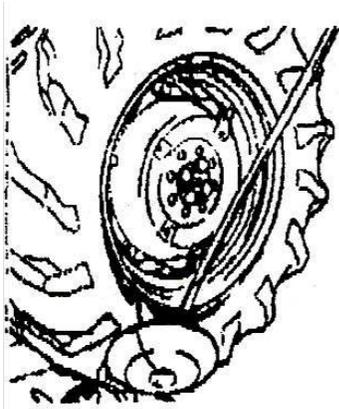


Fig2.9

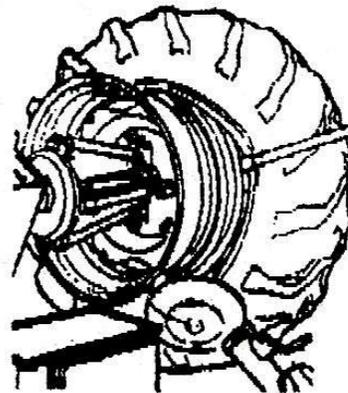


Fig2.10

### 2.5.3 Fixing the tire with inner tube.

- 1) Put some lubricant on the edge of the tire and the rim.
- 2) You should fix the wheel circle clip in the highest place of the rim. Make sure the wheel circle clip block the wheel circle.(Fig2.11)
- 3) Put the tire on the lifting car. Lower the wheel circle (wheel circle clip must be in the highest position). Make the wheel circle hook the side of the tire.
- 4) Raise the wheel circle; turn the tire in the anti-clock wise direction little by little. The tire can lean automatically.
- 5) Adjust removing and fixing hook and you can hook the edge of it from inside. Turn the tire in the clockwise direction until the edge of the tire is finished. Take the wheel circle clip (Fig2.12).
- 6) Turn the tire the gas hole faces the bottom.
- 7) Lower the wheel circle let the tire get close to the lifting car. Move the lifting car outward, you can use lifting car to help you move the tire a certain distance away.
- 8) Put the inside tire in it. Turn the iron circle in the clockwise direction, put the inside tire in the rim.
- 9) Put a little gas in the tire. So that, it won't be broken when we fix it.

- 10) Lifting the tire and fixing the wheel circle clip outside the rim. It is 20cm to the right of the gas mouth.  
Turn the tire until the wheel circle is in the position of nine o'clock.
- 11) Adjusting the equipment of the removing and fixing hook. It is 5mm to the rim.
- 12) Turn the tire in the clockwise direction until the tire is fixed on the rim.
- 13) Lower down the tire and check if the gas hole is exactly faces the hole.
- 14) If the position is not exact, let the tire lean on the lifting car. Turn the wheel circle little by little.

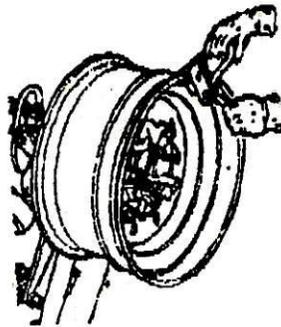


Fig2.11

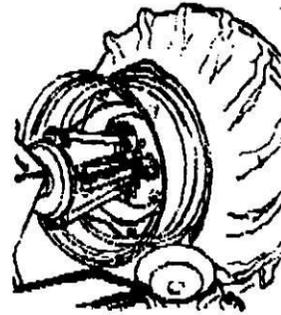


Fig2.12

## 2.6 Removing and fixing the tire with opening mouth press bar.

### 2.6.1 Removing the tire with opening mouth press bar.

- 1) Fix the tire as above. Make sure there is no air in the tire.
- 2) Adjust the plate and make it face to the tire, and get close to it.
- 3) Turn the tire, and move the tool arms towards inside. If the edge of the tire has been separated. Stop moving so that we couldn't damage the inside tire (Fig2.13).
- 4) Sledge the press bar with crow in the opening and pull it with plate. Turn the tire in the anti-clockwise until the press bar to fall down (Fig2.14).
- 5) Insert gas mouth inside the tire.
- 6) Put the plate on the other side of the tire. Push and turn the tire, until half of the tire has been pushed out (Fig2.15).
- 7) Lower the tire, make tire touch the lifting tire car, move it outside, you can get tire.

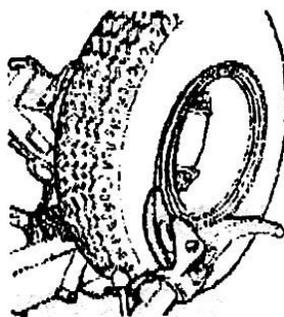


fig2.13

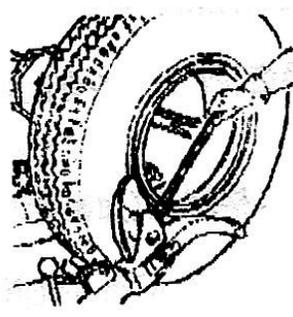


fig2.14

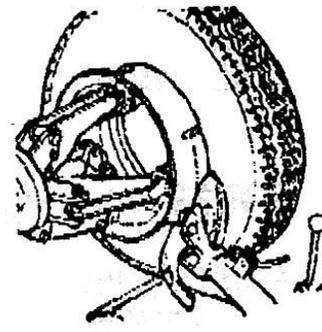


fig2.15

## 2.6.2 Fixing the tire with opening mouth press bar.

- 1) Fix the wheel circle; put the hole in the gas mouth in the bottom. Brush lubricant in it.
- 2) Put the tire with inside tire on the lifting car the gas mouth should be put in the bottom.
- 3) Move the lifting car; make the tire enter the iron circle.
- 4) You can turn the circle little by little. Adjust the position of the gas mouth.
- 5) Make the plate face the tire, press the blocking circle and the opening mouth press bar. Turn the tire and the fixing is over (Fig2.16).
- 6) Prick up arm tools, remove tire (Don't charge the tire on the equipment).

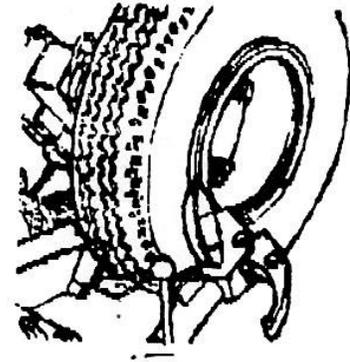


Fig2.16

## 3 Maintenance

### 3.1 General Maintenance

- ⌘ You must follow the instructions on cleaning periodically. ⌘ You should cut off the power supply. ⌘ Clean the machine itself and the movement parts (slide way, blocking plate, etc.).
- ⌘ Cleaning the following parts periodically by adding some lubricant (slide way, blocking plate, tool head, and orientation parts of tool head).
- ⌘ Change gear wheel oil for worm wheel box. ⌘ The equipment has sign of putting oil in. ⌘ Tighter the bolts periodically in fixing parts.
  - 1) Adjusting the bolts periodically in slide way. Make it not only work correctly but also be sure the distance between them.
  - 2) Adjusting the bolts in paralleling movement small board (Fig 3-1). Tighten the bolts in the upper place of the paralleling movement small board. After using the machine a period of time, push the paralleling movement small board according to the direction (Fig 3-2), loosening the fixing bolt on the upper place of the paralleling small board. Adjust the slide block and bolts. Then tighten all the bolts. (The bolts should be neither too tight nor loose.)
  - 3) Adjust the bolts in the four paws blocking plate (Don't be too tighten.)

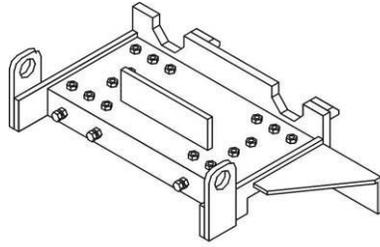


Fig 3-1

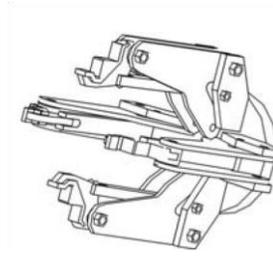


Fig 3-2

- ⌘ Check the tension and tighten of the belt. If it needs adjusting, get down the belt cover adjust the tension and tighten.