PTC 400

Use and maintenance instruction manual

Original Instructions

English

PTC400

INDEX

INTRODUCTION

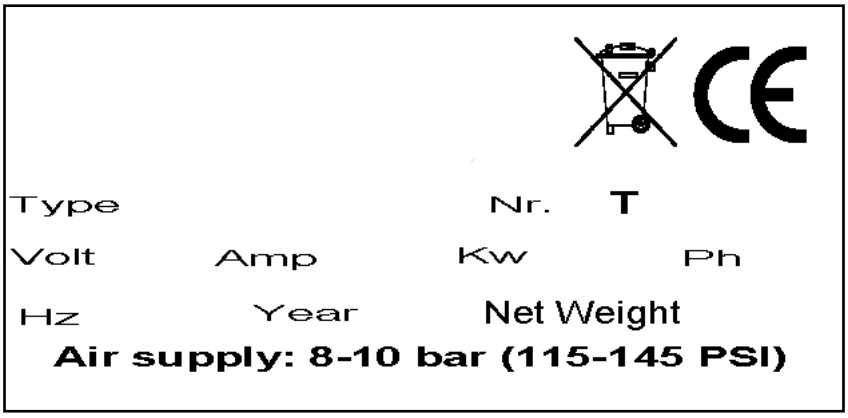
We thank you for purchasing one of our tyre changers, which are particularly suitable for mounting/demounting standard tyres and “run flat” tyres.
The machine is manufactured exploiting the best of quality principles.
To ensure correct operation and long life of the machine, all you need to do is follow these simple instructions, which shall be read and fully understood in every single part.

DETAILS OF THE TYRE CHANGER

When contacting our Service Department or when requesting spare parts, please provide a complete description of the Model of the tyre changer and its Serial Number.
For the sake of simplicity and commodity, the details of your tyre changer are written in the space below.
If the details given in this manual do not match those written on the nameplate of your tyre changer, those written on the nameplate are the ones to be considered valid.

NAMEPLATE DETAILS:

DETAILS OF THE MANUFACTURER



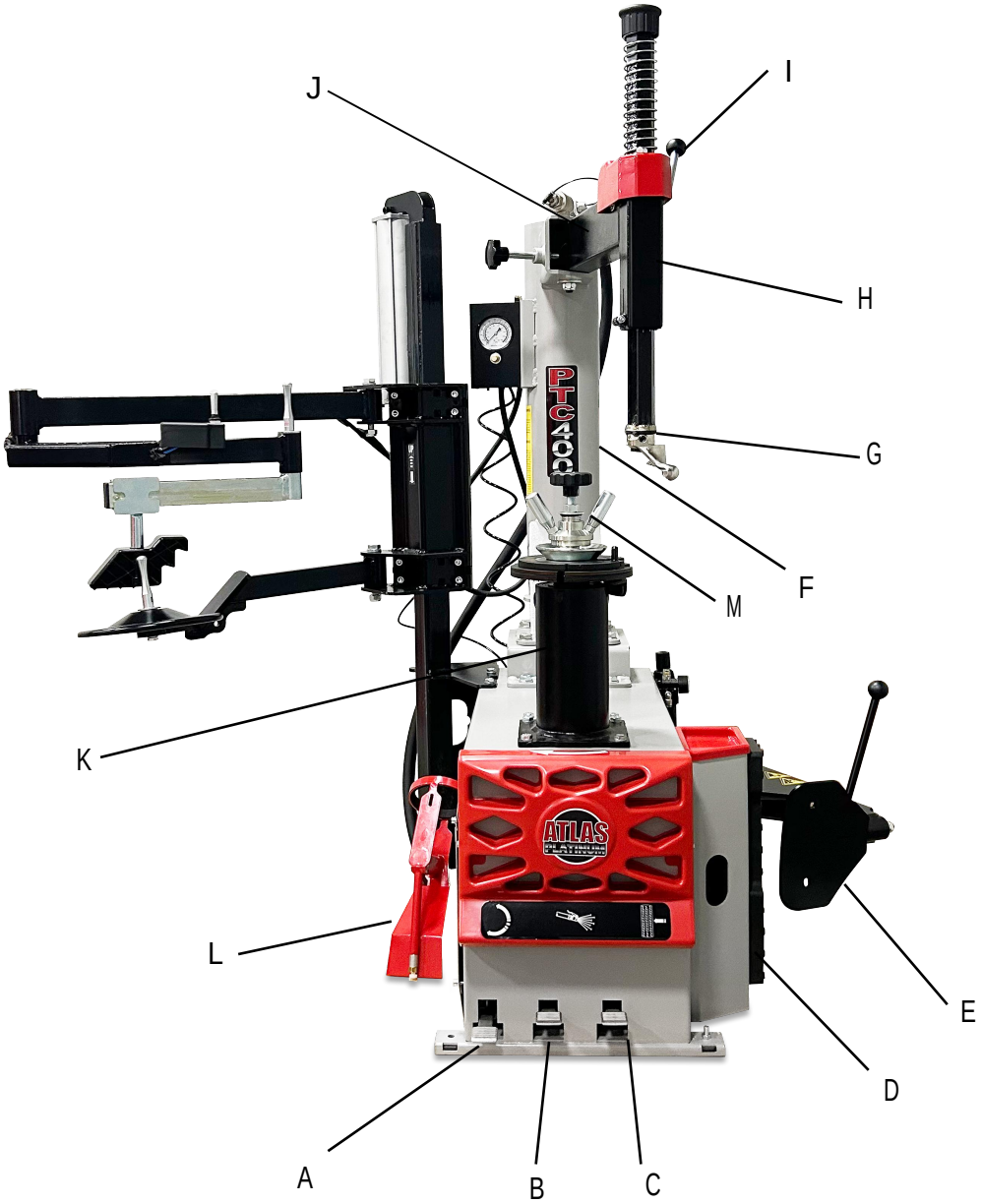
This manual is an integral part of the machine.
Before you use the tyre changer, read the warnings and instructions given in this manual carefully and thoroughly, because they provide important information on safe use and maintenance.

Keep this manual with care for future consultation

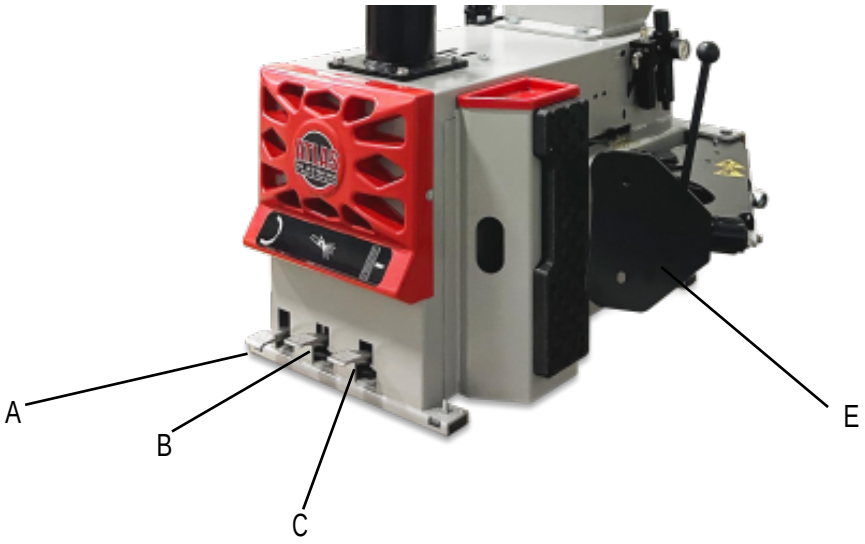
NOTE: some of the illustrations shown in this manual have been taken from pictures of prototypes. Consequently, some parts or components of the machines of standard production may differ from what is illustrated.

1.0_PART IDENTIFICATION

A: rotation control pedal
B: Inflation pedal
C: *Bead breaker control pedal*
D: Wheel support
E: *Bead breaker*
F: Vertical arm
G: Mounting tool
H: Mounting bar
I: Locking Level
J: Horizontal arm
K: Spindle flange
L: kit gun
M: Manual lock



2.0_DESCRIPTION OF THE MACHINE ’ S CONTROLS



1. The rotation pedal controls (A) are used to turn the spindle fange clockwise/ anti-clockwise.

2.Pressing the pedal (C) activates the bead breaker (E); when the pedal is released the bead breaker returns to its original position.

3. The infation pedal control (B) is used to infate the tyre.

The bead pressers are used to facilitate the mounting and demounting phases. It is optional on standard tyres but obligatory on Run-Flat and UHP tyres (low profle).

3.0_DANGER WARNINGS

- DANGER WARNING SIGNS -

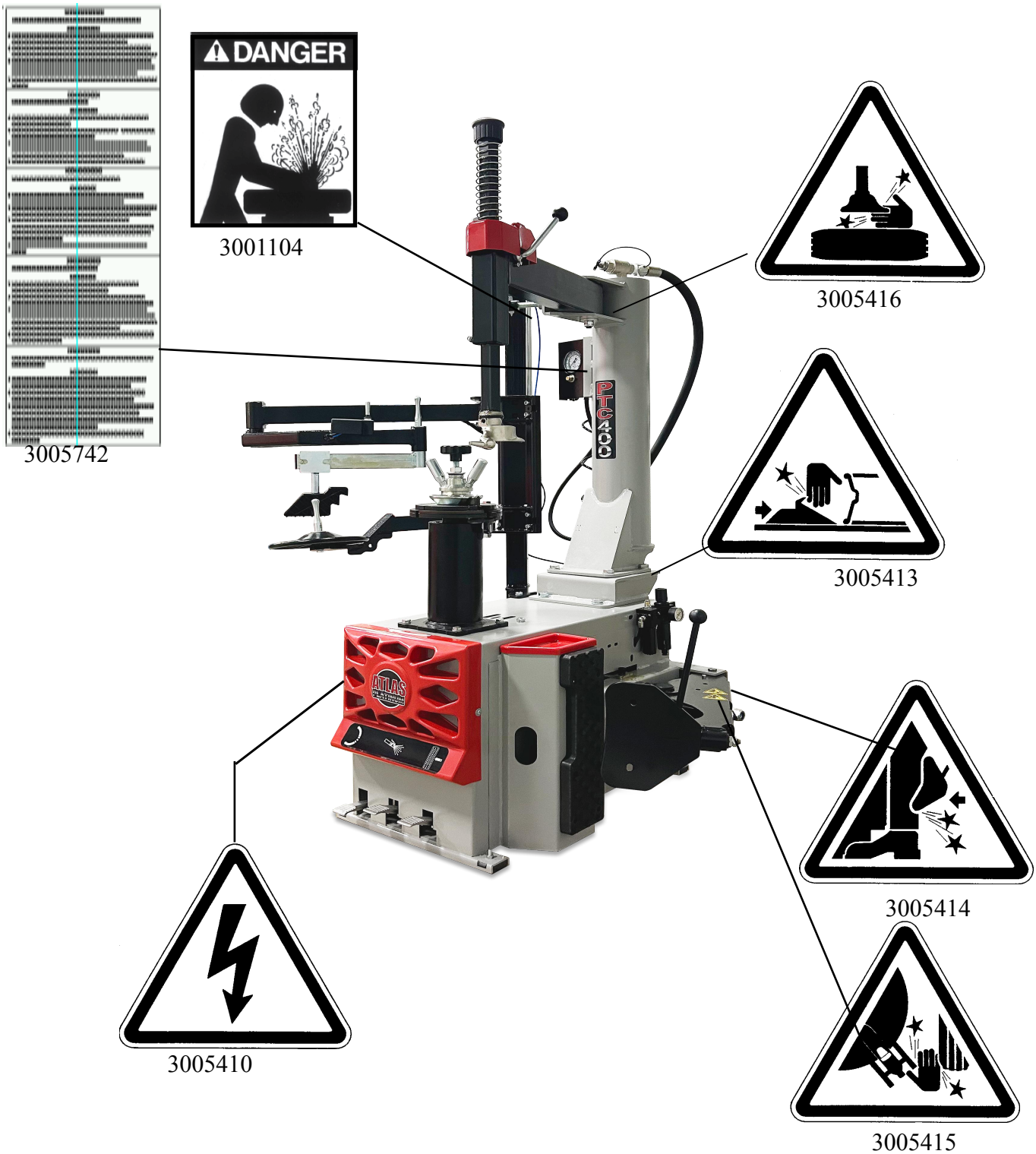


Fig. 2

4.0_GENERAL INFORMATION

• The semi-automatic tyre changer has been designed and manufactured exclusively for removing and mounting tyres from/onto rims from 14" to 26" and a maximum diameter of 1200 mm.

Any other use is to be considered incorrect and unreasonable.

• It is forbidden to use the machine for straightening rims, breaking beads of still inflated or dirty tyres, removing bead wires.
• In particular The Manufacturer 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.

5.0_GENERAL SAFETY INSTRUCTIONS

The tyre changer is to be used exclusively by qualifed and authorised personnel.
Aqualifedoperatorissomeonewhohasfullyunderstoodtheinstructionsdescribedintheuseandmaintenancemanual suppliedbythemanufacturer,whohasbeenspecifcallytrainedandwhoisawareofsafetystandardsattheworkplace.
Those in charge of using the machine shall not be under the infuence of drugs, alcohol or other substances, which could compromise their physical and mental work abilities.
For greater safety, operators shall wear health & safety footwear, gloves, protection goggles and shall NOT wear any form of clothing that could get caught up or restrict the operator ' s movements.

The operator must be able to:

---- read and understand the danger warnings.
---- understand the characteristics of the machine.
---- keep unauthorised people away from the work area.
---- make sure the machine is started in full observance of all the applicable safety standards and regulations.
---- make sure all operators are familiar with the machine and how to use it safely and correctly.
---- avoid touching live parts or pressurised parts without first disconnecting the machine from the electrical mains and pneumatic power supply.
---- read and ensure full comprehension of the use and maintenance manual to be able to use the machine correctly and
safely.
---- keep the use and maintenance manual with care in an easily accessible place so that it can be consulted whenever need be.

The tyre changer may only and exclusively be used by expert, specifically trained and authori sed personnel.

- People with disabilities are not allowed to use the tyre changer as far as they cannot operate this safely due to their disabilities.
- Tampering or modifications to the equipment that are not authorised in advance by the manufacturer relieve the latter from all forms of liability with regard to damages deriving from or referable to such actions.
- Removal or tampering with the safety devices provides grounds to immediately annul the warranty and involves violation of European Safety Standards.
- The tyre changer is equipped with informative and warning adhesive plates that are designed and produced to last in time. If they should deteriorate, the user may request replacement plates.

IN THE CASE OF FIRE, USE EXCLUSIVELY POWDER EXTINGUISHERS OR ALTERNATIVE CO_2 EXTIN-GUISHERS TO PUT OUT FLAMES

	WATER extin-guisher	FOAM ex-tinguisher	POWDER extin-guisher	CO_2 extin-guisher
DRY materials	OK	OK	OK	OK
FLAMMABLE liquids	NO	OK	OK	OK
ELECTRICAL equipment	NO	NO	OK	OK

6.0_SAFETY DEVICES

The tyre changer is equipped with safety devices that are designed to guarantee the safety of the machine operator:

- Pneumatic safety valve, arranged inside the machine that prevents the pressure from exceeding 4 bar during inflation.
- Pressure regulator and gauge that limits the maximum pressure of the circuit to 10 bar.
- Maximum tank pressure valve, fitted on the tank, to prevent the maximum pneumatic pressure from exceeding 11 bar (optional beak inflator 446/08).

- Removal or tampering with the safety devices provides grounds to immediately annul the warranty and represents a breach of European Safety Standards.

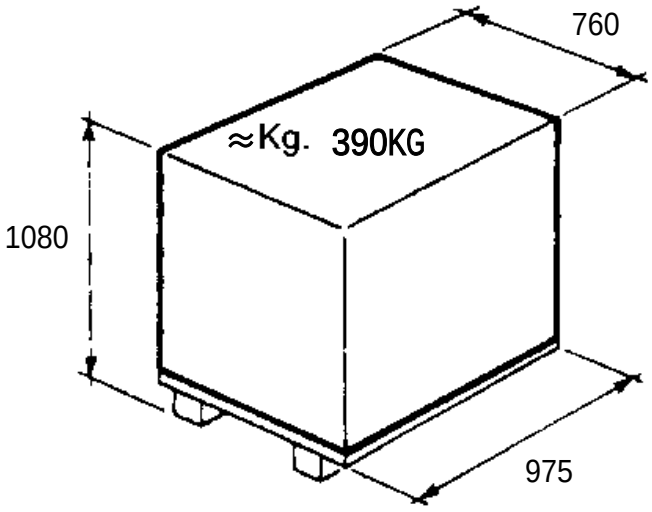
7.0_TRANSPORT

• The tyre 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 fork lift truck of suitable capacity.

8.0_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.If in doubt do not use the machine and contact your retailer.



Note: All the most delicate surfaces of the tire- changer are coated by a special rust-proof oil.
Some oil traces may leak after coating procedure: please, remove them accordingly.

9.0 INSTALLATION

9.1 Spaces required to position the machine

When choosing the place of installation, remember to observe current standards on safety at the workplace.

- The tyre changer needs to be connected to the electrical mains and to the compressed air supply. The machine should therefore be installed near such energy sources.

If the tyre changer is the type with an electric motor, it is forbidden to use it in an explosive environment unless it is a version specifically designed for such purpose.

9.2_Positioning

Position the tyre changer on flat, smooth and non-slippery ground of suitable load-bearing capacity.

Use lifting equipment of suitable load-bearing capacity that is able to take the weight of the tyre changer (at least 450 Kg.); to lift the machine, use a transport strap with minimum load-bearing capacity of at least 500 kg.

The machine must not necessarily be anchored to the ground, but if you prefer to do so, drill 100 mm deep holes in the ground by the 4 holes of the machine bed using a 10-mm bit for concrete of suitable length.

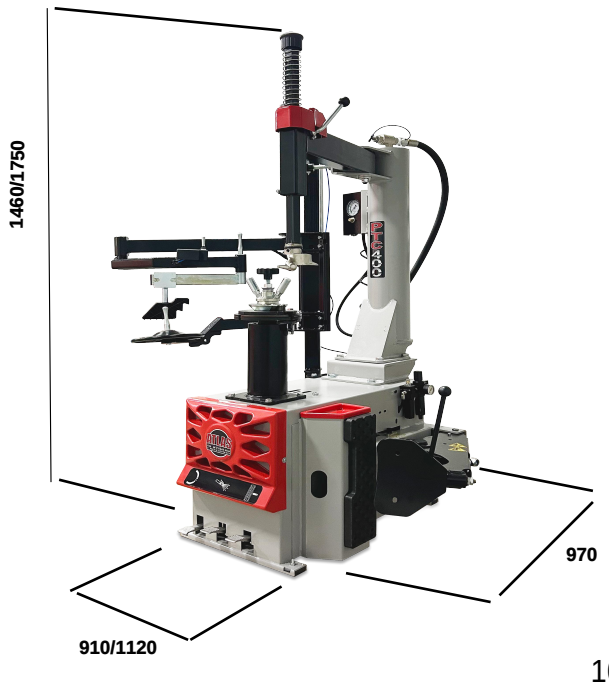
Insert suitable metal anchor dowels in the holes drilled and secure firmly.

If the tyre changer is installed outdoors, it must be sheltered by an appropriate structure to protect it against atmospheric events.

The place where the tyre changer is installed must be equipped with an electrical safety system with efficient earthing and also supplied with appropriate differential 16A circuit breaker.

The place of installation must avail of a pneumatic connection with minimum working pressure of 8 bar.

Once you have finished positioning the machine, slide the safety pin out that prevents the arm from tipping accidentally. Put the pin away safely with the accessories supplied so that it can be used again if the machine is moved somewhere else.



The machine will be provided with the needed fixing screws, a single plastic will contain:
- 5 screws M10x60mm (vertical arm)
- 2 screws M10x40mm (vertical arm)
- 7 self locking nut M10 (vertical arm)
- 1 screw M16x100mm (Bead breaker arm)
- 1 self lockin nut M16 (Bead breaker arm)
- 1 Spring (Bead breaker arm)
- 1 self lockin nut M16 (Horizontal arm)
- 2 shim (Horizontal arm)
- 1 oversized whasher (Horizontal arm)

Vertical Arm Installation

After unpacking the machine, mount the vertical post on the machine's body using the provided bolts, and tight them firmly.
- 5 screws M10x60mm
- 4 self locking nut M10

2 wrench 17 mm are required

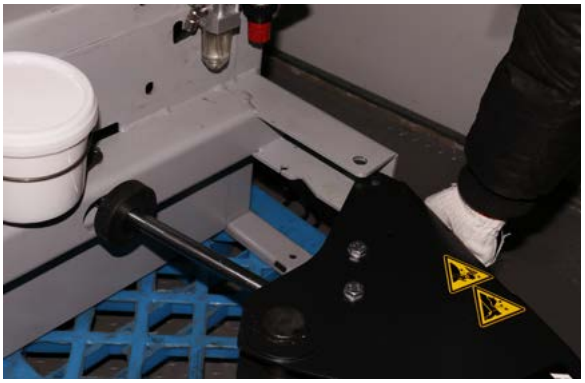
Use the two shorter bolts on the rear of the vertical arm support.
- 2 screws M10x40mm
- 2 self locking nut M10

2 wrench 17 mm are required

Bead Breaker Arm Installation

Install the Bead breaker arm in its housing using the dedicated screw.
- 1 screw M16x100mm
- 1 self lockin nut M16

Do not tight the bolt yet.

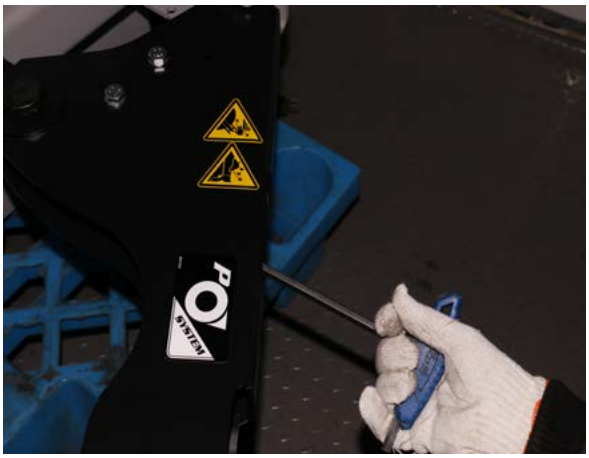


When inserting the cylinder rod (first remove the special nut assembled on it) into the rotating pin, make sure that the flat side of the pin is positioned on the outer side of the machine (where the nut is going to be assembled again).

Install the special nut on the bead breaker cylinder rod.

Tight it properly.

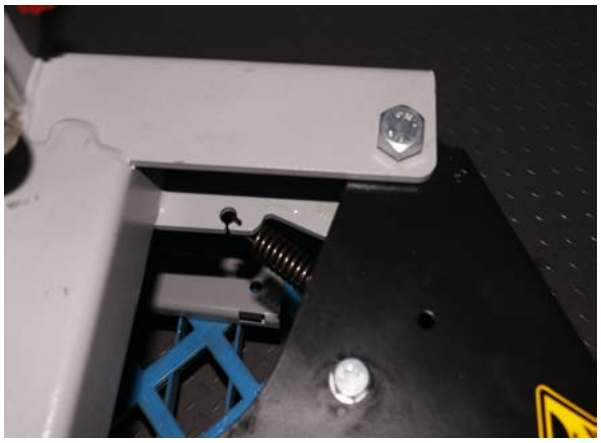
Allen wrench 8mm is required.



Install the spring using a plastic tie to pull it. Tight the fulcrum fixing bolt.

2 wrench 24 mm are required

NOTE: Make sure the arm can move freely, do not overtight the fixing bolt, the arm has to be free to move and without excessive play.



Horizontal arm Installation

Install the horizontal arm on the vertical post support, make sure to place the provide shims with the machine, at least 1 piece per side.

Note: in order to assemble the horizontal arm, it is needed to remove first the additional locking plate assembled on the C-shaped support on the vertical arm.

Allen wrench 10 mm is required.

Insert the pin, using a hammer.

NOTE: This operation can be difficult, operate carefully, making sure of the correct aligment of each component.

Assemble the oversized washer and the self-locking nut on the fulcrum pin.

NOTE: Tight the fixing nut making sure the arm can move freely and without play.

24 mm wrench is required

Reassemble the additional locking plate, using the dedicated screw, bush and washer.

NOTE: Make sure the pin on the horizontal arm goes through the slot of the additional locking plate.

Tight the screw firmly.

Allen wrench 10mm is required.

Assemble the air fitting (the supply line) on the vertical arm.

Wrench 17mm is required

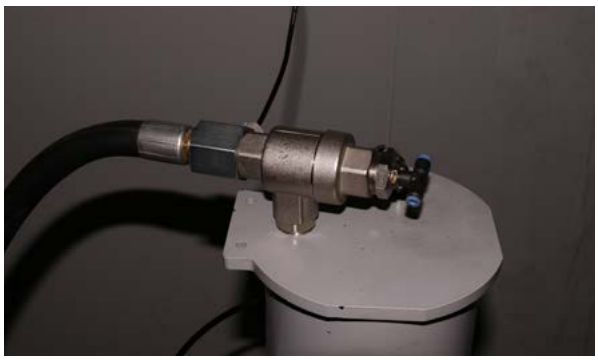
NOTE: make sure to use sealant on the fitting's thread (Liquid thread sealing, such as Loctite, or Teflon PTFE tape).

Kit gun, support and tool tray installation.

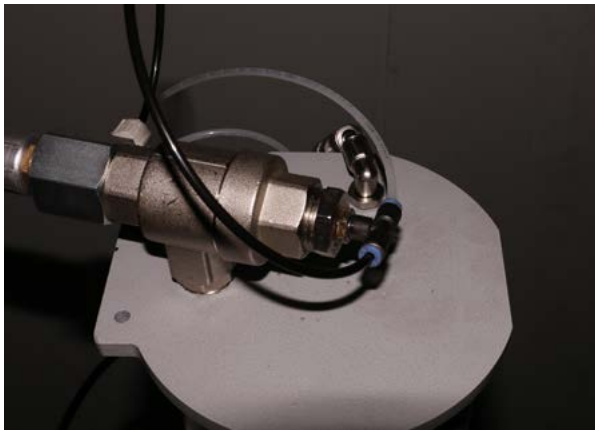
Assemble the KIT GUN hose fitting on the upper side of the vertical arm.

NOTE: make sure to use sealant on the fitting's thread (Liquid thread sealing, such as Loctite, or Teflon PTFE tape).

Adjustable wrench is required.



Complete the hoses connectionby plugging the black and white hoses



Assemble the tool tray and the kit Gun support on the machine body, using the provided bolts.

The needed screws will be already assembled on the machine's body.

2 Wrench 17mm are required

Assemble the tool tray and the kit Gun support on the machine body, using the provided bolts.

The needed screws will be already assembled on the machine's body.

2 Wrench 17mm are required

Make sure to install the dedicated seeger ring and washer on the internal side of the platform's shaft.
They will be already assembled on the lift pin.

Seeger pliers is required

Assemble the lifter pedal (with its support) on the machine body (they are located located inside the tire changer body, the screws will be already assembled on the machine's body).

13mm wrench is required

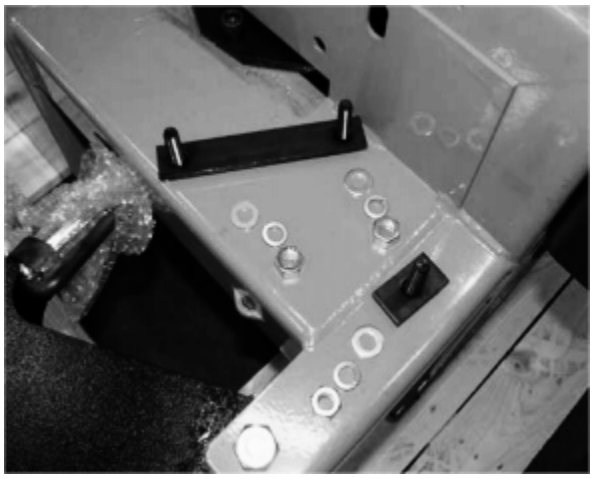
Assemble the pedal cover and reinstall the side panel of the machine.

10mm wrench is required for the pedal cover.

Pneumatic bead depressor system installation

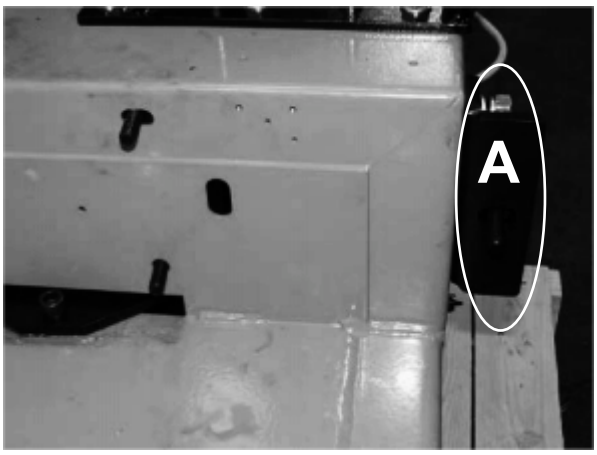
The Bead pressing System HP3-PW is packed separately, the needed fastenings, retainers and fitting are contained inside its packing.

Remove the filter lubricator from the machine.



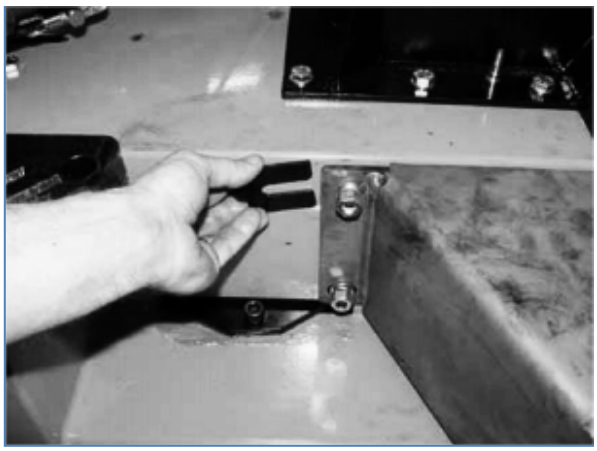
Insert the double retainer into the slots present on the tyre-changer body.

Install the bracket A on the rear side of the tyre changer.



Insert the single retainer onto the bracket A. Use the 3 fixing points to install the bead pressing system.

Use the shim to recover the gap between the tire changer body and the bead pressing system.



Tight the nuts, using a power tool or manually.

17mm wrench is required.

Reassemble the Filter/Lubricator on the rear of the HP3-PW.

NOTE: In order to supply compressed air to HP3-PW, use the provided T-fitting (using the lubricated compressed air line).

Adjust the position of the anti-tipping foot.

9.3_Commissioning

Before you connect the machine electrically, check the nameplate fitted on it to make sure the electrical power supply to which it will be connected matches the electrical arrangement of the manufacturer.

Work on the electrical system, even if trivial, must be carried out by professionally qualified personnel.

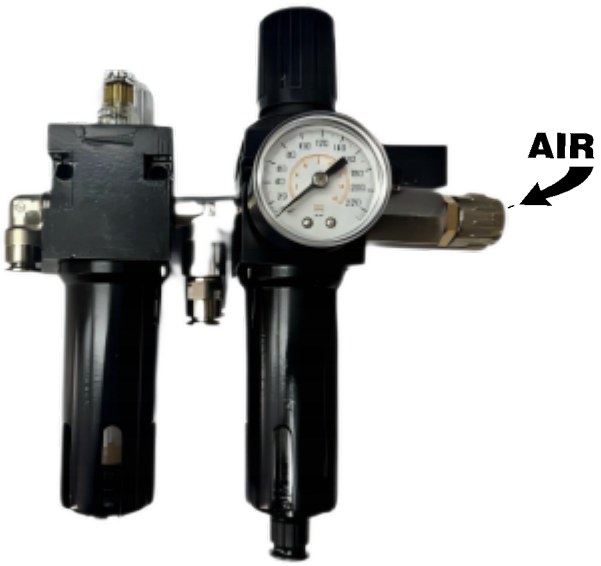
The manufacturer is not liable for machine damages caused by the incorrect electrical connection of the same, different to the instructions herein..

When moving the machine around to position it initially or if it is moved in the future to a different location, it must be disconnected from the electrical and pneumatic power sources.

- Connect the machine to the electrical mains, which must have line fuses and an efficient earthing system, pursuant to current standards. It must also be connected to an automatic differential circuit breaker calibrated at 16 A.

NOTE: If the machine is supplied without an electrical plug, the user shall fit one (at least 16A) that is suitable for the voltage of the machine and that complies with current standards.

- Connect the machine to the compressed air system using the fitting on the lubricator at the back of the machine.

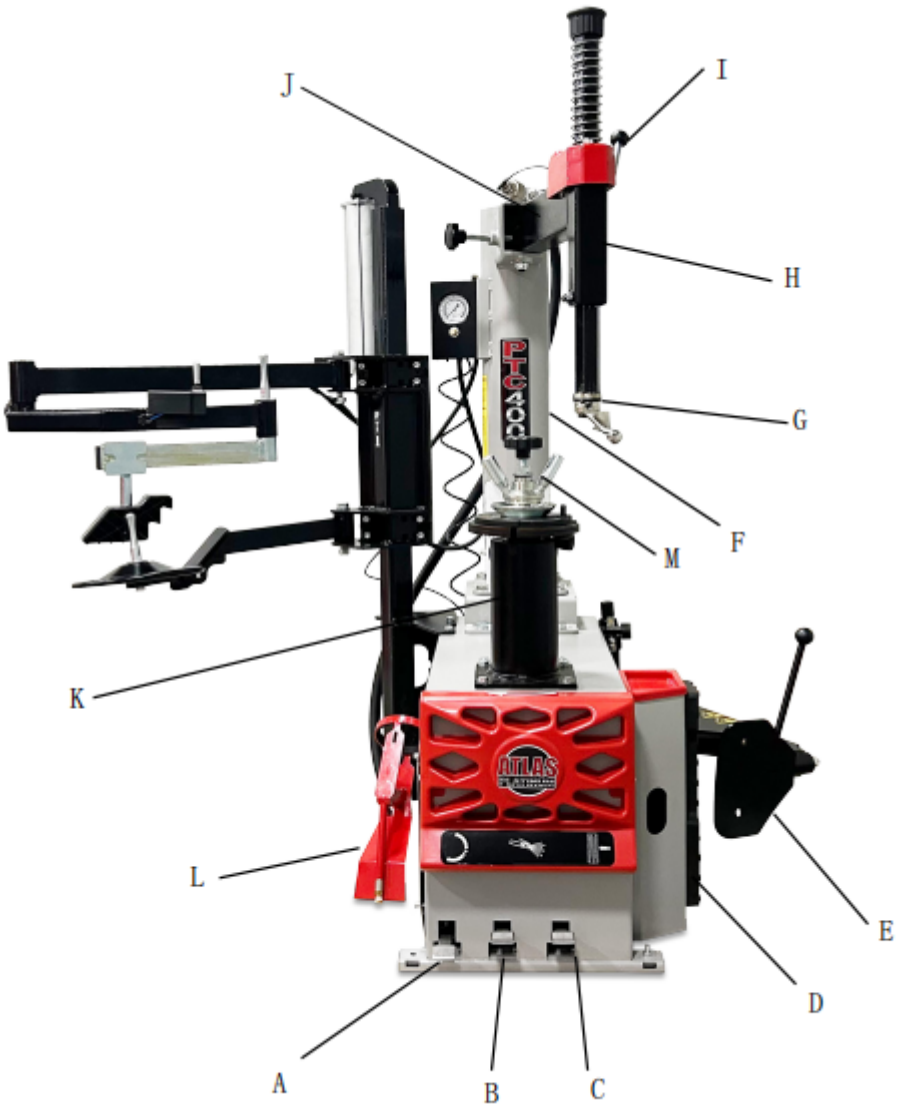


10.0_OPERATIONAL TEST

- Press pedals **A** and the spindle flange **K** should turn clockwise and anti-clockwise.

Warning: If the flange should turn in the opposite direction to that indicated, you need to invert two wires on the plug, if it is three-phase.

- Pressing the pedal (**C**) activates the bead breaker (E); when the pedal is released the bead breaker returns to its original position.
- Press pedal**B** to start inflating the tyre; if you wish to deflate the tyre, use button below the gauge.



All the procedures are to be performed without using a tyre, making sure that no other parts of the machine interfere with the movements when performing them.

11.0_IDENTIFYING AND CHECKING THE RIM AND TYRE

Before you start to demount the tyre, it is of CRUCIAL IMPORTANCE to identify the measurements of the rim and of the tyre. Also make sure neither is damaged.

ATTENTION: These procedures are very important and are to be performed to reduce risks of the tyre bursting when re-mounting the tyre on the rim and inflating it.

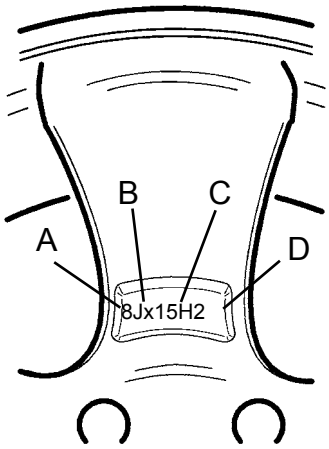
All rims bear an indication of their diameter, width, number of humps etc. If we take the picture below as an example, you can see that:

A= 8 Nominal width of the rim in inches (1 inch =24.5 mm)

B = J Size of the flange

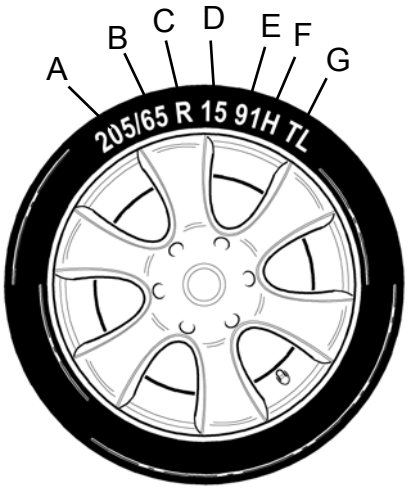
C = 15 Nominal diameter of the rim

D = H2 It indicates if there is a double hump (anti bead removing edge)



The tyre bears a considerable amount of details, among which are the dimensions, type and maximum speed.

For example: 205/65 R 15 91H TL



A = 205 indicates the width of the tyre, in other words the distance between the sides, expressed in millimetres.

B = 65 is the ratio expressed in percentage between the height of the section and its width.

C = R Type of tyre (R = radial)

D = 15 indicates the keying diameter in inches (diameter of wheel), which must be the same as the rim.

E = 91 is the index of the maximum load born for each wheel.

F = H is the maximum admitted speed of the tyre. (H= 210Km/h)

G = TL means that the tyre is Tubeless

ATTENTION: It is strictly forbidden to mount tyres on rims that have different parameters (diameter and width). It is also forbidden to mount tyres with different dimensions compared to those stated in the logbook.

12.0_POSITIONING THE VALVE

Fig. 6 shows a rim in the form of a clock, so that, following the various processing phases described hereafter, (chapter entitled Mounting and Demounting), you can position the valve and its sensor correctly so as not to damage them.

ATTENTION:
To avoid damaging the valve and the pressure sensor, if the latter is installed, you must always arrange the valve in the position indicated, following the instructions when mounting and demounting the tyre. fig.6

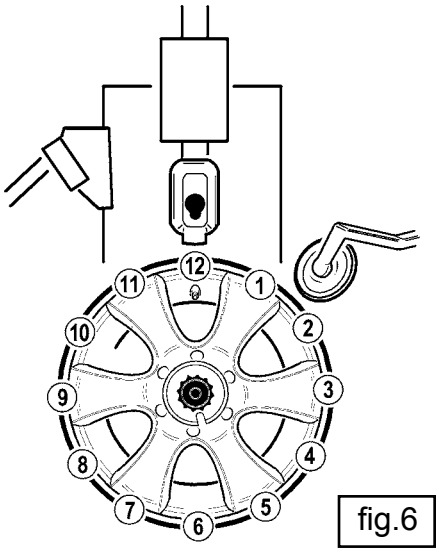


fig.6

13.0_TYRE CLASSIFICATION

LOW PROFILE tyres (UHP) are those in which the height (H) and the width (C) have a ratio lower than 0.5 (i.e. low profile series 45 stands for a ratio of H/C = 0.45).
For tyres to be considered as LOW PROFILE (UHP), they must also have a maximum speed code of equal to and/or higher than V.

RUN-FLAT tyres are those which, even when they have no internal pressure, allow you to continue to drive the vehicle for a preset number of miles and at a preset speed. These parameters change from one manufacturer to another.
The market currently offers 2 different types of RUN-FLAT tyres:
- Those with REINFORCED SIDE (SELF-SUPPORTING) where, thanks to a different mix and a reinforced structure, the shoulder of the tyre is able to bear the weight of the vehicle even when the pressure in the tyre is zero.
- Those with INTERNAL SUPPORT have a ring inside the rim that bears the side of the tyre when there is no pressure inside it. The internal support may be made of plastic (Pax-Sistem) or of metal (Support-Ring).

The tyre changer is able to handle all types of LOW PROFILE (UHP) and all types of RUN-FLAT tyres with REINFORCED SIDE; for other types, refer to the specific instructions of the dedicated accessories, if available.

The mounting and demounting procedure is the same, be it a RUN-FLAT tyre with REINFORCED SIDE (SELF-SUPPORTING) or a LOW PROFILE tyre (UHP).

ATTENTION:
It is of crucial importance to follow the instructions very carefully in order to avoid irreparable damages to the tyre, which could compromise the vehicle's safety.

All tyres that are not within the categories stated above are to be considered as standard tyres.

14.0_CLAMPS FOR CONVENTIONAL RIMS

A conventional rim is a wheel of a vehicle with rim of steel or light aluminium alloy, with a drop centre hole and channel near the outer edge of the rim.

For other types of rims, please consult the chapters on the accessories available on request.

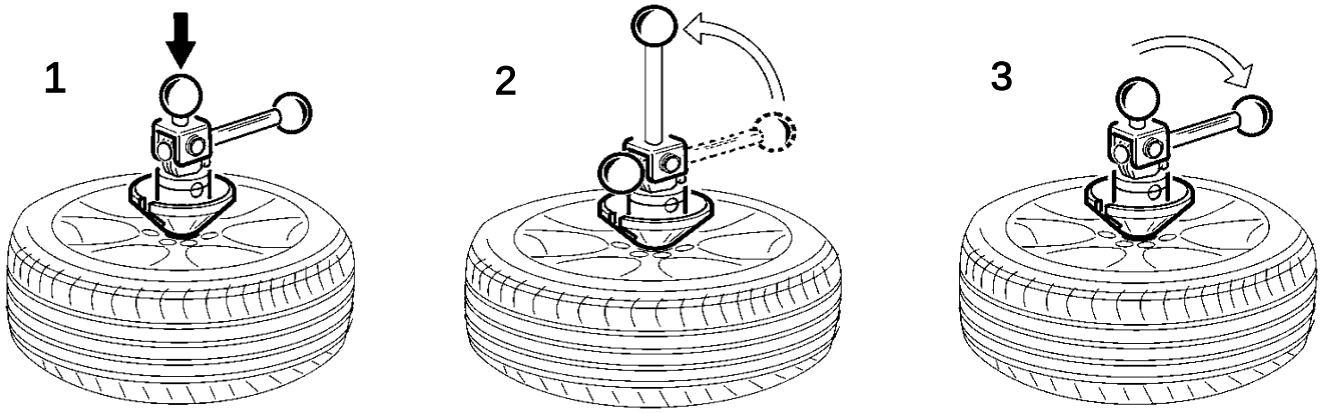
- Using a special tool, remove any counterweights on the rim, being particularly careful not to damage the rim.

If the wheel positioner is available:
- Make sure none of the tools are in the work zone of the wheel positioner so that it is free to position the wheel correctly.
- Position the wheel on the spindle using the wheel positioner, as follows:
- Arrange the wheel on the left roller of the machine, vertically with the external edge of the tyre facing the left.
- Using the lifting pedal, raise the platform and the wheel up to the flat position and align the drop centre hole of the wheel with the spindle flange.
- Lower the LIFT and centre the driving pin.

For rather wide wheels (wider than 24”) or when using the optional flange for back-to-front wheels, you may need to widen the plastic rollers of the lift and/or change the tilt of the rollers before lifting.

Manual Lock (standard)

Smart Lock (optional)
-The patented quick locking expanding nut SMART LOCK, makes operators’ work easier by granting a tough and steady wheel locking simply by rising the lever.
- The locking is performed by an expanding-pliers system. Both strength and grip can be easily adjusted by the proper button.
- Light weight: 3,9 Kg.



14.1_BEAD BREAKING

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 range of action can be in danger of being crushed.

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

•Close the turntable clamps completely

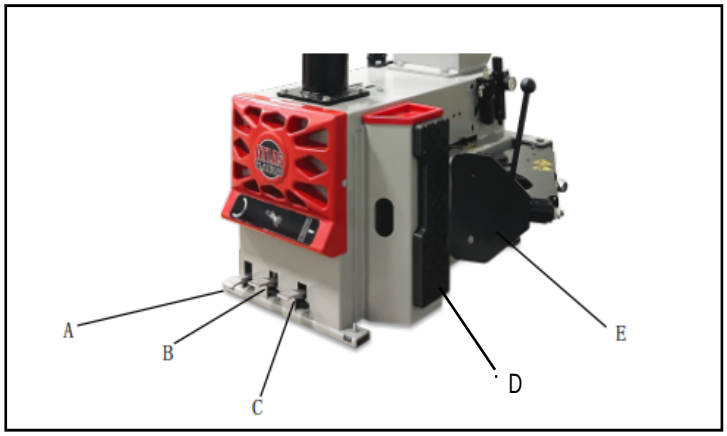
Bead breaking with the clamps in open position can be extremly dangerous for operator's hands. During bead breaking operations NEVER touch the side of the tyre.

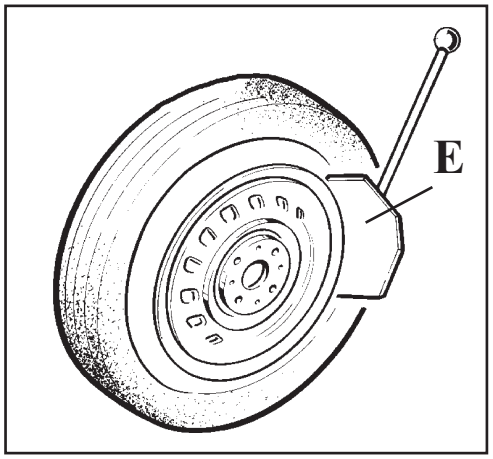
•Position the wheel against the rubber stops on the right side of the tyre changer (D).

•Position the bead breaker blade (E) against the tyre bead at a distance of about 1 cm from the riN=m. Pay attention to the blade, which must operate correctly onto the tyre and not onto the rim.

•Press down the pedal (C) 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 the rim.





14.2_MOUNTING/DEMOUNTING STANDARD TYRES

WARNING: This checking of tyre and rim is of the utmost importance to prevent tyre explosion during the inflating operations. Before beginning mounting operation make sure that:

- the tyre and the cord fabric are not damaged. If you note defects DO NOT mount the tyre.

- The rim is without dents and is not warped. Attention with alloy rims, dents cause internal micro-cracks 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 tyre are exactly the same. NEVER try to mount a tyre on a rim if you cannot identify the diameters of both.

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

Never place your hands between the wheel rim and the clamps during the locking 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 sideways with the mounting arm locked.*

Do not place your hands on the wheel: when moving the arm to its working position your hand could be crushed between the rim and the mounting head.

•Move the tyre 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.

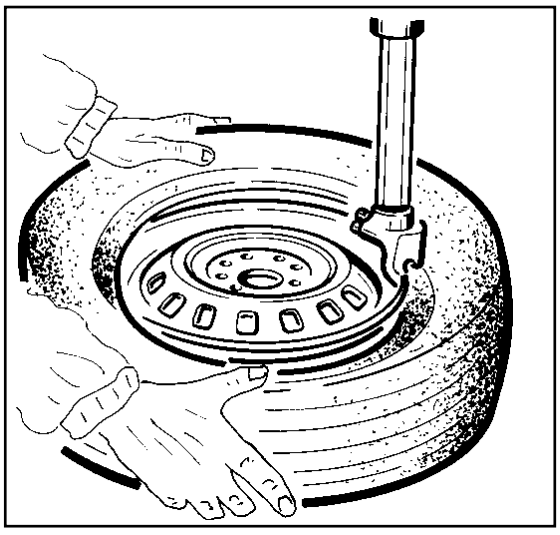
•Keeping the tyre bead pressed down into the wheel rim channel with your hands, press down on the pedal to rotate the turntable clockwise. Continue until you have covered the entire circumference of the wheel rim.

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).

•Repeat the same operations to mount the upper side of the tyre.

NOTE: 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.



15.0 INFLATING

The greatest attention is called for when inflating the tyres. Keep strictly to the following instructions since the tyre changer is <u>NOT</u> 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 after every jet.

• 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.

15.1 Inflating tyre using airline gauge:

To inflate a tyre proceed as follows:

• Connecttheairlinegaugefttingtothetyrevalve
.

• Make a last check to be certain that tyre and rim diameter correspond.

• Checktobecertainthatrimandbeadsaresuffcientlylubricated.If nec essary lubricate some more.

• Continuetoinfatethetyrewithshortjetsofairandconstantlycheckingthe pressure between air jets until the required pressure has been reached.

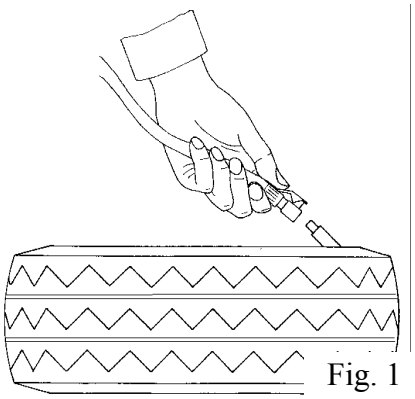


Fig. 1

⚠ DANGER

EXPLOSION HAZARD!

Never exceed 3.5 bar (51 PSI) when seating beads or inflating tyres.

If a higher inflating pressure is required remove the wheel from turntable and cpntinue the inflation procedure inside a special protection cage (commercially available)

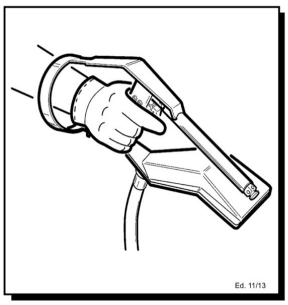
NEVER exceed the max. inflating pressure given by the tyre manufacturer

ALWAYS keep hands and body back from inflating tyre

ONLY specially trained personnel are allowed to perform these operations. Do not allow other persons to operate or to stay near the tyre changer.

16.0_ KIT GUN

Rapid tire inflation



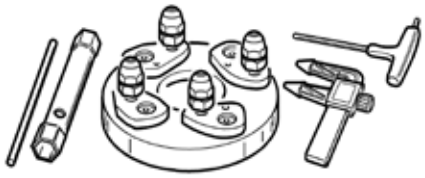
17.0_MACHINE SUPPLY

Standard supply

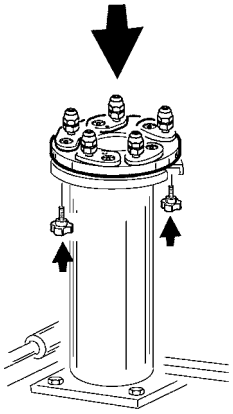
17.1_OPTIONAL ACCESSORIES

Flange FPM/345 (for clamping rims without drop centre hole)

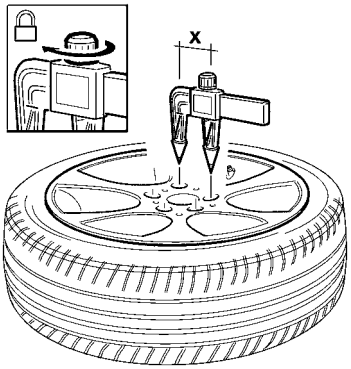
The flange FRU/345 C special can be used on all wheels with any number of clamping holes.



Fit the flange on the spindle making sure to position it carefully, securing it with the 2 knobs supplied. Unscrew the securing nuts.

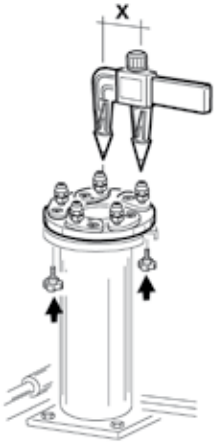


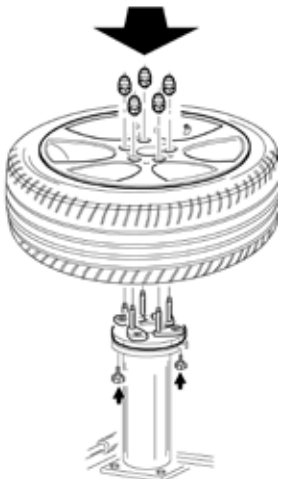
Position the pins based on the number of holes in the rim, inserting the driving pin in the slot and the securing screw in the threaded hole with the number desired.



NB: The pin with the yellow screw must never be removed.

Take the gauge supplied with the machine and measure the centre distance of 2 holes and block this measurement on the gauge.



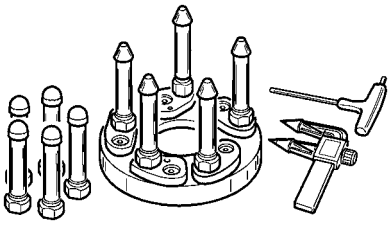


Turn the pins of the flange so that the centre distance matches the measurement made earlier on the rim.
Tighten the securing screws of the pins.

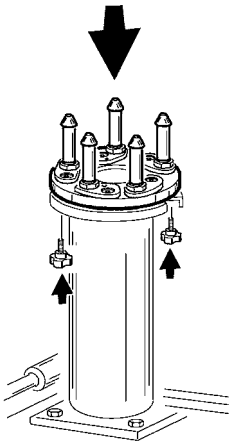
Insert the wheel, matching up the clamping holes with the threaded pins, position and tighten the wheel securing nuts.

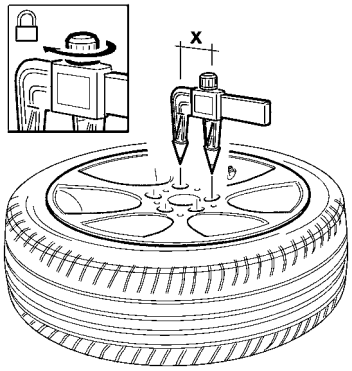
Flangia FPM/345 (for clamping rims with back-to-front channel, in other words, rims with the channels opposite the flanging of the rim)

The flange FPM/345 can be used on all wheels with any number of clamping holes.



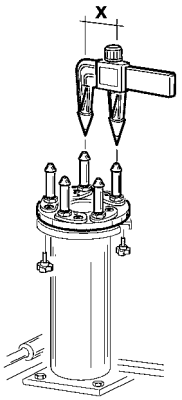
Select the pins of the shape and length required and secure them on the connecting rods. Secure the flange on the spindle, making sure to position it carefully and secure it with the 2 knobs supplied.





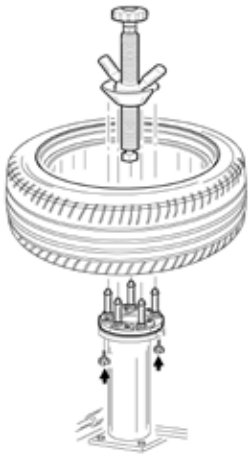
Position the pins based on the number of holes on the rim, inserting the driving pin in the slot and the securing screw in the threaded hole in the number desired.

NB: The pin with the yellow screw must never be removed.



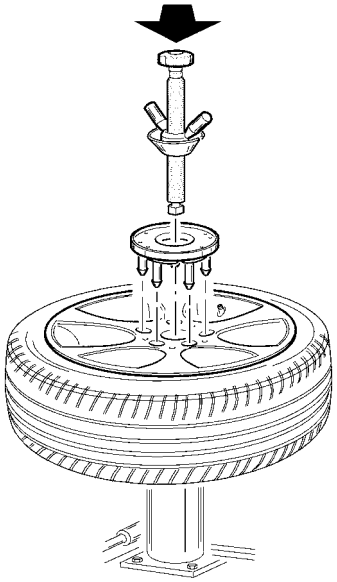
Take the gauge supplied and measure the centre distance of 2 holes and block this measurement on the gauge.

Turn the pins of the flange to match-up the centre distance with the measurement made earlier on the rim.
Tighten the securing screws of the pins.



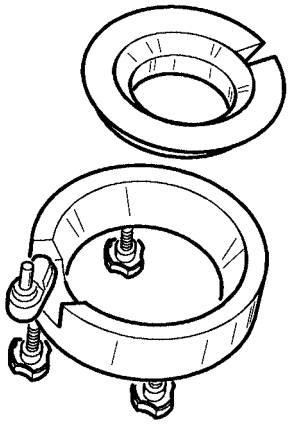
Insert the wheel, matching-up the clamping holes with the threaded pins, positioned with the flange facing downwards, tighten with the pin and nose.

NB.: The flange FPM 345 can be used to clamp the wheels without using the nose.

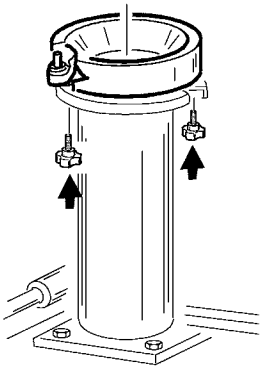


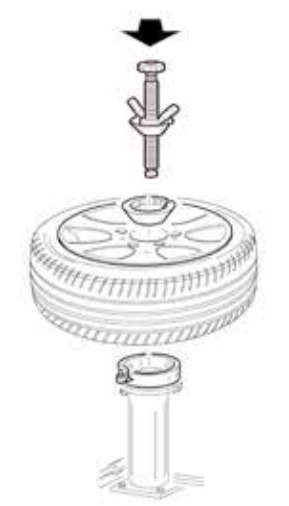
Position the wheel on the spindle, as described in the section entitled CLAMPING STANDARD WHEELS, position the flange on the wheel, matching-up the pins with the securing holes, avoiding that where the driving pin is already inserted, then tighten with the pin and nose.

LT TRUCK CONES for clamping rims with drop centre hole larger than Ø120 mm.



Secure the flange on the spindle, making sure to position it carefully and secure it with the 2 knobs supplied.





Insert the wheel, matching-up the driving pin with a hole, position and secure with the pin and nose.

18.0_RE-POSITIONING

To re-position the tyre changer in a new workplace, you need to block the mobile parts (i.e. bead presser etc.) disconnect all the power sources and install it again following all the instructions given in chapter 9.0 “INSTALLATION” of this manual.
Connections to energy sources and connections and inspections of the safety systems must be carried out by experts.

19.0_STORAGE

If the tyre changer is to be stored away for extended periods of time, you need to:
- Disconnect the power sources
- Empty the tanks containing operational fluids
- Protect parts that could be damaged if dust should settle on them
- Grease parts that could damage if they should dry up

When re-commissioning the tyre changer:
- Follow the instructions given in chapter 9.0 of this manual
- Replace any damaged parts, referring to the spare parts list. This is to be done by competent personnel

20.0_SCRAPPING

If you should decide that the tyre changer can no longer be used, you are recommended to make it unusable by removing the power supply connections, emptying the tanks and disposing of the fluids pursuant to current national laws.

The tyre changer is considered as heterogeneous waste and must consequently be split-up into parts made of similar material (electrical parts, plastic parts and ferrous parts), which must be sent to special waste tips according to current national laws.

Attention! For a correct waste disposal, consult the declaration of conformity to RAEE and ROHS (where applicable)

21.0 MAINTENANCE

21.1_General warnings

EXTRAORDINARY maintenance must NEVER be carried out by unauthorised personnel

• Routine maintenance, following the relevant instructions, is of crucial importance to ensure the correct operation and lasting life of the tyre changer.
• If routine maintenance is not carried out regularly, the efficient operation and reliability of the machine could be compromised, which could expose the operator and others to risks of serious danger.

Before you start any maintenance jobs, disconnect the electrical power supply by unplugging the machine from the mains and disconnect it also from the pneumatic supply by shutting off the cock. Furthermore, to release the pressurised air from the circuit, hold the trigger of the inflation gun down for a few seconds.

Defective parts should be exclusively replaced with genuine spare parts by skilled technicians.

Removal or tampering with the safety devices (max.pressure valve – pressure regulator) represent a breach of European Standards on Safety at the workplace.

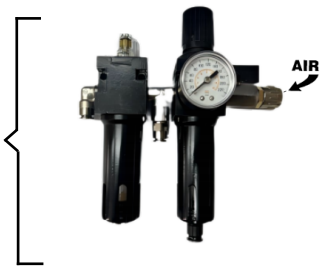
In particular, THE MANUFACTURER is not liable for claims deriving from the use of non-original spare parts or for damages caused through removal or tampering with safety systems.

At the achievement of 5 years from the date of installation and commissioning, the product must be reviewed in its entirety.

21.2_Routine Maintenance

Observe the instructions that follow to ensure the perfect operation and lasting life of your tyre changer:

- Make sure the spindle rotation transmission belt is tensioned correctly.
- On a periodic basis, check the oil level of the lubricator. Top-up if necessary by unscrewing the cup. Use just oil for pneumatic systems in class ISO HG with viscosity ISO VG 32 such as the following types for example: ESSO Febis K32; MOBIL Vacouline Oil 1405; KLUBER Airpress 32



22.0_OIL TREATMENT

OIL IS HIGHLY POLLUTANT! Do not throw away outdoors or pour on the ground

22.1_General precautions

- Avoid direct and prolonged contact with skin.
- Avoid the formation of oil mists in the air.
- Avoid splashing.
- Wear appropriate clothing, gloves and goggles to protect against oil splashes.
- Do not use greasy rags.
- Do not eat or smoke if your hands are soiled with oil.

22.2_First Aid instructions

- If oil is swallowed, do NOT induce vomiting but go immediately to the nearest medical centre with information on the type of oil swallowed.
- If oil gets in eyes, rinse abundantly with water until irritation ceases, then go to the nearest medical centre.
- If oil comes into contact with skin, rinse abundantly with neutral soap and water. Do not use solvents or irritant products.

22.3_Disposing of old oil

Do not throw old oil away outdoors or pour on the ground. Drain into a suitable container and forward to specialised oil disposal centres or hand it over to authorised collection companies.

22.4_Oil spillages or leakages

Eliminate the cause for the leakage and stop the oil spillage from spreading using absorbent material. Clean the area where the oil has spilled using degreasing detergents to prevent slipping and dispose of the waste according to current national laws

Clean up the oil and send to special disposal centres according to current national laws

23.0_TROUBLE SHOOTING (ADVANCED)

OPERATING ANOMALIES

PROBLEM	CAUSE	SOLUTION
The self-centring chuck does not turn	1) No electrical power supply 2)Power supply plug not plugged-in correctly 3)Fuses blown 4)Belt loose or broken 5)Motor pulley loose	1) Check the socket on the wall 2) Plug the machine into the mains 3) Replace the fuses 4) Tension the belt or replace it 5)Tighten the pulley with the dedicated screw
The spindle rotation motor only runs at one speed	1) Inverter broken 2) Inverter cables disconnected 3) Motor broken 4) Motor cables disconnected	1) Replace the inverter 2) Check if the inverter cables are connected correctly 3) Check motor short-circuiting and replace 4) Check if the motor cables are connected correctly
The spindle turns continuously	1) Inverter broken 2) Pedal return spring broken	1) Replace the inverter 2) Replace the spring
The spindle turns but the wheel stays still	1) Clamping screw not holding 2) Anti-rotation pin not holding	1) Secure the screw correctly 2)Position the driving pin correctly
The bead breaking disc does not move vertically or it moves slowly	1) No pneumatic supply 2) Control valve broken 3) Silencers obstructed 4) Cylinder gasket broken 5) Pilot valve broken or malfunctioning	1) Check the line pressure 2) Replace the valve 3) Clean the silencer or replace it 4) Replace the gaskets 5) Replace the pilot valve
The bead breaking disc does not move horizontally or it does but very slowly	1) No pneumatic supply 2) Control valve broken 3) Silencers obstructed 4) Cylinder gasket broken 5) Pilot valve broken or malfunctioning	1) Check the line pressure 2) Replace the valve 3) Clean the silencer or replace it 4) Replace the gaskets 5) Replace the pilot valve
The bead breaking disc positions itself but does not make the over stroke movement	1) No pneumatic supply 2) Control valve broken or malfunctioning 3) Cylinder gaskets broken 4) Movement not activated 5) Over stroke activation switch broken 6) Pilot valve broken or malfunctioning	1) Check the line pressure 2) Replace the control valve 3) Replace the gaskets 4) Turn the switch 5) Replace the switch 6) Replace the pilot valve

PROBLEM	CAUSE	SOLUTION
The hook that unlocks the structure of the bead breaker does not open	1) No pneumatic supply 2) Control valve broken 3) Silencers obstructed 4) Cylinder gasket broken 5) Pilot valve broken or malfunctio-ning	1) Check the line pressure 2) Replace the valve 3) Clean the silencer or replace 4) Replace the gaskets 5) Replace the pilot valve
The tool does not move vertically	1) No pneumatic supply 2) The supply fitting is not connected correctly 3) Supply pipes broken or squashed 4) Control valve broken 5) Silencers obstructed 6) Cylinder gasket broken	1) Check the line pressure 2) Insert the fitting correctly in the supply socket or check the pipe route 3) Replace the supply pipes 4) Replace the valve 5) Clean the silencer or replace it 6) Replace the gaskets
The wheel positioner does not move or it moves slowly	1) No pneumatic supply 2) Control valve broken 3) Silencers obstructed 4) Cylinder gasket broken	1) Check the line pressure 2) Replace the valve 3) Clean the silencer or replace it 4) Replace the gaskets
The wheel positioner does not stop its stroke	1) Control valve broken 2) Pedal return spring broken	1) Replace the valve 2) Replace the spring
The machine does not inflate	1) No pneumatic supply 2) Control valve broken 3) Pressure limiter valve broken	1) Check the line pressure 2) Replace the valve 3) Replace the valv
The vertical arm does not move or it moves slowly or too fast	1) Silencers obstructed 2) Silencers not regulated 3) Pedal return spring broken 4) No pneumatic supply 5) Arm stands too loose or too tight	1) Clean or replace the silencers 2) Adjust the silencers 3) Replace the pedal spring 4) Check or restore the pneuma-tic supply 5) Adjust the arm stands
The tool touches the rim while working	1) Clamping plate not adjusted or faulty 2) Spindle clamping screw loose 3) Plate unlocking springs broken	1) Adjust or replace the clamping plate 2) Tighten the screw 3) Replace the plate unlocking springs


ATLAS
PLATINUM