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# **TIRE CHANGER**

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## **INSTRUCTION MANUAL**

**VERSION: B**

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Dear customers,

Very pleased that you will purchase and use the tire changer produced by our company

We are the company with reputation of quality. We sincerely wish to produce quality goods under the ISO9001 Quality system and get the EU CE certificate to help you promote your business.

Carefully read this operational manual before installation and use this operation manual. And also keep it with care for future reference.



**WARNING**

This instruction manual is the important part of the product. Please read it carefully and keep it properly.

This machine is only applied to mount, demount and inflate the tire in the specified scope and not for any other purpose.

The manufacturer will not be responsible for the damage or injury caused for the operation not properly and out of the range.

**NOTE**

This machine should be operated by the special trained qualified personnel. When operating, the unauthorized personnel will be kept far away from the machine.

Please note the safety label stuck on the machine.

Operators should wear safety protective facilities such as working suit, protective glasses, eye plug and safety shoes. Keep your hands and body from the movable parts as possible as you can. Necklace, bracelet and loosen clothing may cause dangerous to the operators.

Tire changer should be installed and fixed on the flat and solid floor. The more than 0.5m of distance from the rear and lateral side of the machine to the wall can guarantee the perfect air flow and enough operation space.

Do not place the machine in the site of high temperature, high humidity, dust and with flammable and corrosion gas.

Without the permission from the manufacturer, any change on the machine parts will cause injury/damage to the machine/operator.

Pay attention that the tire changer should be operated under the specified voltage and air pressure.

If you want to move the tire changer, you should under the guidance of the professional service personnel.

**Notice: During operation, one operator is required for working on the wheel weighing below 25kg, two operators required for the 25-50kg wheel, and wheel lifting equipment for wheels heavier than 50kg.**

## SAFTTY LABEL INSTRUCTION



Keep your hands far from tire when operation

Carefully read operation manual before operation

When operation , wear the protective facilities



electrical shock!



Do not reach any part of your body under the demount tool.



When breaking bead, the bead Breaking blade will quickly move leftwards.



Note: when press the tire, the opened clamp cylinder may injure the hand of the operator. Remember, do not touch the side wall of the tire.



When clamping the rim, do not Reach your hand or other parts Of the body in between the clamp & the rim.



Do not stand behind the column to Avoid the column from injuring the persons when swing.



When operation, do not wear long hair, loosen clothing and jewelries..

When operation, do not reach y our hand under the falling objects.



Wear the goggle



Read the user manual

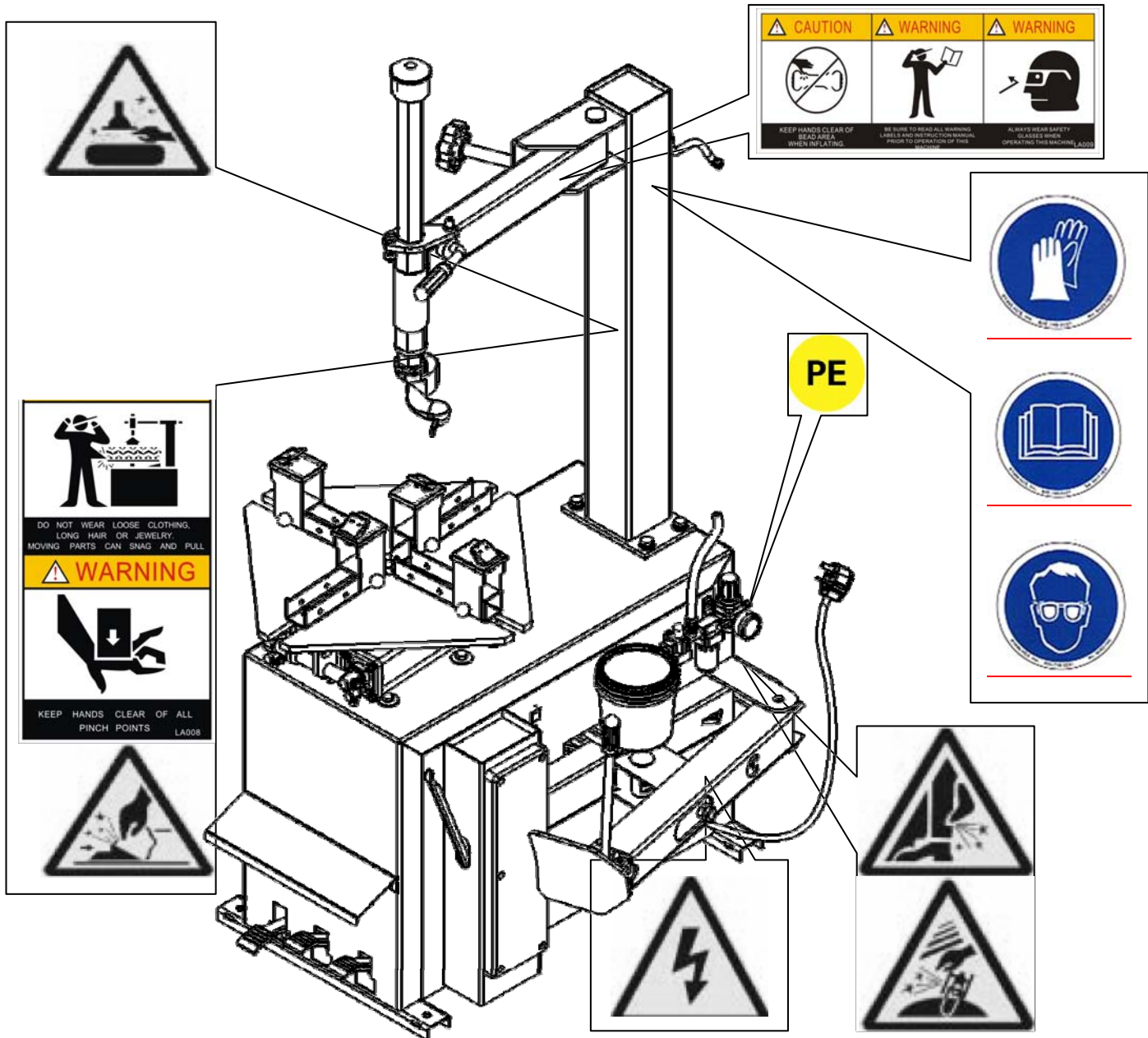


Wear the gloves

# SAFETY LABEL POSITION DIAGRAM

Pay attention to keep the safety labels complete. When it is not clear of missing, you should change the new label.

You should let the operators see the safety labels clearly and understand the meaning of the label.



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## CHAPTER I BRIEF INTRODUCTION

### 1.1 BRIEF INTRODUCTION

This series of equipment is the tire changer with fixed column and rocker arm tire changer. It is suitable to mount, demount and inflate all types of motorcycle tire with tube & tubeless. The operation is easy, convenient, safety and reliable. It is the necessary equipment for the auto service shop and tire shop. The model is 806.

### 1.2 EQUIPMENT OVERALL DIMENSION

Model	Height (mm)	Length (mm)	Width (mm)	Net Weight kg
806	1750	860	750	175

### 1.3 TECHNICAL PARAMETER

Operational Pressure: 8-10bar

Motor: 50Hz  $\pm 1\%$  400V  $\pm 1\%$  0.75kW

Turntable Rotation Speed: 6rpm

Noise: <75dB

Note: An over-voltage protection device is needed for the connection with power supply

### 1.4 APPLICATION SCOPE

model	max. wheel diameter	max. wheel width	rim diameter (external clamping)
806	960mm(37")	254mm(10")	6"~24"

### 1.5 ENVIRONMENT REQUIREMENT

ambient temperature 5°C ~ 45°C

relative humidity 50% @ 40°C - 90% @ 20°C

sea level max. 1000m

without dust and flammable and explosive gas

The operation space around the machine will not smaller than the indicated in FIG1

If the machine is installed outdoors, it must have the protective shed to avoid being exploded to the rain and sunlight.

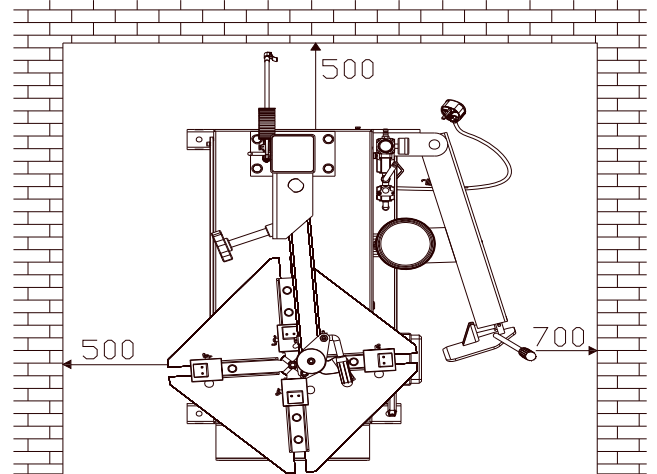


FIG1

## CHAPTER II CONFIGURATION AND OPERATION

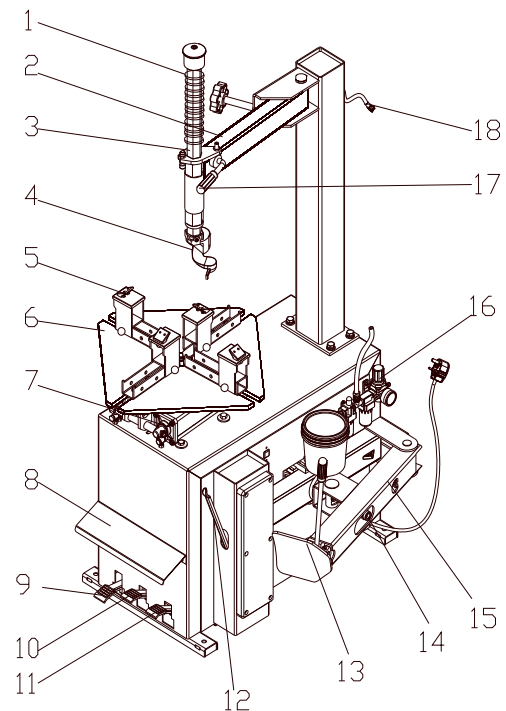


FIG2

1-vertical shaft spring

2 - rocker arm

3- hexangular shaft

4- demount tool



It is forbidden to use in the site with the flammable gas!

- |                       |                            |
|-----------------------|----------------------------|
| 5- claw               | 6- turntable               |
| 7- turntable cylinder | 8- operation panel         |
| 9- clamp pedal        | 10- press tire pedal       |
| 11- turntable pedal   | 12- crowbar                |
| 13- blade             | 14- bead breaking cylinder |
| 15- bead breaking arm | 16- air source             |
| 17- lock handle       | 18 - column                |

## CHAPTER III INSTALLATION AND CALIBRATION

Before installation and debug, carefully read this manual. The unauthorized change on the parts and spare parts of the machine will cause the damage on the machine.

Installation and debug personnel should have the specific electrical knowledge.

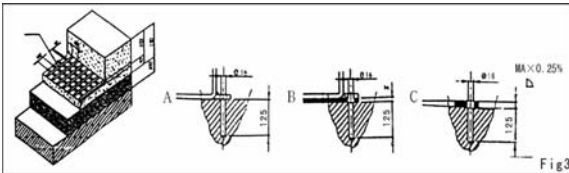
Operators must be trained and authorized.

Before installation, carefully read the equipment list. If any question, please contact with the dealers or our company. To ensure the success of the installation and debug, please prepare the following common tools:

Two wrenches (10"), one socket wrenches, one hexangular wrench, one tung, one screw driver, one hammer and one millimeter

The tire changer must be fixed on cement ground by anchor bolts fastened through its 4 base frame holes.

The tire-changer must be fixed to the ground by means of suitable anchoring bolts.



### 3.1 DEPACKAGE

3.1.1 According to the de-package instruction on the package box, to detach the box and remove the package material to check if the machine damage or not and if the spare parts completed.

3.1.2 Keep the package material far away from the working site and deal with it properly.

### 3.2 INSTALLATION

3.2.1 After un-package the package carton, take out accessory boxes (FIG 4-1), bead breaking arm (FIG 4-3) and column assembly (FIG 4-2). And position and fix according to the FIG5. Remove the bolt, elastic washer and plate washer on the body (FIG 4-4).

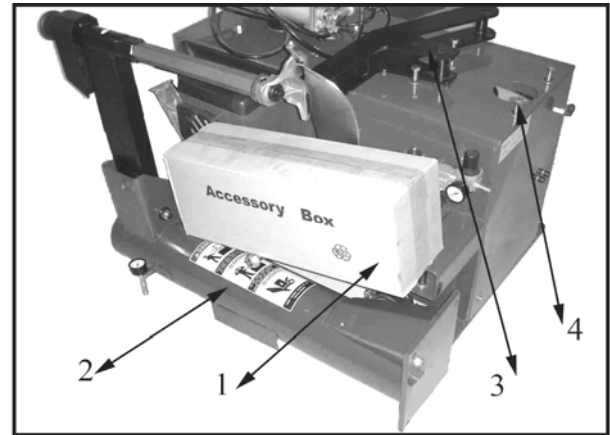


FIG4

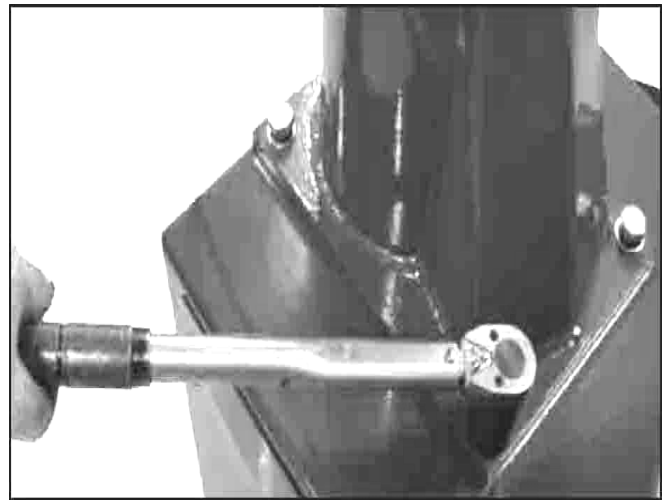


FIG5

3.2.2 Place the column on the body. The direction of the warning label is forwards. Make the holes on the column base plate align to thread holes on the body. Once again assemble the removed the bolt, elastic washer and plate washer removed in 3.2.1 The torque is 70 N·M (FIG5) Use torsion wrench to tight

3.2.3 Use the wrench to remove the screw (FIG 6-3) hexangular shaft (FIG6-1) and take off the vertical shaft cap (FIG 6-2). When remove the screw on the vertical



shaft cap, you need use the lock handle to lock the hexangular shaft to avoid sliding off to damage the machine or injury personnel!

Install the vertical shaft spring (FIG7-1) on the vertical shaft. Mount the vertical shaft cap and mount the removed screw and assemble the hand wheel into the nut bushing of the rocker arm (FIG 7-2)。

3.2.4 Remove the lock nut at the front end of the bead breaking cylinder piston rod (FIG 8-1) and use the wrench to remove the nut on the bead breaking arm bolt (FIG8-4) Remove the bolt (FIG8-3) and hang the spring (FIG8-2)

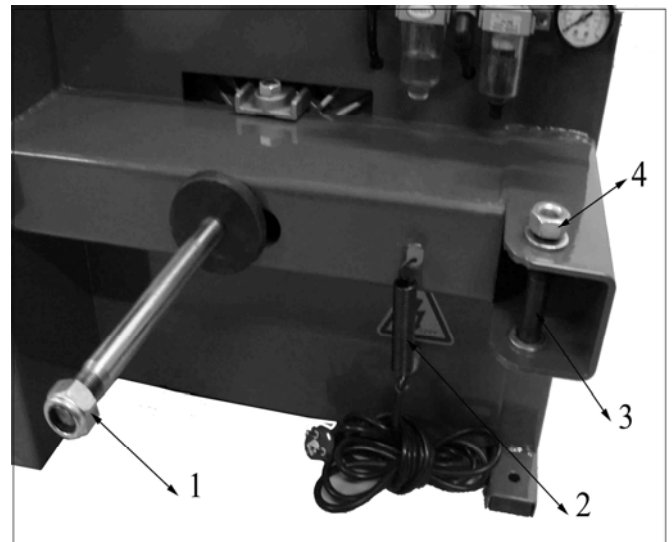


FIG 8

3.2.5 Position the bead breaking arm shaft bushing into the bead breaking support plate on the body (FIG 9-1) to align the hole and install the bead breaking bolt (FIG9-2) and assemble the nut to lock (FIG 8-4) . Insert the piston rod (FIG10-2) through the hole of the bead breaking slide bushing (FIG10-1) . The surface of the slide bushing should be outwards (FIG 10) . Assemble the removed nut (FIG 8-1) into the front end of the piston rod. The nut will be assembled. The distance from the edge of the bead breaking blade to the bead breaking rubber is 30~40mm (FIG11) . Hang the spring. (FIG9-3)。

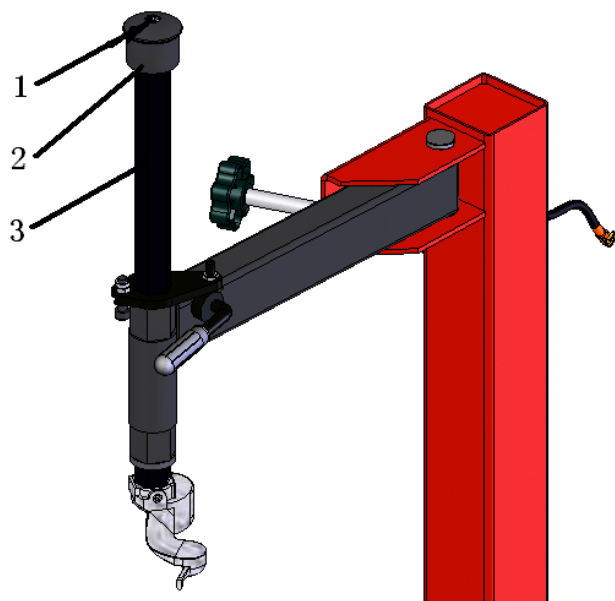


FIG6

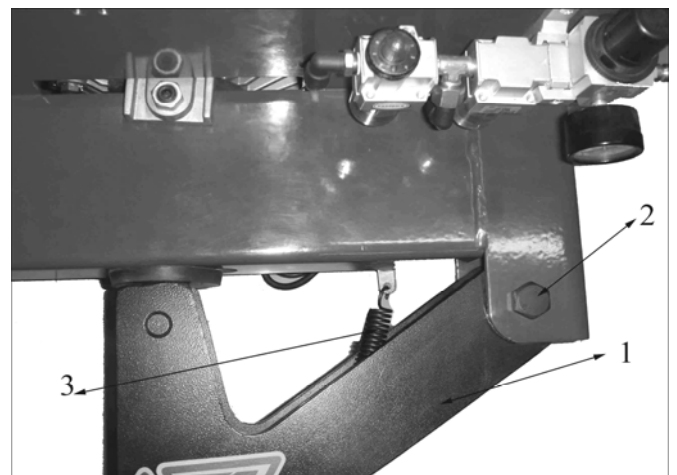


FIG 9

图7

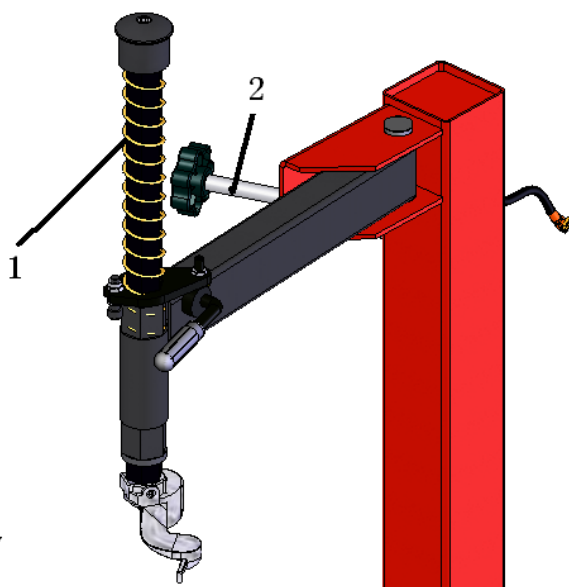


FIG 7

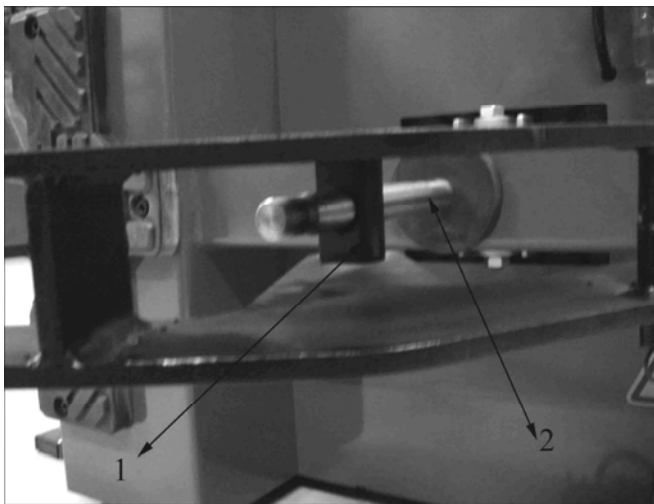


FIG 10

### 3.3 AIR SOURCE INSTALLATION:

Air source has been adjusted before ex-factory. If it needs change, adjust again .

3.3.1 Take out the air source and 2 screws from the accessory boxes and remove the oil and dust. Fix the screw on the right side of the body ( FIG12)



FIG 11



FIG12

3.3.2 Connect air hose: Remove the connect of on the

ø8 PU hose on the lateral side of the body. This connect is equipped for avoid the air hose from sliding into the body. And plug into the elbow. See FIG14.

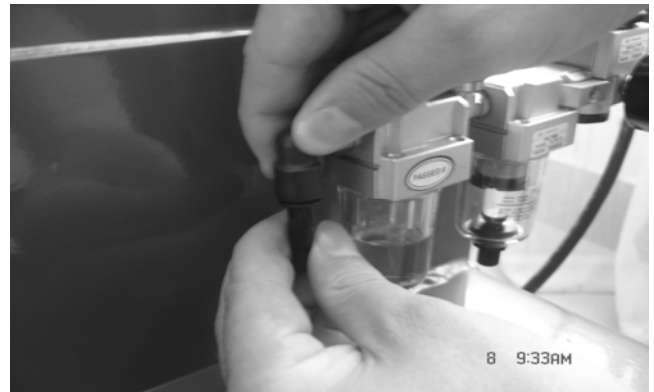


FIG 13

3.3.3 Connect the inflation gun: Plug the inflation gun connect into the slot of the open nut ( FIG15) and tight the open nut and then connect air supply.

3.3.4 Air source has been adjusted before ex-factory. If it needs change, adjust again:

**Pressure:** Lift up the pressure adjustable button( FIG16-1 ) and twist clockwise and the air pressure will increase. Meanwhile, if counterclockwise, the air pressure will decrease.

**Oil Feed:** Use screw driver to twist the screw(FIG16-2). If clockwise, the oil dropping speed will slow. If counterclockwise, it will become fast.

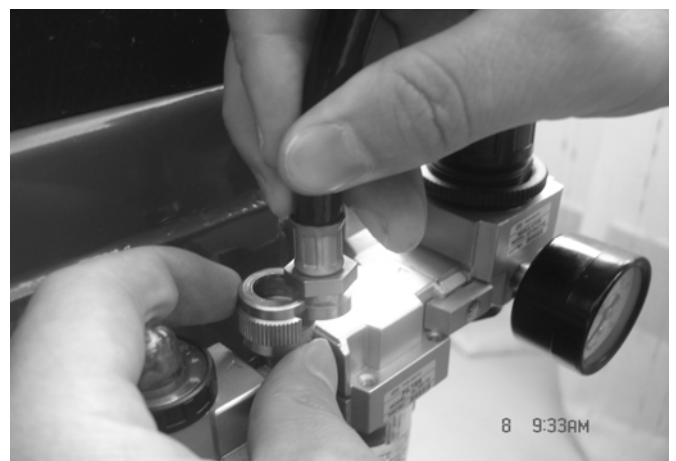


FIG 15

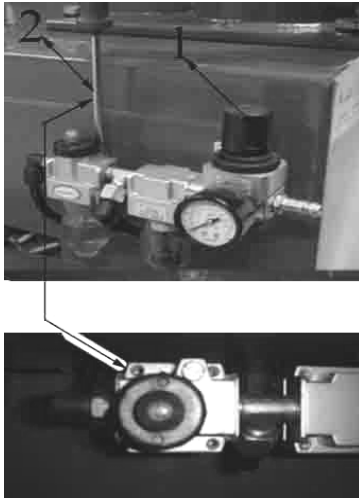


FIG16

## CHAPTER IV DEMOUNT AND MOUNT TIRE

### 4.1 DEMOUNT TIRE

4.1.1 Deflate the air in the tire completely. Use the special tool to detach the weight on the rim and pull out the core (FIG17).

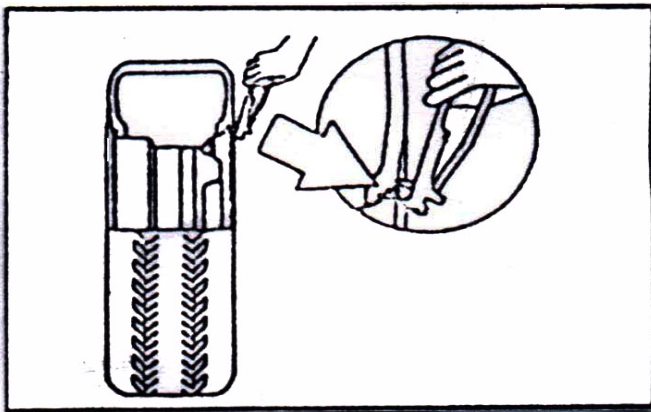


FIG 17

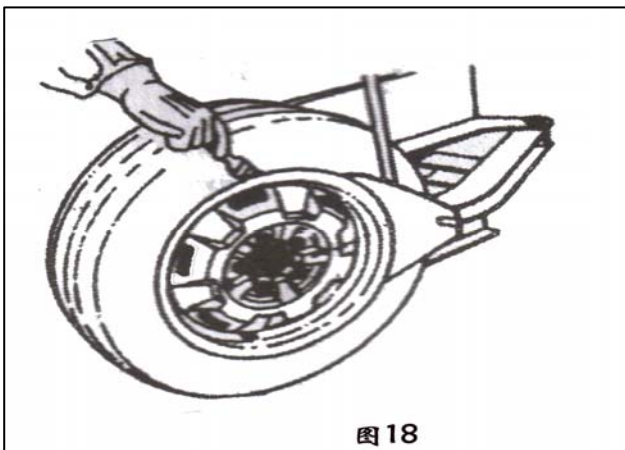


FIG 18

4.1.2 Place the tire between then bead breaking blade

and tire pressing runner clog (FIG 18).Then step down the pedal to detach the rim from the tire. Repeat the same operation on the other parts of the tire to make the tire completely detached from the rim.

Place the wheel with the lip detached from the rim on the turntable. Step the clamping pedal (FIG 2-10) to clamp the rim. You can select the internal and external clamping according to the rim. When pressing the tire, you should use the brush to spread the thick soap liquid to lubricate the lip.

4.1.3 Position the hexangular shaft (FIG 2-3) to the working position to make the demount tool close to the rim of the wheel. And use the hand wheel (FIG 7-2) to push against the rocker arm and then use the lock handle( FIG 2-17) TO LOCK. The demount tool will automatically move a little of gap (FIG19).

The angle of the demount tool has been calibrated according to the standard rim 13" . If handling the extra-big or extra-small rim, you can reposition.

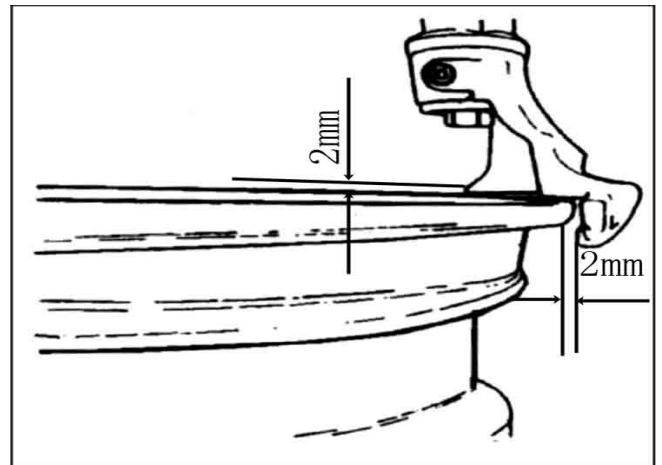


FIG 19

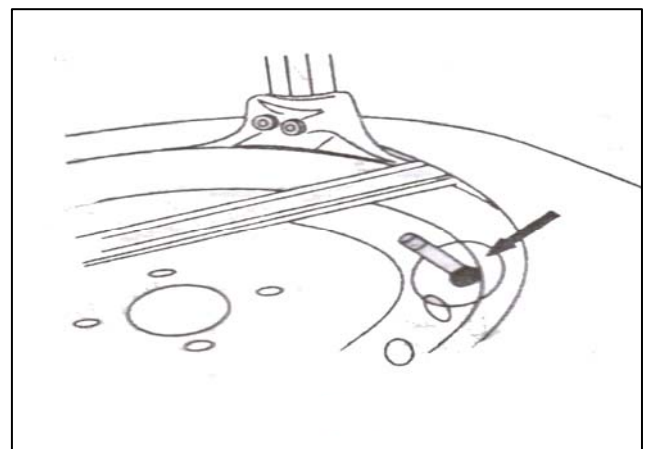


FIG 20

4.1.4 Use the crowbar to detach until the lip to the hump of the demount tool (FIG20). Step the turntable

rotation pedal ( FIG2-11 ) to rotate the turntable clockwise until the entire lip completely detached. If handling the tube tire, to avoid the damage on the tube, you should keep the nozzle of the tire 10cm from the right side of the demount tool when demounting. If the demount of the tire is jammed, please stop the machine immediately and then lift up the pedal to let the turntable rotate counterclockwise to remove the resistance!

4.1.5 When handling the tube tire, Take out the tube and then move the lower lip upwards to the upper edge of the rim and then repeat the above steps to detach the other lip .In the process of demounting tire, you should keep your hands and the other parts of your body from the movable parts. Necklace, bracelet and the loose clothing can injury personnel!

#### 4.2 MOUNT TIRE:

Before mount tire, check if the tire and rim are of the same dimension!

4.2.1 Clean the dirt and rust on the rim and lock it on the chuck.

4.2.2 Spread the lubrication liquid or soap liquid around the lip. Tilt the tire against the rim and keep the front end upwards. Press down the hexangular shaft to move the demount arm to contact with the rim and lock. The left lip above the tail of the demount tool and the right lip will be positioned under the front end of the demount tool (FIG 21), Clockwise rotate the turntable to guide the bottom lip into the tire detaching slot.

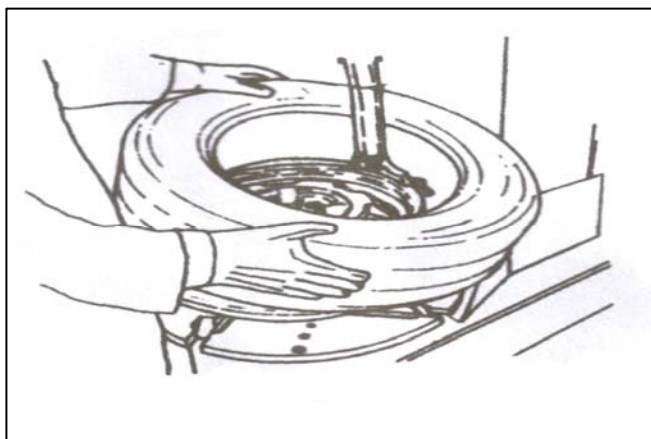


FIG 21

4.2.3 If there is tube, place it in the tire and plug the core. And assemble the lip according to the above mentioned step (FIG22). In the process of clamping the rim, do not

reach your hands in between the rim and the claw to avoid the damage to the personnel.

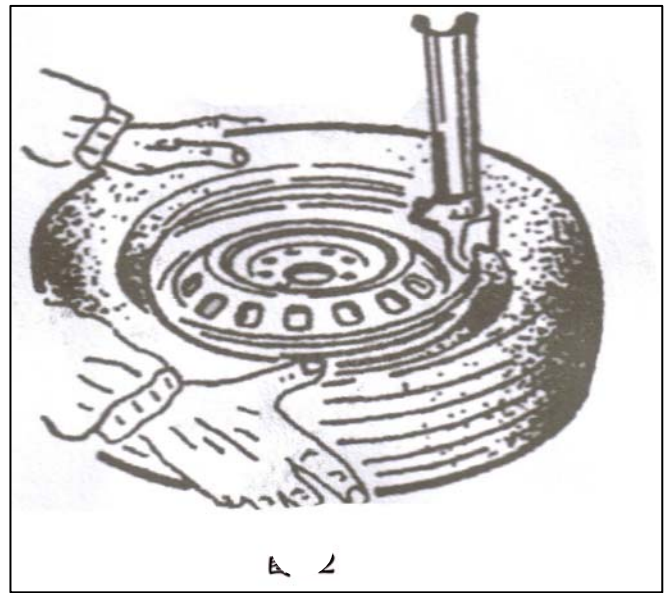


FIG 22

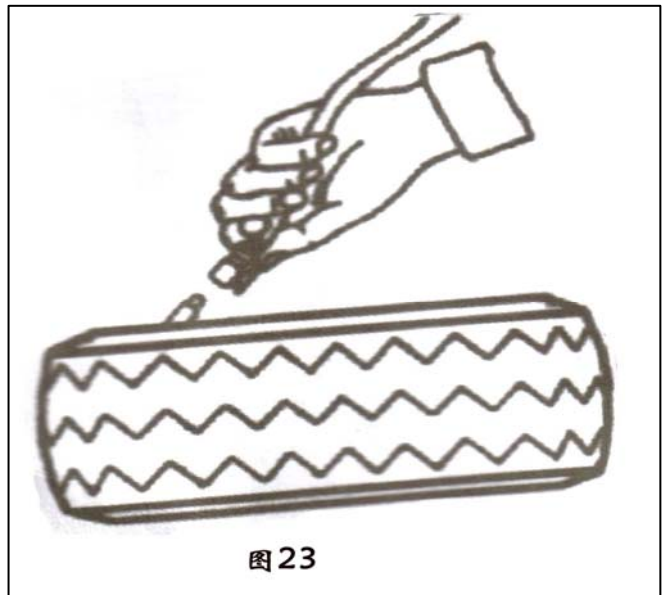


图 23

FIG 23

#### 4.3 INFLATION:

When inflating the tire, please be carefully and series obey the operation process. Check the air route to see if the air connection is OK. This machine is equipped with an inflation gauge for monitoring the inflation of the tire and the inflation pressure ( FIG2-23 ) .

1. Loose the tire from the turntable.
2. Connect the inflation hose with the tire air core. See FIG23.

3. In the process of inflation, you should repeat switching the inflation gun to confirm

the pressure indicated on the pressure gauge not exceed the scope specified by the manufacturer.

4. If the inflation pressures too high, you can press down the deflation press button on the inflation device to reach the required air pressure.

**Warning! Explosive!**

When inflating, please obey the following instructions:

\*Carefully check if the tire and the rim are of the same dimension and check the wear condition of the tire to confirm the tire not damaged before inflation.

\* When the air pressure needed for inflation relatively high, you can take off the tire and to inflate under the protective cover.

\* When inflating the tire, please be carefully. Keep your hands and body away from the tire.

## Chapter V MAINTANENCE & REPAIR

NOTE:

Only the qualified professional personnel can execute the maintenance. Before any maintenance, Cut off the power .And ensure the maintenance personnel can take charge of the power plug. Meanwhile, cut off the air supply and pull off the quick adaptor of supply and completely deflate the residual air in the machine.

To correctly use the tire changer and prolong its working life, it is necessary to periodically maintenance and repair according to the instruction manual. Or the running and reliability of the machine will be affected and the personnel near the machine or the operator will be injured.

The following position should be monthly maintenance: Keep the machine and working area clean.

Use the diesel oil to clean the hexangular shaft (FIG24)

and use the machine oil to lubricate.

Use the diesel oil to clean the turntable claw and guide rail and use the lithium base grease to lubricate. (FIG25)

Periodically check the lubrication oil level in the oil fog device. If the oil level lower than the oil scale, please feed in the SAE30 lubrication oil in time (FIG 26)

Drain out the water and impurity in the oil water separator one time every day.

Periodically check and adjust the tension of the driven belt. Properly adjust the adjust nut in A and B to realize the

proper tension. (FIG27) 。

Check all the connect parts and tight the loosen bolt.

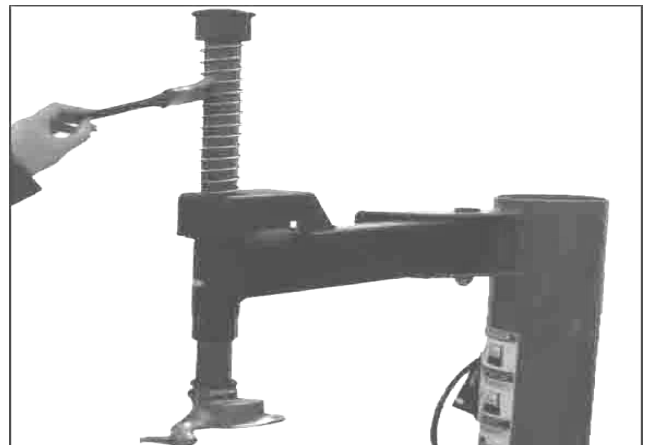


FIG 24



FIG 25

## HEXANGULAR SHAFT & LOCK PLA TE LOCK GAP ADJUSTMENT

When press downward the hexangular lock handle, the



hexangular shaft will vertically slide under the effect of the weight of the hexangular shaft and return spring. When the lock handle rotate clockwise for about 100 degree, the cam connected to the handle will push up the lock plate to lock the hexangular shaft. If you can not realize this situation, you can reach the target to lock the hexangular shaft through adjusting the position of the screws and nuts. (FIG 28)

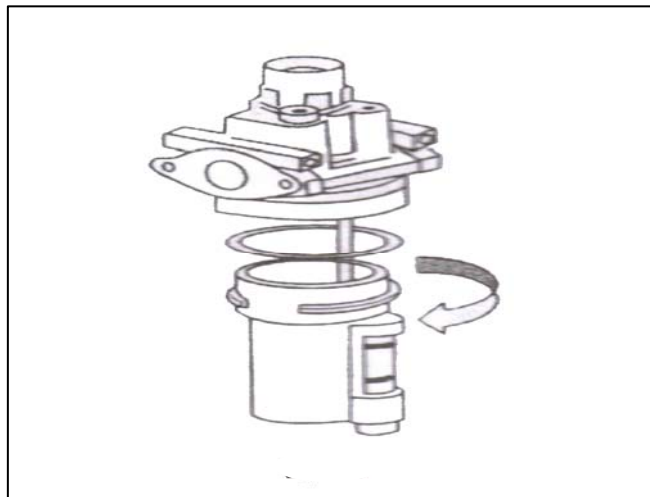


FIG 26

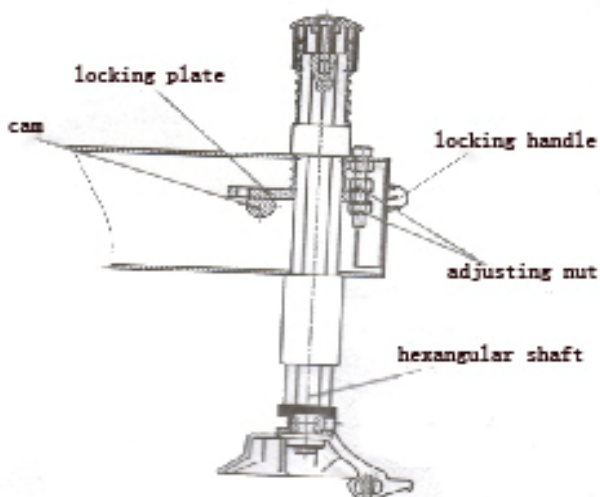
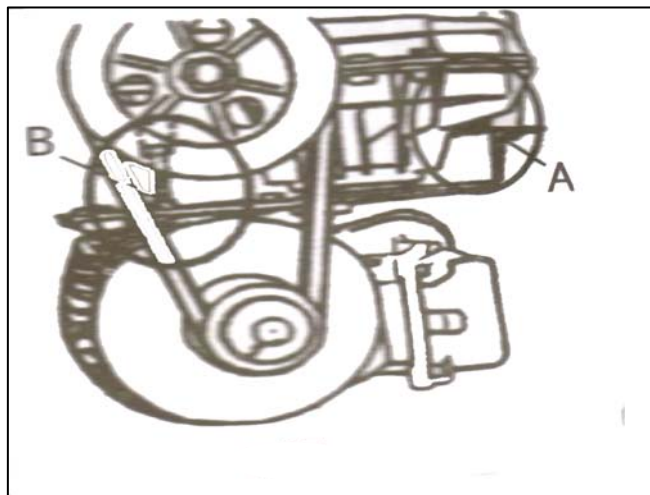


FIG28

**CHAPTER VI TRANSPORTATION**

The machine must apply the original package to the transportation and position according to the indication on the package. The transportation of the machine must use the corresponding forklift (FIG 29) and the stack should not exceed 3 layers.

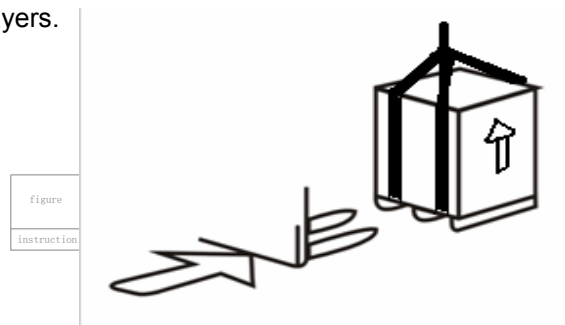


FIG 29

**STORE AND TRANSPORTATION**

On the vertical surface, there are corresponding identification to show the basic requirement on the store and transportation.

**STORE IDENTIFICATION**

figure						
instruction	light	up	moist-proofing	too layer	gravity center	hoist from here

**STORE ENVIRONMENT**

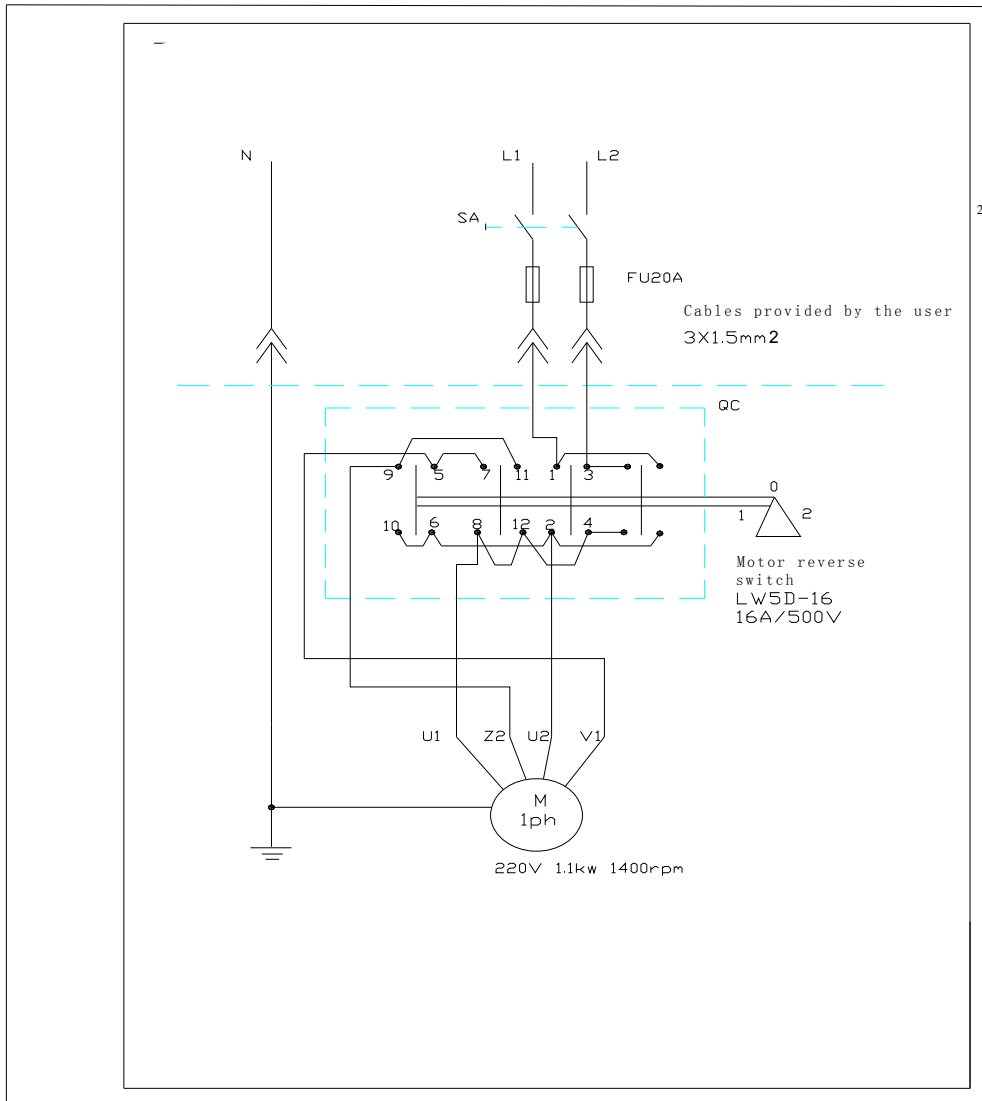
- a. temperature: -5~+55° C;
- b. humidity: ≤ 90%;
- c. Without cor rossive gas and keep away from falmable and explosive objects and have methods to protect rain and snow. :
- d. In the process of transportation, meet the basic requirement of the identification.

## CHAPTER VII ELECTRICAL AND PNEUMATIC DRAWING

### 8.1. 220V ELECTRICAL PRINCIPLE DRAWING

### 8.2 PNEUMATIC PRINCIPLE DRAWING

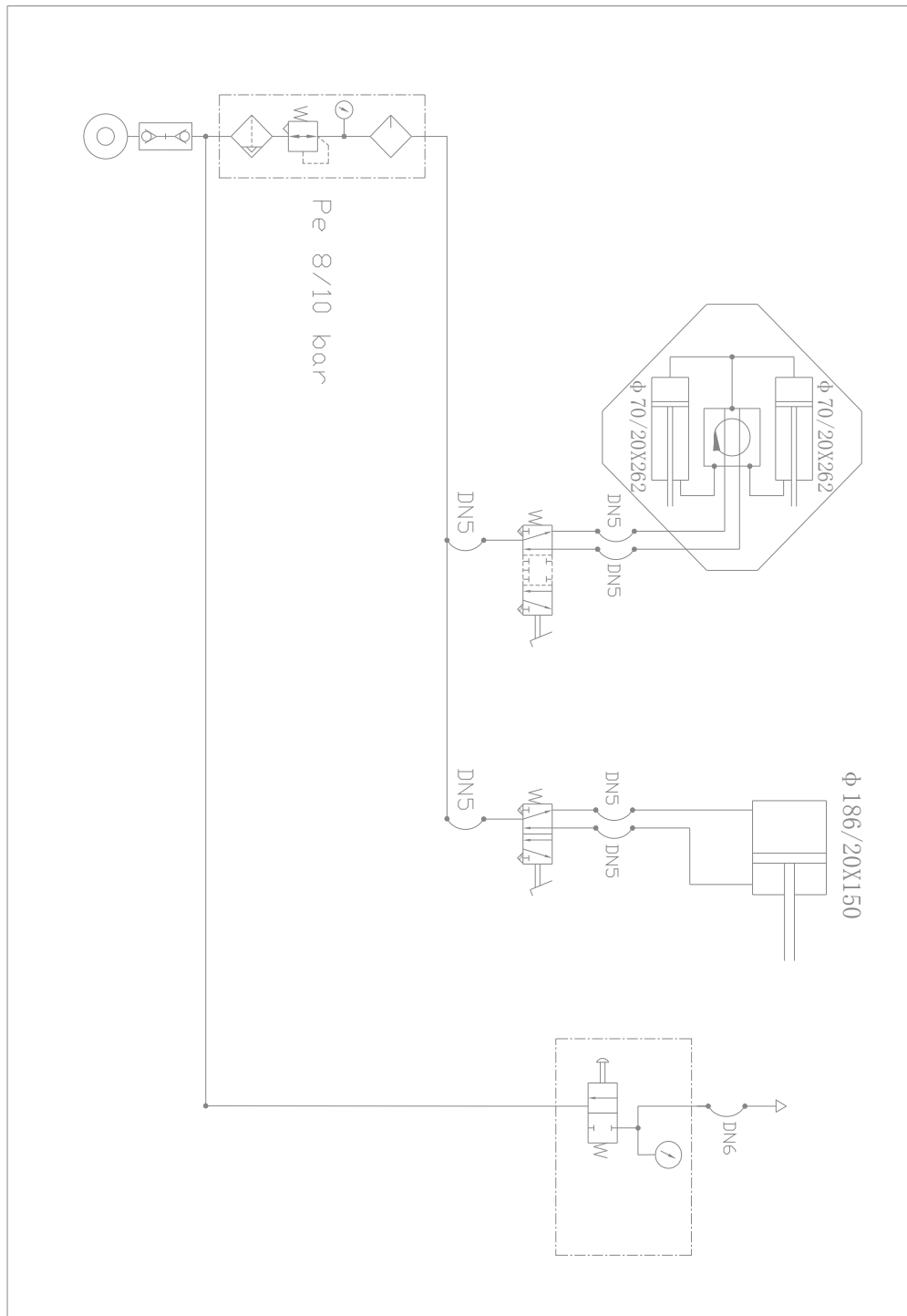
### 8.1. 220V ELECTRICAL PRINCIPLE DRAWING



### ELECTRICAL ELEMENT LIST

Item No	Description	Model	Quantity	Remark
1	Motor	YC90S2-4/0.75KW/50HZ/400V	1	
2	Power Cable	4*1.5mm <sup>2</sup>	1	
3	Change-over Switch	TCS4S340-33345	1	
4	Circuit breaker	5SJ16D 20A/400V	1	
5	plug	TYPE 014	1	

## 8.2. PNEUMATIC PRINCIPLE DRAWING



## CHAPTER VIII TROUBLESHOOTING ANALYZE AND SOLUTION

Item NO	DESCRIPTION	MODEL	QUANTITY	REMARK
1 T	ri-link	AF-2000	1	
2	Three Digital Valve		1	Manufactured in the factory
3	Two Digital Valve		1	Manufactured in the factory
4 Inflation	Gun		1	



TROUBLESHOOTING	REASON	SOLUTION
Turntable rotates in one direction.	Universal switch contact burned	Change Universal switch
Turntable does not rotate.	Belt damage Belt too loose Motor or power source have problems Universal switch contact damage	Change belt Adjust the tension of the belt Check motor, power source and power source cable Change motor Change Universal switch
Turntable can not clamp the rim as normal	Claw worn Clamp cylinder air leakage	Change claws Change the air leakage sealing parts
hexangular shaft cannot lock	Lock plate not in position	See Chapter V
Chassis pedal not return.	Pedal return spring damage	Change torsion spring
Motor not rotate or the output torque not enough	Drive system jam Capacitor broken down Voltage not enough Short-circuit	Remove the jam Change capacitor Wait for the restore of the voltage Remove
Cylinder output force not enough	Air leakage Mechanic fault Air pressure not enough	Change sealing parts Remove the fault Adjust the air pressure to meet the requirement
Air leakage	Air pipe damage Pipe connect damage Sealing end damage Sealing glue missing	Change damaged parts Add sealing glue

## CHAPTER IX PACKAGE LIST AND OPTIONAL ACCESSORY

Item No	Description	Quantity	complete package	non-complete package	Remark
1	Body	1	<input type="checkbox"/>	<input type="checkbox"/>	
2	Column Assembly	1	<input type="checkbox"/>	<input type="checkbox"/>	
3	Bead Breaking Arm Assembly	1	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Accessory Box</b>		1		<input type="checkbox"/>	
1)	crowbar	1		<input type="checkbox"/>	
2)	Vertical Shaft Spring	1		<input type="checkbox"/>	
3)	Grease Container	1		<input type="checkbox"/>	
4)	Grease Container Bracket	1		<input type="checkbox"/>	
5)	Claw Protective Cover	4		<input type="checkbox"/>	
6)	Demount Tool Protective Cover	2		<input type="checkbox"/>	
8)	Hand Wheel	1	<input type="checkbox"/>	<input type="checkbox"/>	
9)	Inflation Gun Assembly	1		<input type="checkbox"/>	
11)	Air Source Connect	1	<input type="checkbox"/>	<input type="checkbox"/>	
14)	Oil Water Separator	1set	<input type="checkbox"/>	<input type="checkbox"/>	
16)	Operation Manual			<input type="checkbox"/>	
17)	Quality Guarantee			<input type="checkbox"/>	
18)	Product Certificate			<input type="checkbox"/>	
<b>Optional Accessory</b>					
19)	brush	1		<input type="checkbox"/>	
20)	Blade protective cover	1		<input type="checkbox"/>	
21)	crowbar protective cover	1		<input type="checkbox"/>	
22)	Plastic Demount Tool (5#)	1		<input type="checkbox"/>	

**Note:**

1. To the packaged objects, please tick “√” in the corresponding “”.
2. The accessory need to be marked the specification, please fill in the corresponding remark.

**APPENDIX-**

**WEARABLE PARTS LIST**

Item No	Description	Specification	Quantity	Remark
1	Claw Cover		4	
2	Demount Tool Cover		1	
3	Blade Protective Cover		1	
4	Y-ring	30X20X7	2	for turntable cylinder

**806 OIL SAFETY DATA SHEET**

**MOBIL XHP 222**

ITEM	QUALITY STANDARD
Penetration rate <sub>25°C</sub> mm/10	280
dropping point °C	280
anticorrosion	passed
Basic oil viscosity	220
oxidize stability 100h pressure-drop kpa	35
water lose percentage <sub>79%</sub>	5
copper corrosion	1A

**SAE30# LUBRICATION OIL**

ITEM	QUALITY STANDARD
density 15°C	0.893
Flash point	224
Pour point °C	-18
viscosity 40°C	100
viscosity 100°C	11.2
Viscosity index	97

**2# LITHIUM BASE GREASE**

ITEM	QUALITY STANDARD
Penetration rate mm/10	278
dropping point °C	187
copper corrosion 100°C 24 h	No change
oxidize stability (99°C 100 h)	0.2
anticorrosion (52°C 48 h)	1 level
similarity viscosity (-15°C、 $10S^{-1}$ ) / (Pa·S)	800
water lose(35°C 1h) %	8

**CKC460 INDUSTRIAL GEAR OIL**

ITEM	QUALITY STANDARD
Viscosity 40°C	461
Viscosity index	92
Flash point °C	212
Freezing point °C	-26
copper corrosion <sub>100°C 3 h</sub>	1A
mechanical impurity	0.007
Pour point	-10