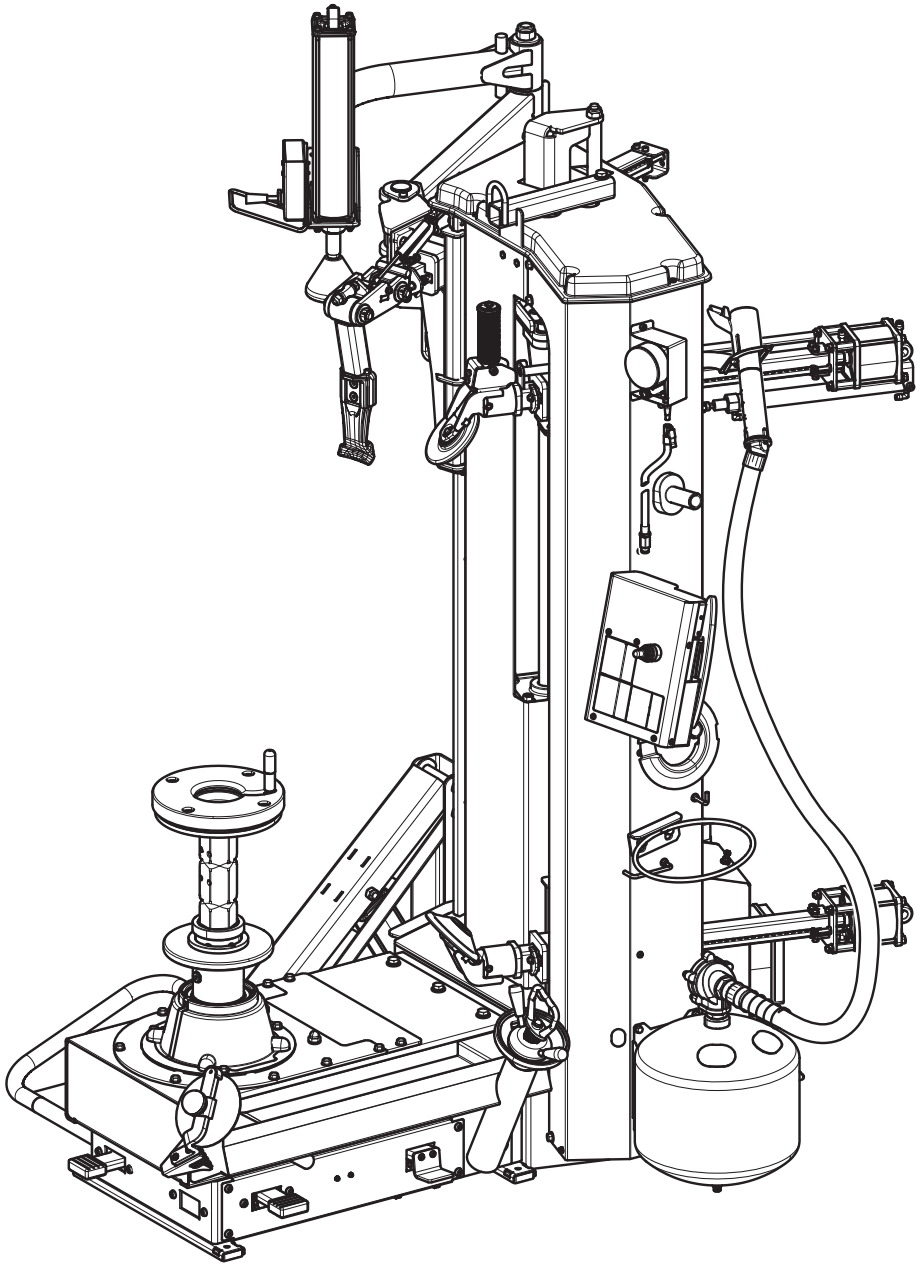
R1200 Tire Changer



OPERATION & MAINTENANCE MANUAL

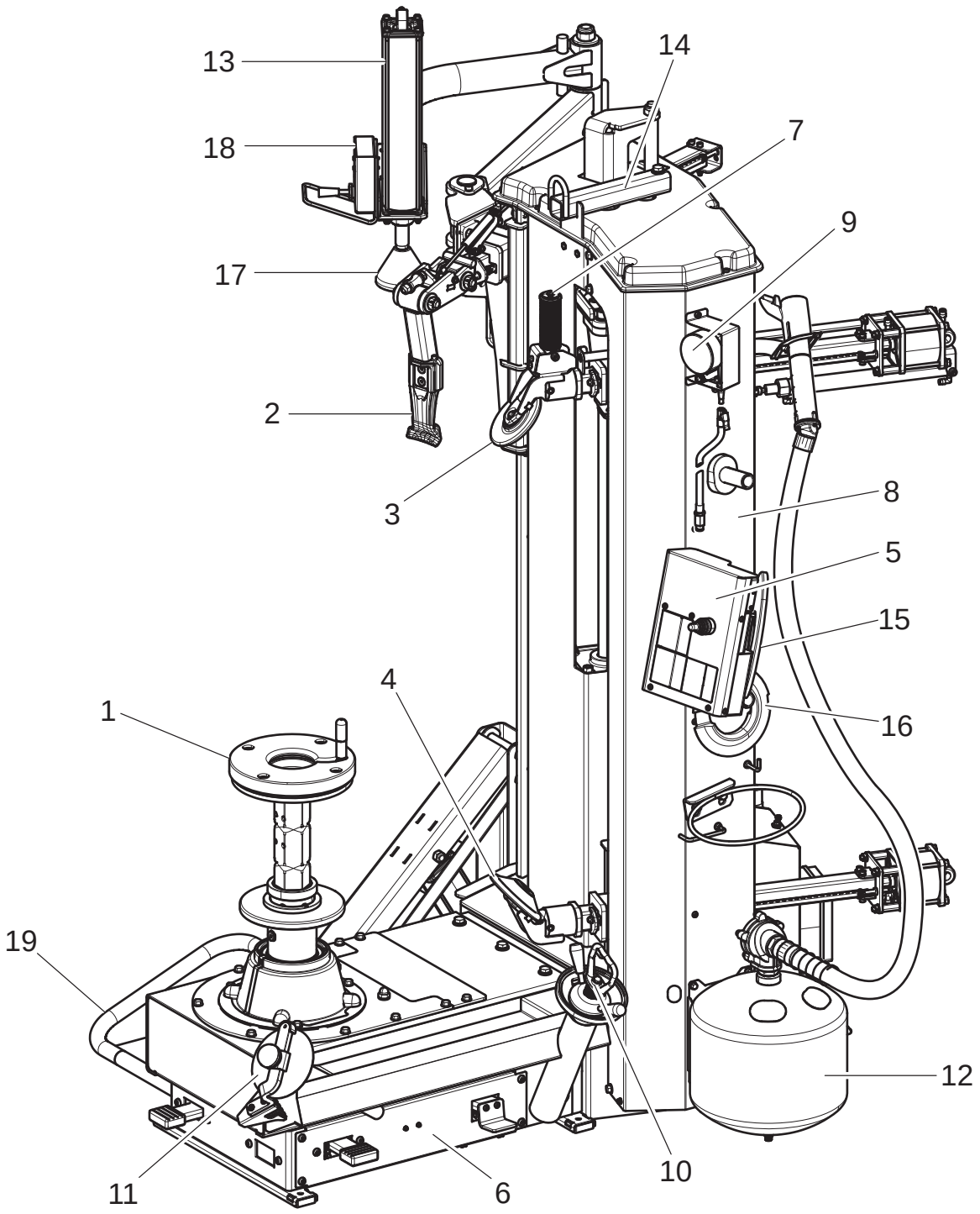
IMPORTANT **Any damage caused by failure to follow the instructions in this manual or improper machine use shall relieve the manufacturer of all liability.**

7105-M012-00
Rev. n. 00 (01/2021)

SUMMARY

GENERAL DESCRIPTION

FIG. 1



KEY

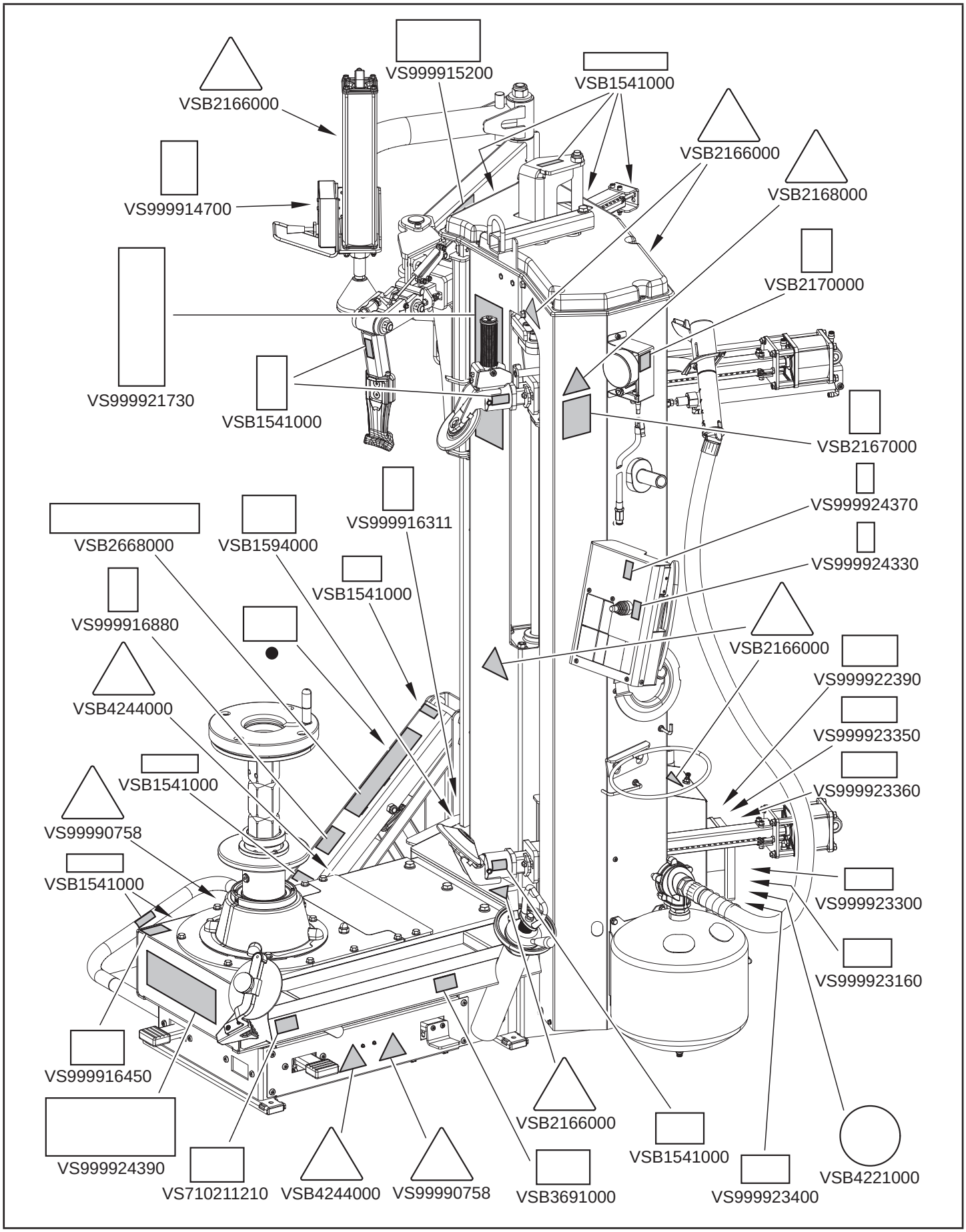
1 - Chuck
2 - Tool
3 - Upper bead breaking roll
4 - Lower bead breaking roll
5 - Control unit / Storage box
6 - Pedal support
7 - Release push button for bead breaker roll horizontal and tool translation
8 - Column unit
9 - Inflation pressure gauge unit
10 - Locking shaft unit
11 - Bead depressor with traction tool
12 - Tubeless inflation unit
13 - Rotating bead pressing device
14 - Lifting device
15 - Reverse wheels protection
16 - Two-faced cone
17 - Presser roll
18 - Bead pressing device operating unit
19 - Lateral lifting device

SYMBOLS USED IN THE MANUAL

Symbols	Description
	Read instruction manual.
	Wear work gloves.
	Wear work shoes.
	Wear safety goggles.
	Mandatory. Operations or jobs to be performed compulsorily.
	Danger! Be particularly careful.

Symbols	Description
	Warning. Be particularly careful (possible material damages).
	Move with fork lift truck or pallet truck.
	Lift from above.
	Technical assistance necessary. Do not perform any intervention.
	Note. Indication and/or useful information.

INFORMATION PLATE LOCATION DRAWING



VSB1541000	Danger plate
VSB1594000	Date indicating plate
VSB2166000	Bead breaker danger plate
VSB2167000	Protective clothing plate
VSB2168000	Tire burst plate
VSB2170000	Max inflation pressure rating plate
VSB2668000	Wheel lifting device danger plate
VSB3691000	Inflation pedal plate
VSB4182000	Electric motor specifications plate
VSB4221000	Grounding plate
VSB4244000	Rotating parts danger plate
VS710211210	Rotation direction plate
VS99990758	Electricity danger plate
VS999914700	Bead depressing roll controls plate
VS999915200	Serial number plate
VS999916011	Motoinverter plate
VS999916311	Rubbish skip plate
VS999916450	Lifting device pedal plate
VS999916880	Max. capacity load 80 Kg plate
VS999921730	Rotary plate
VS999922390	Overload protection plate
VS999923160	Prop 65 Attention plate
VS999923300	1Ph 220V 20A 60 Hz voltage plate
VS999923350	Only for indoor use plate
VS999923360	Disconnect power supply plate
VS999923400	UL-CSA ready plate
VS999924330	Up/down tool carriage plate
VS999924370	Up/down bead breaker rolls plate
VS999924390	Rotary plate
•	Serial number plate

IF ONE OR MORE PLATES DISAPPEAR FROM THE MACHINE OR BECOMES DIFFICULT TO READ. REPLACE IT AND QUOTE ITS/THEIR CODE NUMBER/S WHEN REORDERING.

SOME OF THE PICTURES PRESENT IN THIS MANUAL HAVE BEEN OBTAINED FROM PICTURES OF PROTOTYPES, THEREFORE THE STANDARD PRODUCTION MACHINES AND ACCESSORIES CAN BE DIFFERENT IN SOME COMPONENTS.

1.0 GENERAL INTRODUCTION

This manual is an integral part of the product and must be retained for the whole operating life of the machine.
Carefully study the warnings and instructions contained in this manual. It contains important instructions regarding functioning, SAFE USE and MAINTENANCE.

KEEP THE MANUAL IN A KNOWN, EASILY ACCESSIBLE PLACE FOR ALL ACCESSORY OPERATORS TO CONSULT IT WHENEVER IN DOUBT.

THE MANUFACTURER DISCLAIMS ALL RESPONSIBILITY FOR ANY DAMAGE OCCURRED WHEN THE INDICATIONS GIVEN IN THIS MANUAL ARE NOT RESPECTED: AS A MATTER OF FACT, THE NON-COMPLIANCE WITH SUCH INDICATIONS MIGHT LEAD TO EVEN SERIOUS DANGERS.

1.1 Introduction

Thank you for preferring electro-hydraulic tire-changer. We feel sure you will not regret your decision. The machine has been designed for use in professional workshops and in particular it stands out for its reliability, safe and rapid operation: with just a small degree of maintenance and care, this will give you many years of trouble-free service and lots of satisfaction. This manual contains all operating instructions and details on how to service and use the machine correctly.

2.0 INTENDED USE

The machines described in this manual and their different versions, are tire-changers for car tire projected to be used exclusively for the mounting, demounting, and inflation of wheels with dimension and width values mentioned in “Technical specifications” chapter.

THIS MACHINE MUST BE USED STRICTLY FOR THE INTENDED PURPOSE IT WAS DESIGNED FOR (AS INDICATED IN THIS MANUAL).

THE MANUFACTURER CANNOT BE HELD RESPONSIBLE FOR ANY DAMAGE CAUSED BY IMPROPER, ERRONEOUS, OR UNACCEPTABLE USE.

2.1 Training of personnel

The machine may be operated only by suitably trained and authorized personnel.

Given the complexity of the operations necessary to manage the machine and to carry out the operations safely and efficiently, the personnel must be trained in such a way that they learn all the information necessary to operate the machine as intended by the manufacturer.

A CAREFUL READING OF THIS INSTRUCTION MANUAL FOR USE AND MAINTENANCE AND A SHORT PERIOD OF TRAINING WITH SKILLED PERSONNEL CAN BE AN ENOUGH PREVENTIVE PREPARATION.

3.0 SAFETY DEVICES

PERIODICALLY, AT LEAST MONTHLY, CHECK THE INTEGRITY AND THE FUNCTIONALITY OF THE SAFETY AND PROTECTION DEVICES ON THE MACHINE.

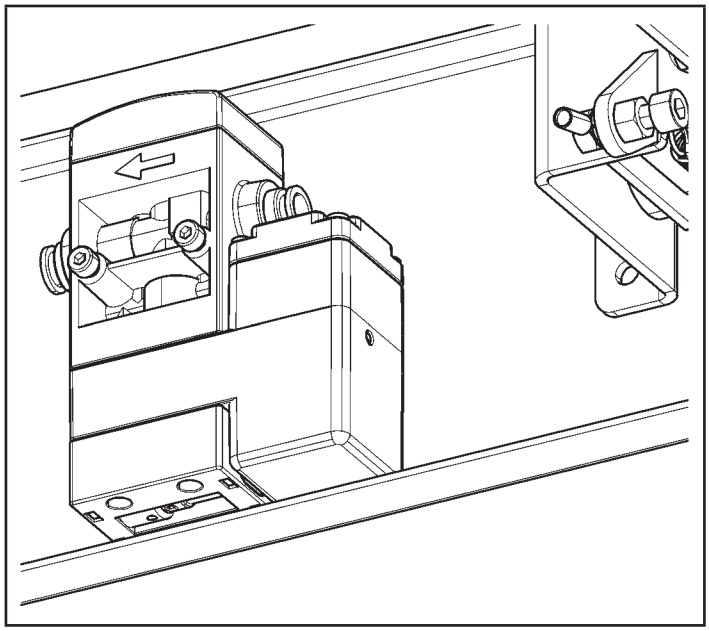
All the machines are equipped with:

- "man-operated" controls (immediate stop of operation when the control is released) for all operating devices;
- chuck rotation;
- tool translation;
- bead breaking roller translation.
- Control logic disposition.
  Its function is to prevent the operator from dangerous mistakes.
- Fixed protections and guards
  The machine is fitted with a number of fixed guards intended to prevent potential crushing, cutting and compression risks.
  These protections have been realized after risks evaluation and after all machine operative situations have been considered.

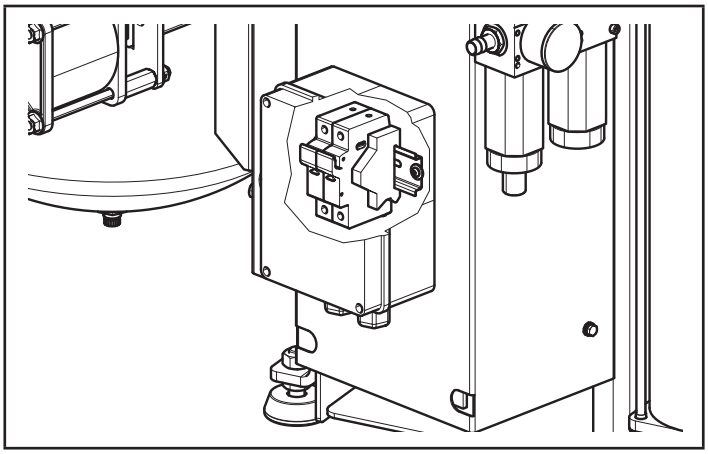
All protections, specially the rubber ones, have to be periodically checked in order to evaluate their wear state.

PERIODICALLY, AT LEAST MONTHLY, CHECK THE INTEGRITY AND THE FUNCTIONALITY OF THE SAFETY AND PROTECTION DEVICES ON THE MACHINE.

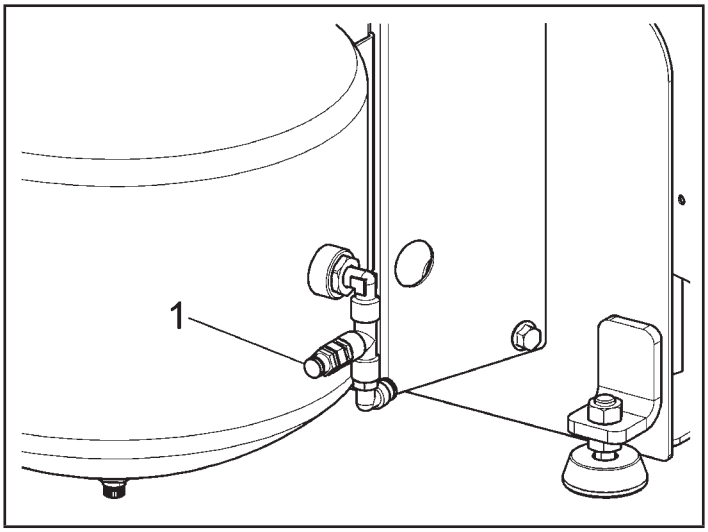
- Non-adjustable (balancing valve) pressure relief device.
  This allows inflation of tires in reasonable safety. Inflation of tires to over 4,2 ± 0,2 bar (60 PSI) is not allowed.



- Additional safety device for protection against fuse excess current (see figure below).



- 12bar safety valve on tank (only for models with tubeless inflation).
  The safety valve (see the following figure ref. 1) avoids that the inflation tank is under a pressure above 12 bar.



3.1 Residual risks

The machine was subjected to a complete analysis of risks according to reference standard EN ISO 12100.
Risks are as reduced as possible in relation with technology and product functionality.
This manual stresses possible residual risks, also highlighted in pictograms on the present manual and adhesive warning signals placed on the machine: their location is represented in "PLATE LOCATION ON MACHINE INFORMATION DRAWING" on page 5.

4.0 IMPORTANT SAFETY INSTRUCTIONS

When using your garage equipment, basic safety precautions should always be followed, including the following:

1. Read all instructions.
2. Care must be taken as burns can occur from touching hot parts.
3. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged – until it has been examined by a qualified service person.
4. Do not let a cord hang over the edge of the table, bench, or counter or come in contact with hot manifolds or moving fan blades.
5. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
6. Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
7. Let equipment cool completely before putting away. Loop cord loosely around equipment when storing.
8. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
9. Adequate ventilation should be provided when working on operating internal combustion engines.
10. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
11. To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
12. Use only as described in this manual. Use only manufacturer's recommended attachments.
13. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.

SAVE THESE INSTRUCTIONS

4.1 General safety rules

- Any tampering with or modification to the machine not previously authorized by the manufacturer exempts the latter from all responsibility for damage caused by or derived from said actions.
- Removing of or tampering with the safety devices or with the warning signals placed on the machine leads to serious dangers and represents a transgression of European safety rules.
- Use of the machine is only permitted in places free from explosion or fire hazard and in dry places under cover.
- Original spare parts and accessories should be used.

THE MANUFACTURER DENIES ANY RESPONSIBILITY IN CASE OF DAMAGES CAUSED BY UNAUTHORIZED MODIFICATIONS OR BY THE USE OF NON ORIGINAL COMPONENTS OR EQUIPMENT.

- The installation must be performed by qualified and authorized personnel in full compliance with the instructions given below.
- Ensure that there are no dangerous situations during the machine operating manoeuvres. Immediately stop the machine if it missfunctions and contact the assistance service of an authorized dealer.
- In emergency situations and before carrying out any maintenance or repairs, disconnect all supplies to the machine by using the main switch.
- The machine power supply system must be equipped with an appropriate earthing, to which the yellow-green machine protection wire must be connected.
- Ensure that the work area around the machine is free of potentially dangerous objects and that there is no oil since this could damage the tire. Oil on the floor is also a potential danger for the operator.

OPERATORS MUST WEAR SUITABLE WORK CLOTHES, PROTECTIVE GLASSES AND GLOVES, AGAINST THE DANGER FROM THE SPRAYING OF DANGEROUS DUST, AND POSSIBLY LOWER BACK SUPPORTS FOR THE LIFTING OF HEAVY PARTS. DANGLING OBJECTS LIKE BRACELETS MUST NOT BE WORN, AND LONG HAIR MUST BE TIED UP. FOOTWEAR SHOULD BE ADEQUATE FOR THE TYPE OF OPERATIONS TO BE CARRIED OUT.

- The machine handles and operating grips must be kept clean and free from oil.
- The workshop must be kept clean and dry. Make sure that the working premises are properly lit.
  The machine can be operated by a single operator. Unauthorised personnel must remain outside the working area, as shown in Fig. 4.
  Avoid any hazardous situations. Do not use air-operated or electrical equipment when the shop is damp or the floor slippery and do not expose such tools to atmospheric agents.
- During inflation do not lean on the tire or stand on it; when beading in the tire, keep hands away from tire and rim edge.
- During inflation always stay to the side of the machine and never in front of it.
- When operating and servicing this machine, carefully follow all applicable safety and accident-prevention precautions.
  The machine must not be operated by untrained personnel.
- Never activate the inflation device (only on models with tubeless inflation) if the tire has not been correctly locked.

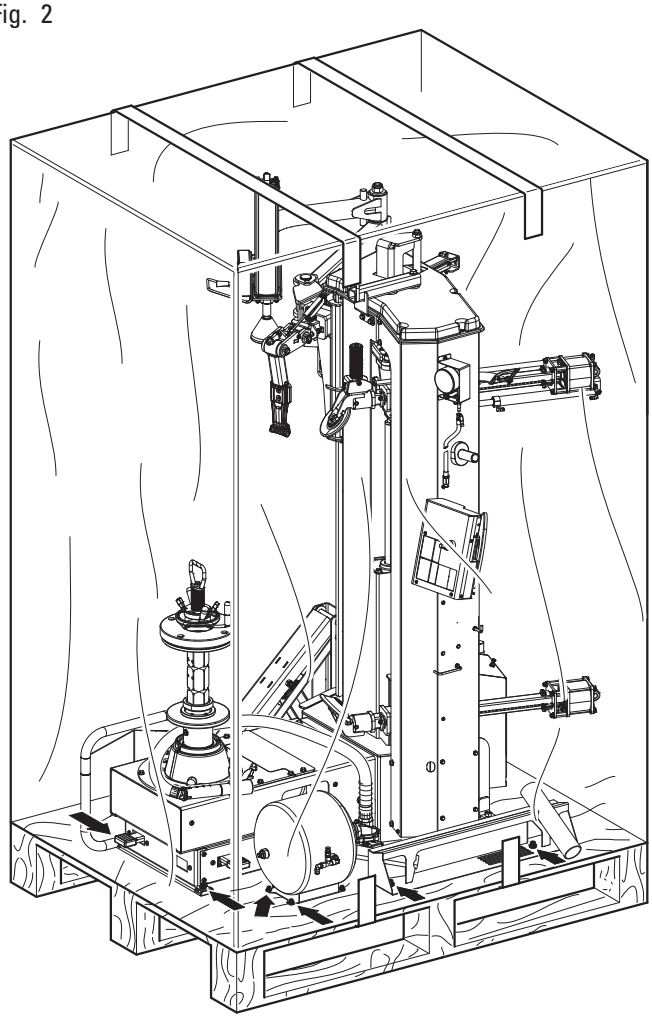
IN CASE OF A CHANCE SUPPLY FAILURE (WHETHER ELECTRICITY OR COMPRESSED AIR), MOVE THE PEDALS TO THE NEUTRAL POSITION.

5.0 PACKING AND MOBILIZATION FOR TRANSPORT

HAVE THE MACHINE HANDLED BY SKILLED PERSONNEL ONLY. THE LIFTING EQUIPMENT MUST WITHSTAND A MINIMUM RATED LOAD EQUAL TO THE WEIGHT OF THE PACKED MACHINE (see paragraph “TECHNICAL SPECIFICATIONS”).

The machine is packed partially assembled.
Handling must be by pallet-lift or fork-lift trolley.
The fork lifting points are indicated on the packing.

Fig. 2



6.0 UNPACKING

DURING UNPACKING, ALWAYS WEAR GLOVES TO PREVENT ANY INJURY CAUSED BY CONTACT WITH PACKAGING MATERIAL (NAILS, ETC.).

The cardboard box is supported with plastic strapping. Cut the strapping with suitable scissors. Use a small knife to cut along the lateral axis of the box and open it like a fan.
It is also possible to unnail the cardboard box from the pallet it is fixed to. After removing the packing, and in the case of the machine packed fully assembled, check that the machine is complete and that there is no visible damage.
If in doubt do not use the machine and refer to professionally qualified personnel (to the seller).
The packing (plastic bags, expanded polystyrene, nails, screws, timber, etc.) should not be left within reach of children since it is potentially dangerous. These materials should be deposited in the relevant collection points if they are pollutants or non biodegradable.

THE BOX CONTAINING THE FIXTURES IS CONTAINED IN THE WRAPPING. DO NOT THROW IT AWAY WITH THE PACKING.

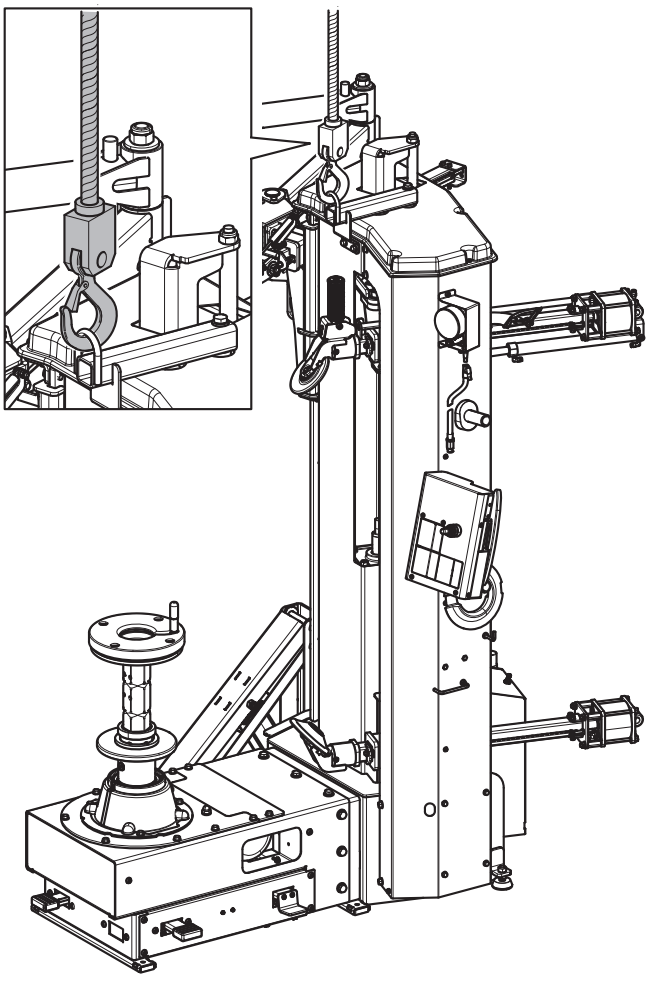
7.0 MOBILIZATION

THE LIFTING EQUIPMENT MUST WITHSTAND A MINIMUM RATED LOAD EQUAL TO THE WEIGHT OF THE MACHINE (SEE PARAGRAPH TECHNICAL SPECIFICATIONS). DO NOT ALLOW THE LIFTED MACHINE TO SWING.

During the machine handling from the unpacking position to the installation one, follow the instructions listed below.

- Protect the exposed corners with suitable material (Pluribol/ cardboard).
- Do not use metallic cables for lifting.
- Make sure that the power supply is not connected.
- Lift and transport with suitable device with adequate dimensions as indicated in Fig. 3.

Fig. 3



8.0 WORKING ENVIRONMENT CONDITIONS

The machine must be operated under proper conditions as follows:

- temperature: 0° + 55° C
- relative humidity: 30 - 95% (dew-free)
- atmospheric pressure: 860 - 1060 hPa (mbar).

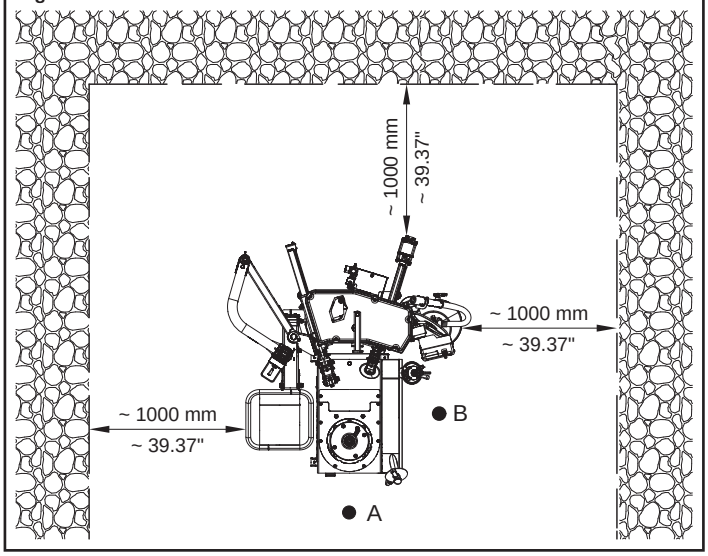
The use of the machine in ambient conditions other than those specified above is only allowed after prior agreement with and approval of the manufacturer.

8.1 Working position

In Figure 4 it's possible to define work positions A and B which will be referred to during the description of the machine operating phases. Position A is the main position for wheel fitting and removal with the chuck, while position B is ideal to follow tire inflation operations. Working in these positions allows better precision and speed during operating phases as well as greater safety for the operator.

8.2 Working area

Fig. 4



USE THE MACHINE IN A DRY AND ADEQUATELY LIT PLACE, POSSIBLY INDOORS OR ANYWAY IN A ROOFED AREA, THIS PLACE MUST BE IN COMPLIANCE WITH APPLICABLE SAFETY REGULATIONS.

The location of the machine requires a usable space as indicated in Figure 4. The positioning of the machine must be according to the distances shown. From the control position the operator is able to observe all the machine and surrounding area. He must prevent unauthorized personnel or objects that could be dangerous from entering the area. The machine must be fixed on a flat floor surface, preferably of cement or tiled. Avoid yielding or irregular surfaces. The base floor must be able to support the loads transmitted during operation. This surface must have a capacity load of at least 500 kg/m².

The depth of the solid floor must be sufficient to guarantee that the anchoring bolts hold.

8.3 Lighting

The machine does not require its own lighting for normal working operations. However, it must be used in an adequately lit environment. In case of poor lighting use lamps having total power of 800/1200 Watt.

9.0 MACHINE ASSEMBLY

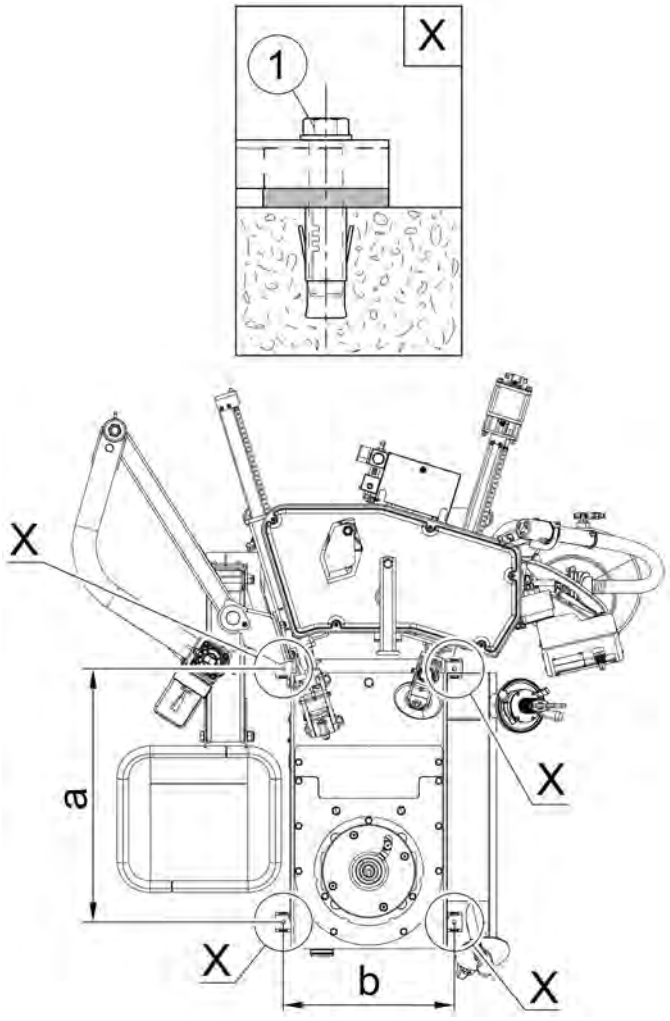
EACH MECHANICAL INTERVENTION MUST BE CARRIED OUT BY PROFESSIONALLY QUALIFIED STAFF.

After having freed the various components from the packing check that they are complete, and that there are no anomalies, then comply with the following instructions for the assembly of the components making use of the attached series of illustrations.

9.1 Anchoring system

The packed machine is fixed to the support pallet through the holes prearranged on the frame. Such holes can be used also to fix the machine to the ground, through floor anchor small blocks (excluded from supply). Before carrying out the definitive fixing, check that all the anchor points are laid down flat and correctly in contact with the fixing surface itself. If not so, insert shimming profiles between the machine and the fixing lower surface, as indicated in Fig. 5.

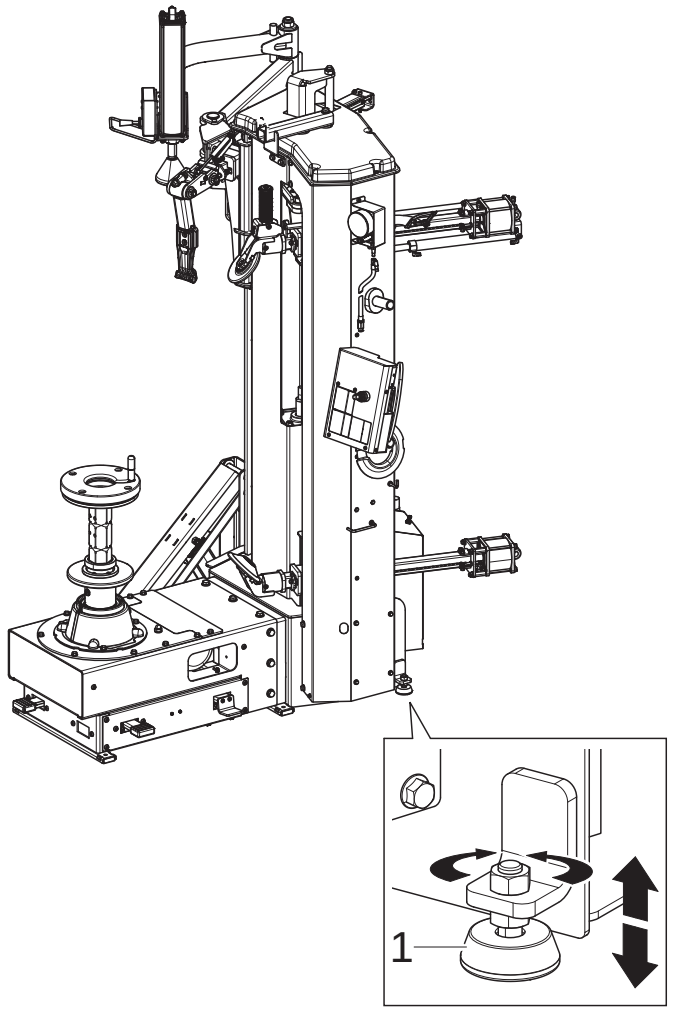
Fig. 5



a=651 mm / 25.63”
b=440 mm / 17.32”

- Execute 4 holes with 12 mm diameter on the floor by the holes on the bottom floor;
- insert the small blocks (excluded from supply) into the holes;
- fix the machine to the ground with 4 M12x120 mm screws (excluded from supply) (Fig. 5 ref. 1) (or with 4 12x80 mm stud bolts (excluded from supply)). Tighten the screws with an approximate tightening torque of 70 Nm.
- Before clamping completely the machine to the floor, level its rear part rotating the feet (Fig. 6 ref. 1).

Fig. 6



9.2 Fixtures contained in the packing

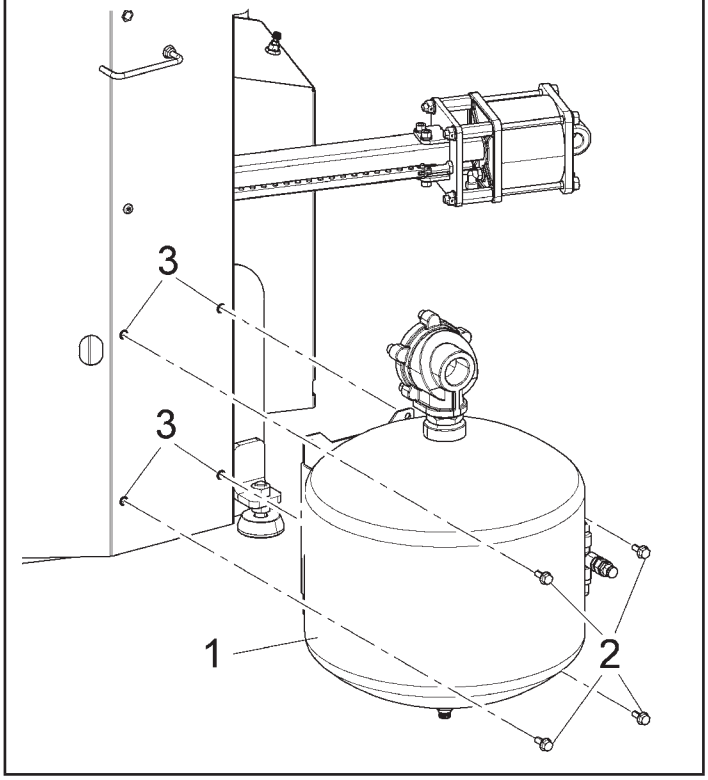
The packing case contains also the fixtures box.
Check that all the parts listed are there.

Description	Qty
Two-faced cone	**1**
Reverse wheels protection	**1**
Mounting grease	**1**
Brush	**1**
Bead depressor with traction tool	**1**
Locking shaft unit	**1**

9.3 Assembly procedures

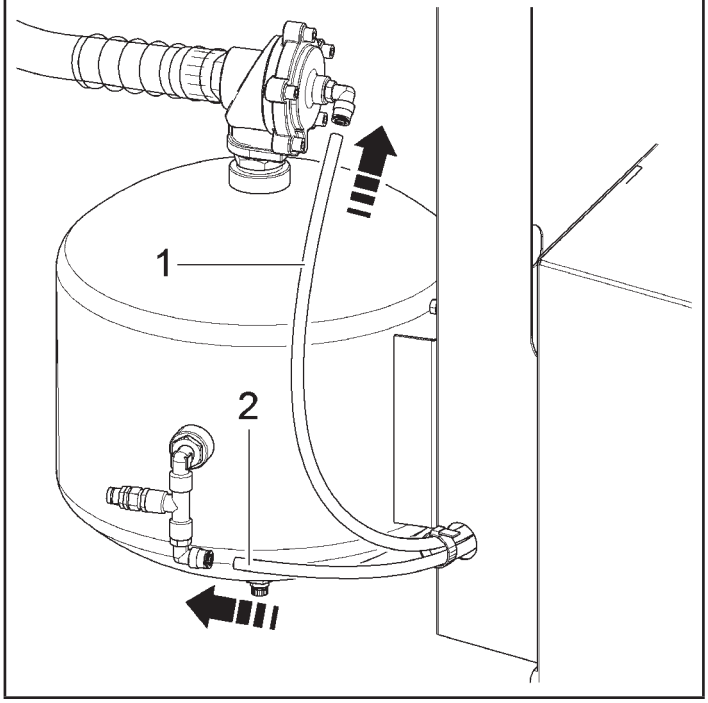
1. Fit the tank (Fig. 7 ref. 1) of the Tubeless inflation unit by tightening the supplied screws (Fig. 7 ref. 2) to the threaded inserts on the machine (Fig. 7 ref. 3), as shown in Fig. 7.

Fig. 7



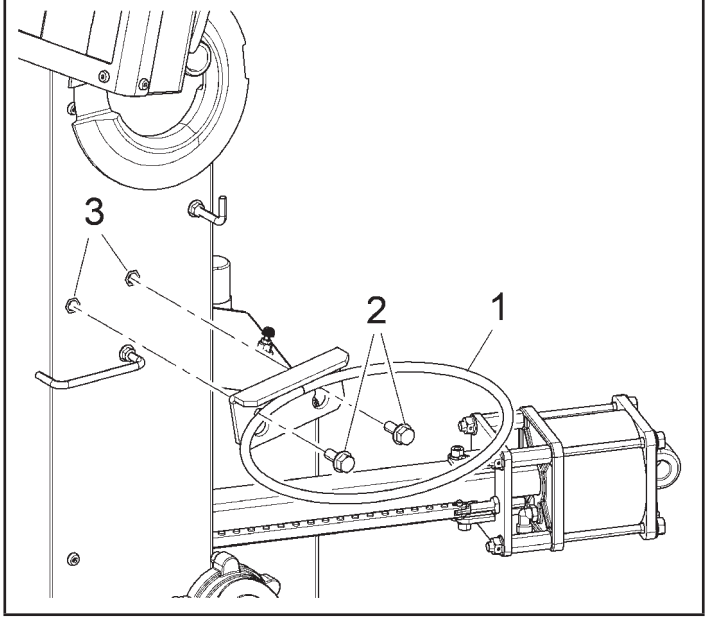
2. Connect the black pipe (Fig. 8 ref. 1) and the blue pipe (Fig. 8 ref. 2) on the provided quick couplings as shown in figure Fig. 8.

Fig. 8



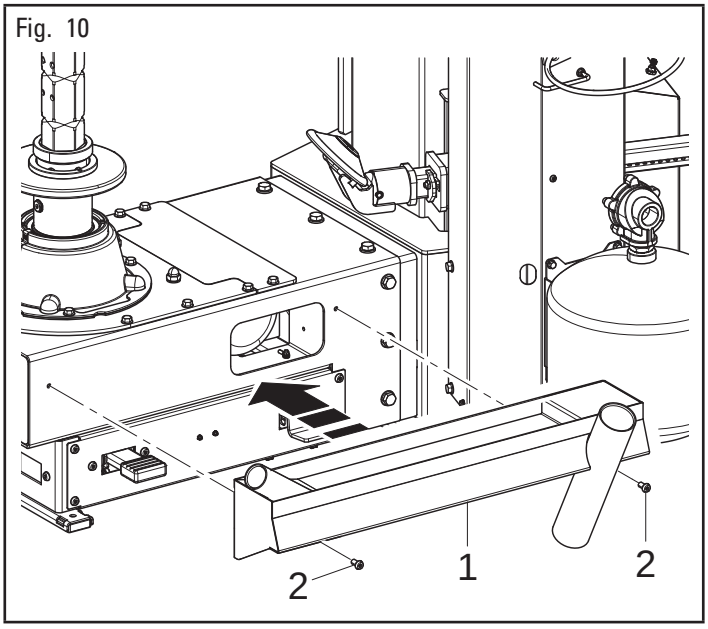
3. Fit the grease holder ring (Fig. 9 ref. 1) with the 2 supplied screws (Fig. 9 ref. 2), to the threaded inserts provided on the machine (Fig. 9 ref. 3), as shown in Fig. 9.

Fig. 9



4. Mount the side tray (Fig. 10 ref. 1) to the machine frame using the supplied screws (Fig. 10 ref. 2), as shown in Fig. 10.

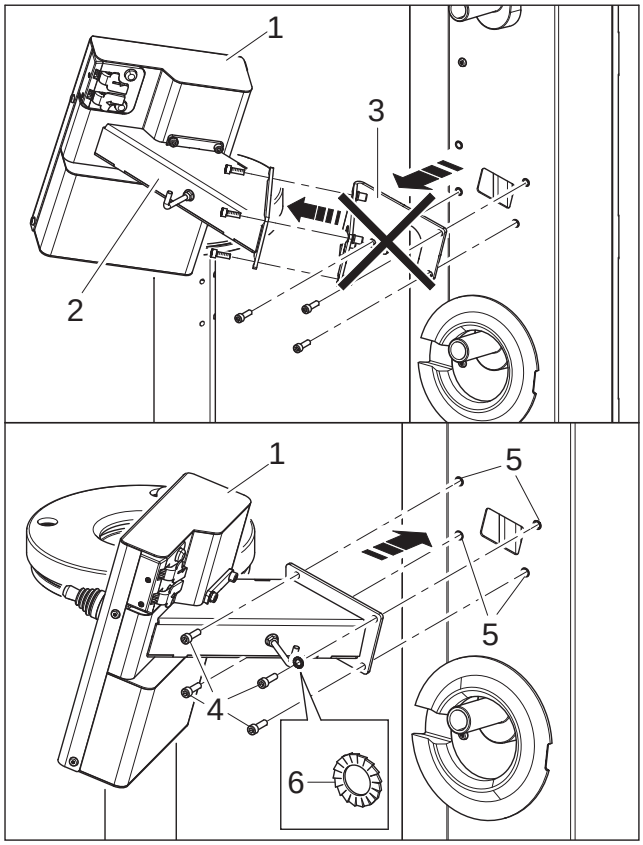
Fig. 10



5. Remove the handle control unit (Fig. 11 ref. 1), complete with support (Fig. 11 ref. 2), from the bracket (Fig. 11 ref. 3). Remove the bracket (Fig. 11 ref. 3) from the machine frame. Reassemble the manipulator unit (Fig. 11 ref. 1) with the screws (Fig. 11 ref. 4) to the threaded inserts on the machine (Fig. 11 ref. 5), as shown in Fig. 11.

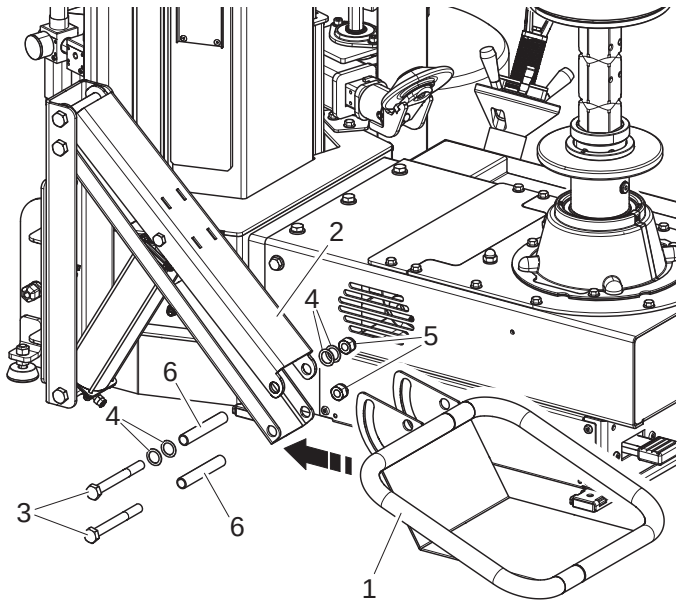
BEFORE FIXING THE HANDLE CONTROL UNIT (FIG. 11 REF. 1) TO THE MACHINE, MAKE SURE TO INTERPOSE THE SUPPLIED TOOTHED WASHER (FIG. 11 REF. 6), AS SHOWN IN FIG. 11.

Fig. 11



6. Fit the wheel support (Fig. 12 ref. 1) to the lift frame (Fig. 12 ref. 2) using the screws (Fig. 12 ref. 3), washers (Fig. 12 ref. 4), nuts (Fig. 12 ref. 5) placing the spacers between the support and the frame (Fig. 12 ref. 6).

Fig. 12

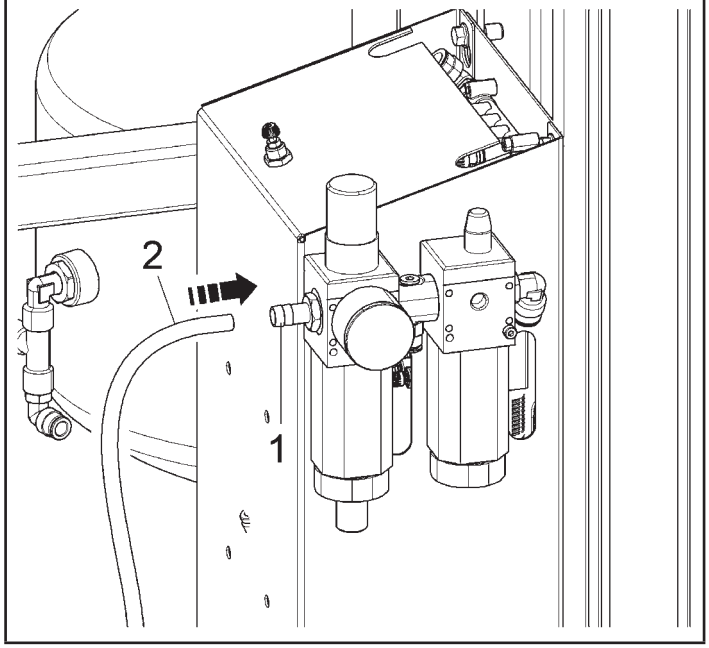


9.4 Air connection

ANY PNEUMATIC INTERVENTION MUST BE CARRIED OUT BY PROFESSIONALLY QUALIFIED STAFF.

Connect the mains pneumatic supply through the coupling (Fig. 13 ref. 1) placed on the machine filter unit. The pressurized pipe (Fig. 13 ref. 2) coming from the mains must have a section of 10x19 (see Fig. 13).

Fig. 13



IF OTHER PNEUMATIC CONNECTIONS SHOULD BE EXECUTED, REFER TO THE PNEUMATIC DIAGRAMS ILLUSTRATED IN CHAPTER 19.

IN CASE OF A CHANCE SUPPLY FAILURE, AND/OR BEFORE ANY PNEUMATIC CONNECTIONS, MOVE THE CONTROLS TO THE NEUTRAL POSITION.

10.0 ELECTRICAL CONNECTIONS

EVEN THE TINIEST PROCEDURE OF AN ELECTRICAL NATURE MUST BE CARRIED OUT BY PROFESSIONALLY QUALIFIED STAFF.

BEFORE CONNECTING THE MACHINE MAKE SURE THAT:

- POWER LINE SPECIFICATIONS CORRESPOND TO MACHINE REQUIREMENTS AS SHOWN ON THE MACHINE PLATE;
- ALL MAIN POWER COMPONENTS ARE IN GOOD CONDITION;
- THE ELECTRICAL SYSTEM IS PROPERLY GROUNDED (GROUND WIRE MUST BE THE SAME CROSS-SECTION AREA AS THE LARGEST POWER SUPPLY CABLES OR GREATER);
- MAKE SURE THAT THE ELECTRICAL SYSTEM FEATURES A CUTOUT WITH DIFFERENTIAL PROTECTION SET AT 30 MA.

As envisaged by the regulations in force, the machine is not equipped with a master circuit breaker, but simply has a plug-socket connection to the electrical mains.

The machine is supplied with a cable. A plug corresponding to the following requirements must be connected to the cable:

FIT A TYPE-APPROVED PLUG TO THE MACHINE CABLE (THE GROUND WIRE IS YELLOW/GREEN AND MUST NEVER BE CONNECTED TO ONE OF THE PHASE LEADS).

MAKE SURE THAT THE ELECTRICAL SYSTEM IS COMPATIBLE WITH THE RATED POWER ABSORPTION SPECIFIED IN THIS MANUAL AND APT TO ENSURE THAT VOLTAGE DROP UNDER FULL LOAD WILL NOT EXCEED 4% OF RATED VOLTAGE (10% UPON START-UP).

IN CASE OF A CHANCE SUPPLY FAILURE, AND/OR BEFORE ANY POWER SUPPLY CONNECTIONS, MOVE THE PEDALS TO THE NEUTRAL POSITION.

Models	Type	Voltage	Amperage	Poles	Minimum IP rating
Inverter	NEMA L6-20P	200/265V	16A	2 Poles + Ground	IP 44

10.1 Electrical checks

BEFORE STARTING UP THE TIRE-CHANGER, BE SURE TO BECOME FAMILIAR WITH THE LOCATION AND OPERATION OF ALL CONTROLS AND CHECK THEIR PROPER OPERATION (SEE PAR. “CONTROLS”).

CARRY OUT A DAILY CHECK OF MAINTAINED-TYPE CONTROLS CORRECT FUNCTIONING, BEFORE STARTING MACHINE OPERATION.

11.0 CONTROLS

11.1 Control unit

It consists of two levers (Fig. 14 ref. A), of two push buttons (Fig. 14 ref. B) and a lever (Fig. 14 ref. C), with different functions, fit onto a single control block.
The control unit is used to move the upper and lower bead breakers and the tool, and place them in the working position.
The control unit therefore governs all the movements necessary for a complete bead-breaking, assembly and disassembly operation:

- vertical translation movement of the bead breaking rolls,
- introduction of the bead breaker rolls inside the rim,
- mounting tool vertical shift movement.

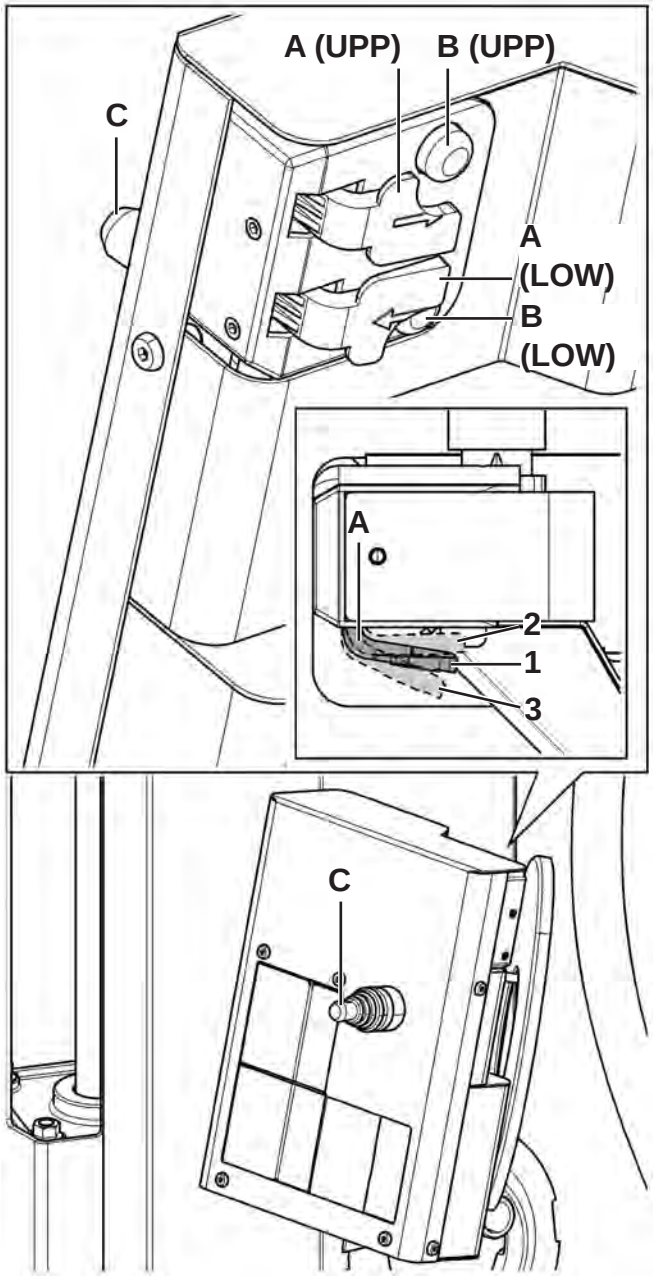
The upper lever and button (A-B (UPP)) control the upper bead breaker roll, vice versa the lower lever and button (A-B (LOW)) control the lower bead breaker roll.
Each lever has three positions:

- the first one (Fig. 14 ref. 1) is rest position, that keeps the bead breaker rolls into their current position.
- the second one (Fig. 14 ref. 2) (pressed lever, maintained action control) operates upper bead breaker roll descent (UPP lever) and/or lower bead breaker roll rise (LOW lever).
- the third one (Fig. 14 ref. 3) (lever’s lifting) operates upper bead breaker roll’s rise (UPP lever) and/or lower bead breaker roll’s descent (LOW lever).

When the buttons (Fig. 14 ref. B), with maintained action, UPP or LOW are pressed, the corresponding cam inserts the bead breaker roll into the rim.
The control unit is also equipped with the lever (Fig. 14 ref. C) which controls the ascent and descent of the tool:

- by lifting the lever, the tool is moved upwards;
- by lowering the lever, the tool is moved downwards.

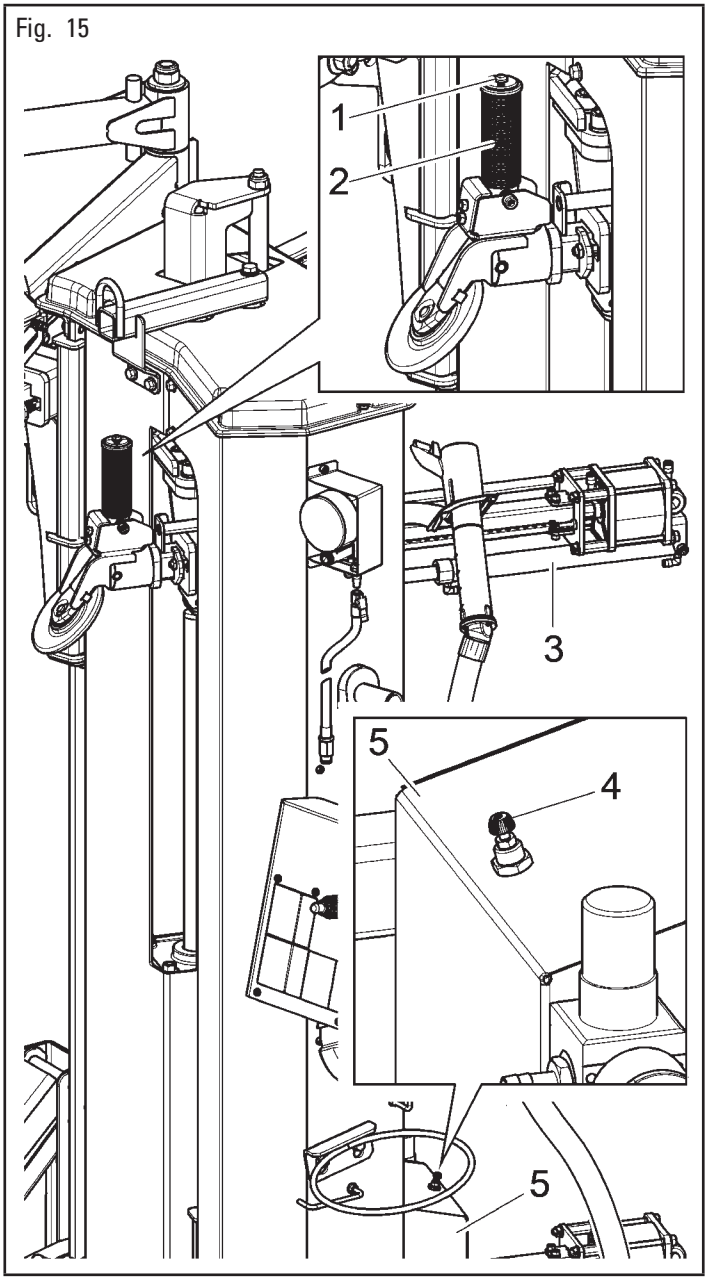
Fig. 14



11.2 Control for bead breaking roll release

This is done completely manually. Press the release push button (Fig. 15 ref. 1), then operate the handle (Fig. 15 ref. 2), for the manual positioning of the upper and lower bead breaker rolls and the tool on the correct diameter of the wheel fixed onto the chuck, through a concurrent lever's thrust and return movement. Releasing the push button, the rolls lock into their current position.
The cylinder (Fig. 15 ref. 3) makes the entire operation described above easier. The cylinder is activated when, after pressing the button (Fig. 15 ref. 1), a slight pulling or pushing movement of the knob is performed (Fig. 15 ref. 2). The intervention force of the cylinder can be adjusted (Fig. 15 ref. 3) by acting on the regulator (Fig. 15 ref. 4), located on the solenoid valve protection casing (Fig. 15 ref. 5).

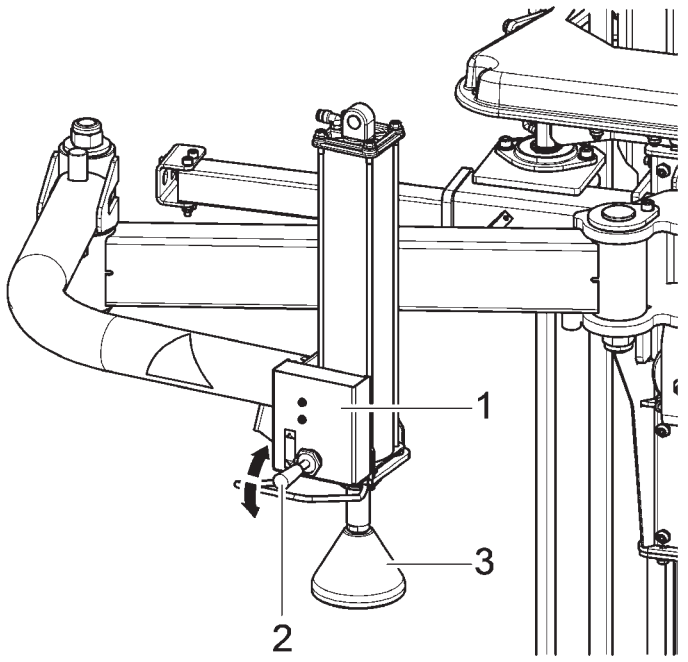
Fig. 15



11.3 Bead pressing device operating unit

It is made up of an handle control (Fig. 16 ref. 1), positioned on the device. This handle control allows to operate the vertical translation of the presser roll (Fig. 16 ref. 3). Lift the lever (Fig. 16 ref. 2) to operate the upwards translation, and lower the lever (Fig. 16 ref. 2) to perform the downwards translation. The device arm positioning next to the tire is a completely manual operation.

Fig. 16



11.4 Pedalboard

"Pedal A" has two maintained action operative positions. When it is pushed downwards it controls chuck motor clockwise rotary movement. When the pedal is lifted upwards it operates the opposite movement.

THE CHUCK UNIT SPEED CAN BE CONTINUOUSLY ADJUSTED UP TO THE MAXIMUM SPEED THROUGH A PROGRESSIVE PRESSURE ON THE PEDAL, ONLY IN CLOCKWISE DIRECTION.

"Pedal B" has a different function according to the version present on the machine.

Version with inflation with pressure gauge

The inflation pedal in this version has only one function. A continuous pressure supplies air at a controlled pressure (max 4 ± 0,2 bar 60 PSI).

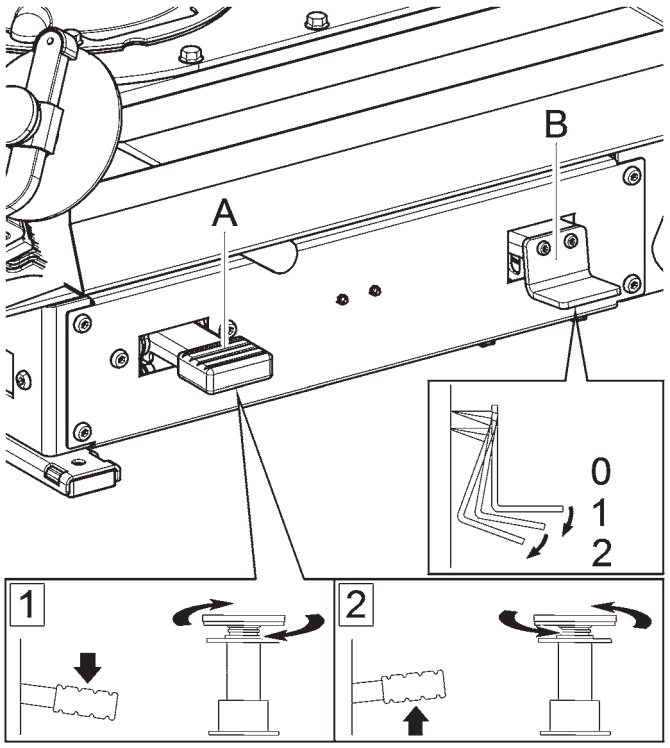
DO NOT CHANGE THE SET OPERATING PRESSURE VALUE BY MEANS OF THE MAXIMUM PRESSURE VALVES. THE MANUFACTURER SHALL NOT BE RESPONSIBLE FOR INJURY OR DAMAGE ARISING FROM UNAUTHORISED CHANGES.

Version with tubeless inflation

The inflation pedal has two functions. The supply of air at max. controlled pressure as in the previous version, and a second function of a jet of air from the inflation nozzle to assist the beading in of the tire.

DO NOT CHANGE THE SET OPERATING PRESSURE VALUE BY MEANS OF THE MAXIMUM PRESSURE VALVES. THE MANUFACTURER SHALL NOT BE RESPONSIBLE FOR INJURY OR DAMAGE ARISING FROM UNAUTHORISED CHANGES.

Fig. 17



KEY (pedal ref. B)
Ref. 1- Tire inflation with pressure gauge
Ref. 2- Tire inflation with pressure gauge + inflation nozzle

12.0 USING THE MACHINE

12.1 Precaution measures during tire removal and fitting

Before fitting a tire, observe the following safety rules:

- rim and tire must always be clean, dry and in good condition; if necessary, clean the rims and check that:
  - neither the bead nor the tread of the tire are damaged;
  - the rim does not produce dents and/or deformation (especially for alloy rims, dents can cause internal micro-fractures, that pass unobserved at visual inspection, and can compromise the solidity of the rim and constitute danger even during inflation);
- adequately lubricate the contact surface of rim and the tire beads, using specific tire lubricants only;
- replace the inner tube valve with a new valve, if the tire tube has a metal valve, replace the grommet;
- always make sure that tire and rim sizes are correct for their coupling; on the contrary, never fit a tire unless you are sure it is of the right size (the rated size of rim and tire is usually printed directly on them);
- do not use compressed air or water jets to clean the wheels on the machine.

12.2 Preliminary operations - Preparing the wheel

- Remove the wheel balancing weights from both sides of the wheel.

REMOVE THE VALVE STEM AND ALLOW THE TIRE TO COMPLETELY DEFLATE.

- Establish from which side the tire should be demounted, checking the position of the groove.
- Find the rim locking type.
- Try to establish the special types of wheels, such as “EH2” and “EH2+”, in order to improve locking, bead breaking, assembly and disassembly performances.

WHEN HANDLING WHEELS WEIGHING MORE THAN 10 KG AND/OR WITH A FREQUENCY OF MORE THAN 20/30 WHEELS PER HOUR, THE LIFTING DEVICE SHOULD BE USED.

12.3 Use of the lifting device

CARRY OUT A DAILY CHECK OF MAINTAINED-TYPE CONTROLS CORRECT FUNCTIONING, BEFORE STARTING MACHINE OPERATION.

1. After placing the wheel on the lifting plate (see Fig. 18), press the lifting device drive pedal (Fig. 19 ref. 1) downwards and bring the wheel to a level where it can be shifted to the chuck by hand (see Fig. 19).

Fig. 18

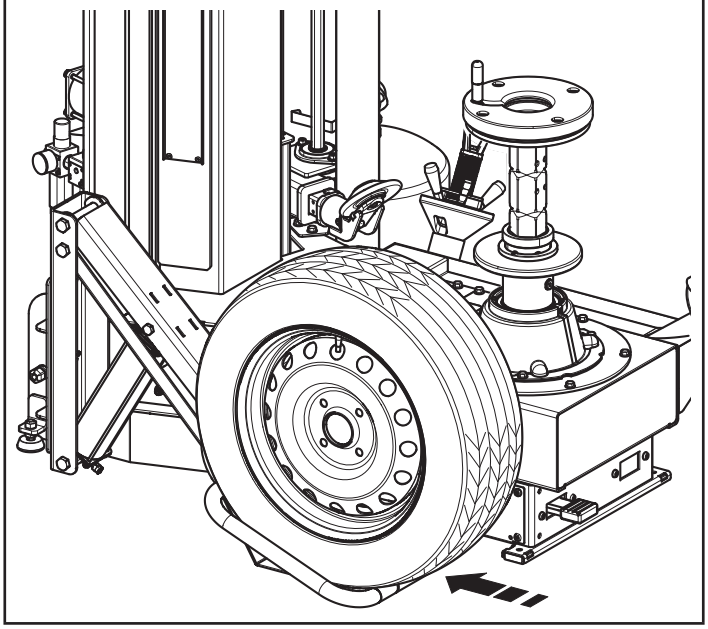
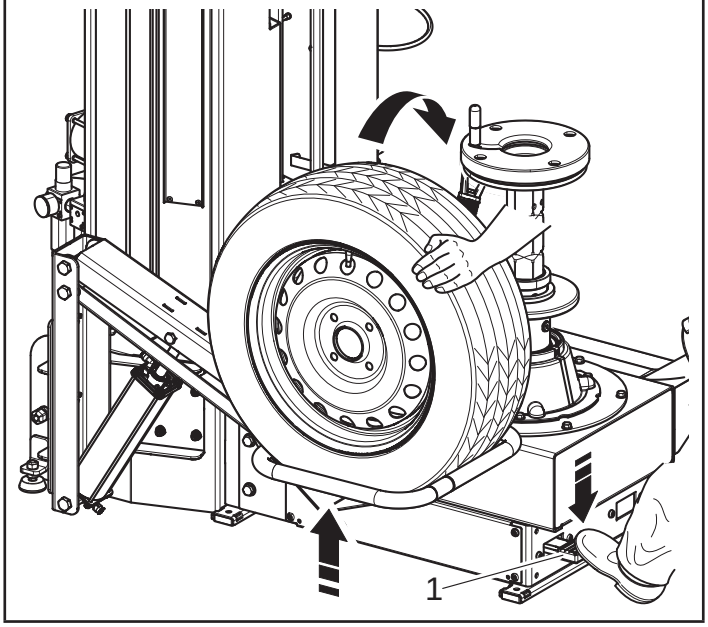
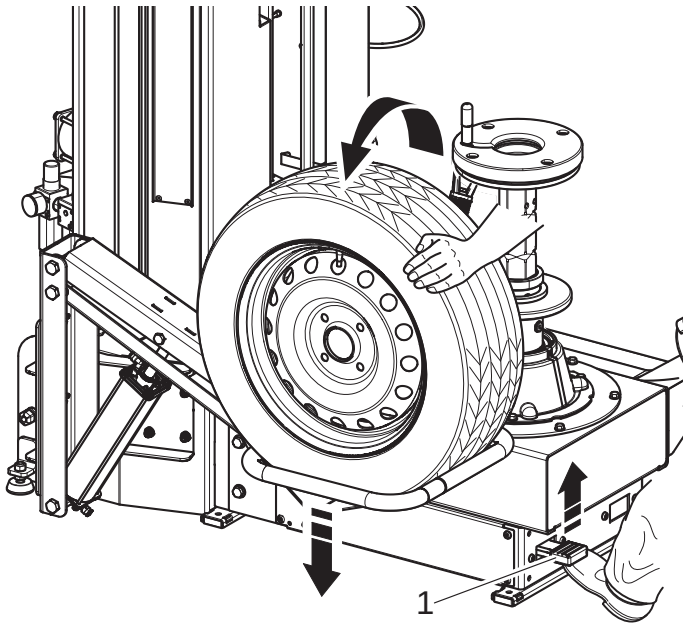


Fig. 19



2. Place the wheel on the chuck and lock it with the locking device.
3. Lift the pedal (Fig. 19 ref. 1) upwards in order to lower the lifting plate.
4. After all tire demounting and mounting operations have been performed, unlock the wheel by removing the locking device.
5. Lift the lifting plate by pressing again the pedal downwards (Fig. 19 ref. 1).
6. Place the wheel on the lifting plate (see Fig. 20).
7. Move the pedal again (Fig. 20 ref. 1) upwards to make the plate lower and bring back the wheel to the ground keeping a hand on it (see Fig. 20).

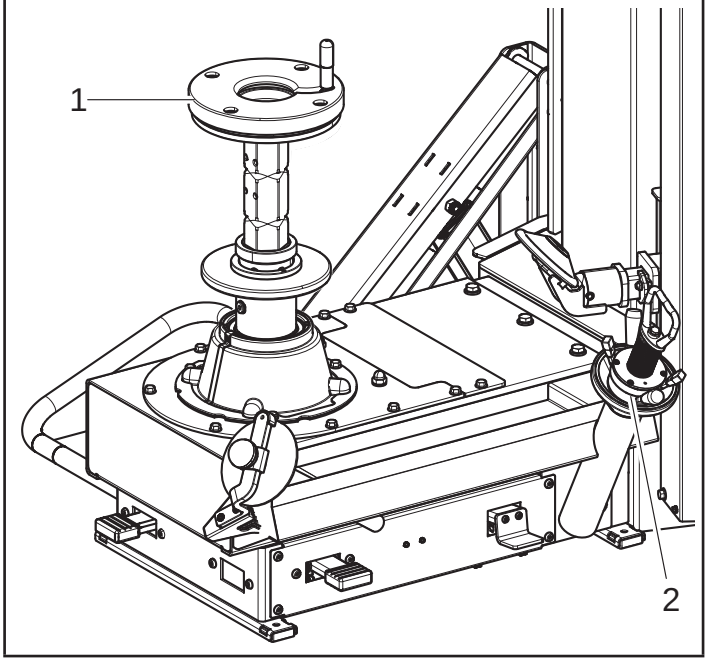
Fig. 20



12.4 Wheel clamping

All wheels must be locked on the rubber plate (Fig. 21 ref. 1) through the central hole using the proper locking device (Fig. 21 ref. 2).

Fig. 21

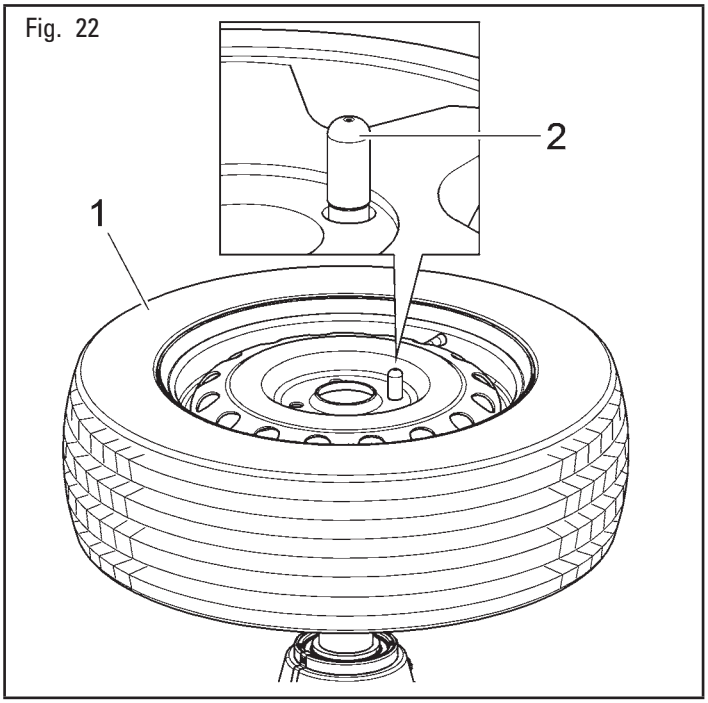


IN CASE OF USE OF RIMS WITHOUT CENTRAL HOLE, IT'S NECESSARY TO USE THE PROPER FIXTURE (AVAILABLE ON DEMAND).

To lock a rim proceed as follows:

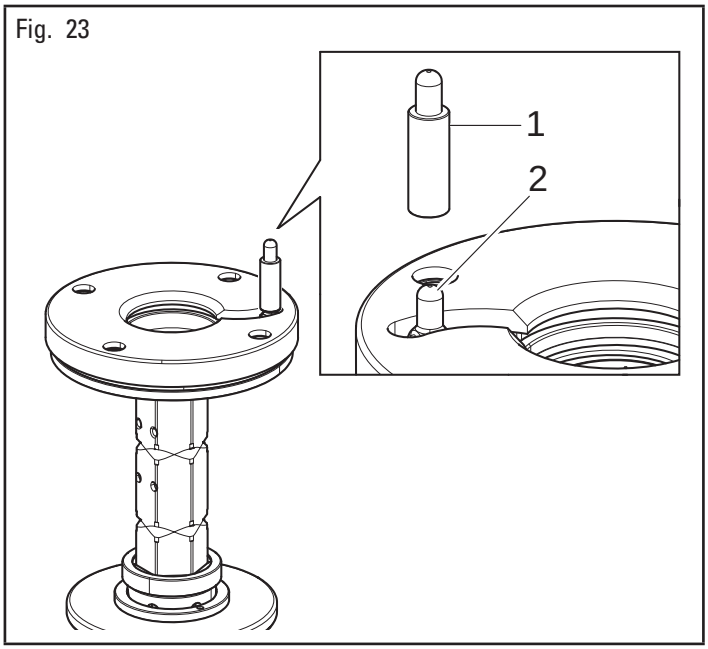
1. Dowel the wheel (Fig. 22 ref. 1) on the locking platform and check that the dragging pin (Fig. 22 ref. 2) enter in a hole placed on the rim hub.

Fig. 22



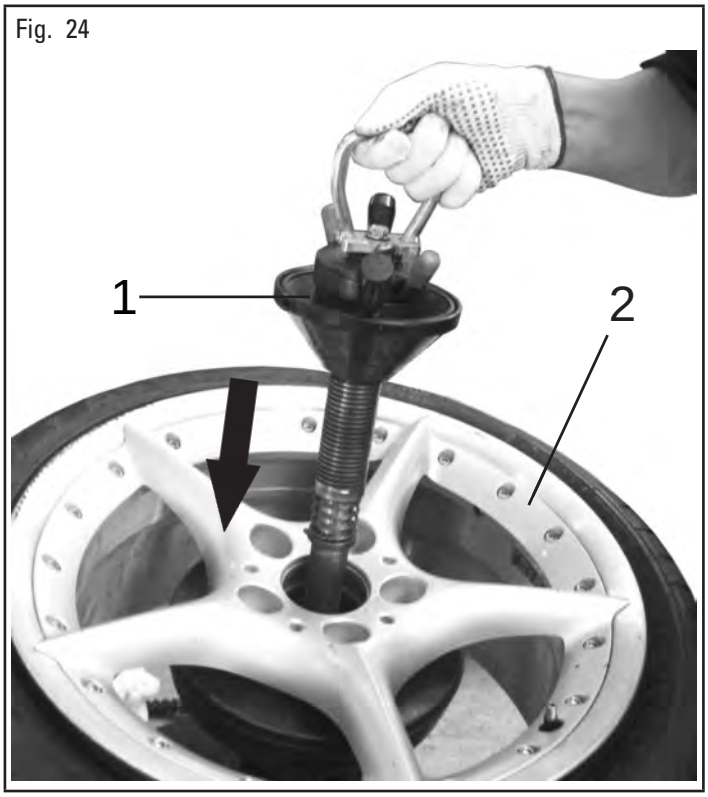
2. If the wheel hub is higher then the dragger (Fig. 23 ref. 2), use the extension (Fig. 23 ref. 1) supplied on issue.

Fig. 23



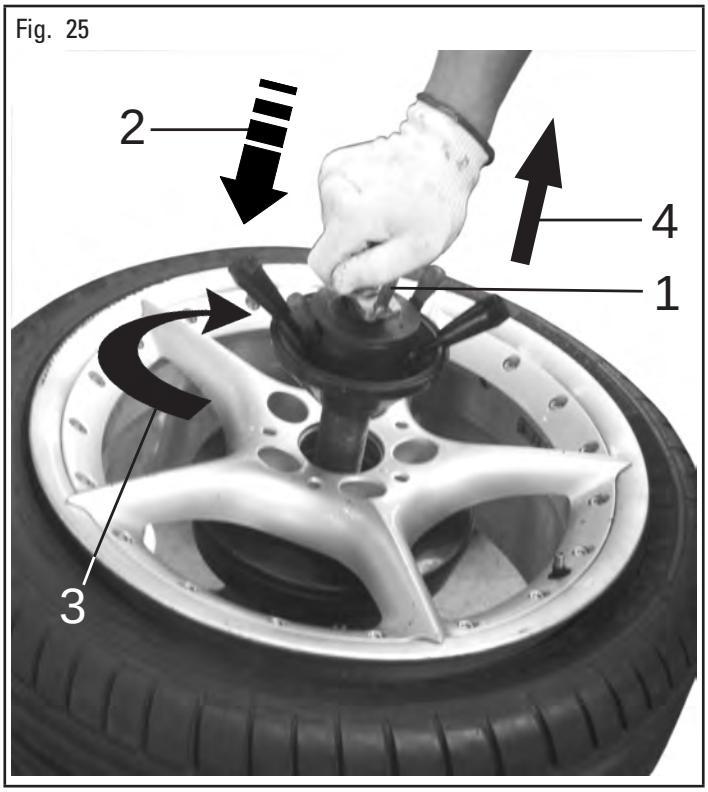
3. Insert the shaft complete with cone (Fig. 24 ref. 1) on the rim (Fig. 24 ref. 2).

Fig. 24



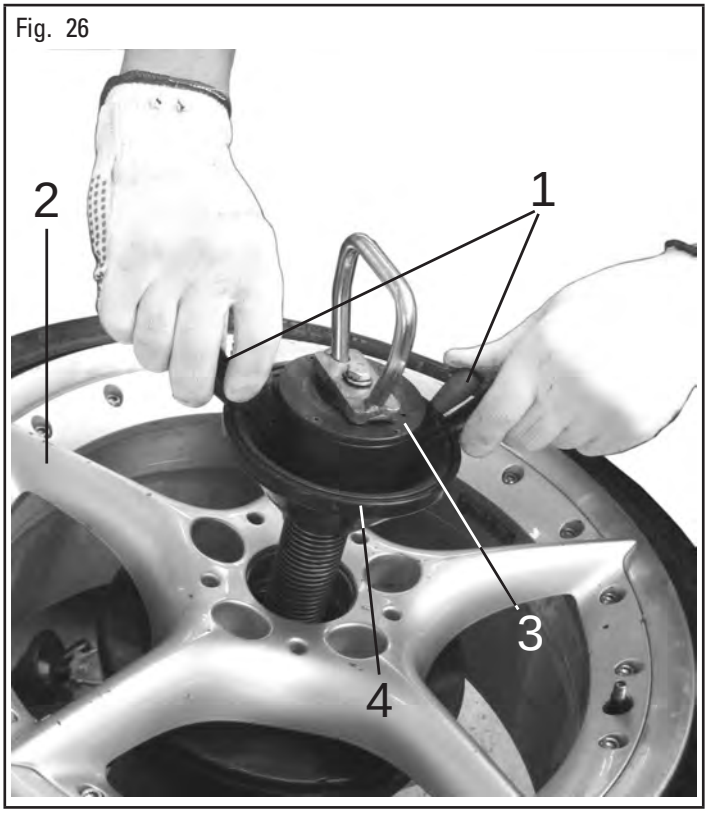
4. Through the proper handle (Fig. 25 ref. 1), push downwards (Fig. 25 ref. 2), turn it through 90° (Fig. 25 ref. 3) and lift the shaft (Fig. 25 ref. 4) to hook it into the hole.

Fig. 25



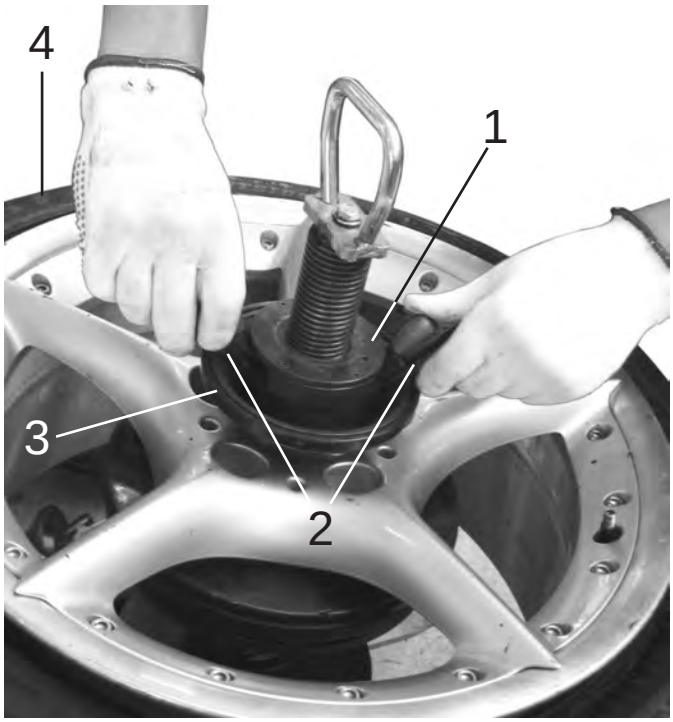
5. Trough the internal little levers (Fig. 26 ref. 1), loose the ring nut and approach ring nut (Fig. 26 ref. 3) and cone (Fig. 26 ref. 4) to the rim (Fig. 26 ref. 2).

Fig. 26



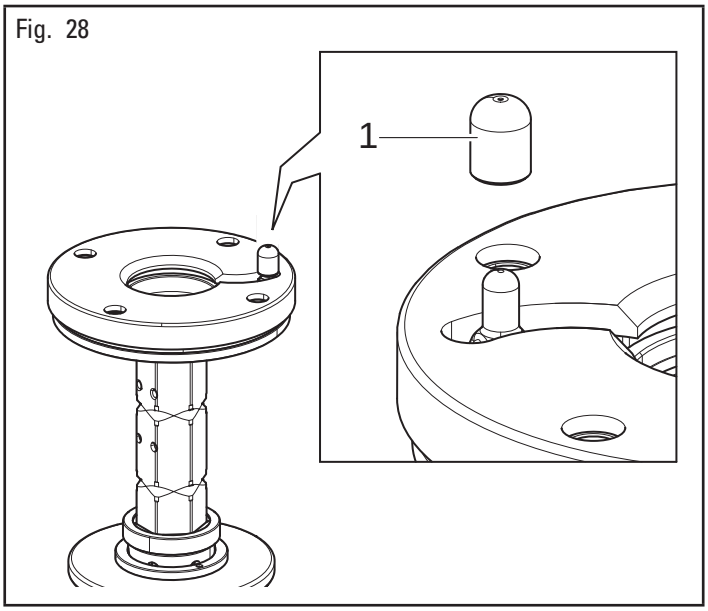
6. Then, turn the ring nut (Fig. 27 ref. 1) through the external levers (Fig. 27 ref. 2) until the cone complete clamping (Fig. 27 ref. 3) on the wheel (Fig. 27 ref. 4).

Fig. 27



7. For wheels with alloy rims, use the proper plastic guard (Fig. 28 ref. 1).

Fig. 28



8. At the end of the operations, loosen the device releasing first the cone with the external levers and then moving the ring nut and the cone away from the rim with the small levers.
9. Lower the shaft to release it from its seat, turn it of 90° on counterclockwise and extract it from the hole through the proper handle.

NEVER LEAVE THE WHEEL FITTED ON THE MACHINE FOR A PERIOD LONGER THAN NECESSARY FOR CARRYING WORK AND IN ANY CASE NEVER LEAVE IT UNATTENDED.

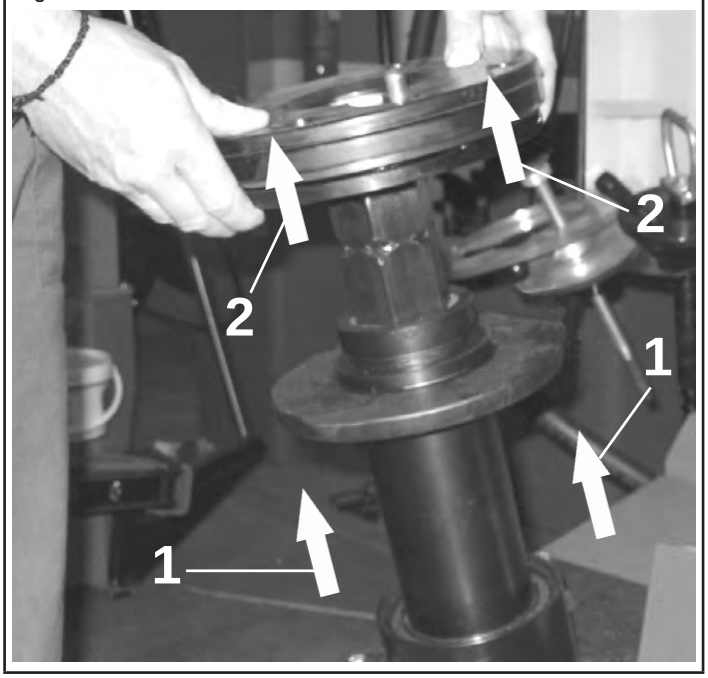
12.4.1 Rim blocking with tire down

The chuck with central locking has 3 different height mode. A "quick release" system allows to remove the chuck mobile part and to dowel the support plate at the required height.
The adjustment through the sliding shaft is possible following three phases as indicated on the enclosed photo:

1. Lift the flange as the arrows indicated (Fig. 29 ref. 1).
2. At the same time release and lift the wheel support as the arrows indicated (Fig. 29 ref. 2).
3. Check that the flange returns to coupler position.

Now it's possible to place the tire in the right way with the working tools.

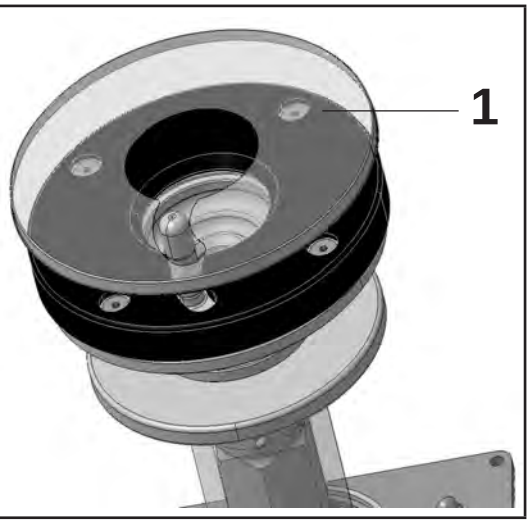
Fig. 29



12.4.2 Reverse wheel pan protection

In case reversed wheels are used, in order to protect the rim, apply on the rubber platform a protection (Fig. 30 ref. 1), made of a transparent plastic material. We suggest a constant replacement of it and in any case if there are visible damages (see Fig. 30).

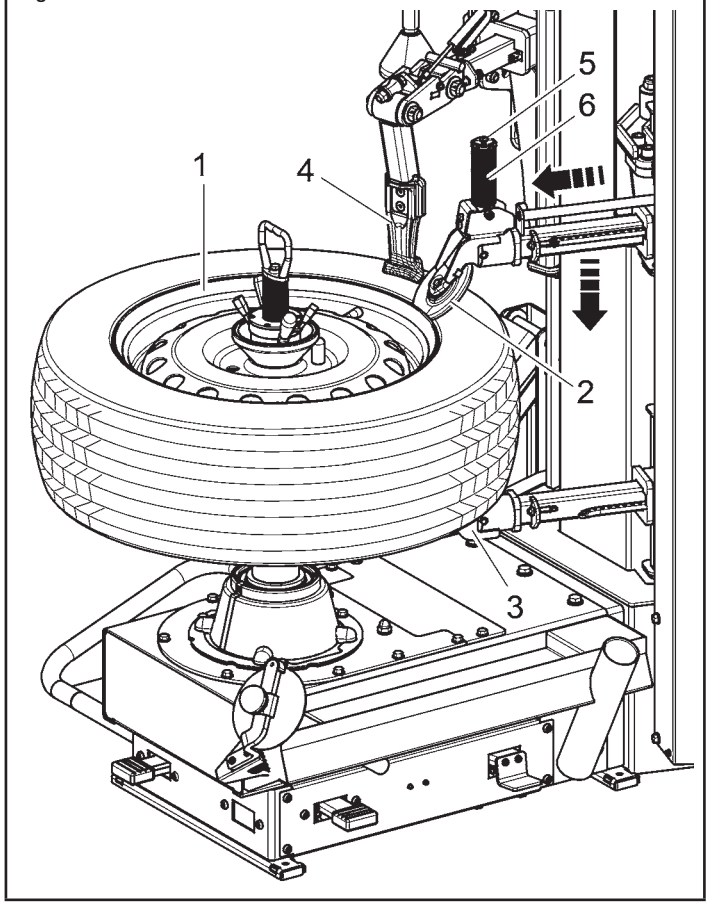
Fig. 30



12.5 Bead breaking operations

1. After locking the wheel, bring the bead breaking rolls (upper and lower) (Fig. 31 ref. 2 and 3) and the tool (Fig. 31 ref. 4) near the edge of the rim (Fig. 31 ref. 1), pressing the button (Fig. 31 ref. 5) and, at the same time, pulling the handle (Fig. 31 ref. 6).
2. Lower the upper bead breaker roll (Fig. 31 ref. 2) by pressing the lever A(UPP) (Fig. 14 ref. 2).

Fig. 31



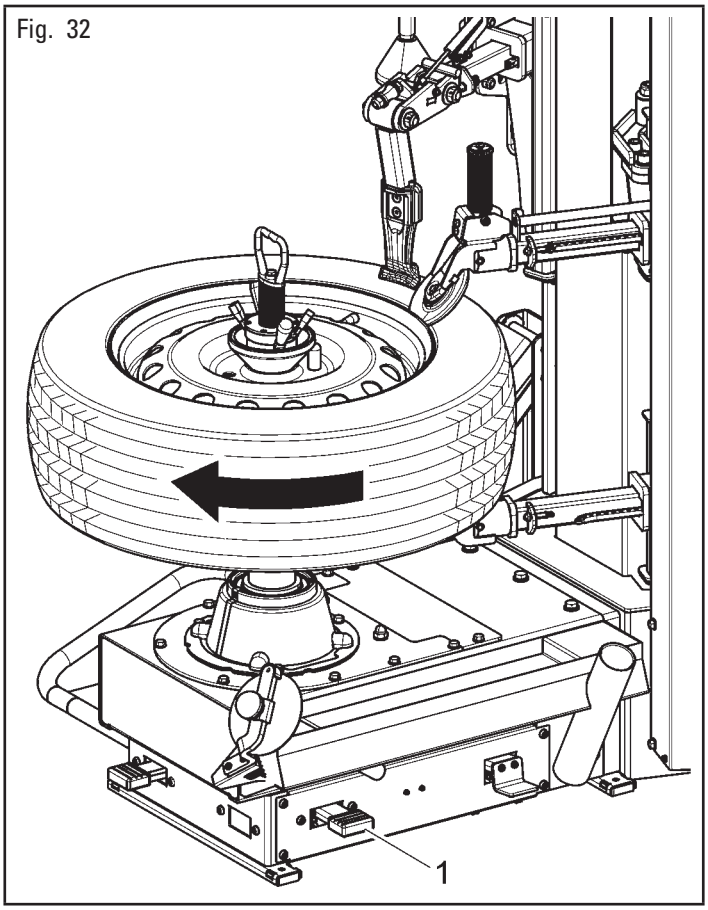
3. Continue the approach, activating the clockwise rotation of the wheel (see Fig. 32) by pressing the pedal (Fig. 32 ref. 1). Briefly press and release the lever A (UPP) several times (Fig. 14 ref. 2), until there is sufficient space between the rim and the bead to make the roll advance with the cam.

THE BEADING DISC MUST EXERT PRESSURE ON THE TIRE BEAD BUT NEVER ON THE RIM.

USE VERY CAREFULLY THE VERTICAL BEAD BREAKING ROLLERS IN ORDER TO AVOID POSSIBLE HANDS CRUSHING.

4. Activate the upper cam pushing push button (Fig. 14 ref. B(UPP)) and keep on bead breaking until the operation is complete.

Fig. 32



5. Approach the lower bead breaker roll (Fig. 33 ref. 1) by briefly pressing and releasing lever A (LOW) several times (Fig. 14 ref. 2).

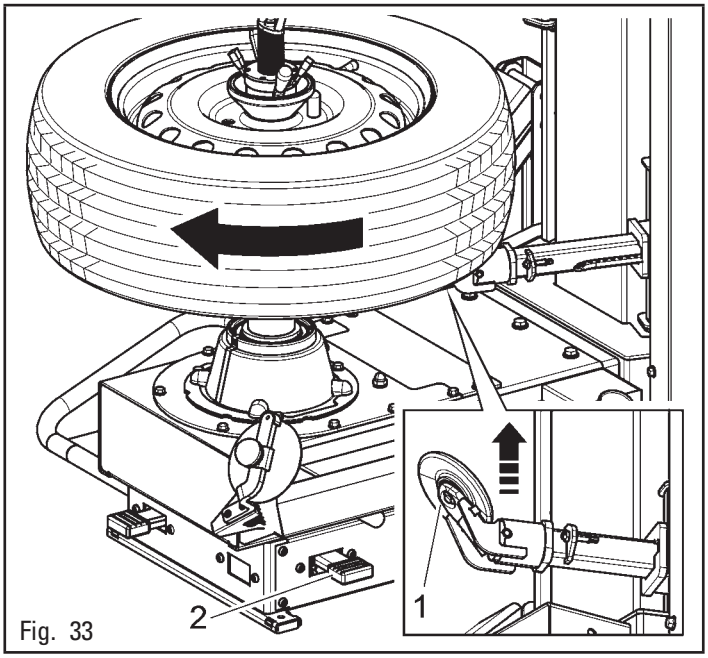


Fig. 33

6. Only now turn the wheel clockwise pressing the pedal (Fig. 33 ref. 2) and, at the same , time, the push button (Fig. 14 ref. B(LOW)), keeping it pressed until there's room enough for the bead breaking.

WHILE THIS OPERATION IS BEING CARRIED OUT PAY ATTENTION NOT TO DEFORM THE TIRE SIDE. GREASE THE BEAD BEFORE THE ROLL RE-ENTERS.

UNTIL BOTH UPPER AND LOWER ROLLS ARE NOT BACK TO REST POSITION IT IS NOT POSSIBLE TO CARRY OUT A NEW DIAMETER ADJUSTMENT, AS DESCRIBED IN PARAGRAPH 12.4 POINT 2.

12.6 Demounting the tire

When both beads are broken, the tire can be demounted.

1. Press the pedal (Fig. 34 ref. 1) to rotate the wheel clockwise until the valve stem reaches “hour 1” position.
2. Bring the tool vertically (Fig. 34 ref. 2) to the edge of the circle by lowering the lever (Fig. 34 ref. 3). The position of the tool on the diameter of the rim should already be correct as the adjustment occurs simultaneously with the previous adjustment of the bead breaker rolls. If this is not the case, it can be adjusted by pressing the button (Fig. 34 ref. 5) and operating the handle with a push and pull movement (Fig. 34 ref. 4).
   While this phase is being carried out, stay just next to a zone in the tire where bead breaking has been effectuated.
3. Place the presser cone (Fig. 34 ref. 6) to “4 o'clock” position as shown in Fig. 34 and press on the tire operating the lever of the control unit (Fig. 34 ref. 7) downwards, until the tire bead is placed next to the rim groove.

MOVE VERY CAREFULLY THE TOOLS HOLDER ARM TO WORKING POSITION, IN ORDER TO AVOID POSSIBLE HANDS CRUSHING.

Fig. 34

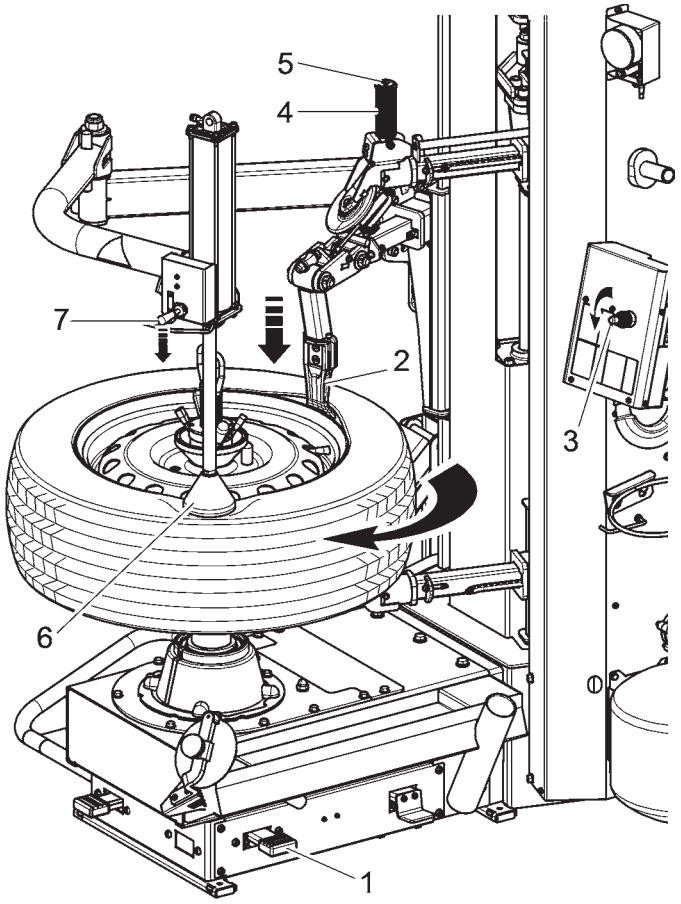
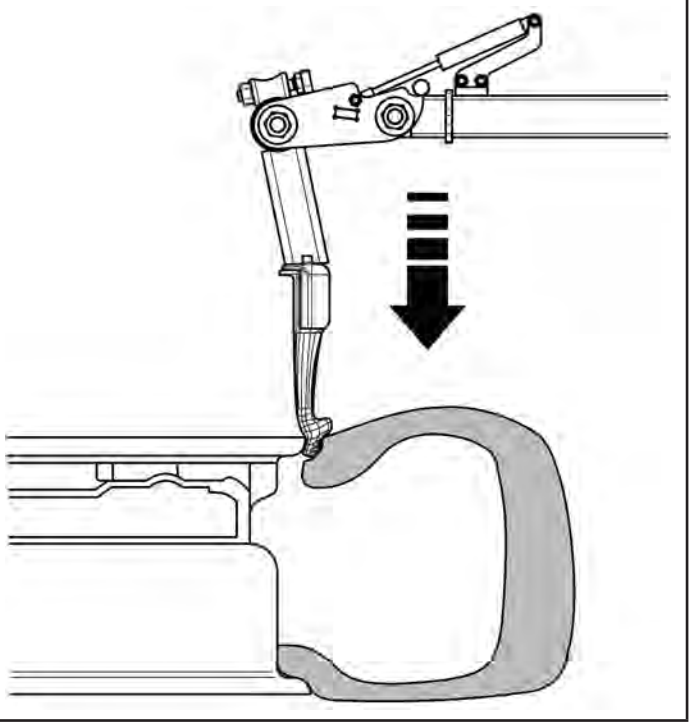


Fig. 35



WHILE THIS OPERATION IS BEING CARRIED OUT PAY ATTENTION NOT TO DEFORM THE TIRE SIDE.

USE ONLY TIRE LUBRICANTS. SUITABLE LUBRICANTS CONTAIN NO WATER, HYDROCARBONS, OR SILICON.

4. Lower the lever (Fig. 14 ref. C) so that the tool penetrates between rim and tire (see Fig. 36). While this operation is being effectuated, the tool rotates around the rim edge until it hooks the tire bead (see Fig. 37).

Fig. 36

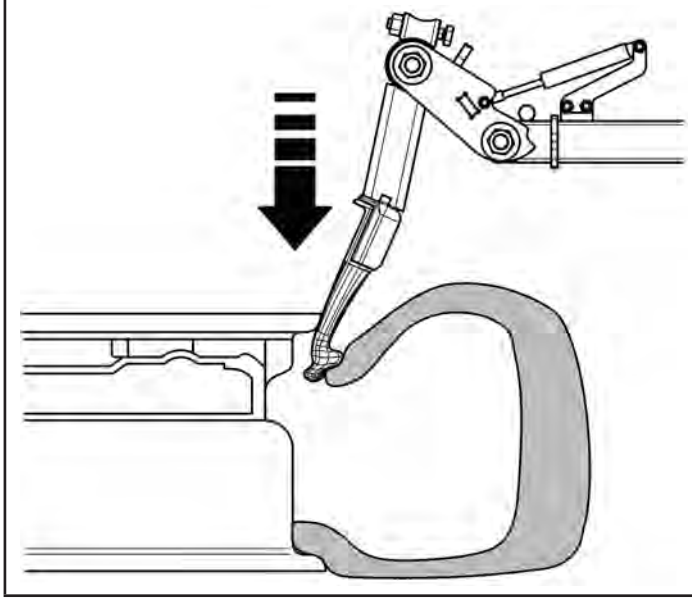
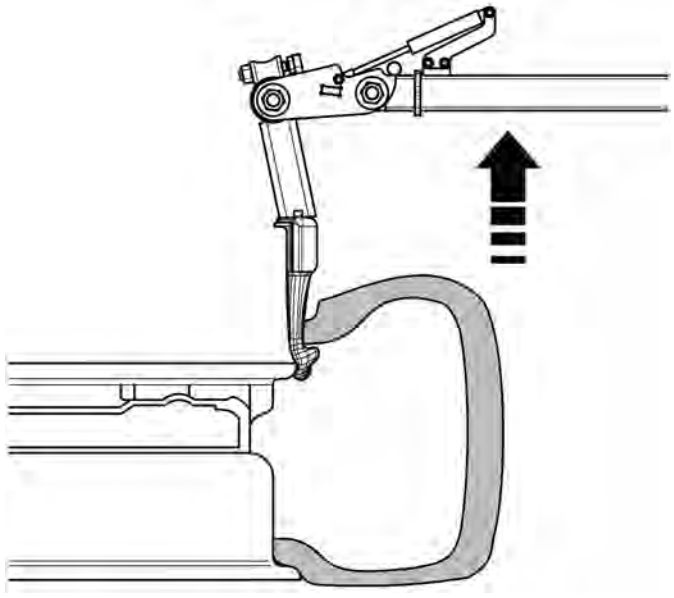


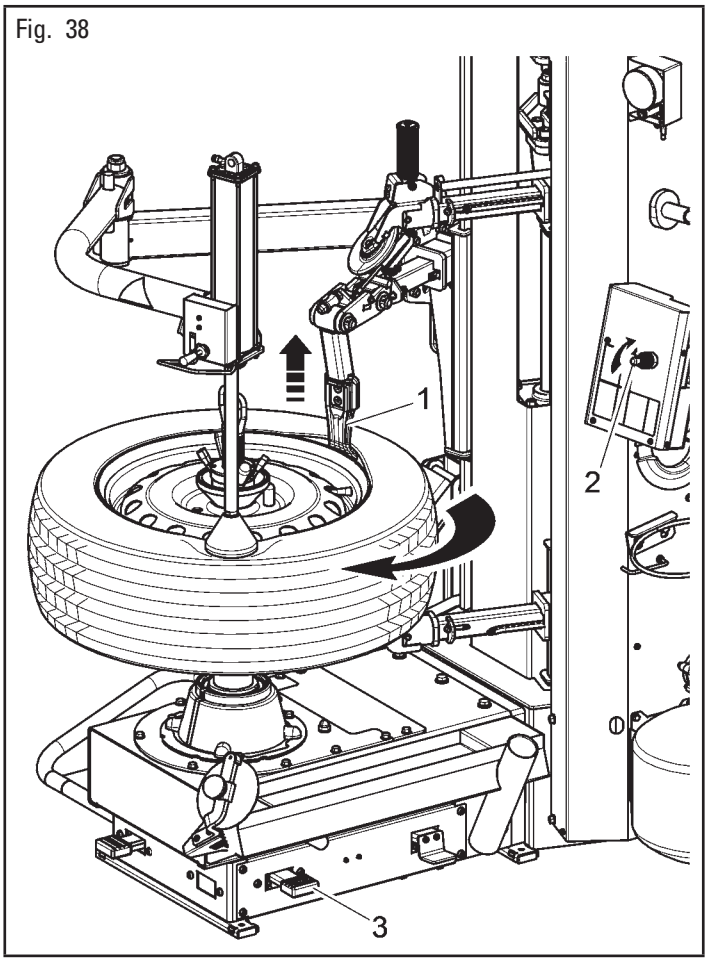
Fig. 37



5. Lift the tool (Fig. 38 ref. 1) through lever (Fig. 38 ref. 2). When the tool is vertical with respect to the rim (see Fig. 38), rotate the spindle, pressing the pedal (Fig. 38 ref. 3), so that the tire enters the rim channel. Keep on raising the tool until the bead is on the rim edge (see Fig. 37). Rotate clockwise until the upper bead is completely disassembled.

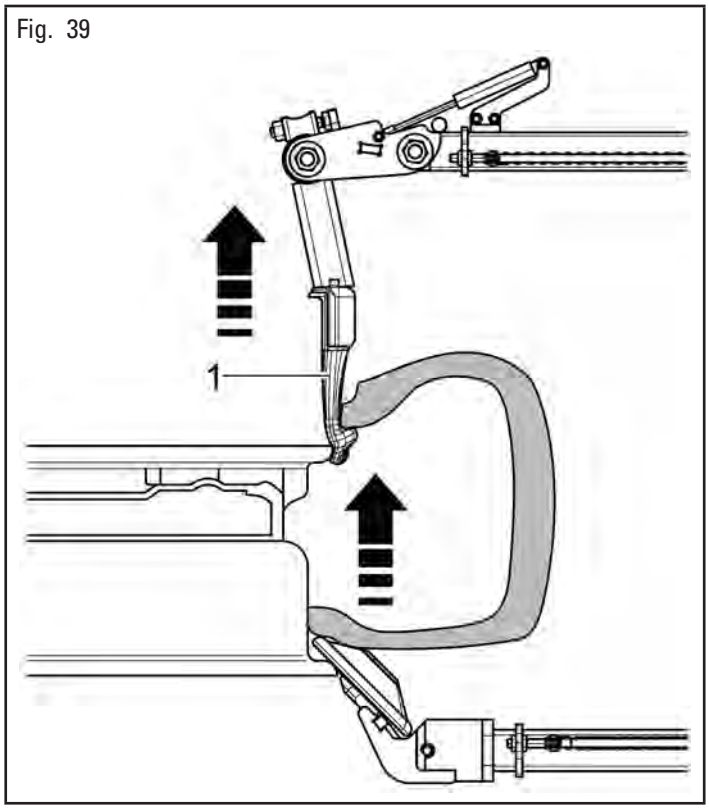
MAKE SURE THAT THE TOOL IS ON DEMOUNTING POSITION (FIG. 37) BEFORE STARTING CHUCK ROTATION.

Fig. 38



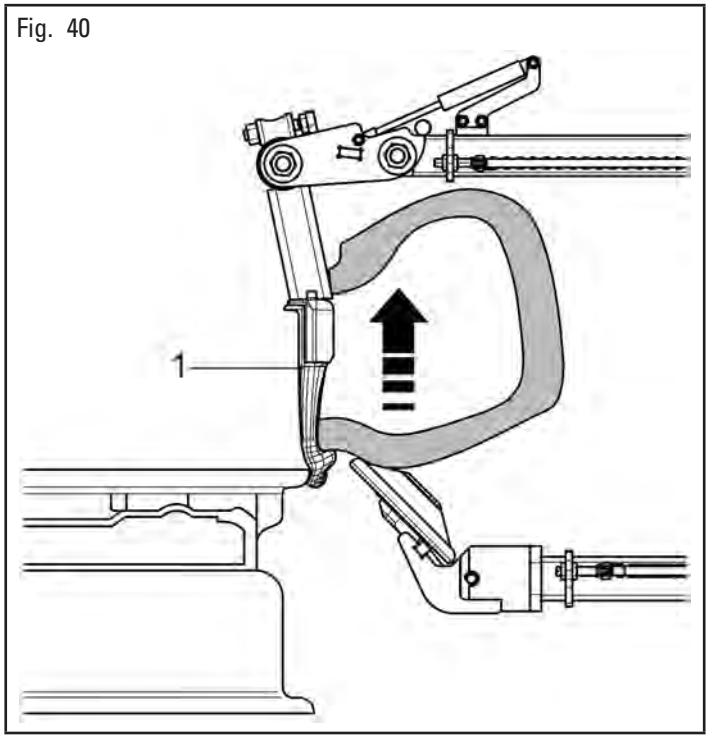
6. Lift the tool (see Fig. 39 ref. 1) keeping it coupled to the upper bead of the tire with the help of the lower bead breaking roller.

Fig. 39



7. Position the tool (see Fig. 40 ref. 1) just next to the rim edge. Using the lower bead breaking roller, load the lower bead on the tool in demounting position.

Fig. 40



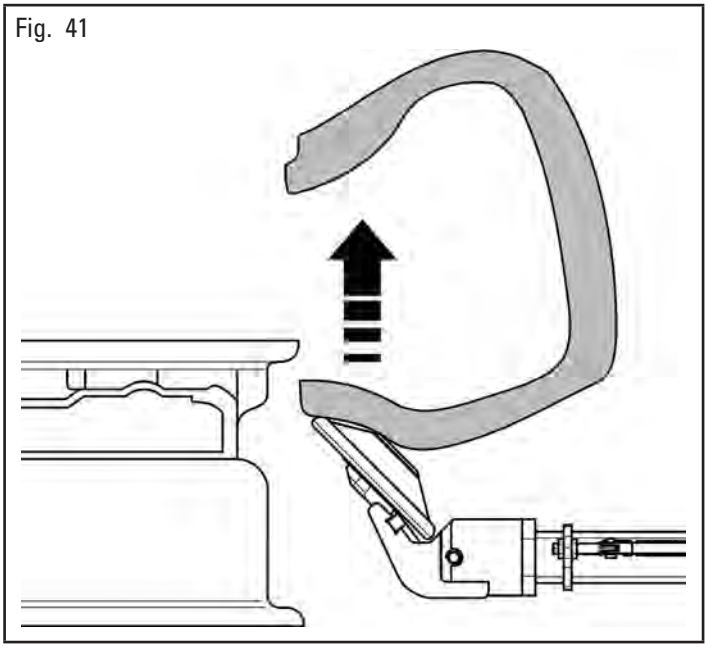
8. Rotate the chuck clockwise until the tire is completely disassembled.
9. Lift the presser roll and close again the Bead pressing device into rest position.

Dismounting the lower bead with the bead breaking roller

For disassembly of the lower bead only the lower bead breaker roll can be used as an alternative. Lift the tool away from the work area by lifting the lever (Fig. 14 ref. C).

1. Lift the roll and the tire just next to the rim edge (see Fig. 41).

Fig. 41



2. Then, let the bead breaking roll approach through the provided lever (see Fig. 14 ref. B(LOW)) so that it is inserted between the rim edge and the lower bead (see Fig. 42).

THE BEADING DISC MUST EXERT PRESSURE ON THE TIRE BEAD BUT NEVER ON THE RIM.

USE VERY CAREFULLY THE BEAD BREAKING ROLLER IN ORDER TO AVOID POSSIBLE HANDS CRUSHING.

Fig. 42

3. Then, rotate and complete bead disassembly (see Fig. 43).

Fig. 43

WHEN THE BEADS COME OUT OF THE RIM THE TIRE MIGHT FALL. CARRY OUT VERY CAREFULLY THESE OPERATIONS.

12.7 Mounting the tire

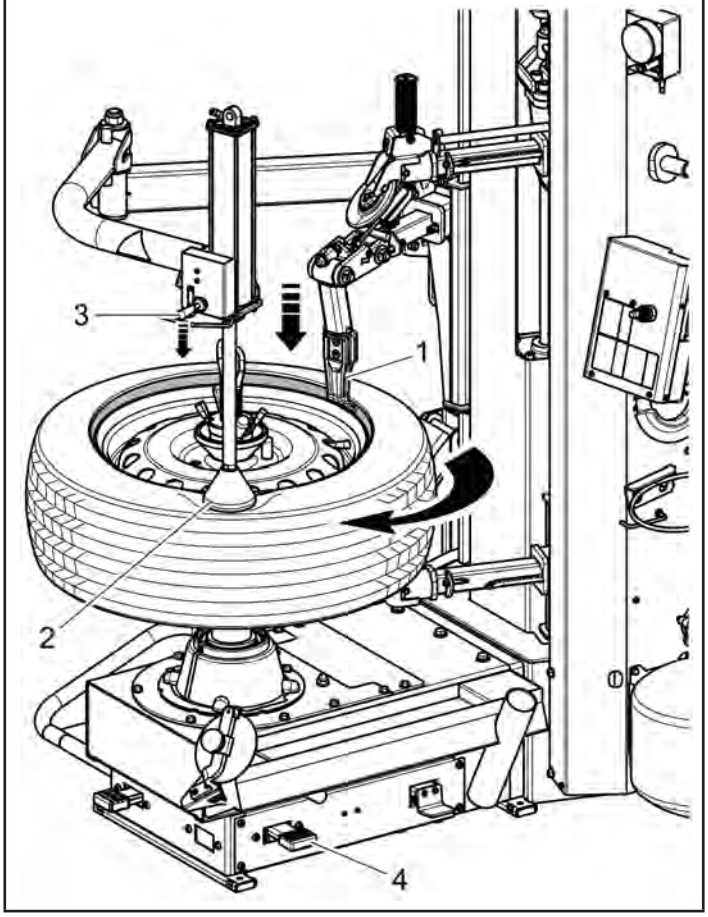
To mount the tire, proceed as follows:

1. Lubricate the tire's beads.

USE ONLY TIRE LUBRICANTS. SUITABLE LUBRICANTS CONTAIN NO WATER, HYDROCARBONS, OR SILICON.

2. Position the tool (Fig. 44 ref. 1) onto the rim edge.
3. Hook the lower bead on the tool then rotate clockwise until the complete assembly.
4. Then, position the upper bead on the tool assembly area (Fig. 44 ref. 1).
5. Place the presser cone (Fig. 44 ref. 2) in "4 o'clock" position as shown in Fig. 44 and press on the tire operating the lever of the control unit (Fig. 44 ref. 3) downwards.
6. Rotate the chuck clockwise, pressing the pedal (Fig. 44 ref.4), until the tire is completely assembled.
7. When these operations are over move the tool and presser roll into rest position.

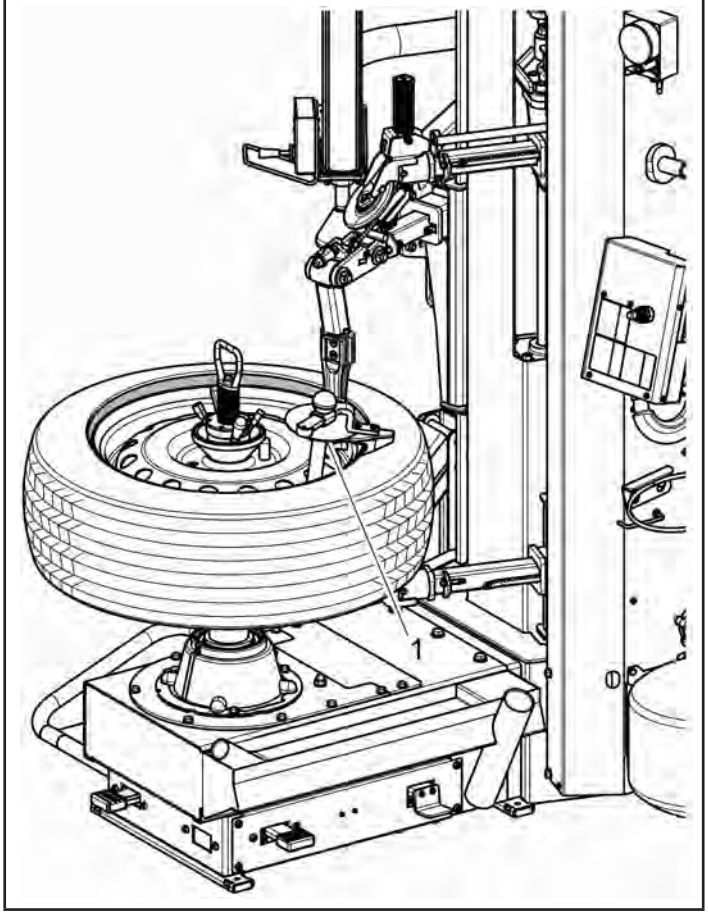
Fig. 44



12.7.1 Mounting the upper bead of the tire with the bead pusher

1. Assemble the bead pusher (Fig. 45 ref. 1) with pulling system next to the rim edge (see Fig. 45).

Fig. 45

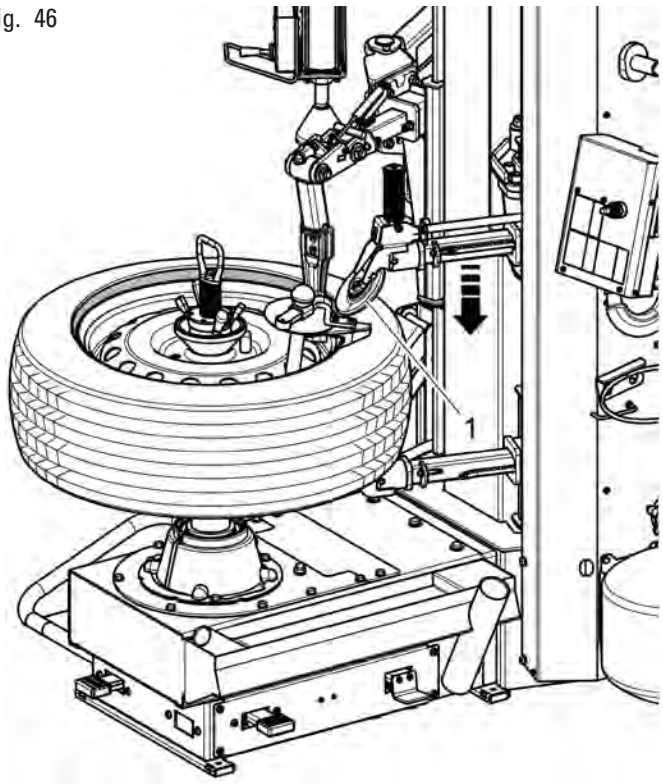


2. Place the upper bead breaker roll (Fig. 46 ref. 1) so that the tire bead is kept at the same height of the rim groove (see Fig. 46).

THE BEADING DISC MUST EXERT PRESSURE ON THE TIRE BEAD BUT NEVER ON THE RIM.

USE VERY CAREFULLY THE BEAD BREAKING ROLLER IN ORDER TO AVOID POSSIBLE HANDS CRUSHING.

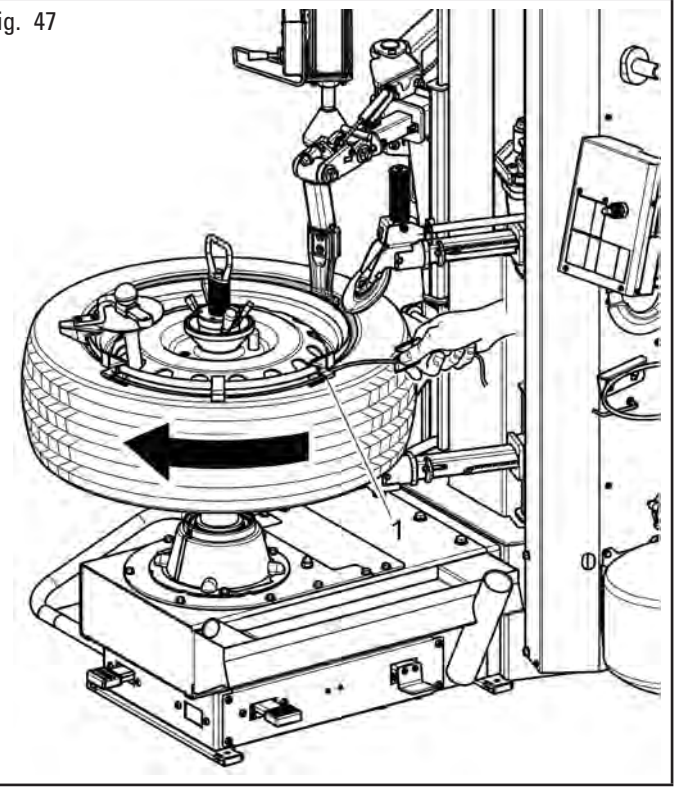
Fig. 46



3. Rotate clockwise until tire complete assembly (see Fig. 47).

FOR THE MOUNTING OF VERY DIFFICULT WHEELS, USE THE EXTENSION OF THE BEAD DEPRESSOR (FIG. 47 REF. 1).

Fig. 47



4. When these operations are over move the tool and the bead breaker roller into rest position.

12.8 Tire inflation with machine without tubeless inflation

Connect the inflation device to the tire valve and inflate the same tire using the pedal provided (Fig. 14 ref. B).

A SAFETY DEVICE IS PRESENT FOR THE ADJUSTMENT OF THE MAXIMUM PRESSURE OF THE SUPPLIED AIR (4,2 ± 0,2 BAR / 60 PSI).

Well lubricated beads and rims make the beading in and inflation much safer and easier.

In case the beads are not seated at 4.2 ± 0.2 bar, release all the air from the wheel, remove it from the tire changer and put it in a safety cage to complete the inflation procedure.

12.9 Tire inflation with machine with tubeless inflation

Some types of tires can be difficultly inflated if the beads are not in contact with the rim. The tubeless inflation device supplies a jet of high-pressure air from the nozzle, which encourages the correct positioning of the bead against the rim, and therefore normal inflation. In order to carry out the inflation of the tire follow these indications:

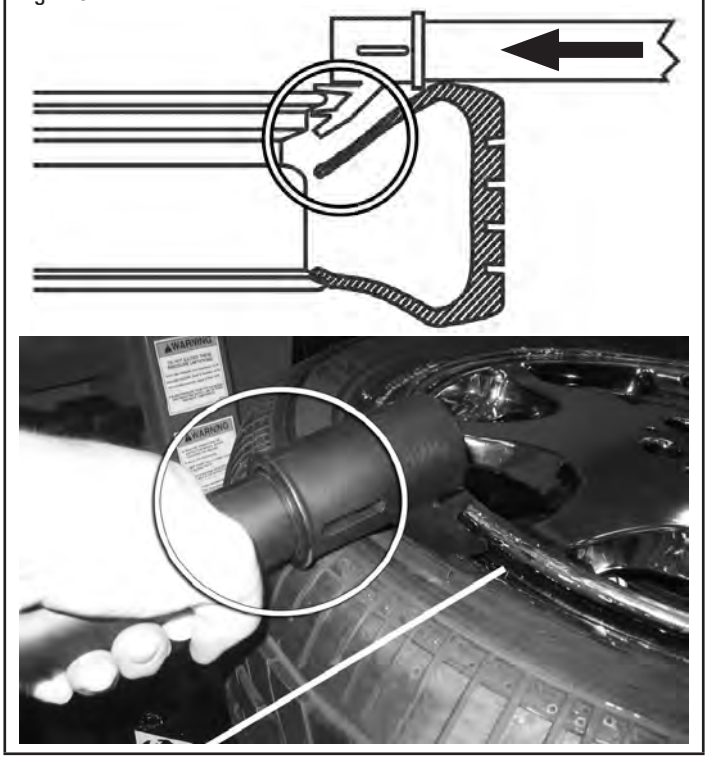
- Remove the valve stem core.
  Removing the valve stem core will allow the tire to inflate faster and the bead to seat easier.
- Connect the inflation terminal to the valve of the tire.

TO IMPROVE THE EFFECTIVENESS OF TUBELESS INFLATION SYSTEM, ALWAYS LUBRICATE TIRE BEADS.

- Press the bead blaster hose on the wheel rim as shown in Fig. 48. Ensure the hose head is pressed in to activate the additional air jet.

THE NOZZLE SHOULD BE HORIZONTAL FOR OPTIMAL PERFORMANCE (FIG. 48).

Fig. 48



IN ORDER TO ALLOW THE AIR JET TO BREAK BOTH BEADS, DO NOT KEEP THE BEAD LIFTED FORCING IT.

- Press completely downwards the inflating pedal, in order to release a high pressure air jet through the tubeless inflation nozzle.
- Keep the inflating pedal partially pressed downwards to inflate the tire and place the beads in their seats.

DO NOT EXCEED THE PRE-ARRANGED PRESSURE VALUES WHILE SEALING THE BEAD.

- After the beads take place in their own seat, disconnect the inflating terminal and install again the valve gear, that was removed previously.
  Then connect the inflating terminal and inflate the tire with the required pressure.

IF THE TIRE GETS INFLATED TO MUCH, IT IS POSSIBLE TO EXHAUST THE AIR FROM THE TIRE, BY PUSHING THE MANUAL DEFLATING PUSH BUTTON LOCATED UNDER THE PRESSURE GAUGE.

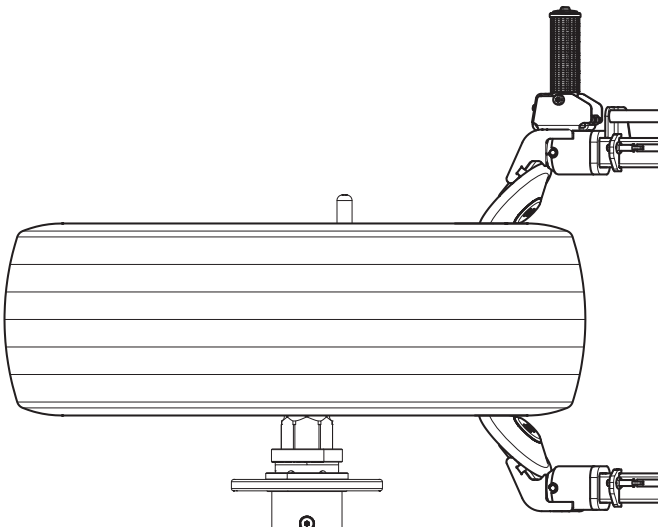
- Disconnect the inflation terminal from the valve.

12.10 Special use of the bead-breaker

In addition to its use during mounting and demounting, the bead-breaker roll can also be used for matching the tire to the rim. To conduct this operation carry out the following instructions.

- Clamp the tire between the bead breaker rolls.
- Turn the chuck clockwise until the reference point on the tire coincides with the reference point on the rim (usually the valve) (see Fig. 49).

Fig. 49



13.0 ROUTINE MAINTENANCE

BEFORE CARRYING OUT ANY ROUTINE MAINTENANCE PROCEDURE, DISCONNECT THE MACHINE FROM ITS POWER SUPPLY SOURCES, TAKING SPECIAL CARE OF THE ELECTRICAL PLUG/SOCKET CONNECTION.

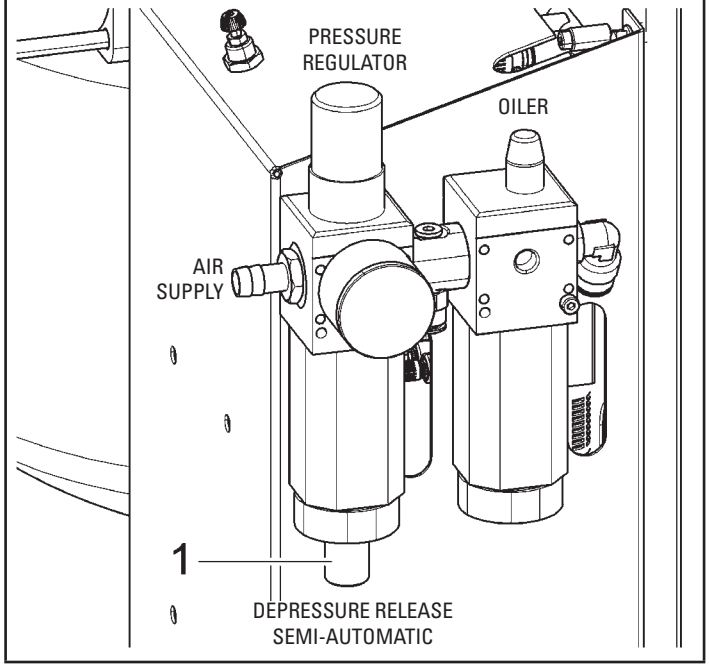
To guarantee the efficiency and correct functioning of the machine, it is essential to carry out daily or weekly cleaning and weekly routine maintenance, as described below.
Cleaning and routine maintenance must be conducted by authorized personnel and according to the instructions given below.

- Disconnect the mains power supply before starting any cleaning or routine maintenance operations.
- Remove deposits of tire powder and other waste materials with a vacuum cleaner.

DO NOT BLOW IT WITH COMPRESSED AIR.

- Do not use solvents to clean the pressure regulator.
- The conditioning unit is equipped with an automatic vacuum-operated drain therefore it requires no manual intervention by the operator (see Fig. 50).
- Periodically check the calibration of the lubricator of the pressure regulator/oiler group: 1 drop of oil every 11-15 chuck revolutions.

Fig. 50



IN ORDER TO ENSURE A GOOD FUNCTIONING AND TO AVOID THE PRESENCE OF CONDENSATION IN THE AIR TREATMENT UNITS WITH SEMI-AUTOMATIC DRAIN, IT'S NECESSARY TO MAKE SURE ABOUT THE CORRECT POSITION OF THE VALVE (FIG. 50 REF. 1), PLACED UNDER THE CAP. TO ACTIVATE A CORRECT DRAIN FUNCTION, THE CAP MUST BE ROTATED IN THE RIGHT WAY.

IN ORDER TO ALLOW A LONGER LIFE OF THE FILTER AND OF ALL MOVING PNEUMATIC DEVICES, YOU HAVE TO MAKE SURE THAT THE SUPPLIED AIR IS:

- EXEMPT FROM THE LUBRICATING OIL OF THE COMPRESSOR;
- EXEMPT FROM HUMIDITY;
- EXEMPT FROM IMPURITY.

- Every week and/or when necessary, top up the oil tank using the filler hole provided, closed by a cap or screw, on the lubricator filter.

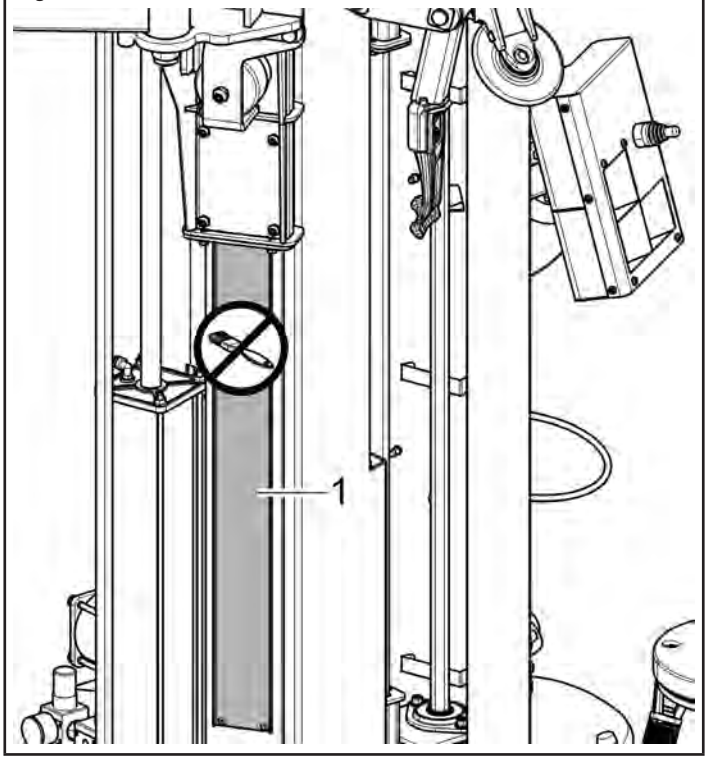
THIS OPERATION SHOULD NOT BE CARRIED OUT BY UNSCREWING THE CUP OF THE LUBRICATOR FILTER.

- The use of synthetic oil might damage the pressure regulator filter.
- Periodically, at least monthly, lubricate the horizontal sliding arms of the bead breaker rolls and the tool.
- Periodically, at least monthly, lubricate the vertical sliding crosspieces of the arms of the bead breaker rolls and of the tool.

WHEN LUBRICATING THE VERTICAL SLIDING CROSSPIECE OF THE TOOL ARM, BE CAREFUL NOT TO LUBRICATE THE ALUMINIUM PROFILE HIGHLIGHTED IN GREY (FIG. 51 REF. 1).

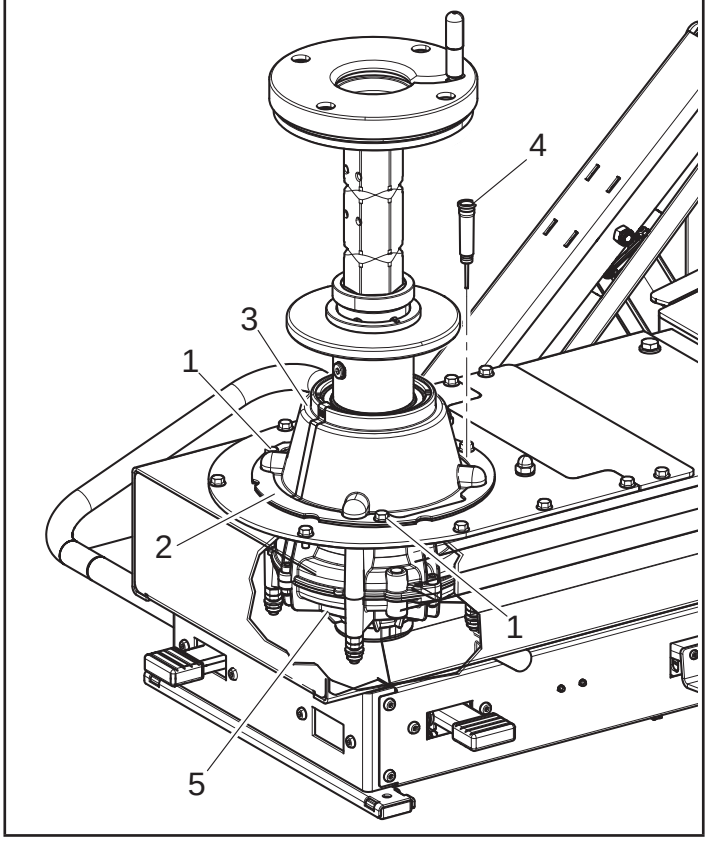
IF, BY MISTAKE, THE ALUMINIUM PROFILE HIGHLIGHTED IN GREY IS LUBRICATED (FIG. 51 REF. 1), CORRECT OPERATION OF THE MACHINE COULD BE COMPROMISED.

Fig. 51



- Periodically, at least monthly, clean the bead breaker rolls and tool arm synchronization chains.
- Periodically (at least every 100 working hours) check reduction gear lubricating oil level (Fig. 52 ref. 5). Such operation must be effectuated unscrewing the screws (Fig. 52 ref. 1), removing the flange (Fig. 52 ref. 2), the guard (Fig. 52 ref. 3) and the plug (Fig. 52 ref. 4) on the reduction gear.

Fig. 52



ANY DAMAGE TO THE MACHINE DEVICES RESULTING FROM THE USE OF LUBRICANTS OTHER THAN THOSE RECOMMENDED IN THIS MANUAL WILL RELEASE THE MANUFACTURER FROM ANY LIABILITY!!

13.1 Rim arm calibration

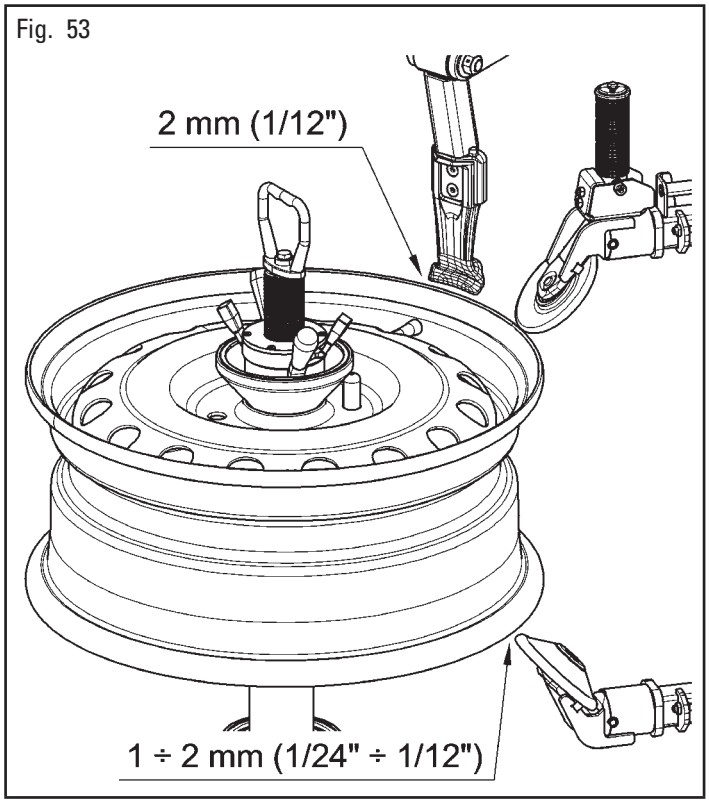
Make sure that the bead rollers and the tool take place correctly in comparison to the rim, as described hereafter:

1. Mount a rim in good conditions (not ovalized and not bent) without tire on the machine.
2. Lock the rim with the locking shaft assembly.

With machine in manual mode

1. Move the arms horizontally until the upper bead breaker roller comes into contact with the rim, as shown in Fig. 53.
2. Check that the lower bead roll takes place at about 1÷ 2 mm (1/24”) and the tool at about 2 mm (1/12”) from the rim edge, as indicated in Fig. 53.

Fig. 53



14.0 TROUBLESHOOTING TABLE

Possible troubles which might occur to the tire-changer are listed below. The manufacturer disclaims all responsibility for damages to people, animals or objects due to improper operation by non-unauthorised personnel. In case of trouble, call Technical Service Department for instructions on how to service and/or adjust the machine in full safety to avoid any risk of damage to people, animals or objects.

In an emergency and before maintenance on tire-changer, set the main switch to "0" and lock it in this position.

CONTACT AUTHORIZED TECHNICAL SERVICE

do not try and service alone

Problem	Possible cause	Remedy
The arm advance cam is not immediately activated	1. Supply missed. 2. The control push button is broken.	1. Connect the supply. 2. Call for technical assistance. 
The nozzle doesn't supply air when the inflation pedal is pressed (only for version with tubeless).	The inflation pedal is badly adjusted.	Call for technical assistance. 
The chuck doesn't rotate.	Inverter overload alarm Or Inverter undervoltage alarm Or Inverter overvoltage alarm	Shorten the length of a possible machine extension cable or increase the conductors section (disconnect and connect again). Lift the motor pedal and wait for the automatic reset.
	Overtemperature alarm.	Wait until the motor system cools (the machine does not restart if the temperature level does not go below the set safety threshold).
The chuck does not reach the maximum rotation speed.	The mechanical resistance of the gearmotor system has increased.	Turn the chuck without wheel for a few minutes so that the system heats, thus reducing frictions. If in the end the chuck does not accelerate again, call for technical assistance. 
The chuck does not rotate in counterclockwise direction.	Pedalboard microswitch breakage.	Replace microswitch.
The chuck doesn't rotate, but it attempts rotation when the machine is switched on again.	Pedalboard irreversible de-calibration.	Call for technical assistance. 
The chuck rotates slowly but it does not operate on the motor pedal.	Pedalboard reversible de-calibration.	1. Keep the pedal in rest position. 2. Keep the machine connected to the net. 3. Wait for 30 seconds that the pedalboard recalibration automatic attempt ends.
By pressing the release button, the horizontal arms of the bead breaking rolls and the tool do not move or move with difficulty.	1. Horizontal translation guides blocked. 2. Micro handle not working. 3. Translation servo control cylinder blocked. 4. The translation servo control cylinder is leaking air.	1. Clean the guides and lubricate them. 2. Call for technical assistance. 3. Call for technical assistance. 4. Call for technical assistance. 

Problem	Possible cause	Remedy
The tool holder carriage moves vertically during machining operations.	1. The locking cylinder is leaking air. 2. The vertical clamping aluminium plate was inadvertently lubricated.	1. Call for technical assistance. 2. Clean the aluminium plate from any residual lubricant. 
The horizontal translation arms move horizontally during machining operations.	The locking cylinders are leaking air.	Call for technical assistance. 
ROTATING BEAD PRESSING DEVICE		
No movement is generated when the control lever is operated.	1. Supply missed. 2. The supply pipes have not been correctly assembled. 3. The control valve is not working.	1. Check supply. 2. Check pipes fitting. 3. Call for technical assistance. 
When the control lever is operated movement arises in one direction only.	The control valve is not working.	Call for technical assistance. 
LATERAL LIFTING DEVICE		
No movement is produced when the control pedal is operated.	1. Supply missing or insufficient. 2. The supply pipes have not been correctly assembled. 3. The control valve is not working.	1. Check supply. 2. Check pipes fitting. 3. Call for technical assistance. 
When the machine is aired, the lifting device tends to move, with no consent by the operator.	When the lifting device is fixed to the machine, the spool that connects the pedal to the valve has lost its settings.	Re-calibrate the control valve rod slackening the nut between the rod and the fork and turn the rod in cw or ccw direction until restoring the correct functioning.

15.0 TECHNICAL DATA

15.1 Technical electrical data

Motor power (kW)		0.75
Inverter motor power (kW)		1.5
Power supply	Voltage (V)	200/265
	Phases	1
	Frequency (Hz)	50/60
Chuck rotating speed (revolutions/min)		0 ÷ 15

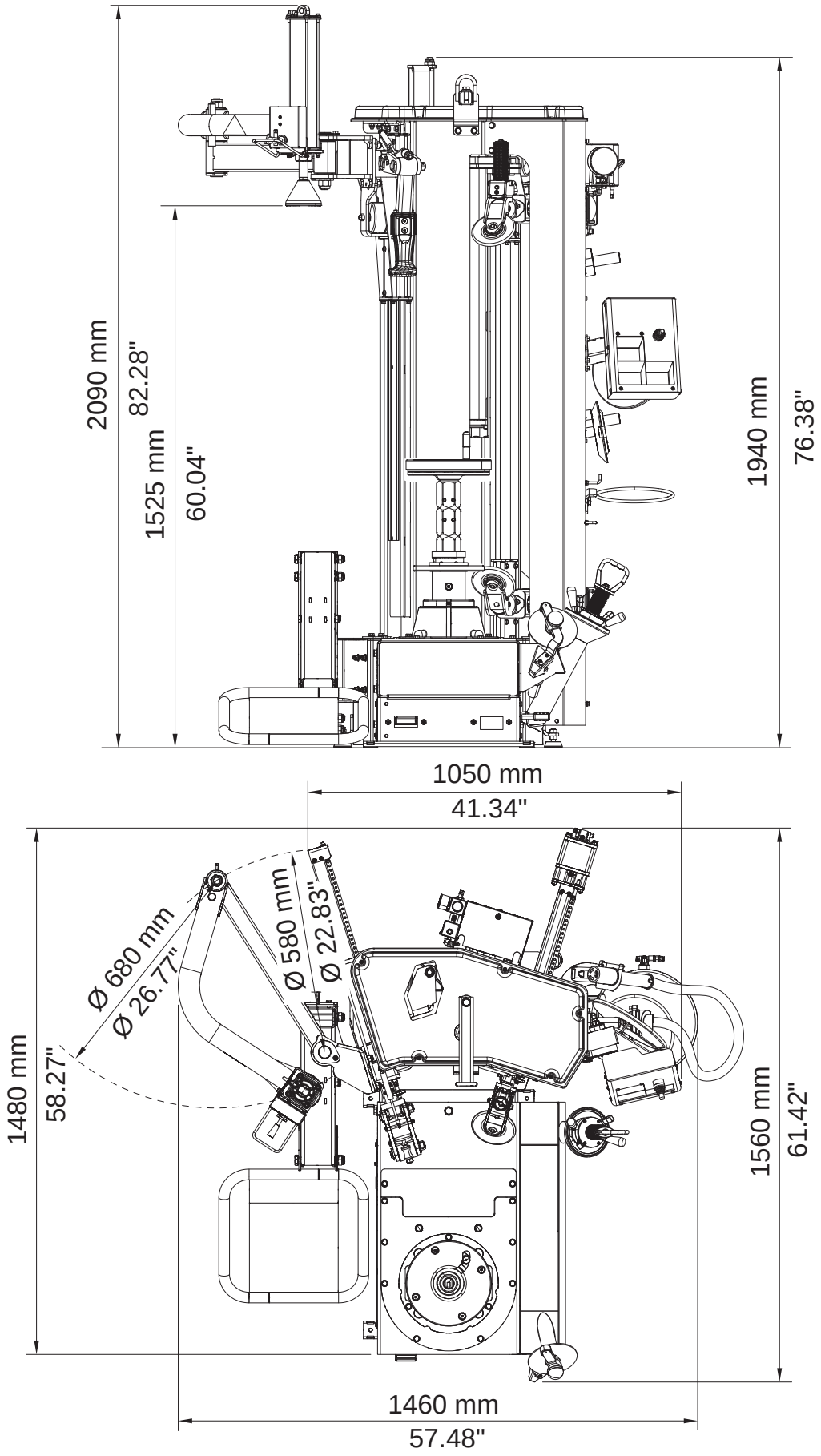
15.2 Technical mechanical data

Maximum tire diameter (mm)	1194 (47”)
Rim diameter (inches)	10 - 30
Max. wheel width (inches)	15
Bead-breaking force at 10 bar (N)	12000
Operating pressure (bar)	8 - 10

Weight (Kg)	431

15.3 Dimensions

Fig. 54



16.0 STORING

If storing for long periods disconnect the main power supply and take measures to protect the machine from dust build-up. Lubricate parts that could be damaged from drying out. When putting the machine back into operation replace the rubber pads and the mounting tool.

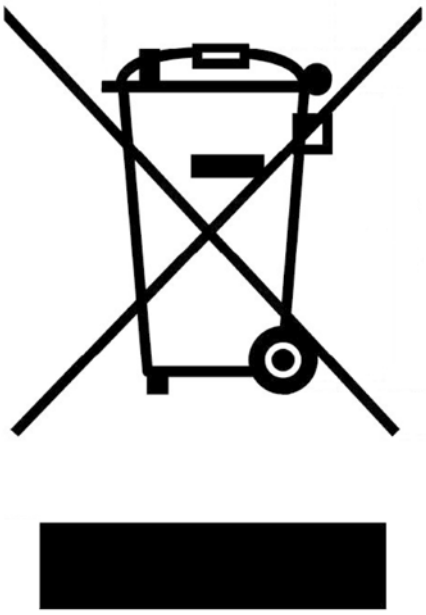
17.0 SCRAPPING

When the decision is taken not to make further use of the machine, it is advisable to make it inoperative by removing the connection pressure hoses. The machine is to be considered as special waste and should be dismantled into homogeneous parts. Dispose of it in accordance with current legislation.

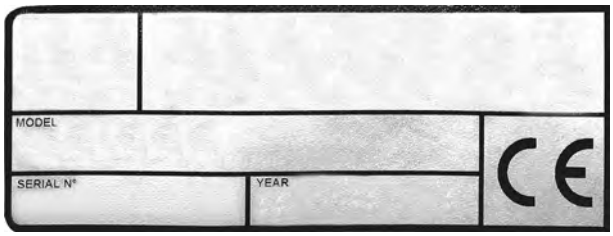
Instructions for the correct management of waste from electric and electronic equipment (WEEE) according to the Italian legislative decree 49/14 and subsequent amendments.

In order to inform the users on the correct way to dispose the product (as required by the article 26, paragraph 1 of the Italian legislative decree 49/14 and subsequent amendments), we communicate what follows: the meaning of the crossed dustbin symbol reported on the equipment indicates that the product must not be thrown among the undifferentiated rubbish (that is to say together with the "mixed urban waste"), but it has to be managed separately, to let the WEEE go through special operations for their reuse or treatment, in order to remove and dispose safely the waste that could be dangerous for the environment and to extract and recycle the raw materials to be reused.

Fig. 55



18.0 REGISTRATION PLATE DATA



The validity of the Conformity Declaration enclosed to this manual is also extended to products and/or devices the machine model object of the Conformity Declaration can be equipped with.
Said plate must always be kept clean from grease residues or filth generally.

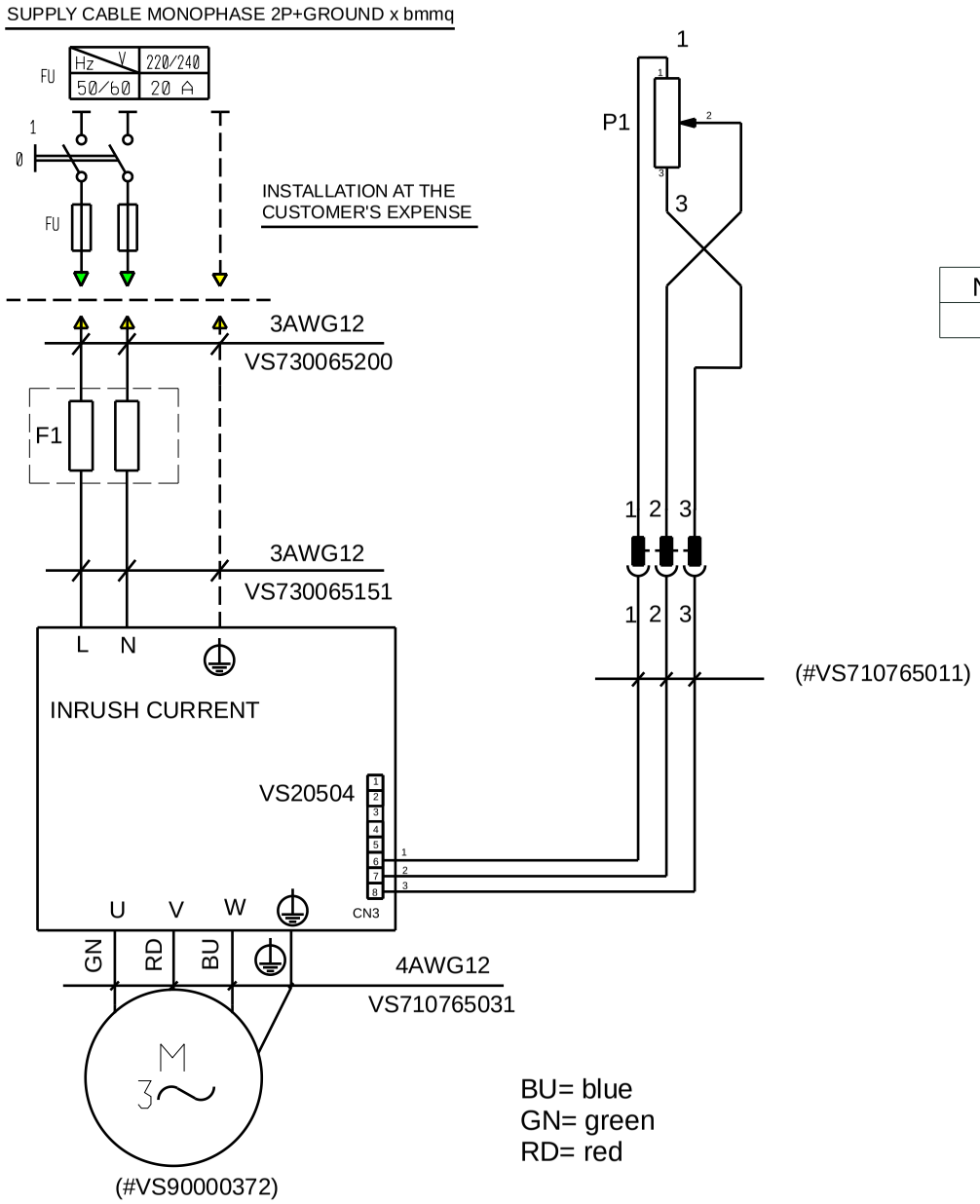
ATTENTION: TAMPERING WITH, CARVING, CHANGING ANYHOW OR EVEN REMOVING MACHINE IDENTIFICATION PLATE IS ABSOLUTELY FORBIDDEN; DO NOT COVER IT WITH TEMPORARY PANELS, ETC., SINCE IT MUST ALWAYS BE VISIBLE.

WARNING: Should the plate be accidentally damaged (removed from the machine, damaged or even partially illegible) inform immediately the manufacturer.

19.0 FUNCTIONAL DIAGRAMS

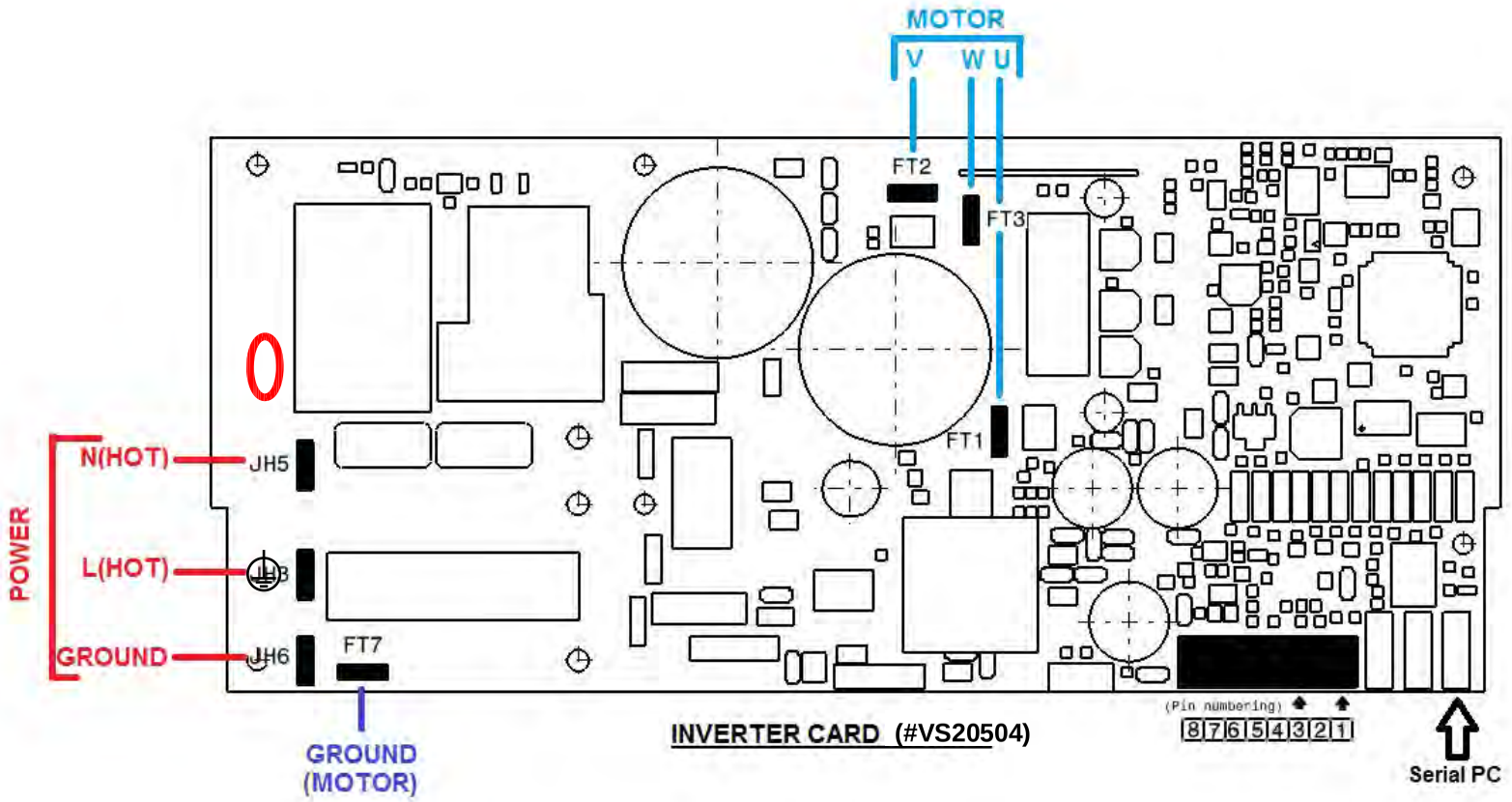
Here follows a list of the machine functional diagrams.

Drawing Number A - Rev. 0 **VS710505580**



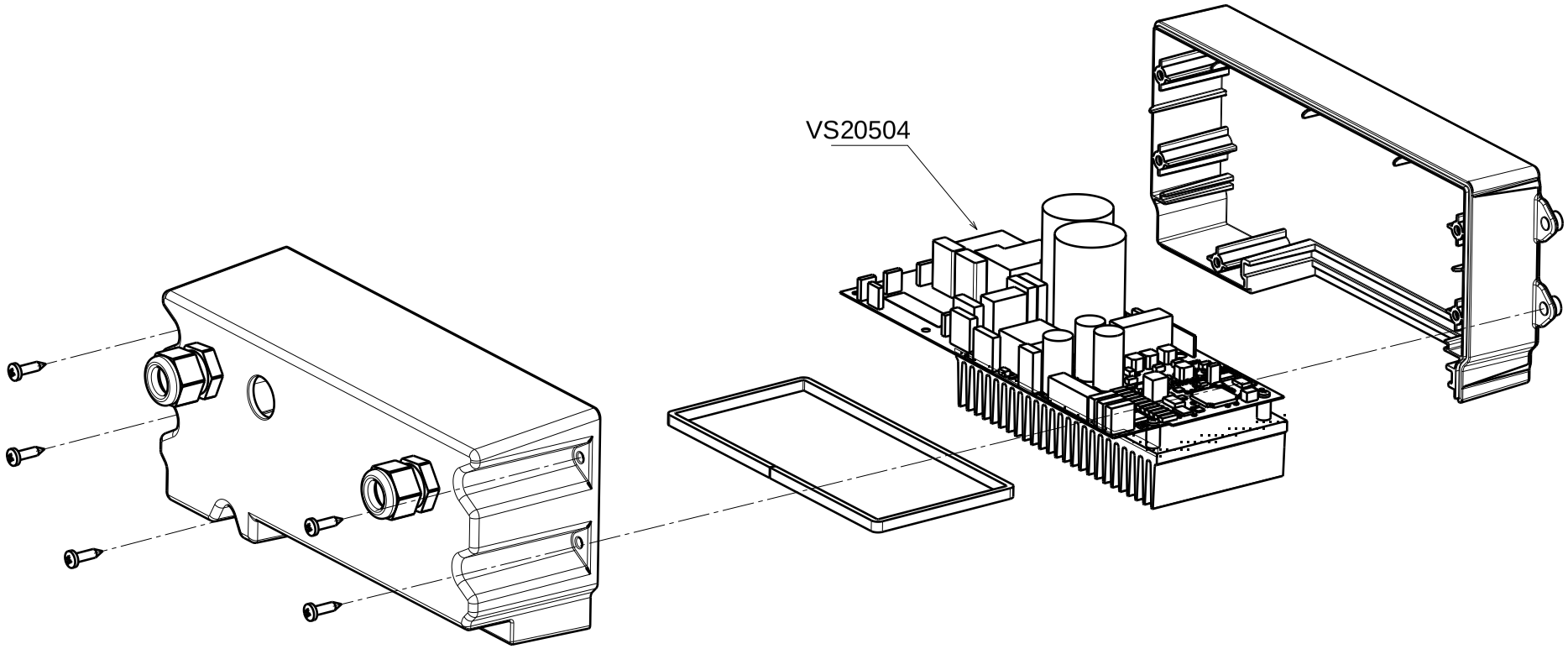
F1

N° 2 Fuse holder	1Ph	690V	32A	CH10	VS515045
N° 2 Fuse	600V	20A	aM	CH10	VS507142



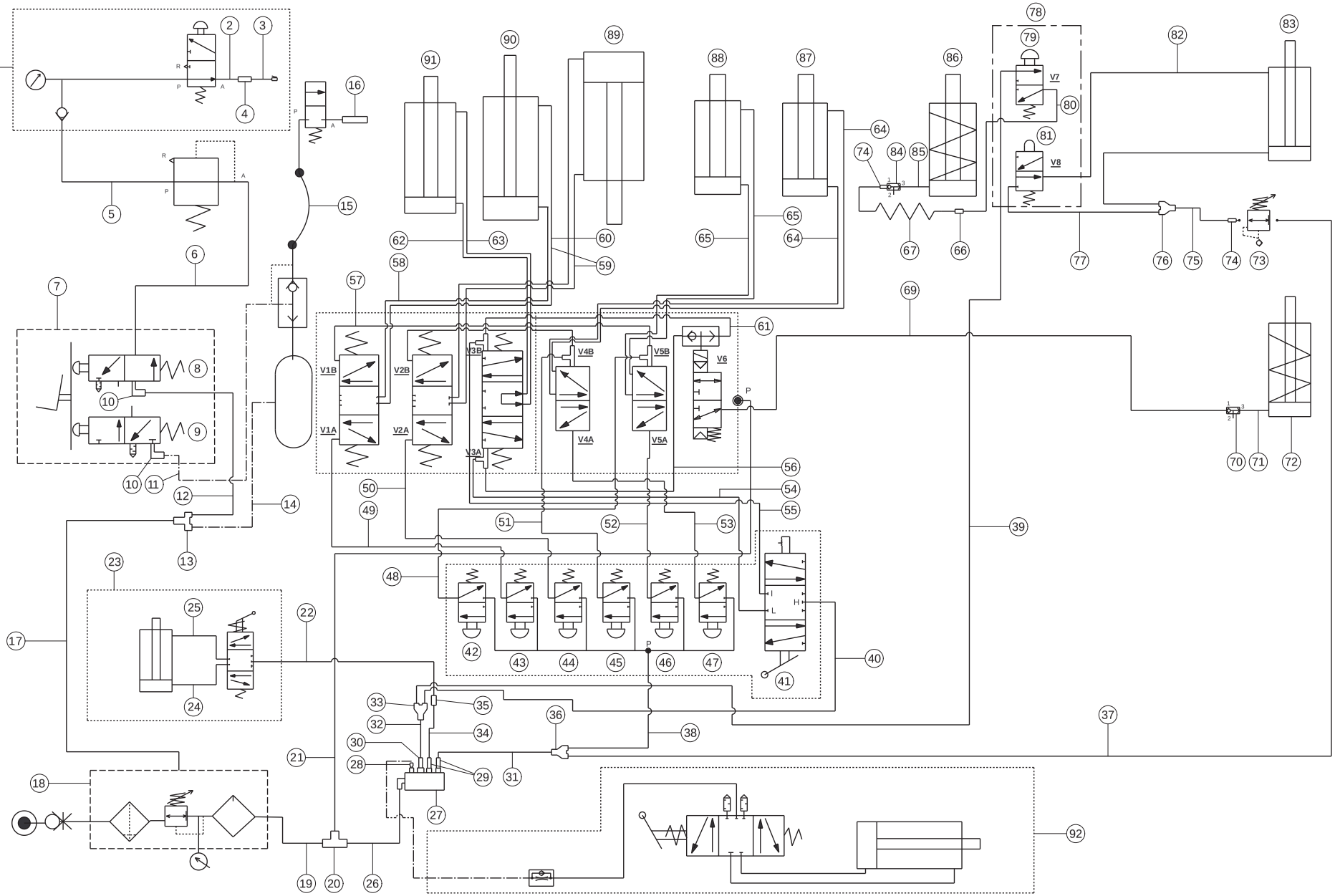
INVERTER CARD (#VS20504)

Drawing Number A - Rev. 0 **VS710505580**



Drawing Number A - Rev. 0		VS710505580		
N°	**Code**	**Description**	**Description**	**Descripción**
	I	Motor control inverter	Variateur commande moteur	Inversor mando motor
	M	Threephase asynchronous motor	Moteur asynchrone triphasé	Motor asincrónico trifásico
	P1	Motor control potentiometer	Moteur command potentiomètre	Potenciómetro mando motor
	■	Clamp	Borne	Abrazadera
	CN3	Pedalboard micro inverter connector	Connecteur variateur micro pédale de direction	Conector inversor micro pedalera

Drawing Number B - Rev. 0 **VS710505150**



Drawing Number B - Rev. 0		VS710505150		
N°	**Code**	**Description**	**Description**	**Descripción**
1		Inflation unit with pressure gauge	Groupe gonflage avec manomètre	Grupo inflado con manómetro
2	VS317008	8x6 red rilsan pipe L=1250	Tuyau rilsan 8x6 rouge L=1250	Tubo rilsan 8x6 rojo L=1250
3	VSB1600000	Inflation pipe L=1500	Tuyau de gonflage L=1500	Tubo de inflado L=1500
4	VS325204	1/4" straight fixed union	Raccord fixe droit 1/4"	Enlace fijo derecho 1/4"
5	VS317008	8x6 red rilsan pipe L=2350	Tuyau rilsan 8x6 rouge L=2350	Tubo rilsan 8x6 rojo L=2350
6	VS317009	8x6 blue rilsan pipe L=450	Tuyau rilsan 8x6 bleu L=450	Tubo rilsan 8x6 azul L=450
7		Inflation pedal valves	Vannes pédales de direction de gonflage	Válvulas pedal de inflado
8		N.O. black	Noir N.O	Negra N.A.
9		N.C. white	Blanche N.F.	Blanca N.C.
10	VS325186	8-8 L pneumatic fixed union	Raccord pneumatique L fixe 8-8	Conector neumático L fijo 8-8
11	VS317007	8x6 black rilsan pipe L=1200	Tuyau rilsan 8x6 noir L=1200	Tubo rilsan 8x6 negro L=1200
12	VS317009	8x6 blue rilsan pipe L=250	Tuyau rilsan 8x6 bleu L=250	Tubo rilsan 8x6 azul L=250
13	VS325181	V8 union	Raccord à V8	Enlace a V8
14	VS317009	8x6 blue rilsan pipe L=690	Tuyau rilsan 8x6 bleu L=690	Tubo rilsan 8x6 azul L=690
15	VS790090810	Pipe	Tuyau	Tubo
16		Inflation nozzle	Gicleur de gonflage	Boquilla de inflado
17	VS317009	8x6 blue rilsan pipe L=950	Tuyau rilsan 8x6 bleu L=950	Tubo rilsan 8x6 azul L=950
18		Pressure reduction filter unit	Groupe filtre reduction pression	Grupo filtro reducción pression
19	VS317010	10x8 black rilsan pipe L=670	Tuyau rilsan 10x8 noir L=670	Tubo rilsan 10x8 negro L=670
20	VS325226	T D.10 middle union	Raccord intérmediaire T D.10	Conector intermedio T D.10
21	VS317010	10x8 black rilsan pipe L=310	Tuyau rilsan 10x8 noir L=310	Tubo rilsan 10x8 negro L=310
22	VS317006	6x4 black rilsan pipe L=400	Tuyau rilsan 6x4 noir L=400	Tubo rilsan 6x4 negro L=400
23		Plus cylinder	Cylindre Plus	Cilindro Plus
24	VS317006	6x4 black rilsan pipe L=450	Tuyau rilsan 6x4 noir L=450	Tubo rilsan 6x4 negro L=450
25	VS317006	6x4 black rilsan pipe L=250	Tuyau rilsan 6x4 noir L=250	Tubo rilsan 6x4 negro L=250

Drawing Number B - Rev. 0		VS710505150		
N°	**Code**	**Description**	**Description**	**Descripción**
26	VS317010	10x8 black rilsan pipe L=175	Tuyau rilsan 10x8 noir L=175	Tubo rilsan 10x8 negro L=175
27	VS710090770	Air distribution frame	Répartiteur air	Tablero de distribución aire
28	VS325151	Cap	Bouchon	Tapa
29	VS325054	8-6 reduction	Reduction 8-6	Reducción 8-6
30	VS325193	4/8 adapter union	Raccord adapteur 4/8	Enlace adaptador 4/8
31	VS317006	6x4 black rilsan pipe L=160	Tuyau rilsan 6x4 noir L=160	Tubo rilsan 6x4 negro L=160
32	VS317026	4x2,7 black rilsan pipe L=60	Tuyau rilsan 4x2,7 noir L=60	Tubo rilsan 4x2,7 negro L=60
33	VSB5815000	V D.4 union	Raccord V D.4	Conector V D.4
34	VS317006	6x4 black rilsan pipe L=700	Tuyau rilsan 6x4 noir L=700	Tubo rilsan 6x4 negro L=700
35	VSB0978000	6 F-F middle union	Raccord intérmediaire 6 F-F	Conector intermedio 6 F-F
36	VS325191	Y-6 pneumatic union	Raccord pneumatique Y-6	Enlace neumático Y-6
37	VS317006	6x4 black rilsan pipe L=500	Tuyau rilsan 6x4 noir L=500	Tubo rilsan 6x4 negro L=500
38	VS317006	6x4 black rilsan pipe L=2000	Tuyau rilsan 6x4 noir L=2000	Tubo rilsan 6x4 negro L=2000
39	VS317026	4x2,7 black rilsan pipe L=2920	Tuyau rilsan 4x2,7 noir L=2920	Tubo rilsan 4x2,7 negro L=2920
40	VS317026	4x2,7 black rilsan pipe L=2050	Tuyau rilsan 4x2,7 noir L=2050	Tubo rilsan 4x2,7 negro L=2050
41		Tool joystick	Joystick outil	Joystick utensilio
42		Upper bead breaker rise	Montée décolle-talon supérieur	Subida destalonador superior
43		Upper bead breaker lowering	Descente décolle-talon supérieur	Bajada destalonador superior
44		Lower bead breaker rise	Montée décolle-talon inférieur	Subida destalonador inferior
45		Lower bead breaker lowering	Descente décolle-talon inférieur	Bajada destalonador inferior
46		Upper cam	Came supérieur	Leva superior
47		Lower cam	Came inférieur	Leva inferior
48	VSBMP90000	4x2,7 yellow rilsan pipe L=2100	Tuyau rilsan 4x2,7 jaune L=2100	Tubo rilsan 4x2,7 amarillo L=2100
49	VS317027	4x2,7 red rilsan pipe L=1830	Tuyau rilsan 4x2,7 rouge L=1830	Tubo rilsan 4x2,7 rojo L=1830
50	VS317028	4x2,7 green rilsan pipe L=1850	Tuyau rilsan 4x2,7 vert L=1850	Tubo rilsan 4x2,7 verde L=1850

Drawing Number B - Rev. 0		VS710505150		
N°	**Code**	**Description**	**Description**	**Descripción**
51	VS317029	4x2,7 white rilsan pipe L=2050	Tuyau rilsan 4x2,7 blanc L=2050	Tubo rilsan 4x2,7 blanco L=2050
52	VS317040	4x2,7 midnight blue rilsan pipe L=2100	Tuyau rilsan 4x2,7 bleu nuit L=2100	Tubo rilsan 4x2,7 azul noche L=2100
53	VS317039	4x2,7 blue rilsan pipe L=2050	Tuyau rilsan 4x2,7 bleu L=2050	Tubo rilsan 4x2,7 azul L=2050
54	VS317041	4x2,7 silver rilsan pipe L=2000	Tuyau rilsan 4x2,7 argenté L=2000	Tubo rilsan 4x2,7 plateado L=2000
55	VS317042	4x2,7 orange rilsan pipe L=2000	Tuyau rilsan 4x2,7 orangé L=2000	Tubo rilsan 4x2,7 anaranjado L=2000
56	VS317042	4x2,7 orange rilsan pipe L=270	Tuyau rilsan 4x2,7 orangé L=270	Tubo rilsan 4x2,7 anaranjado L=270
57	VSBMP90000	4x2,7 yellow rilsan pipe L=310	Tuyau rilsan 4x2,7 jaune L=310	Tubo rilsan 4x2,7 amarillo L=310
58	VS317006	6x4 black rilsan pipe L=500	Tuyau rilsan 6x4 noir L=500	Tubo rilsan 6x4 negro L=500
59	VS317006	6x4 black rilsan pipe L= 1180	Tuyau rilsan 6x4 noir L=1180	Tubo rilsan 6x4 negro L=1180
60	VS317006	6x4 black rilsan pipe L= 2000	Tuyau rilsan 6x4 noir L=2000	Tubo rilsan 6x4 negro L=2000
61	VS317041	4x2,7 silver rilsan pipe L=270	Tuyau rilsan 4x2,7 argenté L=270	Tubo rilsan 4x2,7 plateado L=270
62	VS317006	6x4 black rilsan pipe L=400	Tuyau rilsan 6x4 noir L=400	Tubo rilsan 6x4 negro L=400
63	VS317006	6x4 black rilsan pipe L=1450	Tuyau rilsan 6x4 noir L=1450	Tubo rilsan 6x4 negro L=1450
64	VS317006	6x4 black rilsan pipe L=2020	Tuyau rilsan 6x4 noir L=2020	Tubo rilsan 6x4 negro L=2020
65	VS317006	6x4 black rilsan pipe L=2150	Tuyau rilsan 6x4 noir L=2150	Tubo rilsan 6x4 negro L=2150
66	VSB0978000	6 F-F middle union	Raccord intérmediaire 6 F-F	Conector intermedio 6 F-F
67	VS710520530	4x2 L=80 spiral	Spirale 4x2 L=80	Espiral 4x2 L=80
68	VS317029	4x2,7 white rilsan pipe L=270	Tuyau rilsan 4x2,7 blanc L=270	Tubo rilsan 4x2,7 blanco L=270
69	VS317006	6x4 black rilsan pipe L=2420	Tuyau rilsan 6x4 noir L=2420	Tubo rilsan 6x4 negro L=2420
70	VSB4077600	Quick exhaust valve	Vanne échappement rapide	Válvula de escape rápido
71	VS317006	6x4 black rilsan pipe L=90	Tuyau rilsan 6x4 noir L=90	Tubo rilsan 6x4 negro L=90
72		Tool carriage brake cylinder	Cylindre frein chariot outils	Cylindre frein chariot outils
73		Pressure regulator	Régulateur de pression	Regulador de presión
74	VS325214	Right middle union	Raccord intérmediaire droit	Conector intermedio derecho
75	VS317029	4x2,7 white rilsan pipe L=2300	Tuyau rilsan 4x2,7 blanc L=2300	Tubo rilsan 4x2,7 blanco L=2300

Drawing Number B - Rev. 0		VS710505150		
N°	**Code**	**Description**	**Description**	**Descripción**
76	VSB5815000	V D.4 union	Raccord V D.4	Conector V D.4
77	VS317029	4x2,7 white rilsan pipe L=1030	Tuyau rilsan 4x2,7 blanc L=1030	Tubo rilsan 4x2,7 blanco L=1030
78		Arms translation handle	Poignée de translation bras	Manija traslación brazo
79		Translation brake release push-button	Bouton déblocage frein de translation	Botón desbloqueo freno de traslación
80	VS317026	4x2,7 black rilsan pipe L=800	Tuyau rilsan 4x2,7 noir L=800	Tubo rilsan 4x2,7 negro L=800
81		Power assisted cylinder valve	Valve de cylindre servoassistée	Válvula cilindro servoasistida
82	VS317029	4x2,7 white rilsan pipe L=200	Tuyau rilsan 4x2,7 blanc L=200	Tubo rilsan 4x2,7 blanco L=200
83		Translation servocylinder	Servocylindre de translation	Servo cilindro de traslación
84	VSB4077600	Quick exhaust valve	Vanne échappement rapide	Válvula de escape rápido
85	VS317006	6x4 black rilsan pipe L=30	Tuyau rilsan 6x4 noir L=30	Tubo rilsan 6x4 negro L=30
86		Arms translation brake cylinder	Cylindre frein translation bras	Cilindro freno traslación brazo
87		Lower arm cam cylinder	Cylindre came bras inférieur	Cilindro leva brazo inferior
88		Upper arm cam cylinder	Cylindre came bras supérieur	Cilindro leva brazo superior
89		Lower bead breaker roll cylinder	Cylindre rouleau décolle-talon inférieur	Cilindro rodillo destalonador inferior
90		Upper bead breaker roll cylinder	Cylindre rouleau décolle-talon supérieur	Cilindro rodillo destalonador superior
91		Tool carriage	Cylindre outil	Cilindro utensilio
92	VSG1000A99NP	Lateral lifting device (on demand)	Soulèvateur lateral (à la demande)	Levantador lateral (bajo demanda)

Installer: Please return this booklet to literature package, and give it to the owner/ operator.

Thank You

Trained Operators and Regular Maintenance Ensures Satisfactory Performance of Your Wheel Service Equipment.

Contact Your Nearest Authorized Rotary Wheel Service Equipment Parts Distributor for Genuine Replacement Parts. See Literature Package for Parts Breakdown.

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