



7105-M011-00

G1190.30
G1190.30IT

INSTRUCTION MANUAL

EN

TRANSLATION FROM THE
ORIGINAL INSTRUCTIONS

For spare parts drawings refer to "LIST OF COMPONENTS" section.

• For any further information please contact your local dealer or call:

Technical services: **RAVAGLIOLI S.p.A.** - Via 1° Maggio, 3 - 40037 Pontecchio Marconi - Bologna Italy
Phone (+39) 051 6781511 - Telex 510697 RAV I - Fax (+39) 051 846349 - e-mail: aftersales@ravaglioli.com

7105-M011-00 - Rev. n. 00 (01/2021)

**SUMMARY**

GENERAL DESCRIPTION _____	4	12.0 USING THE MACHINE _____	21
SYMBOLS USED IN THE MANUAL _____	5	12.1 <i>Precaution measures during tyre removal and fitting</i> _____	21
INFORMATION PLATE LOCATION DRAWING _____	6	12.2 <i>Preliminary operations - Preparing the wheel</i> _____	21
1.0 GENERAL INTRODUCTION _____	8	12.3 <i>Use of the lifting device (on demand)</i> _____	21
1.1 <i>Introduction</i> _____	8	12.4 <i>Wheel clamping</i> _____	22
2.0 INTENDED USE _____	8	12.4.1 <i>Reverse wheel pan protection</i> _____	24
2.1 <i>Training of personnel</i> _____	8	12.5 <i>Bead breaking operations</i> _____	25
3.0 SAFETY DEVICES _____	9	12.6 <i>Demounting the tyre</i> _____	26
3.1 <i>Residual risks</i> _____	9	12.7 <i>Mounting the tyre</i> _____	29
4.0 GENERAL SAFETY RULES _____	10	12.7.1 <i>Mounting the upper bead of the tyre with the bead pusher</i> _____	30
5.0 PACKING AND MOBILIZATION FOR TRANSPORT _____	11	12.8 <i>Tyre inflation with machine without tubeless inflation</i> _____	31
6.0 UNPACKING _____	11	12.9 <i>Tyre inflation with machine with tubeless inflation</i> _____	31
7.0 MOBILIZATION _____	12	12.10 <i>Special use of the bead-breaker</i> _____	32
8.0 WORKING ENVIRONMENT CONDITIONS _____	12	13.0 ROUTINE MAINTENANCE _____	32
8.1 <i>Working position</i> _____	12	13.1 <i>Rim arm calibration</i> _____	34
8.2 <i>Working area</i> _____	12	14.0 TROUBLESHOOTING TABLE _____	35
8.3 <i>Lighting</i> _____	13	15.0 TECHNICAL DATA _____	37
9.0 MACHINE ASSEMBLY _____	13	15.1 <i>Technical electrical data</i> _____	37
9.1 <i>Anchoring system</i> _____	13	15.2 <i>Technical mechanical data</i> _____	37
9.2 <i>Fixtures contained in the packing</i> _____	14	15.3 <i>Dimensions</i> _____	38
9.3 <i>Assembly procedures</i> _____	14	16.0 STORING _____	39
9.4 <i>Air connection</i> _____	16	17.0 SCRAPPING _____	39
10.0 ELECTRICAL CONNECTIONS _____	17	18.0 REGISTRATION PLATE DATA _____	39
10.1 <i>Electrical checks</i> _____	18	19.0 FUNCTIONAL DIAGRAMS _____	39
11.0 CONTROLS _____	18	<i>Drawing A - Wiring diagram</i> _____	40
11.1 <i>Control unit</i> _____	18	<i>Drawing B - Pneumatic diagram</i> _____	44
11.2 <i>Control for bead breaking roll release</i> _____	19		
11.3 <i>Bead pressing device operating unit</i> _____	20		
11.4 <i>Pedalboard</i> _____	20		

Features	Model	G1190.30	G1190.30IT
Upper bead breaker unit		●	●
Lower bead breaker unit		●	●
Tool unit		●	●
Rotating bead pressing device unit		●	●
Tubeless inflation device			●
Lateral lifting device		OPT	OPT

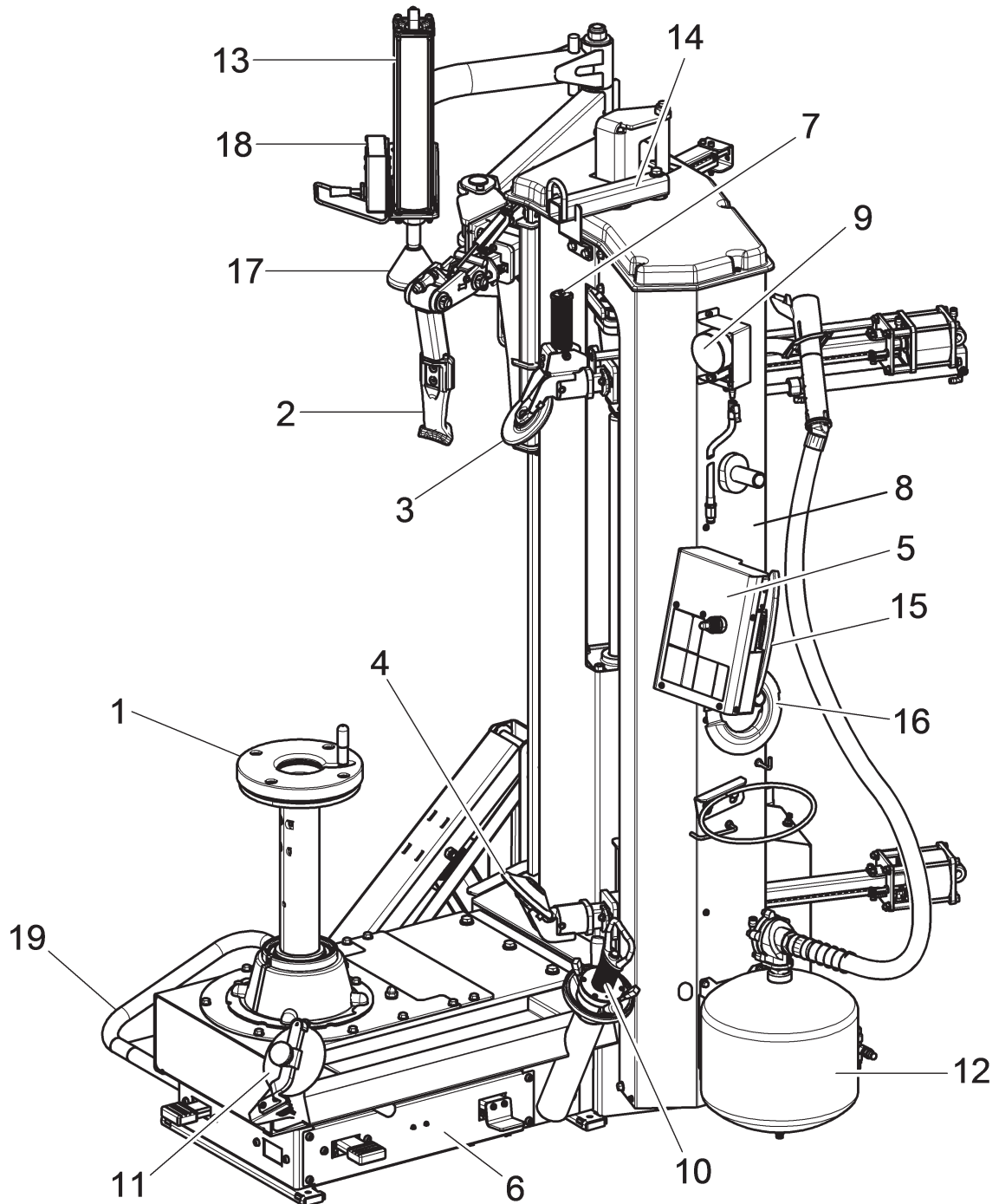
● = standard

OPT = optional



GENERAL DESCRIPTION







Fig. 1








KEY

- | | |
|---|---|
| 1 - Chuck | 11 - Beadpusher with pulling system |
| 2 - Tool | 12 - Tubeless inflation unit (standard on some models only) |
| 3 - Upper bead breaker roll | 13 - Rotating bead depressing device |
| 4 - Lower bead breaker roll | 14 - Lifting device |
| 5 - Control unit / Storage box | 15 - Reverse wheels protection |
| 6 - Pedalboard | 16 - Two-faced cone |
| 7 - Release push button for bead breaker roll horizontal and tool translation | 17 - Presser roll |
| 8 - Column unit | 18 - Bead pressing device operating unit |
| 9 - Inflation pressure gauge unit | 19 - Lateral lifting device (on demand) |
| 10 - Locking shaft unit | |

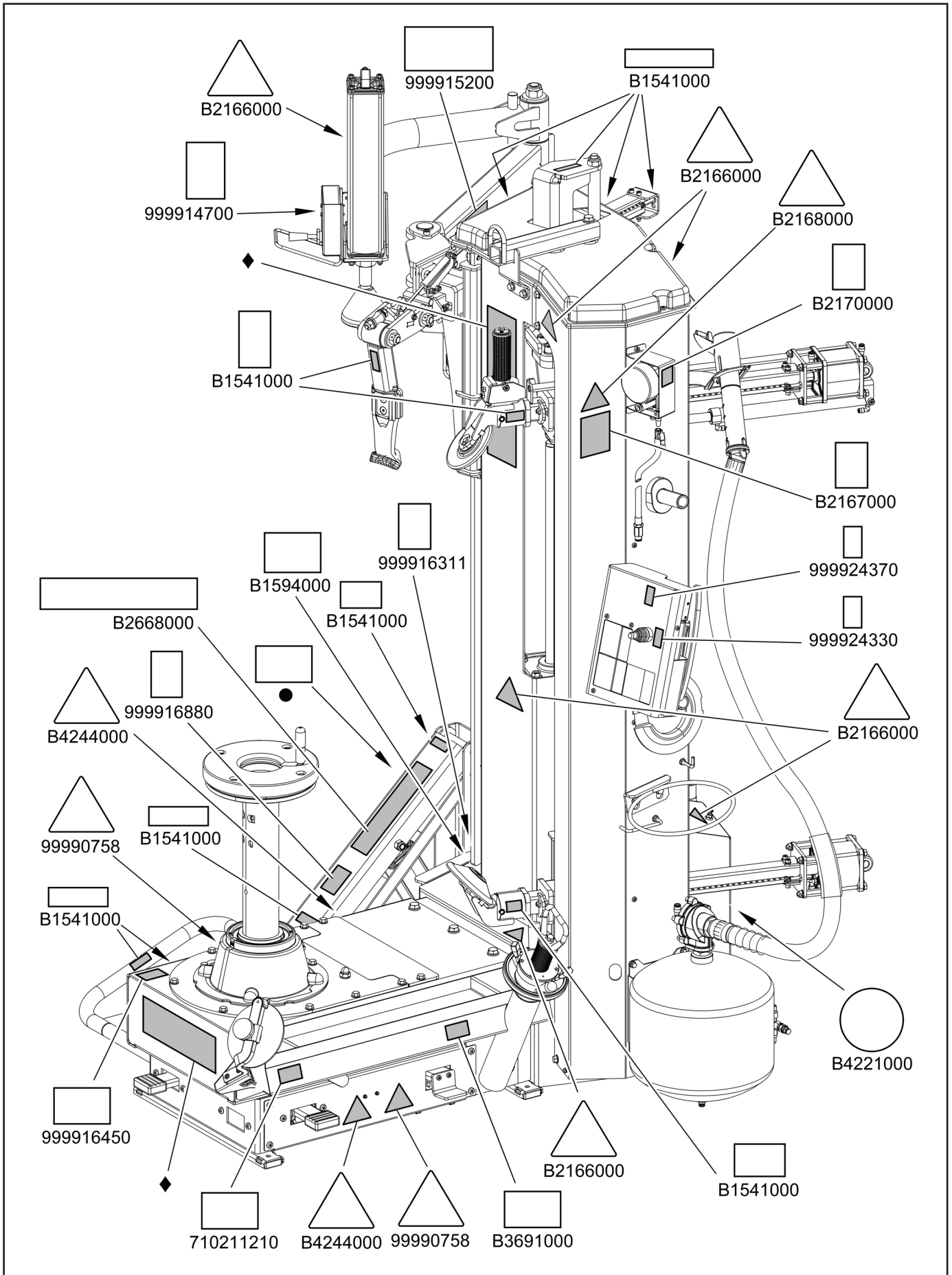
SYMBOLS USED IN THE MANUAL

Symbols	Description
	Read instruction manual.
	Wear work gloves.
	Wear work shoes.
	Wear safety goggles.
	Mandatory. Operations or jobs to be performed compulsorily.
	Warning. Be particularly careful (possible material damages).

Symbols	Description
	Danger! Be particularly careful.
	Note. Indication and/or useful information.
	Move with fork lift truck or pallet truck.
	Lift from above.
	Technical assistance necessary. Do not perform any intervention.



INFORMATION PLATE LOCATION DRAWING



Code numbers of plates	
B1541000	<i>Danger plate</i>
B1594000	<i>Date indicating plate</i>
B2166000	<i>Bead breaker danger plate</i>
B2167000	<i>Protective clothing plate</i>
B2168000	<i>Tyre burst plate</i>
B2170000	<i>Max. inflation pressure rating plate</i>
B2668000	<i>Wheel lifting device danger plate</i>
B3691000	<i>Inflation pedal plate</i>
B4182000	<i>Electric motor specifications plate</i>
B4221000	<i>Grounding plate</i>
B4244000	<i>Rotating parts danger plate</i>
710211210	<i>Rotation direction plate</i>
99990758	<i>Electric shock danger plate</i>
999914700	<i>Bead pressing device control plate</i>
999915200	<i>Serial number plate</i>
999916011	<i>Motoinverter plate</i>
999916311	<i>Rubbish skip plate</i>
999916450	<i>Lifting device pedal plate</i>
999916880	<i>Max. capacity load 80 Kg plate</i>
999924330	<i>Up/down tool carriage plate</i>
999924370	<i>Up/down bead breaker rolls plate</i>
•	<i>Serial number plate</i>
◆	<i>Manufacturer name plate</i>

 **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 this electropneumatic tyre changer. We feel sure you will not regret your decision. This machine has been designed for use in professional workshops and in particular it stands out for its reliability and easy, safe and rapid operation: with just a small degree of maintenance and care, this tyre changer will give you many years of trouble-free service and lots of satisfaction.

2.0 INTENDED USE

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



THIS ACCESSORY MUST ONLY BE USED FOR THE PURPOSE FOR WHICH IT IS SPECIFICALLY DESIGNED. ANY OTHER USE IS CONSIDERED IMPROPER AND THEREFORE UNACCEPTABLE.



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 drives;
- 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.

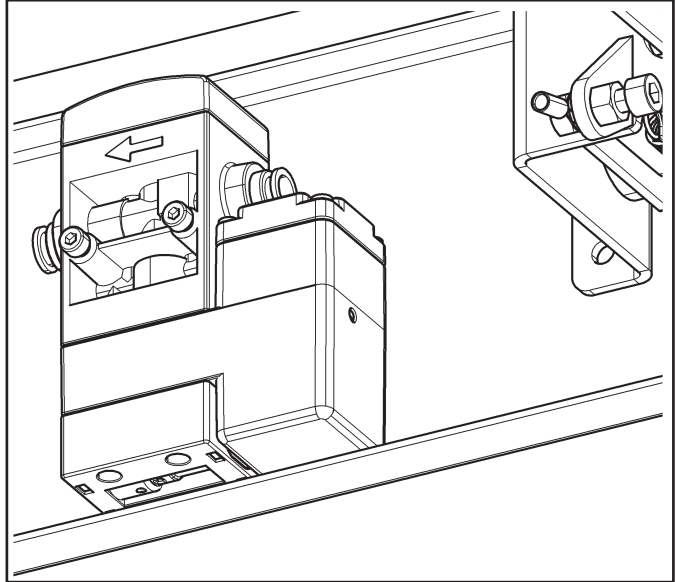
All protections, specially the rubber ones, have to be periodically checked in order to evaluate their wear state.



PERIODICALLY CARRY OUT THE MAINTENANCE OF THE PROTECTIONS, SHELTERS AND SAFETY DEVICES IN GENERAL, AS INDICATED IN CHAPTER 13. ROUTINE MAINTENANCE.

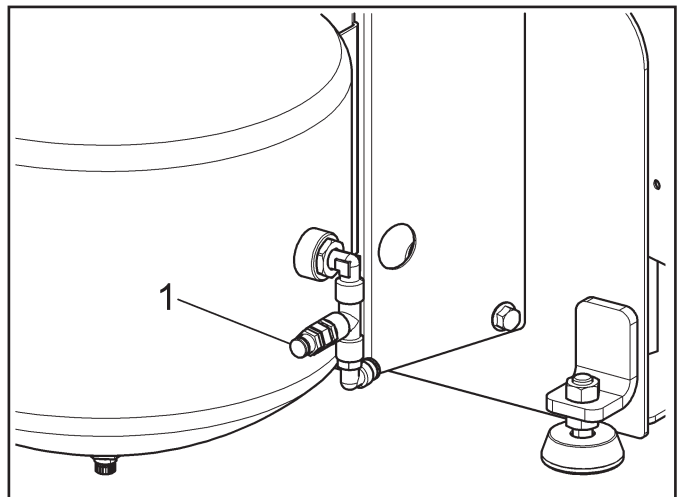
- **Non-adjustable (balancing valve) pressure relief device.**

This allows inflation of tyres in reasonable safety. Inflation of tyres to over $4,2 \pm 0,2$ bar (60 PSI) is not allowed.



- **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 page 6.

**4.0 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 miss-functions 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 tyre. 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 tyre or stand on it; when beading in the tyre, keep hands away from tyre 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 tyre has not been correctly locked.



IN CASE OF ACCIDENTAL SUPPLY FAILURE (BOTH ELECTRICITY AND COMPRESSED AIR), MOVE THE PEDALS TO THE NEUTRAL POSITION.



5.0 PACKING AND MOBILIZATION FOR TRANSPORT

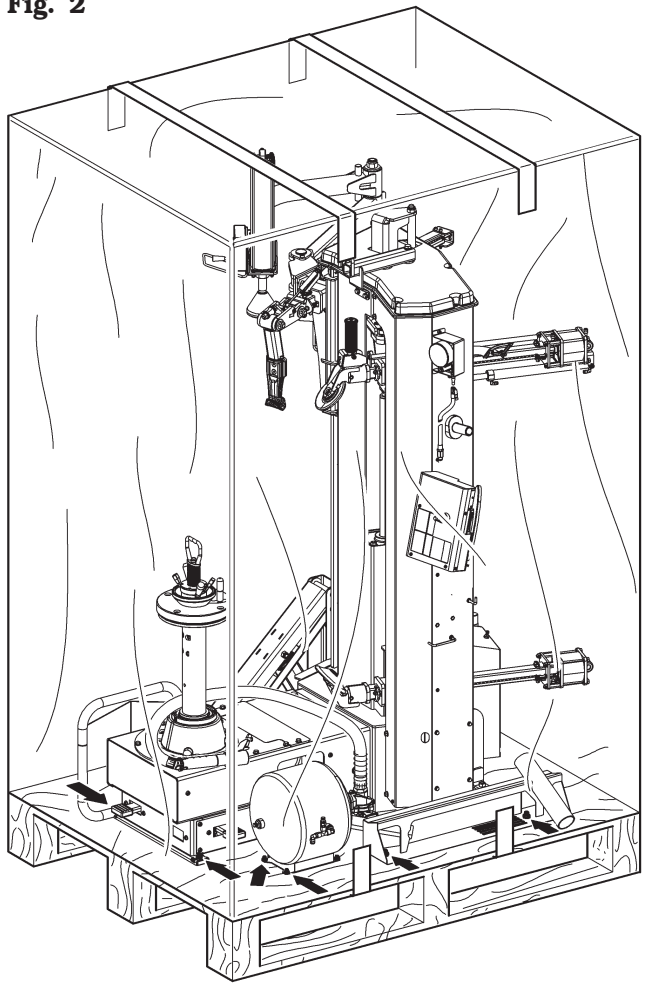


HAVE THE MACHINE HANDLED BY SKILLED PERSONNEL ONLY.

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 unnailed 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.

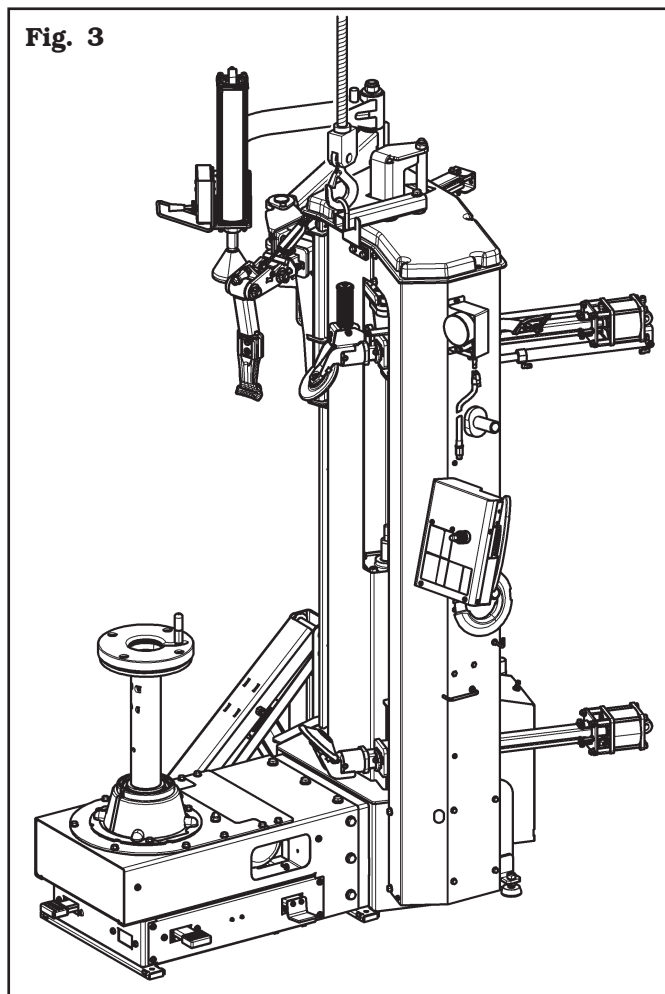
7.0 MOBILIZATION



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**.



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.

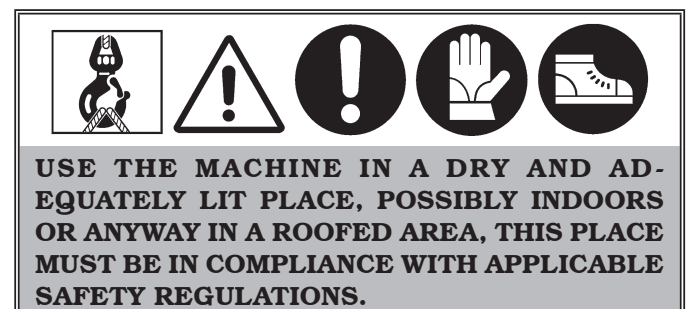
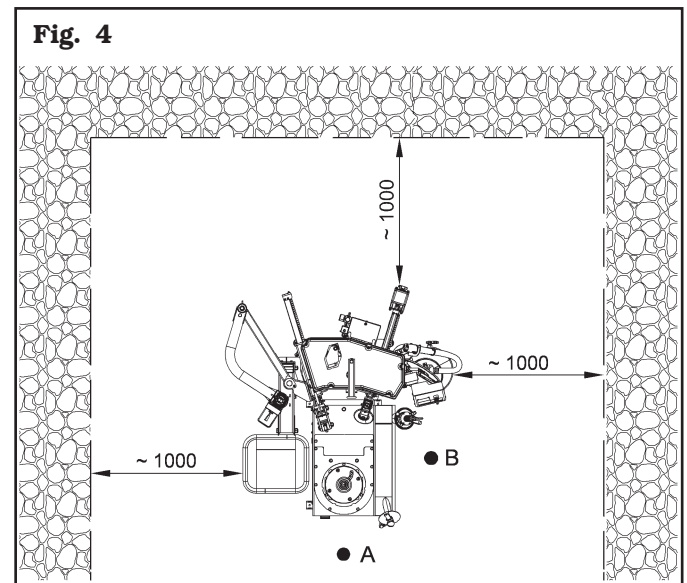
8.1 Working position

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 on the chuck, while position **B** is ideal to follow tyre 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



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 dan-

gerous 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

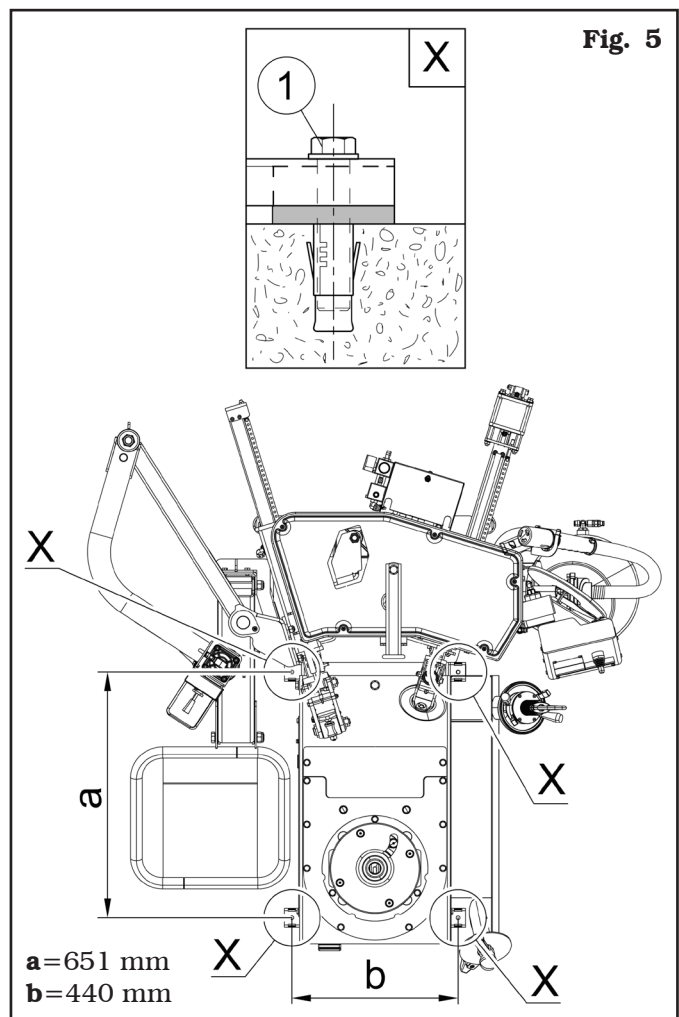


EACH MECHANICAL INTERVENTION MUST BE CARRIED OUT BY PROFESSIONALLY QUALIFIED STAFF.

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.

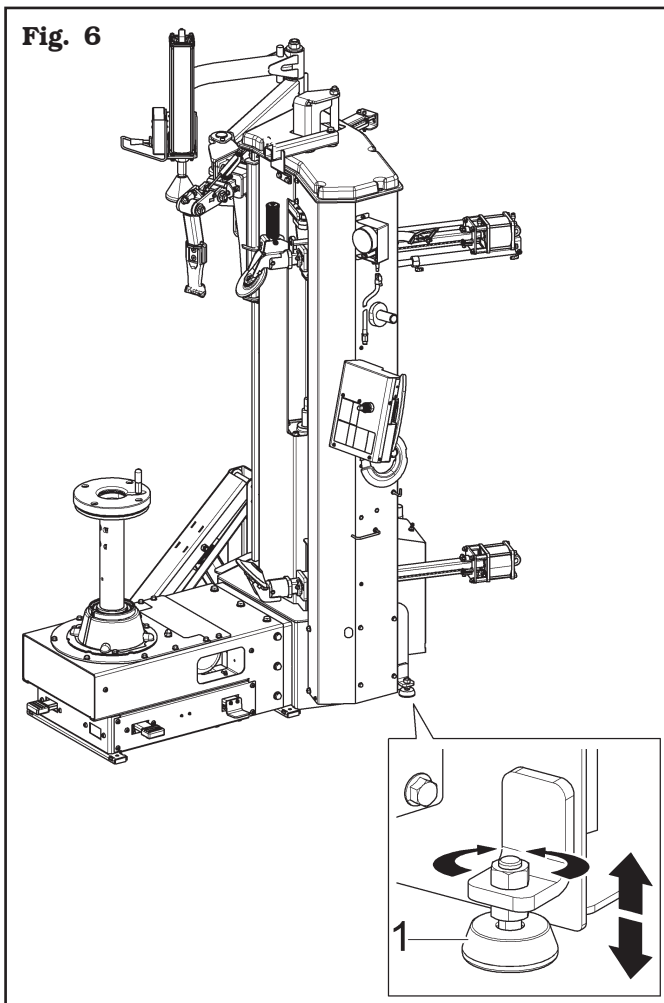
9.1 Anchoring system

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**.





- 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**).



9.2 Fixtures contained in the packing

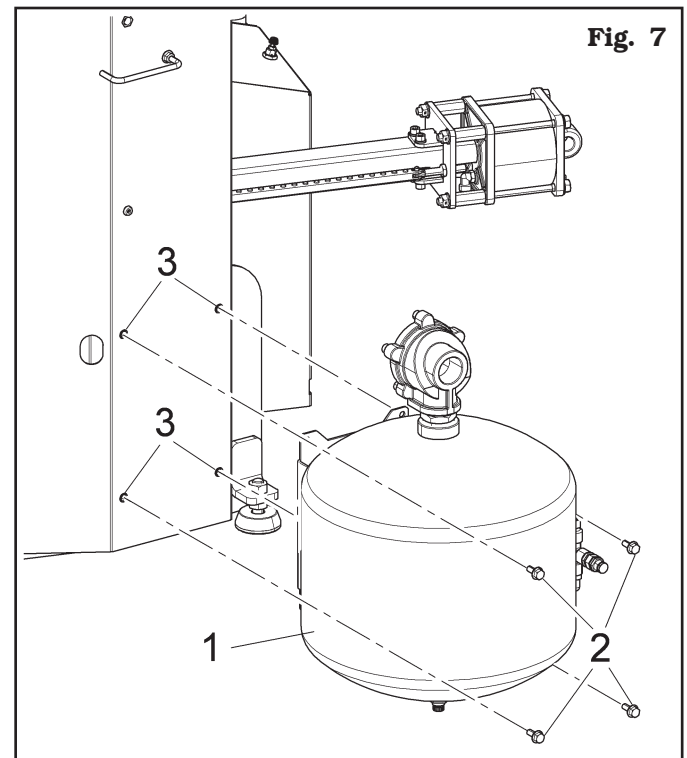
The packing case contains also the fixtures box. Check that all the parts listed are there.

Description	Qty
Two-faced cone	1
Reverse wheels protection	1
Beadpusher with pulling system	1
Locking shaft unit	1

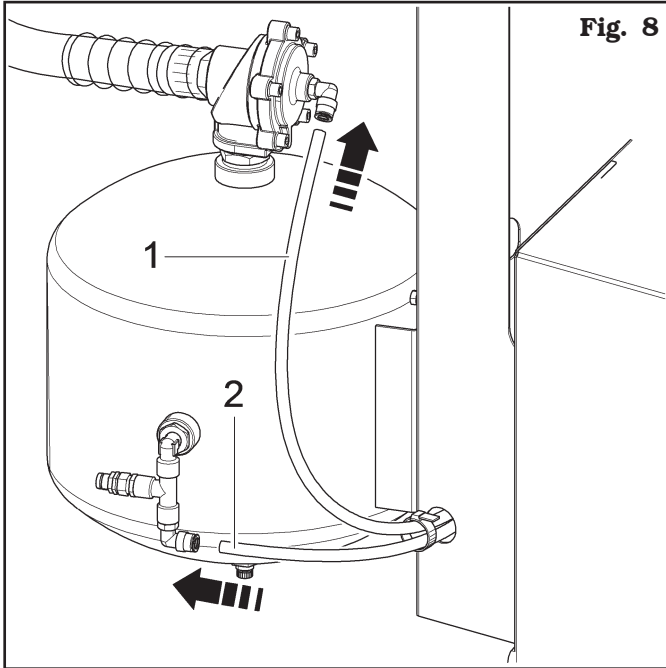
9.3 Assembly procedures

Standard on some models only

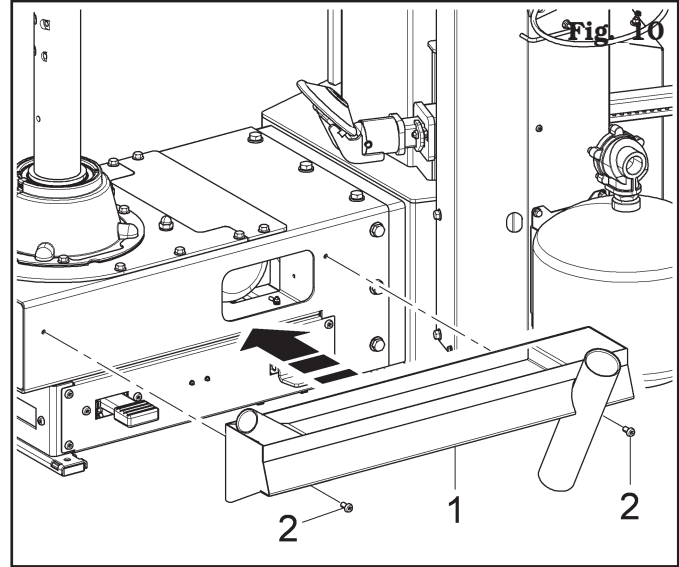
1. Fit the tank (**Fig. 7 ref. 1**) of the Tubeless inflation unit by tightening the supplied screws (**Fig. 7 ref. 2**) to the threaded inserts on the machine (**Fig. 7 ref. 3**), as shown in **Fig. 7**.



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**.

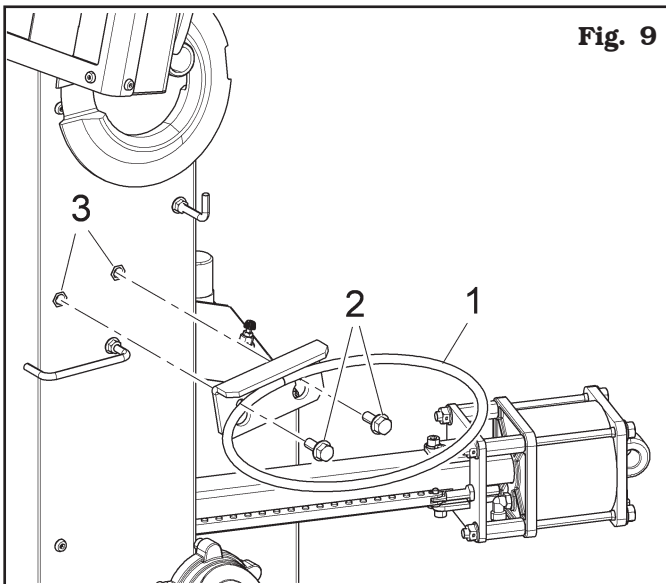


4. Mount the side tray (**Fig. 10 ref. 1**) to the machine frame using the supplied screws (**Fig. 10 ref. 2**), as shown in **Fig. 10**.

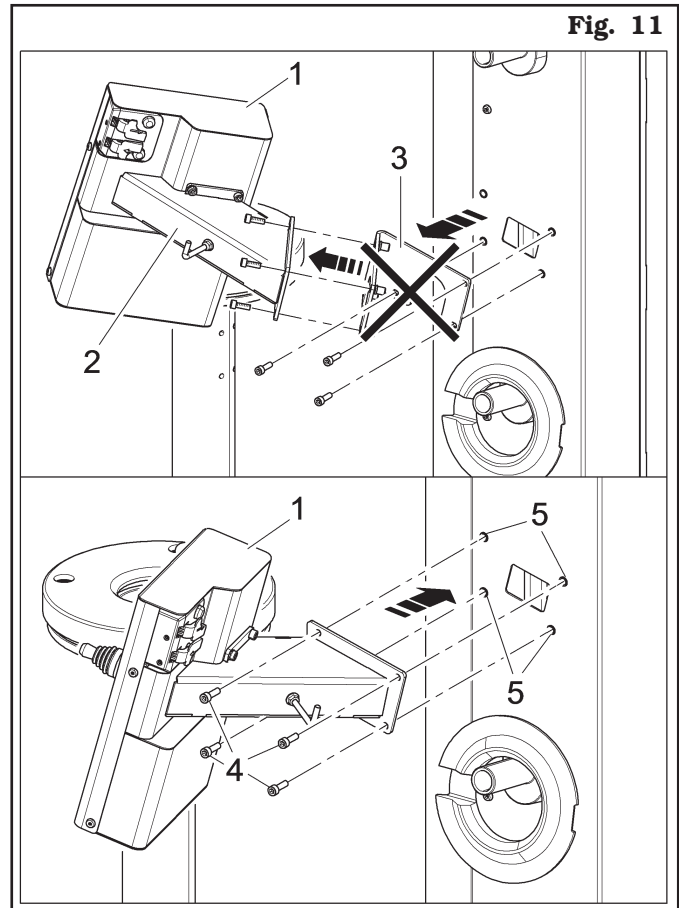


For all models

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**.

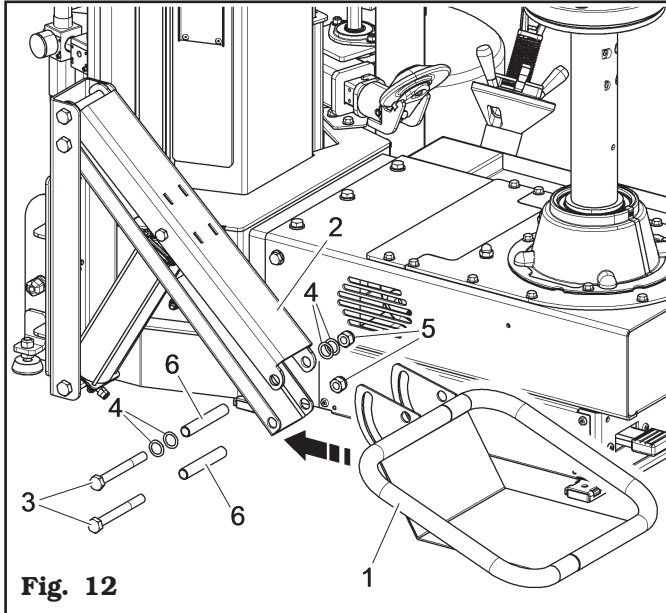


5. Remove the handle control unit (**Fig. 11 ref. 1**), complete with support (**Fig. 11 ref. 2**), from the bracket (**Fig. 11 ref. 3**). Remove the bracket (**Fig. 11 ref. 3**) from the machine frame. Reassemble the manipulator unit (**Fig. 11 ref. 1**) with the screws (**Fig. 11 ref. 4**) to the threaded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



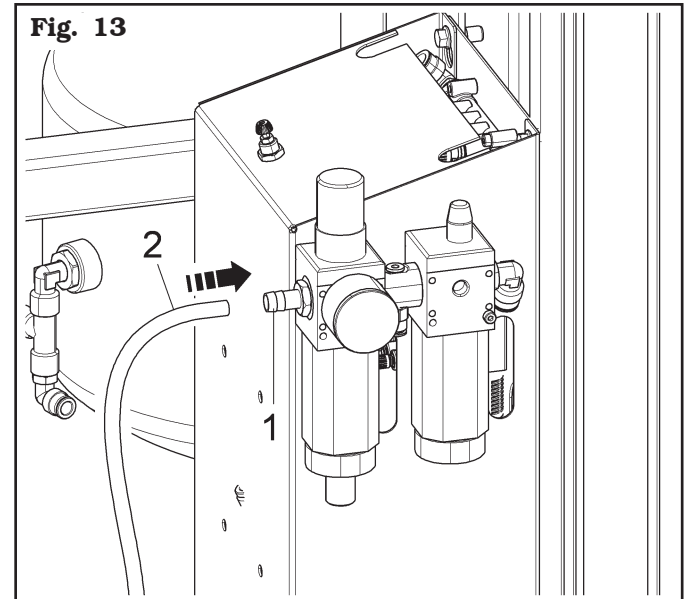
On demand

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**).


9.4 Air connection


**ANY PNEUMATIC INTERVENTION
MUST BE CARRIED OUT BY PRO-
FESSIONALLY QUALIFIED STAFF.**

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




**IF OTHER PNEUMATIC CONNE-
CTIONS SHOULD BE EXECUTED,
REFER TO THE PNEUMATIC DIA-
GRAMS ILLUSTRATED IN CHAP-
TER 19.**




**IN CASE OF A CHANCE SUP-
PLY 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:

- **THE MAIN POWER RATING CORRESPONDS TO THE MACHINE RATING 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:


For any other type of power supply, ask the manufacturer at the time of purchase: a machine functioning under the required voltage conditions will be prepared.



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	Conformity standard	Voltage	Amperage	Poles	Minimum IP rating
Inverter	IEC 309	200/265V	16A	2 Poles + Ground	IP 44



10.1 *Electrical checks*



BEFORE STARTING UP THE TYRE-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 THE MAINTAINED ACTION 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 roller, vice versa the lower lever and button (**A-B (LOW)**) control the lower bead breaker roller.

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.

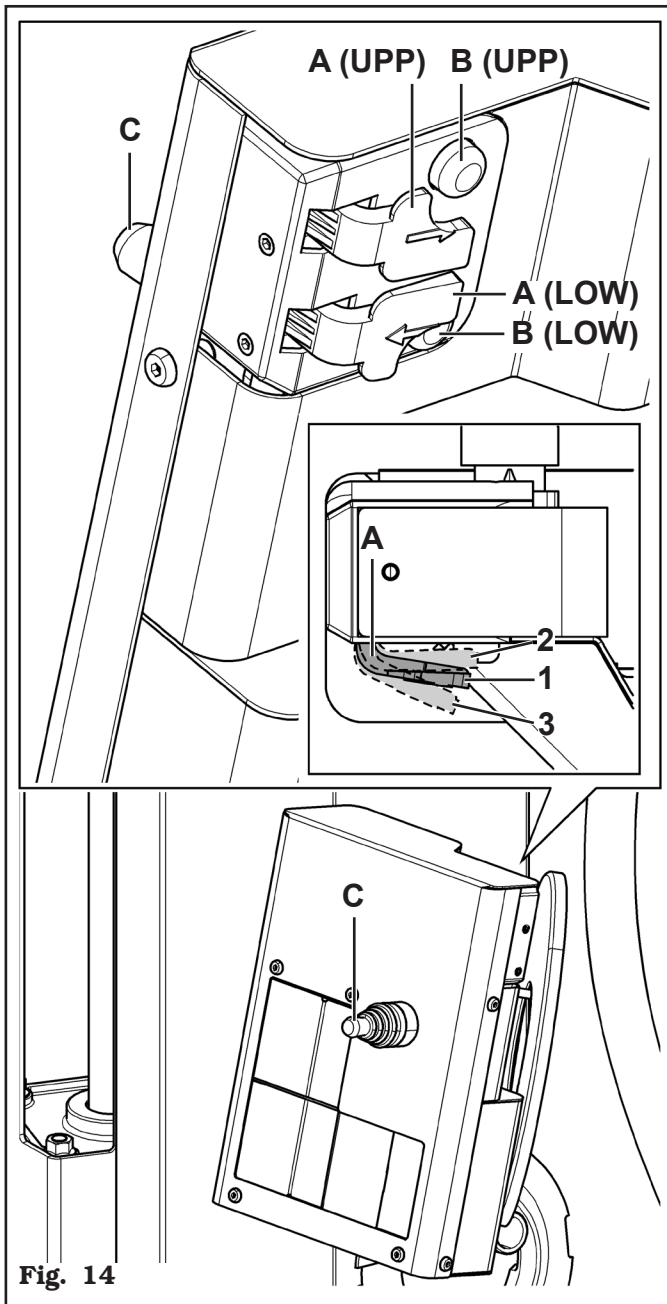


Fig. 14

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**).

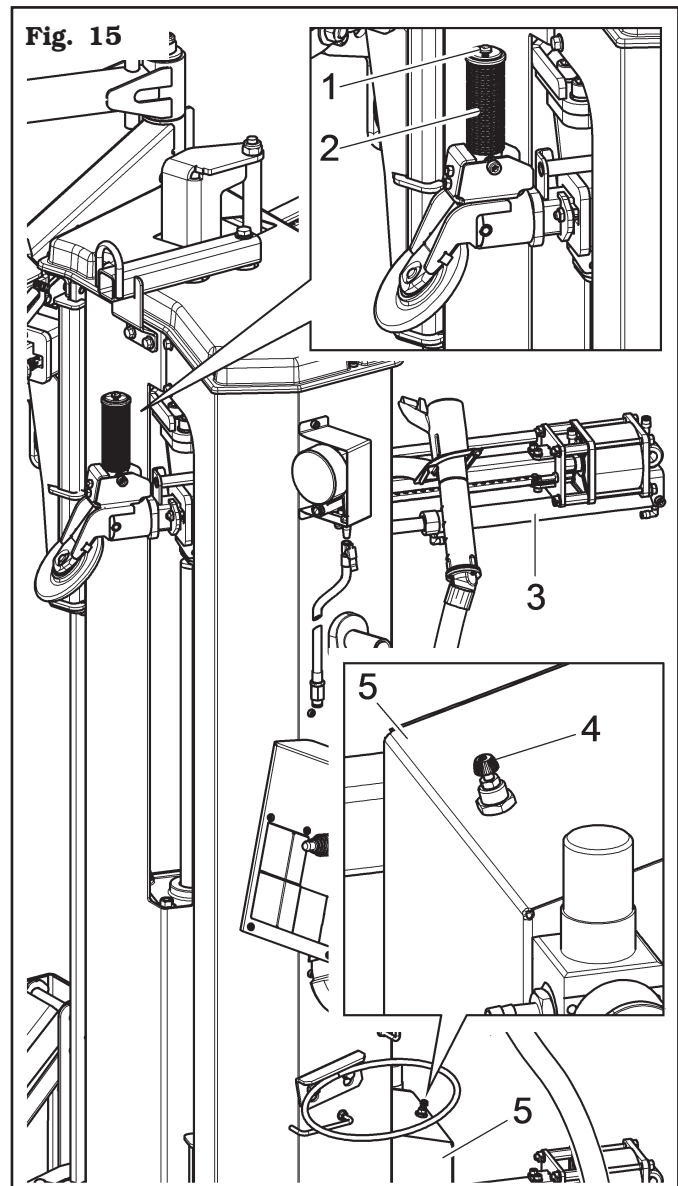
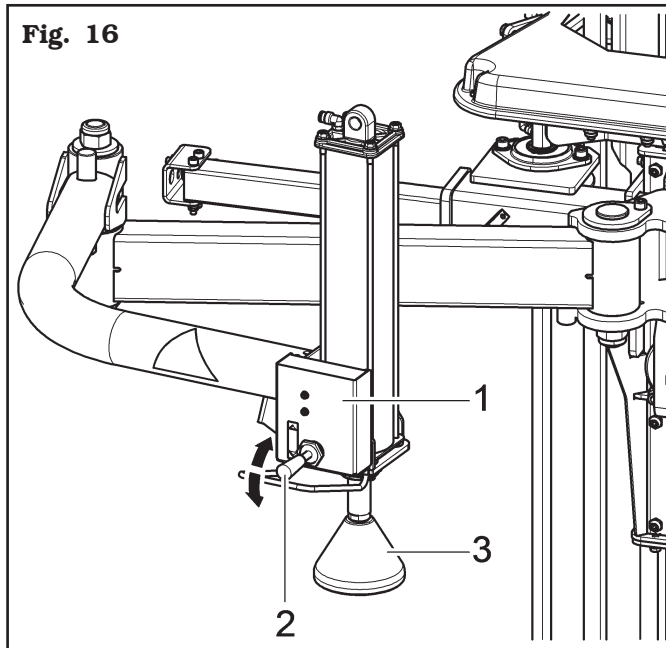


Fig. 15

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 tyre is a completely manual operation.



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. $4 \pm 0,2$ bar 60 PSI).



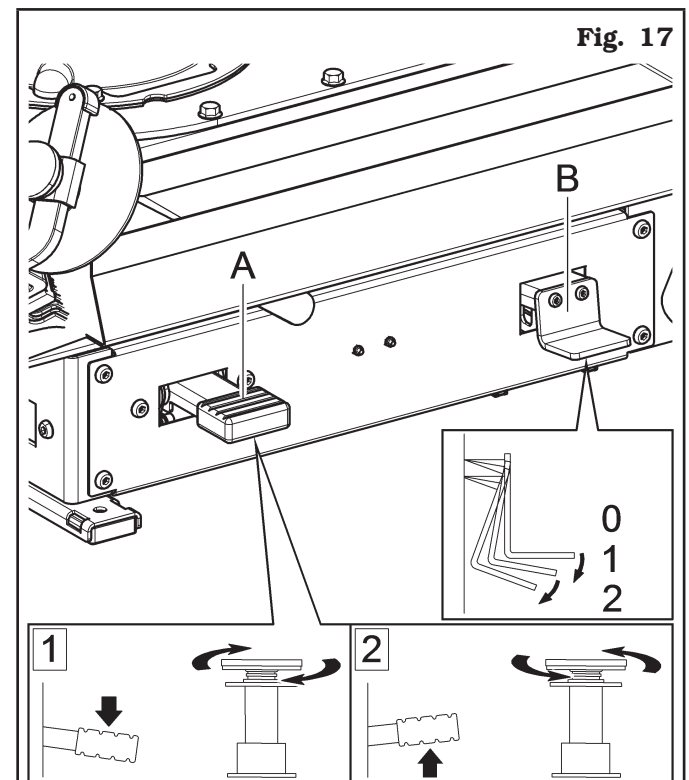
DO NOT CHANGE THE SET OPERATING PRESSURE VALUE BY MEANS OF THE MAXIMUM PRESSURE VALVES. THE MANUFACTURER SHALL NOT BE RESPONSIBLE FOR INJURY OR DAMAGE ARISING FROM UNAUTHORISED CHANGES.

Version with tubeless inflation (standard on some models)

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 tyre.



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.



KEY (pedal ref. B)

ref. 1 - Tyre inflation with pressure gauge

ref. 2 - Tyre inflation with pressure gauge + inflation nozzle

12.0 USING THE MACHINE

12.1 Precaution measures during tyre removal and fitting



Before fitting a tyre, observe the following safety rules:

- rim and tyre 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 tyre 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 tyre beads, using specific tyre lubricants only;
- replace the inner tube valve with a new valve, if the tyre tube has a metal valve, replace the grommet;
- always make sure that tyre and rim sizes are correct for their coupling; on the contrary, never fit a tyre unless you are sure it is of the right size (the rated size of rim and tyre 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 TYRE TO COMPLETELY DEFLATE.

- Establish from which side the tyre should be de-mounted, 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, A LIFTING DEVICE SHOULD BE USED.

12.3 Use of the lifting device (on demand)



CARRY OUT A DAILY CHECK OF THE MAINTAINED ACTION 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**).

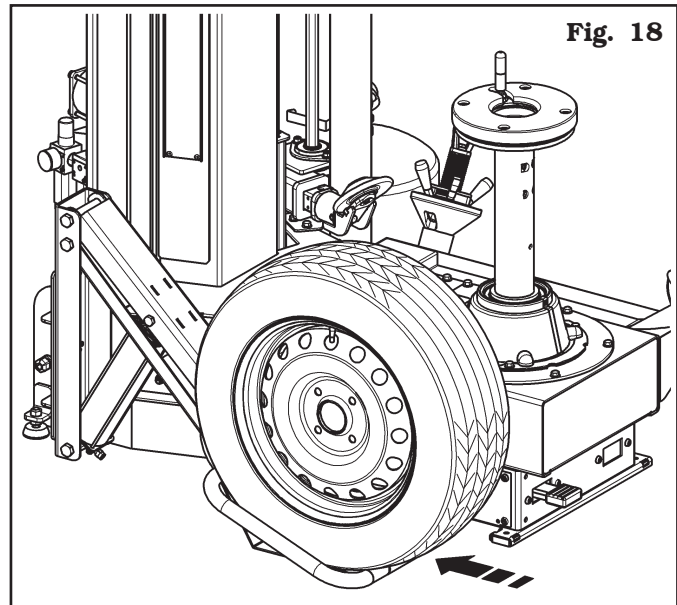


Fig. 18

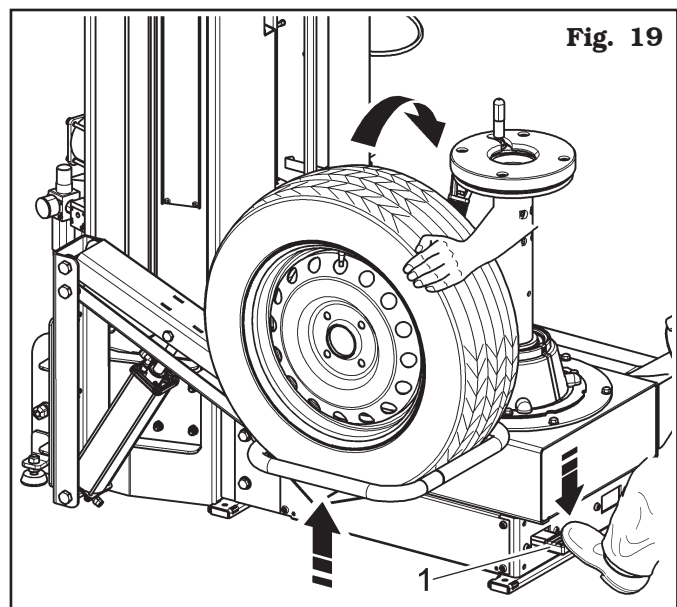
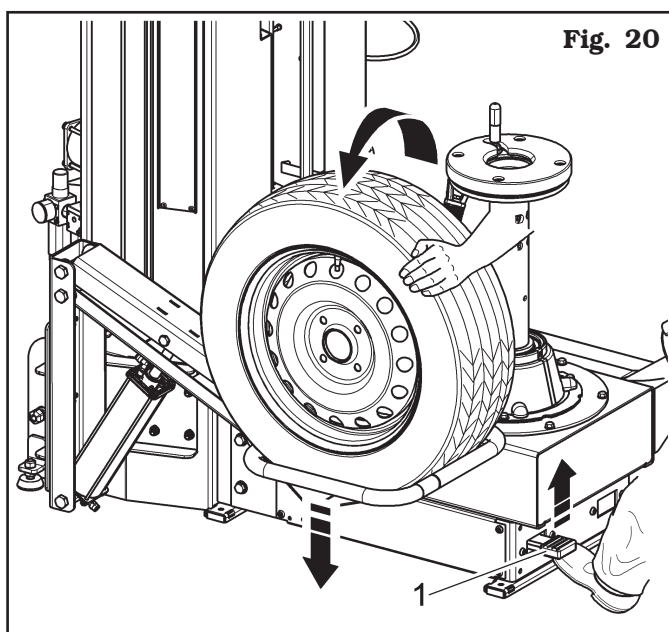


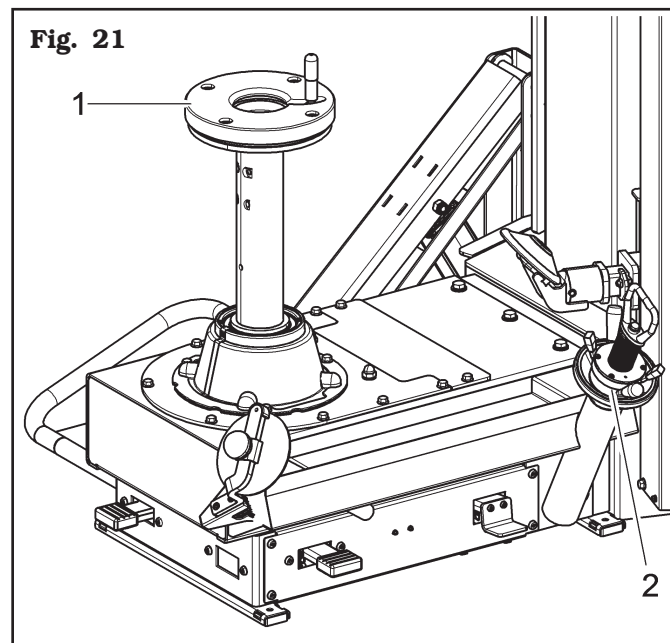
Fig. 19

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 tyre 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**).



12.4 Wheel clamping

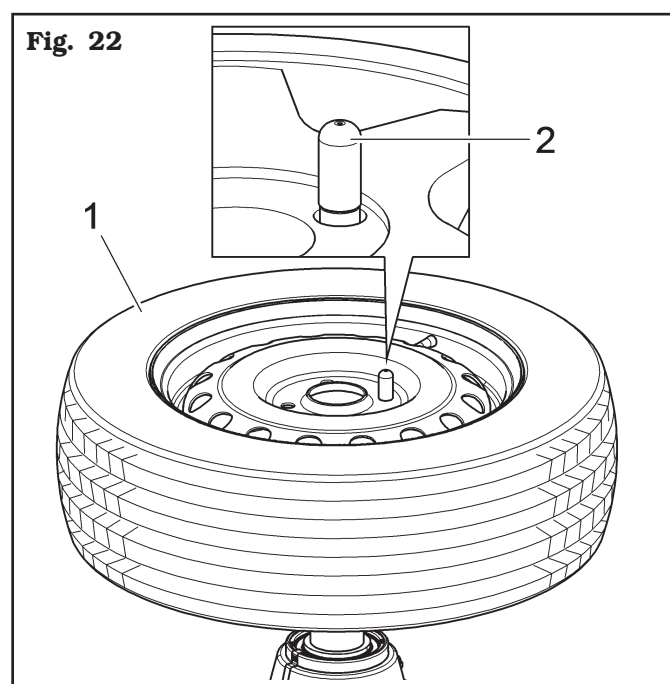
All wheels must be locked on the rubber plate (**Fig. 21 ref. 1**) through the central hole using the proper locking device (**Fig. 21 ref. 2**).



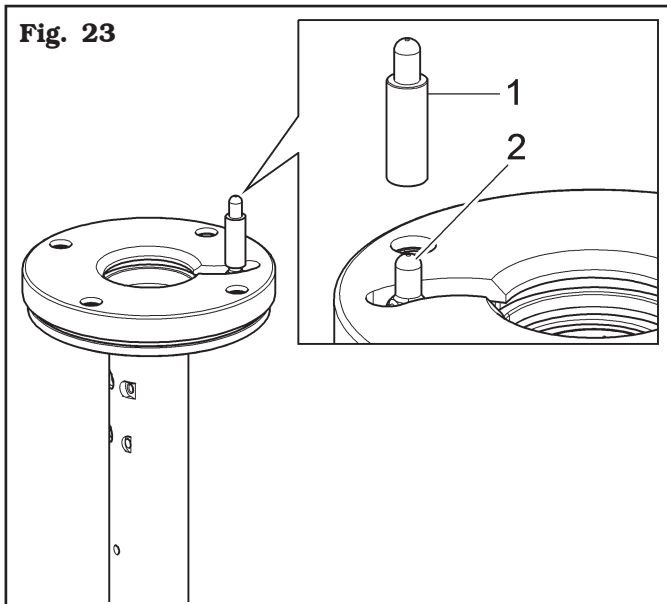
IN CASE OF USE OF RIMS WITHOUT CENTRAL HOLE, IT'S NECESSARY TO USE THE PROPER FIXTURE (AVAILABLE ON DEMAND).

To lock a rim proceed as follows:

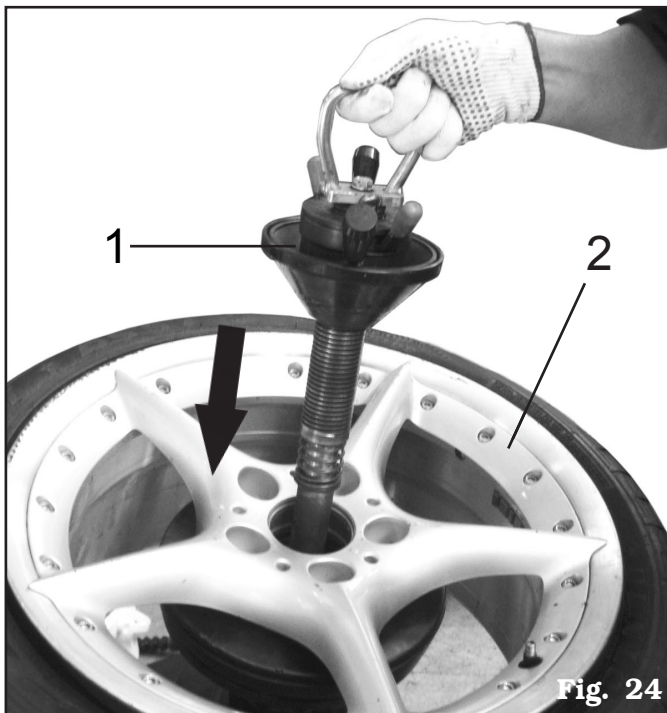
1. Dowel the wheel (**Fig. 22 ref. 1**) on the locking platform and check that the dragging pin (**Fig. 22 ref. 2**) enter in a hole placed on the rim hub.



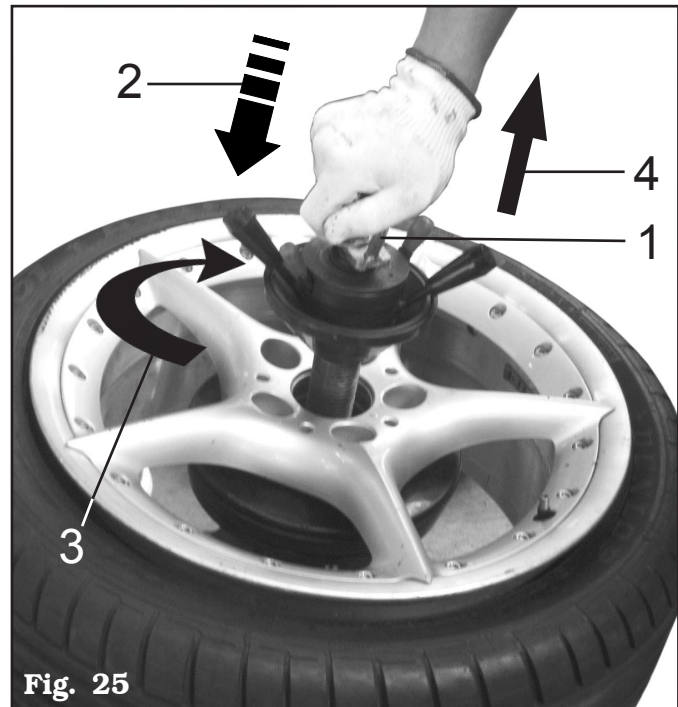
2. If the wheel hub is higher than the dragger (**Fig. 23 ref. 2**), use the extension (**Fig. 23 ref. 1**) supplied on issue.



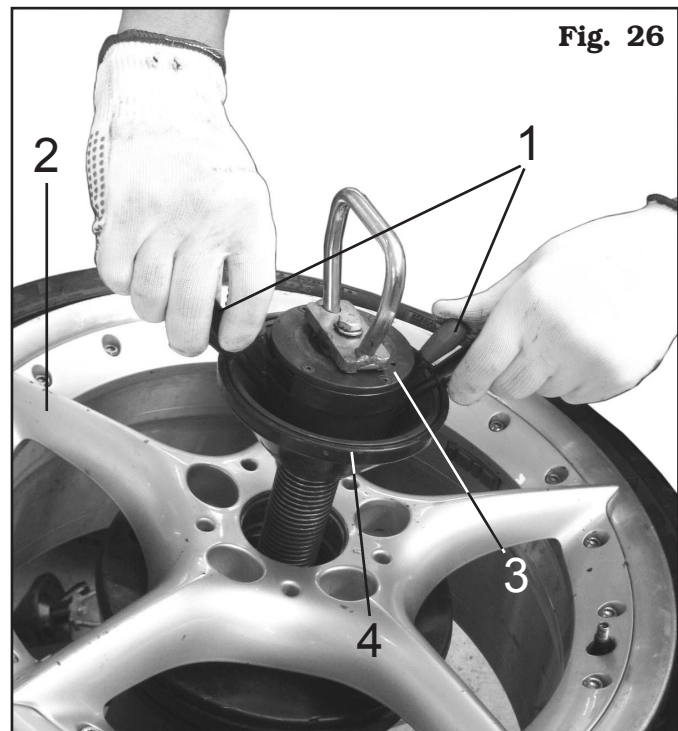
3. Insert the shaft complete with cone (**Fig. 24 ref. 1**) on the rim (**Fig. 24 ref. 2**).



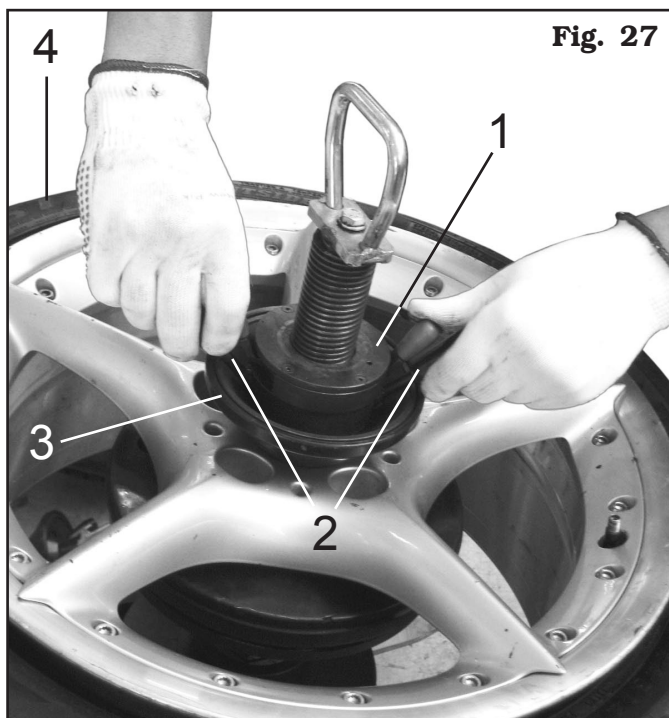
4. Through the proper handle (**Fig. 25 ref. 1**), push downwards (**Fig. 25 ref. 2**), turn it through 90° (**Fig. 25 ref. 3**) and lift the shaft (**Fig. 25 ref. 4**) to hook it into the hole.



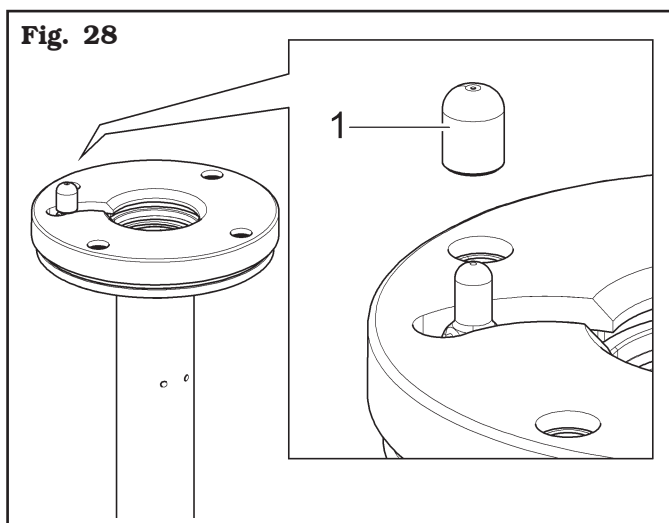
5. Through the internal little levers (**Fig. 26 ref. 1**), loose the ring nut and approach ring nut (**Fig. 26 ref. 3**) and cone (**Fig. 26 ref. 4**) to the rim (**Fig. 26 ref. 2**).



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


Fig. 27

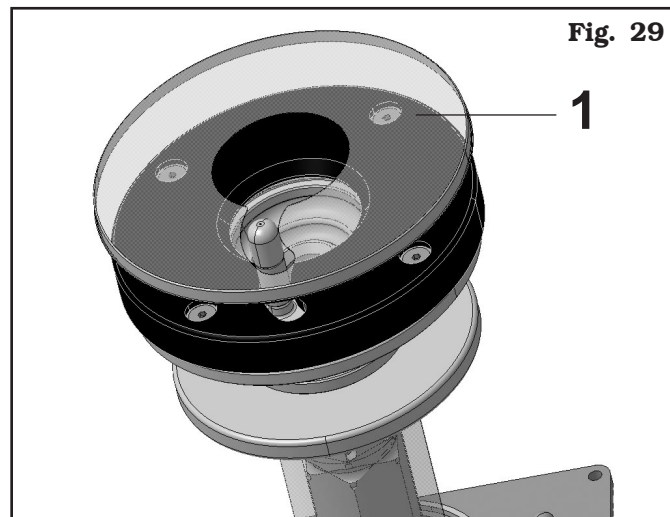
7. For wheels with alloy rims, use the proper plastic guard (**Fig. 28 ref. 1**).


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 counter-clockwise and extract it from the hole through the proper handle.

12.4.1 Reverse wheel pan protection

In case reversed wheels are used, in order to protect the rim, apply on the rubber platform a protection (**Fig. 29 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. 29**).


Fig. 29


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.

12.5 Bead breaking operations

1. After locking the wheel, bring the bead breaking rolls (upper and lower) (Fig. 30 ref. 2 and 3) and the tool (Fig. 30 ref. 4) near the edge of the rim (Fig. 30 ref. 1), pressing the button (Fig. 30 ref. 5) and, at the same time, pulling the handle (Fig. 30 ref. 6).
2. Lower the upper bead breaker roll (Fig. 30 ref. 2) by pressing the lever A(UPP) (Fig. 14 ref. 2).

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

Fig. 30

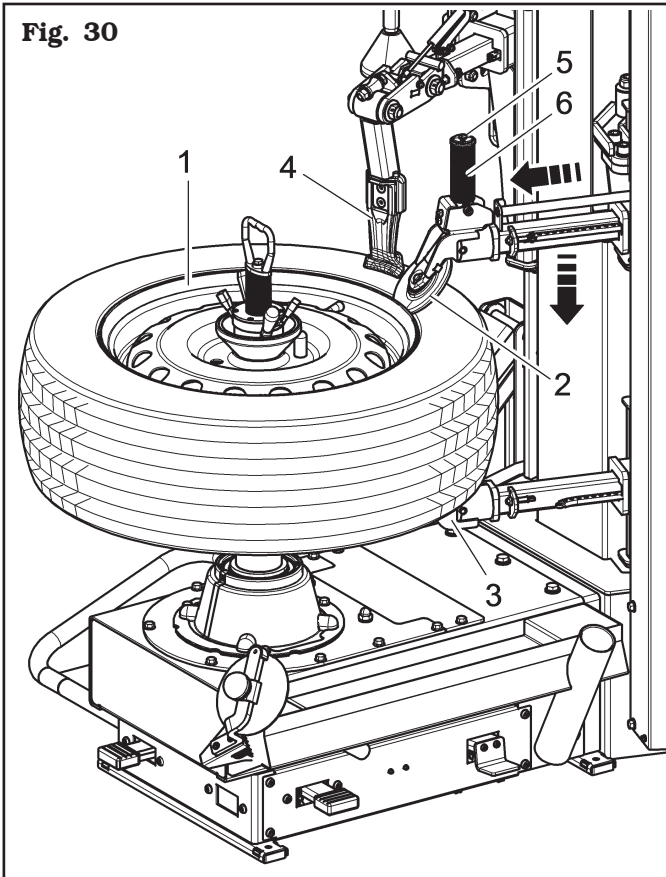
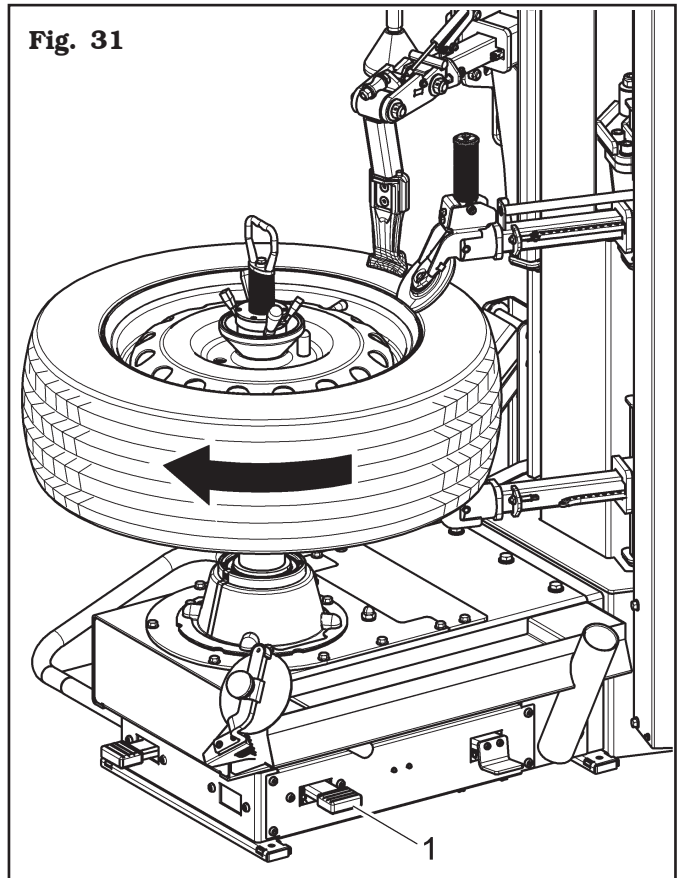


Fig. 31



3. Continue the approach, activating the clockwise rotation of the wheel (see Fig. 31) by pressing the pedal (Fig. 31 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.

5. Approach the lower bead breaker roll (Fig. 32 ref. 1) by briefly pressing and releasing lever A (LOW) several times (Fig. 14 ref. 2).

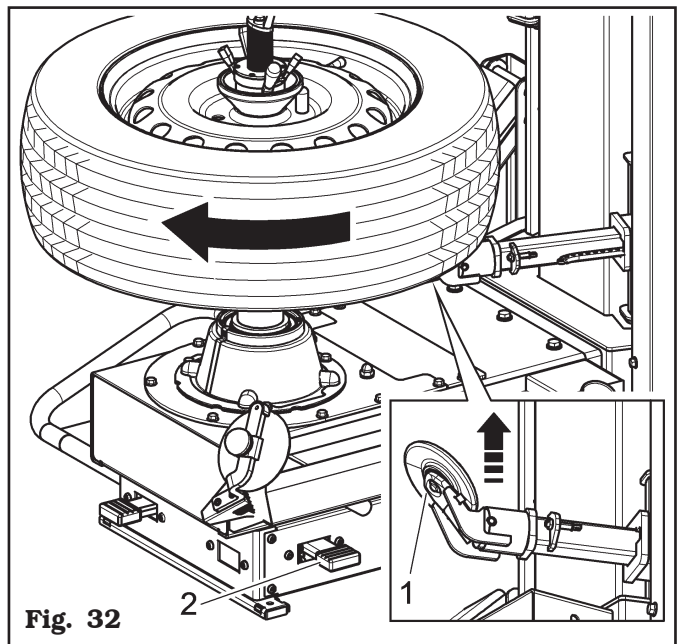


Fig. 32

i THE BEAD BREAKING DISC MUST EXERT PRESSURE ON THE TYRE BEAD BUT NEVER ON THE RIM.

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

6. Only now turn the wheel clockwise pressing the pedal (Fig. 32 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 TYRE 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 tyre

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

1. Press the pedal (**Fig. 33 ref. 1**) to rotate the wheel clockwise until the valve stem reaches "hour 1" position.

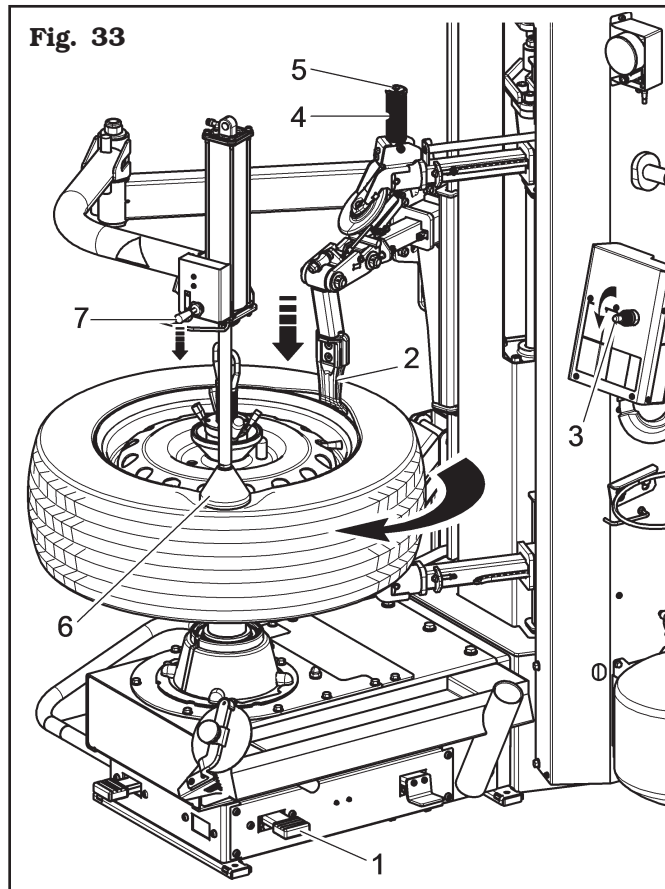
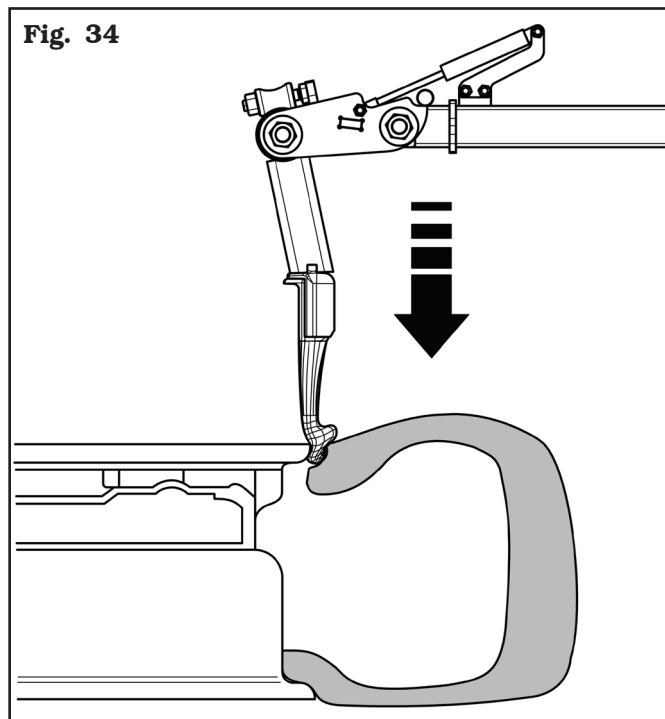
2. Bring the tool vertically (**Fig. 33 ref. 2**) to the edge of the circle by lowering the lever (**Fig. 33 ref. 3**). The position of the tool on the diameter of the rim should already be correct as the adjustment occurs simultaneously with the previous adjustment of the bead breaker rolls. If this is not the case, it can be adjusted by pressing the button (**Fig. 33 ref. 5**) and operating the handle with a push and pull movement (**Fig. 33 ref. 4**).

While this phase is being carried out, stay just next to a zone in the tyre where bead breaking has been effectuated.

3. Place the presser cone (**Fig. 33 ref. 6**) to "4 o'clock" position as shown in **Fig. 33** and press on the tyre operating the lever of the control unit (**Fig. 33 ref. 7**) downwards, until the tyre 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. 33

Fig. 34


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



USE ONLY TYRE 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 tyre (see **Fig. 35**). While this operation is being effectuated, the tool rotates around the rim edge until it hooks the tyre bead (see **Fig. 36**).

Fig. 35

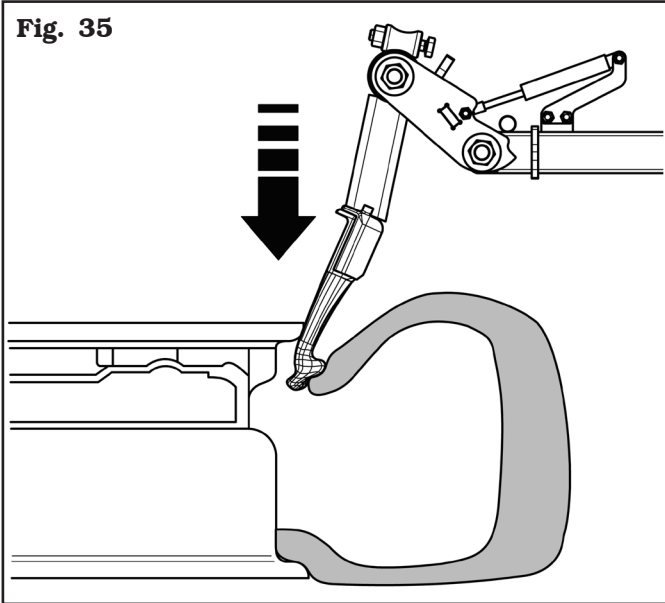
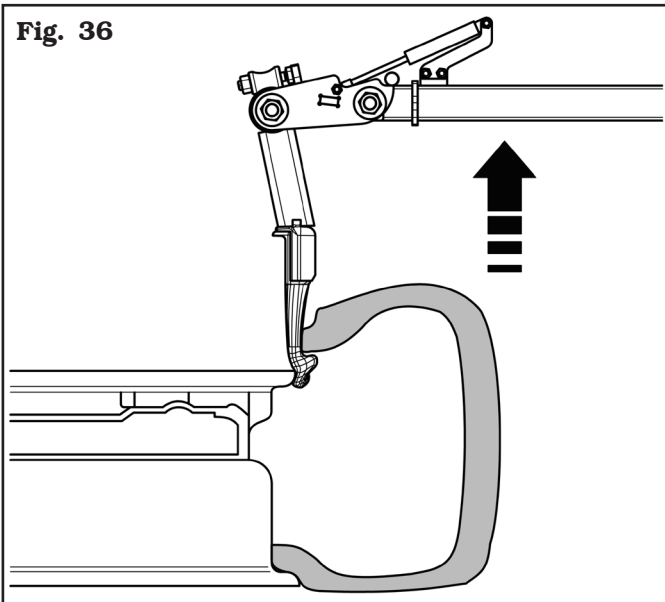


Fig. 36

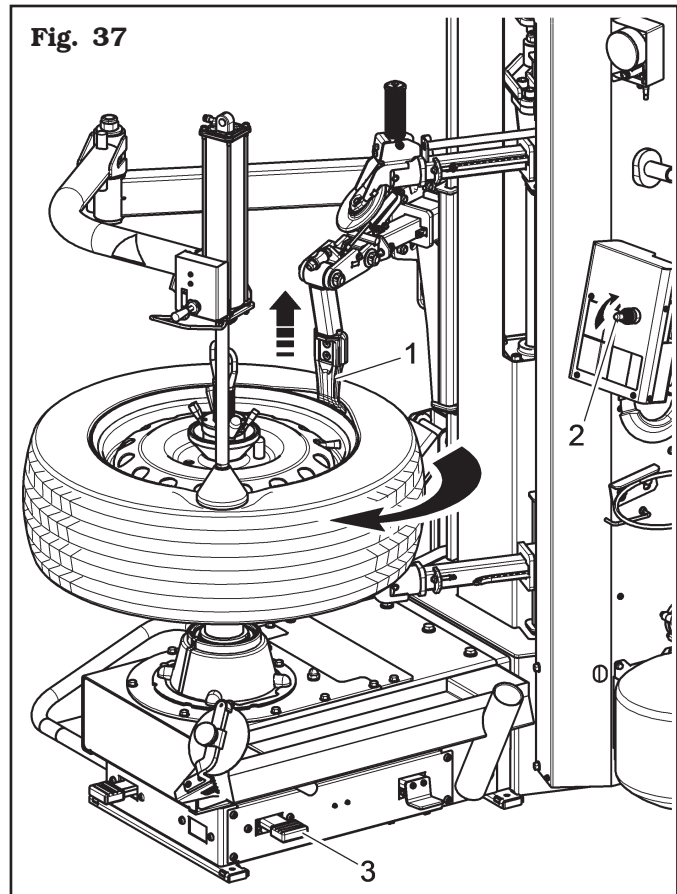


5. Lift the tool (**Fig. 37 ref. 1**) through lever (**Fig. 37 ref. 2**). When the tool is vertical with respect to the rim (see **Fig. 37**), rotate the spindle, pressing the pedal (**Fig. 37 ref. 3**), so that the tyre enters the rim channel. Keep on raising the tool until the bead is on the rim edge (see **Fig. 36**). Rotate clockwise until the upper bead is completely disassembled.

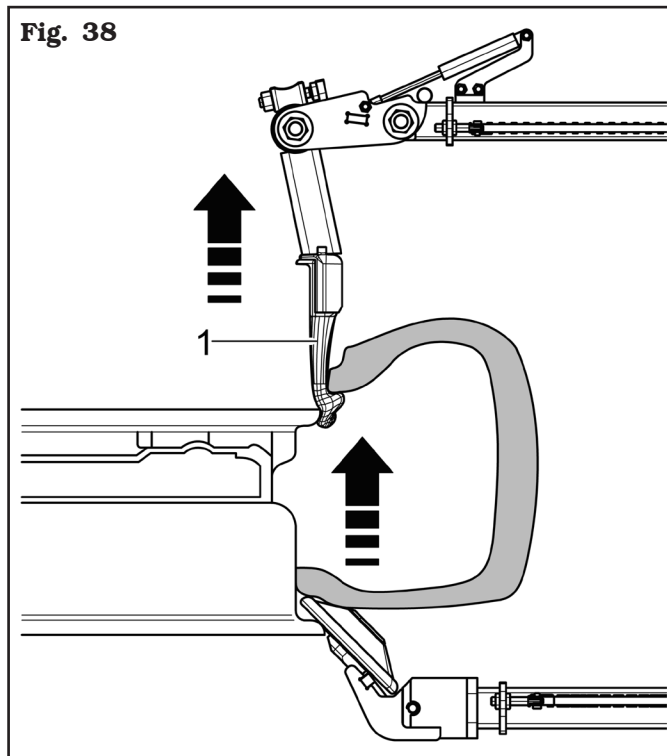


MAKE SURE THE TOOL IS IN DEMOUNTING POSITION (Fig. 36) BEFORE STARTING CHUCK ROTATION.

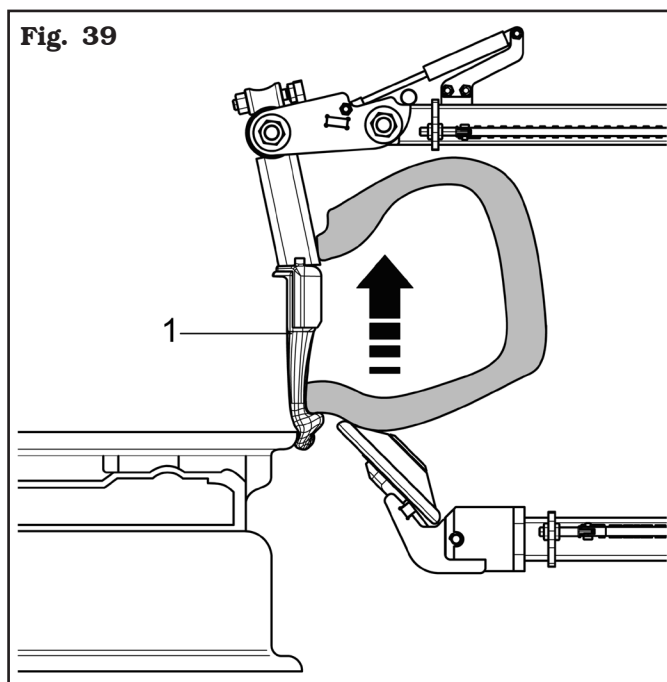
Fig. 37



6. Lift the tool (see **Fig. 38 ref. 1**) keeping it coupled to the upper bead of the tyre with the help of the lower bead breaking roll.



7. Position the tool (see **Fig. 39 ref. 1**) just next to the rim edge. Using the lower bead breaking roller, load the lower bead on the tool in demounting position.

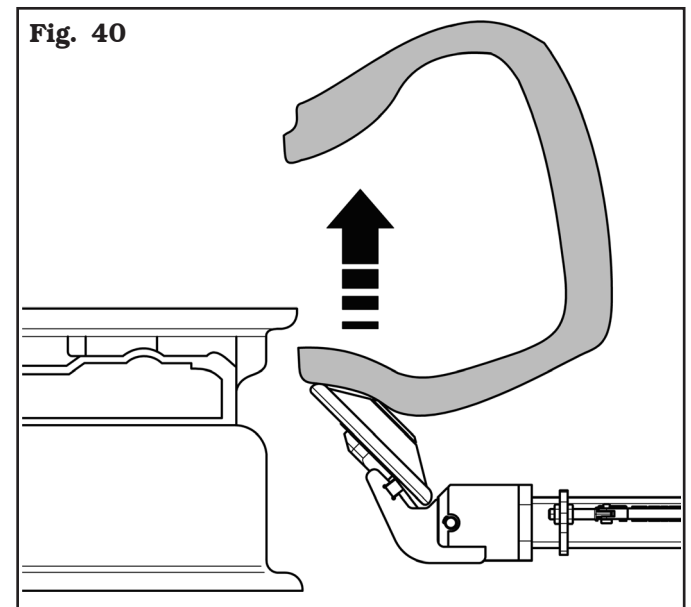


8. Rotate the chuck clockwise until the tyre is completely disassembled.
9. Lift the presser roll and close again the Bead pressing device into rest position.

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 tyre just next to the rim edge (see **Fig. 40**).



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. 41**).



THE BEAD BREAKING DISC MUST EXERT PRESSURE ON THE TYRE BEAD BUT NEVER ON THE RIM.



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



3. Then, rotate and complete bead disassembly (see **Fig. 42**).

Fig. 42



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

12.7 Mounting the tyre

To mount the tyre, proceed as follows:

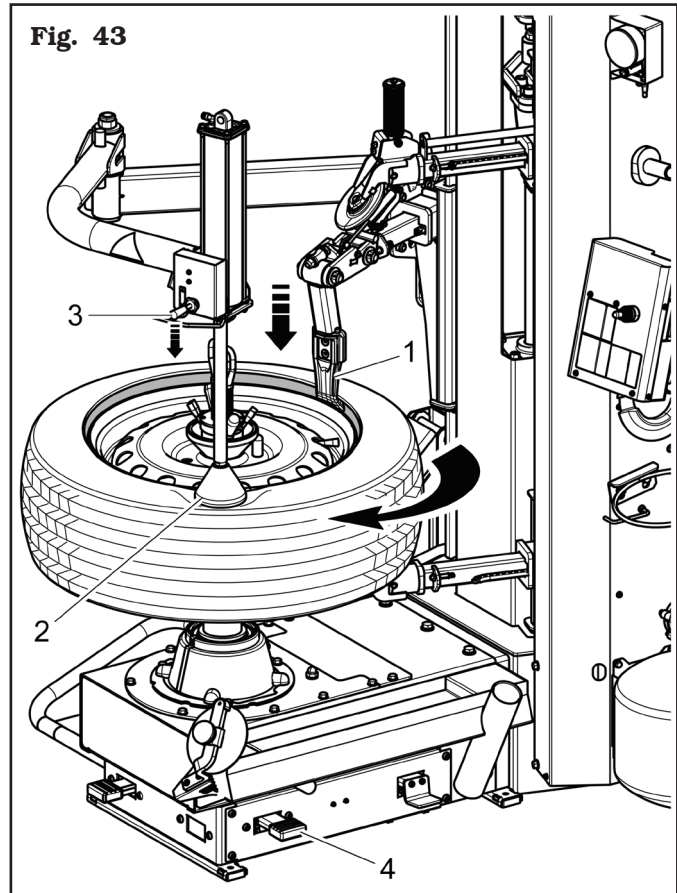
1. Lubricate tyre beads.



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

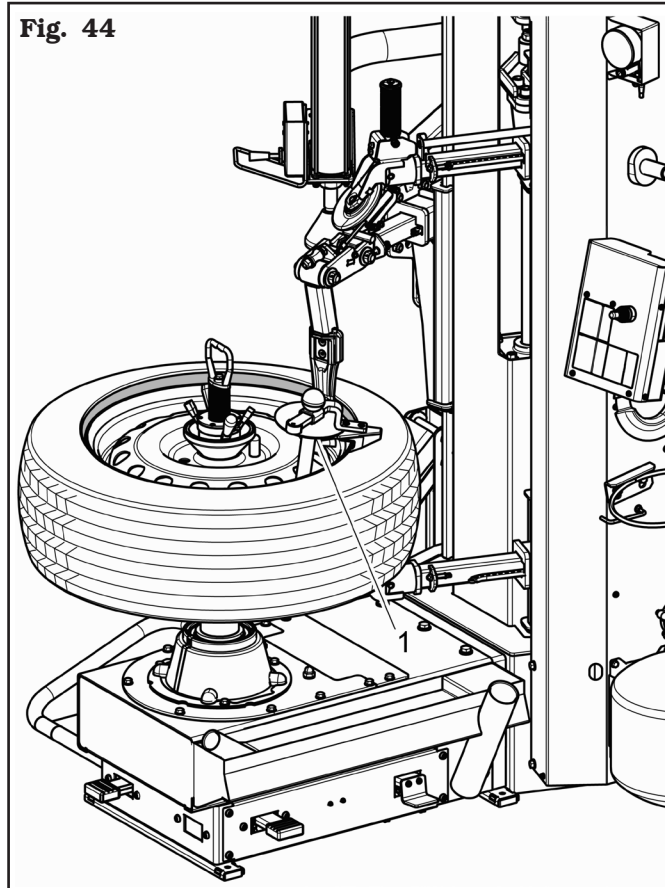
2. Position the tool (**Fig. 43 ref. 1**) onto the rim edge.
3. Hook the lower bead on the tool then rotate clockwise until the complete assembly.
4. Then, position the upper bead on the tool assembly area (**Fig. 43 ref. 1**).
5. Place the presser cone (**Fig. 43 ref. 2**) in "4 o'clock" position as shown in **Fig. 43** and press on the tyre operating the lever of the control unit (**Fig. 43 ref. 3**) downwards.
6. Rotate the chuck clockwise, pressing the pedal (**Fig. 43 ref. 4**), until the tyre is completely assembled.
7. When these operations are over move the tool and presser roll into rest position.

Fig. 43



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

1. Assemble the bead pusher (Fig. 44 ref. 1) with pulling system next to the rim edge (see Fig. 44).



2. Place the upper bead breaker roll (Fig. 45 ref. 1) so that the tyre bead is kept at the same height of the rim groove (see Fig. 45).

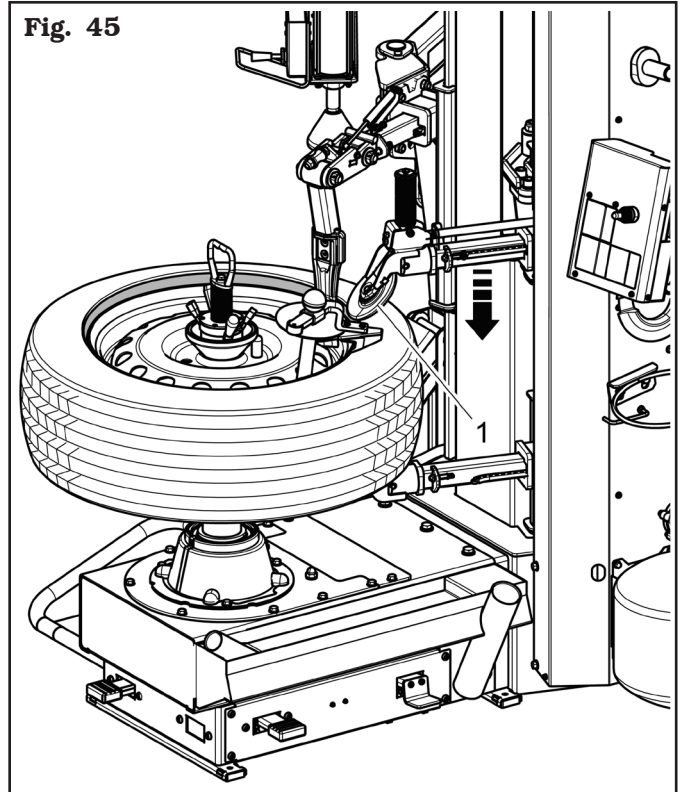


THE BEAD BREAKING DISC MUST EXERT PRESSURE ON THE TYRE BEAD BUT NEVER ON THE RIM.



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

Fig. 45

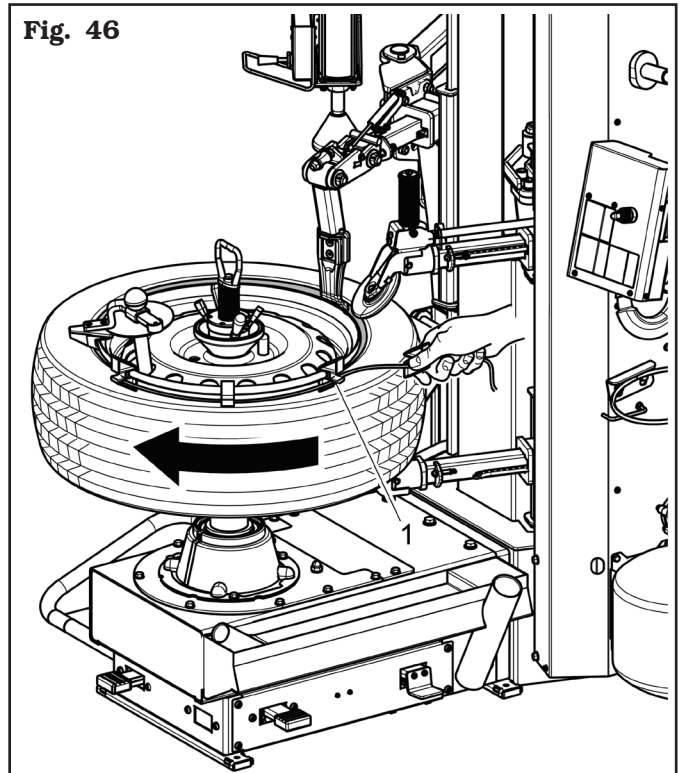


3. Rotate clockwise up to tyre complete assembly (see Fig. 46).



FOR THE MOUNTING OF VERY DIFFICULT WHEELS, USE THE EXTENSION OF THE BEADPUSHER (FIG. 46 REF. 1).

Fig. 46



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



12.8 Tyre inflation with machine without tubeless inflation

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



A SAFETY DEVICE IS PRESENT FOR THE ADJUSTMENT OF THE MAXIMUM PRESSURE OF THE SUPPLIED AIR ($4,2 \pm 0,2$ 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 tyre changer and put it in a safety cage to complete the inflation procedure.

12.9 Tyre inflation with machine with tubeless inflation

Some types of tyre 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 tyre follow these indications:

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



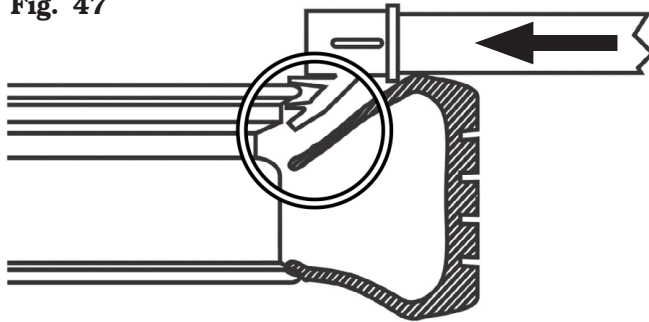
TO IMPROVE THE EFFECTIVENESS OF TUBELESS INFLATION SYSTEM, ALWAYS LUBRICATE TYRE BEADS.

- Press the bead blaster hose on the wheel rim as shown in **Fig. 47**. Ensure the hose head is pressed in to activate the additional air jet.



THE NOZZLE SHOULD BE HORIZONTAL FOR OPTIMAL PERFORMANCE (FIG. 47).

Fig. 47



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 tyre 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 tyre with the required pressure.



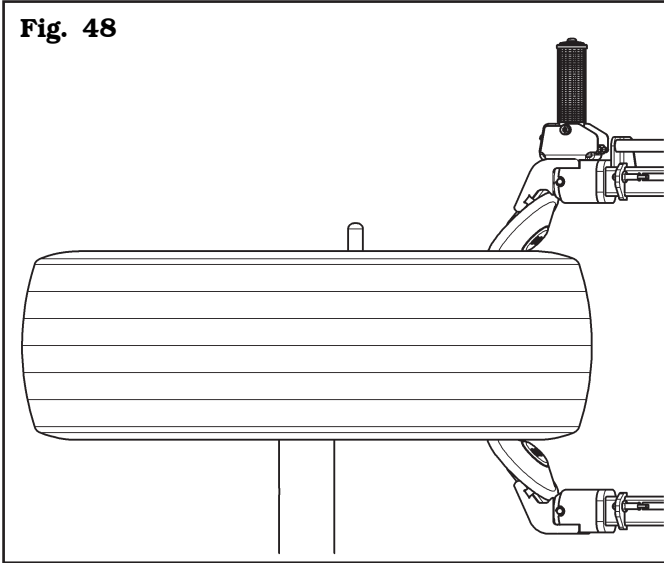
IF THE TYRE GETS INFLATED TOO MUCH, IT IS POSSIBLE TO GET THE AIR OUT OF THE TYRE, BY PUSHING THE MANUAL DEFLATING PUSH BUTTON LOCATED UNDER THE PRESSURE GAUGE.

- 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 tyre to the rim. To conduct this operation carry out the following instructions.

- Clamp the tyre between the bead breaker rolls.
- Turn the chuck clockwise until the reference point on the tyre coincides with the reference point on the rim (usually the valve) (see **Fig. 48**).

Fig. 48


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.

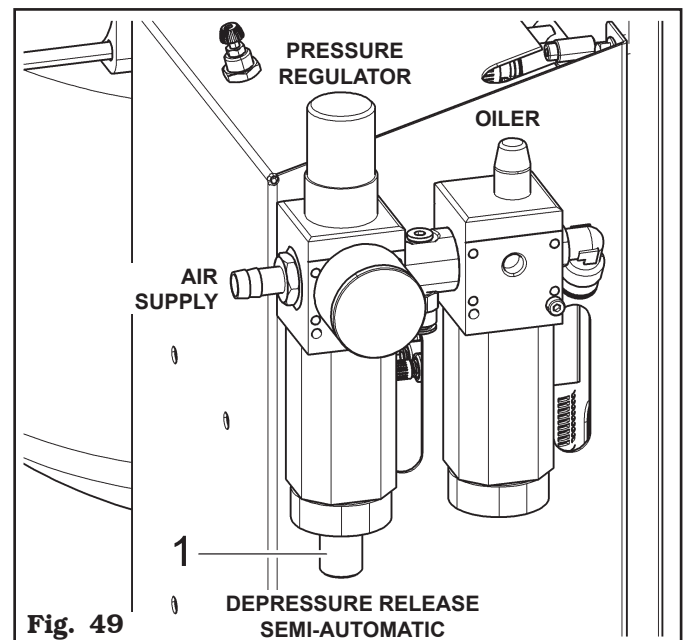
To guarantee the efficiency and correct functioning of the machine, it is essential to carry out daily or weekly cleaning and weekly routine maintenance, as described below.

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 tyre 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. 49**).
- Periodically check the calibration of the lubricator of the pressure regulator/oiler group: 1 drop of oil every 11-15 chuck revolutions.


Fig. 49



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. 49 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.

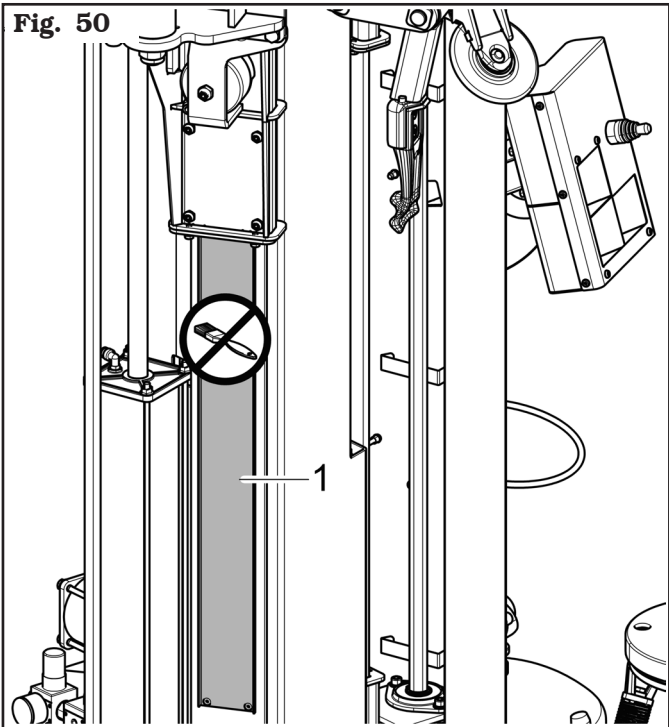


WHEN LUBRICATING THE VERTICAL SLIDING CROSSPIECE OF THE TOOL ARM, BE CAREFUL NOT TO LUBRICATE THE ALUMINIUM PROFILE HIGHLIGHTED IN GREY (FIG. 50 REF. 1).



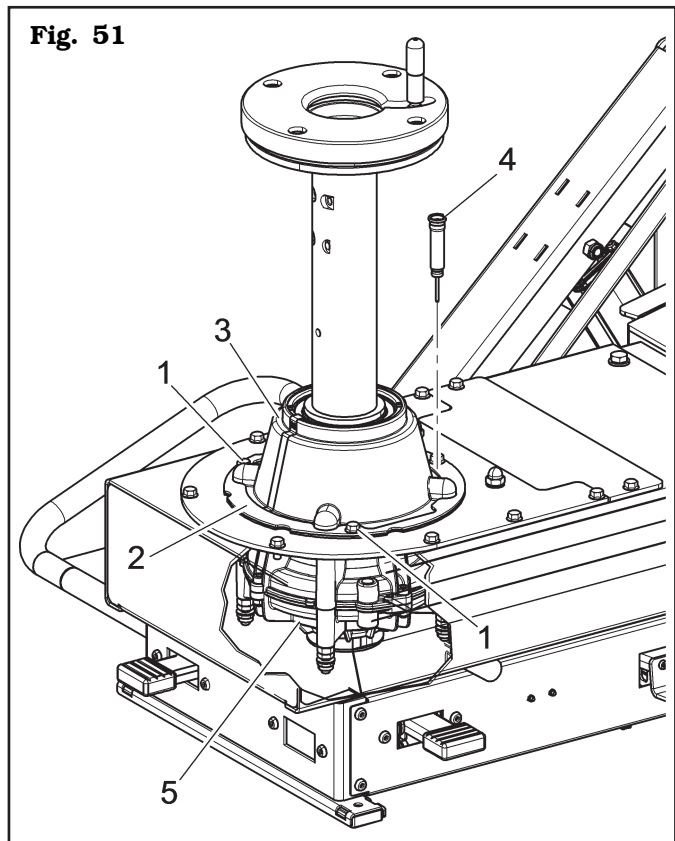
IF, BY MISTAKE, THE ALUMINIUM PROFILE HIGHLIGHTED IN GREY IS LUBRICATED (FIG. 50 REF. 1), CORRECT OPERATION OF THE MACHINE COULD BE COMPROMISED.

Fig. 50



- 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. 51 ref. 5). Such operation must be effectuated unscrewing the screws (Fig. 51 ref. 1), removing the flange (Fig. 51 ref. 2), the guard (Fig. 51 ref. 3) and the plug (Fig. 51 ref. 4) on the reduction gear.

Fig. 51





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!!

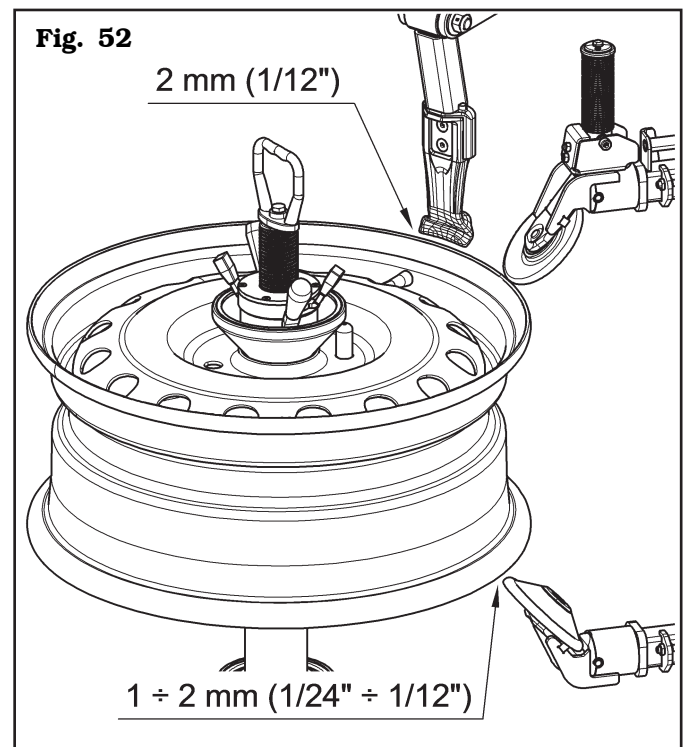
13.1 Rim arm calibration

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 tyre 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. 52**.
2. Check that the lower bead roll takes place at about $1 \div 2$ mm ($1/24'' \div 1/12''$) and the tool at about 2 mm ($1/12''$) from the rim edge, as indicated in **Fig. 52**.



14.0 TROUBLESHOOTING TABLE





Possible troubles which might occur to the tyre-changer are listed below. The manufacturer disclaims all responsibility for damages to people, animals or objects due to improper operation by non-authorized 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 tyre-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. Power supply missed. 2. The control push button is broken.	1. Connect the power 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 <i>Or</i> Inverter undervoltage alarm <i>Or</i> 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 counter-clockwise 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.



Problem	Possible cause	Remedy
By pressing the release button, the horizontal arms of the bead breaking rolls and the tool do not move or move with difficulty.	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Clean the guides and lubricate them. 2. Call for technical assistance. 3. Call for technical assistance. 4. Call for technical assistance. 
The tool holder carriage moves vertically during machining operations.	<ol style="list-style-type: none"> 1. The locking cylinder is leaking air. 2. The vertical clamping aluminium plate was inadvertently lubricated. 	<ol style="list-style-type: none"> 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.	<ol style="list-style-type: none"> 1. Power supply missed. 2. The supply pipes have not been correctly assembled. 3. The control valve is not working. 	<ol style="list-style-type: none"> 1. Check power 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 (ON DEMAND)		
No movement is produced when the control pedal is operated.	<ol style="list-style-type: none"> 1. Supply missing or insufficient. 2. The supply pipes have not been correctly assembled. 3. The control valve is not working. 	<ol style="list-style-type: none"> 1. Check power 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 rotation speed (rev/min)		0 ÷ 15

15.2 Technical mechanical data

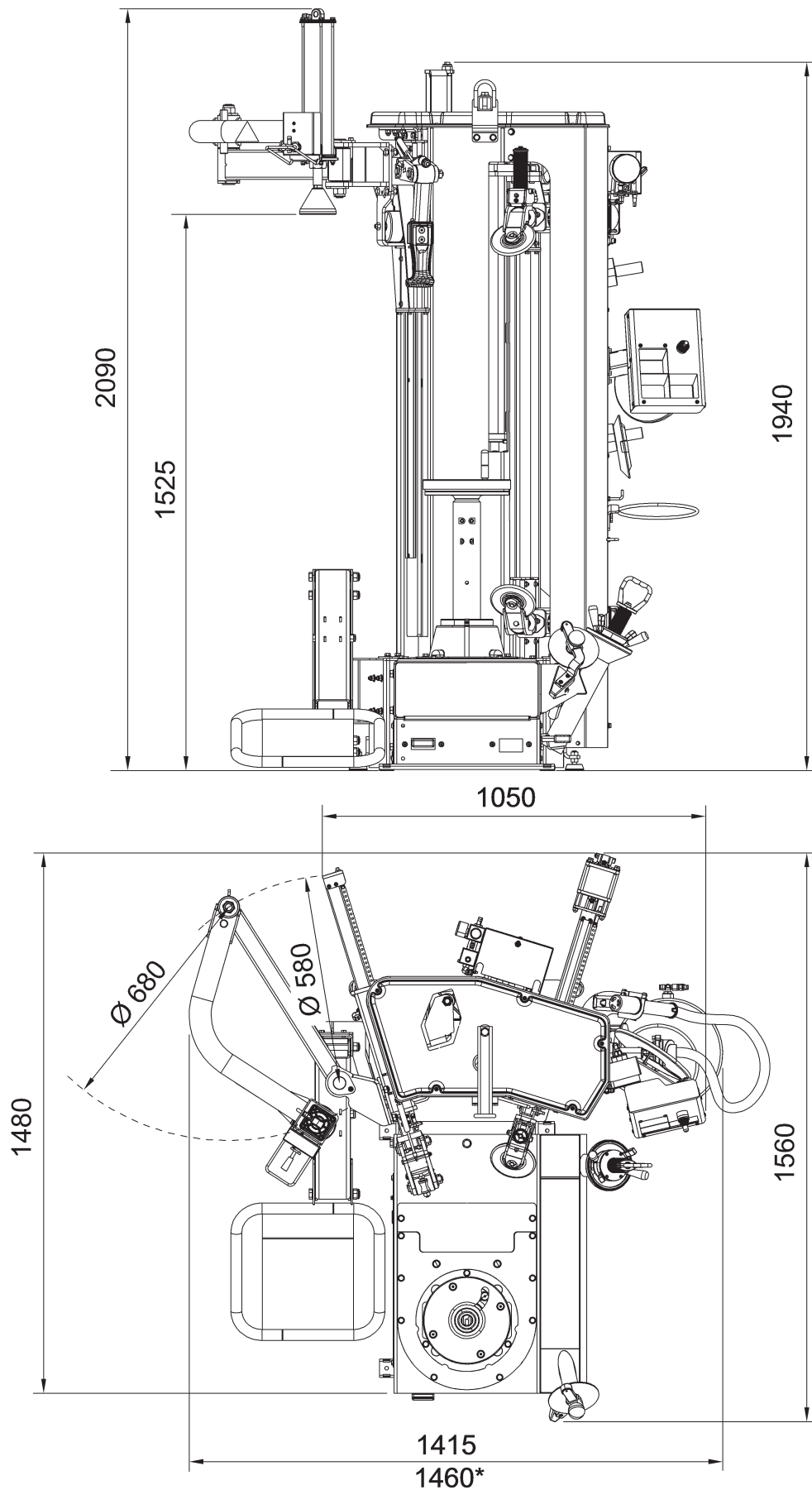
Max. tyre diameter (mm)	1194 (47")
Rim diameter (inches)	10 - 30
Max. wheel width (inches)	15
Bead-breaking force at 10 bar (N)	12000
Operating pressure (bar)	8 - 10

	Model without tubeless inflation	Model with tubeless inflation
Weight (Kg)	402	411



15.3 Dimensions

Fig. 53



* for version with tubeless inflation only

16.0 STORING

If storing for long periods (6 months or longer) 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. Moreover, carry out a verification of machine perfect functioning.

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.

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.

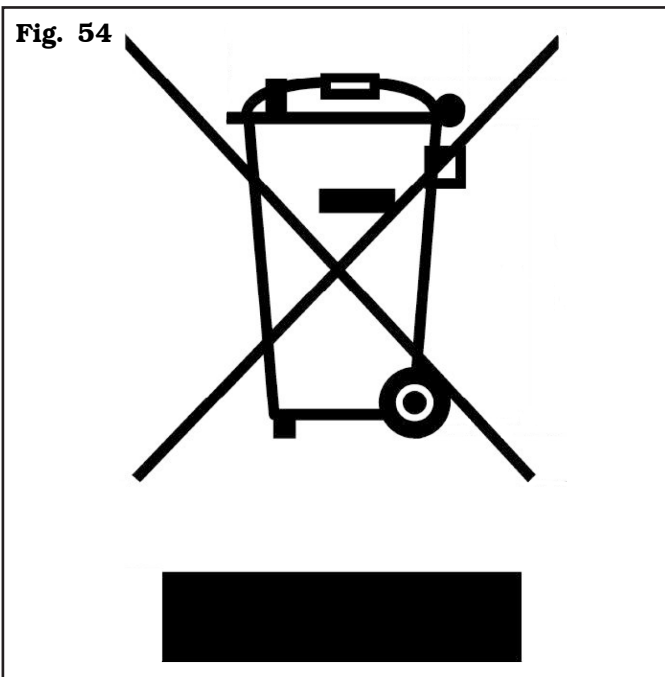


ATTENTION: TAMPERING WITH, CARVING, CHANGING ANYHOW OR EVEN REMOVING MACHINE IDENTIFICATION PLATE IS ABSOLUTELY FORBIDDEN; DO NOT COVER IT WITH TEMPORARY PANELS, ETC., SINCE IT MUST ALWAYS BE VISIBLE.

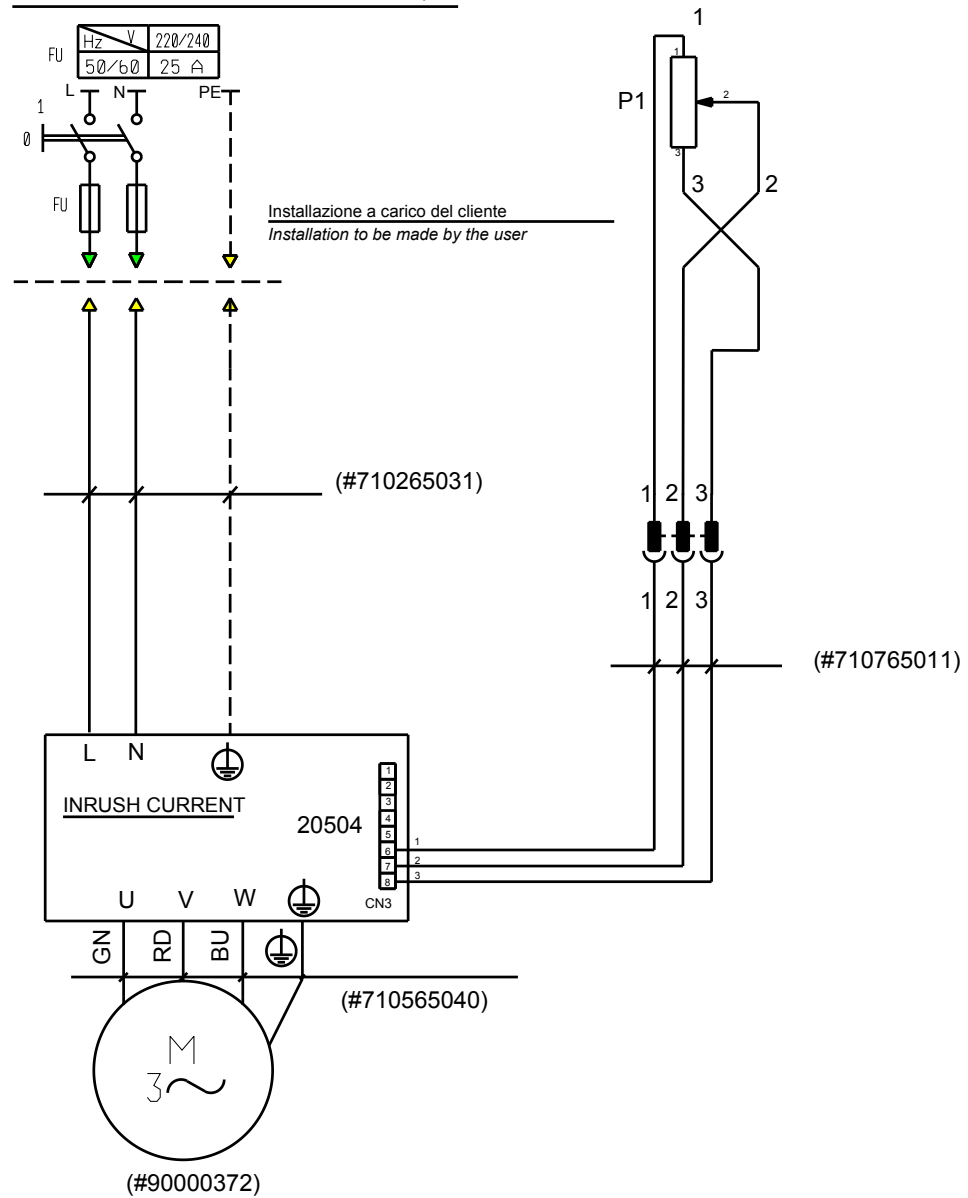
WARNING: Should the plate be accidentally damaged (removed from the machine, damaged or even partially illegible) inform immediately the manufacturer.

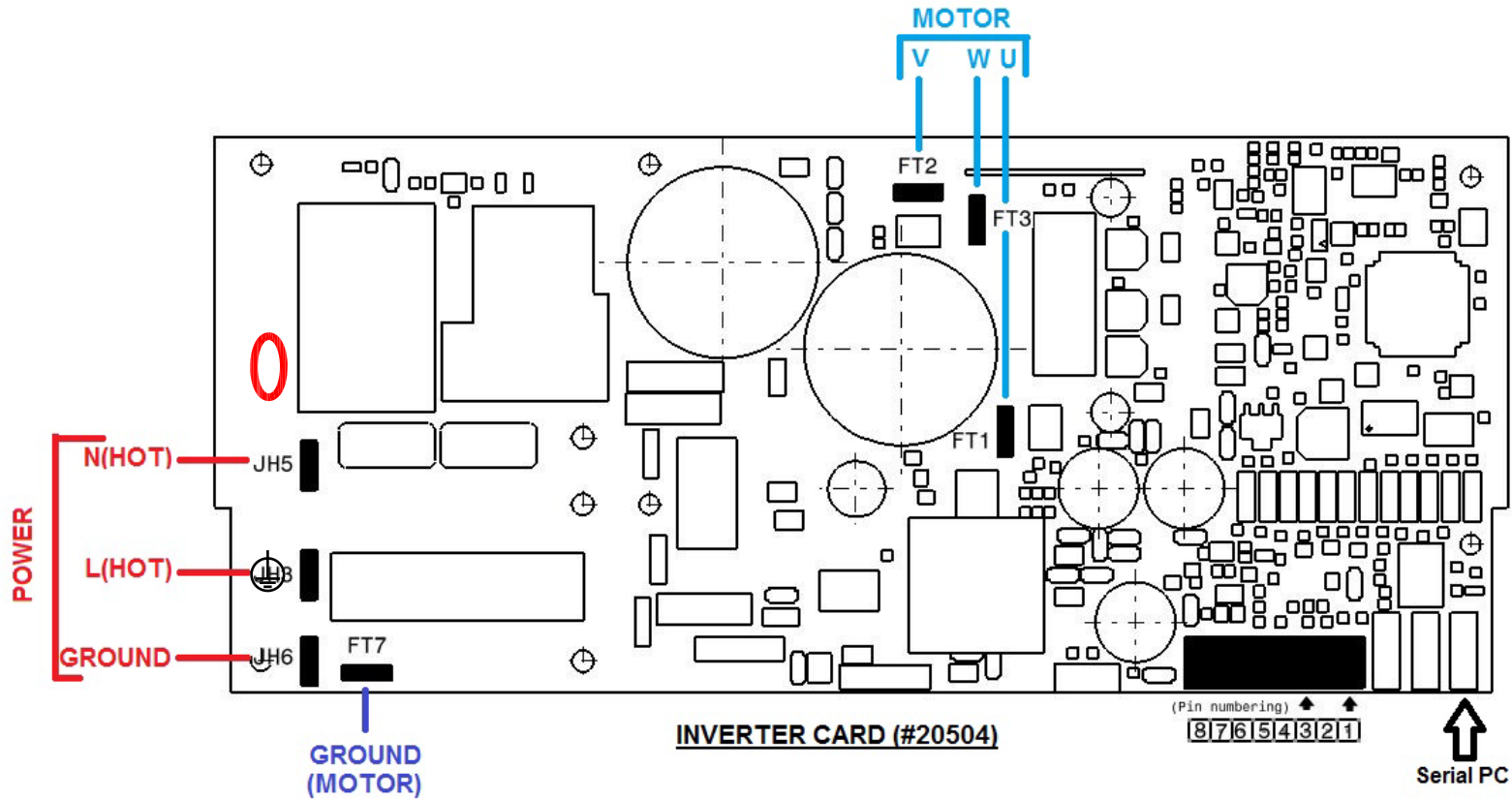
19.0 FUNCTIONAL DIAGRAMS

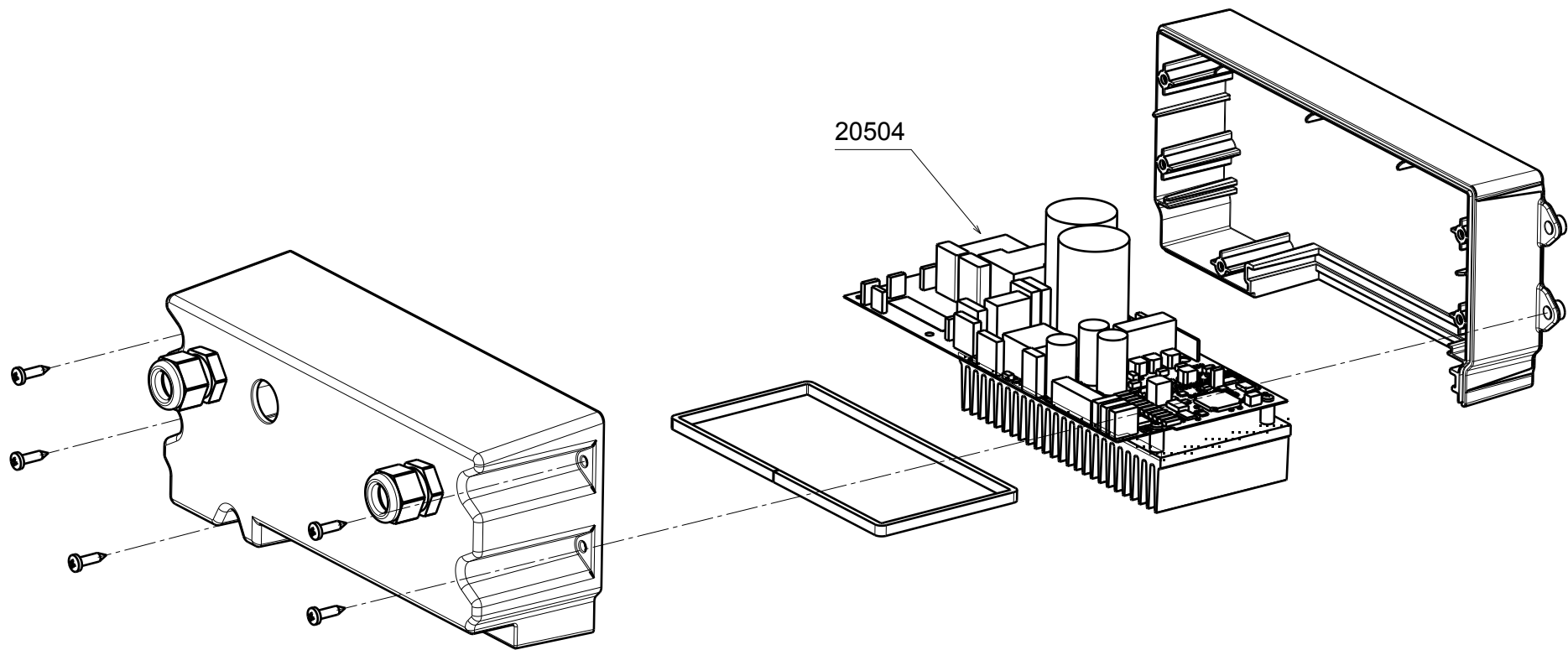
Here follows a list of the machine functional diagrams.

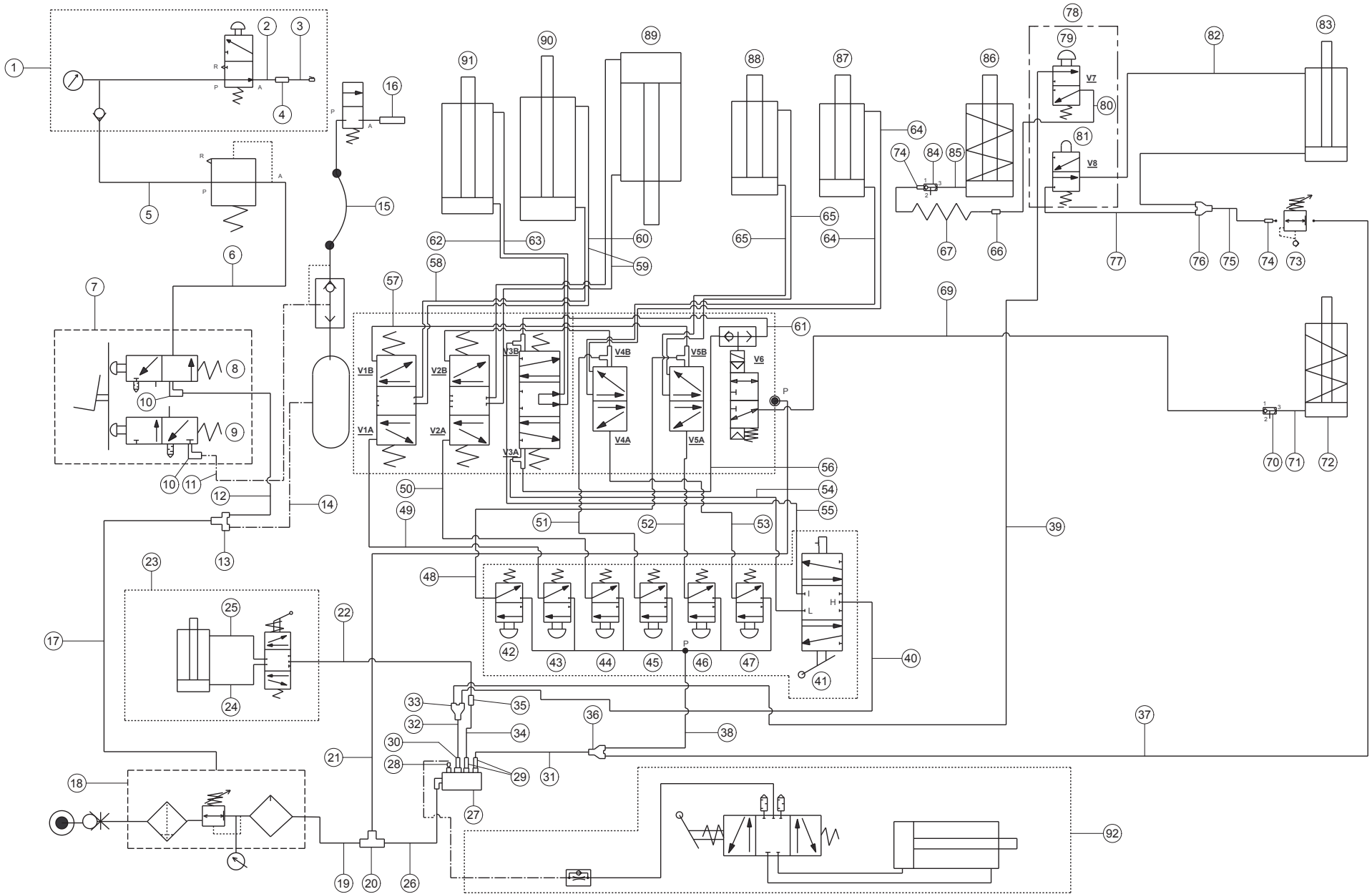


MONOFASE CAVO ALIMENTAZIONE 2P+TERRA x bmmq
 SUPPLY CABLE MONOPHASE 2P+GROUND x bmmq











RAVAGLIOLI S.p.A.

LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°B - Rev. 0

710505150

SCHEMA PNEUMATICO
 PNEUMATIC CIRCUIT DIAGRAM
 PNEUMATIKPLAN
 SCHEMA PNEUMATIQUE
 ESQUEMA NEUMATICO

Pag. 45 di 47

G1190.30
 G1190.30IT

N°	Cod.	Descrizione	Description	Beschreibung	Description	Descripción
1		Gruppo gonfiaggio con manometro	Inflation unit with pressure gauge	Aufpumpsatz mit Manometer	Groupe gonflage avec manomètre	Grupo inflado con manómetro
2	317008	Tubo rilsan 8x6 rosso L=1250	8x6 red rilsan pipe L=1250	Rilsan Schlauch 8x6 rot L=1250	Tuyau rilsan 8x6 rouge L=1250	Tubo rilsan 8x6 rojo L=1250
3	B1600000	Tubo di gonfiaggio L=1500	Inflation pipe L=1500	Aufpumpschlauch L=1500	Tuyau de gonflage L=1500	Tubo de inflado L=1500
4	325204	Raccordo fisso diritto 1/4"	1/4" straight fixed union	Rech und feststehende Anschluss 1/4"	Raccord fixe droit 1/4"	Enlace fijo derecho 1/4"
5	317008	Tubo rilsan 8x6 rosso L=2350	8x6 red rilsan pipe L=2350	Rilsan Schlauch 8x6 rot L=2350	Tuyau rilsan 8x6 rouge L=2350	Tubo rilsan 8x6 rojo L=2350
6	317009	Tubo rilsan 8x6 blu L=450	8x6 blue rilsan pipe L=450	Rilsan Schlauch 8x6 blau L=450	Tuyau rilsan 8x6 bleu L=450	Tubo rilsan 8x6 azul L=450
7		Valvole pedale di gonfiaggio	Inflation pedal valves	Ventile des Aufpumppedals	Vannes pédales de direction de gonflage	Válvulas pedal de inflado
8		Nera N.A.	N.O. black	Schwarz N.O.	Noir N.O.	Negra N.A.
9		Bianca N.C.	N.C. white	Weiß N.G.	Blanche N.F.	Blanca N.C.
10	325186	Raccordo pneumatico L fisso 8-8	8-8 L pneumatic fixed union	Pneumatischer Anschluss L 8-8	Raccord pneumatique L fixe 8-8	Conector neumático L fijo 8-8
11	317007	Tubo rilsan 8x6 nero L=1200	8x6 black rilsan pipe L=1200	Rilsan Schlauch 8x6 schwarz L=1200	Tuyau rilsan 8x6 noir L=1200	Tubo rilsan 8x6 negro L=1200
12	317009	Tubo rilsan 8x6 blu L=250	8x6 blue rilsan pipe L=250	Rilsan Schlauch 8x6 blau L=250	Tuyau rilsan 8x6 bleu L=250	Tubo rilsan 8x6 azul L=250
13	325181	Raccordo a V8	V8 union	V-Verbindung 8	Raccord à V8	Enlace a V8
14	317009	Tubo rilsan 8x6 blu L=690	8x6 blue rilsan pipe L=690	Rilsan Schlauch 8x6 blau L=690	Tuyau rilsan 8x6 bleu L=690	Tubo rilsan 8x6 azul L=690
15	790090810	Tubo cianfrinato	Pipe	Schlauch	Tuyau	Tubo
16		Ugello di gonfiaggio	Inflation nozzle	Aufpumpdüse	Gicleur de gonflage	Boquilla de inflado
17	317009	Tubo rilsan 8x6 blu L=950	8x6 blue rilsan pipe L=950	Rilsan Schlauch 8x6 blau L=950	Tuyau rilsan 8x6 bleu L=950	Tubo rilsan 8x6 azul L=950
18		Gruppo FRP	Pressure reduction filter unit	Satz Druckreduktionfilter	Groupe filtre reduction pression	Grupo filtro reducción presión
19	317010	Tubo rilsan 10x8 nero L=670	10x8 black rilsan pipe L=670	Rilsanschlauch 10x8 schwarz L=670	Tuyau rilsan 10x8 noir L=670	Tubo rilsan 10x8 negro L=670
20	325226	Raccordo intermedio T D.10	T D.10 middle union	Rechtsverbindung T D.10	Raccord intermédiaire T D.10	Conector intermedio T D.10
21	317010	Tubo rilsan 10x8 nero L=310	10x8 black rilsan pipe L=310	Rilsanschlauch 10x8 schwarz L=310	Tuyau rilsan 10x8 noir L=310	Tubo rilsan 10x8 negro L=310
22	317006	Tubo rilsan 6x4 nero L=400	6x4 black rilsan pipe L=400	Rilsan Schlauch 6x4 schwarz L=400	Tuyau rilsan 6x4 noir L=400	Tubo rilsan 6x4 negro L=400
23		Cilindro Plus	Plus cylinder	Zylinder Plus	Cylindre Plus	Cilindro Plus
24	317006	Tubo rilsan 6x4 nero L=450	6x4 black rilsan pipe L=450	Rilsan Schlauch 6x4 schwarz L=450	Tuyau rilsan 6x4 noir L=450	Tubo rilsan 6x4 negro L=450
25	317006	Tubo rilsan 6x4 nero L=250	6x4 black rilsan pipe L=250	Rilsan Schlauch 6x4 schwarz L=250	Tuyau rilsan 6x4 noir L=250	Tubo rilsan 6x4 negro L=250
26	317010	Tubo rilsan 10x8 nero L=175	10x8 black rilsan pipe L=175	Rilsanschlauch 10x8 schwarz L=175	Tuyau rilsan 10x8 noir L=175	Tubo rilsan 10x8 negro L=175
27	710090770	Ripartitore aria	Air distribution frame	Luftverteiler	Répartiteur air	Tablero de distribución aire
28	325151	Tappo	Cap	Stöpsel	Bouchon	Tapa
29	325054	Riduzione 8-6	8-6 reduction	Reduktion 8-6	Reduction 8-6	Reducción 8-6
30	325193	Raccordo adatt. 4/8	4/8 adapter union	Adapterverbindung 4/8	Raccord adapteur 4/8	Enlace adaptador 4/8
31	317006	Tubo rilsan 6x4 nero L=160	6x4 black rilsan pipe L=160	Rilsan Schlauch 6x4 schwarz L=160	Tuyau rilsan 6x4 noir L=160	Tubo rilsan 6x4 negro L=160
32	317026	Tubo rilsan 4x2,7 nero L=60	4x2,7 black rilsan pipe L=60	Rilsan Schlauch 4x2,7 schwarz L=60	Tuyau rilsan 4x2,7 noir L=60	Tubo rilsan 4x2,7 negro L=60
33	B5815000	Raccordo V D.4	V D.4 union	Verbindung V D.4	Raccord V D.4	Conector V D.4
34	317006	Tubo rilsan 6x4 nero L=700	6x4 black rilsan pipe L=700	Rilsan Schlauch 6x4 schwarz L=700	Tuyau rilsan 6x4 noir L=700	Tubo rilsan 6x4 negro L=700
35	B0978000	Raccordo intermedio 6 F-F	6 F-F middle union	Verbindungsstutzen 6 F-F	Raccord intermédiaire 6 F-F	Conector intermedio 6 F-F
36	325191	Raccordo pneumatico Y-6	Y-6 pneumatic union	Pneumatischer Anschluss Y-6	Raccord pneumatique Y-6	Enlace neumático Y-6
37	317006	Tubo rilsan 6x4 nero L=500	6x4 black rilsan pipe L=500	Rilsan Schlauch 6x4 schwarz L=500	Tuyau rilsan 6x4 noir L=500	Tubo rilsan 6x4 negro L=500
38	317006	Tubo rilsan 6x4 nero L=2000	6x4 black rilsan pipe L=2000	Rilsan Schlauch 6x4 schwarz L=2000	Tuyau rilsan 6x4 noir L=2000	Tubo rilsan 6x4 negro L=2000
39	317026	Tubo rilsan 4x2,7 nero L=2920	4x2,7 black rilsan pipe L=2920	Rilsan Schlauch 4x2,7 schwarz L=2920	Tuyau rilsan 4x2,7 noir L=2920	Tubo rilsan 4x2,7 negro L=2920



RAVAGLIOLI S.p.A.

LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°B - Rev. 0

710505150

SCHEMA PNEUMATICO
 PNEUMATIC CIRCUIT DIAGRAM
 PNEUMATIKPLAN
 SCHEMA PNEUMATIQUE
 ESQUEMA NEUMATICO

Pag. 46 di 47

G1190.30
 G1190.30IT

N°	Cod.	Descrizione	Description	Beschreibung	Description	Descripción
40	317026	Tubo rilsan 4x2,7 nero L=2050	4x2,7 black rilsan pipe L=2050	Rilsan Schlauch 4x2,7 schwarz L=2050	Tuyau rilsan 4x2,7 noir L=2050	Tubo rilsan 4x2,7 negro L=2050
41		Joystick utensile	Tool joystick	Joystick-Werkzeug	Joystick outil	Joystick utensilio
42		Salita stallonatore superiore	Upper bead breaker rise	Anheben obereren Abdrückers	Montée décolle-talon supérieur	Subida destalonador superior
43		Discesa stallonatore superiore	Upper bead breaker lowering	Absenken oberen Abdrückers	Descente décolle-talon supérieur	Bajada destalonador superior
44		Salita stallonatore inferiore	Lower bead breaker rise	Anheben unteren Abdrückers	Montée décolle-talon inférieur	Subida destalonador inferior
45		Discesa stallonatore inferiore	Lower bead breaker lowering	Absenken unteren Abdrückers	Descente décolle-talon inférieur	Bajada destalonador inferior
46		Camma superiore	Upper cam	Obernocke	Came supérieur	Leva superior
47		Camma inferiore	Lower cam	Unternocke	Came inférieur	Leva inferior
48	BMP90000	Tubo rilsan 4x2,7 giallo L=2100	4x2,7 yellow rilsan pipe L=2100	Rilsan Schlauch 4x2,7 gelb L=2100	Tuyau rilsan 4x2,7 jaune L=2100	Tubo rilsan 4x2,7 amarillo L=2100
49	317027	Tubo rilsan 4x2,7 rosso L=1830	4x2,7 red rilsan pipe L=1830	Rilsan Schlauch 4x2,7 rot L=1830	Tuyau rilsan 4x2,7 rouge L=1830	Tubo rilsan 4x2,7 rojo L=1830
50	317028	Tubo rilsan 4x2,7 verde L=1850	4x2,7 green rilsan pipe L=1850	Rilsan Schlauch 4x2,7 grün L=1850	Tuyau rilsan 4x2,7 vert L=1850	Tubo rilsan 4x2,7 verde L=1850
51	317029	Tubo rilsan 4x2,7 bianco L=2050	4x2,7 white rilsan pipe L=2050	Rilsan Schlauch 4x2,7 weiß L=2050	Tuyau rilsan 4x2,7 blanc L=2050	Tubo rilsan 4x2,7 blanco L=2050
52	317040	Tubo rilsan 4x2,7 blu notte L=2100	4x2,7 midnight blue rilsan pipe L=2100	Rilsan Schlauch 4x2,7 nachtblau L=2100	Tuyau rilsan 4x2,7 bleu nuit L=2100	Tubo rilsan 4x2,7 azul noche L=2100
53	317039	Tubo rilsan 4x2,7 blu L=2050	4x2,7 blue rilsan pipe L=2050	Rilsan Schlauch 4x2,7 blau L=2050	Tuyau rilsan 4x2,7 bleu L=2050	Tubo rilsan 4x2,7 azul L=2050
54	317041	Tubo rilsan 4x2,7 argento L=2000	4x2,7 silver rilsan pipe L=2000	Rilsanschlauch 4x2,7 silberfarbig L=2000	Tuyau rilsan 4x2,7 argenté L=2000	Tubo rilsan 4x2,7 plateado L=2000
55	317042	Tubo rilsan 4x2,7 arancio L=2000	4x2,7 orange rilsan pipe L=2000	Rilsanschlauch 4x2,7 orangenfarben L=2000	Tuyau rilsan 4x2,7 orangé L=2000	Tubo rilsan 4x2,7 anaranjado L=2000
56	317042	Tubo rilsan 4x2,7 arancio L=270	4x2,7 orange rilsan pipe L=270	Rilsanschlauch 4x2,7 orangenfarben L=270	Tuyau rilsan 4x2,7 orangé L=270	Tubo rilsan 4x2,7 anaranjado L=270
57	BMP90000	Tubo rilsan 4x2,7 giallo L=310	4x2,7 yellow rilsan pipe L=310	Rilsan Schlauch 4x2,7 gelb L=310	Tuyau rilsan 4x2,7 jaune L=310	Tubo rilsan 4x2,7 amarillo L=310
58	317006	Tubo rilsan 6x4 nero L=500	6x4 black rilsan pipe L=500	Rilsan Schlauch 6x4 schwarz L=500	Tuyau rilsan 6x4 noir L=500	Tubo rilsan 6x4 negro L=500
59	317006	Tubo rilsan 6x4 nero L=1180	6x4 black rilsan pipe L= 1180	Rilsan Schlauch 6x4 schwarz L=1180	Tuyau rilsan 6x4 noir L=1180	Tubo rilsan 6x4 negro L=1180
60	317006	Tubo rilsan 6x4 nero L=2000	6x4 black rilsan pipe L= 2000	Rilsan Schlauch 6x4 schwarz L=2000	Tuyau rilsan 6x4 noir L=2000	Tubo rilsan 6x4 negro L=2000
61	317041	Tubo rilsan 4x2,7 argento L=270	4x2,7 silver rilsan pipe L=270	Rilsanschlauch 4x2,7 silberfarbig L=270	Tuyau rilsan 4x2,7 argenté L=270	Tubo rilsan 4x2,7 plateado L=270
62	317006	Tubo rilsan 6x4 nero L=400	6x4 black rilsan pipe L=400	Rilsan Schlauch 6x4 schwarz L=400	Tuyau rilsan 6x4 noir L=400	Tubo rilsan 6x4 negro L=400
63	317006	Tubo rilsan 6x4 nero L=1450	6x4 black rilsan pipe L=1450	Rilsan Schlauch 6x4 schwarz L=1450	Tuyau rilsan 6x4 noir L=1450	Tubo rilsan 6x4 negro L=1450
64	317006	Tubo rilsan 6x4 nero L=2020	6x4 black rilsan pipe L=2020	Rilsan Schlauch 6x4 schwarz L=2020	Tuyau rilsan 6x4 noir L=2020	Tubo rilsan 6x4 negro L=2020
65	317006	Tubo rilsan 6x4 nero L=2150	6x4 black rilsan pipe L=2150	Rilsan Schlauch 6x4 schwarz L=2150	Tuyau rilsan 6x4 noir L=2150	Tubo rilsan 6x4 negro L=2150
66	B0978000	Raccordo intermedio 6 F-F	6 F-F middle union	Verbindungsstutzen 6 F-F	Raccord intermédiaire 6 F-F	Conector intermedio 6 F-F
67	710520530	Spirale 4x2 L=80	4x2 L=80 spiral	Spirale 4x2 L=80	Spirale 4x2 L=80	Espiral 4x2 L=80
68	317029	Tubo rilsan 4x2,7 bianco L=270	4x2,7 white rilsan pipe L=270	Rilsan Schlauch 4x2,7 weiß L=270	Tuyau rilsan 4x2,7 blanc L=270	Tubo rilsan 4x2,7 blanco L=270
69	317006	Tubo rilsan 6x4 nero L=2420	6x4 black rilsan pipe L=2420	Rilsan Schlauch 6x4 schwarz L=2420	Tuyau rilsan 6x4 noir L=2420	Tubo rilsan 6x4 negro L=2420
70	B4077600	Valvola scarico rapido	Quick exhaust valve	Schnellausslassventil	Vanne échappement rapide	Válvula de escape rápido
71	317006	Tubo rilsan 6x4 nero L=90	6x4 black rilsan pipe L=90	Rilsan Schlauch 6x4 schwarz L=90	Tuyau rilsan 6x4 noir L=90	Tubo rilsan 6x4 negro L=90
72		Cilindro freno carro utensile	Tool carriage brake cylinder	Bremszylinder des Werkzeugwagens	Cylindre frein chariot outils	Cylindre frein chariot outils
73		Regolatore di pressione	Pressure regulator	Druckregler	Régulateur de pression	Regulador de presión
74	325214	Raccordo intermedio diritto	Right middle union	Rechtsmittelverbindung	Raccord intermédiaire droit	Conector intermedio derecho
75	317029	Tubo rilsan 4x2,7 bianco L=2300	4x2,7 white rilsan pipe L=2300	Rilsan Schlauch 4x2,7 weiß L=2300	Tuyau rilsan 4x2,7 blanc L=2300	Tubo rilsan 4x2,7 blanco L=2300



Dichiarazione di Conformità

Declaration of Conformity
Konformitätserklärung
Déclaration de Conformité
Declaración de Conformidad



Noi
We / Wir / Nous / Nosotros

RAVAGLIOLI S.p.A.
via 1° Maggio, 3
40037 Pontecchio Marconi (Bologna) – ITALIA

dichiariamo sotto la nostra esclusiva responsabilità che il prodotto

declare, undertaking sole responsibility, that the product
erklären unter unserer alleinigen Verantwortung, dass das Produkt
déclarons, sous notre entière responsabilité, que le produit
declaramos bajo nuestra exclusiva responsabilidad, que el producto

Smontagomme

Tyre changer
Reifenmontiermaschine
Démonte-Pneus
Desmontadora

al quale questa dichiarazione si riferisce, in conformità alle seguenti Direttive applicabili:

to which this declaration applies is in compliance with the following applicable Directives:
auf das sich diese Erklärung bezieht, den nachstehenden anwendbaren Normen entspricht:
objet de cette déclaration est conforme aux Directives applicables suivantes:
al que se refiere esta declaración cumple con las siguientes Normas aplicables:

2006/42/CE

Direttiva Macchine

2014/30/UE

Direttiva Compatibilità Elettromagnetica

Per la conformità alle suddette direttive sono state seguite le seguenti Norme Armonizzate:

To comply with the above mentioned Directives, we have followed the following harmonized directives:

In Übereinstimmung mit o.g. Richtlinien wurden folgende harmonisierte Normen befolgt:

Pour la conformité aux normes ci-dessus, nous avons suivi les normes harmonisées suivantes:

Para la conformidad a las Normas arriba mencionadas, hemos seguido las siguientes normas armonizadas:

UNI EN ISO 12100:2010

Sicurezza del macchinario – Principi generali di progettazione – Valutazione del rischio
riduzione del rischio

CEI EN 60204-1:2006/AC:2010

Sicurezza del macchinario – Equipaggiamento elettrico delle macchine –
Parte 1: Regole generali

E la seguente Norma tecnica

And the following technical Directive

Sowie die folgende technische Norm

Et la Norme technique suivante

Y la siguiente Norma técnica

UNI 11691:2017

Macchine per smontaggio e montaggio pneumatici per veicoli – Requisiti di sicurezza

La persona preposta a costituire il fascicolo tecnico è RAVAGLIOLI S.p.A.

The technical documentation file is constituted by RAVAGLIOLI S.p.A.

Vorgesetzte Rechtsperson für die Erstellung des technischen Lastenheftes ist RAVAGLIOLI S.p.A.

La société RAVAGLIOLI S.p.A. est l'organisme délégué à la présentation de la documentation technique.

RAVAGLIOLI S.p.A. es encargada a la constitución del archivo técnico.

RAVAGLIOLI S.p.A.

Il modello della presente dichiarazione è conforme alla norma

UNI CEI EN ISO/IEC 17050-1

The version of this declaration conforms to the regulation

Das Modell der vorliegenden Erklärung entspricht der Norm

Le modèle de la présente déclaration est conforme à la norme

El modelo de la presente declaración cumple la norma