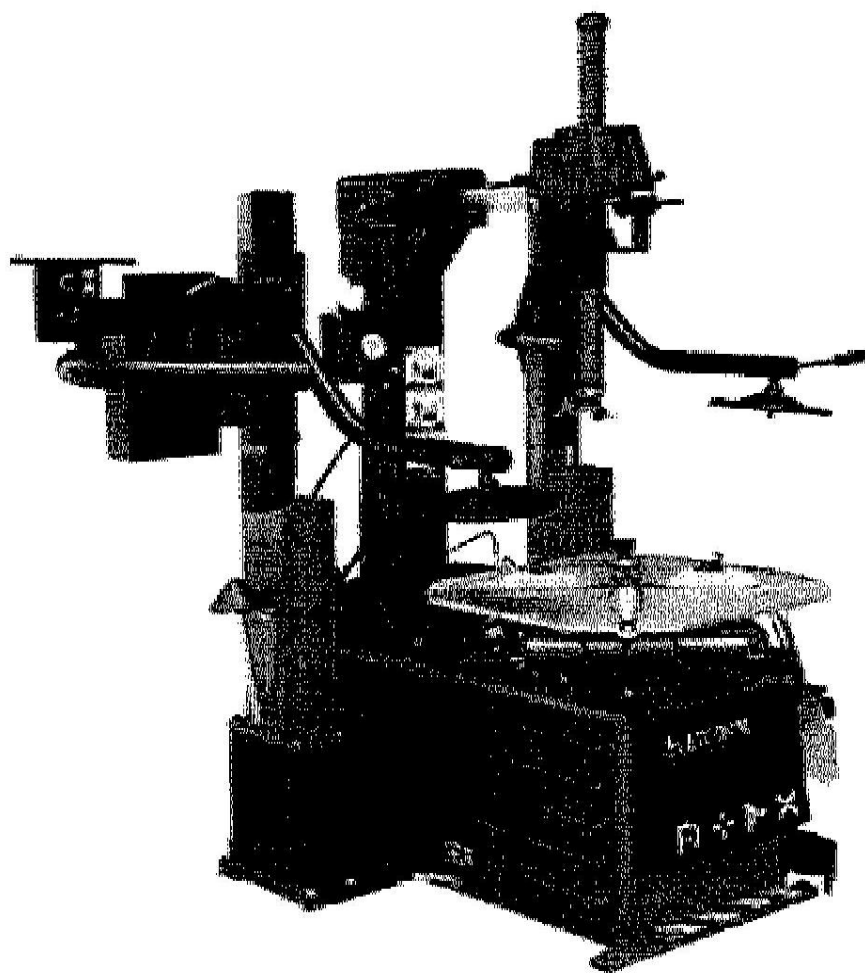


Model TC-980MR Premium Tire Changer

READ THIS ENTIRE MANUAL BEFORE OPERATING



Preface

Thanks for choosing this automatic tire changer. This guide is an important document for the machine, for ensuring correct and safe operation, and also granting a long working life and the best efficiency to the machine, please read this manual carefully before the installation and operation.

Carefully keep this manual for use at any time

Brief Introduction

1.Scope of Application

This machine, with assistant device on each side of the main body, is designed and made specially for changing the tires of cars, vans, light trucks and motorcycle with the principle of best quality and highest working efficiency, especially suitable for the stiff and low profile tyres.

Max.wheel diameter:1200 mm(47 ") **Max.wheel width:**381 mm(15 ")

Note:This machine can only be used for the purpose designed by the manufacturer. Do not use it for any other purpose.

Any damage caused by incorrect using or beyond the scope of application will not be covered under warranty.

2.Note:

Unauthorized people should not stand close to the place with warning stickers and never take off the stickers.

Never touch the moving parts during the operation.

The damage, due to the accident, misusing, unauthorized changing and repairing of the machine caused by the operators or the third person, is not in charged by the manufacturer.

3.Transport

Make sure transport the machine with its original package, and place it according to the marks on the package. The packed machine should be moved by means of a fork lift truck of suitable capacity, insert the forks at the points shown in (Fig.1).

The temperature for the transportation should(-25℃ →+55℃)some measure should be use to prevent the humidity, shake and concussion.

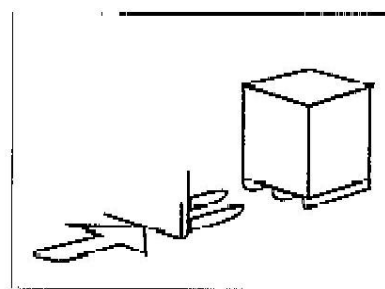


Fig.1

4. Packing list

The machine 1 set
Accessory box 1

Construction(Fig. 2)

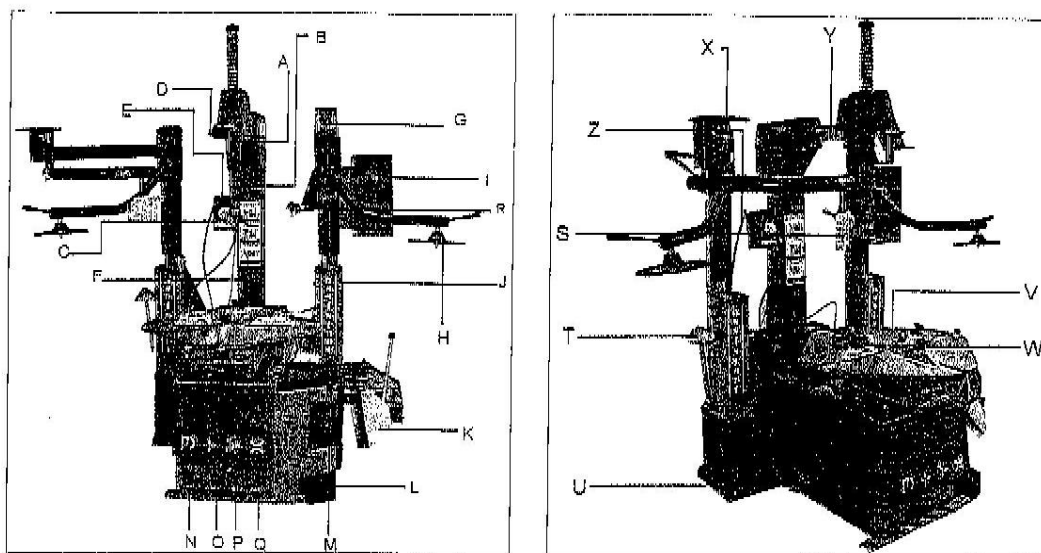


Fig.2

A、 Pneumatic locking button	B、 Vertical arm	C、 Mount/Demount head	D、 Air-driver side lock
E、 Inflation gauge	F、 Post	G、 Manual operate valve	H、 Bead break disk
I、 Tool box	J、 Right assistant	K、 Bead breaker blade	L、 Feet support
M、 Lever	N、 Tilting pole control pedal	O、 Clamp control pedal	P、 Tire control pedal
Q、 Turntable control pedal(clockwise and counter clockwise)	R、 Plastic taper roller	S、 Plastic block	V、 Turntable
T、 Pressing roller	U、 Quick inflation system control pedal	Y、 Horizontal arm	Z、 Inflation hose
W、 Clamp	X、 Manual operate valve		

Technical Data

Operating pressure:	8~10bar	Max.wheel width:	381mm
Electric motor:	1.1kw/0.75kw	Max.wheel diameter:	1200mm
Working temperature:	0℃~45℃	Outside locking(RIM):	13"~24"
Power supply:	230V/400V	Inside locking(RIM):	15"~28"
RPM of turntable:	6.5rpm/min	Noise level:	<70dB

Installation and testing the machine

Installation place

Choose the installation site according to the rules on safety at work. Moreover, the installation space must allow the operator to use the machine and all its components without any restriction. In case of the installation is in the open area, it is necessary to protect the machine by means of a protective shed. Never use the machine in the place with flammable gas, and never place the machine in the extreme temperature or humidity environment, the surface of the machine should against lots of dust, ammonia and diluent etc.

Unpacking

After unpack the package, checking the eyeable damage on the machine and the component due to the shipment, if there is some problems please contact with the dealer. The packing material such as plastic, nail, screw, wood and carton should be put into the waste box or be handled according to the local regulations.

Note: The operator should wear the gloves, so as to avoid the injury when unpack the machine.

Power and air connection

*Any electrical connection should be done by the specialized technician. Check if the power and air sources are in accordance with the specification on the nameplate before operation. The electrical with which the machine connected should have a stabilizer to protect the machine.

*If the voltage is not stable, a voltage stabilizer should be connected between the power source and the machine.

*The machine should be well earthed. An automatic air-switch should be adopted with the main power supply.

*The power voltage only would change $\pm 10\%$.

Note: If there is no power plug on the machine, the user should mount one, which suitable for the electric current not less than 16A or connect the power supply directly according to the above demand.

*For the machine with the motor of 3PH, step the pedal (Q) after the connection of the power supply and the turntable (V) should turn in a clockwise direction. If the turntable turn in the counterclockwise position, reverse any two of the wires in the three-phase plug, the damage caused by the ignorance of the above instruction, will not be covered by the manufacturer.

Connect the air hose of the air compressor with the tie-in of the separator.

The operating pressure of this machine should be 8-10bar(110-140Psi), the machine can work well within such operating

pressure, if it is lower than 8bar(110Psi), the strength for the grip and bead break for turntable will be not enough for some kind of tyres and even it can not operate the tyres.

Check if the reading on the pressure gauge that locates on the separator meet the demand of pressure setting reading, if not so, check if there is some problems on the hose or air-compressor.

Warning logo and instruction of the machine



Never place leg between the bead breaker blade and bead breaker rubber, so as to avoid stepping the wrong pedal and injury the operator.



Never place hand on the tyre when the demount head is on the working position, so as to avoid the injury of the operator.



Never place your hand between the tyre and gripping device when operate the rim, so as to avoid the injury of the operator.



The jaws should be in closed position when do the bead break, so as to avoid the injury of the operator.



The operator should wear the protection glasses when inflate the tyres with the machine with GI system, so as to avoid something blow into the eyes.



Never put the hand between the rim and tyre when inflate the tyre, so as to avoid the injury of the operator.



There should be nobody behind the tilting post(F), when the machine is on the working position.

Operating test

Make sure the four pedals are in their original position; connect the air source, the operation can begin when the pressure up to 8--10bar (Note: After the connection with the air source the clamp(W) on the turntable(V) should automatic open, which is setted before delivery.)

Pressing the pedal(Q), the turntable (V) will turn in the clockwise direction.

*Raising the pedal(Q), the turntable(V) will turn in the counterclockwise direction.

*Pressing the pedal (P), the bead breaker blade(K) will begin to move, when the pedal is released the bead breaker blade returns to its original position. In the meantime please check towards the body to see if the air regulator works well. Normally it will drop one drop of oil after the pedal is pressed for 5-6 times, if it drops too quick or too slow, please adjust the index on the air regulator by a screwdriver.

*Pressing the pedal (O), the clamps(W) on the turntable(V) close; (when lightly step the pedal, the machine can show the step moving function.) when the pedal is pressed again, the clamps (W) open.

*Press the pneumatic locking button(A), lock the horizontal arm (Y) and vertical arm(B).

*Pressing the pedal(N), the post (F) will tilt back slowly, when the pedal is pressed again, the post(F) will return to its original position.

*Press the pedal (U)(this pedal has two position strokes),in the first position stroke, the inflation hose(Z) exhaust, in the second position stroke; the inflation hose exhaust, at the same time the air deflated from the holes of the turntable(V).

*Shift the manual control valve(G)/(X) up and down, to see if the plastic block(S) and bead breaking disk (H)work well.

Notes:

*The machine must be fixed well by screw to avoid the shake during the operation.

*The machine must place on the ground completely.

*Cut off the air and electric power sources before any maintenance.

*Check the screws on every parts of the machine is tight.

*Keep the body and hands away from the moving parts of the machine during the operation. The necklace, bracelet, loose clothes and long hair is dangerous for the operators. The operator should wear safe clothes such as gloves and glasses.

*Keep the working area tidy and clean, or it may cause sudden accident

*The working area should be well lighted.

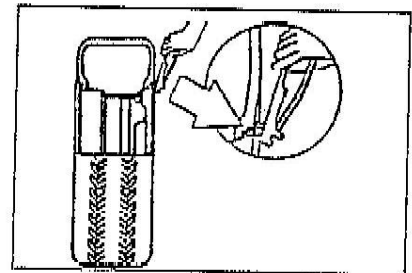


Fig.3

Operation

Never use the machine before read this instruction and warning carefully.

Demounting the tyres:

Release all the air inside the tyre.

Remove the weight on the rim(Fig.3)

Demounting the tyres:

1. Place the tyre between the bead breaker blade(K) and rubber pad, and place the blade on the bead 2 cm from the rim, step on the pedal (P) to separate the bead from the rim. (Fig. 4) The wenthole on the tyre should not near to the bead breaker blade during the operation.



Fig.4

Note: This machine is designed particularly for the low profile, stiff and wide tyres, so there is a adjusting handle on the bead breaker. When mount or demount the particular wide tyres, the operator can adjust the handle position and do the operation on the wide tyres.(Fig. 5)



Fig.5

2. Turn round the tyre and repeat the above steps on the other parts of the tyre to get it separate thoroughly from the rim.
3. The positioning scale on the turntable show the position of the rim directly(Fig. 6). Place the tyre on the turntable after choosing the locking method.(Normally when working for aluminum alloy rim , outside locking is suitable, inside locking is seldom used.) (Fig. 7 and Fig. 8)

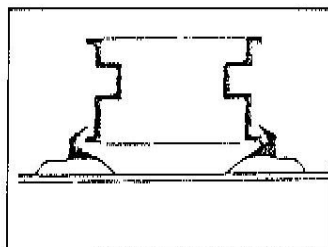


Fig.7

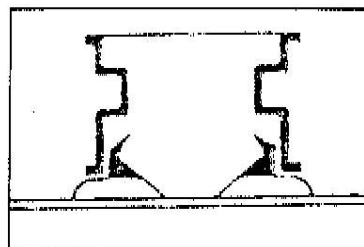


Fig.8

Inside locking: Pressing the pedal(O), make the 4-clamps closed to the position in accordance with the rim, then put the tyre on the turntable, release the pedal(O)(release lightly), till the rim locked well.

For the low profile and stiff tyres, position the clamp within the range of the rim, put the rim on the preset turntable, then put the plastic cone(T) in the central hole of the rim. Press the rim by moving the manual control valve(X) (Fig. 9), then pressing the pedal(O), the rim will locked well.

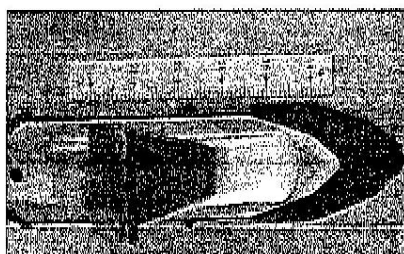


Fig.6



Fig.9

4. Press the tyre by plastic roller (R) to separate the rim from the bead, press the pedal (Q) to turn the turntable(V), dip the prepared lubricator with the brush and then lubricate the bead while turning(Fig. 10), it is easy to damage the bead if do not follow the above instructions.

5. Move the vertical arm B in the working position, make the mount/demount head (C) close to the bead, the distance between the mounting head and the rim should be 4-5mm.(Fig. 11), then lock the arm by press the locking button.

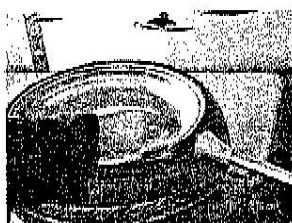


Fig.10

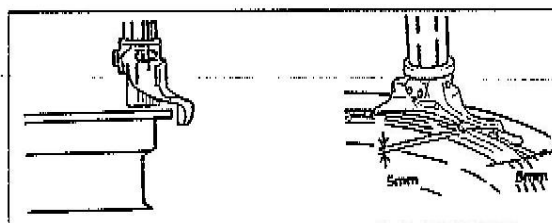


Fig.11

Note: The mount/demount head with good stiffness is made of special material and it has been adjusted before delivery in accordance with the standard rim. It is not necessary to adjust the angle when it operate the rim from 10 " to 18 " , but if the rim is less or bigger than 10 " to 18 " then it needs to be adjusted.

6. Insert the lever(M) into the bead between the plastic roller(R) and mount/demount head C(Fig.12), place the plastic block (S) on the other side of the rim, then move away the plastic roller(R), press the tyre by swing the lever (M), to Lift the bead onto the mount/demount head(C)(Fig. 13), step on the pedal (O), to turn the turntable clockwise till the bead is completely separated, it is suggested to place the mount/demount head about 10mm to the right side of the air valve , avoiding damage the tyre

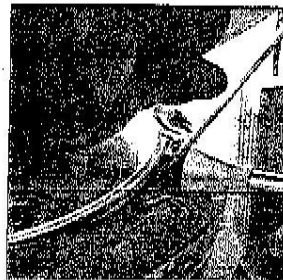


Fig.12

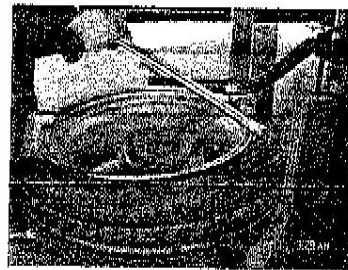


Fig.13

Note: If the operation is blocked, stop the machine at once, raise the pedal(O), turn the turntable counterclockwise to clear up the block.

7. If there is tube inside bead, take out the tube at first. Then turn over the wheel to demount the other side of the tyre. Use the bead breaker disk (H) to move the bottom bead upward.(Fig. 14) Insert the lever (M) to lift the bead on the mount/demount head(Fig. 15), step the pedal (O) to turn the turntable clockwise, then demount the tyre.



Fig.14

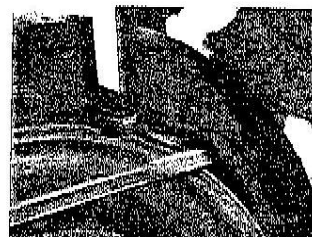


Fig.15

8. After demount the bead, clean the rim free from the rust or oxide, and lubricate both sides of the bead. (Fig. 16)

Mounting the tyre:

Note: Make sure that the size of the rim and the tire is the same before mounting.



Fig.16

1. Lock the rim on the turntable
2. Grease both side of the tyre and rim.
3. Place the demount head(C) on the edge of the rim, and move the air valve aim at the mount/demount head.(Fig. 17)
4. Place one side of the tyre on the upside of the tail of the mount/demount head(C), then press the other side of the tyre under the mount/demount head(C), to make the tyre enter the groove of the rim. (Fig. 18)Pressing the pedal (Q) to turn the turntable(V) clockwise, and complete mount the bottom part of the tyre on the rim.
5. Repeat the above steps to mount the upper bead, if the tyre is wide, stiff and low profile , place the plastic block (S) on the position that shown as (Fig. 19) turn the turntable (V)clockwise about 90 degree, then place the plastic roller(R) on the position of mount/de-mount head (C), and turn the turntable(V) again till the operation is finished. (Fig. 20)

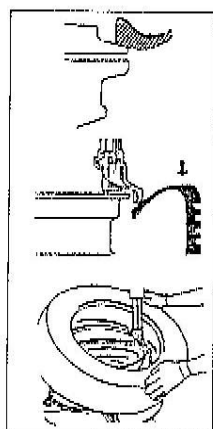


Fig.18



Fig.19

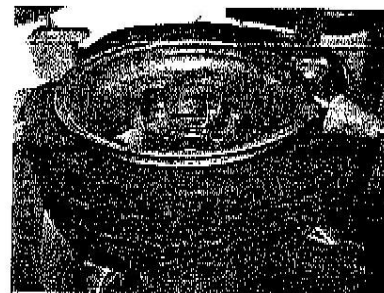


Fig.20

Note:It is not necessary to press the locking button(A) to lock or loose the vertical arm (B) every time, if the size of the rims is the same, just step the pedal (N) to tilt backward the post.(avoiding the aging of the locking valve)

Do not put your hand between the tyre and clamps and never stand behind the machine, avoiding body injury.(Never adjust the pressure control valve inside the machine, otherwise the locking valve might be damaged.)

Inflating:

Keep your hand and body away from the tyre during the operation, and do the inflation carefully, so as to avoid the injury.

Inflate the tyre strictly following instruction below, please note there is no protection device for the safety of the operator (or third person) on the machine if the tyre explode suddenly

Make sure the rim has the same size as the tyre, and the tire is not damaged before the inflation.

- 1.Loose the rim from the turntable.(V)
- 2.Connect the inflator with the air valve on the tire.
- 3.Press the inflation control pedal (U) slowly for several times. (Only for the first position) Make sure the reading on the gauge does not exceed the manufacturer's limit. And in reference with the condition of the tyre, if the inflation pressure is high , press the deflating control button on the pressure gauge to deflate the air.

The application of the assistant inflation

(The unit is only needed for tubeless tyres, and it is necessary to wear the protection glasses during the operation.)

When inflate the difficult tubeless tyres, locking the rim on the turntable(V), and connect the inflation hose (Z) with the valve, then move the bead bottom upwards a little by hands, step the pedal (U) several times to first position, then to the second position, and enable the valve on the turntable (V) deflate, in the meantime release your hand slightly from the tyre, continuously step the inflation control pedal (U) to first position, to inflate till the setting pressure shown on the tyre.

Maintenance

Note: Only the trained operator can do the maintenance.

It is necessary to do the maintenance in accordance with this manual periodically, to correctly use the machine and prolong the working life of the machine. Otherwise the operation and the reliability maybe affected, and it may injury the operator or the third person near the machine.

Note: Shut off the power and air source before any maintenance, and release all the compressed air from the machine.

Keep the machine and the working area clean, prevent any dust from touching the moving parts.

Operation:

Clean and lubricate the turntable V and the clamps W and its moving track with diesel oil weekly; clean the vertical arm (B), and keep it in normal working condition.

Check the oil level in the air-container periodically. If it needs to be filled, then fill the 20# oil. Step the pedal (P) 5-6 times and the oil should drop one drop, otherwise adjust the oil control screw.

Check and screw down all the connecting parts and all the bolts periodically.

Keep the horizontal arm clean and lubricate it periodically to make it move smoothly.

Lubricate all the connecting surface that may bring the displacement and attrition with oil weekly.

Prepare a water segregator near the air-compressor, reduce the amount of the water in the compressed air.

Check and adjust the tension of the driving belt, to make sure that the turntable can running well.

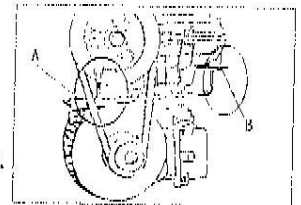


Fig.21

Loose the screw on the left panel of the machine to demount the panel, and then adjust the nut A,B on the motor to loose and tighten the belt. (Fig. 21)

Note: Shut off the power and air sources before the operation.

Do the adjustment as follow steps, if the vertical shaft does not lock well.

1. Shut off the pneumatic supply.
2. Demount the vertical arm B cover.
3. Adjust the nut near the thread rod by spanner, or lock the screw at back of the locking plate.
4. Connect the pneumatic supply and observe the locked position, the vertical arm B rise up for 3-4mm

Do the adjustment as follow steps, if the horizontal arm does not move smoothly, or not lock well.

Remove the cover on the post.

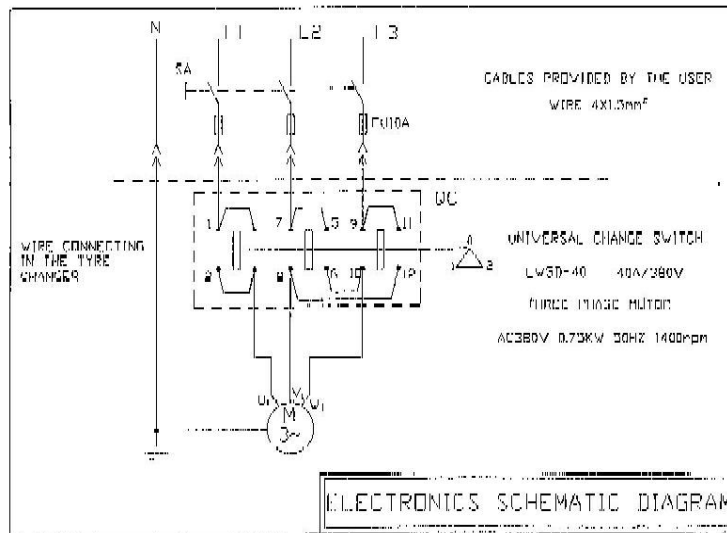
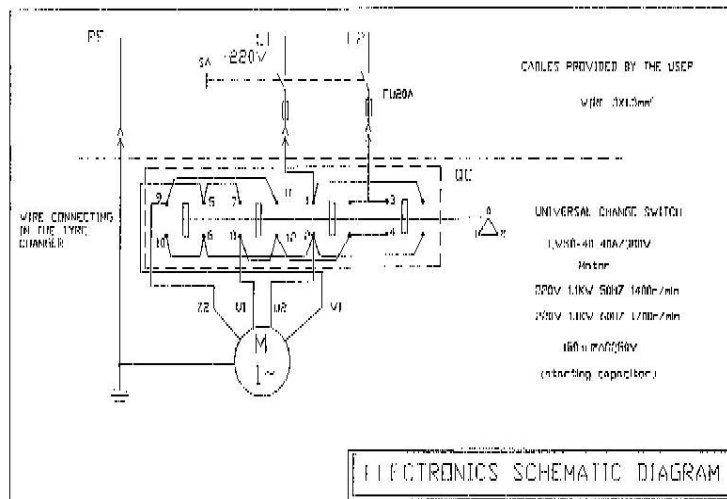
Adjust the screw M6 on two sides by spanner, meanwhile push the horizontal arm till it can move smoothly, then tighten the nut

Adjust the screw in the middle by spanner, lock the horizontal arm and observe the change, till it can only move in the range of 3-4mm, then tighten the nut.

User's manual for the helping device

1. First, connect the electrical and air supply to test the machine, if there is no problem, then tilt back the column.
2. Release all the air inside the tyre. Remove the weight on the rim.
3. Place the tyre between the bead breaker blade and rubber pad, then step the bead breaker cylinder control pedal to separate the bead from the rim, make it repeat until the bead is (include the other side) separate from the rim completely.
4. If the rim is aluminum, which one can only clamped from the outside, open the four jaws, place the tyre on the turntable, then clamp the rim tightly, if the tyre is stiff, and it is difficult for the jaws to clamp the rim, at this time, mount the taper device of the assistant, and make it to the central hole of the turntable, move down the control valve to lower it, so that the jaws can put in the space between the tyre and the rim, then clamp the jaws tightly, at the same time move up the whole assistant support, to avoid the distortion.
5. Press the tyre by the roller, grease the bead with the greaser.
6. Tilt forward the column, and lock the position of the mounting head.
7. Place the lever between the tyre and rim.
8. Uplift the roller and place it in the non-working position.
9. Place the pressing block towards to the mounting head, press the tyre to the rim seat.
10. Uplift the tyre to the mounting head by the lever, then turn the turntable clockwise, to make the rim separate from the upper side of the tyre.
11. Insert the lever to the lower seat of the tyre, place the bead breaker disk under the lower part of the tyre and uplift it, to make the lower tyre to the upside of the rim, then lower the bead breaker disk to the non-working position, press the lever to make the lower tyre to the mounting head, turn clockwise to make it separate completely.
12. Clean the oil dirt and dust on the rim, and grease both sides of the tyre before the mounting.
13. Mounting the lower side of the tyre first,.
14. Fix the upper side of the tyre and the mounting head, place the pressing roller and block on the tyre simultaneously, turn clockwise to mount the upper side of the tyre, please pay much attention to make sure that the pressing block can't touch the edge of the rim and the mounting head.
15. Uplift the whole assistant, release the pressing block and bead breaker disk and set them in their non-working position, then release the tyre to finish the operation.

1. Electrical schematic diagram



2. Pneumatic schematic diagram

