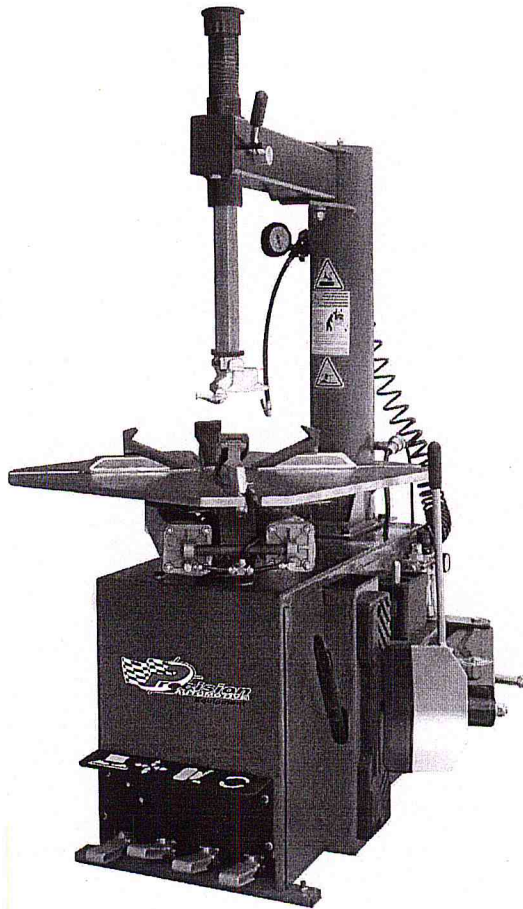
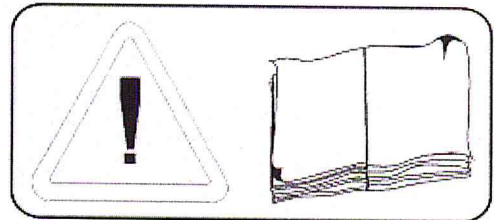

INSTALLATION, OPERATION, MAINTENANCE MANUAL

**KEEP THE MANUAL NEAR THE MACHINE ALL TIME
AND MAKE SURE ALL USERS HAVE READ THIS**



TIRE CHANGER
ITEM NO: RM 6S



**FOLLOW THE INSTRUCTIONS CAREFULLY TO GURANTEE THE MACHINE A CORRECT
FUNCTION AND LONG SERVICE LIFE.**

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INTRODUCTION

Thank you for purchasing a product from the line of Automatic tyre changers. The machine has been manufactured in accordance with the very best quality principles. Follow the simple instructions provided in this manual to ensure the correct operation and long life of the machine. Read the entire manual thoroughly and make sure you understand it.

TYRE CHANGER IDENTIFICATION DATA

A complete description of the "Tyre Changer Model" and the "Serial number" will make it easier for our technical assistance to provide service and will facilitate delivery of any required spare parts. For clarity and convenience, we have inserted the data of your tyre changer in the box below. If there is any discrepancy between the data provided in this manual and that shown on the plate fixed to the tyre changer, the latter should be taken as correct.

This manual is an integral part of the product.

Before using the tyre changer, read carefully the warnings and instructions contained in this manual since they provide important information on operating safety and maintenance.



Keep this manual for further reference.

1 . DESCRIPTION OF THE MACHINE

- G) Clamps
- I) Mounting head
- L) Airline gauge
- M) Mounting bar
- N) Horizontal arm
- P) Vertical arm
- Q) Air supply
- R) Bead Breaker
- S) Wheel support
- T) Bead lifting lever
- U) Bead breaker control pedal
- V) Clamp control pedal
- Z) Reverse control pedal
- Y) Turntable
- K) locking handle
- o) Inflating pedal

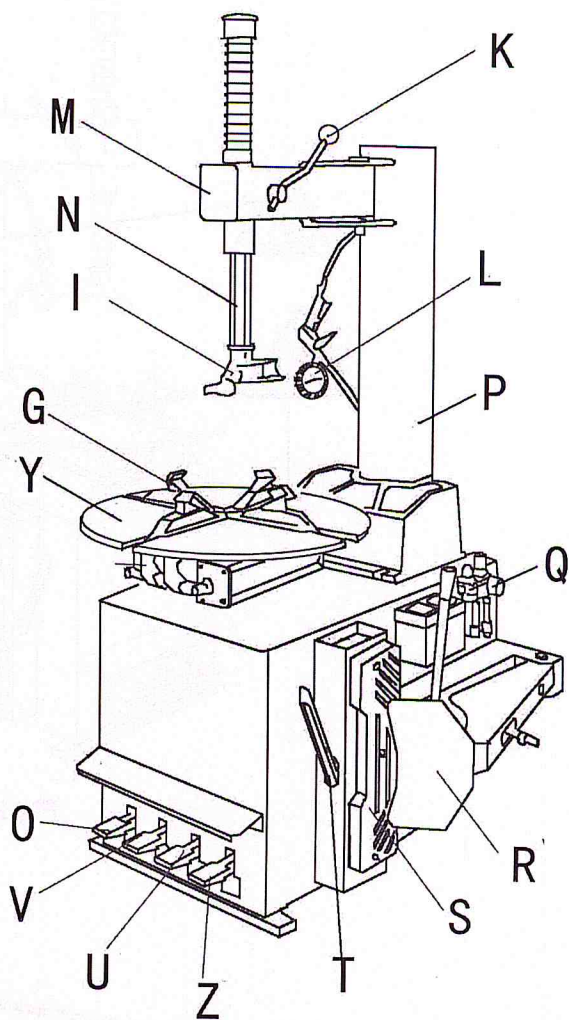


Fig.1

DANGER WARNING SIGNS

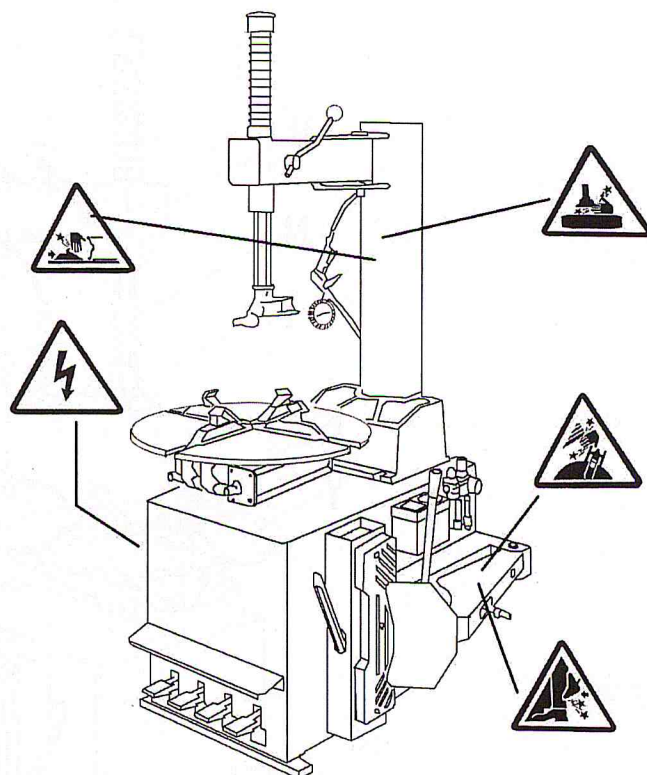
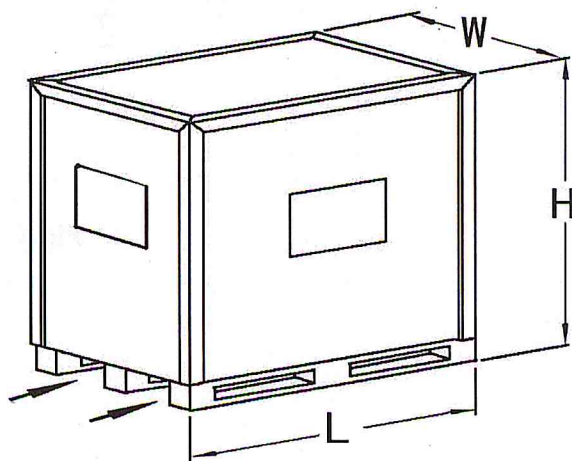


Fig.2



L=1160mm

W= 980mm

H=970mm

Fig.3

2.GENERAL

2.1 INTENDED USE

This semi-automatic tyre changer has been designed and manufactured exclusively for removing and mounting tyres from/onto rims.



Any other use is to be considered incorrect and unreasonable.

In particular, we cannot be held responsible for any damage caused through the use of this tyre changer for purposes other than those specified in this manual and therefore inappropriate, incorrect and unreasonable.

2.2.GENERAL SAFETY PRECAUTIONS



The tyre changer may only be used by specially trained and authorized expert personnel

3.TRANSPORT

- The tyre changer must be transported in its original packing and kept in the position shown on the package itself.
- The packaged machine may be moved by means of a fork lift truck of suitable capacity. Insert the forks at the points shown in figure3.

4.UNPACKING

- Remove the protective cardboard and the plastic bag.
- Check that the equipment is in perfect condition, making sure that no parts are damaged or missing. Use fig.1 for reference.
- If in doubt do not use the machine and contact your retailer.

5.INSTALLATION

5.1Space required

- When choosing the place of installation be sure that it complies with current safety at work regulations.
- The semi-automatic tyre changer must be connected to the mains electric power supply and the compressed air system.
- It is therefore advisable to install the machine near these power sources.
- The place of installation must also provide at least the space shown in figure 4so as to allow all parts of the machine to operate correctly and without any restriction.
- If the machine is installed outside it must be protected by a lean-to.



The tyre changer with electric motor cannot be used in explosive atmospheres, unless it is a proper version.

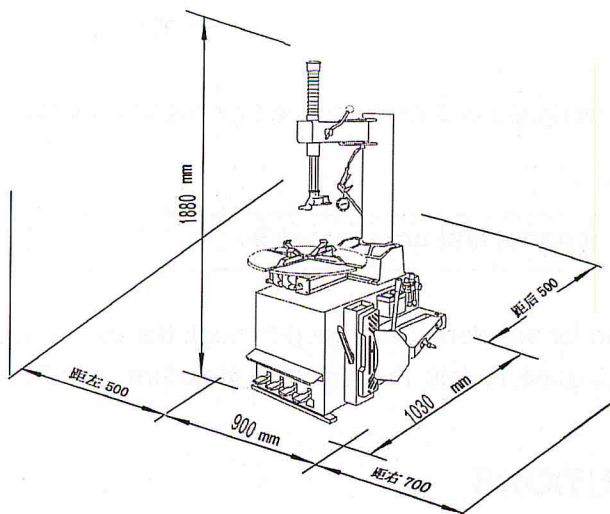


Fig.4

D=1030 W=900 H=1880

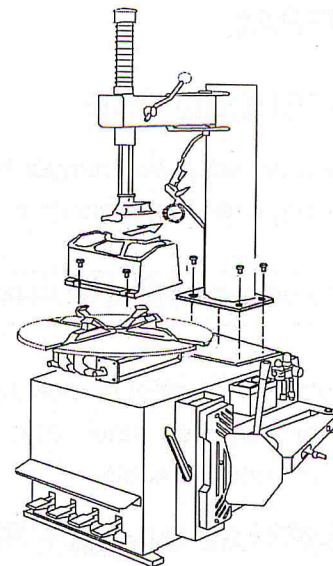


Fig.5

5.2 POSITIONING AND ASSEMBLY

- Unscrew the pallet fixing screws and position the tyre changer in the chosen place of installation.
- Unscrew the fixing screws from the arm support.
- Lift the arm and rest it on the arm support box, aligning it with the holes in which the screws were inserted.
- Retighten the fixing screws.

5.3 COMMISSIONING



Before making the connection, check that the characteristics of your systems correspond to those required by the machine.

- Steady state voltage: 0.9-1.1 of nominal voltage.
- Frequency: 0.99-1.01 of nominal frequency continuously; 0.98-1.02 short time.
- HVF: ≤ 0.02 .

Site Operating Conditions:

- Altitude are not exceeding 1 000 m,
- Maximum ambient air temperature is $+40^{\circ}\text{C}$, minimum ambient air temperature is not less than 0°C ,
- Storage and transportation temperature range is $-15^{\circ}\text{C} \sim 40^{\circ}\text{C}$.
- The relative humidity does not exceed 50% at a maximum temperature of $+40^{\circ}\text{C}$, higher relative humidities may be permitted at lower temperature (e.g. 90% @ 20°C).
- The splitter can be stored or transported under ambient temperatures between -25°C and $+55^{\circ}\text{C}$.



Even small jobs done on the electrical system must be carried out by professionally qualified personnel .

- Connect the machine to the electric network with the protection device of under-voltage, over-voltage, which must be provided with line fuses, a good earth plate in compliance with regulations in force and it must be connected to an automatic circuit breaker with RCD setting set at 30 mA.
- Connect the machine to the compressed air system by means of the air connection.(Q) that protrudes from the rear section as shown in the diagram 12.
- Connect the machine to the electric network, which must be provided with line fuses and of a

good earth plate in compliance with regulations in force.

· Moreover it must be connected to an automatic circuit breaker with RCD setting at 30mA.

Note: should the tyre-changer be lacking in electric plug, so the user must set one, which is at least 16 A and which conforms to the voltage of the machine, in compliance with the regulations force.

5.4 OPERATING TESTS

· When pedal (Z) is pressed down the turntable (Y) should turn in a clockwise direction.

· When pedal (Z) is pulled up the turntable (Y) should turn in a anticlockwise direction.

Note: If the turntable turns in opposite direction to that shown, reverse two of the wires in the three-phase plug.



Even small jobs done on the electrical system must be carry out by professionally qualified personnel.

· Pressing the pedal (U) activates the bead breaker (R), when the pedal is released the bead breaker return to its original position.

· Pressing the pedal (V) opens the four clamps (G) located on the turntable, when the pedal is pressed again they close.

· Pressing the trigger on the aligning gauge causes air to be released from the head.

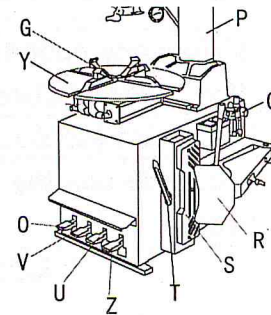


Fig.5/A

5.4.1GT VERSION

When the pedal located on the left side of the machine body is pushed down to its intermediated position (B), air is released from the airline gauge

When the pedal (C) is pushed down completely, air is released from the airline gauge along with a powerful jet from the nozzles located on the turntable clamps.

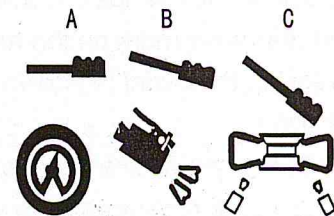


Fig.6

6.OPERATION



Do not use the machine until you have read and understood the entire nearby and the warnings it provides.

The operation of the tyre changer is divided into three parts:

a) BREAKING THE BEAD b) REMOVING THE TYRE c) MOUNTING THE TYRE



Before carrying out any operation, deflate the tyre and take off all the wheel balancing weights.

6.1 BREAKING THE BEAD

· Check that the tyre is deflated. If not, deflate it.

· Position the wheel against the rubber stops on the right side of the tyre changer (S).

· Position the bead breaker blade (R) against the tyre bead at distance of about 1cm from the rim (fig.8)

· Press down the pedal (U) to activate the bead breaker and release it when the blade has reached the end of its travel or in any case when the bead is broken.

rotate the tyre slightly and repeat the operation around the entire circumference of the rim and from both sides until the bead is completely detached from rim.

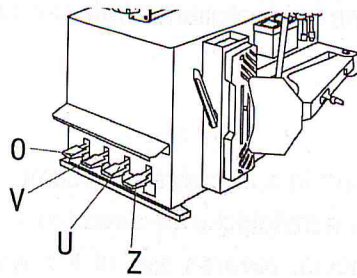


Fig.7

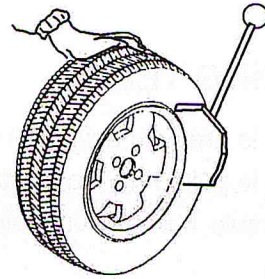


Fig.8

6.2 REMOVING THE TYRE



Before any operation remove the old wheel balancing weights and check that the tyre is deflated.

Spread the grease supplied (A) (or grease of similar type) onto the tyre bead.1



Failure to use the grease supplied risks causing serious damage to the tyre bead.

To lock the tyre proceed as follows according to the size:

Rims from 10 to 24 inches

Position the clamps (G) according to the reference mark on the turntable (Y) by pressing the pedal (V) down to its intermediate position.

place the tyre on the clamps and, keeping the rim pressed down, press the pedal (V) as far as it will go.

Rims from 12-26 inches

Position the clamps (G) so that they are completely closed.

Place the tyre on the clamps and press down the pedal (V) to open the clamps and thereby lock the rim.



Make sure that the rim is firmly fixed to the clamps

Lower the mounting bar (M) until the mounting tool rests against the edge of the rim and lock it using the lever (K). This way the arm is locked in a vertical direction and the mounting head is moved to a distance of about 2mm from the rim.

Note: once the arm has been locked in a vertical direction, the mounting head must be moved away manually from the rim (about 2mm) using the hand wheel located on the left section of the horizontal arm.

With the lever (T) inserted between the bead and the front section of the mounting head (I) move the tyre bead over the mounting head (Fig.9).

Note: In order to avoid damaging the inner tube, if there is one, it is advisable to carry out this operation with the valve about 10cm to the right of the mounting head.

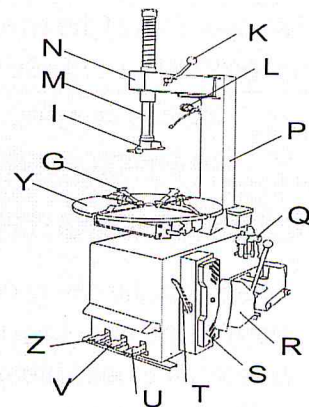


Fig.9



Chains, bracelets, loose clothing or foreign objects in the vicinity of moving parts can represent a danger for the operator.

With the lever head in this position, rotate the turntable (Y) in clockwise direction by pressing down on pedal (Z) until the tyre is completely separated from the wheel rim. Remove the inner tube if there is one and repeat the operation for the other bead.

6.3 MOUNTING THE TYRE



Before proceeding to mount the tyre, check that the tyre and the rim have the same diameter.

- Lubricate the tyre beads with the special grease in order to avoid damaging them and to facilitate the mounting operations.
- Inspect the tyre to check its condition.



During rim locking NEVER keep your hands under the tyre. For a correct locking operation set the tyre exactly in the middle of turntable.

For 10(12) to 18(22) inch wheels lock the rim rising the inner part of the clamps.

For 12(14) to 20(24) inch wheels lock the rim rising the outer part of the clamps.



Never place your hands between the wheel rim and the clamps during the socking stage or you will risk crushing them.

Note: When you are working with rims of the same size, it is not necessary always to lock and unlock the mounting bar, just move the horizontal arm (N) sideways with the mounting arm (M) locked.

- Move the tyre so that the bead passes below the front section of the mounting head had is brought up against the edge of the rear section of the mounting head itself.
- Keep the tyre bead pursed down into the wheel rim channel with your hands. Press down on the pedal (Z) to rotate the turntable clockwise (Fig.10). Continue until you have covered the entire circumference of the wheel rim (Fig.11).
- Insert the inner tube (if there is one).
- Repeat the same operations to mount the ripper side of the tyre.

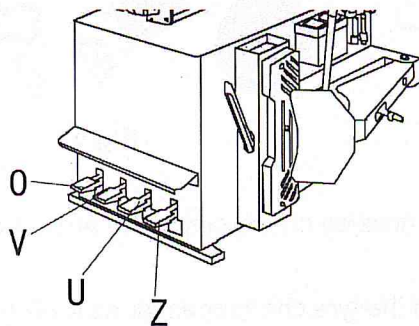


Fig.10

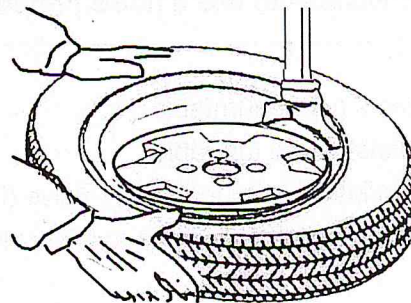


Fig.11

7. INFLATING

- The greatest attention is called for when inflating the tyres.
- Keep strictly to the following instructions since the tyre changer is NOT designed and built to

protect the user (or anyone else in the vicinity of the machine if the tyre bursts accidentally.

⚠ DANGER



A burst tyre can cause serious injury or even death of the operator.

- Check carefully that the wheel rim and the tyre are of the same size.
- Check the state of wear of the tyre and that it has no defects before beginning the inflation stage.

- Inflate the tyre with brief jets of air, checking the pressure frequently.

· All our tyre changers are automatically limited to a maximum inflating pressure of 3.5 bar (51 psi) in any case never exceed the pressure recommended by the manufacturer.

- Keep your hands and body as far away as possible from the tyre.

Inflating tyre using airline gauge

In the standard version our tyre changers are supplied with an airline gauge. To inflate a tyre proceed as follows:

Connect the airline gauge fitting to the tyre valve.

Press the airline gauge trigger so as to inflate the tyre with brief jets of air.

Take care NEVER to exceed the pressure indicated by the manufacturer.

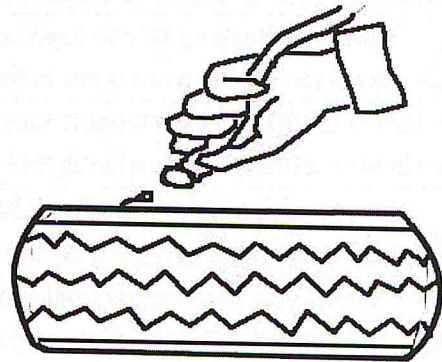


Fig.12

Inflating tyres with GT system (optional)

The GT inflation system facilitates inflation of tubeless tyres thanks to a powerful jet of air from the nozzles positioned on the clamps.



During this phase of work the level of noise can reach 85 db(A).

It is advisable to use a noise protection.

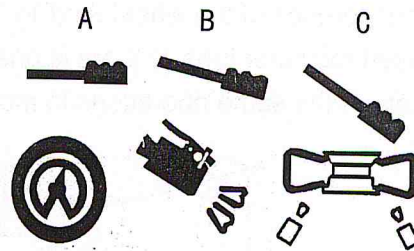


Fig.13

Lock the wheels on the turntable.

Lock the wheels on the turntable.

Connect the inflation head to the tyre valve (Fig.13-A).

Lift the tyre upwards slightly so as to allow air from the nozzles on the clamps to arrive from under the tyre.

Press down the inflating pedal located on the left side of the tyre changer as far as it will go. A jet of air will be released from the nozzles and fix the tyre perfectly to the rim so as to facilitate complete inflation (Fig.13-).

Finish inflating the tyre by pressing the inflation pedal to its intermediate position (Fig 13-B) (the air will escape from the airline gauge fitting) continue to check the pressure.

8.MOVING

To move the tyre changer you will need a fork-lift truck..

Disconnect the pneumatic and electric power supplies.

Apply leverage to one side of the base so as to raise it slightly from the floor.

Insert the forks of the truck under the base and slide the tyre changer onto them.

Set the tyre changer down in its new position.

Note: the place chosen for repositioning the tyre changer must comply with European safety at work standards.

9. STORAGE

In the event of storage for long periods of time, be sure to:

- Disconnect all sources of power and grease the clamp sliding guides on the turntable to prevent them from oxidizing.

10. SCRAPPING

If you decide to scrap the machine, be sure to make it inoperative by disconnecting it from all sources of power.

Remove all non-ferrous materials and dispose of them as prescribe by national law.

Collect the oil and dispose of it at an authorized point as prescribed by national law.

Scrap the rest as ferrous material.

11. MAINTENANCE

11.1General warnings

Unauthorized personnel may not carry out maintenance work.

Regular maintenance as described in the instructions essential for correct operation and long lifetime of the tyre changer.

If maintenance is not carried out regularly, the operation and reliability of the machine may be compromised, thus placing the operator and anyone else in the vicinity at risk.



Before carrying out any maintenance work, disconnect the electric and pneumatic supplies. Moreover, it is necessary to break the bead load less 3-4 times in order to let the air in pressure go out the circuit.

Defective parts must be replaced exclusively by expert personnel use the manufacturer's spare parts indicated in the spare parts catalogue enclosed.

Removing or tampering with safety devices (pressure limiting and regulating valves) represents a contravention of European Safety Standards.



In particular we shall not be held responsible for complaints deriving from the use of spare parts made by other manufacturers or for damage caused by tampering or removal for safety systems.

MAINTENANCE OPERATIONS

Clean the turntable once a wheel with diesel fuel so as to prevent the formation of dirt, and grease the clamp sliding guides.

Carry out the following operations at least once every 30 days:

Check the oil level in the lubricator tank. If necessary, fill up by unscrewing screw E. Only use SAE 30 oil (Fig.14).

Check that a drop of oil is injected into the reservoir F every 3-4 times the pedal U is pressed down. If not, regulate using the screw D (Fig.14)

Note: After the first 20 days of work, retighten the clamp tightening screws and screws on the turntable slides (Fig.15).

Note: In the event of a loss of power, check that the drive belt is tight as follow:



Before any operation disconnect the electric power supplies.

Remove the left side body panel of the tyre-changer by, unscrewing the four fixing screws.

Tighten the drive belt by means of the special adjusting screw X on the motor support (fig.16).

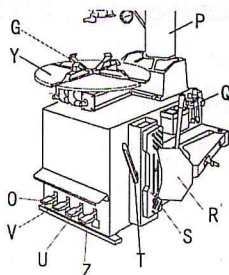


Fig.14

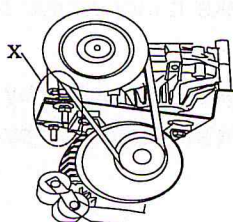


Fig.15

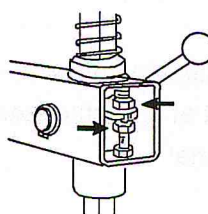


Fig.16

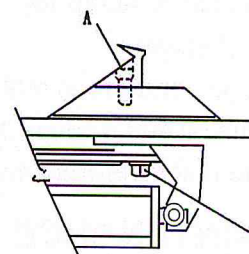


Fig.17

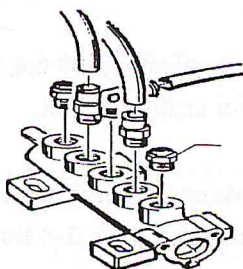


Fig.18

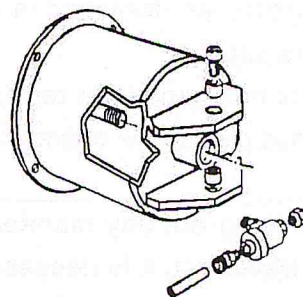


Fig.19

Note: If it is necessary to adjust the vertical arm locking plat because the tool doesn't lock or it doesn't rise from

the rim of 2mm necessary for working, adjust nuts as shown in figure 17.

Note: For cleaning or replacing the silencer:

For opening/closing clamps (see fig.18) and proceed as follows:

- 1) Remove the left side panel of the machine body by unscrewing the four fixing screws.
- 2) Unscrew the silencer put on the pedal system, on the clamp opening /closing pedal

3) Clean by a jet of compressed air or, if damaged, replace by referring to the spare parts catalogue.

For cleaning or replacing the silencer of bead breaker (B), see fig.19 and proceed as shown on previous point 1 and 3.

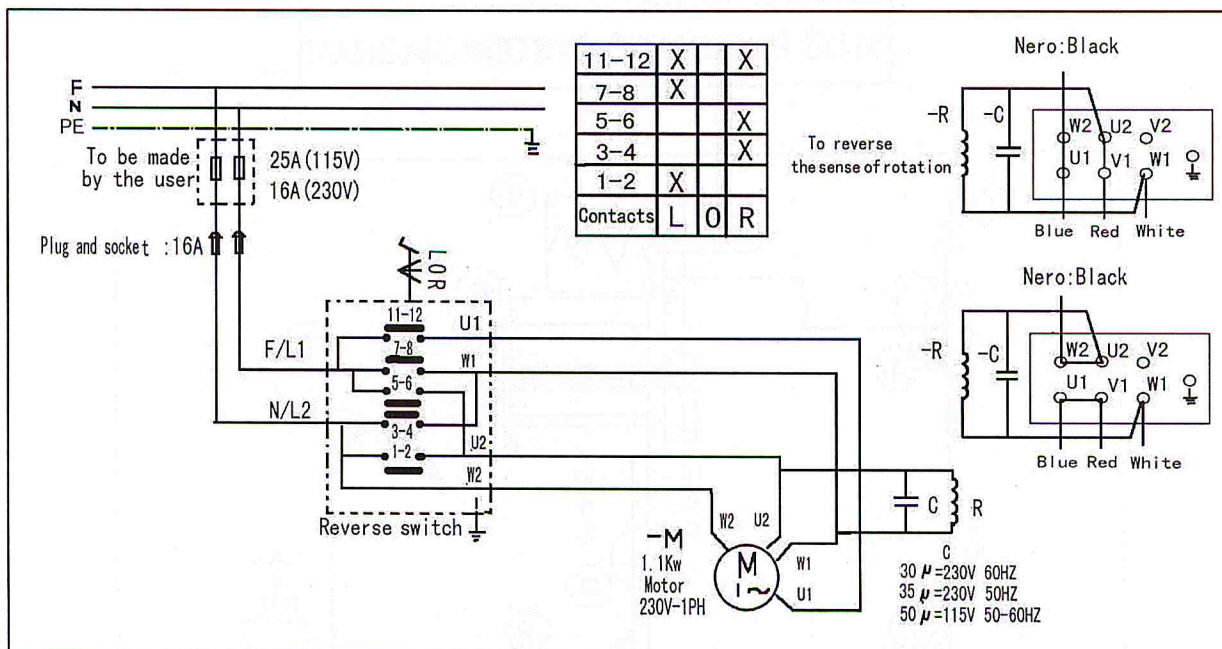
12. TROUBLE SHOOTING

Turntable rotates only in one direction		
Reverse broken		Replace reverse
Turntable does not rotate		
Belt broken		Replace belt
Reverse broken		Replace reverse
		Check for loose wires in motor plug or the socket replace motor
Turntable locks while removing /mounting tyres		
Belt loose		Adjust belt tension (chap.11 fig.17)
Clamps slow to open/close		
Silencer clogged		Clean or replace silencer
Turntable does not lock the wheel rim correctly		
Clamps worn		Replace clamps
Turntable cylinder(s)defective		Replace cylinder gaskets
The tool touches the rim during the tyre removing/mounting operations		
Locking plate incorrectly adjusted or defective		Adjust or replace locking plate (chap.11 fig.18)
Turntable locking screw losses		Tighten screw
Bead breaker pedal and clamp opening/closing pedal lock out of position		
Return spring broken		Replace spring
Bead breaking operation difficult		
Silencer clogged		Clean or replace silencer (chap.11 fig 19)
Bead breaker cylinder gaskets broaden		Replace gaskets

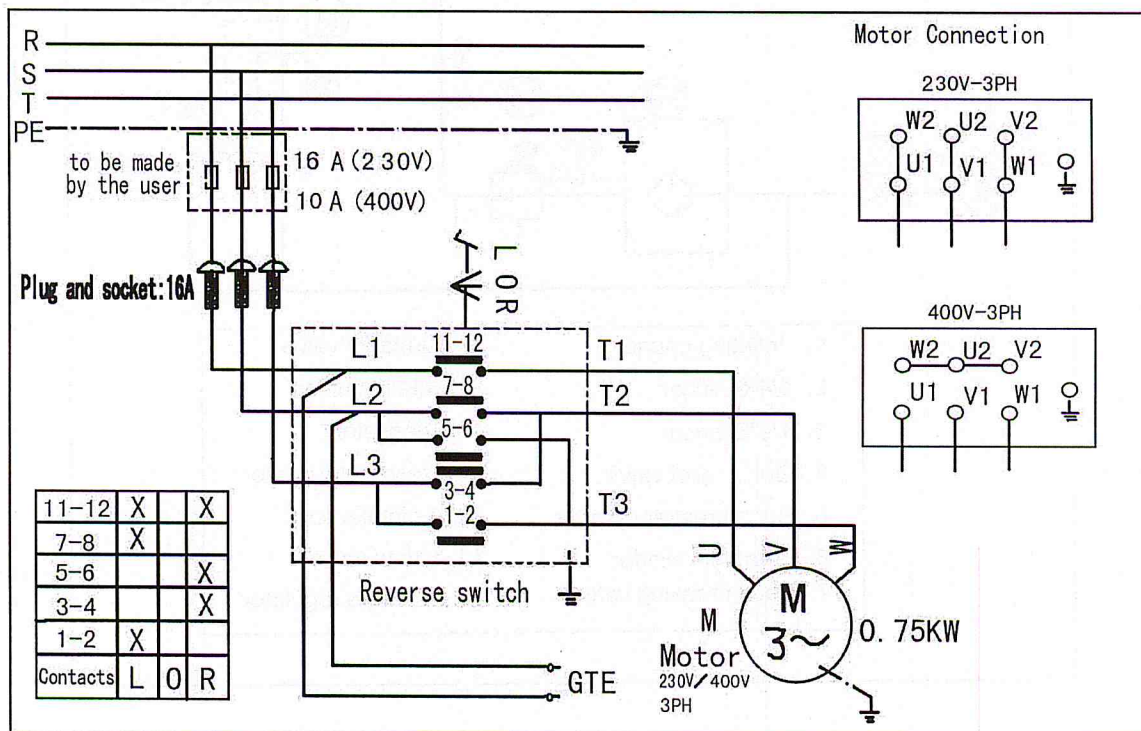
13. TECHNICAL DATA AND ELECTRIC DIAGRAMS

Technical Data	
External locking rim dimensions	10" - 24"
Internal locking rim dimensions	12" - 26"
Max. tyre diameter	1280 mm
Max. tyre width	410 mm
Table top rotation speed	7r / min
Force on bead breaker blade(10bar)	2500 kg
Working pressure	0.8 MPa
Inflating pressure limiting device max.	0.35 MPa
Relief valve on inflating device	0.4 MPa
Power supply voltage	110 V / 1 Ph/60Hz
Motor power	1.1 kW
Max. rotation torque of turntable	1100 N • m
dimensions	1160×980×970
Net Weight	230 kg
Noise level in working conditions	<70 dBA

14. ELECTR. AND PNEUM. DIAGRAMS

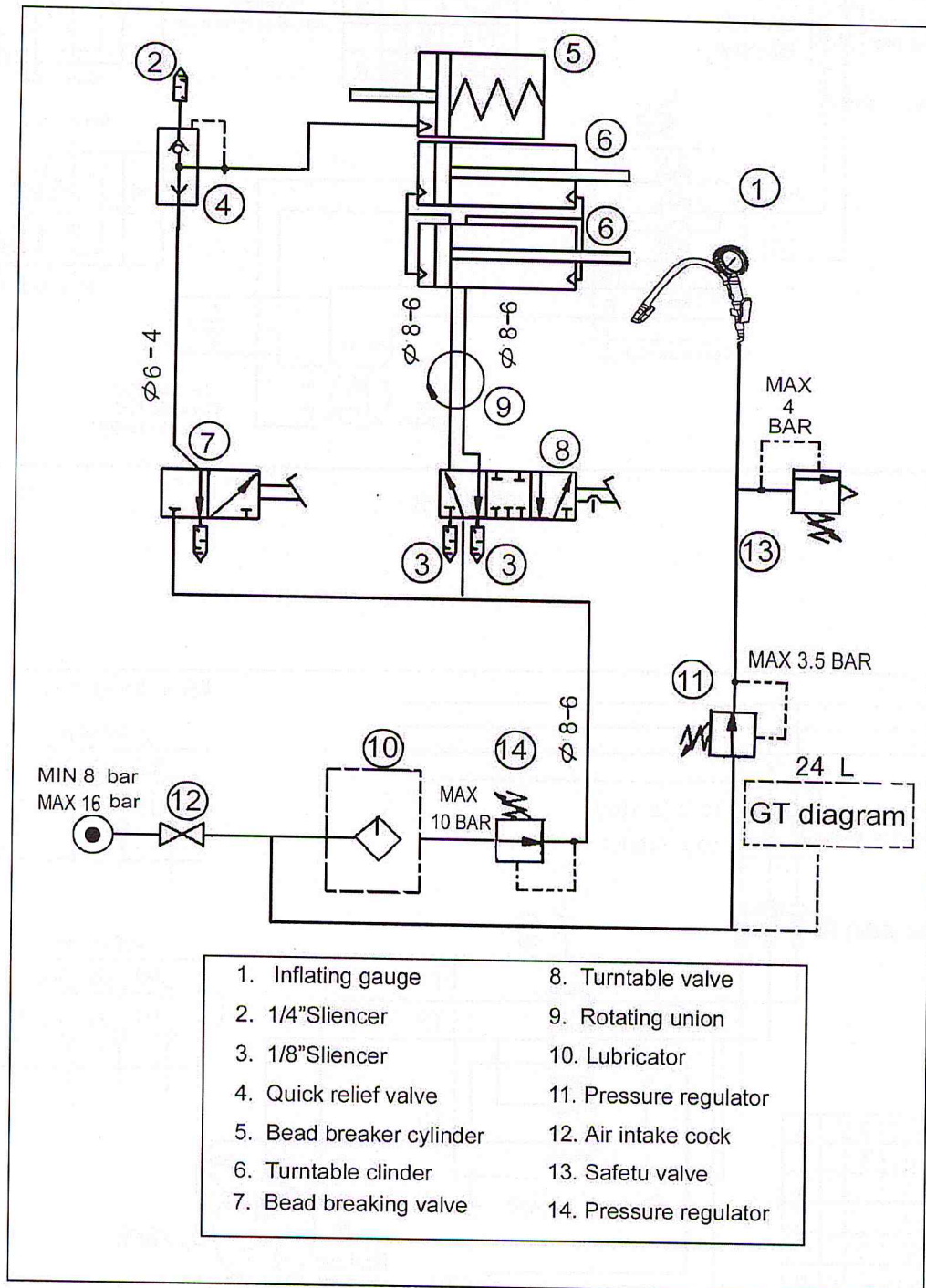


115/230V-1PH



230V/400V-3PH

STND PNEUMATIC SYSTEM DIAGRAM



GT PNEUMATIC SYSTEM DIAGRAM

