Talyn TC-PRO Rim Clamp Tire Changer w/Dual Assist Arms

The information contained is subject to change without notice.
Thank you for choosing our tire removal machine!

Dear users thank you for purchasing our tire changer machine. As long as you follow the instructions provided in this manual to use and maintain the tire remover, you can provide years of safe and reliable service. All personnel who will be using and/or maintaining this tire remover must read, understand and follow all warnings and instructions provided in this manual and receive appropriate training. This user's manual shall be considered an integral part of the tire remover and shall be stored with the tire remover. However, nothing in this manual and no device installed on the tire remover is a substitute for proper training, careful handling, good judgment and safe working practices. Always ensure that the tire remover is in optimal working condition. If you suspect that anything is not working properly, or that a dangerous condition may exist, turn off the tire remover immediately and correct any abnormal conditions before continuing to use it. If you have any questions about the proper use or maintenance of the tire remover, please call your

authorized representative.

Owner information

Owner name _____

Owner address _____

Product type _____

Product series number _____

Purchase date _____

Install date _____

Service person _____

Contract number _____

Sale person _____

Contract number _____

Training list	**qualified**	**not qualified**
Safety instruction		
Warning labels	☐	☐
High risk area and potential hazard	☐	☐
Safety operation program	☐	☐
Maintenance and performance check		
Demount head check	☐	☐
Adjustment and lubricate	☐	☐
Maintenance fault and instruction	☐	☐
Fastening		
Steel / alloy rim	☐	☐
Reverse installation rim	☐	☐
Rim without center hole	☐	☐
Bead break		
Standard wheel	☐	☐
Run flat wheel	☐	☐
Tire change		
Pay attention lubricate when demount run flat tire	☐	☐
Reverse installation wheel	☐	☐
Correct position demount head	☐	☐
Installation		
Standard wheel	☐	☐
Hard wall ,run flat tire	☐	☐
Reverse installation wheel	☐	☐
Lubricate when assembly the tires	☐	☐
Accessory		
Accessory correct use instruction	☐	☐
Lubricate and demount valve core	☐	☐
Inflate		
Safety notice	☐	☐

The lubricate and demount of core

Trainees and date

warn

- This manual is an important part of this product, please read it carefully.
- Keep this manual properly for maintenance and overhaul.
- This machine is only used to disassemble and inflate tires within the specified range, and cannot be used for other purposes.
- Our factory will not be responsible for any damage caused by improper use or out-of-range use.

matters need attention

- This machine should be operated and used by specially trained and qualified personnel. When the machine is working, keep away from non-operating personnel.
- Please pay special attention to all kinds of safety signs attached to the machine.
- Operators should wear safety protection facilities, such as overalls, goggles, earplugs, safety shoes, etc. Keep hands and other parts of the body away from moving parts as far as possible. Necklaces, bracelets and loose clothes can cause danger to operators.
- The tire changer should be installed and fixed on the flat and hard ground; The back and side of the machine are more than 0.5m away from the wall to ensure good ventilation and heat dissipation and sufficient operating space.
- Do not install the machine in a place with high temperature, high humidity, dust or corrosive and flammable gas.
- Without the permission of the manufacturer, arbitrarily changing machine parts may cause damage to the machine or operators.
- Pay attention to that the tire changer should operate under the given voltage and air pressure.
- If it is necessary to move the tire changer, it should be carried out under the guidance of professional maintenance service personnel.

Safety sign diagram

Keep your hands away from the tires during operation.

Before using the tire dismounting machine, please Read the instruction manual in detail.

Wear protection glasses when operating.

Beware of electric shock!

Never put any part of your body under the demount head

When bead break the blade will move to the left quickly and forcefully. The operator should not stand between the blade and the tire

Notice when bead break if the clamp cylinder is open ,the operator hand is easy to damage and do not touch the side wall of the tire.

When clamping the rim, please pay attention that hands and other parts do not enter between the claw and the rim

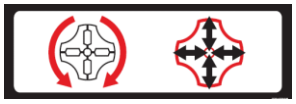
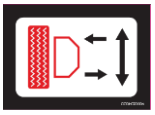
When using fast inflation, make sure that the wheels have been tightened reliably

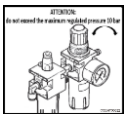
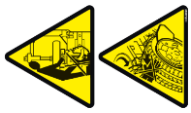
Do not wear loose clothes, long hair and jewelry during operation

When operation do not put your hand under the dropping object

Schematic diagram of safety location

- Pay attention to the integrity, if there are ambiguity or loss of safety signs, and immediately replace them with new ones.
- Operators should clearly see the safety signs and make clear the meaning of the signs.

serial number	part number	picture	explain
1			
2			
3	HC-00005		Pedal indicator sticker
4	HC-00006		Bead break control label
5	462778		Column safety indication
6	446433		Label, pay attention to the clamping jaw.
7	HC-00017		Operation instruction label
8	418135		Directional label
9	E001Z-0006		Warning label
10	E001Z-0007		Warning label
11	432740		Pressure label
12	446436		Inflatable label

13	HC-00025		Hexagonal axis locking indicator sticker
14	HC-00026		Operation safety indication
15	HC-00106		Warning label for damaging hand
16	TT-00030		Safety warning label of workbench
17	HC-00010		Pressure adjustment indicator sticker
18	446431		Bead break safety sticker
19	462081A		Anti-pinch label
20	HC-00015		Inflatable pedal indicator sticker
21	TT-00051		200V~240V Voltage Label
22	TT-00052		100V~130V Voltage Label

catalogue

Chapter I Overview

1.1 introduction

The model is a fixed column and rocker type tire changer, which is suitable for dismounting and inflating all kinds of small and medium-sized tires (vacuum tires and inner tube tires). It has the function of quick inflation, and is equipped with left and right assistants to adapt to the disassembly and assembly of flat hard-wall tires. Easy to operate, convenient, safe and reliable, and it is a necessary equipment for auto repair shops and tire shops.

1.2 basic dimensions of equipment

model	Height (mm)	Length (mm)	Width (mm)
	2115	1150	1050

1.3 technical parameters

Working pressure: 8-10bar

Motor parameters: motors with different parameters can be selected according to customer requirements.

The voltage: 200-240V 1ph; 100-130V 1ph

Motor power: 0.85Kw; 0.6Kw

Output torque: 1200N·S; 1100N·S

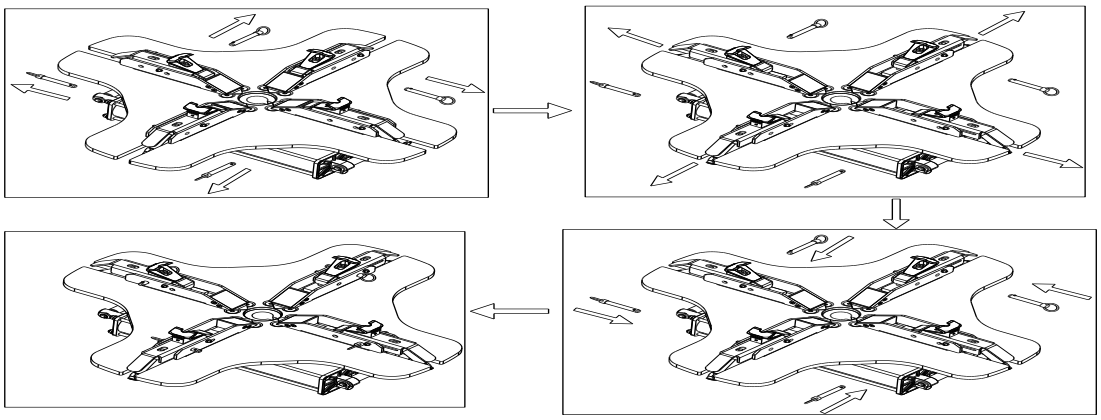
Rotary speed: 0-13rpm; 0-11rpm

Operating noise: < 70dB

1.4 scope of application

model	Maximum diameter of tire	Maximum tire width	Rim diameter (outer clamp)	Rim diameter (inner support)
	1250mm(49″)	381mm(15″)	The first gear 12-25 inch The second gear 16-28 inch	The first gear14-27 inch The second gear 18-30inch

As shown in the figure below, the machine working turntable is an adjustable turntable, and the gear adjustment is shown in the figure.



1.5 environmental requirements

Tyre dismounting machine can't be used in places with flammable gas!

The environment temperature is 0℃~45℃; The relative humidity is 30~95%; The maximum altitude is 1000M.

No dust, corrosive or flammable and explosive gases; The operating space around the machine is as follows

WARNING

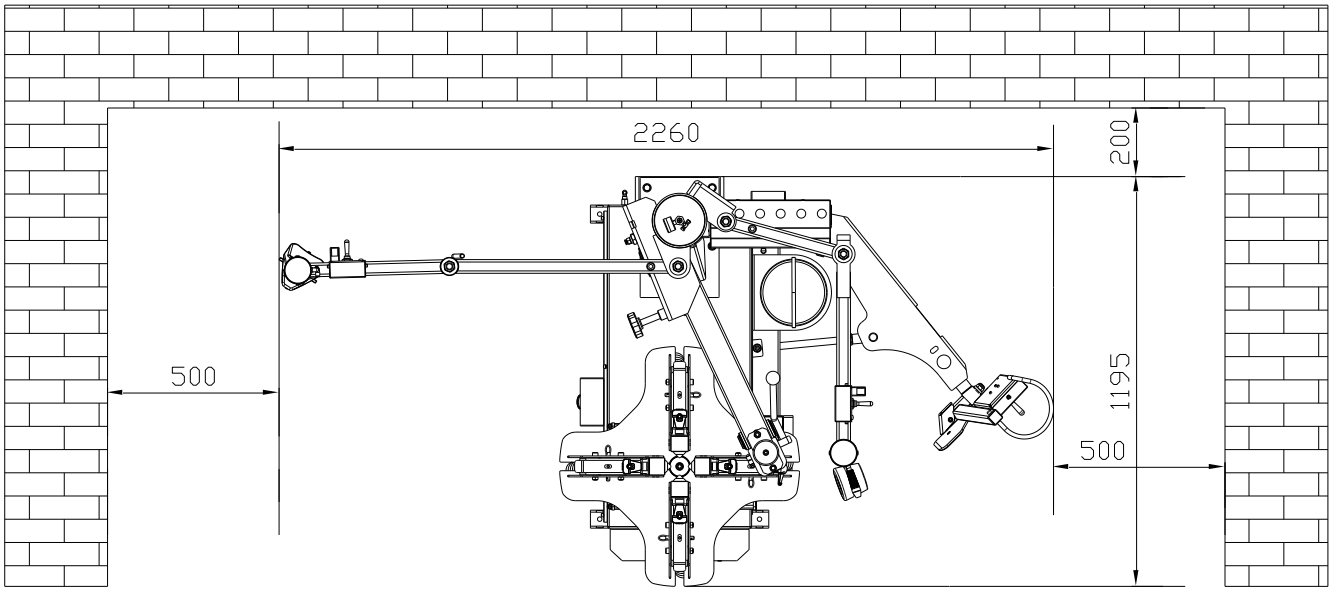
The machine must be installed in accordance with all applicable safety regulations, including but not limited to those issued by OSHA.

DANGER

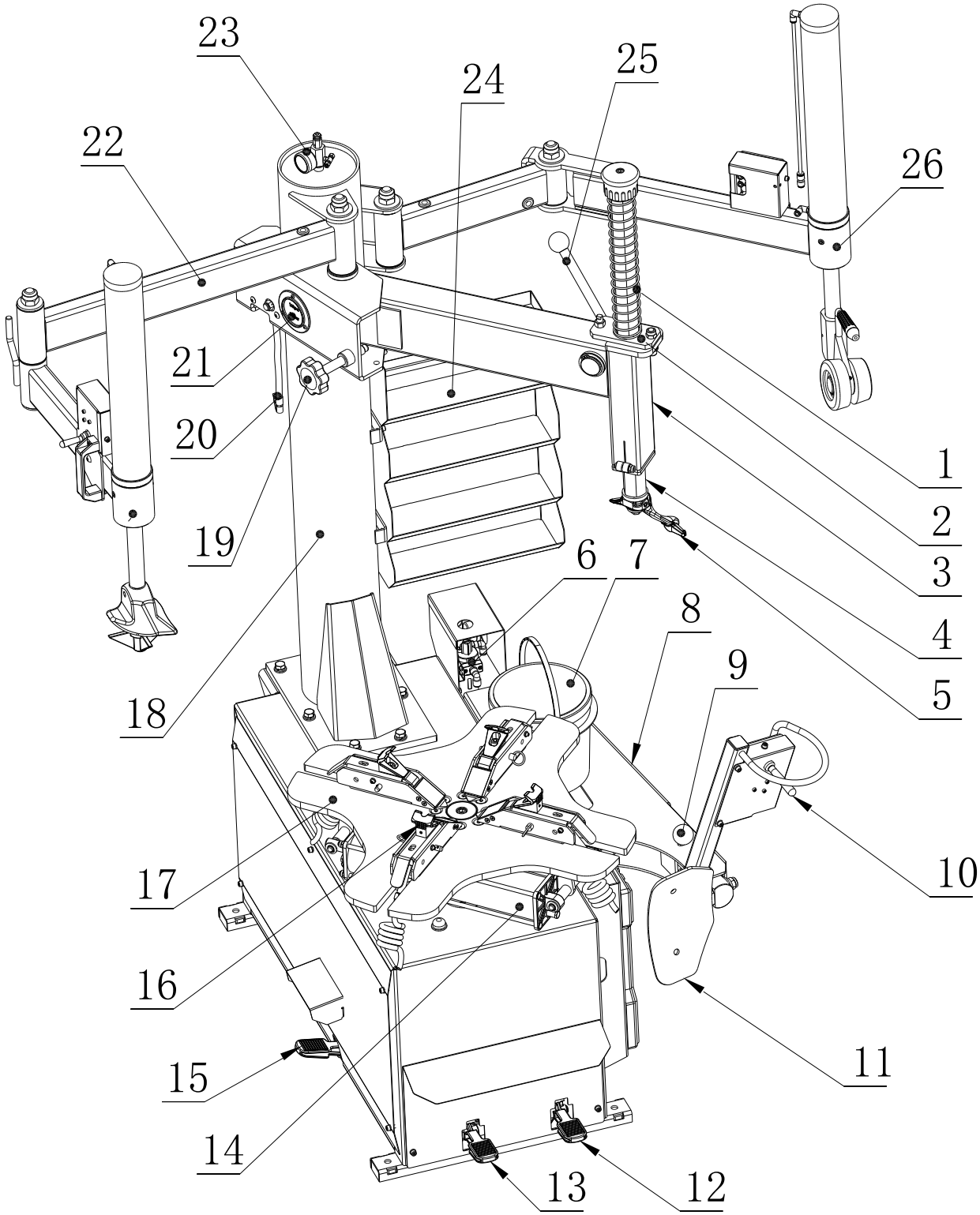
RISK OF EXPLOSION OR FIRE. Never use the machine in an area where it will be exposed to flammable vapours (gasoline, paint thinners solvents, etc.). Never install the machine in a recessed area or below floor level.

CAUTION

Do not install the machine outdoors. It is designed for use in an indoor, sheltered area.


2260
200
500
1195
500

Chapter II Basic Structure and Operating Parts of Machine



1. Vertical shaft spring 2. Locking plate 3. Rocker arm 4. Hexagon shaft 5. demount head 6. Air supply triple piece 7. Lubricating liquid barrel 8. bead break arm 9. Pin shaft. 10. Manual valve 11. bead break blade 12. pedal for clamp 13. Turntable steering pedal 14. Cylinder 15. Inflatable pedal 16. Claw 17. Turntable 18. Column 19. Limit handwheel

20. Inflatable hose 21. Inflatable pressure gauge 22. Left assistant 23. Vertical safety valve 24. Tool box 25. Locking handle 26. Right assistant.

Chapter III Installation and Commissioning of Equipment

Before commissioning, you should read this manual in detail. Changing the machine parts without the manufacturer's permission may damage the machine.

- Commissioning personnel must have certain electrical knowledge.
- Operators must be specially trained and qualified.
- Check the equipment list carefully before installation, and if in doubt, please contact the dealer or our company immediately. To ensure the smooth installation and debugging, please prepare the following common tools:
  Two adjustable wrench (10″), one socket wrench, hex socket wrench, one vice,
  A set of screwdrivers, a hammer and a universal meter.

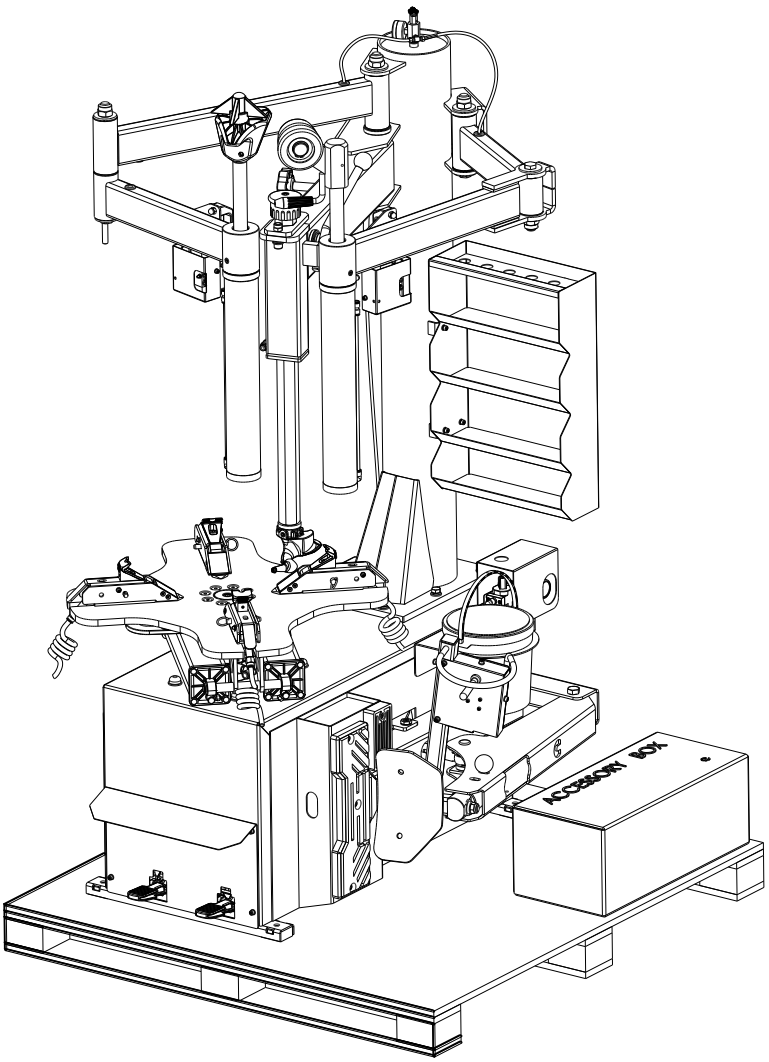
3.1 unpacking

3.1.1 According to the unpacking instructions on the packing box, unpack the packing box, remove the surrounding packaging materials, check whether the machine is damaged in transit and whether the accessories are complete.

3.1.2 Transport the packaging materials away from the job site and properly handle them.

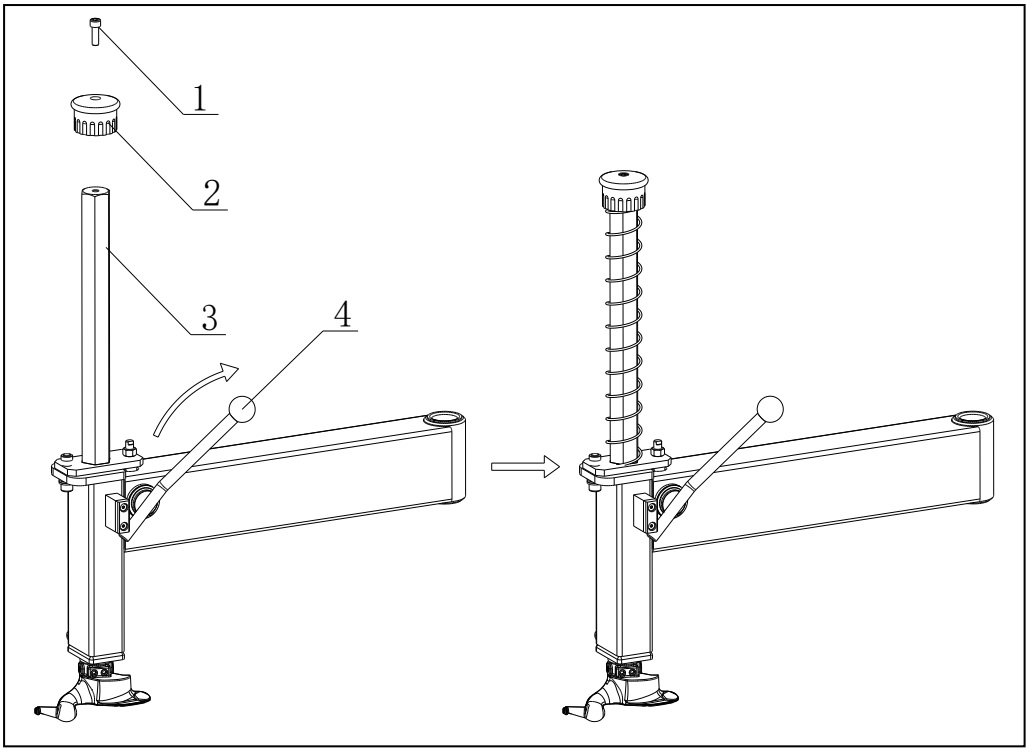
3.2 Installation

3.2.1 Unpacking boxes

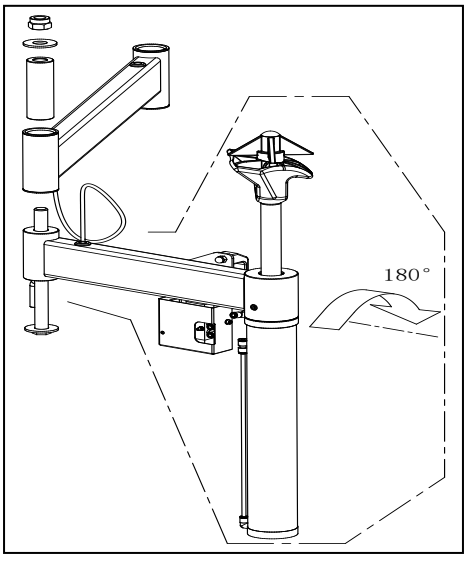


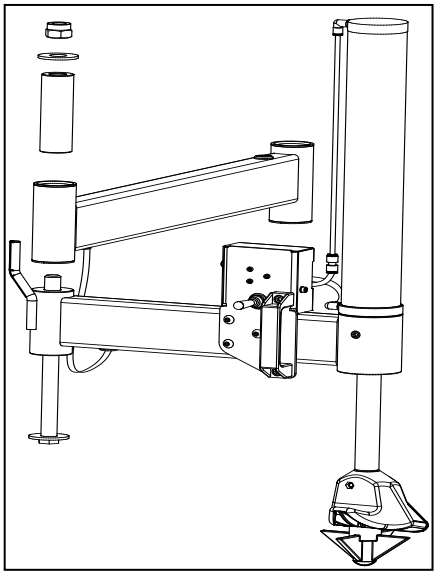
3.2.2 Unscrew the screw (1) on the hexagonal shaft with an Allen wrench and remove the vertical shaft (2).

When disassembling the screw of the vertical shaft cap, the hexagonal shaft must be locked with the locking handle (4) to prevent it from sliding down, damaging the machine or causing personal accidents. Put the vertical shaft spring on the vertical shaft, install the vertical shaft cap and screw on the removed screw.

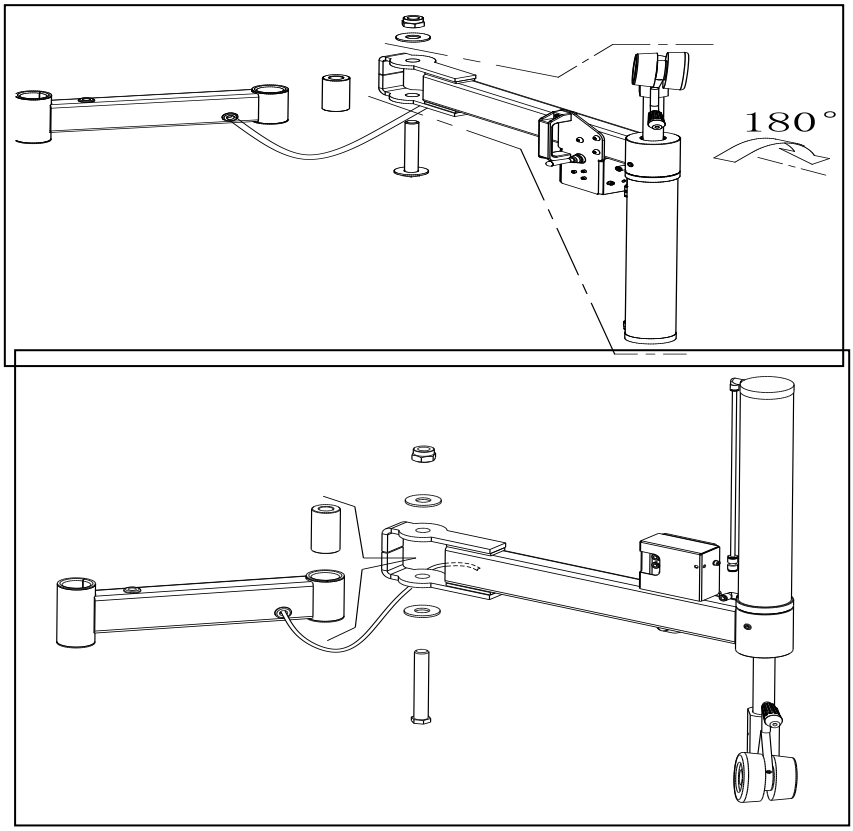


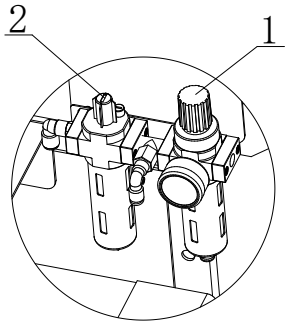
3.2.3 Installation of left assistant:

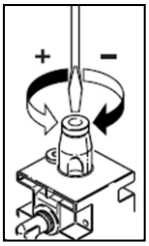


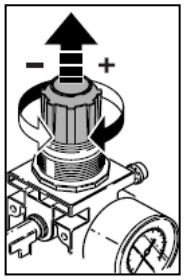


3.2.4 Installation of right assistant:









3.3 Commissioning of air supply triplet:

The air source triplet has been adjusted before leaving the factory. If it needs to be changed, it can be readjusted:

Pressure: Lift the adjusting knob (1) of the pressure regulating valve upwards and turn it clockwise.

Air pressure rises, otherwise it falls.

Oil supply: screw (2) the adjusting screw with a screwdriver, and screw the dripping speed clockwise.

Slow down, otherwise speed up.

Adjust the working pressure of the whole machine, and never exceed 10Bar.

Chapter IV Tire Disassembly and Assembly Operation

Note: Operators must be trained and qualified before they can operate the tire changer, and they should use appropriate equipment when operating.

Prepare tools, wear protective overalls, and use appropriate safety protection measures, such as goggles, earplugs,

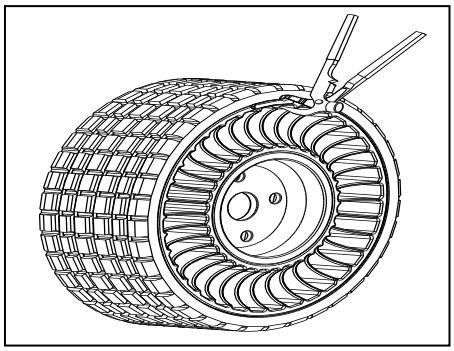
Safety shoes, etc.

4.1 Basic principles

- When installing and disassembling tires, special tire crowbars must be used in order not to damage the rims, especially the aluminum alloy rims.
- In order to facilitate the disassembly of the tire and protect the tire and rim, between the tire and rim, the position where the tire bead is to be inserted (at the rim and shoulder) needs to be lubricated with industrial lubricant or concentrated soapy water.
- For some types of tires, pay attention to the flange on the outer sidewall of the tire and the direction of rotation marked on the tire.
- The installed tire size should be consistent with the rim size.
- Before installing and disassembling the tire, check whether the rim has been damaged (deformation or surface damage of the rim outer edge, excessive axial or radial runout of the rim, corrosion or overall wear).
- In any case, pay attention to the requirements of tire manufacturers for the installation and disassembly of special tires.
- When inflating the tire, the pressure in the tire should be increased evenly, and the state of the bead should be paid attention to.

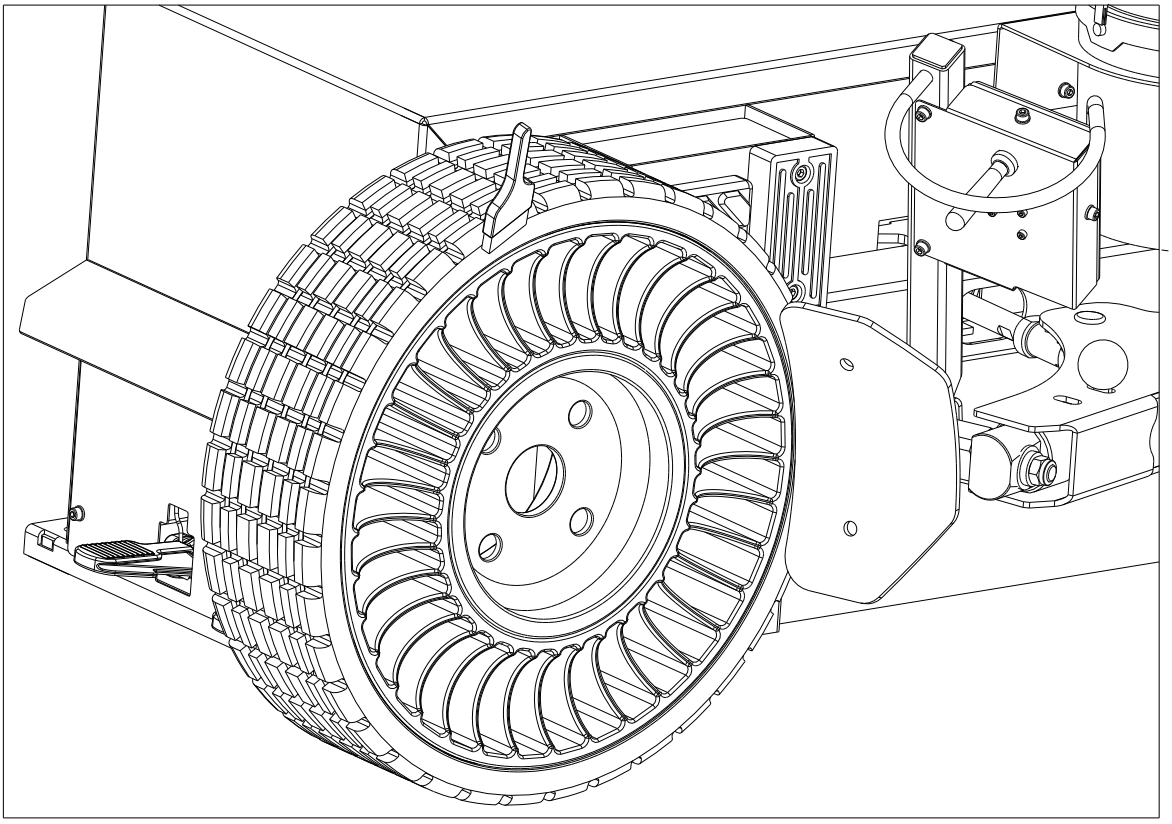
4.2 Tyre removal operation

4.2.1 Drain all the air in the tire, use special tools to unload the balance weight on the outer edge of the rim, and pull out the valve core.

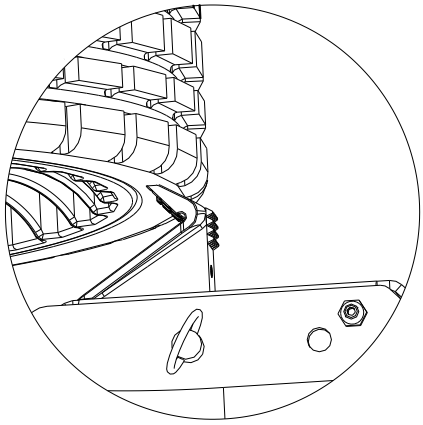


4.2.2 Place the tire between the tire bead break blade and the tire press pad, and then control the valve with a hand wrench to separate the tire lip from the rim. Repeat the above operation at other parts of the tire, so that both tire lips are completely separated from the rim.

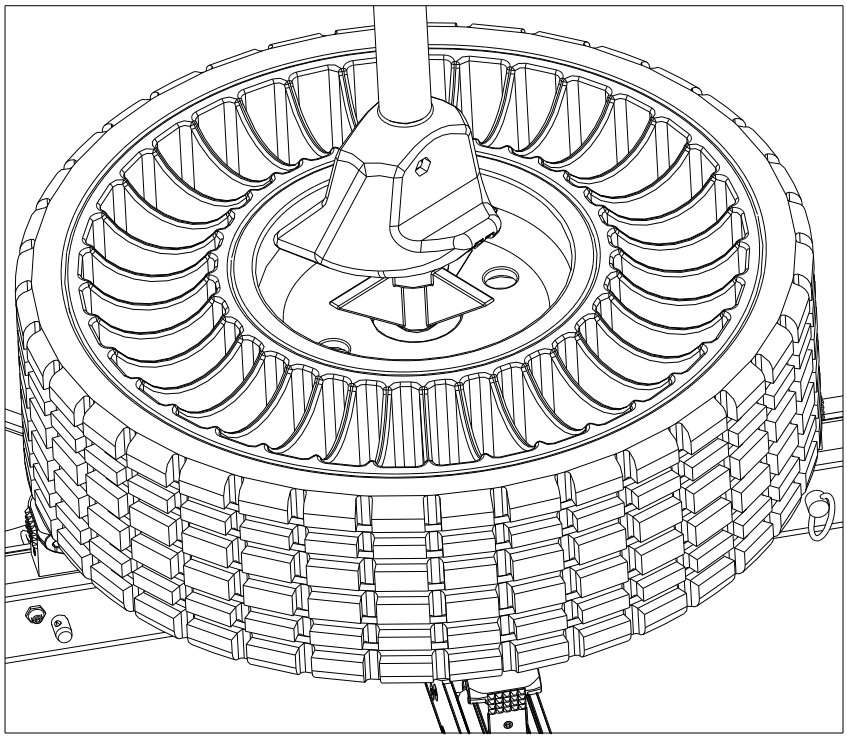
When pressing the tire, please apply industrial lubricant or concentrated soap solution to the tire lip with a brush to lubricate the tire lip.



4.2.3 Put the wheel whose tire lip is separated from the rim on the turntable, and step on the clamp to clamp the rim (inner support or outer clamp can be selected according to the rim). When clamping outside, first open the jaws to a certain range (2-3cm larger than the rim periphery) to prepare for tire disassembly.

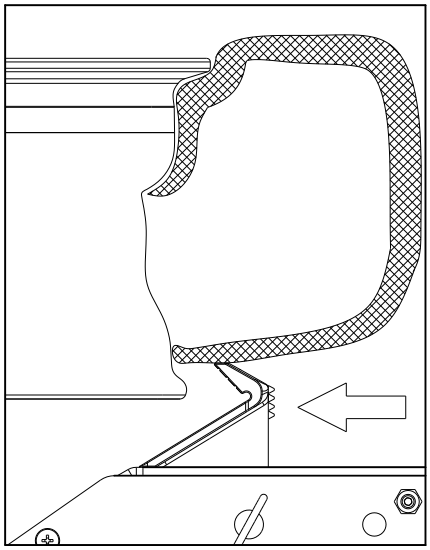


4.2.4 Align the left auxiliary arm with the center hole of the rim and press the manual valve downward.



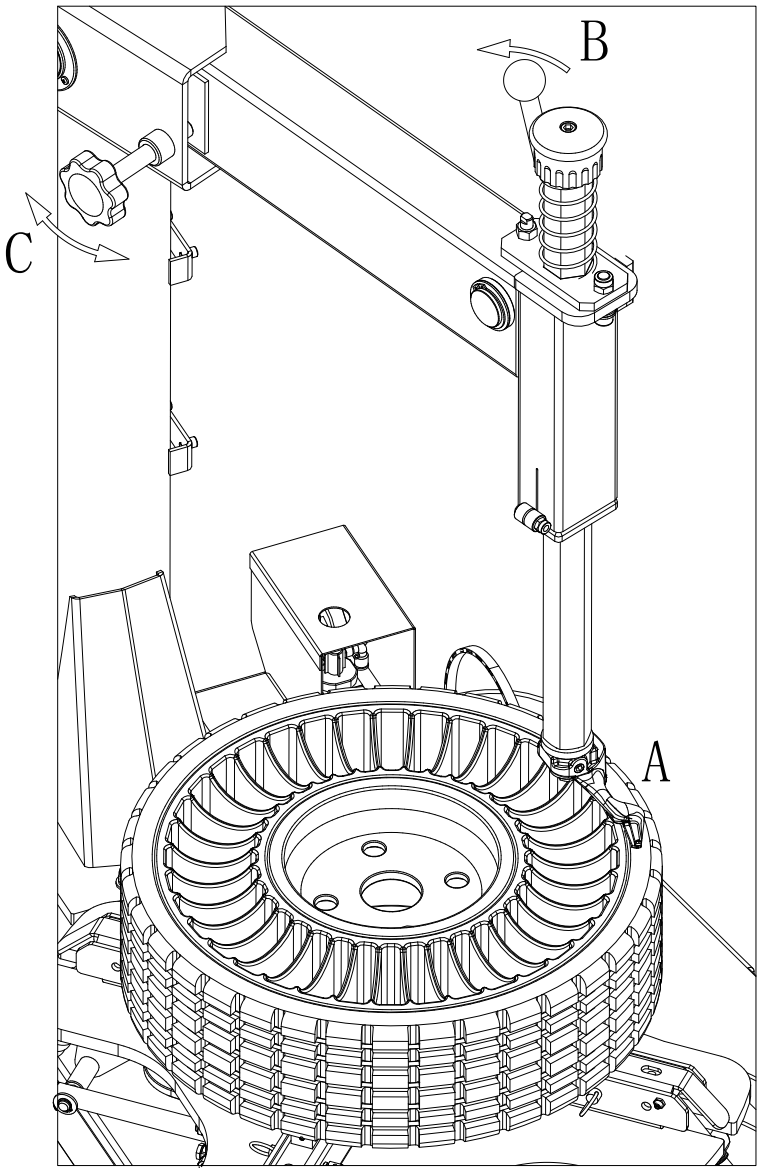
4.2.5 After pressing down to the position shown below, retract the jaw.

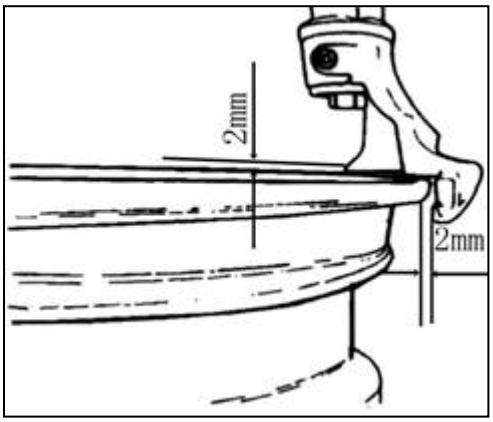
⚠ In the process of clamping the rim, do not put your hand between the rim and the jaw to avoid personal injury.



4.2.6 The bird's head is attached to the rim at A (size as shown below). Turn B counterclockwise to lock the hexagonal shaft, and adjust the handwheel C to cling to the

rocker arm.

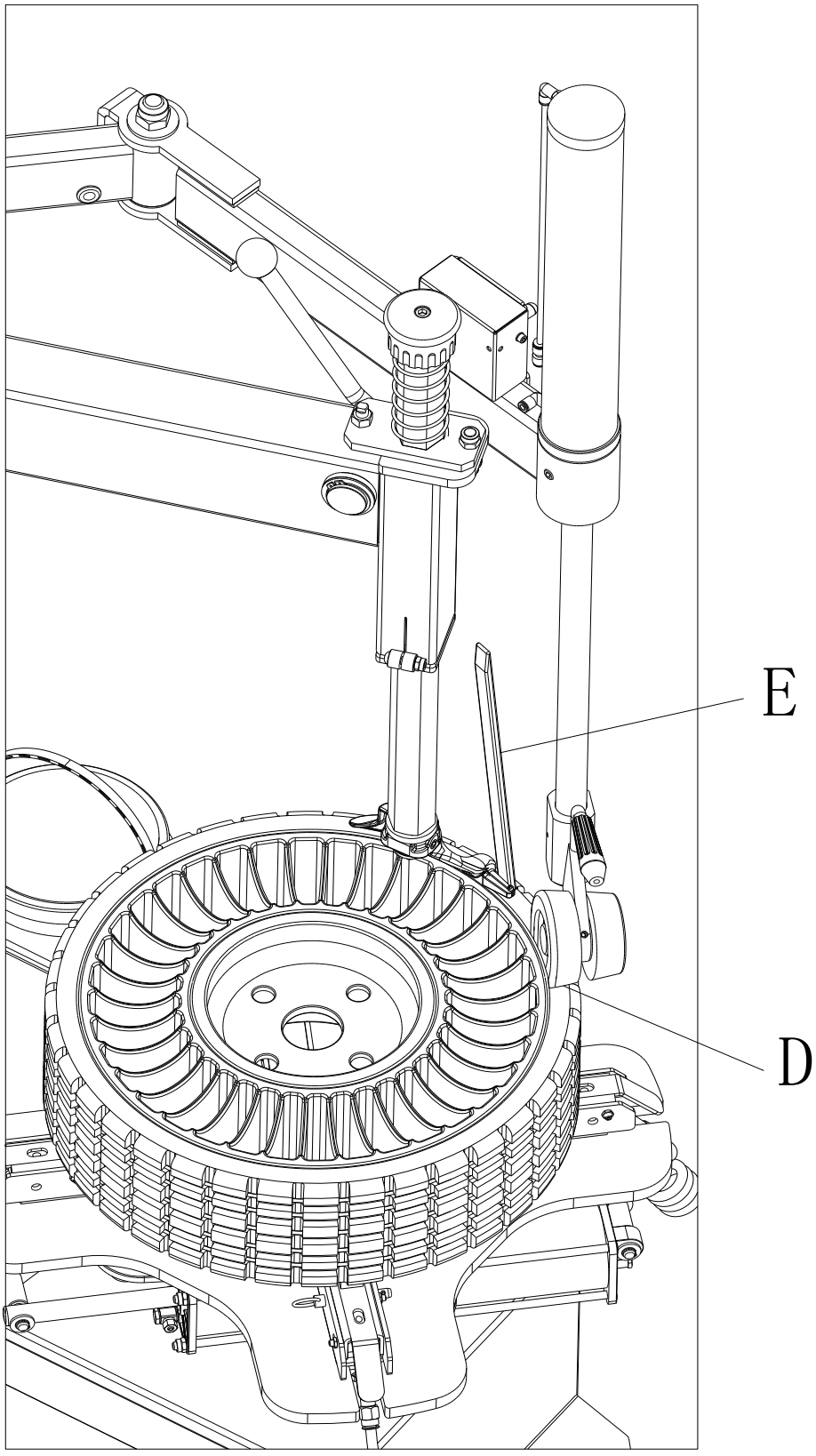




The angle of dismounting head has been adjusted according to the standard (14″) rim at the factory.

In case of extra-large or extra-small rims, please reposition them.

4.2.7 Press the right auxiliary arm at point D and insert the crowbar E.



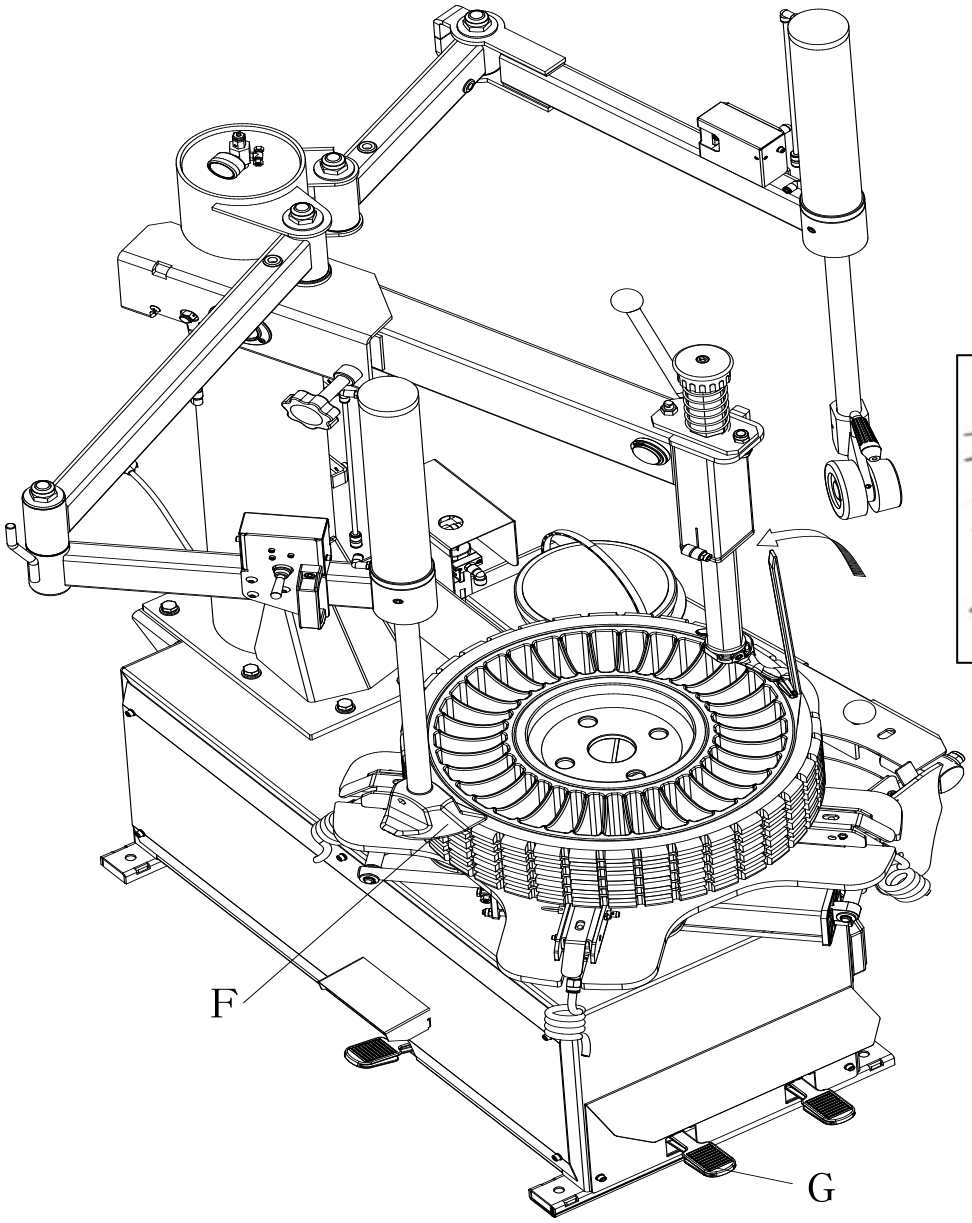
4.2.8 Remove the right auxiliary arm, move the left auxiliary arm and press it down at the symmetrical position F of the crowbar, remove the left auxiliary arm, and pull the crowbar as shown in the figure.

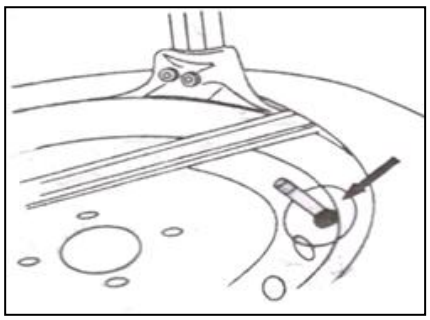
click on pedal G to turn the turntable and the turntable rotates clockwise until the

upper tire lip comes out completely. If the tire with inner tube is removed, in order to

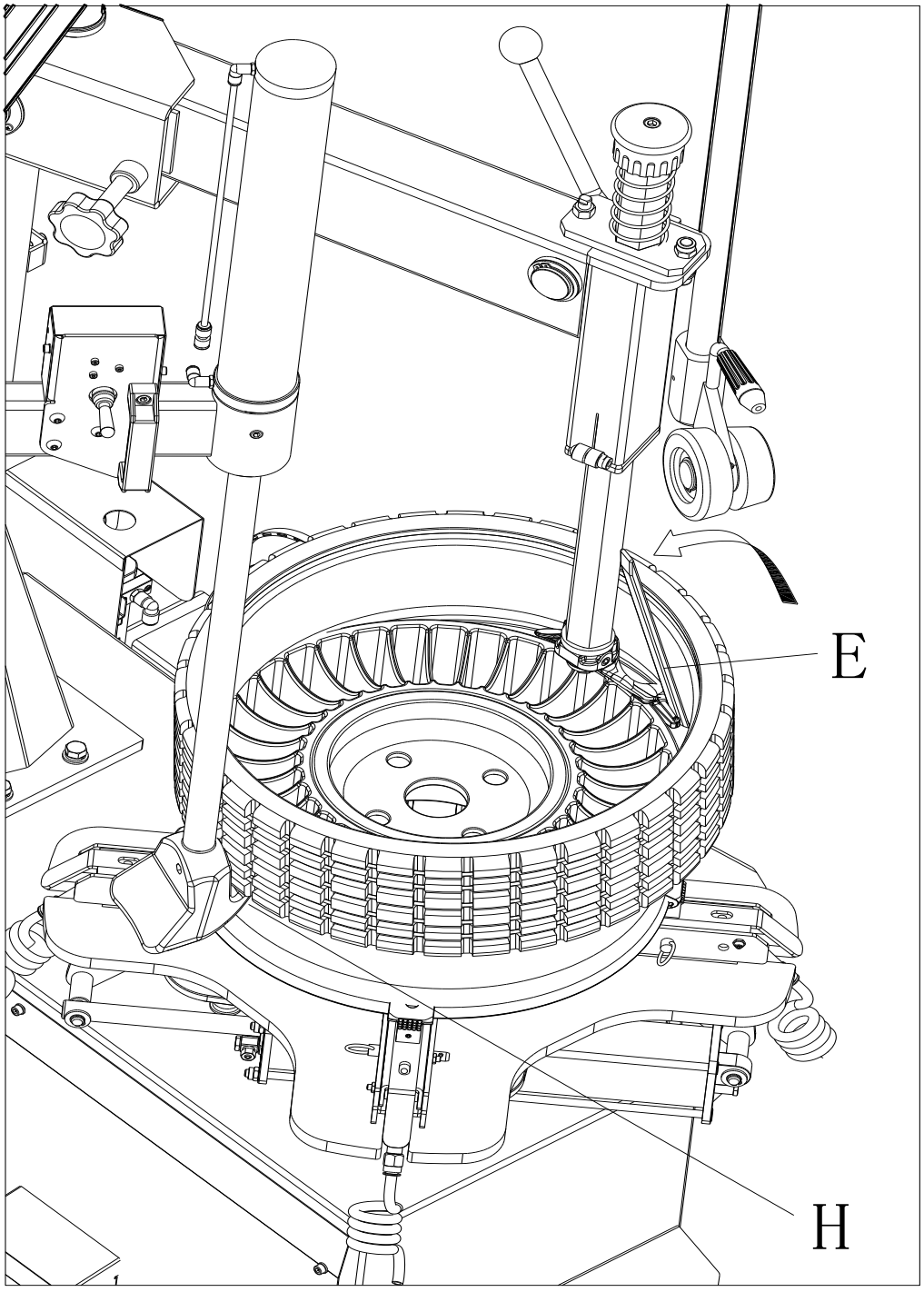
Avoid damaging the inner tube. When operating, keep the valve about 10cm away from the right side of the tire remover.

If tire disassembly is blocked, stop immediately, lift the pedal, and let the turntable rotate counterclockwise to remove the obstacle.





4.2.9 The left auxiliary arm holds up the H point, inserts the crowbar E, moves the lower tire lip to the upper tire opening of the rim, moves the crowbar E in the direction shown in the figure, and rotates the turntable to complete the tire disassembly (if there is an inner tube, take out the inner tube, and then hold up the tire).



In the process of tire removal, make your hands and body as other as possible
Stay away from moving parts, necklaces, bracelets and loose clothes.
It is dangerous for operators.

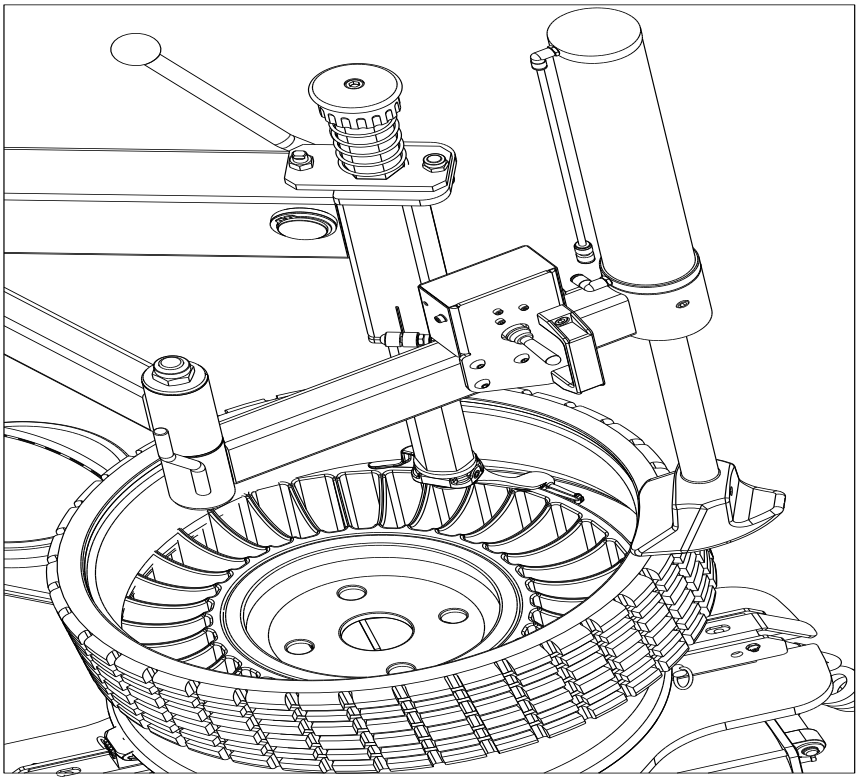
4.3 Tire loading operation

Check the tire and rim dimensions before installing the tire.
Whether it is the same.

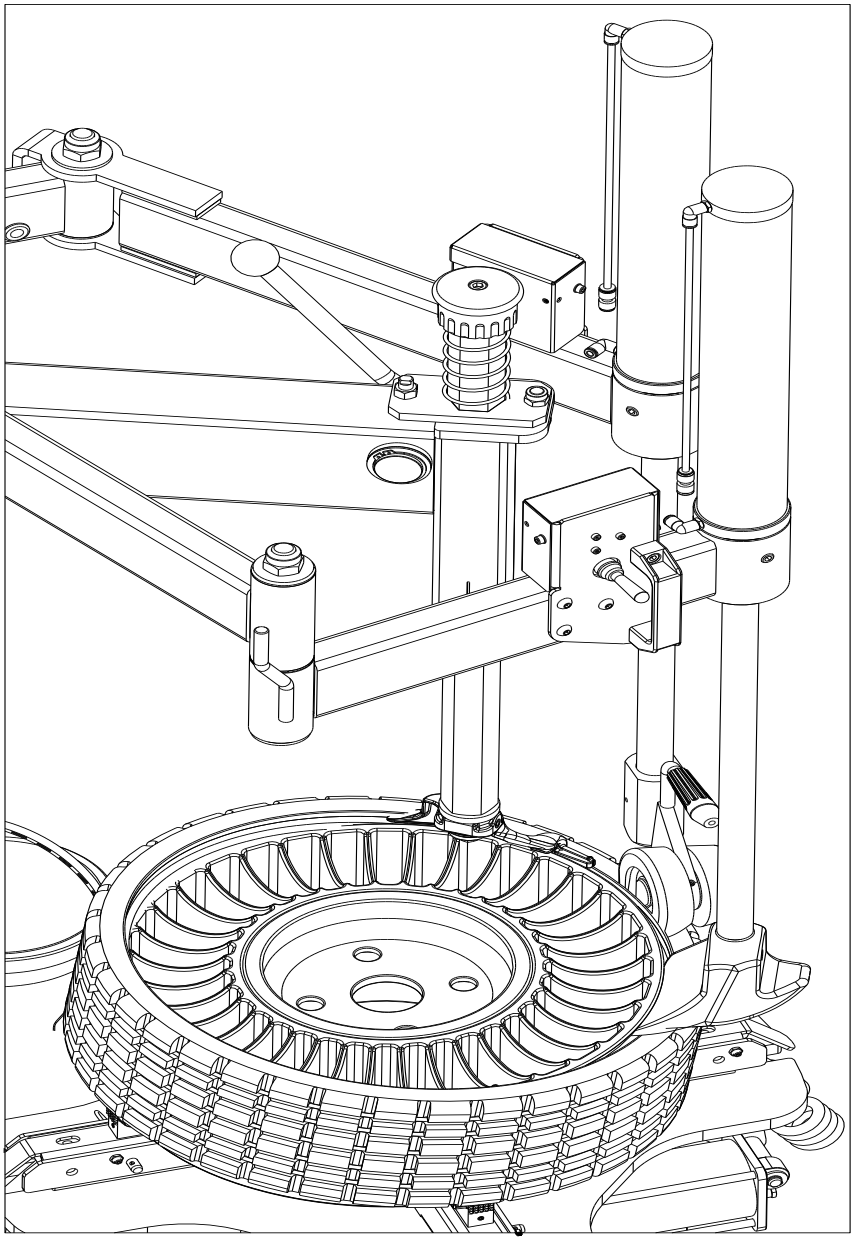
4.3.1 Remove dirt and rust from the rim, and lock the rim on the rotary table.

4.3.2 After applying lubricant or concentrated soapy water to the tire lip, place the tire obliquely on the rim (left high and right low), and press down the hexagonal shaft to remove it.

The mounting head is attached to the rim and locked. The left rear tire lip is placed above the tail of the dismounting head, and the right front tire lip is placed below the protruding position of the dismounting head. Turn the turntable clockwise to guide the lower tire lip into the groove of the rim. (If there is an inner tube, put it in the tire and wear the valve core.)



4.3.3 Place the upper tire lip obliquely on the rim (left high and right low), press the left and right auxiliary arms as shown in the figure below, and rotate the turntable clockwise to guide the upper tire lip into the groove of the rim. End of loading.



4.4 Inflating operation

When inflating the tire, you should be careful and strictly observe the operating Before inflating, please check whether the air circuit connection is in good condition. Match this machine

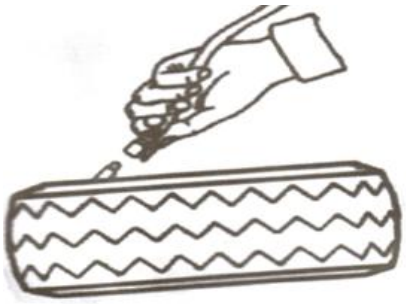
There is a pressure gauge inflation device (inflation gun or inflation meter box) for monitoring tire inflation and inflation pressure.

4.4.1 This equipment is equipped with quick pre-inflation as standard.

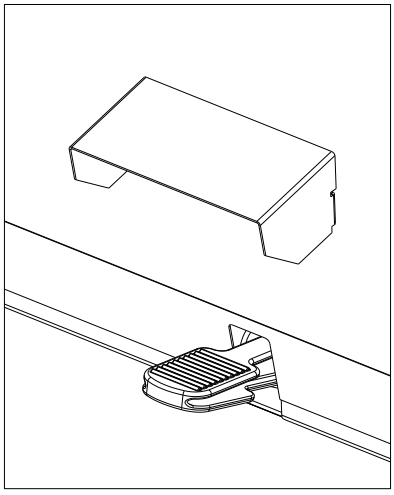
For tubeless wheels with lax fit between tires and rims, when ordinary inflation is ineffective, quick pre-inflation can be carried out first.

Ordinary inflation

- Clamp the wheel and connect the inflation tube.

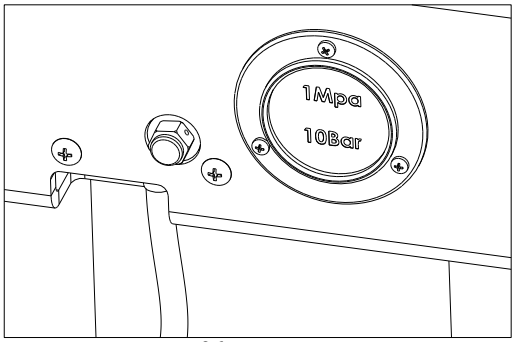


- Step on the fast charging pedal on the right side of the box to the bottom (the second gear), and quickly release the pedal to return to the first gear after the tire is tighten



- Tread your feet lightly for many times, and make sure that the pressure displayed by the pressure gauge does not exceed the range indicated by the tire manufacturer, which is normal.

Generally, the tire pressure of a car does not exceed 3.5bar. The machine is equipped with a pressure reducing valve, which has been adjusted to the inflation pressure of less than 3.5bar when leaving the factory (users can also adjust the pressure reducing valve in the machine to get different inflation pressures according to requirements). If the inflation pressure is too high, press the deflation button on the inflator to deflate, so as to achieve the required air pressure.



 In this step, make sure that the wheels are clamped by the jaws, or your life may be in danger.

 **Warning! Danger of explosion!**
Please strictly follow the above safety operation when inflating, especially the following instructions:

- Carefully check whether the size of the rim is the same as that of the tire, check the wear of the tire, and make sure that the tire is inflated.
  No damage.
- When the pressure required for tire inflation is high, the tire should be removed from the dismounting machine and placed in the protective cover for inflation.
- Be especially careful to inflate the tire, concentrate on it, and keep your hands and body as far away from the tire as possible.

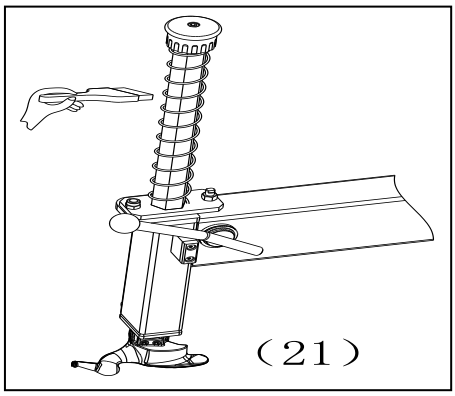
Chapter 5: Repair and Maintenance

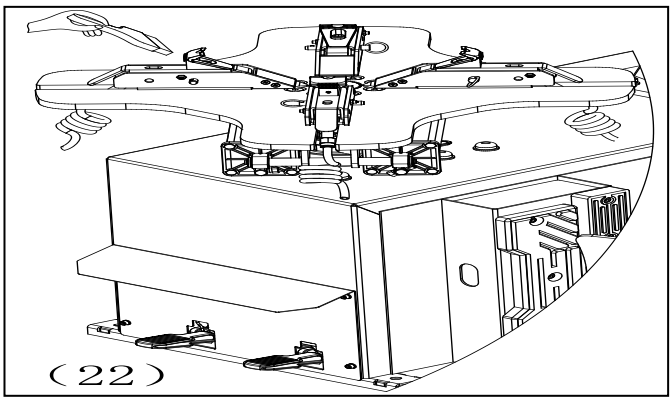
note:

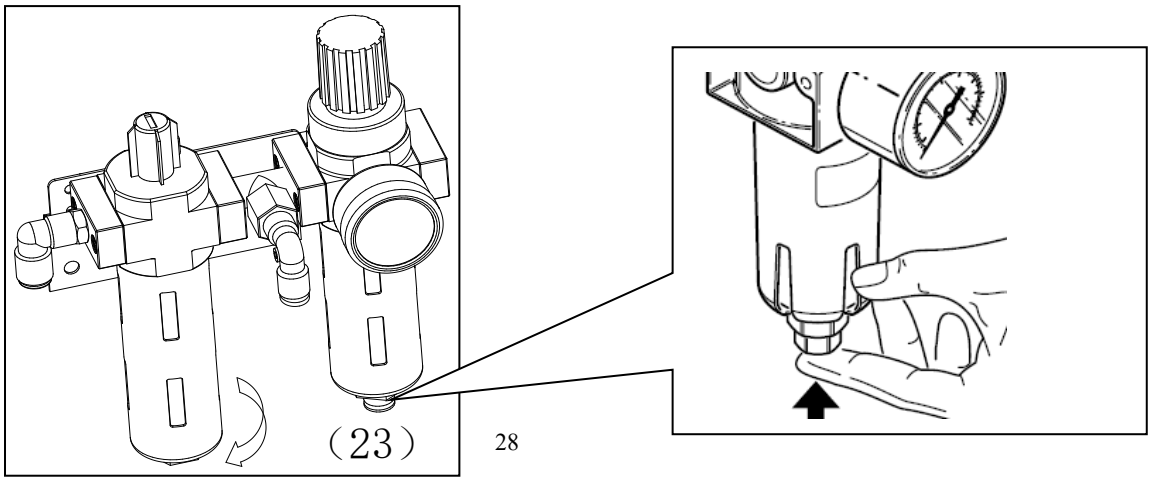
Only professionals can carry out maintenance work. Before any maintenance work, disconnect the power supply and keep the power plug within the monitoring range of maintenance personnel, and at the same time, turn off the air source and push the gas switch to the closed position, and then exhaust the remaining gas in the machine. In order to correctly use the dismounting machine and prolong its service life, it is necessary to regularly repair and maintain it according to the instructions, otherwise, the operation and reliability of the machine will be affected, and the operator or people near the machine may be hurt.

The following parts shall be maintained at least once a month:

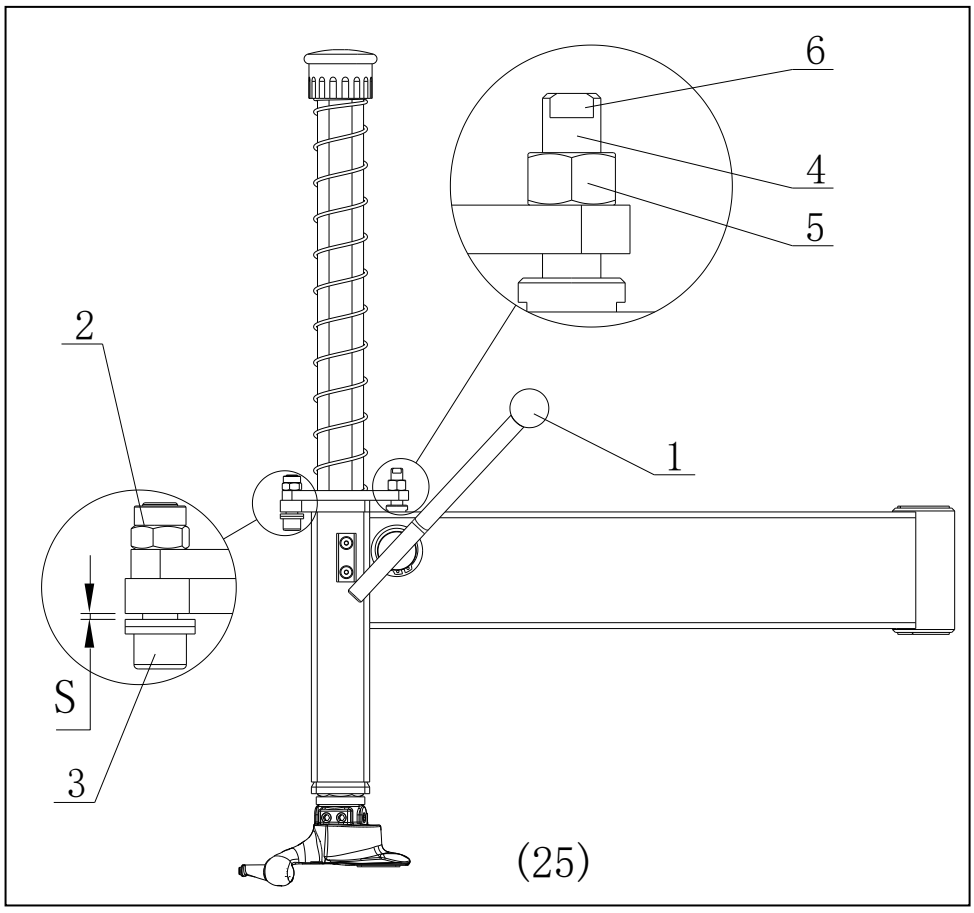
- Keep the machine and work area clean.
- Clean the hexagonal shaft with diesel oil (as shown in Figure 21) and lubricate it with lubricate oil.
- Clean the clamping jaws and guide rails of the rotary table with diesel oil and lubricate them with lithium grease (Figure 22).
- Regularly check the height of lubricating oil in the triple oil cup. If the oil level is lower than the marking line, please fill SAE30 lubricating oil in time (Figure 23). Drain the water and impurities from the water cup regularly.
- Check all connectors and tighten loose bolts.


(21)


(22)

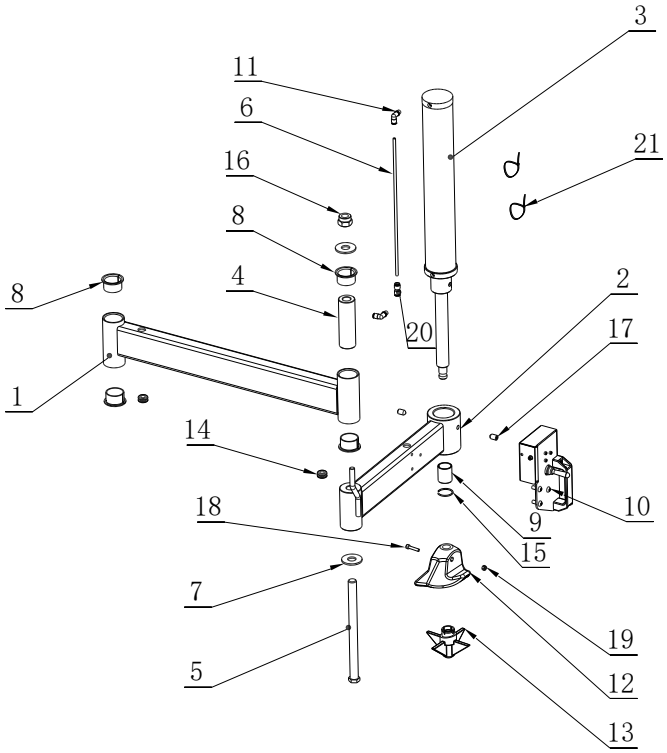

(23)

- Adjustment of hexagonal shaft locking plate and locking clearance
  When the locking handle (Figure 25-1) is unlocked, the hexagonal shaft can slide up and down freely under the action of weight and vertical shaft spring; When the locking handle rotates counterclockwise about 100 degrees, the cam connected to the handle pushes up the locking plate to lock the hexagonal shaft, and at the same time, the dismounting head moves up 2mm, forming a gap with the hub. If the locking plate is not locked tightly or the gap is not right,
  Can be adjusted by adjusting the screw (Fig. 25-3) clearance S = 2 mm, after adjusting , lock nut (Fig. 25-2) , adjusting (Fig. 25-4) to increase the lock (Fig. 25-6) as shown in the direction, the lock (figure 25-5) is adjusted



Chapter 6: Structure of Auxiliary Device

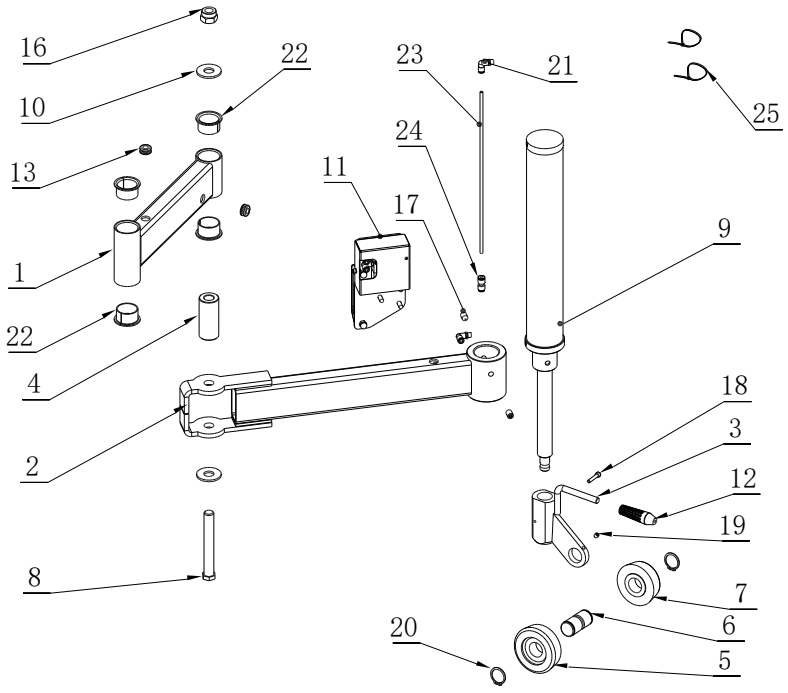
6.1 Basic structure of left auxiliary arm



21	B-53-1000009	ribbon	2
20	FPU-6	Direct insertion	1
19	GB41-M6	Hexagon nut class C M6	1
18	GB70.1-M6×30	Hexagon socket head cap screws M6×30	1
17	GB78-M12×20	Hexagon socket set screw M12×20	2
16	GB889.1- M20	Type 1 nonmetallic insert hexagonal lock nut M20	1
15	GB895.1-35	Retain ring 35 with hole steel wire.	1
14	C-71-1000019	Threading	3
13	H-80-1001002	Web-shaped tire pestle	1
12	H-80-1001001	Web-shaped tyre pressing foot	1
11	FPL 6-01	Inserted elbow Φ 6, R1/8	2
10	C-A5-1C50000	Upper assistant control valve assembly	1
9	GB12613-34×30×40	Roll sleeve 34×30×40	1
8	SF-1F 40260	Flange-free bushing Φ Φ40X26	4

7	C-U3-1000005	spacer	2
6	C-U3-1400003	straight tube	1
5	C-U3-1400002	Left arm connecting shaft	1
4	C-U3-1400001	axle	1
3	C-U3-1430000	Assistant cylinder	1
2	C-U3-1420000	Left arm joint 2	1
1	C-U3-1410000	Left arm joint 1	1
serial number	part number	Naming	quantity

6.2 Basic structure of right auxiliary arm

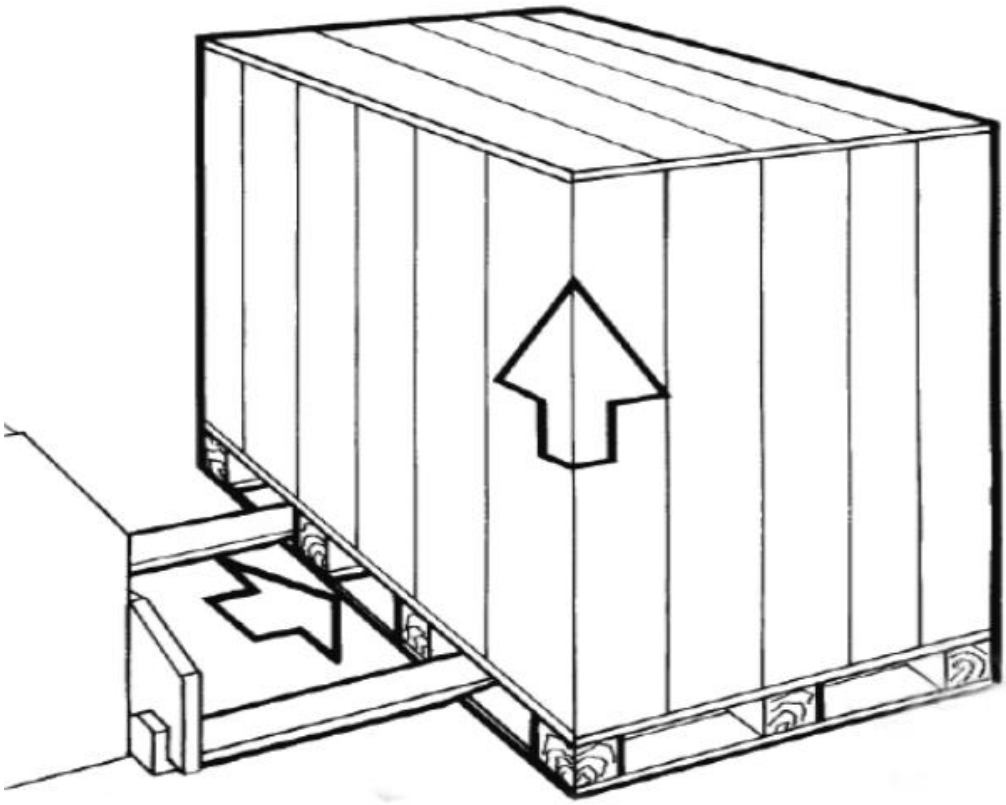


25	B-53-1000009	ribbon	2
24	FPU-6	Direct insertion	1
23	C-U3-1400003	straight tube	1
22	SF-1F-40260	Flange-free bushing Φ Φ40X26	4
21	FPL 6-01	Inserted elbow Φ 6, R1/8	2
20	GB894.1-32	Use shaft circlip a type 32	2
19	GB78-M8×10	Hexagon socket set screw M8×10	1
18	GB70.1-M6×30	Hexagon socket head cap screws M6×30	1
17	GB78-M12×20	Hexagon socket set screw M12×20	2
16	GB889.1- M20	Type 1 nonmetallic insert hexagonal lock nut M20	1
15	GB895.1-35	Retain ring 35 with hole steel wire.	1
14	GB12613-34×30×40	Roll sleeve 34×30×40	1
13	C-71-1000019	Threading	2

12	TC-40-1200022	rubber sleeve	1
11	C-A5-1C50000	Upper assistant control valve assembly	1
10	C-U3-1000005	spacer	2
9	C-U3-1430000	Assistant cylinder	1
8	C-U3-1500005	Right arm connecting shaft	1
7	C-U3-1500004	Cone2	1
6	C-U3-1500003	roller shaft	1
5	C-U3-1500002	Cone1	1
4	C-U3-1500001	Right hand rotating shaft	1
3	C-U3-1530000	Tyre stick seat piece	1
2	C-U3-1520000	Right arm joint 2	1
1	C-U3-1510000	Right arm joint 1	1
serial number	part number	Naming	quantity

Chapter VII Handling of Products

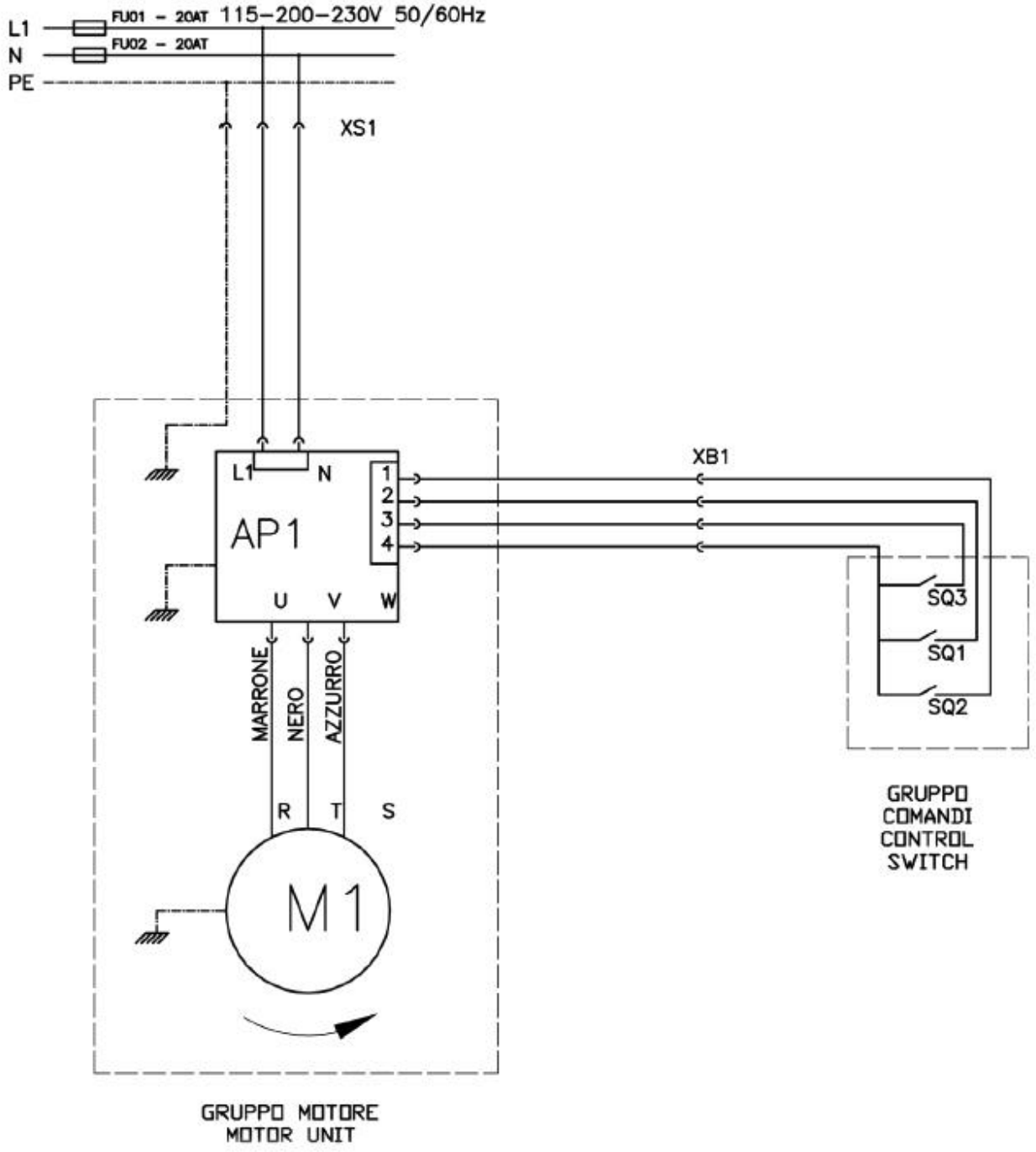
The machine must be transported in the original package and according to the label on the package.
Knowledge placement. The machine must use a forklift with the corresponding tonnage. Handling. And the base height shall not exceed three floors.



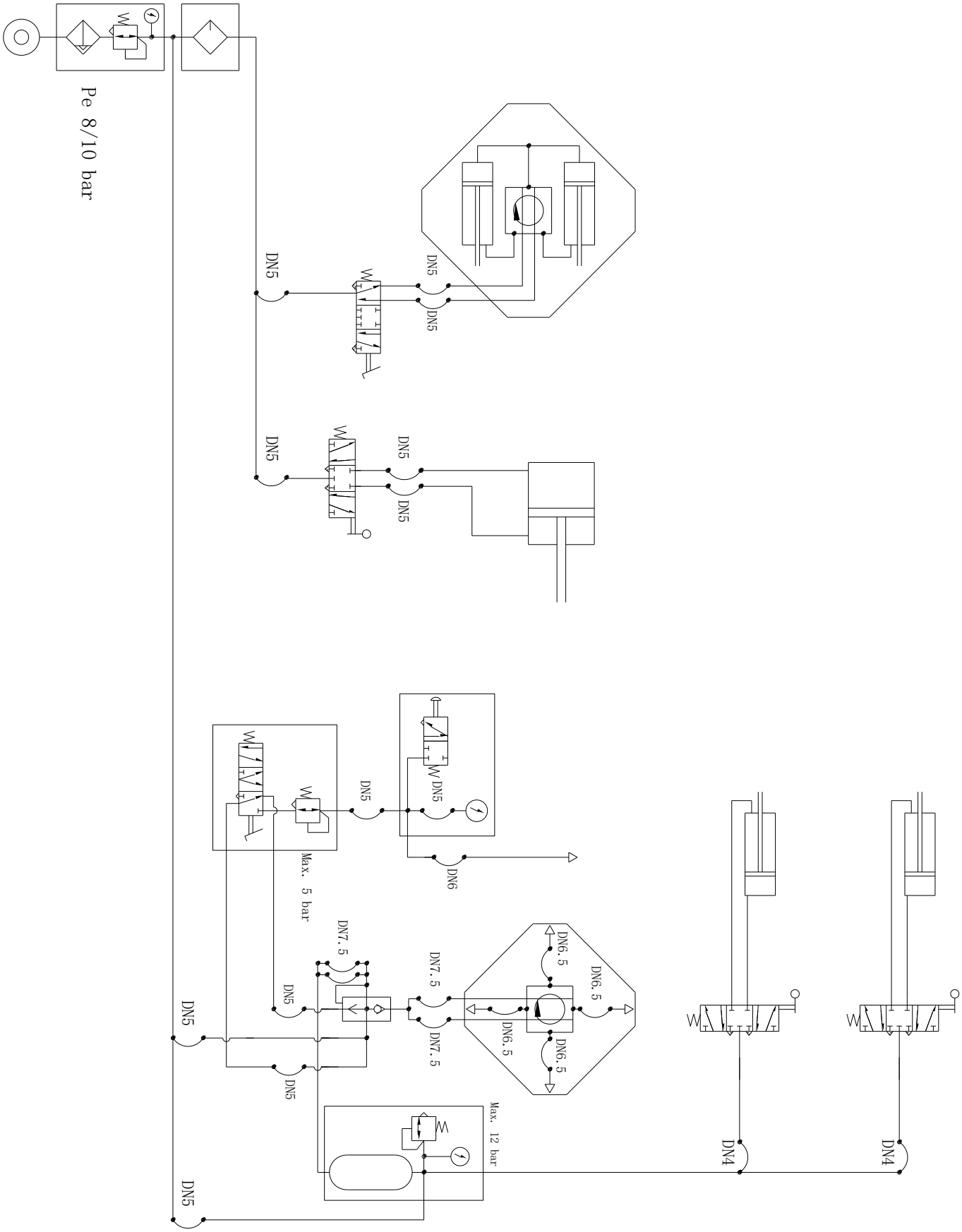
Chapter VIII Electrical and Pneumatic Schematic Diagram

8.1 Electrical schematic diagram

AP1 motor circuit board
M1 motor
Sq motor switch
Sq motor switch
Sq connector
XB1



8.2 Pneumatic schematic diagram



Chapter IX Common Faults and Troubleshooting Methods

breakdown	probable cause	Exclusion method
The turntable rotates only in one direction.	Cam switch contact burned out	Replace cam switch
Turntable did not rotate	Damaged belt Too loose belt Or there is something wrong with the motor. Cam switch is damaged	Replace belt Adjust the belt tightness. Check the power supply of motor, power supply and junction box. Wiring. The motor is burnt out and replaced. Replace cam switch
Turntable can't clamp rim properly.	Claw wear Air leakage of cylinder clamp	Replace the jaw. Replace the leaking seal.
The hexagonal shaft is not tightly locked or blocked.	The locking plate is not in place.	See Chapter V Repair and Maintenance.
Chassis pedal does not return.	The pedal return button spring is damaged.	Replace the button spring.
The motor does not turn or the output torque is insufficient.	Transmission part jam Capacitance breakdown undervoltage short-circuit	Eliminate jam Replace capacitor Waiting for recovery voltage Eliminate short circuit
Insufficient cylinder output force	air leakage Mechanical obstacle Insufficient air pressure	Replace seals. conquer the field Adjust air pressure to meet machine requirements.
air leakage	pipe damage Pipe joint damaged Seal head damaged Sealant loss	Replace damaged parts Re-glue and seal