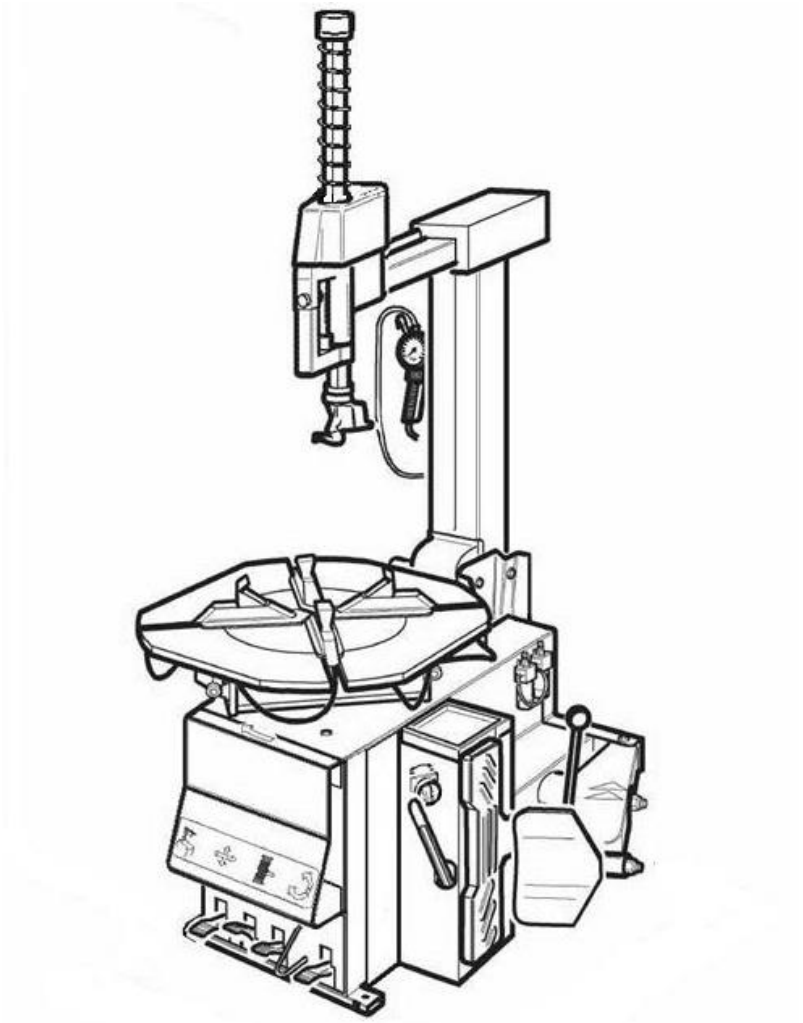


70-035
Automatic Tire Changer
USER AND MAINTENANCE MANUAL

THE CARTEK GROUP – 6950 EAST N AVENUE – KALAMAZOO, MI. 49048

PRINTING CHARACTERS AND SYMBOLS

Throughout this manual, the following symbols and printing characters are used to facilitate reading:

	Indicates the operations which need proper care
	Indicates prohibition
	Indicates a possibility of danger for the operators
BOLD TYPE	Important information

	**WARNING: before operating the unit and carrying out any adjustment, carefully read chapter 7 "maintenance" where all proper operations for a better functioning of the machine are shown.**

CONTENTS

CHAPTER 1 – INTRODUCTION

1.1 INTRODUCTION

Thank you for purchasing a product from the line of tire 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.

1.2 TYRE CHANGER IDENTIFICATION DATA

A complete description of the "Tire 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 tire 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 tire changer, the latter should be taken as correct.

BEAR

Type:
Volt Amp Kw
Ph Hz
Year of manufacturing:
Air supply: 8-10 bar (115 – 145 PSI)

1.3 MANUAL KEEPING

For a proper use of this manual, the following is recommended:

- Keep the manual near the machine, in an easily accessible place.
- Keep the manual in an area protected from humidity.
- Use this manual properly without damaging it.
- Any use of the machine made by operators who are not familiar with the instructions and procedures contained herein shall be forbidden.

This manual is an integral part of the machine: it shall be given to the new owner if and when the machine is resold.

	**The illustrations have been made out to show general procedures. It is therefore possible that some parts or components of standard production differ from those represented in the pictures.**

1.4 GENERAL SAFETY PRECAUTIONS

	**The tire changer may only be used by specially trained and authorized personnel.**

- Any tampering or modification to the equipment carried out without the manufacturer's prior authorization will free BEAR from all responsibility for damage caused directly or indirectly by the above actions.
- Removing or tampering with safety devices immediately invalidates the warranty.

TO THE READER

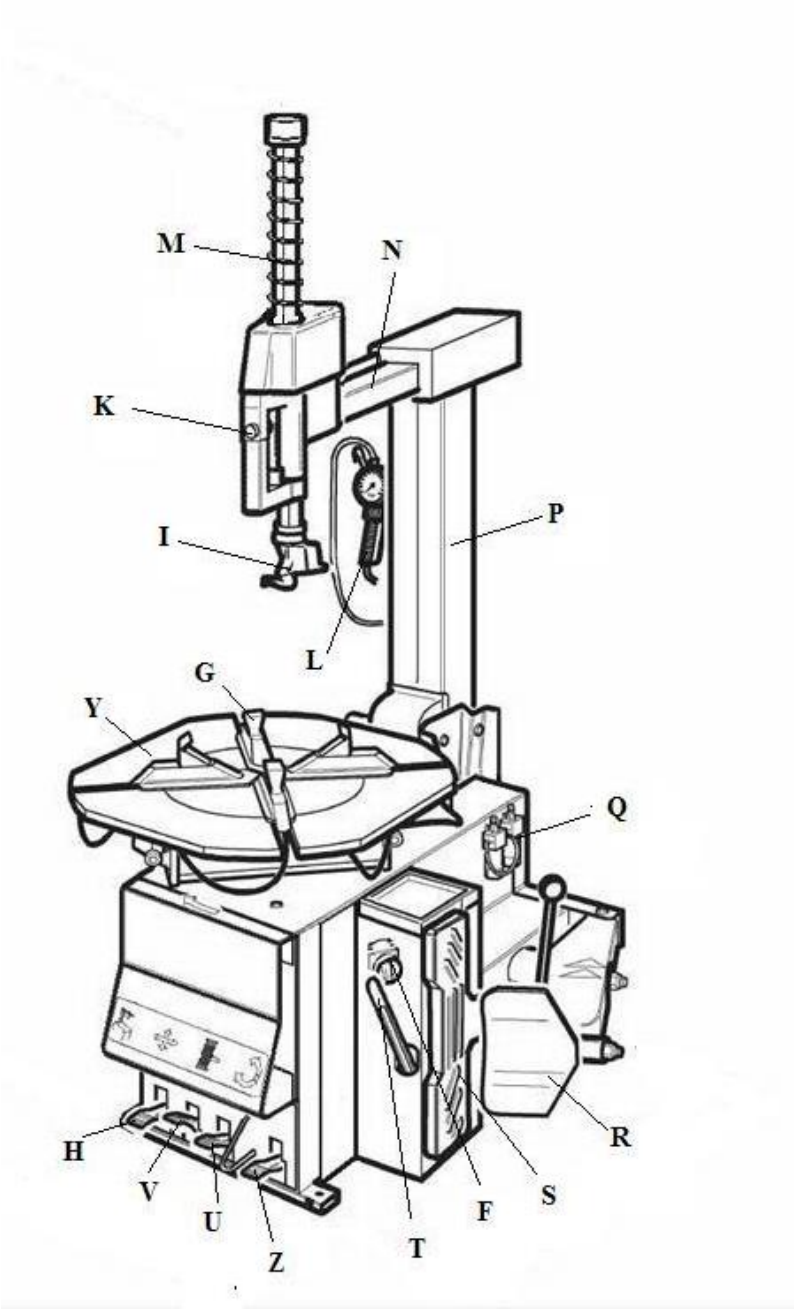
Every effort has been made to ensure that the information contained in this manual is correct, complete and up-to date. The manufacturer is not liable for any mistakes made when drawing up this manual and reserves the right to make any changes due the development of the product, at any time.

CHAPTER 2 – GENERAL INFORMATION

2.1 INTENDED USE

- This Automatic tire changer has been designed and manufactured exclusively for removing and mounting tires from/onto rims from 12" to 26" and a maximum diameter of 1200 mm.
- In particular **THE MANUFACTURER** cannot be held responsible for any damage caused through the use of this tire changer for purposes other than those specified in this manual, and therefore inappropriate, incorrect and unreasonable.

2.2 DESCRIPTION



F) Turntable double speed switch
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) Reverser control pedal
H) Tilting arm pedal
Y) Turntable
K) Locking button

Fig . 1

2.3 DANGER WARNING SIGNS

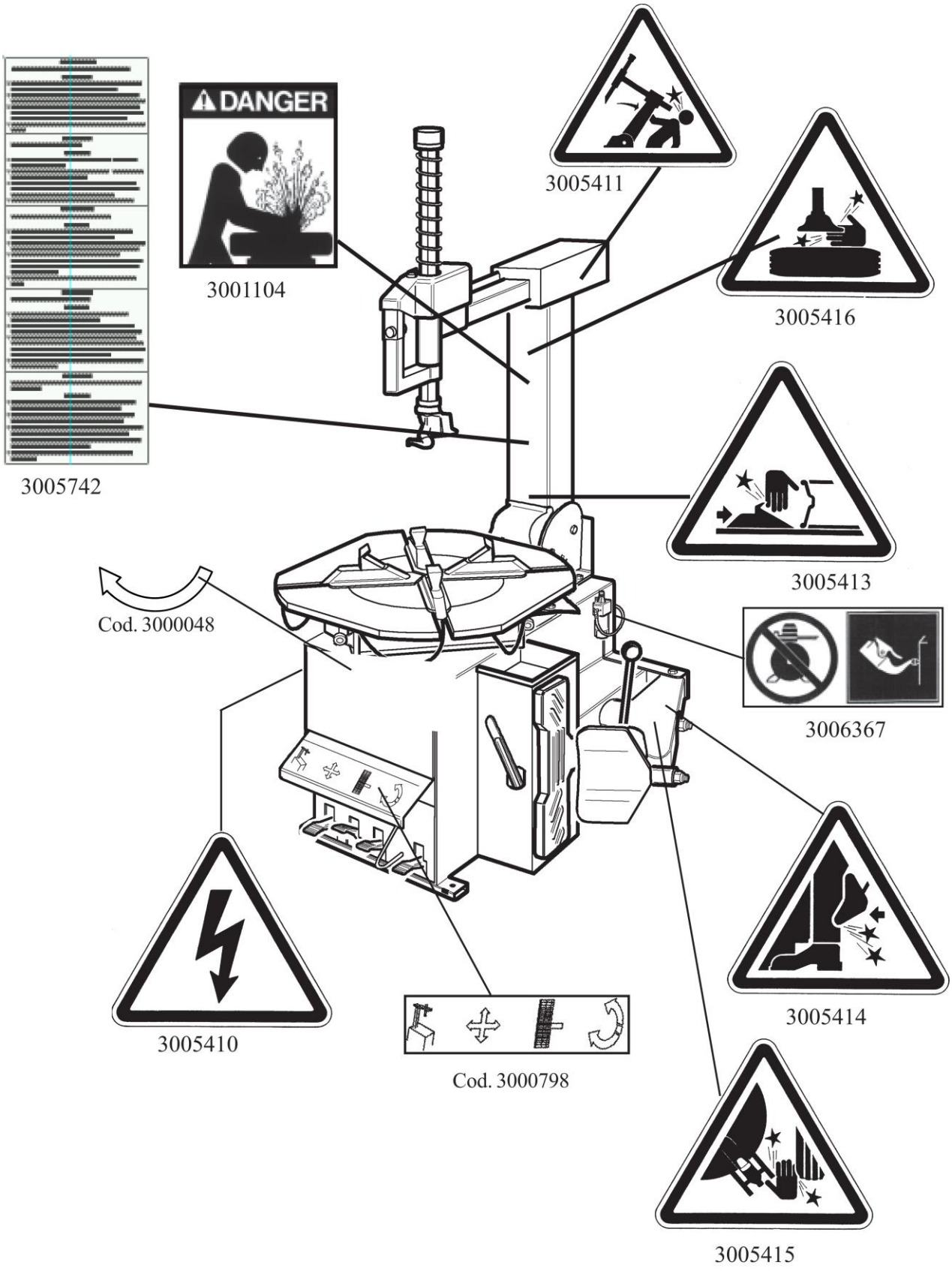


Fig. 2

2.4 TECHNICAL SPECIFICATION

External locking rim dimension	12” – 26” 13” – 27” 14” – 28”
Internal locking rim dimension	14”- 28” 15” – 29” 16” – 30”
Max. tire diameter	1200mm (47”)
Max tire width	370mm (14.6”)
Force on bead breaker blade (10 bar)	3000 kg
Working pressure	10 bar (145 psi)
Inflating pressure device max.	3.5 bar (50 psi)
Power supply voltage	230V - 1 Ph
	110V - 1Ph
Motor power	0.8/1.1 kw (3ph double speed)
	0.75 kw (1ph)
Rotating speed	7 rpm
Max spindle torch	1200 NM
Packing dimension	1250 x950 x 920
Net weight	290 kg STND 310 kg GT
Noise level in working condition	< 70 dB (A)

CHAPTER 3 – TRANSPORTATION, UNPACKING AND STORAGE

3.1 TRANSPORTATION

- The tire changer must be transported in its original packaging and kept in the position shown on the package itself.
- The packaged machine may be moved by means of a forklift truck of suitable capacity. Insert the forks at the points shown in figure 3.

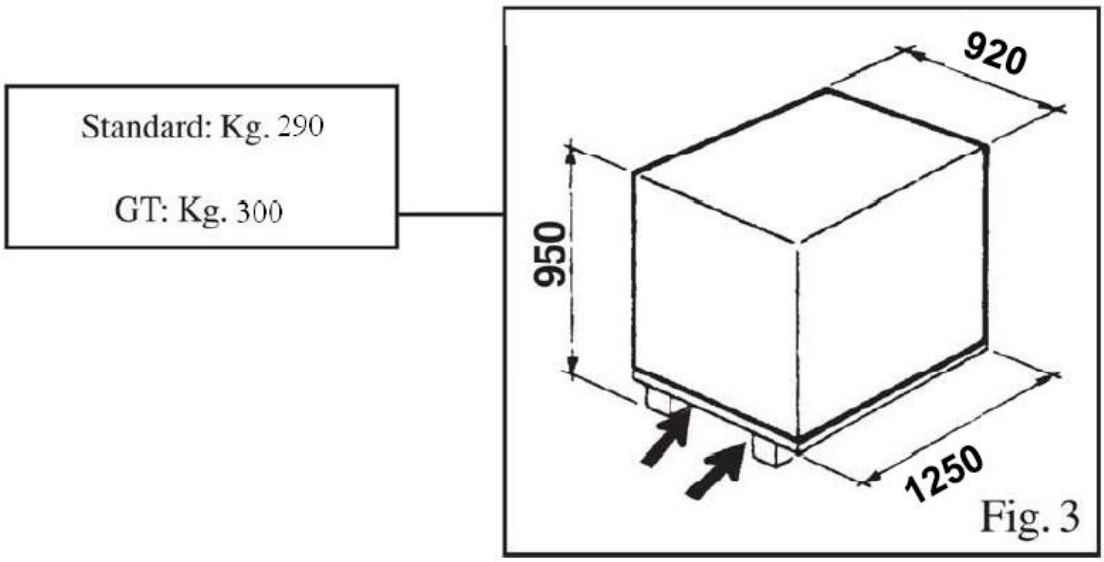


Fig. 3

3.2 UNPACKING

- Remove the protective cardboard and the nylon 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.

3.3 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.

CHAPTER 4 – INSTALLATION

4.1 SPACE REQUIRED

⚠	**When choosing the place of installation be sure that it complies with current safety at work regulations.**

- The tire changer must be connected to the main electric power supply and the compressed air system. It is therefore advisable to install the machine near the corresponding sources.
- The place of installation must also provide at least the space shown in pictures 4 - 4/A, to allow all parts of the machine to operate correctly and without any restriction.

⚠	**This tire changer with electric motor cannot be used near explosive materials.**

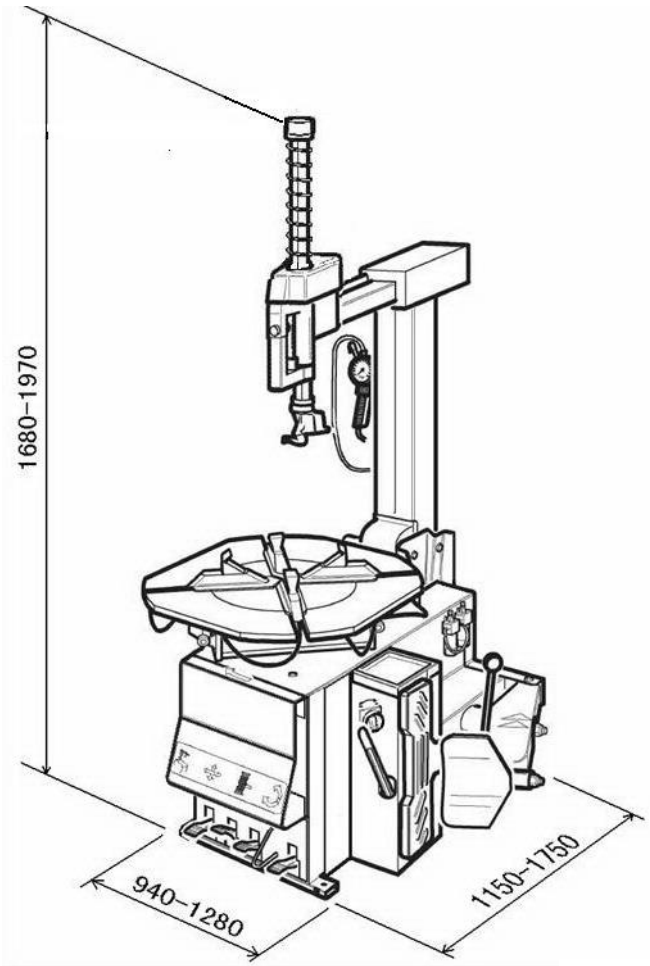


Fig. 4

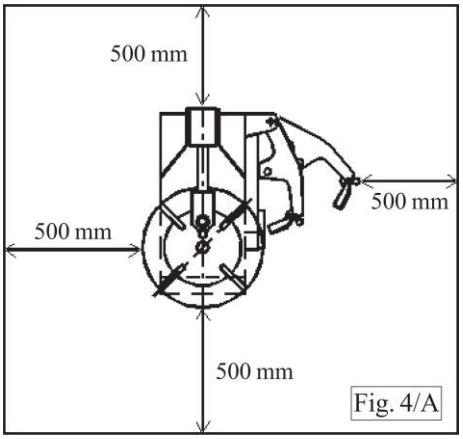


Fig. 4/A

4.2 POSITIONING AND PARTS ASSEMBLY

4.2.1 Arm assembly and peripherals

- Remove the pallet fixing screws and set the tire changer on the floor.
- Set the vertical arm into its housing on the machine body, as shown in Fig. 5.

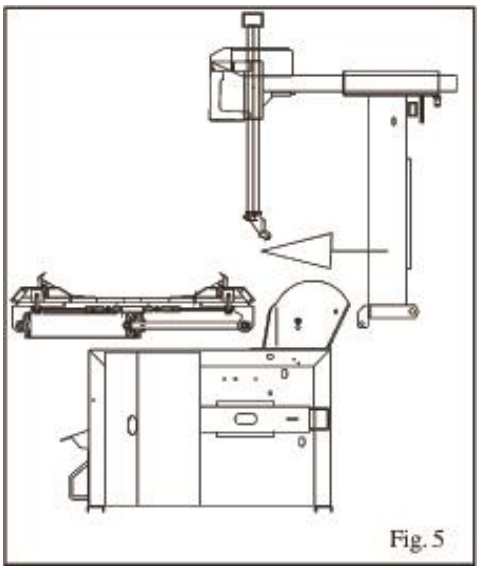
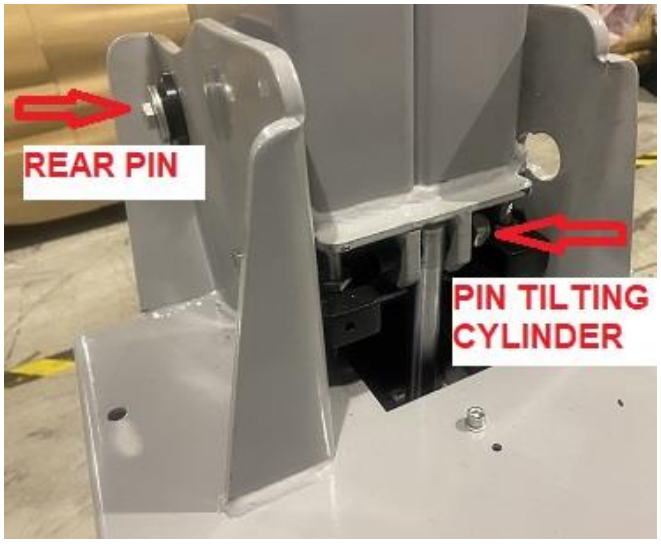


Fig. 5



- This operation must be performed by two operators. A crane or similar equipment may be required to safely lift the vertical arm.
- Set the rear articulation pin (1) and the washers (2) and tighten the screws (3). Fig. 6.
- Set the pin (5) to connect the tilting cylinder and the arm as show in the Fig. 7.
- Tighten the nut (7).

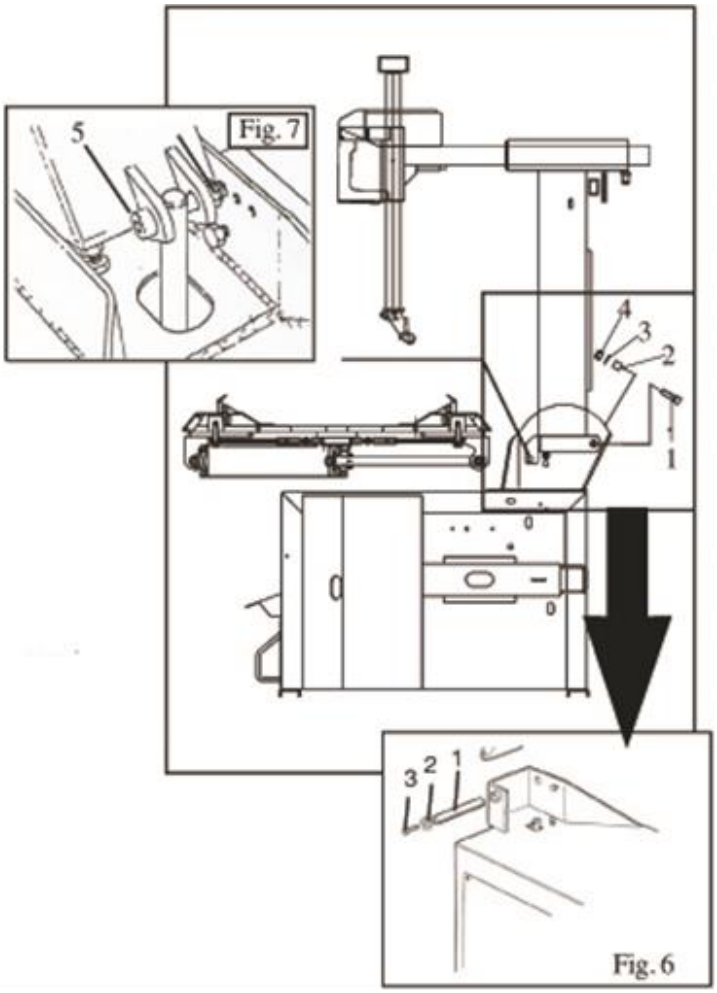
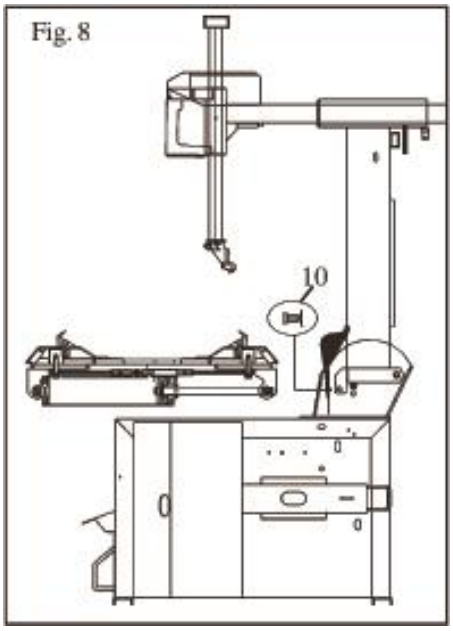
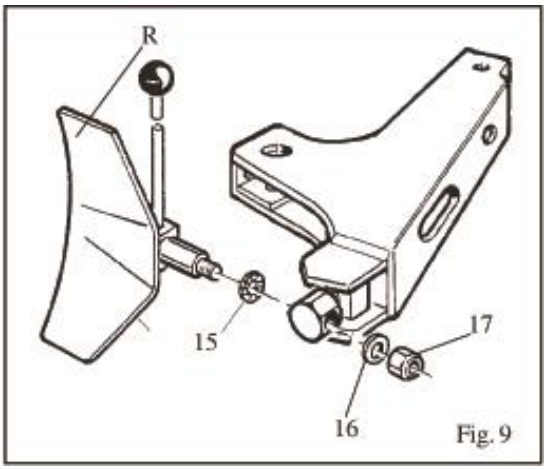


Fig. 6

- Tighten the screw and washer (10) to fix the plastic cover as shown in Fig. 8.

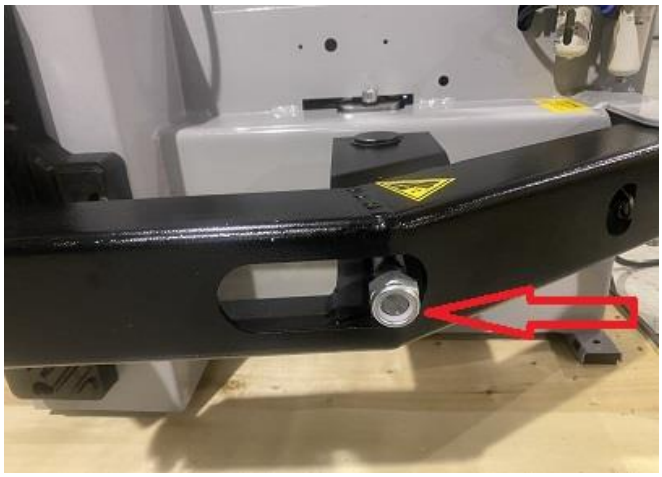


- Set the blade (R) on the bead breaker arm. Place the washer (15) inside the arm and the washer (16) outside. Fig. 9. Tighten the self-locking nut (17) on the blade pin. Fig. 9/A



- (Optional) Installation of bead breaker cushion.

- Remove the locking nut from the bead breaker shaft.
- Disengage the spring from the bead breaker arm.



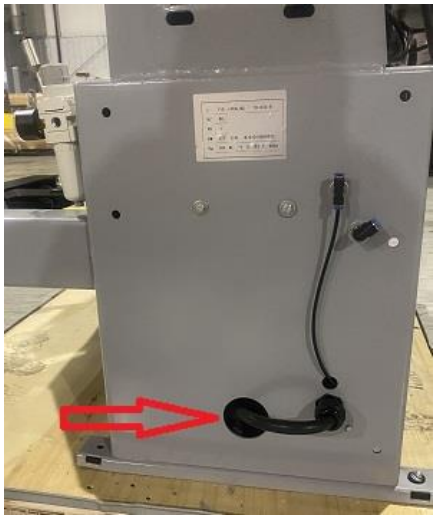

- Swing and remove the bead breaker arm, insert the rubber cushion.


- Re-attach the spring onto the bead breaker arm using a set of locking pliers or similar tool, mount the locking nut back onto the bead breaker shaft.

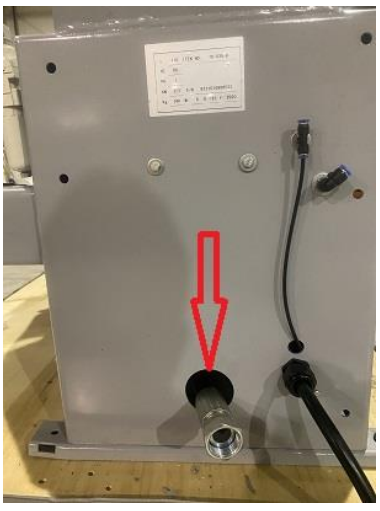

4.2.2 Mounting and connecting the GT tank

- Remove the screws around the perimeter of the side cover on the right side of the machine. Place cover aside to gain access to the inside of the machine.

- Pull out the main power cable from the inside of the machine though the larger hole in the back. Be careful and avoid entanglement of this cable in the interior of the machine, which could result in disconnection of an airline.



- Route the hose (2), situated inside the machine body, though the hole on the back side of the body.



- Connect the air tank to the main pneumatic hose coming from the inside of the machine and then proceed to fasten the tank/bracket onto the chassis of the machine, using the (2) provided screws.

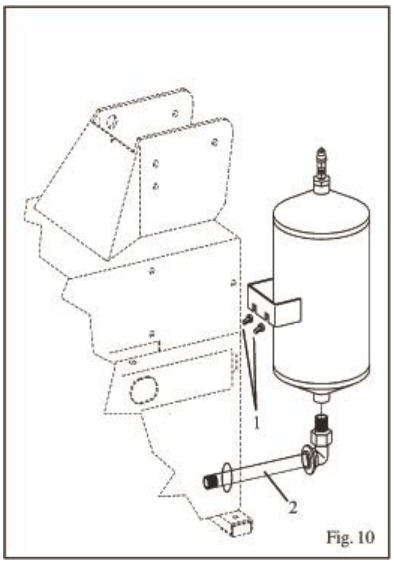
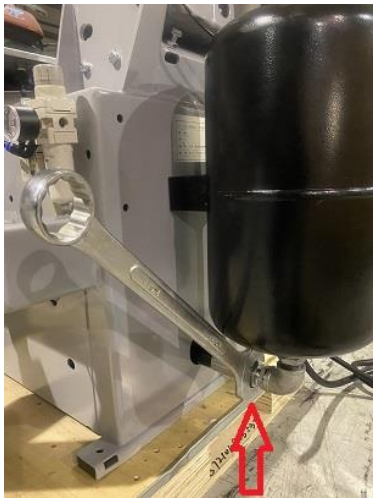
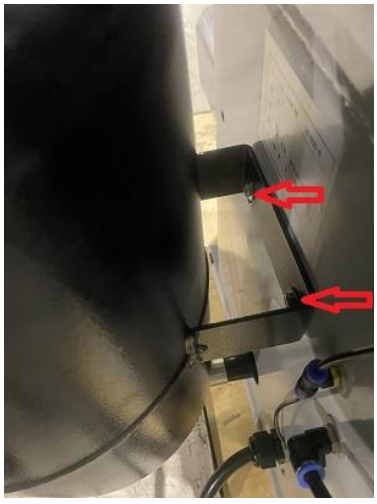


Fig. 10

- There is a supply of two (2) O-rings (gaskets) attached to the air tank. Use one to attach the hose onto the tank's union and save the other one for future use if required.



- Tighten the union and fasten the screws to attach the tank's bracket onto the machine.

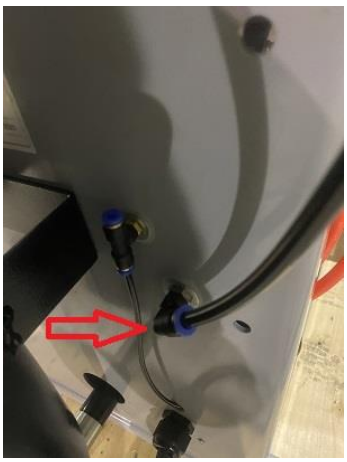
4.2.3 Mounting and connecting the manometer

- Remove the top screw and loosen the bottom screw from the surface of the tire changer's tower that holds the manometer assembly.

Mount the manometer assembly and fasten with both screws.

Connect the pneumatic line into the union on the back of the machine, as shown below.



4.2.4 Installing the spring in mount/demount arm

- Lift by hand the mount/demount arm and place a wedge (wood, etc.) to hold in place.

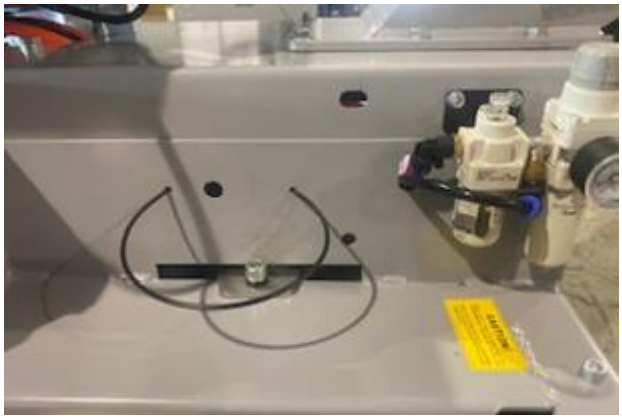
Remove the screw the holds the plastic cap using an allen wrench and remove the cap completely.



- Insert the spring provided in the accessory box. Place the plastic cap and fasten with a hex wrench.

- Remove top locking nut from the spring base and tighten flat nut existing lower locking nut. Insert / mount plastic protector and fasten locking nut.

Insert the ring provided in the accessory box into the left side of the tire changer's body. Place the container provided for lubricant inside the ring.

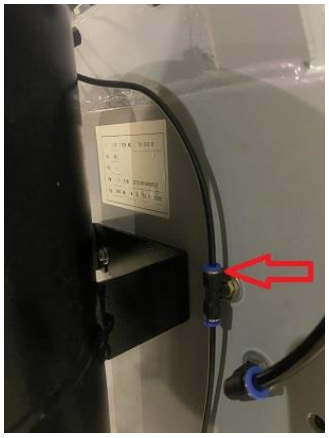


4.2.5 Connecting the pneumatic locking mechanism

- Connect the pneumatic hose comming from the mounting arm. Route the small pneumatic line going downwards through the metal chanel on the back of the tower and connect this line into the existing fitting located on the lower back of the machine.

Install / mount the platic cover and fasten the two (2) allen screws.





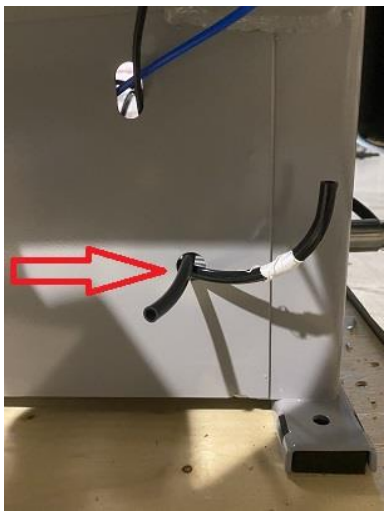

4.2.6 Assist arm Assembly (Optional)

- Remove the two fastening screws that hold the filter assembly onto the machine so that you have access to the pneumatic hoses (2) that are connected comming from the inside of the machine

The following metal bracket is not used and can therefore be discardd if present:

Label each of the two pneumatic hoses connected to the filter assembly so you can identify and re-connect them later.
Disconnect both hoses from the filter assembly, push them into the machine and re-route them towards the outside through the hole located at the bottom of the machine, as shown below:



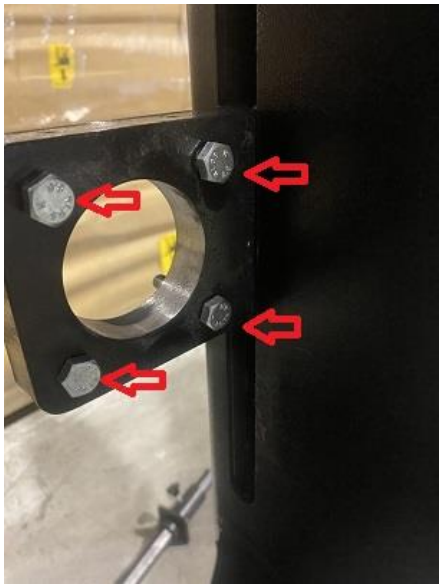


Identify the long and short metal brackets
Position both brackets inside the machine so that the treaded studs go through the chassis of the machine as shown below.
Mount the tower of the assist arm onto the three (3) studs and fasten with the locking nuts.

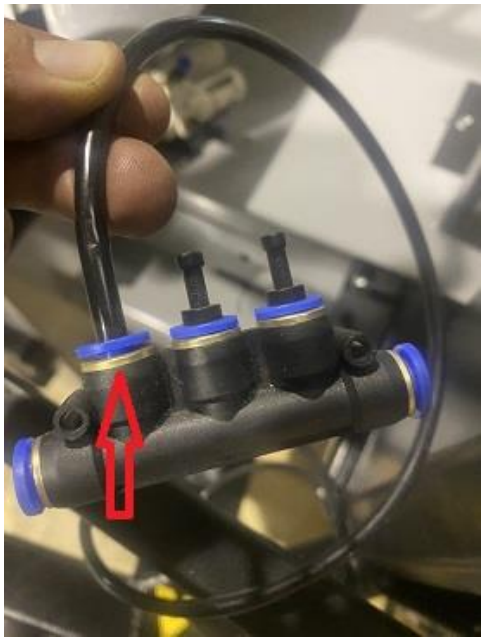
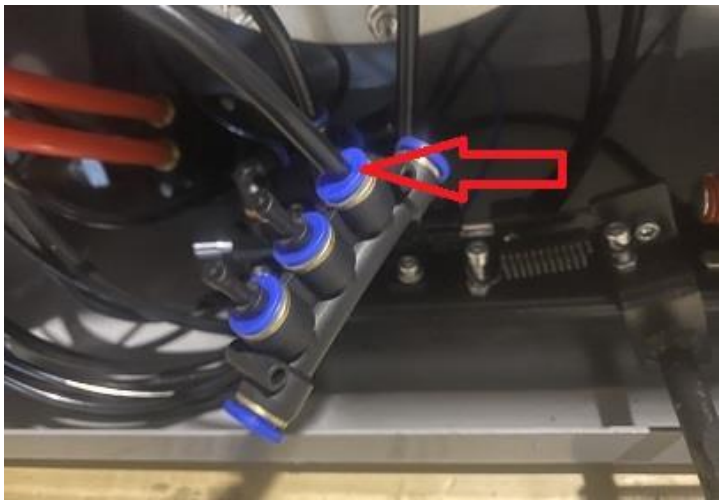
Mount the curved arm onto the arm that has the pneumatic lever, as shown below (Lubricate the areas that connect with white grease).
Screw in the treaded assist arm onto the end of the curved arm.


Mount the lower assist arm that has the rotating disc, as shown below. (Lubricate the areas that connect with white grease).

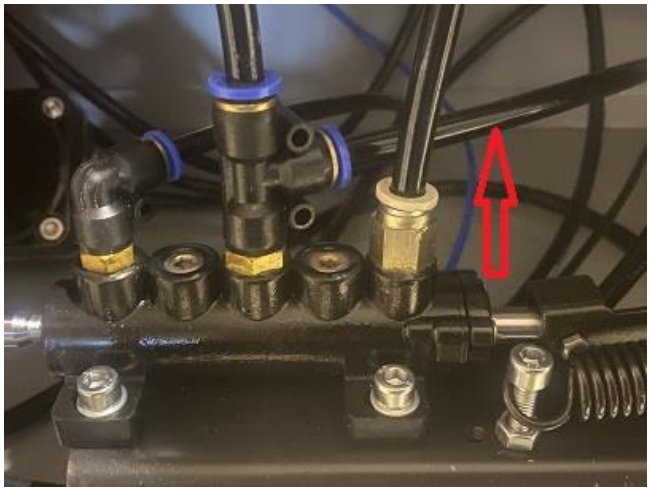
Loosen the four bolts from the square support attached to the tower of the assist arm
Mount the support with the cylinder pointint towards the back of the machine as shown below (Lubricate the inside of the cylinder with white grease). Fasten the four screws.
Insert the sliding arm and fasten the back plate.



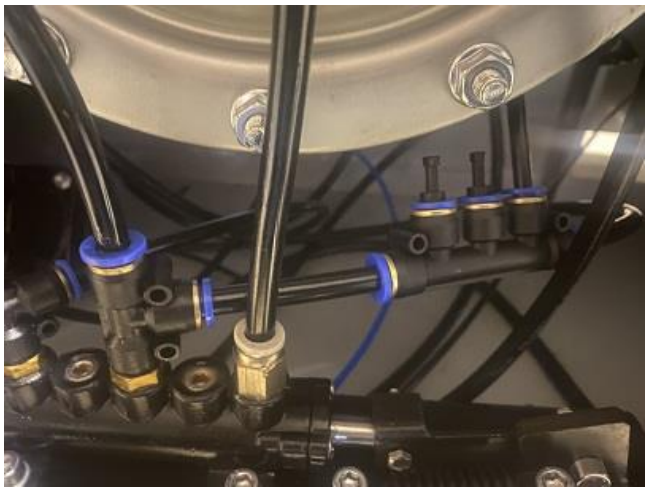
Pull out the pneumatic hose and valve that are rolled inside the assist arm's body. Disconnect the valve and route the hose through the hole in the side of the machine. Reconnect the valve inside the machine, as shown below.

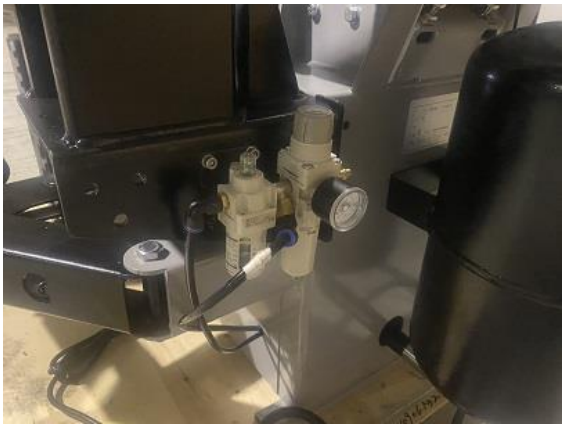
Splice the pneumatic hose coming out from the main valve assembly located inside the machine. Splice the hose approximately 3”-4” away from the valve, as marked with a red arrow below.

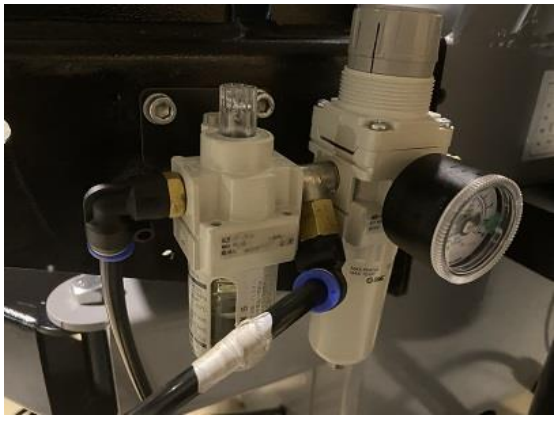


Connect the pneumatic valve that came from the assist arm in-between the two hoses that were spliced, as shown below.



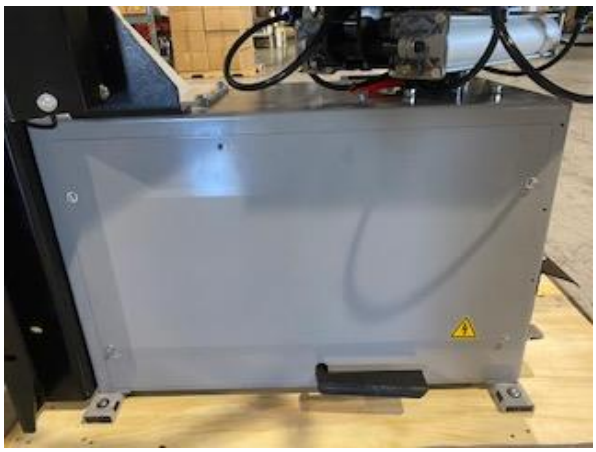
Re-mount the filter assembly in the back of the assist arm and re-connect the pneumatic hoses that were labeled in a previous step, as shown below.

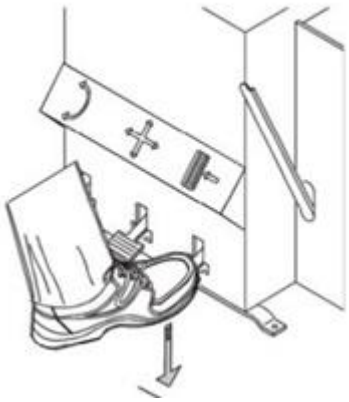




Mount / install the support leg against the assist arm. Fasten the three (3) bolts provided.
Adjust the swiveling foot at the bottom of the support leg ensuring that it provides firm support to the machine.

Mount the side door back onto the machine and proceed to test the machine as described in the following steps.





4.3 COMMISSIONING

⚠	**Any electric connection job must be carried out by professional and qualified personnel.** **Make sure that the power supply is correct.** **Make sure the connection of the phases is right. Improper electrical hook-up can damage the motor and will not be covered under warranty.**

Check to make sure that the characteristics of your system corresponds to those required by the machine. If you have to change the machine's operating voltage, make the necessary adjustments to the terminal board referring to the electric diagram in chapter 9.

- Connect the machine to the compressed air system.

☞	**Connect the machine to the electric network, which must be equipped with line fuses, the proper ground plate in compliance with OSHA regulations and it must be connected to an automatic circuit breaker (differential) set at 30 mA.** **Should the user need to provide a different electric plug, please ensure that it is rated at least for 16 Amps.**

4.4 OPERATING TESTS

- When pedal (Z) is pressed down the turntable (Y) should turn in a clockwise direction. When pedal is pulled up the turntable should turn in an anticlockwise direction.

☞	**If the turntable turns in the opposite direction to that shown, reverse two of the wires in the tree-phase plug.**

- Pressing the pedal (U) activates the bead breaker (R); when the pedal is released the bead breaker returns to its original position.
- Pressing the pedal (V) opens the four clamps (G); when the pedal is pressed again, they close.
- Pressing the pedal (H) tilts the arm (P); when the pedal is pressed again it returns to its working position.
- Position 1 of the locking button (K) locks the mounting bar (N) and the horizontal arm (M).
- Position 2 of the locking button (K) unlocks the arm.
- Pressing the trigger on the airline gauge will cause air to be released from the head.

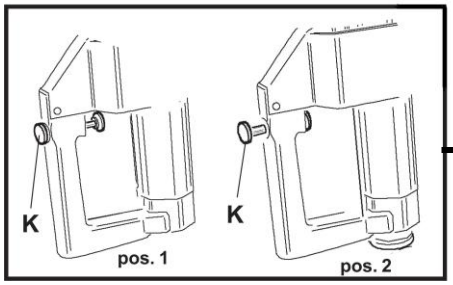
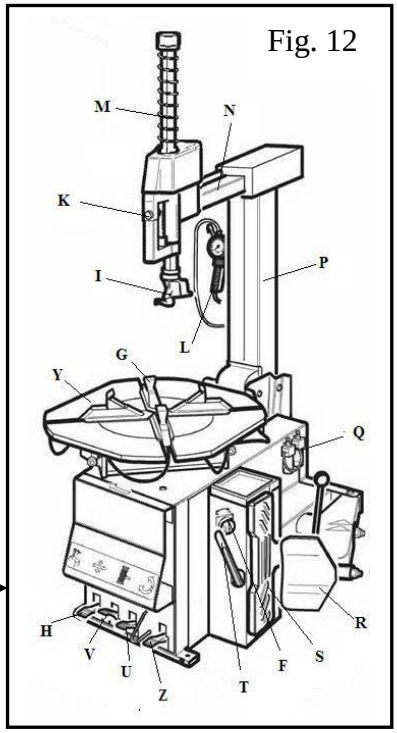


Fig. 12



4.4.1 GT version

⚠	**Do NOT LEAN on the turntable during this operation. Dust on turntable could reach the operator's eyes. For that reason, be careful as not to accidentally push the inflating pedal while working.**

- When the pedal located on the left side of the machine body is pushed down to its intermediate position (B), air is released from the airline gauge.
- When the pedal (C) is pushed down completely, air is released from the airline gauge with a powerful jet from the nozzles located in the turntable clamps.

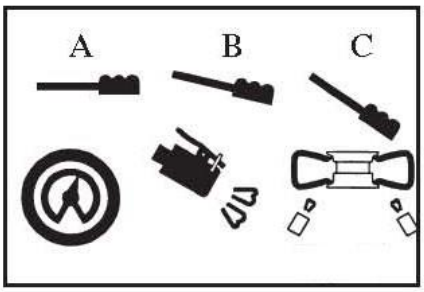


Fig. 13

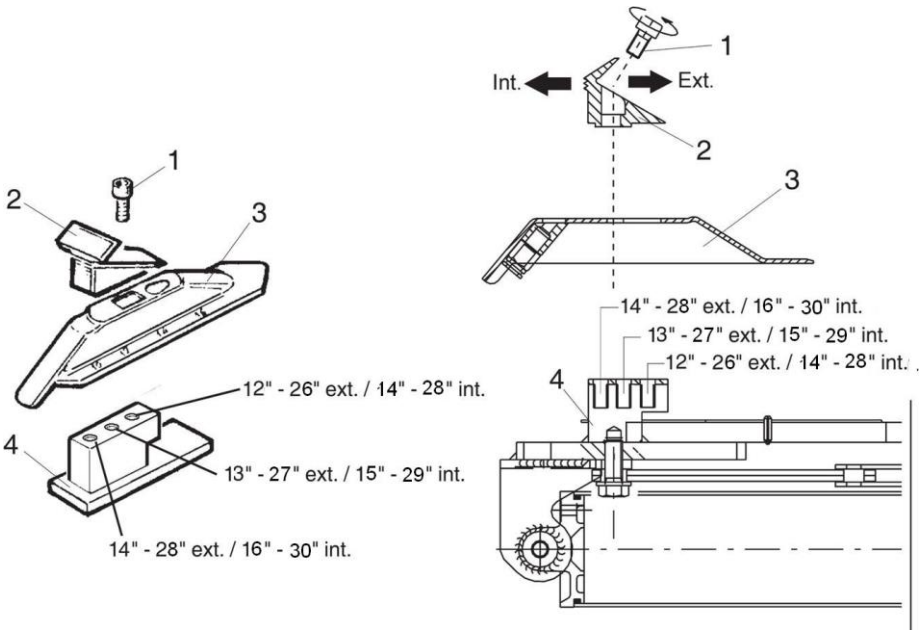
4.5 TURNTABLE LOCKING VALUE ADJUSTING

The tire changer turntable is preset by the manufacturer on a middle range measure from13" to 27" **ext.** (considering the rim outer side and) from 15" – 29" **int.** (if you lock the rim from inner side).
It is however possible to change this dimension range in case of need when working on larger or small rims; it is enough to change the position of the 4 clamps are shown in the figures below.
The obtainable value starts from a minimum of 12"-26" ext. and 14"-28" int. until a maximum of 14"-28" ext. and 16"-30" int.

To change the position, proceed as follows:

- Unscrew screw (1) by means of the Allen wrench.
- Remove the locking clamp (2) and the slide piece (3).
- Align the slide hole with one of the guide holes (4) according to the locking dimensions you want to set. Use the measurements below for reference.

☞	**It is important to perform the above-mentioned operation for all 4 clamps to avoid any unbalance in the locking process.**



CHAPTER 5 – OPERATION

	**Do not use the machine until you have read and understood the entire manual and the warning provided.** **Before carrying out any operation, deflate the tire and take off all the wheel balancing weights.**

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

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

	**It is advised to equip the tire changer with the pressure regulator.**

5.1 BREAKING THE BEAD

	**Bead breaking must be done with the utmost care and attention. When the bead breaker pedal is operated the bead breaker arm moves quickly and powerfully. Anything within its arrange of action can be in danger of being crushed.**

- Check that the tire is deflated. If not, deflate it.
- Close the turntable clamps completely.

	**Bead breaking with the clamps in open position can be extremely dangerous for operator's hands.** **During bead breaking operations NEVER touch the side of the tire.**

- Position the wheel against the rubber stops on the right side of the tire changer (S).
- Position the bead breaker (R) against the tire bead at a distance of about 1 cm from the rim (fig. 15). Pay attention to the blade, which must operate correctly onto the tire and not onto the rim.
- 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 tire slightly and repeat the operation around the entire circumference if the rim and from both sides until the bead is completely detached from the rim.

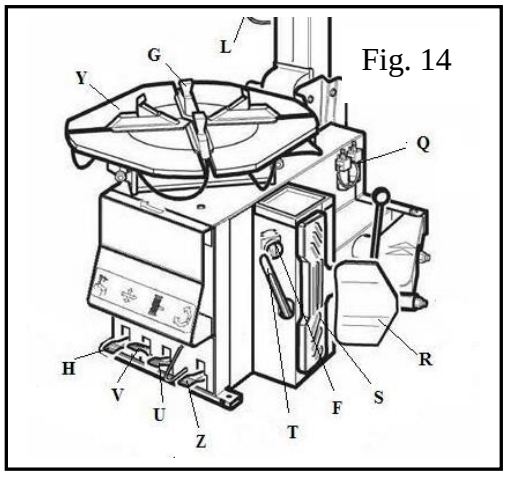


Fig. 14

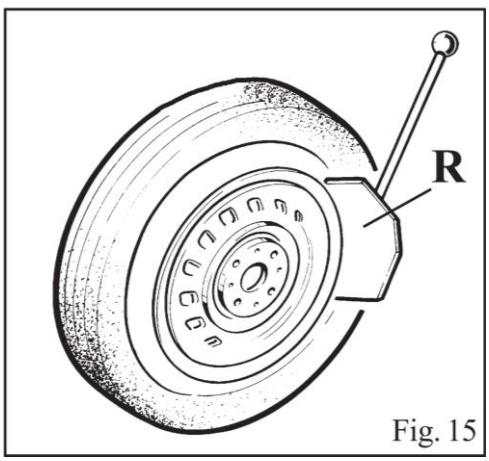


Fig. 15

5.2 REMOVING THE TIRE

	Before any operation make sure to remove the old wheel balancing weights and check that the tire is deflated.

	**During arm tilting make sure that nobody stats behind the tire changer.**

- Press pedal (H) to tilt the arm (P) thereby clearing the turntable.
- Spread the supplied grease (or grease of a similar type) onto the tire bead.

	Failure to use the grease could cause serious damage to the tire bead.

	**During rim locking MEVER keep your hands under the tire. For a correct locking operation set the tire exactly in the middle of turntable.**

OUTER LOCKING

- Position the clamps (G) according to the reference mark on the turntable (Y) by pressing pedal (V) down to its intermediate position.
- Place the tire on the clamps and keeping the rim pressed down, press the pedal (V) as far as it will go.

INNER LOCKING

- Position the clamps (G) so that they are completely closed.
- Place the tire on the clamps and press the pedal (V) to open the clamps and thereby lock the rim.

	Make sure that the rim is firmly fixed to the clamps.

	**Never keep your hands onto the wheel: the arm recovery to "working position" could set the operator at risk of hand crushing between rim and mounting head.**

- Return the arm (P) by pressing the pedal (H).
- Unlocking the mounting bar (M) by placing the locking button (K) in the position "2".
- Lower the mounting bar (M) so that the mounting head (I) rests on the upper edge of the wheel rim and lock the entire assembly by placing the locking button in the position "1" This will lock the arm in both vertical and horizontal direction and automatically move the mounting head (I) of about 2 mm from the rim.
- With the lever (T) inserted between the bead and the front section of the mounting head (I), move the tire bead over the mounting head.

	In order to avoid damaging the inner tube if there is one, it is advisable to carry out this operation with the valve about 10 cm right of the mounting head. (Fig. 16)

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

- With the lever held in this position, rotate the turntable (Y) in a clockwise direction by pressing pedal (Z) down until the tire is completely separated from the wheel rim (Fig. 17).
- In order to remove the inner tube if there is one, tilt the arm (P) by pushing the pedal (H) down directly without unlocking the mounting bar.
- Repeat the operation for the other bead.

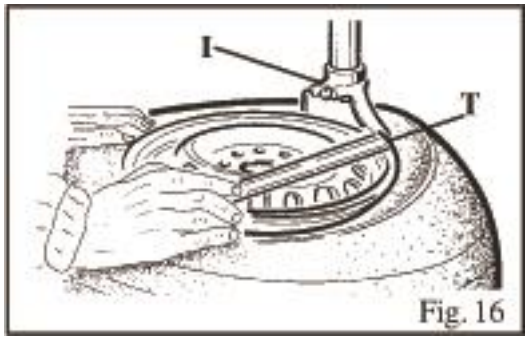
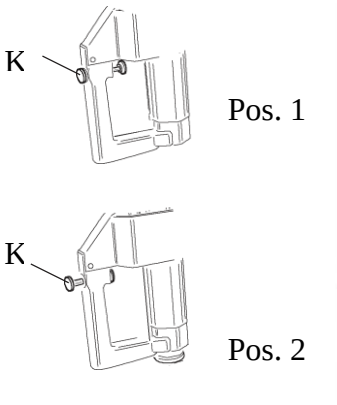


Fig. 16



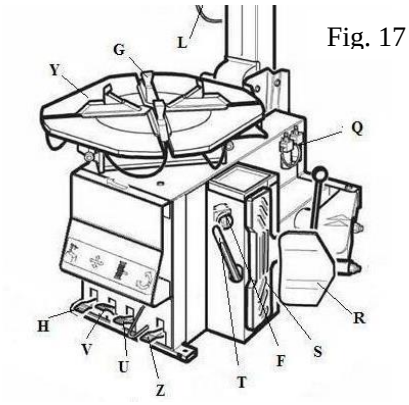


Fig. 17

5.3 MOUNTING THE TIRE

	It is utmost important to check the tire and rim to prevent tire explosion during the inflating operations. Before beginning mounting operation, make sure that: **The tire and cord fabric are not damaged. If you note defects DO NOT mount the tire.** **The rim is without dents and is not warped. Pay attention to alloy rims, internal micro-cracks are not visible to naked eye. This can compromise the rim and can also be a source of danger especially during inflation.** **The diameter of the rim and tire are exactly the same. NEVER try to mount a tire on a rim if you cannot identify the diameter of both.**

- Lubricate the tire beads with the special grease in order to avoid damaging them and to facilitate the mounting operations.

	During rim locking MEVER keep your hands under the tire. For a correct locking operation set the tire exactly in the middle of turntable.

- Lock the rim on the turntable.

	During arm tilting make sure that nobody stats behind the tire changer.

	When working with rims of the same size it is not necessary always to lock and unlock the mounting bar; you only need to tilt and return the ram (P) with the arm and the bar locked in their working positions.

	Never keep your hands onto the wheel: the arm recovery to "working position" could set the operator at risk of hand crushing between rim and mounting head.

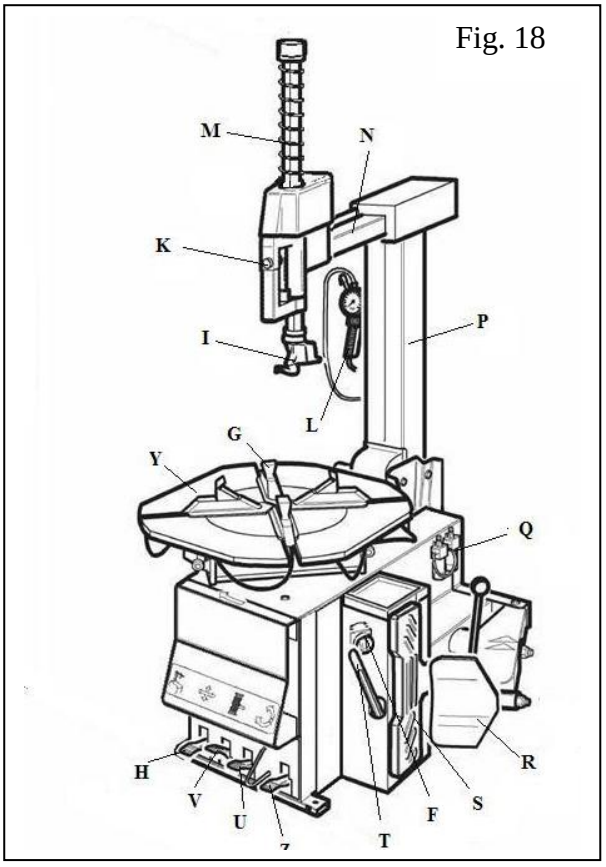
- Move the tire so that the bead passes below the front section of the mounting head and is brought up against the edge of the rear section of the mounting head itself.
- Keeping the tire bead pressed down into the wheel rim channel with your hands, press down on the pedal (Z) to rotate the turntable clockwise. Continue until you have covered the entire circumference of the wheel rim (Fig. 19).

	To prevent industrial accidents, keep hands and other parts of the body as far as possible from the tool arm when the table top is turning.

- Insert the inner tube if there is one and repeat the same operations to mount the upper side of the tire.

	Demounting and mounting are always done with the clockwise turntable rotation. Anticlockwise rotation is used only to correct operator's errors or if the turntable stalls.

Fig. 18



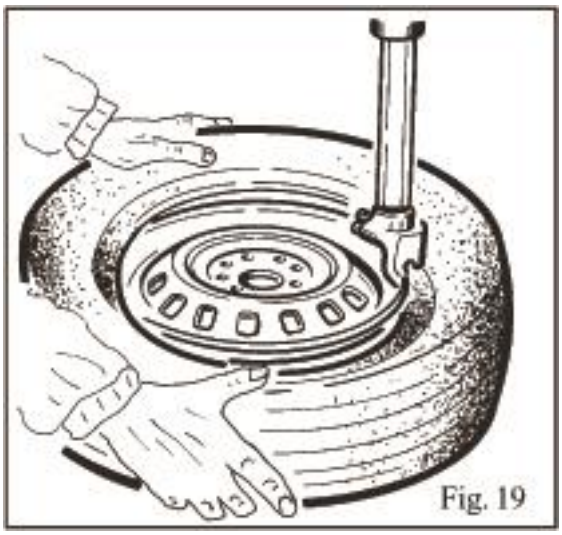


Fig. 19

CHAPTER 6 – INFLATING

	**The greatest attention is called for when inflating the tires. Keep strictly to the following instructions since the tire changer is NOT designed and built to protect (or anyone else in the vicinity of the machine) if the tire bursts accidentally.**

	**A bust tire can cause serious injury or even death of the operator.** **Check carefully that the wheel rim and the tire are of the same size.** **Check the state of wear of the tire and that it has no defects before beginning the inflation.** **Inflate the tire with brief jets of air, checking the pressure after every jet.** **All our tire changers are automatically limited to a maximum inflating pressure of 3.5 bar (51 psi). In any case NEVER EXCEEED THE PRESSURE RECOMMENDED BY THE MANUFACTURER.** **Keep your hands and body as far away as possible from the tire.**

6.1 INFLATING TIRE USING AIRLINE GAUGE

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

- Connect the airline gauge to the tire valve.
- Make a last check to be certain that tire and rim diameter correspond.
- Check to be certain that rim and beads are sufficiently lubricated. If necessary lubricate some more.
- Seat the beads with short jets of air. Between air jets, check the air pressure on the inflator gauge.
- Continue to inflate the tire with short jets of air and constantly checking the pressure between until the required pressure has been reached.

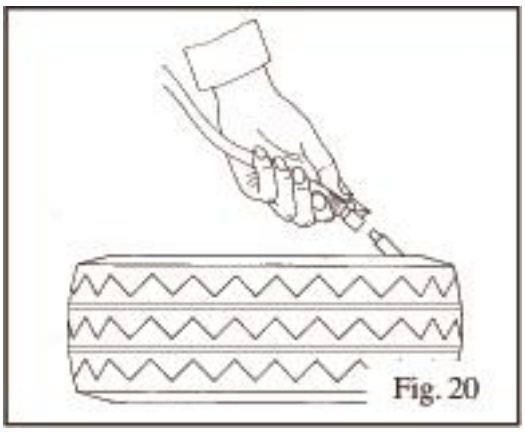


Fig. 20

	**EXPLOSION HAZARD!** **Never exceed 3.5 bar (51 psi) when seating beads or inflating tires.** **If a higher inflating pressure is required remove the wheel from turntable and continue the inflating procedure inside a special protection cage (commercially available).** **Never exceed the max. inflating pressure given by the tire manufacturer.** **ALWAYS keep hands and body back from inflating tire.** **ONLY special trained personnel are allowed to perform these operations. Do not allow other persons to operate or to stay near the tire changer.**

6.2 INFLATING TIRES WITH GT SYSTEM (OPTIONAL)

The GT inflating system facilitates inflation of tubeless tires to a powerful jet of air from the nozzle positioned on the clamps.

	During this phase of work he level of noise can reach 85db (A). It is advisable to use a noise protection.

- Lock the wheel on the turntable and connect the inflating head to the tire valve.
- Make a last check to be certain that tire and rim diameter correspond.
- Check to be certain that rim and beads are sufficiently lubricated. If necessary lubricate some more.
- Press the pedal down to intermediate position (B – Fig. 21)
- If the bead of tire is not well seated, due to a strong bead, lift tire manually until the upper bead seats against the rim, then press pedal all the way down (C-Fig. 21). A strong jet will be released through the nozzles in the slides and this will help the bead seal.
- Release the tires; set the pedal in the intermediate position (B – Fig. 21) and continue to inflate the tire with short jets of air and constantly checking the pressure between air jets until the required pressure has been reached.

	**EXPLOSION HAZARD!** **Never exceed 3.5 bar (51 psi) when seating beads or inflating tires.** **If a higher inflating pressure is required remove the wheel from turntable and continue the inflating procedure inside a special protection cage (commercially available).** **Never exceed the max. inflating pressure given by the tire manufacturer.** **ALWAYS keep hands and body back from inflating tire.** **ONLY special trained personnel are allowed to perform these operations. Do not allow other persons to operate or to stay near the tire changer.**

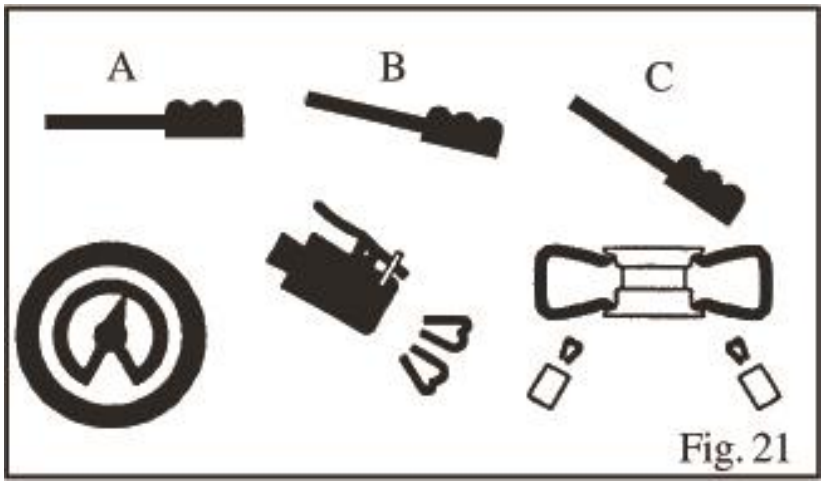


Fig. 21

CHAPTER 7 – MAINTENANCE

7.1 GENERAL WARNINGS

	**Unauthorized personnel may not carry out maintenance work.**

- Regular maintenance as described in the manual is essential for correct operation and long lifetime of the tire 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 without load 3-4 times in order to let the air in pressure go out of the circuit.**

- Defective parts must be replaced exclusively by expert personnel using the manufacturer's parts.
- Removing or tampering with safety devices (pressure limiting and regulating valves) is extremely forbidden.

	**In particular the Manufacturer 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 of safety systems.**

7.2 MAINTENANCE OPERATIONS

- Clean the turntable once a week with diesel fuel so as to prevent the formation of dirt, and grease the clamp sliding guides.
- Carry out the following operations at least every 30 days:
  - Check the oil level in the lubricator tank. If necessary, fill up by unscrewing the reservoir F. Only use ISO VG viscosity ISOHG class oil for compressed air circuit. (Fig. 22)
  - Check that a drop of oil is injected into the reservoir F very 3-4 times the pedal U is pressed down. If not, regulate using the screw D (fig. 22)
- After the first 20 days of work, retighten the clamp tightening screws on the turntable slides (Fig. 23).
- In the event of a loss of power, check that the drive belt is tight as follows.

	**Before any operation disconnect the electric power supplies.**

- Remove the left side body panel of the tire changer by unscrewing the four fixing screws.
- Remove the drive belt by means of the special adjusting screw X on the motor support (Fig. 24).

- F If necessary to adjust the vertical arm locking plate because the tool does not lock or it does not rise from the rim of 2mm necessary for working, adjust nuts as shown in Fig. 25.

For cleaning or replacing the silencer for opening/closing clamps, see Fig 26 and proceed as follows:

1. Remove the left side panel of the machine body by unscrewing the four fixing screws.
2. Unscrewing 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, see Fig. 28 and proceed as shown on previous point 1 and 3.

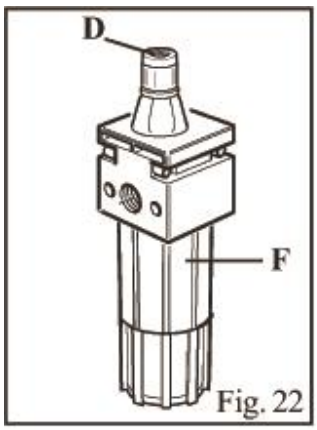


Fig. 22

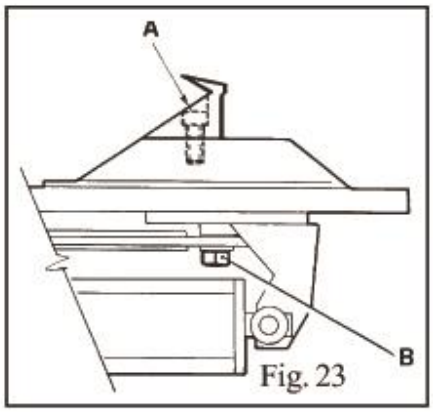


Fig. 23

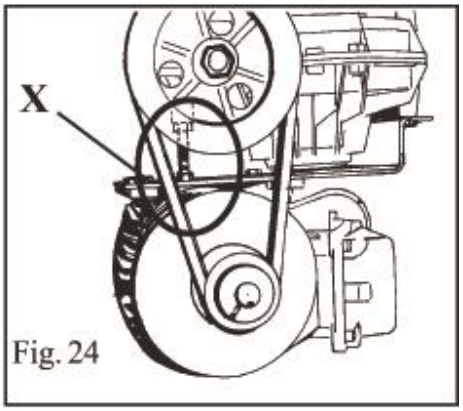


Fig. 24

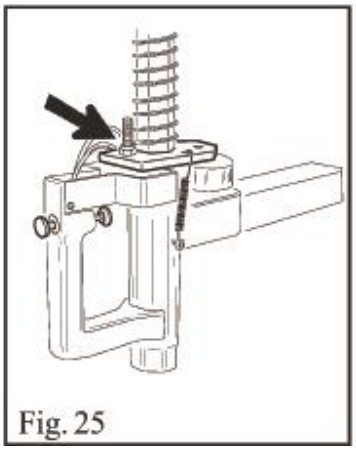


Fig. 25

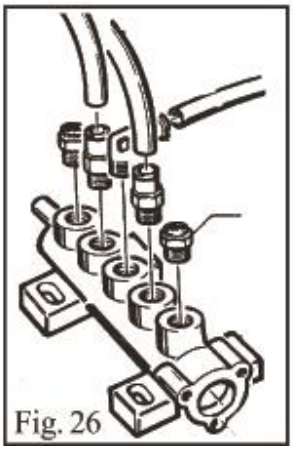


Fig. 26

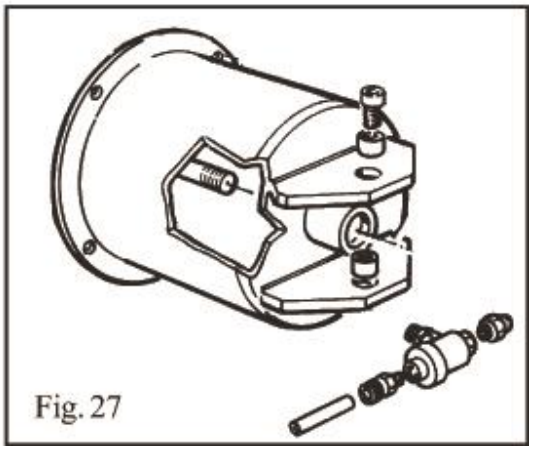


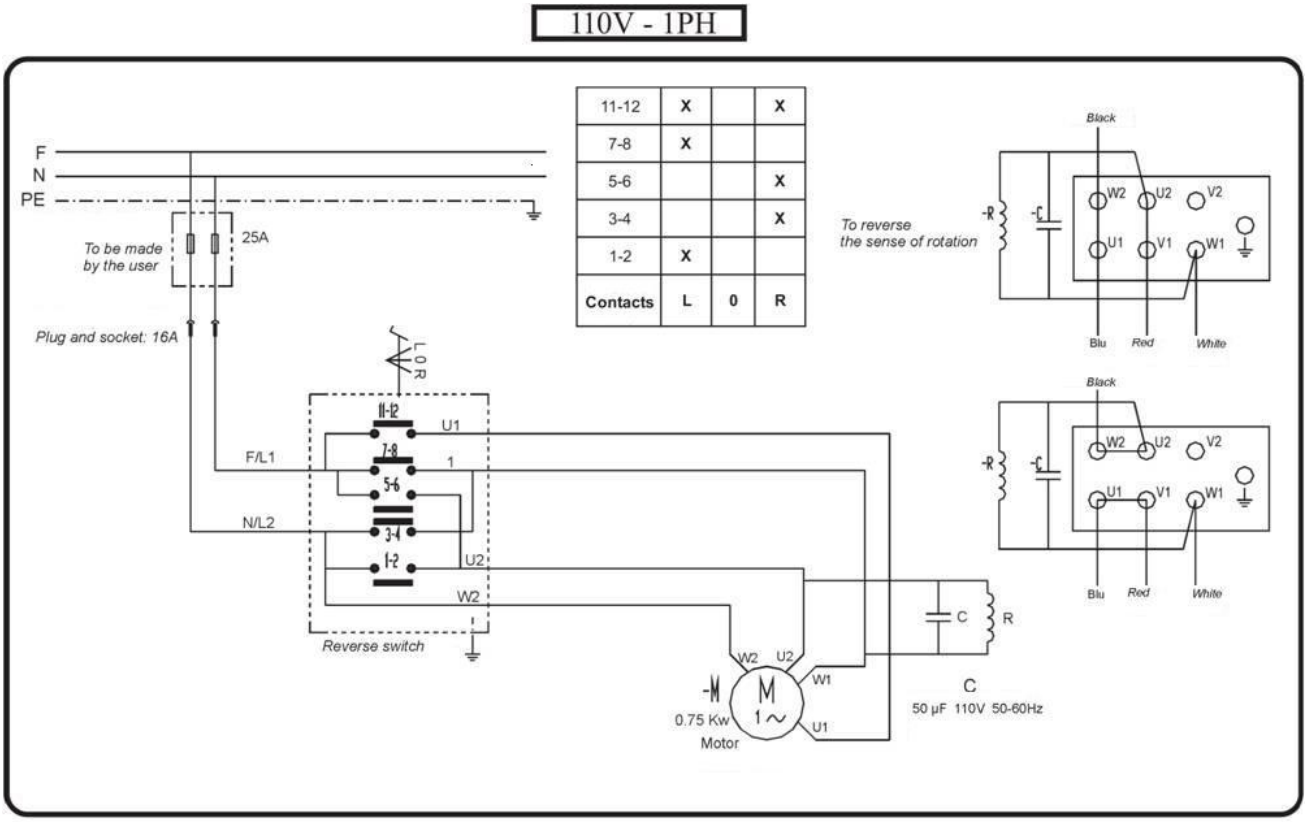
Fig. 27

CHAPTER 8 – TROUBLE-SHOOTING

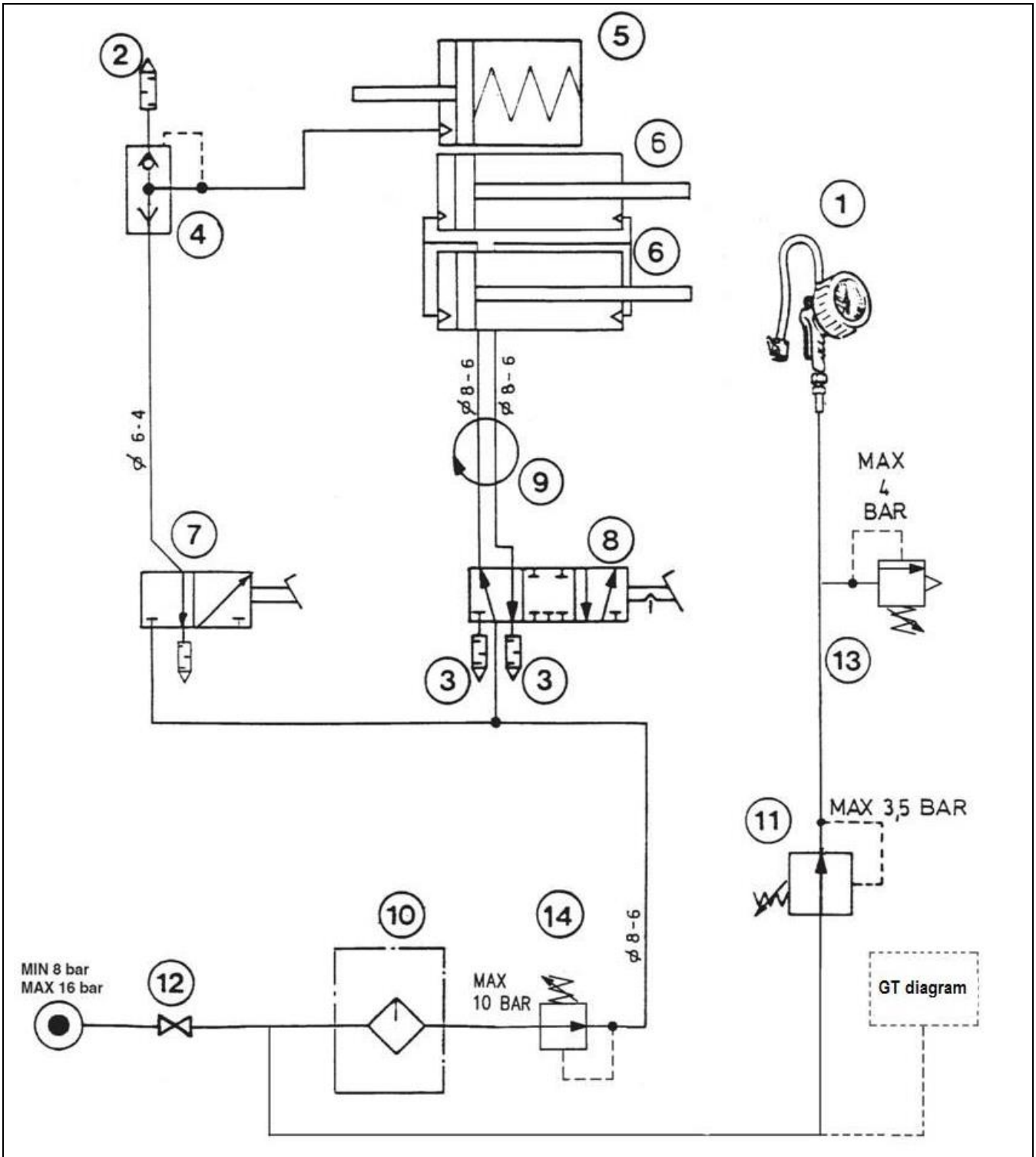
TROUBLE:	**POSSIBLE CAUSE:**	**SOLUTION:**
Turntable rotates only in one direction.	Reverser broken	Replace reverser
Turntable does not rotate.	Belt broken	Replace
	Reverser broken	Replace reverser
	Problem with motor	Check for loose wire in the motor, plug or socket.
		Replace motor
Turntable locks	Belt loose	Adjust the belt tension (chap. 7 Fig. 24)
Clamp slow to open or 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 gasket
The tool touches the rim during the tire removing or mounting operations	Locking plate incorrectly adjusted or defective	Adjust or replace locking plate (chap 7 – Fig 25)
	Turntable locking screw loose	Tighten screw
Pedal lock out of working position	Return spring broken	Replace spring
Bead breaking operation difficult	Silencer clogged	Clean or replace silencer (chap 7 – Fig. 27)
	Bead breaker cylinder gasket broken	Replace gasket

CHAPTER 9 – ELECTRIC AND PNEUAMTIC DIAGRAM

STANDARD ELECTRIC DIAGRAM

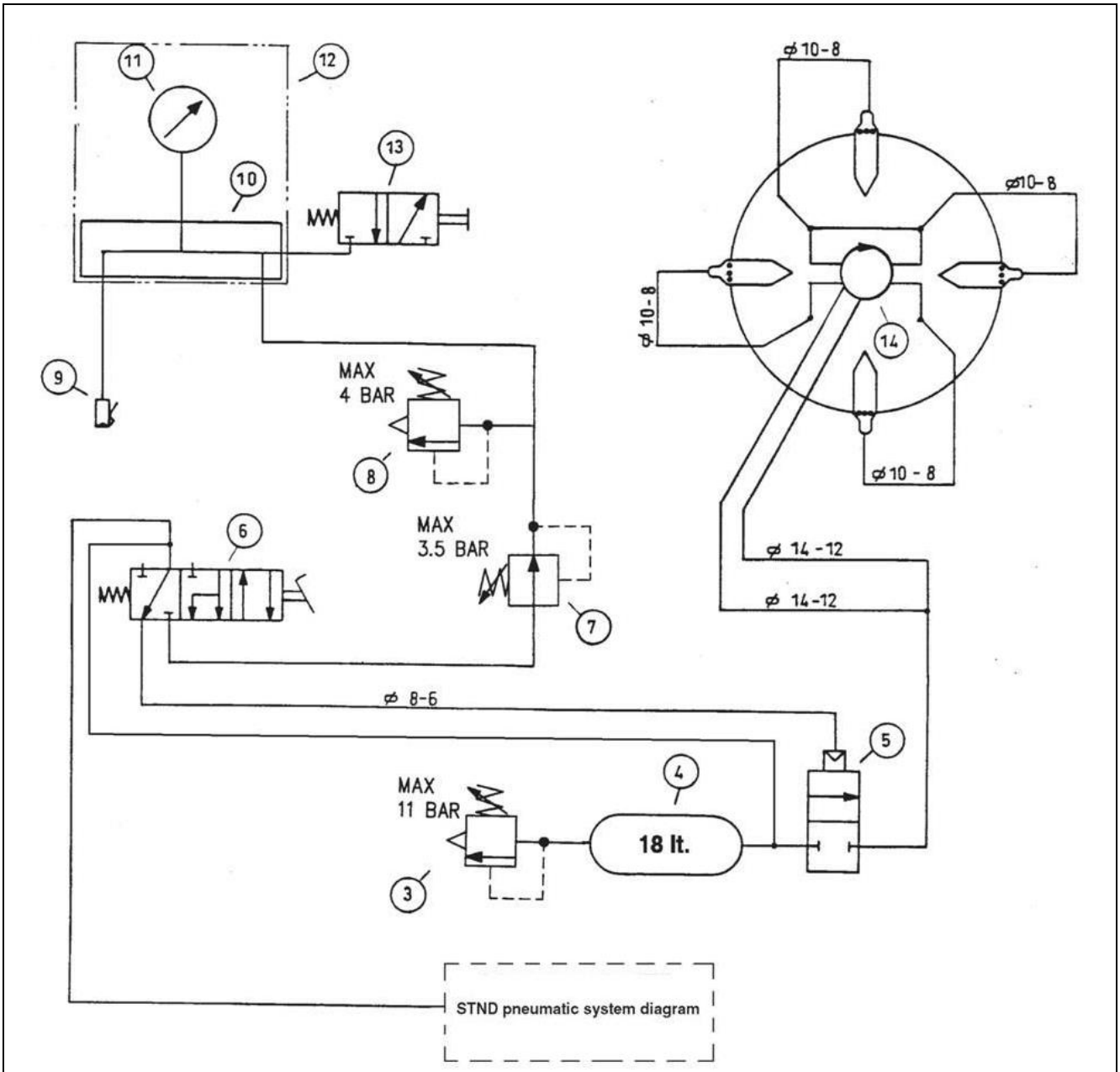


STANDARD PNEUMATIC SYSTEM DIAGRAM



1	Inflating gauge	8	Turntable valve
2	Silencer 1/4”	9	Rotation union
3	Silencer 1/8”	10	Lubricator
4	Quick relief valve	11	Pressure regulator
5	Bead breaker cylinder	12	Air intake cock
6	Turntable cylinder	13	Safety valve
7	Bead breaking valve	14	Pressure regulator

GT PNEUMATIC SYSTEM DIAGRAM



3	Safety Valve	10	Divider
4	Tank	11	Pressure gauge
5	Setting solenoid valve	12	Inflating unit
6	GT pedal valve	13	Deflating valve
8	Safety Valve	14	Rotation union
9	Inflating head		