

7300-M005-6

**RWC240.22IB -RWC246.26IB
RWC246.26IRB - RWC246.26IHB
RWC246.26IAB - RWC246.26IRAB**

INSTRUCTION MANUAL

GB TRANSLATION FROM THE
ORIGINAL INSTRUCTIONS

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

- For any further information please contact your local dealer.

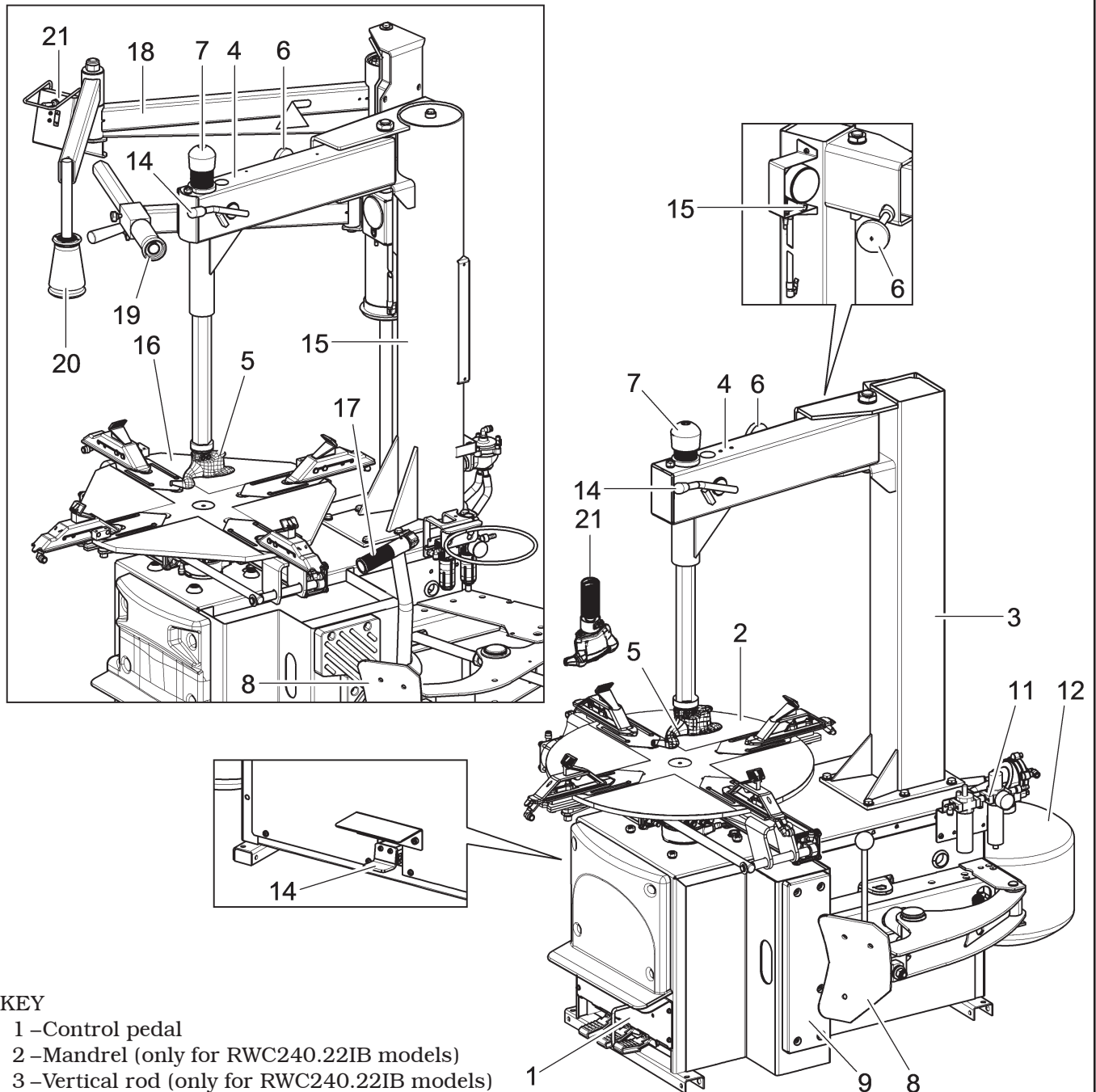
7300-M005-6 - Rev. n. 6 (06/2019)

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Fig. 1









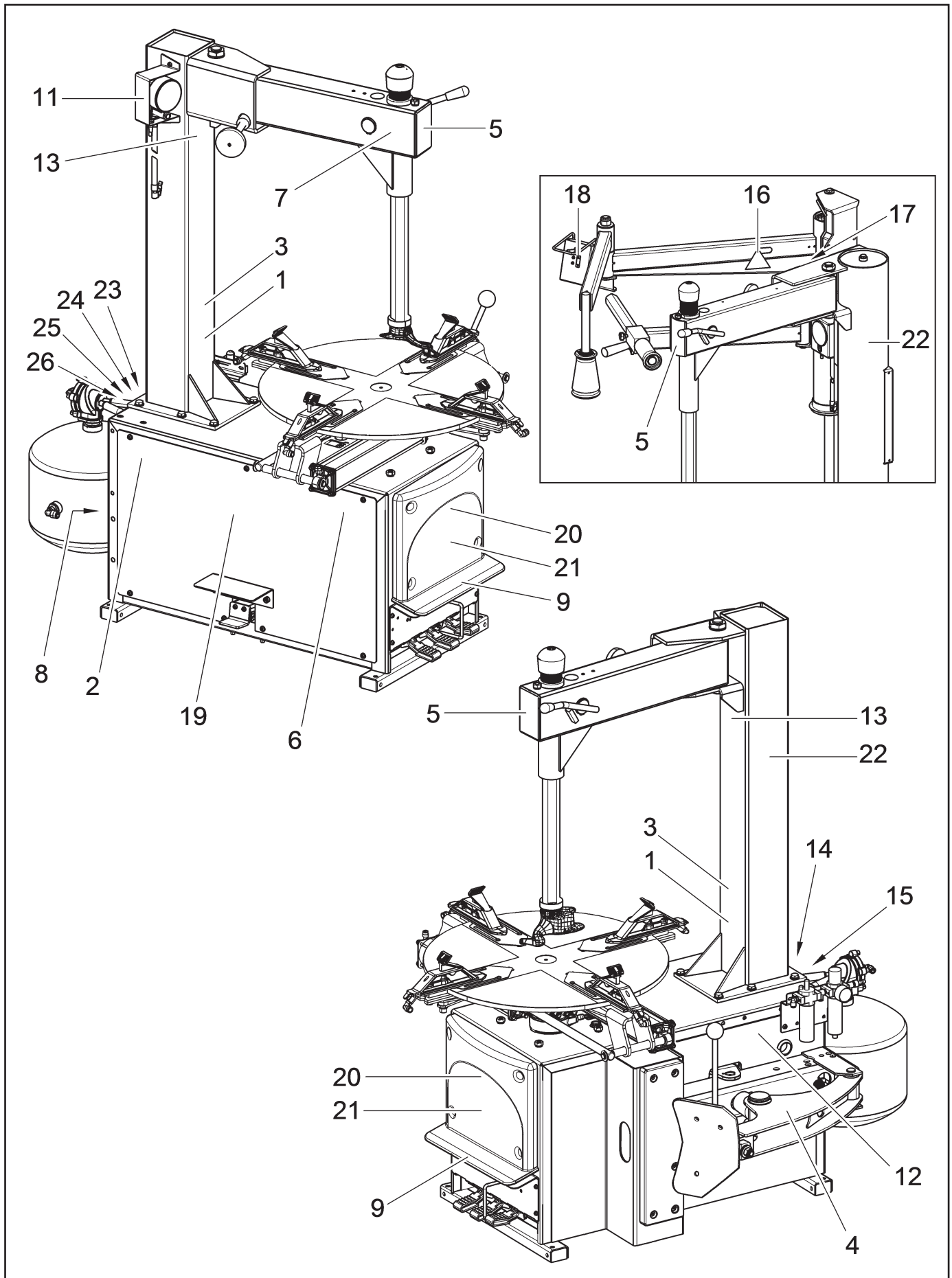
KEY

- 1 -Control pedal
- 2 -Mandrel (only for RWC240.22IB models)
- 3 -Vertical rod (only for RWC240.22IB models)
- 4 -Horizontal arm
- 5 -Head
- 6 -Clamping knob for flag arm rotation
- 7 -Handle
- 8 -Vane
- 9 -Pad
- 10 -Tyre deflating push button
- 11 -Lubricator filter unit
- 12 -Tubeless inflating device (only for RWC240.22IB models)
- 13 -Inflation pedal
- 14 -Tool sliding locking lever
- 15 -Vertical rod with tank for tubeless inflation (only for RWC246.26IB - RWC246.26IRB - RWC246.26IHB - RWC246.26IAB - RWC246.26IRAB models)
- 16 -Mandrel (only for RWC246.26IB - RWC246.26IRB - RWC246.26IHB - RWC246.26IAB - RWC246.26IRAB models)
- 17 -VSG800A101 - Bead breaking control on vane (only for RWC246.26IRB - RWC246.26IRAB models)
- 18 -PLUS91SA - Rotating bead presser device (only for RWC246.26IHB models)
- 19 -Roll presser (only for RWC246.26IHB models)
- 20 -bead presser roll (only for RWC246.26IHB models)
- 21 -Balancing plastic tool

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.
	Move with fork lift truck or pallet truck.
	Lift from above.
	Technical assistance necessary. Do not perform any intervention.
	Caution: hanging loads.
	Note. Indication and/or useful information.

INFORMATION PLATE LOCATION TABLE


Ref.	Code	Description
1	VS4219000	Rotation indicating plate
2	VS99990758	Electricity danger plate (only for RWC240.22IB - RWC246.26IB - RWC246.26IRB - RWC246.26IHB models)
3	VS999910050	Protection device use plate
4	VS999910060	Bead breaker danger plate
5	VS999913250	Head use indicating plate
6	VS999911770	Unit move indicating plate
7	VS999911890	Bursting tyre hazard plate
8	VS999912550	110-60-1 voltage table (valid for all models except for RWC246.26IAB - RWC246.26IRAB versions)
9	VS2661000	4 pedal symbol plate
10	VS4221000	Grounding plate (valid for all models except for RWC246.26IAB - RWC246.26IRAB versions) (placed on the motor)
11	VS2170000	Max inflation pressure rating plate (only for RWC240.22IB model)
12	VS999916311	Rubbish skip label
13	VS999911870	Headphones plate
14	VS999914290	Serial number plate
15	VS999923160	Prop 65 Attention plate
16	VS2166000	Bead breaker danger plate (only for RWC246.26IHB model)
17	VS999912400	Serial number plate (only for RWC246.26IHB model)
18	VS999914700	Bead depressing roll control plate (only for RWC246.26IHB model)
19	VS999923540	Rotary R146 plate (only for RWC240.22IB model)
	VS999921850	Rotary R146 plate (only for RWC246.26IB - RWC246.26IRB - RWC246.26IHB - RWC246.26IAB - RWC246.26IRAB models)
20	VS999921740	Rotary "R" plate
21	VS999921750	Rotary "Wheel service" plate
22	VS999921730	Rotary plate
23	VS999922390	Overload protection plate
24	VS999923360	Disconnect power supply plate
25	VS999923350	For indoor use only plate
26	VS999923380	1Ph 110V 10A 60Hz plate (valid for all models except for RWC246.26IAB - RWC246.26IRAB versions)



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 tyre-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 tyre-changers for car tires projected to be used exclusively for the mounting, demounting, and inflation of wheels.



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:

- **Fixed guards.**

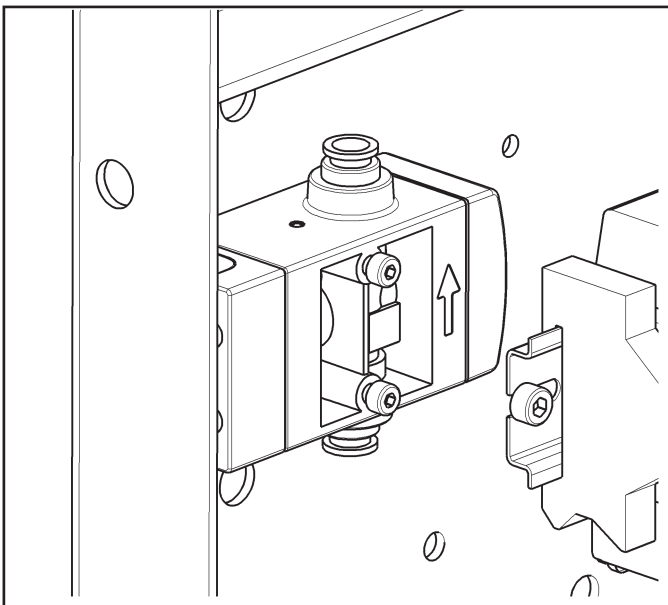
The machine is fitted with a number of fixed guards intended to prevent potential crushing, cutting and compression risks.

- **“Operator attending”** controls (immediate stop by releasing control) for: mandrel rotation, bead breaker vane motion, inflating; other drives such as rim clamping on spindle, head clamping cannot be of the operator-attending type, see their function. In these cases safety is guaranteed by compliance with indications or precautions on machine residual risks (warning plates) also mentioned in the user’s guide.

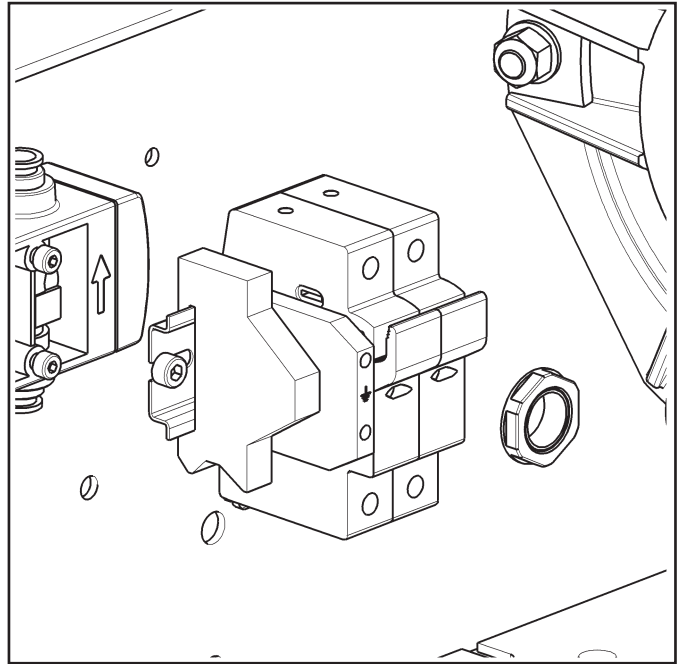
All machines can also be used for inflating tires and are equipped with the following elements:

- pressure gauge for tyre pressure reading, EC-certified and in compliance with 86/217/EEC Standard;
- max. pressure valve fitted on compressed air reservoir (preset – see pneumatic diagram) in compliance with 87/404/EEC Standard;
- **Non-adjustable (balancing valve) pressure limiter (see figure below).**

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



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



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 TABLE” on page 5.

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.
- The machine may be used only in areas free from the danger of explosion or fire.
- The use of only original accessories and spare parts is advised. Our machine is designed to function only with original accessories.
- Installation must be conducted only by qualified personnel exactly according to the instructions that are 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, cutting electrical and/or pneumatic power supply off by using the main switch (only for RWC240.22IB - RWC246.26IB - RWC246.26IRB - RWC246.26IHB models).
- 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.

	<p>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.</p>

- The machine handles and operating grips must be kept clean and free from oil.
- The workshop must be kept clean, dry and not exposed to atmospheric agents. 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 **Figure 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 remain above it. When beading in the tyre, keep hands away from tyre and the 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.

	<p>THE MANUFACTURER DENIES ANY RESPONSIBILITY IN CASE OF DAMAGES CAUSED BY UNAUTHORIZED MODIFICATIONS OR BY THE USE OF NON ORIGINAL COMPONENTS OR EQUIPMENT.</p>
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	<p>IN CASE OF A CHANCE SUPPLY FAILURE (WHETHER ELECTRICITY OR COMPRESSED AIR), MOVE THE PEDALS TO THE NEUTRAL POSITION.</p>
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5.0 PACKING AND MOBILIZATION FOR TRANSPORT

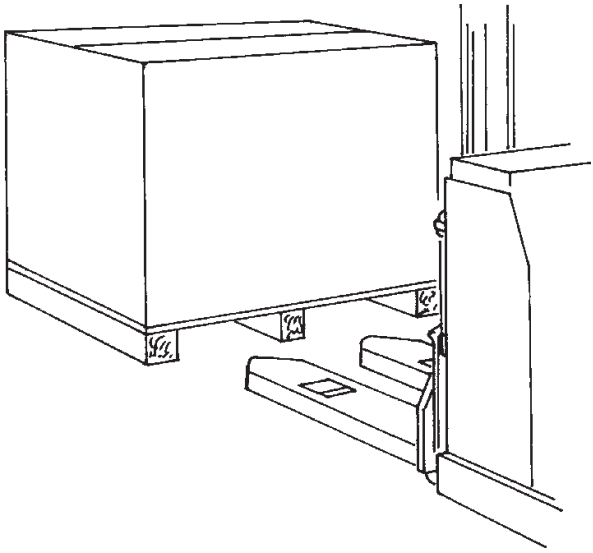


HAVE THE MACHINE HANDLED BY SKILLED PERSONNEL ONLY.

THE LIFTING EQUIPMENT MUST WITHSTAND A MINIMUM RATED LOAD EQUAL TO THE WEIGHT OF THE PACKED MACHINE (see paragraph "TECHNICAL SPECIFICATIONS").

The machine is supplied packed in a cardboard box. Movement 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

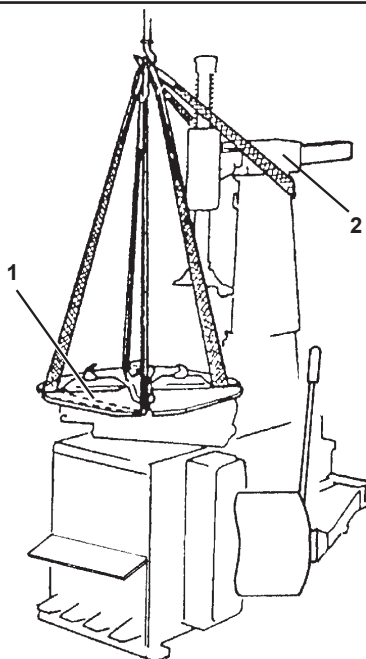


THE LIFTING EQUIPMENT MUST WITHSTAND A MINIMUM RATED LOAD EQUAL TO THE WEIGHT OF THE MACHINE (SEE PARAGRAPH TECHNICAL SPECIFICATIONS). DO NOT ALLOW THE LIFTED MACHINE TO SWING.

If the machine has to be moved from its normal work post, the movement must be conducted following the instructions listed below (see **Fig. 3**).

- close completely mandrel jaws;
- turn the mandrel until its straight sides are aligned with machine sides;
- disconnect all machine power supply sources;
- move to central position the arm (**Fig. 3 ref. 2**);
- remove horizontal arm guard by unscrewing the provided fixing screws;
- sling the machine using belts with a minimum width of 60 mm;
- pass the first belt behind the horizontal arm as shown in the figure;
- pass the second belt between the two front openings of mandrel plate (**Fig. 3 ref. 1**);
- pass the third belt between the two rear openings of mandrel plate (**Fig. 3 ref. 1**);
- tie up support belt ends above the machine using a suitable belt ring;
- lift and transport with suitable device with adequate dimensions.

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).

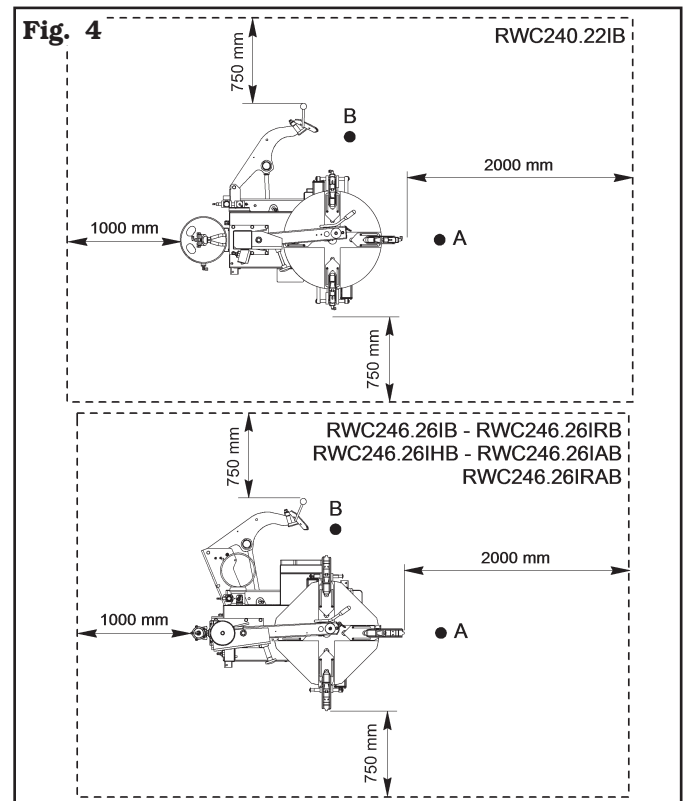
The use of the machine in ambient conditions other than those specified above is only allowed after prior agreement with and approval of the manufacturer.

8.1 Working position

In **Figure 4** it is possible to identify working positions **A** and **B**.

Position **A** is the main position for wheel fitting and removal with the mandrel, while position **B** is ideal to follow wheel bead breaking operations. Working in these positions allows better precision and speed during operating phases as well as greater safety for the operator.

8.2 Installation space



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

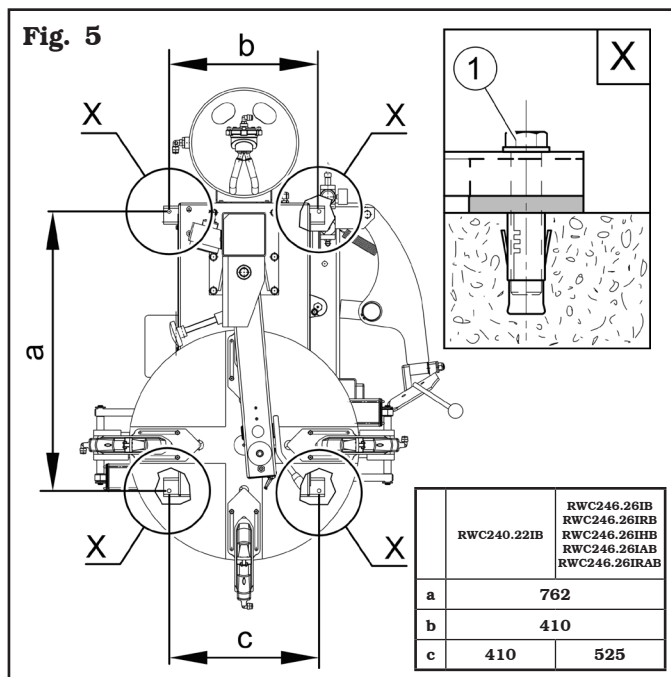
The machine does not require its own lighting for normal working operations.

However, it must be placed in an adequately lit environment.

For correct lighting, use lamps having total power 800/1200 Watt as envisaged by UNI 10380.

9.0 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 10 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 M8x80 mm screws (excluded from supply) (**Fig. 5 ref. 1**) (or with 4 8x80 mm stud bolts (excluded from supply)). Tighten the screws with an approximate tightening torque of 70 Nm.

10.0 ASSEMBLY AND PREPARATION FOR USE

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.

10.1 Fixtures contained in the packing

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

Code	Description	N.
VSG800A117	Tools protection set	1
VSG800A37	Mounting grease	1
VSG800A38	Brush	1
VSG800A11	Bead breaker vane guard	1
VSG800A60	Balancing plastic tool	1
VS299111	Lever	1

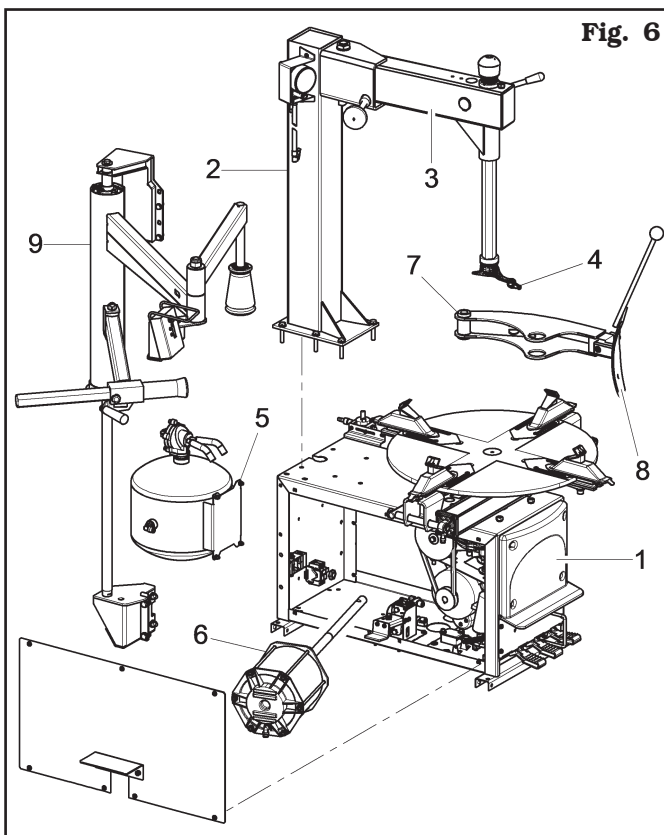
Only for RWC240.22IB model

Code	Description	N.
VSB7355000	Grease holder ring	1

10.2 Assembly procedures

Remove the packaging and free the machine from the wrapping. The tyre-changer is usually made up of the following main units (see **Fig. 6**):

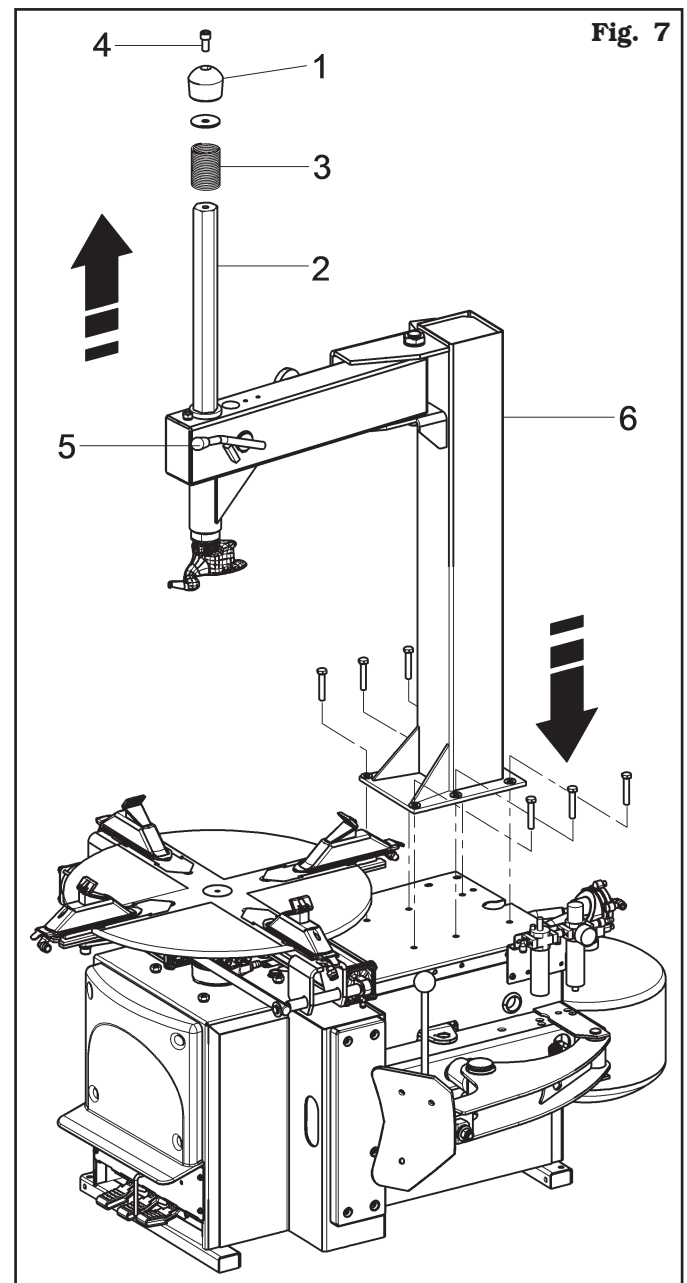
- Ref. 1** base;
- Ref. 2** head (vertical rod + flag arm (**ref. 3**) + tool (**ref. 4**);
- Ref. 5** air tank (only for RWC240.22IB model);
- Ref. 6** bead breaking cylinder;
- Ref. 7** bead breaking arm;
- Ref. 8** bead breaking vane;
- Ref. 9** rotating bead presser device (only for RWC246.26IHB model);
- Ref. 10** bolts and nuts.



10.3 Assembly of all models

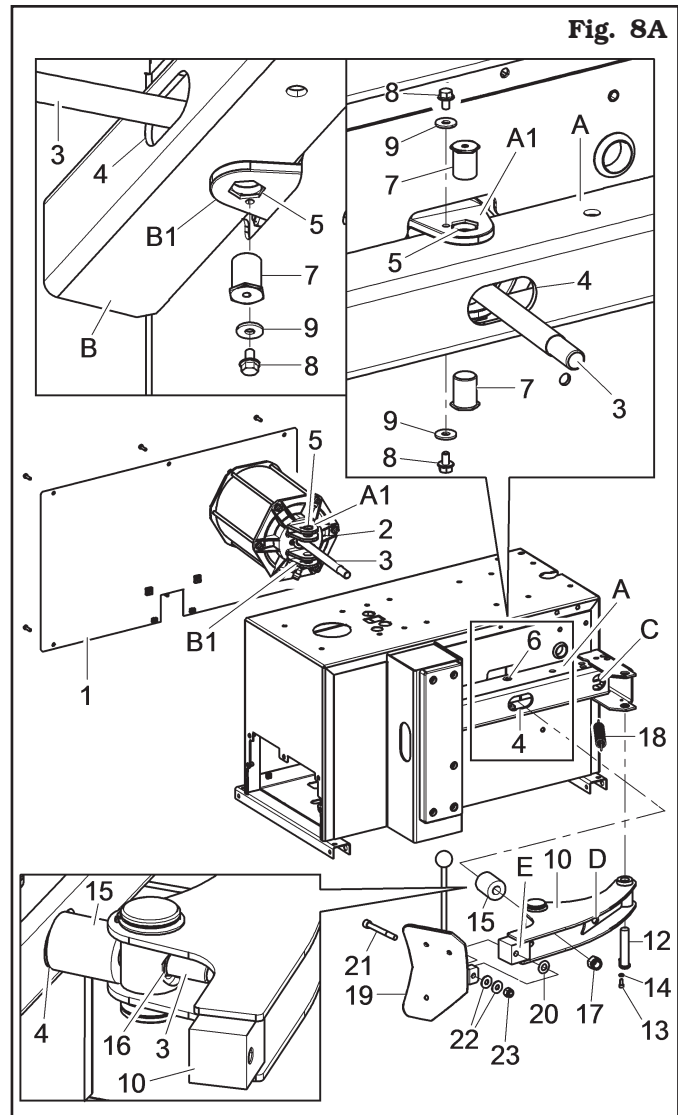
Install the machine as follows:

1. remove the fixing elements needed to fix the machine to the pallet;
2. unpack the post (**Fig. 7 ref. 6**) and put it vertically onto the base;
3. fix the post (**Fig. 7 ref. 6**) onto the base using the supplied screws.
4. Unlock the lever (**Fig. 7 ref. 5**), bring the hexagonal post (**Fig. 7 ref. 2**) in high position and block the lever (**Fig. 7 ref. 5**); remove the screw (**Fig. 7 ref. 4**) and the relevant knob (**Fig. 7 ref. 1**) with washer from the hexagonal post (**Fig. 7 ref. 2**) then insert the knob (**Fig. 7 ref. 3**); re-position washer, the knob (**Fig. 7 ref. 1**) and secure everything in place with the corresponding screw (**Fig. 7 ref. 4**) (tightening torque 15 Nm).



Only for RWC240.22IB model

5. Remove the guard (**Fig. 8A ref. 1**). Insert the bead breaker control cylinder (**Fig. 8A ref. 2**); insert the rod (**Fig. 8A ref. 3**) into the slot (**Fig. 8A ref. 4**) and place the cylinder so that the frame folds (**Fig. 8A ref. A**) and (**Fig. 8A ref. B**) are inside the plates (**Fig. 8A ref. A1**) and (**Fig. 8A ref. B1**) of the cylinder head. Make sure that holes (**Fig. 8A ref. 5**) match with frame holes (**Fig. 8A ref. 6**). Place the two ferrules (**Fig. 8A ref. 7**) to secure the cylinder so that they engage inside the holes (**Fig. 8A ref. 6**) of the frame and inside the holes (**Fig. 8A ref. 5**) on the plates (**Fig. 8A ref. A1-B1**) of the cylinder head. Lock the cylinder to the frame using the screws (**Fig. 8A ref. 8**) and washers (**Fig. 8A ref. 9**).
6. Insert bead breaker arm end (**Fig. 8A ref. 10**) inside frame protruding part; install pin (**Fig. 8A ref. 12**). Lock pin using screw (**Fig. 8A ref. 13**) and washer (**Fig. 8A ref. 14**).
7. once cylinder (**Fig. 8A ref. 2**) is assembled (stem (**Fig. 8A ref. 3**) protrudes from slot (**Fig. 8A ref. 4**)), install onto stem (**Fig. 8A ref. 3**) a pad (**Fig. 8A ref. 15**), driving it fully home against frame, close to slot (**Fig. 8A ref. 4**). Insert rod inside special hole (**Fig. 8A ref. 16**) onto bead breaker arm (**Fig. 8A ref. 10**) then screw the self-locking nut (**Fig. 8A ref. 17**).
8. Fit the spring (**Fig. 8A ref. 18**), hooking ends in points (**Fig. 8A ref. C**) (onto frame) and (**Fig. 8A ref. D**) (onto arm).
9. Position blade (**Fig. 8A ref. 19**) close to bead breaker arm end; insert inside point (**Fig. 8A ref. E**) the Belleville washer (**Fig. 8A ref. 20**). Secure blade (**Fig. 8A ref. 19**) to bead breaker arm using screw (**Fig. 8A ref. 21**), washers (**Fig. 8A ref. 22**) and nut (**Fig. 8A ref. 23**).



**Only for RWC246.26IB - RWC246.26IRB -
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RWC246.26IRAB models**

5. Remove the guard (**Fig. 8B ref. 1**). Insert the bead breaker control cylinder (**Fig. 8B ref. 2**) on the frame side opposite to the bead breaking zone; insert the rod (**Fig. 8B ref. 3**) into the slot (**Fig. 8B ref. 4**) and place the cylinder so that the frame folds (**Fig. 8B ref. AA - B**) are engaged to the frame (**Fig. 8B ref. A1 - A2**) and (**Fig. 8B ref. B1 - B2**) of the cylinder head. Make sure that holes (**Fig. 8B ref. 5**) match with frame holes (**Fig. 8B ref. 6**). Position two pins (**Fig. 8B ref. 7**) fastening the cylinder so that hexagon heads engage inside hexagon shaped recesses onto plates (**Fig. 8B ref. A1 - B2**). Then secure pins (**Fig. 8B ref. 7**) to cylinder head by fitting screws (**Fig. 8B ref. 8**) and washers (**Fig. 8B ref. 9**) inside holes (**Fig. 8B ref. 10**);
6. Insert bead breaker arm end (**Fig. 8B ref. 11**) inside frame protruding part; install pin (**Fig. 8B ref. 12**). Lock pin using screw (**Fig. 8B ref. 13**) and washer (**Fig. 8B ref. 14**).
7. After mounting the cylinder (**Fig. 8B ref. 2**) (the rod (**Fig. 8B ref. 3**) protrudes from slot (**Fig. 8B ref. 4**)), install the stem (**Fig. 8B ref. 3**) into the special hole of the articulation (**Fig. 8B ref. 15**) on the beading arm (**Fig. 8B ref. 11**) laying the seeger (**Fig. 8B ref. 16**) and the washer (**Fig. 8B ref. 17**).

**Only for RWC246.26IB - RWC246.26IHB -
RWC246.26IAB models**

Put the cam with repositioning (**Fig. 8B ref. 18**) in the rod sticking out from the arm; centre the pin (**Fig. 8B ref. 19**) into the hole on the rod and secure with the grub screw (**Fig. 8B ref. 20**).

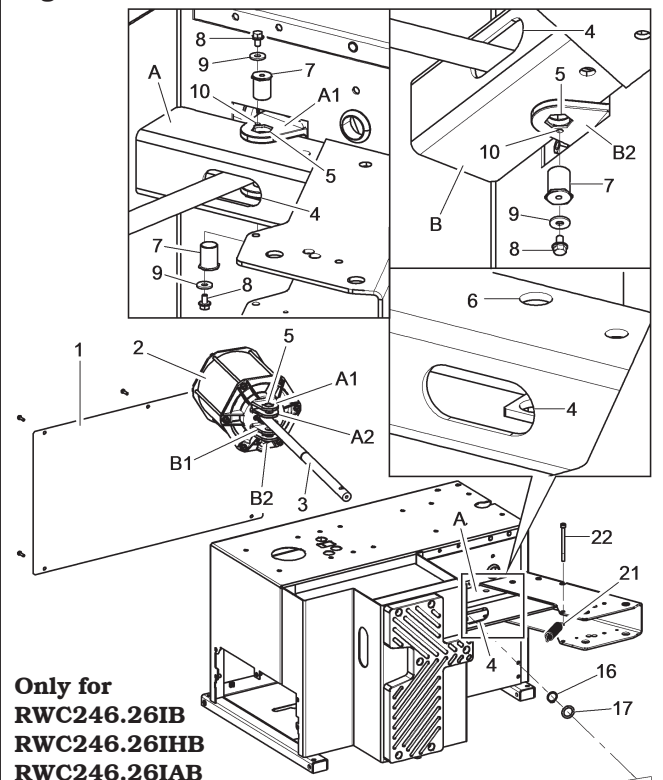
**Only for RWC246.26IRB - RWC246.26IRAB
models**

Screw the nut (**Fig. 8B ref. 28**) to the rod part (**Fig. 8B ref. 3**) coming out of the arm by laying the spacer (**Fig. 8B ref. 29**).

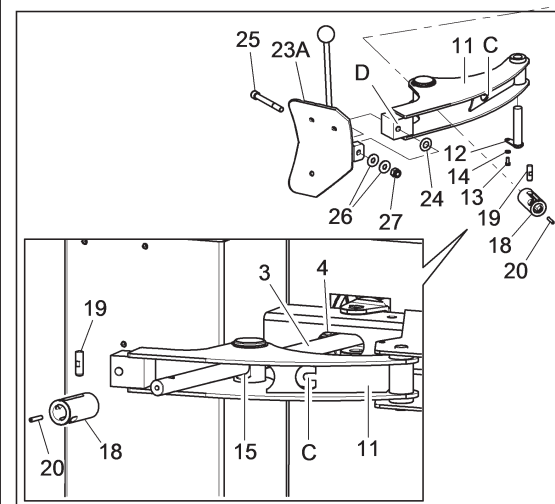
For all the models

8. Fit the spring (**Fig. 8B ref. 21**), hooking the screw (**Fig. 8B ref. 22**) to the end (**Fig. 8B ref. C**) (onto arm).
9. Position blade (**Fig. 8B ref. 23A-23B**) close to bead breaker arm end; insert inside point (**Fig. 8B ref. D**) the Belleville washer (**Fig. 8B ref. 24**). Secure blade (**Fig. 8B ref. 23A-23B**) to bead breaker arm using screw (**Fig. 8B ref. 25**), washers (**Fig. 8B ref. 26**) and nut (**Fig. 8B ref. 27**).

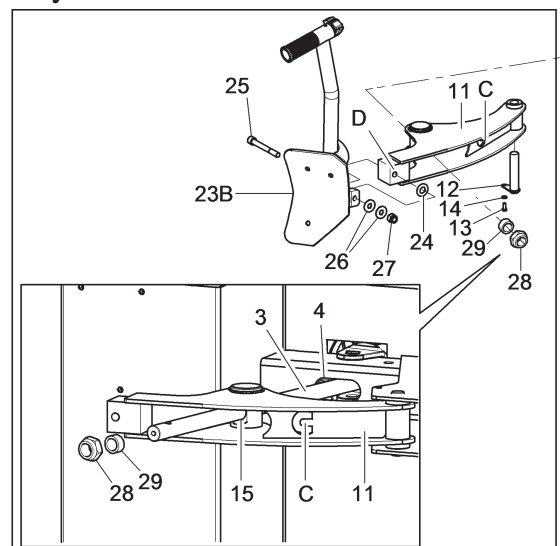
Fig. 8B



**Only for
RWC246.26IB
RWC246.26IHB
RWC246.26IAB**

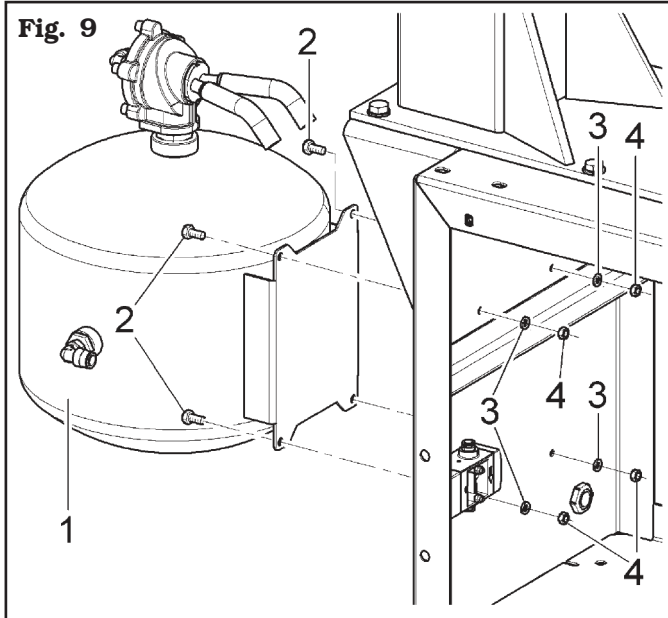


Only for RWC246.26IRB - RWC246.26IRAB

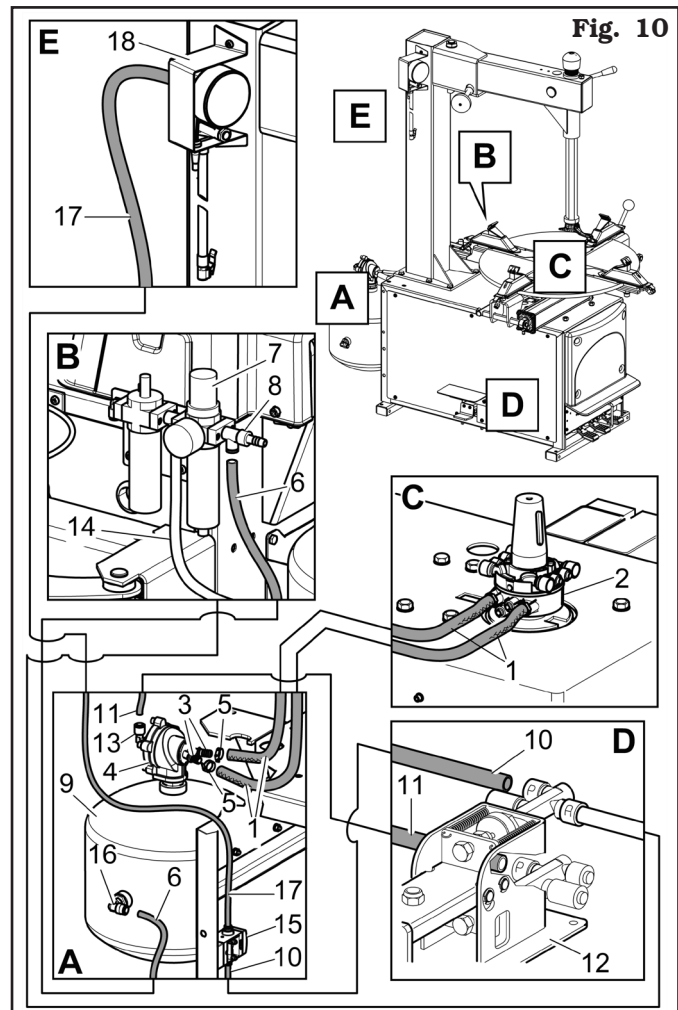


10.4 Tubeless inflation assembly (valid only for RWC240.22IB model)

1. Mount the tank (Fig. 9 ref. 1) on the base rear part, as shown in Fig. 9, using the screws (Fig. 9 ref. 2) (tightening torque approx. 8 N·m), the washers (Fig. 9 ref. 3) and the nuts (Fig. 9 ref. 4).



2. Connect the flexible pipes (Fig. 10 ref. 1) preassembled on the mandrel rotary distributor (Fig. 10 ref. 2), on the valve (Fig. 10 ref. 4) hosesnipple (Fig. 10 ref. 3). Fasten the pipes (Fig. 10 ref. 1) with the prepared clamps (Fig. 10 ref. 5).
3. Connect the pipe (Fig. 10 ref. 14) from the greaser reduction gear filter (Fig. 10 ref. 7) (air not lubricated) to the pedalboard (Fig. 10 ref. 12).
4. Connect the pipe (Fig. 10 ref. 11) from the pedal board lower valve (Fig. 10 ref. 12) to the blow valve (Fig. 10 ref. 4) union (Fig. 10 ref. 13)
5. Connect the pipe (Fig. 10 ref. 6) to the T coupling (Fig. 10 ref. 8) and the coupling (Fig. 10 ref. 16) placed on the tank (Fig. 10 ref. 9).
6. Connect the pipe (Fig. 10 ref. 10) from the valve (Fig. 10 ref. 15) to the pedalboard (Fig. 10 ref. 12).
7. Connect the pipe (Fig. 10 ref. 17) from the valve (Fig. 10 ref. 15) to the inflation unit (Fig. 10 ref. 18).



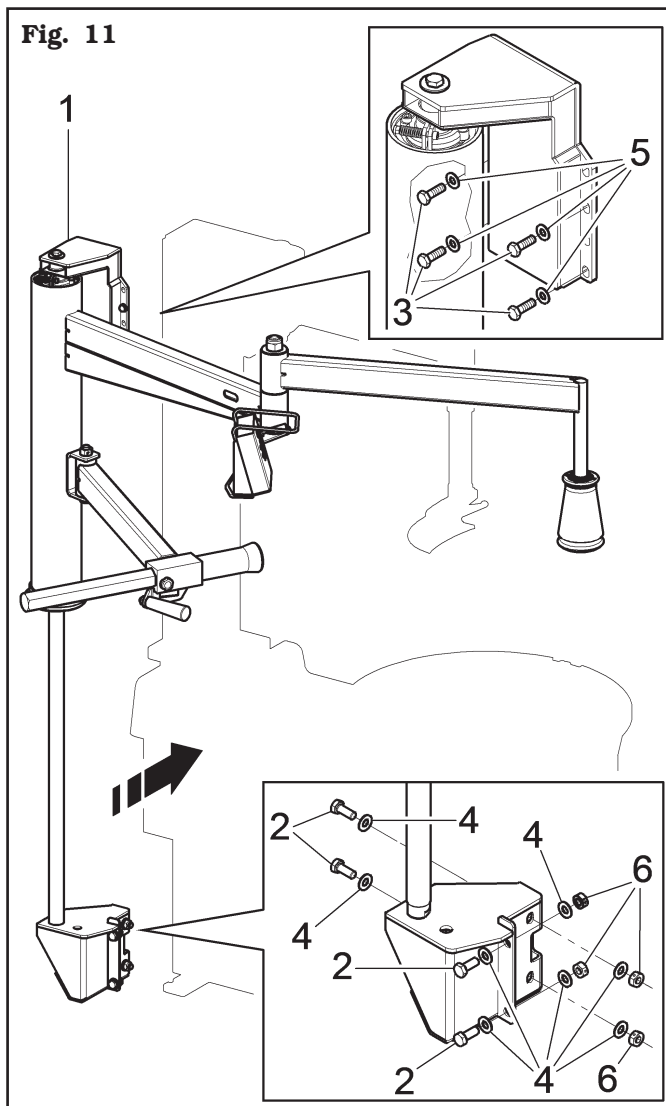
IN CASE OF A CHANCE SUPPLY FAILURE AND/OR BEFORE ANY PNEUMATIC CONNECTIONS, MOVE THE CONTROLS TO NEUTRAL POSITION.

10.5 PLUS91SA device installation (only for RWC246.26IHB model)



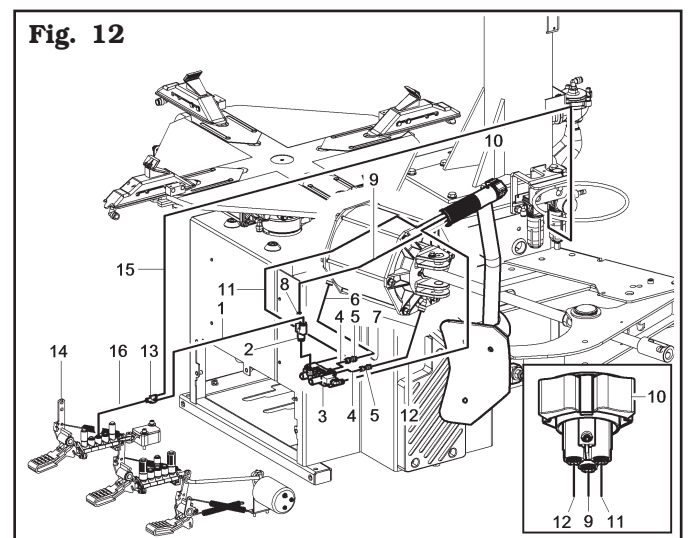
BEFORE PERFORMING ANY OPERATION, THE POWER SUPPLY OF THE TYRE-CHANGING MACHINE MUST BE DISCONNECTED.

Fix Plus91SA Device (**Fig. 11 ref. 1**) to the machine, as indicated in the figure, with the screws (# VS203058) (**Fig. 11 ref. 2**), (# VS203038) (**Fig. 11 ref. 3**), the washers (# VS236007) (**Fig. 10 ref. 4**), (# VS236006) (**Fig. 11 ref. 5**) and the nuts (# VS228307) (**Fig. 11 ref. 6**).



10.6 Tubes connection (only for RWC246.26IRB - RWC246.26IRAB models)

1. Take a Rilsan pipe (# 317002) 100 mm long (**Fig. 12 ref. 16**), fit the V8 union (# 325181) (**Fig. 12 ref. 13**) supplied with the pedalboard at one end. Connect the side without union to the mandrel open/close valve (**Fig. 12 ref. 14**). To one of the V8 union ends, connect a Rilsan pipe (# 317002) (**Fig. 12 ref. 15**) coming from the pressure filter unit.
2. Connect to a V8 union end, that has remained free (# 325181) (**Fig. 12 ref. 13**) a 1000 mm long Elastolan pipe (# 317038) lungo 1000 mm (**Fig. 12 ref. 1**) and connect it to one of the fitting ends (# 325181) (**Fig. 12 ref. 2**) of the side bead breaker valve unit (**Fig. 12 ref. 3**).
3. Connect to the valve unit of the side bead breaker (**Fig. 12 ref. 3**) 2 Rilsan pipes (# 317007) 50 mm long (**Fig. 12 ref. 4**) and connect them to the 2 fittings (# 325218) (**Fig. 12 ref. 5**).
4. On the back of the cylinder connect an Elastolan pipe (# 317036) 350 mm long (**Fig. 12 ref. 6**) and connect it to the fitting (**Fig. 12 ref. 5**), as illustrated.
5. On the front of the cylinder connect an Elastolan pipe (# 317036) 600 mm long (**Fig. 12 ref. 7**) and connect it to the fitting (**Fig. 12 ref. 5**), as illustrated.
6. Connect to the reduction unit (# 325193) (**Fig. 12 ref. 8**) a Rilsan pipe (# 317029) (**Fig. 12 ref. 9**) 2170 mm long and then connect it to the control valve (**Fig. 12 ref. 10**).
7. Connect to the valve unit controlling the side bead breaker (**Fig. 12 ref. 3**) a Rilsan pipe (# 317027) (**Fig. 12 ref. 11**) 2170 long and then connect it to the control valve (**Fig. 12 ref. 10**) as illustrated.
8. Connect to the valve unit controlling the side bead breaker (**Fig. 12 ref. 3**) a Rilsan pipe (# 317028) (**Fig. 12 ref. 12**) 2170 long and then connect it to the control valve (**Fig. 12 ref. 10**) as illustrated.



10.7 Electrical connections (only for RWC240.22IB - RWC246.26IB - RWC246.26IRB - RWC246.26IHB models)



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:

VOLTAGE	PHASE	FREQUENCY	AMP	PLUG
110V	1ph	60Hz		NEMA 5-15

On delivery, the machines are pre-set to operate at a single-phase voltage.



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

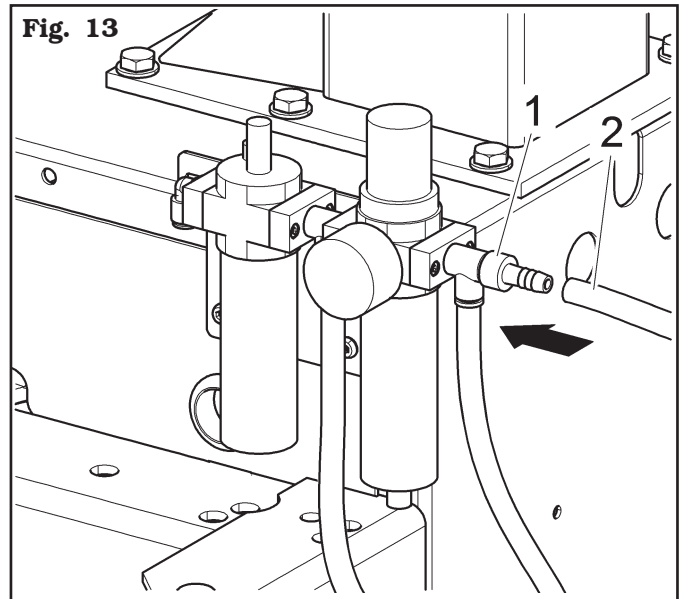


MAKE SURE THAT THE ELECTRICAL SYSTEM IS COMPATIBLE WITH THE RATED POWER ABSORPTION SPECIFIED IN THIS MANUAL AND APT TO ENSURE THAT VOLTAGE DROP UNDER FULL LOAD WILL NOT EXCEED 4% OF RATED VOLTAGE (10% UPON START-UP).

10.8 Air connection

Connect the tyre changer to the workshop compressed air system by means of plug (Fig. 13 ref. 1).

Fig. 13



The pressurized pipe coming from the mains must have a section of 1/4x10 (Fig. 13 ref. 2). The filter unit is already mounted on the machine.

10.9 Controls



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 MAINTAINED-TYPE CONTROLS CORRECT FUNCTIONING, BEFORE STARTING MACHINE OPERATION.

11.0 CONTROLS

11.1 Pedalboard

“Pedal 1” opens and closes mandrel’s locking jaws. It has three stable positions: open – close – approach jaws.

“Pedal 2” controls mandrel’s plate rotation and has 3 stable positions:

1. 0 position, turntable stopped;
2. Pressed down, the turntable is rotated clockwise;
3. Raised, the turntable is rotated anti-clockwise.

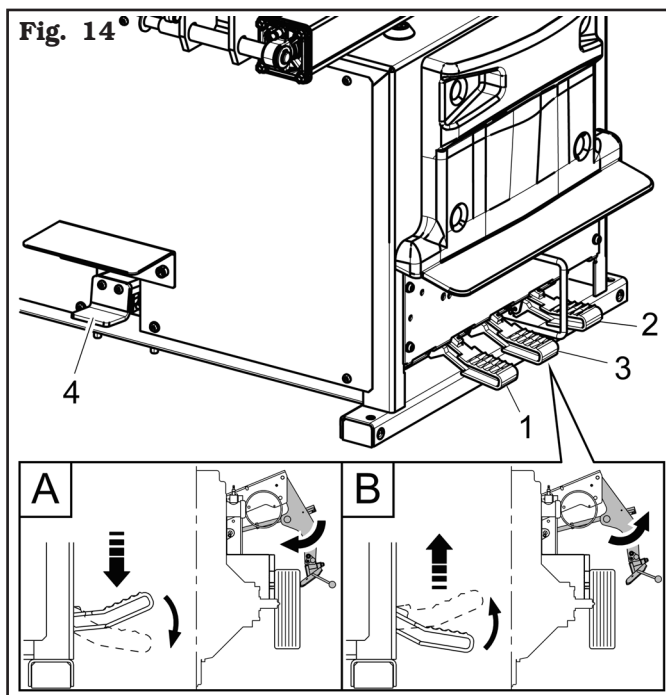
“Pedal 3” (only for RWC240.22IB - RWC246.26IB - RWC246.26IHB - RWC246.26IAB models) has 2 operative positions: when it is pressed downwards, the cylinder for bead breaking with lateral arm (A) is operated; when such pedal is released, the bead breaking arm is moved back to the initial position (open bead breaker) (B).

The inflation “pedal 4”, with “hands-on” operation, delivers air at controlled pressure (max $4,2 \pm 0,2$ bar). The pedal has three positions:

1. completely lowered “unstable”: to cause air (contained in the reservoir) to be jetted out through air lances;
2. middle stroke “unstable” position: it lets air out from inflation pipe connected to the gauge;
3. released “stable” position: it closes air outlets.



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.



11.2 Lever for bead breaker control (only for RWC246.26IRB - RWC246.26IRAB models)

The side bead breaker control device consists of a handle placed on the bead breaker itself and equipped with 2 push buttons.

The push button (Fig. 15 ref. 1) has one “hands-on” operating position and when pressed, it operates the side bead breaker progress towards the tyre while the push button (Fig. 15 ref. 2) has one “hands-on” operating position and when pressed, it operates the opening of the side bead breaker outwards.

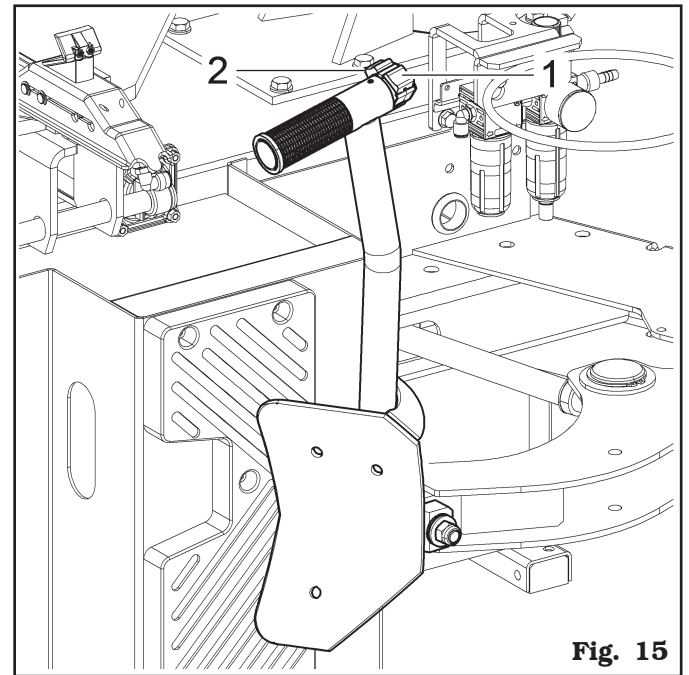
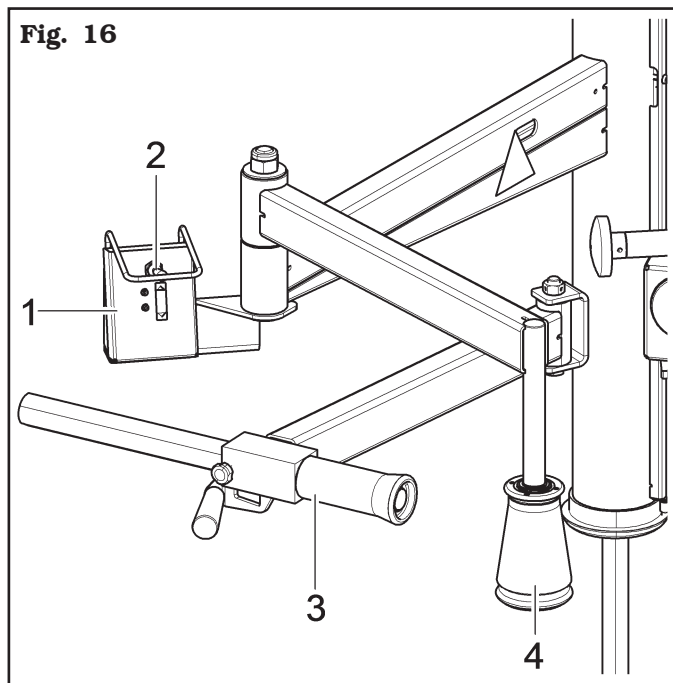


Fig. 15

11.3 Control unit (only for RWC246.26IHB model)

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**) and of the rotating bead depressing roll unit (**Fig. 16 ref. 4**). 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 arms positioning next to the tyre is a completely manual operation.

**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 be clean, dry and in good condition; if necessary, remove the balancing weights and clean the rim. 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 tyre bead, 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;
- make sure that the tyre is the right size for the rim; on the contrary, never fit a tyre unless you are sure it is of the right size (the rated size of the rim and tyre is usually printed directly on each of 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 demounted, checking the position of the groove.
- Find the rim locking type.
- Try to establish the special types of wheels, such as "TD" and "AH", 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 Bead breaking (only for RWC240.22IB - RWC246.26IB - RWC246.26IHB - RWC246.26IAB models)



TYRE BEADING MUST BE CARRIED OUT AFTER THE TYRE HAS BEEN COMPLETELY DEFLATED AND OBSERVING ALL SAFETY RULES: BEADING PEDAL START-UP CAUSE SUDDEN, STRONG ARM CLAMPING, THUS REPRESENTING POTENTIAL CRUSHING DANGER FOR ANYTHING WITHIN THE OPERATING AREA. DURING TYRE BEADING DO NOT LEAN HANDS ON TYRE SIDES. DURING TYRE BEADING SUDDEN NOISE LEVEL PEAKS CAN OCCUR: THEREFORE THE USE OF SAFETY EARCAPS IS RECOMMENDED.

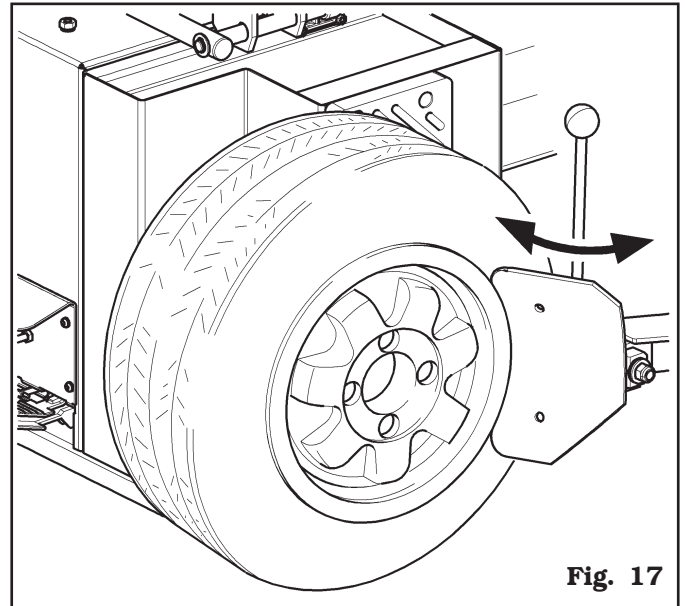



Fig. 17

After preparing the wheel as described in the previous point, follow the instructions given below to carry out the bead breaking procedure:

1. Position the wheel as indicated in **Fig. 17** and move the bead breaker tool toward the edge of the rim.

 **NEVER INSERT ANY PART OF YOUR BODY BETWEEN THE BEAD BREAKER TOOL AND THE TYRE, OR BETWEEN THE TYRE AND THE WHEEL SUPPORT.**



PLACE THE VANE SO THAT IT CAN OPERATE ON TYRE SIDE AND NOT ON THE RIM.

2. Operate the bead breaker vane by pressing the relative pedal until the bead has detached. If the bead does not detach the first time, repeat the operation, on different points of the wheel, until it has come away completely.
3. Reverse the position of the wheel and repeat the operation on the other side.
4. Lubricate the tyre carefully along the entire circumference of the bead on both sides.



FAILURE TO LUBRICATE MIGHT CAUSE FRICTION BETWEEN THE MOUNTING TOOL AND THE TYRE, AND WOULD CAUSE DAMAGE TO THE TYRE AND/OR THE BEAD.

**12.4 Bead breaking (only for RWC246.26IRB
- RWC246.26IRAB models)**

After preparing the wheel as described in the previous point, follow the instructions given below to carry out the bead breaking procedure:

1. Position the wheel as indicated in **Fig. 18** and move the bead breaker tool toward the edge of the rim.



PLACE THE VANE SO THAT IT CAN OPERATE ON TYRE SIDE AND NOT ON THE RIM.

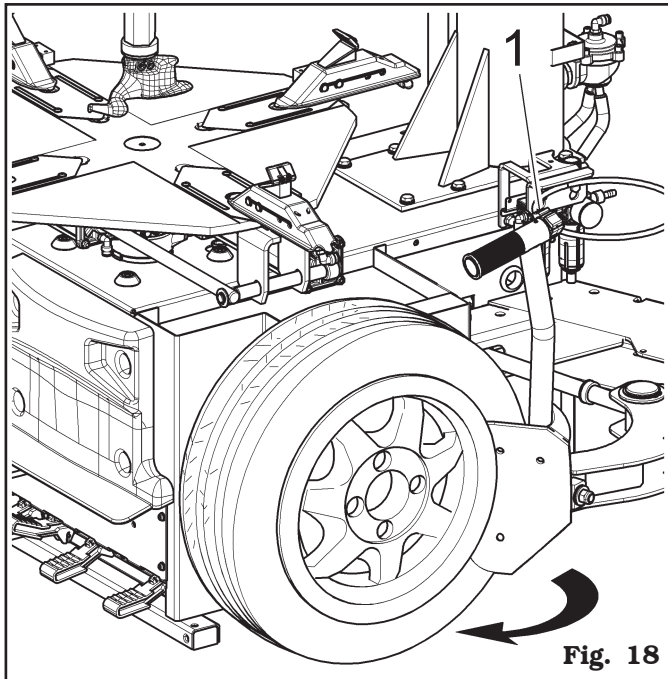


Fig. 18

2. Move the bead breaker vane closer by pushing the push button (**Fig. 18 ref. 1**) until the bead has detached. If the bead does not detach the first time, repeat the operation, on different points of the wheel, until it has come away completely.
3. Reverse the position of the wheel and repeat the operation on the other side.
4. Lubricate the tyre carefully along the entire circumference of the bead on both sides.



FAILURE TO LUBRICATE MIGHT CAUSE FRICTION BETWEEN THE MOUNTING TOOL AND THE TYRE, AND WOULD CAUSE DAMAGE TO THE TYRE AND/OR THE BEAD.



NEVER INSERT ANY PART OF YOUR BODY BETWEEN THE BEAD BREAKER TOOL AND THE TYRE, OR BETWEEN THE TYRE AND THE WHEEL SUPPORT.

12.5 Wheel clamping on the mandrel

To block the wheel from inside:

1. Release the hexagon shaft (**Fig. 19 ref. 1**) through the relevant lever (**Fig. 19 ref. 2**) and take it upwards and rotate rightwards the horizontal arm.
2. The wheel can be secured to the mandrel (**Fig. 19 ref. 3**) by placing jaws either inside or outside the rim (see Chapter 15 "Technical specifications" for required rim size).



WHEN SECURING THE WHEEL DO NOT KEEP HANDS UNDER THE TYRE.

Make sure the wheel is placed at the centre of mandrel's plate (**Fig. 19 ref. 3**). Make sure the wheel is clamped by jaws (**Fig. 19 ref. 4**) symmetrically.

A) WHEEL SECURING (OUTSIDE THE RIM) (for allowed rim size see Chapter 15. "Technical specifications")

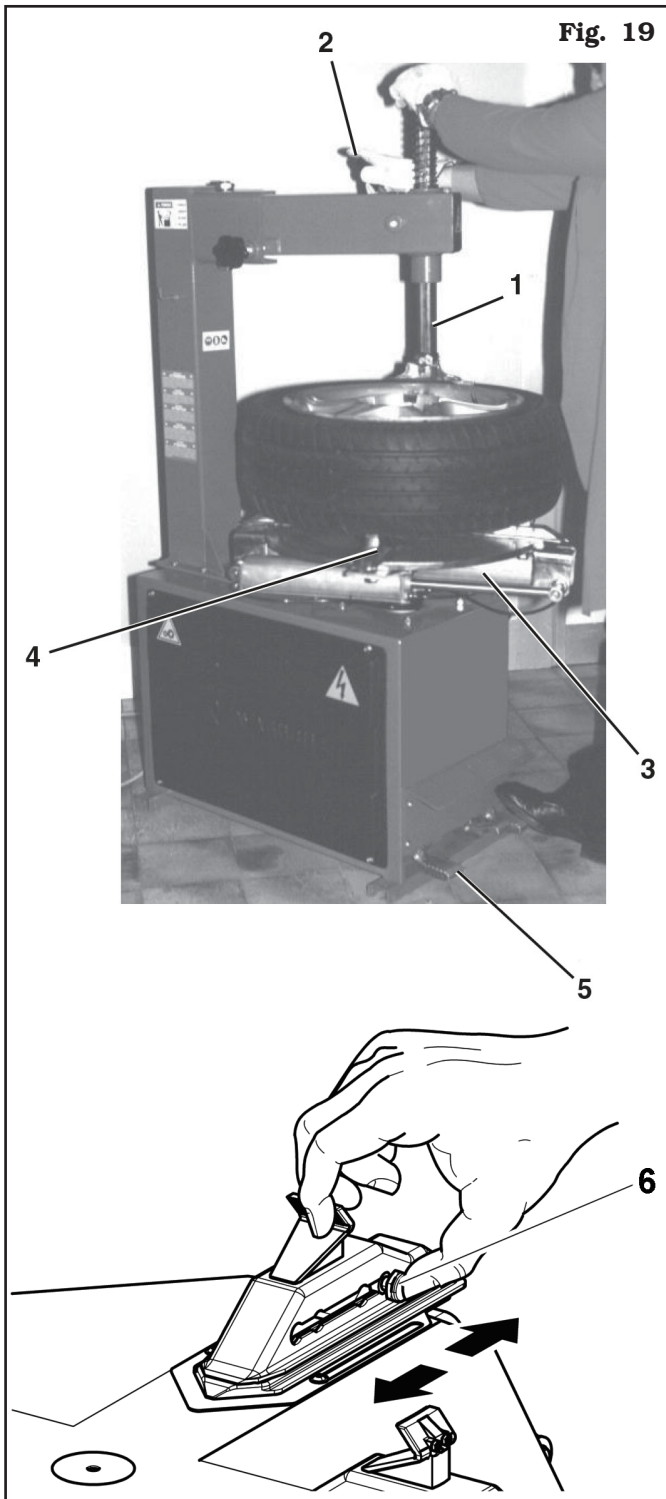
In order to carry out the clamping of the wheel from the outside:

1. Place the 4 self-centering jaws by using the appropriate subbase (**Fig. 19 ref. 6**) at the required clamping range (only for RWC246.26IB - RWC246.26IRB - RWC246.26IHB - RWC246.26IAB - RWC246.26IRAB models).
2. By pressing pedal (**Fig. 19 ref. 5**) in intermediate position, place the 4 fixing jaws (**Fig. 19 ref. 4**), so that the reference notch, printed on the mandrel, is at about the same level of the tyre diameter, printed on the sliding element.
3. Place the wheel on the mandrel, press the rim downward and completely lower pedal (**Fig. 19 ref. 5**) to secure the wheel.

B) WHEEL SECURING (INSIDE THE RIM) (for allowed rim size, see Chapter 15. "Technical specifications")

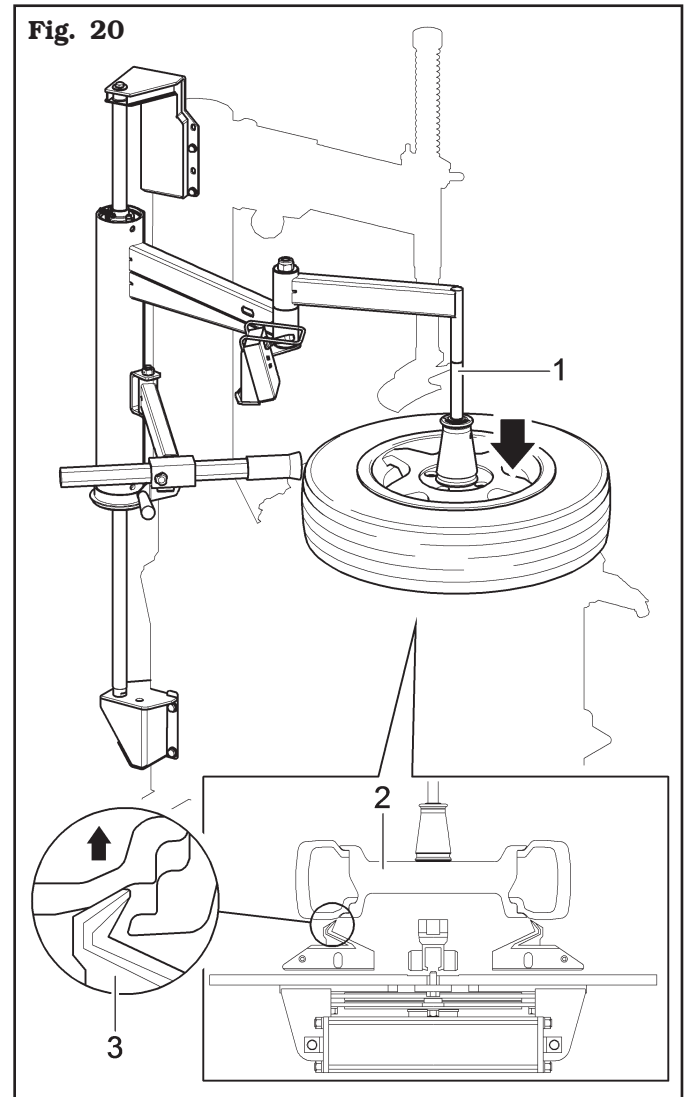
To block the wheel from inside:

1. Place the 4 self-centering jaws by using the appropriate subbase (**Fig. 19 ref. 6**) at the required clamping range (only for RWC246.26IB - RWC246.26IRB - RWC246.26IHB - RWC246.26IAB - RWC246.26IRAB models).
2. Close preventively fixing jaws (**Fig. 19 ref. 4**), by means of pedal (**Fig. 19 ref. 5**). Place the wheel on the mandrel. Push down the rim while completing lowering the pedal and releasing it. The jaws release, thus securing the rim.



12.6 Rim blocking with tyre lowered on self-centring chucks (only for RWC246.26IHB model)

In case of lowered tyres, it is possible to block the rim (Fig. 20 ref. 2) inside the jaws (Fig. 20 ref. 3) through the vertical thrust of the rotating bead depressing roll unit Fig. 20 ref. 1) (after the supplied cone has been applied) placing it as shown in Fig. 20.



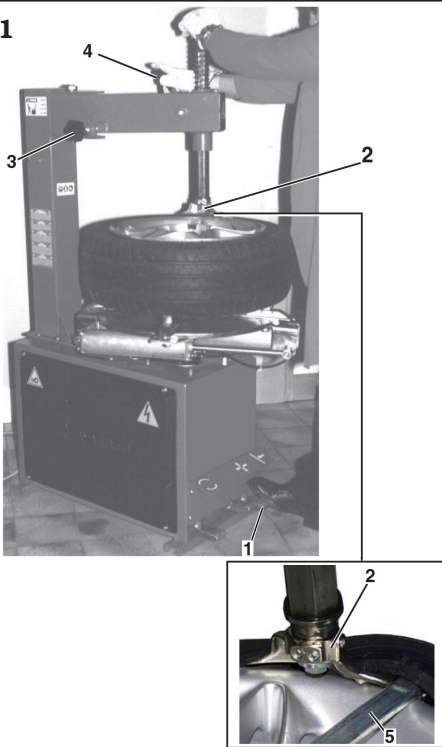
12.7 Demounting



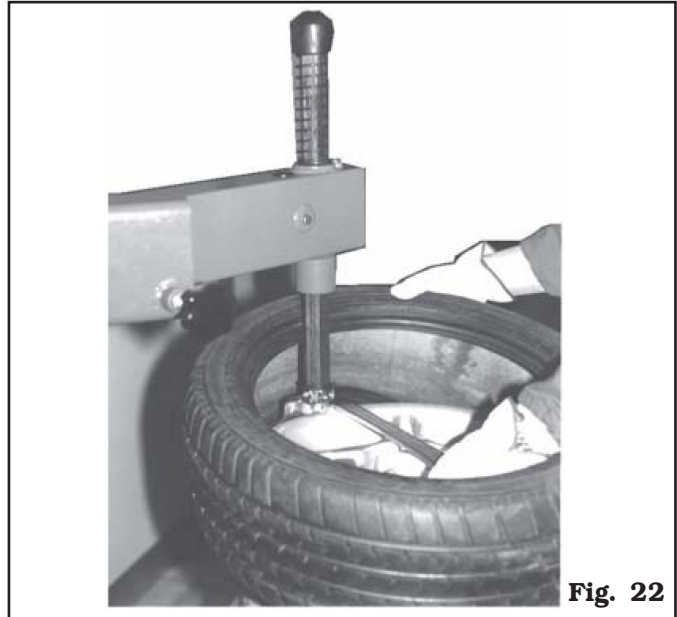
KEEP YOUR HANDS AND BODY AWAY FROM MOUNTING TOOL DURING DISASSEMBLY/ASSEMBLY OPERATIONS TO AVOID SQUASHING DANGER.

After clamping the wheel, the tyre is demounted following the instructions given below, with reference to **Fig. 21**.

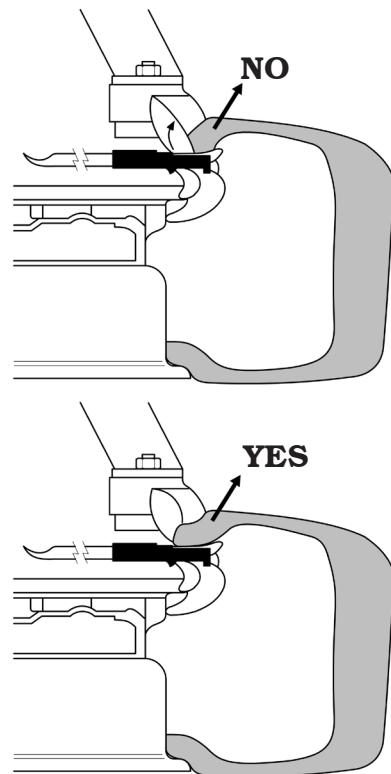
1. Push the rotation pedal (**Fig. 21 ref. 1**) to rotate the wheel clockwise until the valve stem reaches "hour 1" position.
2. Place the mounting/demounting tool (**Fig. 21 ref. 2**) on the rim edge through the knob (**Fig. 21 ref. 3**).
3. Block in position operating on the lever (**Fig. 21 ref. 4**).
4. Adjust the tangency point of the tool (**Fig. 21 ref. 2**) to the rim through the knob (**Fig. 21 ref. 3**).
5. Use the same lever (**Fig. 21 ref. 5**) to lift the bead onto the right end of the mounting tool and position it parallel with the rim plate at the same time pressing on the side of the tyre at "6 o'clock" position.
6. Press the rotation (**Fig. 21 ref. 1**) pedal to turn the wheel clockwise until the whole bead has been removed from the rim. During the rotation of the wheel, the bead lifting tool slides away from the mounting tool moving onto the rim edge.

Fig. 21

8. Lift the tyre and repeat the operation on the other bead (**Fig. 22**).



9. When demounting hard tyres, it may happen that the bead comes onto the mounting tool with the lip turned. This causes the bead to slide from the lever when clockwise rotation begins. To avoid this problem rotate the wheel slightly anti-clockwise until the bead flattens. Now the clockwise demounting cycle can begin (See **Fig. 23**).

Fig. 23

7. Remove the inner tube (if fitted).

If the motor slows down or stops during tyre demounting and mounting, make the following checks:

- check that the bead has been lubricated;
- check that the bead has been pushed into the groove;
- check that the right side of the rim has been chosen for demounting or mounting the tyre;
- check that the rim groove is not off-centre.

12.8 Disassembly (valid only for RWC246.26IHB model)



KEEP YOUR HANDS AND BODY AWAY FROM MOUNTING TOOL DURING DISASSEMBLY/ASSEMBLY OPERATIONS TO AVOID SQUASHING DANGER.

Tighten the mandrel on the rim by means of the appropriate pedal control.

Extraction of the first bead

- a - Place the roll of the rotating bead depressing roll unit (**Fig. 24 ref. 1**) as shown in the figure (not far from the head nail (**Fig. 24 ref. 2**)). Lower the tyre using the roll of the rotating bead depressing unit (**Fig. 24 ref. 1**) (by lowering the control unit lever (**Fig. 24 ref. A**)), until allowing an easy positioning of the head (**Fig. 24 ref. 2**). Then block the head.

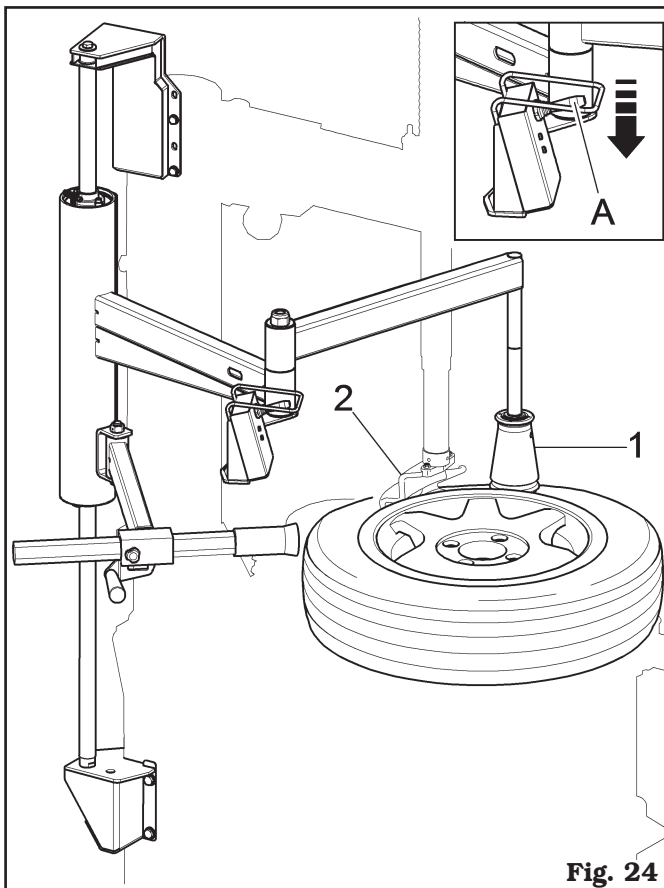
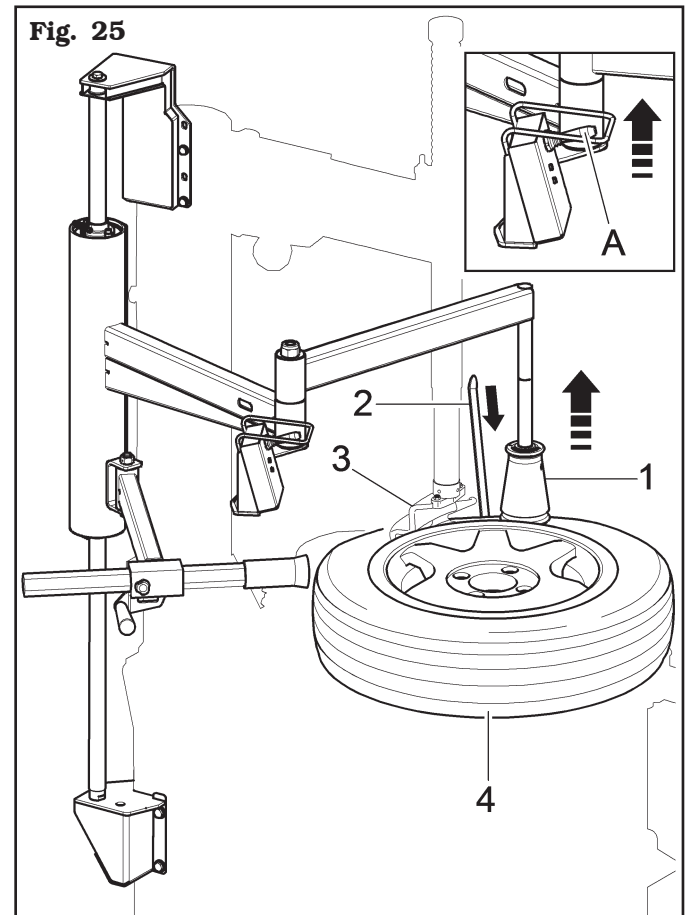
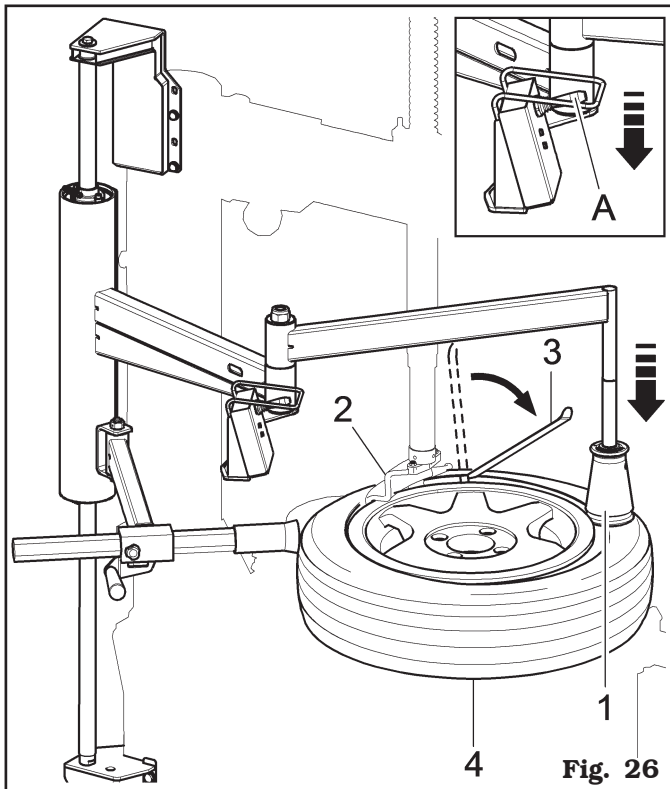


Fig. 24

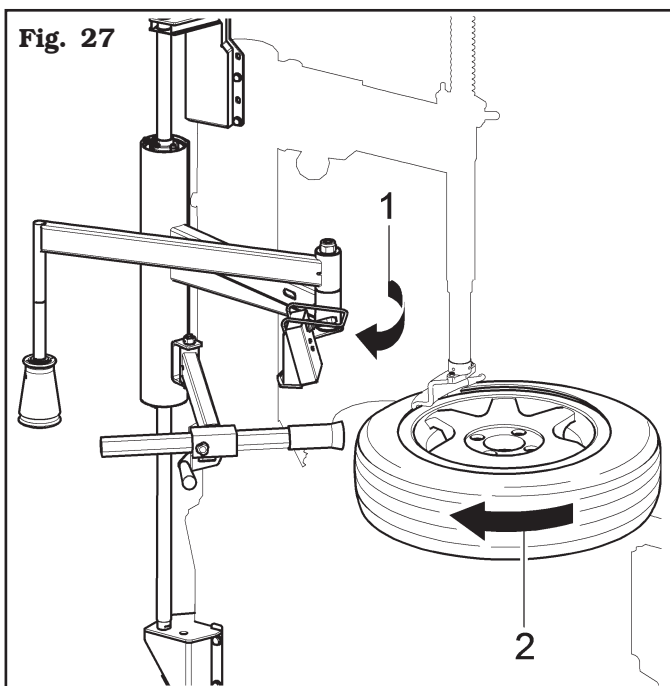
- b - Insert the bead lifting lever (**Fig. 25 ref. 2**) between the tyre (**Fig. 25 ref. 4**) and the head (**Fig. 25 ref. 3**).
- c - Lift the roll of rotating bead depressing unit (**Fig. 25 ref. 1**) of the Plus device by lifting the lever (**Fig. 25 ref. A**).



- d - Place the roll of the rotating bead depressing unit again (**Fig. 26 ref. 1**) at approximately 120° from machine-head axis (as shown in the figure) and lower the tyre (**Fig. 26 ref. 4**) operating the control unit's lever downwards (**Fig. 26 ref. A**), until the tyre bead is placed next to the rim groove.
- e - Load the tyre's bead through the appropriate lever (**Fig. 26 ref. 3**) on the head (**Fig. 26 ref. 2**).

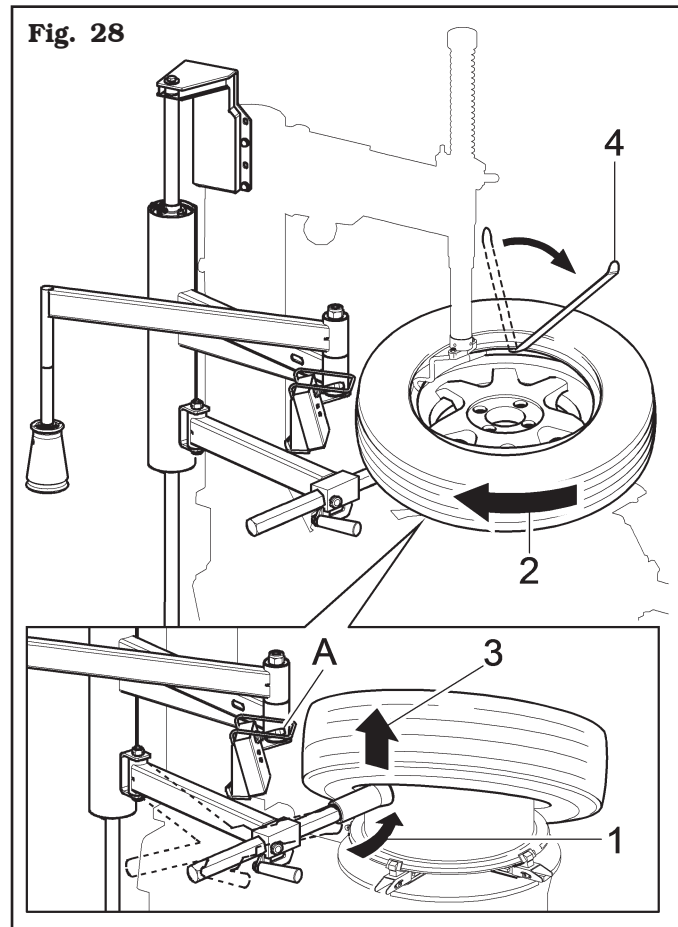


- f - Lift Plus Device and close it again in rest position as indicated in figure (**Fig. 27 ref. 1**).
- g - Carry out first bead's extraction by turning the mandrel clockwise (**Fig. 27 ref. 2**).



Extraction of the second bead

- h - Turn the bead lifting roll (**Fig. 28 ref. 1**) from its position until placing it between mandrel's plate and tyre, at approximately 1 cm from rim's outer lower edge.
- i - Lift the tyre with the bead lifting roll (**Fig. 27 ref. 3**) moving the control unit's lever upwards (**Fig. 28 ref. A**).
- l - Load the second bead on the head by means of the proper lever (**Fig. 28 ref. 4**).
- m - Turn the mandrel clockwise (**Fig. 28 ref. 2**) and extract the tyre from the rim.



12.8.1 Demounting of the second bead through the bead lifting roll (only for RWC246.26IHB models)

For disassembly of the lower bead the bead lifting roll can be used as an alternative. Move the tool pulling it away from the working area.

- a - Lift roll and tyre just next to the upper rim edge using the control.
- b - Therefore, move the roll forward with the provided control so that it is inserted between the rim edge and lower bead.
- c - Then, rotate and complete bead disassembly.

12.9 Setting the tool for tyre fitting and removal

The tool is locked in position to an hexagon stand through 4 upper horizontal-axis dowels and a lower vertical-axis screw. The adjusting clamps lock the tool in its working position. Adjusting clamps also set head distance from the wheel rim. Head top is concave for smoother positioning. For tool setting a 14" rim with good concentricity degree and standard profile, better if with flat upper edge and proper right angle to its spin axis, is required.

12.9.1 Setting the clamps travel



SET THE CLAMPS BEFORE POSITIONING THE HEAD. AT THIS STAGE THE HEAD HAS NOT BEEN SET TO ITS FINAL POSITION YET BUT IT IS CLOSE TO ITS FINAL POSITION BEING LOCKED THROUGH THE UPPER DOWELS.

• **Setting the clamps travel (Fig. 29)**

Tyre changers equipped with fixed stand and "swing" arm only have a single horizontal clamp setting head distance from the rim in vertical direction.

Release the lever (after removing the cover at swing arm end) and then turn the nut (Fig. 29 ref. A) to adjust the clamp:

- turn the nut (**Fig. 29 ref. A**) clockwise for shorter travel of the head,
- turn the nut (**Fig. 29 ref. A**) anti-clockwise for longer travel of the head,

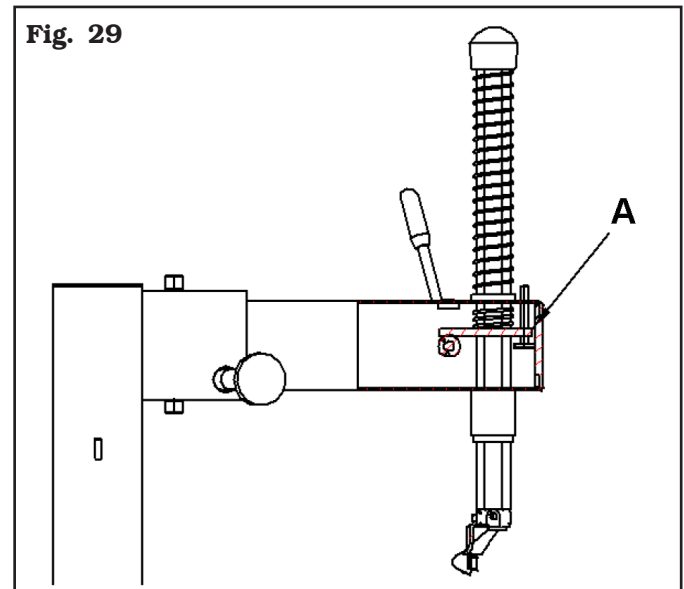


Fig. 29

12.9.2 Setting the tool for tyre fitting and removal

When finished with clamp adjustment, set head position along its three orthogonal axes using the sample rim. Tighten the dowels and the lower screw firmly to lock the head in position. When finished, **correct head working position** (equipped with insert) **when locked** should be as shown in **Fig. 30A - 30B**. Tighten bolts and nuts to the following torque values:

- lower screw: 70 Nm.
- adjusting clamp bolts: 40 Nm.

Fig. 30A

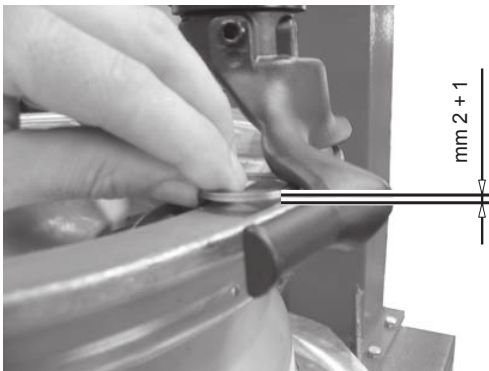
Car rim



mm 3 - 3,5



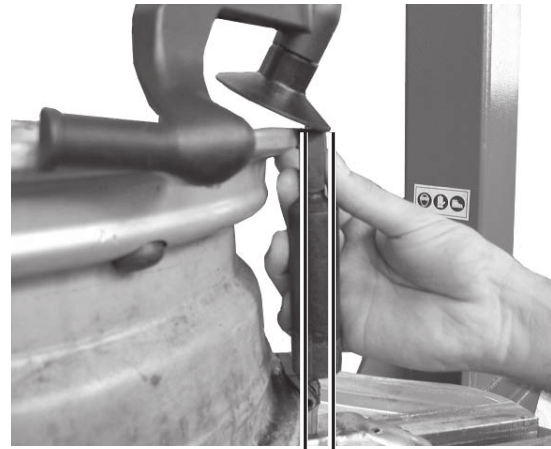
mm 2 + 0,5



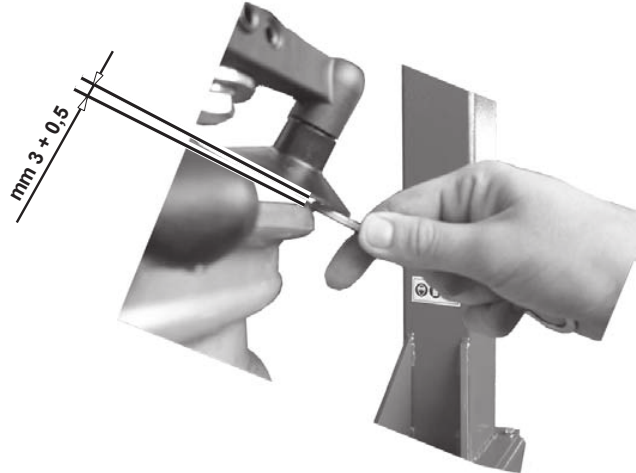
mm 2 + 1

Fig. 30B

Rims with projecting spokes



mm 12 + 0,5



mm 3 + 0,5



mm 2 + 1

12.10 Mounting the tyre



KEEP YOUR HANDS AND BODY AWAY FROM MOUNTING TOOL DURING DISASSEMBLY/ASSEMBLY OPERATIONS TO AVOID SQUASHING DANGER.

To mount the tyre, proceed as follows:

1. lubricate the tyre's beads,
2. place the tyre on the rim and place the mounting tool on the outer edge of the rim (**Fig. 31**).



WHEN PLACING ARM IN WORKING POSITION, DO NOT LEAN HANDS ON THE RIM: DANGER OF SQUEEZING BETWEEN HEAD AND RIM.

Fig. 31



3. Place the edge of the lower bead on the left-hand part of the mounting tool as in **Fig. 32** and turn mandrel clockwise.



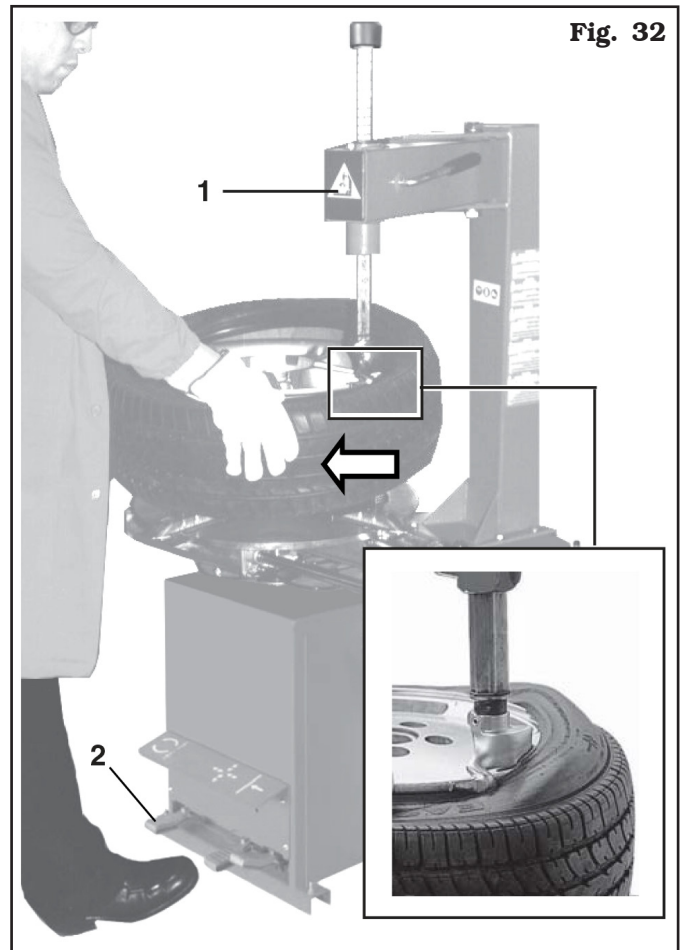
WHEN TYRE IS TUBELESS TYPE, START ASSEMBLY PROCEDURES WITH VALVE SET AT 180° WITH RESPECT TO THE HEAD ("5/6 O' CLOCK").



BE VERY CAREFUL, KEEP HANDS AND OTHER BODY PARTS FAR OFF THE HEAD WHEN THE MANDREL IS TURNING: DANGER OF SQUEEZING.

4. If an inner tube tyre must be fitted, insert the inner tube.
5. Repeat the operation on the upper bead, taking care first to position the valve insert at "5-6 o'clock".
6. Once assembly is completed, manually rotate (**Fig. 32 ref. 1**) to bring it into rest position.
7. Press the pedal (**Fig. 32 ref. 2**) to release the rim from the mandrel.

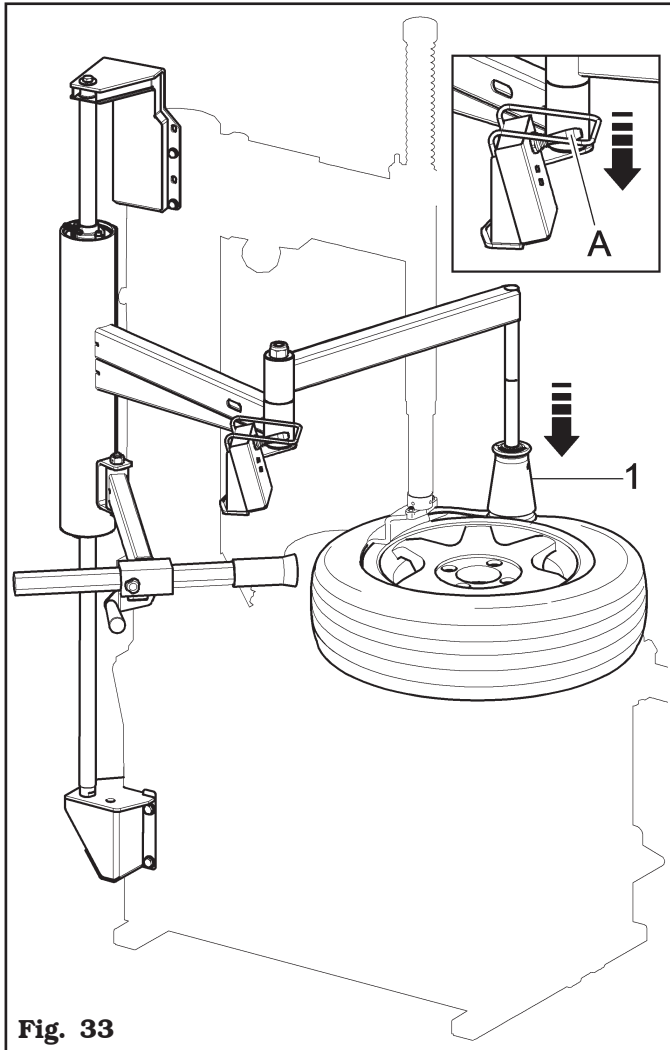
Fig. 32



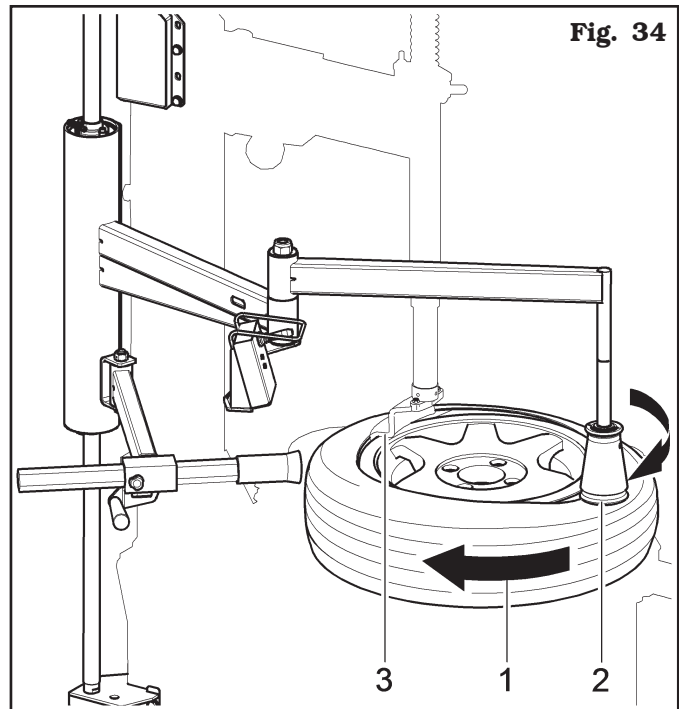
BOTH TYRE FITTING AND REMOVAL MUST BE CARRIED OUT WITH THE MANDREL TURNING CLOCKWISE. TURN THE CHUCKING TABLE ANTICLOCKWISE ONLY IF ADJUSTMENTS ARE REQUIRED.

12.11 Mounting the tyre (only for RWC246.26IHB model)

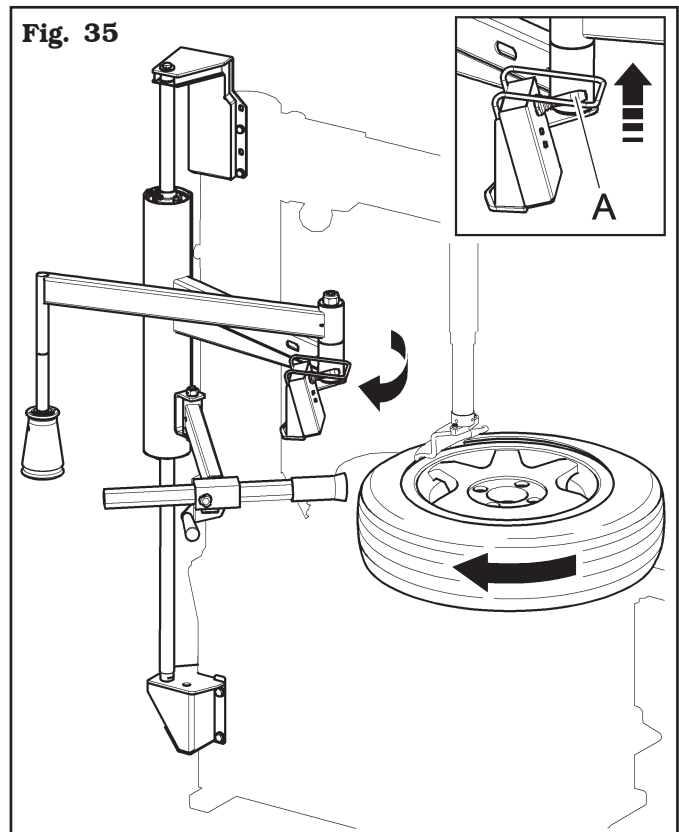
- a - Mount the first bead on the rim. The Device is not necessary to complete this operation.
- b - Place the bead depressing roll (Fig. 33 ref. 1) as indicated in the figure.
- c - Lower the bead depressing roll (Fig. 33 ref. 1) operating the control provided (Fig. 33 ref. A) until the tyre bead is placed next to the rim groove.



- d - Start mandrel clockwise rotation (Fig. 34 ref. 1) by means of the proper pedal control: while performing this operation keep a hand on the bead depressing roll (Fig. 34 ref. 2). Such operation, that does not require any physical effort, helps keeping bead depressing roll correct position on the tyre.
- e - Stop mandrel rotation when the bead depressing roll (Fig. 34 ref. 3) is at 9 o'clock compared to the mounting tool.



- f - End the second bead's introduction by turning the mandrel clockwise (see Fig. 35).
- g - Lift Plus Device with the relevant control (Fig. 35 ref. A) and close it again in rest position (see Fig. 35).



12.12 Tyre inflation



TYRE INFLATING OPERATIONS ARE HAZARDOUS FOR THE OPERATOR. IF NOT PROPERLY EXECUTED THEY CAN CAUSE DAMAGE FOR USERS OF VEHICLES WHERE TYRES ARE FITTED.



STANDARD OR OPTIONAL INFLATING UNITS FITTED ON TYRE CHANGERS ARE EQUIPPED WITH A PRESSURE LIMITING DEVICE WHICH ALMOST ELIMINATES ANY RISK OF TYRE EXPLOSION DURING TYRE INFLATING. AN OUTSTANDING RISK OF EXPLOSION STILL EXISTS. THEN THE FOLLOWING PRECAUTIONS MUST BE RESPECTED:

- **OPERATORS SHOULD WEAR SUITABLE PROTECTIVE CLOTHING LIKE: GLOVES, SAFETY EYEWEAR AND EARCAPS.**
- **BEFORE FITTING A TYRE, CHECK TYRE AND RIM CONDITIONS AS WELL AS PROPER COUPLING.**
- **MAKE SURE THAT TYRE IS PROPERLY POSITIONED ON THE MACHINE: THE WHEEL OUTER PART MUST NOT BE SECURED ON THE JAWS.**
- **CORRECT WORKING POSITION: DURING TYRE BEADING AND INFLATING THE OPERATOR MUST KEEP BODY AS FAR AS POSSIBLE FROM THE TYRE.**
- **COMPLIANCE WITH TYRE MANUFACTURER'S SPECIFICATIONS FOR TYRE INFLATION PRESSURE.**



IF MEASURED PRESSURE EXCEEDS 4,2 BAR, IT MEANS THAT THE PRESSURE LIMITING VALVE AND/OR PRESSURE GAUGE IS NOT WORKING PROPERLY. IN THIS CASE, DEFLATE THE TIRE ON THE SPOT AND CONTACT AN AUTHORIZED SERVICE CENTRE TO VERIFY EQUIPMENT OPERATION. MAKE SURE OF PROPER OPERATION BEFORE USING ANY INFLATING EQUIPMENT.

12.12.1 Tyre inflation with pressure gauge

Connect the inflation device to the tyre valve and inflate the tyre using the left pedal.

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



A LIMITATION DEVICE IS PRESENT IN THE AIR SUPPLY LINE FOR THE TIRE INFLATION (4,2 ± 0,2 BAR/60 PSI).

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.

12.12.2 Tyre inflation device with Tubeless inflation unit

Some types of tyres can be difficultly inflated if the beads are not in contact with the rim.

The tubeless inflating device, assembled only on some models, supplies air at high pressure from mandrel nozzles (**Fig. 36 Pos.1**) and therefore facilitates the positioning of the beads against the rim starting the normal inflation of the tyre.

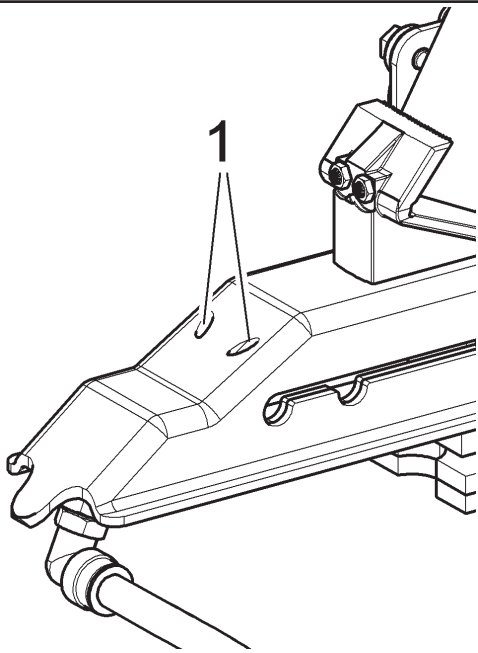
In order to carry out the inflation of the tyre on these models follow these indications:

- Connect the inflation terminal to the valve of the tyre.
- Lift the lower bead while the pedal, placed on the left side of the machine, is pushed at its second stage, supplying that way the required air jet.
- Go on inflating the tyre until the required pressure is reached with the lateral pedal pushed on its first stage.



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

Fig. 36



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 (ONLY FOR RWC240.22IB - RWC246.26IB - RWC246.26IRB MODELS) CONNECTION.



BEFORE CARRYING OUT ANY MAINTENANCE OPERATIONS, MAKE SURE THERE ARE NO WHEELS CLAMPED ON THE MANDREL AND THAT ALL SUPPLIES TO THE MACHINE HAVE BEEN DISCONNECTED.

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.

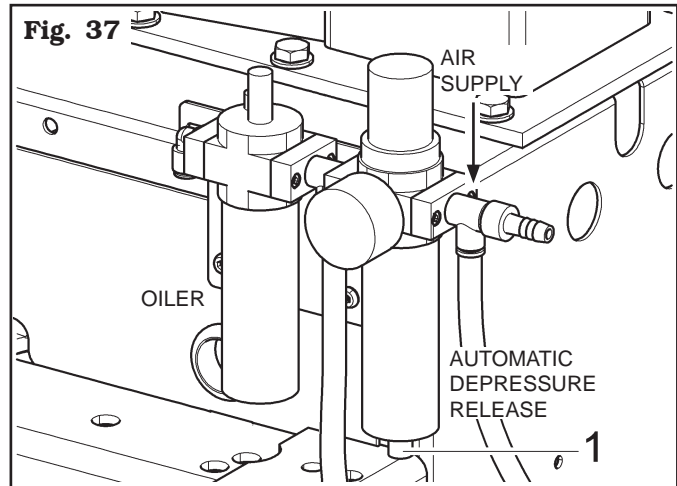
Cleaning and routine maintenance must be conducted by authorized personnel and according to the instructions given below.

- 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.
- Periodically check the calibration of the lubricator of the air treatment unit: 1 oil drop every four complete strokes of mandrel jaws
- The conditioning unit is equipped with an automatic vacuum-operated drain therefore it requires no manual intervention by the operator (see **Fig. 37**).

Fig. 37





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. 37 REF. 1), PLACED UNDER THE CAP. TO ACTIVATE A CORRECT DRAIN FUNCTION, THE CAP MUST BE ROTATED IN THE RIGHT WAY.

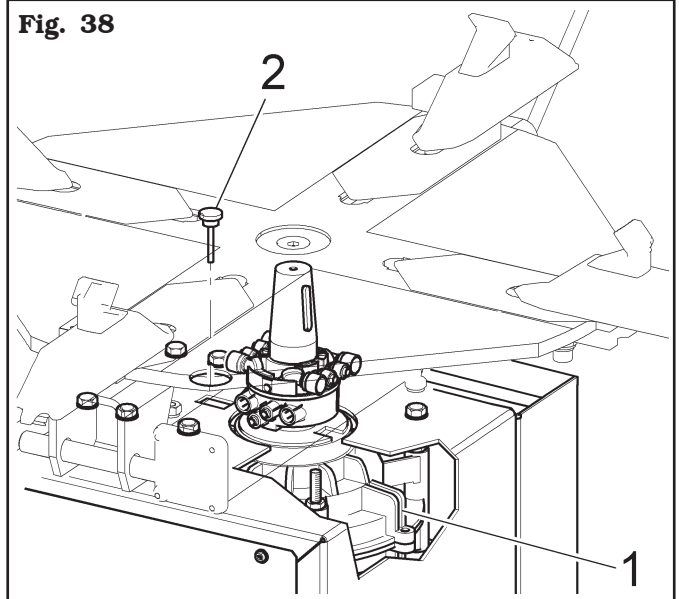


IN ORDER TO ALLOW A LONGER LIFE OF THE FILTER AND OF ALL MOVING PNEUMATIC DEVICES, YOU HAVE TO MAKE SURE THAT THE SUPPLIED AIR IS:

- 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.
- NOTE: 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.
 - Replace worn pieces (tool supports, rubber pads, lever guard, mounting tool) immediately.
 - Periodically (preferably once a month) make a complete check on the controls, ensuring that they provide the specified actions.
 - Clean and periodically oil the roller horizontal rod (only for RWC246.26IHB models).
 - Grease every month the roll holding arm articulations and the device vertical sliding column (only for RWC246.26IHB models).
 - **Every week** check operation of the safety device.
 - **Periodically** (at least each 100 working hours) check the lubricant level into the reduction unit (**Fig. 38 ref. 1**) removing the plug (**Fig. 38 ref. 2**) through the spy hole prearranged on the frame.

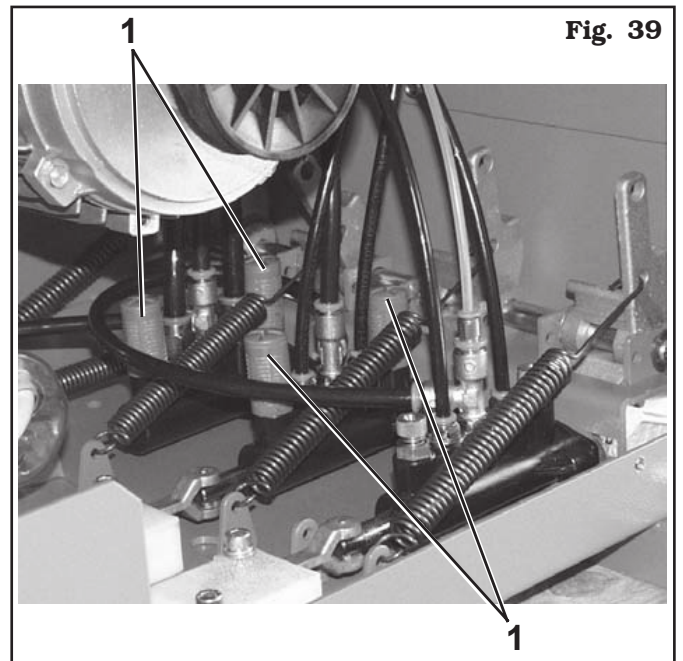
Fig. 38



Interventions every 1000 working hours

- Clean and/or replace silencers (**Fig. 39 ref. 1**):
 1. Undo the four retaining screws and remove the left side of the tyre changer or undo the fastening screws to remove the whole pedal support unit from machine front;
 2. Undo the silencers (**Fig. 39 ref. 1**) onto the pedal distributor controlling mandrel and bead breaker;
 3. Blow compressed air to clean or replace in case of damages referring to spare parts catalogue;
 4. Fit the filters onto their distributors;
 5. Fit the tyre changer pedal support or side and secure with the screws.

Fig. 39



- Check the transmission belt (**Fig. 40 ref. 3**) for wear or proper tensioning:
 1. Undo the four retaining screws and remove tyre changer side panel; (**Fig. 40 ref. 1**);
 2. To tension up the belt (**Fig. 40 ref. 3**) Turn the screws (**Fig. 40 ref. 4**) motor support (**Fig. 40 ref. 2**);
 3. Replace the belt (**Fig. 40 ref. 3**) if worn out using genuine parts;
 4. Fit the tyre changer side panel (**Fig. 40 ref. 1**) before continuing with assembly and disassembly procedure;

13.1 Lubricants

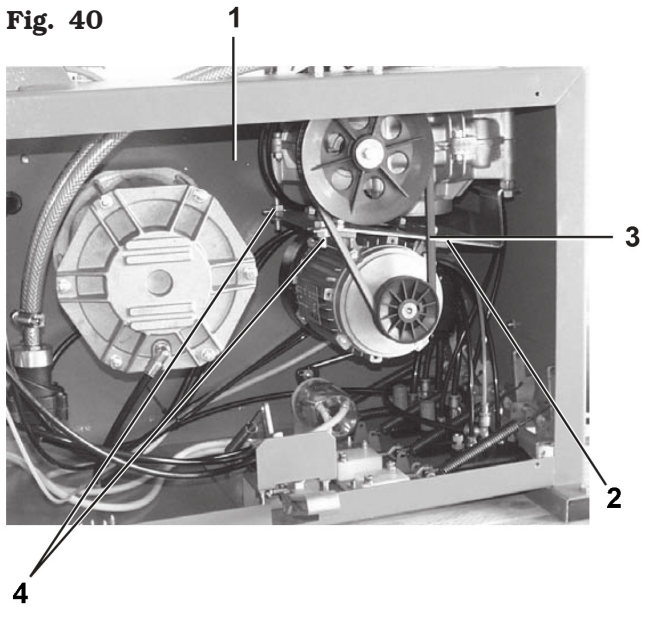
To grease the mandrel movement control gearbox, use **ESSO GEAR OIL GX140**.

Lubricate slides and screws/nut screws or racks and pinion with a soft brush using lubricant of **ESSO GP**.



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.

Fig. 40



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!!

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-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 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 mandrel does not rotate by activating the corresponding pedal (only for RWC240.22IB - RWC246.26IB - RWC246.26IRB - RWC246.26IHB models).	<ol style="list-style-type: none"> 1. No voltage available. 2. Motor faulty. 3. Safety fuses for machine system blown. 	<ol style="list-style-type: none"> 1. Check that the plug is properly connected and power supply is working. 2. Check for correspondence of electric data of the machine with the mains. 3. Check for proper working conditions. Check connections and parts (motors and switches).
The mandrel does not turn in the counter clockwise direction (only for RWC240.22IB - RWC246.26IB - RWC246.26IRB - RWC246.26IHB models).	Pedalboard microswitch breakage.	Replace microswitch.
The mandrel stops during tire assembly/disassembly.	Transmission belt slow or worn out.	Check for proper working conditions of the transmission belt. Tension up and/or replace, if necessary.
The mandrel does not clamp the rim properly.	<ol style="list-style-type: none"> 1. Clamps worn out. 2. One or more pneumatic cylinders faulty. 	<ol style="list-style-type: none"> 1. Replace clamps. 2. Replace pneumatic cylinder gaskets.
The head gets in contact with the rim during assembly/disassembly.	<ol style="list-style-type: none"> 1. Clamping plate not adjusted or faulty. 2. Mandrel retaining screw loose. 	<ol style="list-style-type: none"> 1. Adjust or replace the clamping plate. 2. Tighten the screw.
One or more pedals do not return to their original position.	<ol style="list-style-type: none"> 1. Return spring released. 2. Return spring broken. 	<ol style="list-style-type: none"> 1. Fasten the spring. 2. Replace the spring.
Bead breaker pneumatic controls do not work.	<ol style="list-style-type: none"> 1. Machine pneumatic system not connected. 2. Air lines clogged. 	<ol style="list-style-type: none"> 1. Check pneumatic connections and supply. 2. Ensure that the air filter is clean and undamaged, if fitted. If no air filter is fitted, remove all dirt into the pneumatic system and then fit a suitable filter. Clean and/or replace the silencers.
Some single pneumatic devices do not work.	Ensure that device and/or distributor seals are not damaged.	Call for technical assistance. 

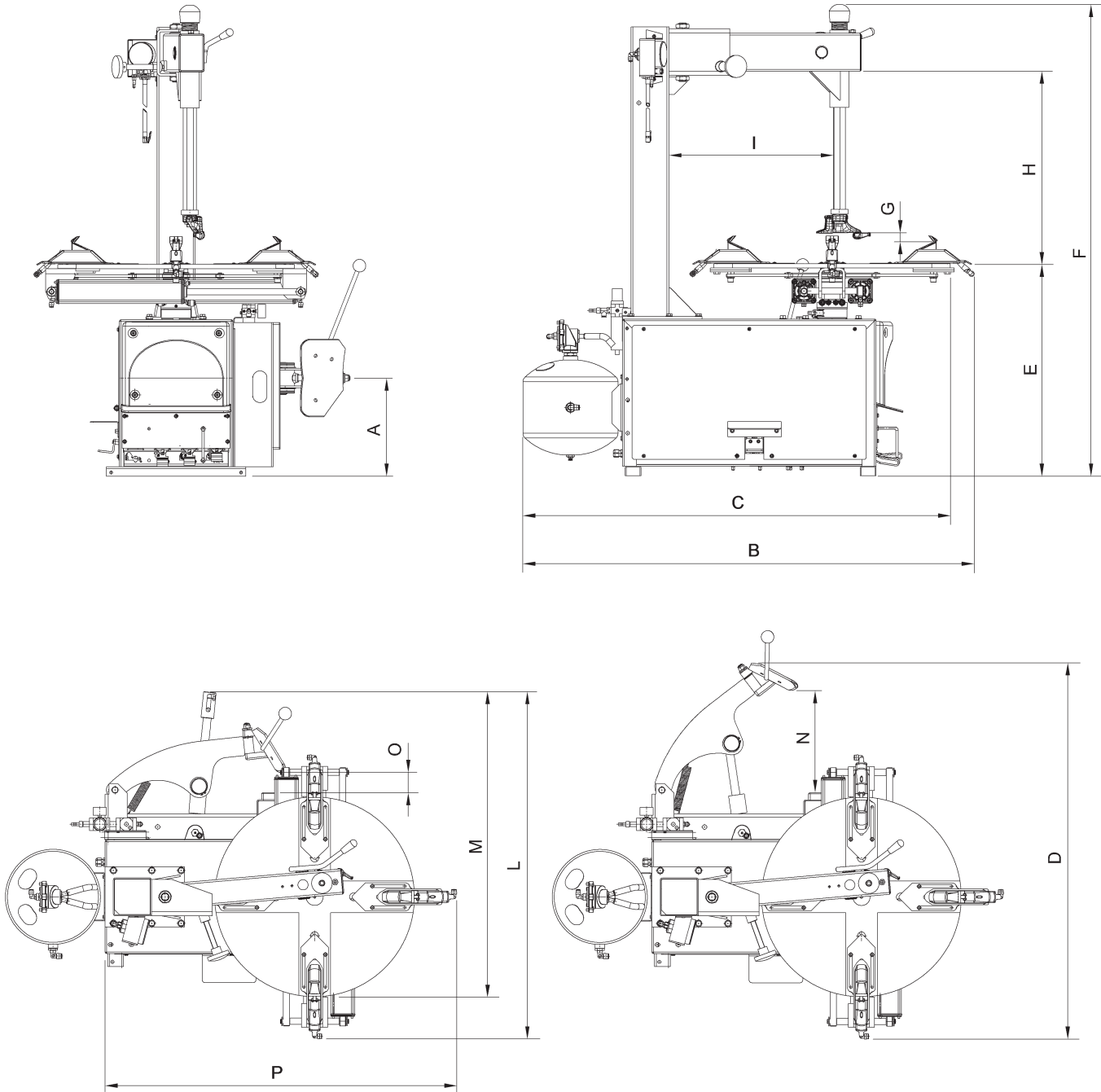
Problem	Possible cause	Remedy
The mandrel rotates slowly but it does not operate on the motor pedal.	Pedalboard reversible de-calibration.	<ol style="list-style-type: none"> 1. Keep the pedal in rest position. 2. Keep the machine connected to the net. 3. Wait for 30 seconds that the pedalboard recalibration automatic attempt ends.
The mandrel doesn't rotate, but it attempts rotation when the machine is switched on again.	Pedalboard irreversible de-calibration.	Call for technical assistance. 
The mandrel does not reach the maximum rotation speed.	The mechanical resistance of the gearmotor system has increased.	Turn the mandrel without wheel for a few minutes so that the system heats, thus reducing frictions. If in the end the mandrel does not accelerate again, call for technical assistance. 
The mandrel does not turn (only for RWC246.26IAB - RWC246.26IRAB models).	<ol style="list-style-type: none"> 1. Supply missed. 2. The operation pedalboard is broken. 	<ol style="list-style-type: none"> 1. Connect the supply. 2. Call for technical assistance. 
The mandrel does not reach maximum rotation speed (only for RWC246.26IAB - RWC246.26IRAB models).	Wrong pneumatic supply pressure	Adjust supply pressure.
The mandrel does not turn in the counter clockwise direction (only for RWC246.26IAB - RWC246.26IRAB models).	The operation pedalboard is broken.	Call for technical assistance. 
No movement is generated when the control lever is operated (only for RWC246.26IHB models).	<ol style="list-style-type: none"> 1. Supply missing. 2. The supply pipes have not been correctly assembled. 3. The control valve is not working. 	<ol style="list-style-type: none"> 1. Check supply. 2. Check pipes fitting. 3. Call for technical assistance. 
When the control lever is operated movement arises in one direction only (only for RWC246.26IHB models).	The control valve is not working.	Call for technical assistance. 

15.0 TECHNICAL DATA

	RWC240.22IB	RWC246.26IB	RWC246.26IRB	RWC246.26IHB	RWC246.26IAB	RWC246.26IRAB
Motor power	0.75 kW				-	-
Power supply	110V 1Ph 60Hz				-	-
Mandrel rotating speed	6.5 rpm				12 rpm	
Max rotation torque	1200 Nm (885 Ft/lb)				1113 Nm (821 Ft/lb)	
Max. tyre diameter	1030 mm/40.5"	1170 mm/46"				
Wheel maximum width	12"	15"				
Bead breaking cylinder force	30000 N 10 bar					
Mandrel clamping	22" from outside (11" - 22") / from inside (13" - 24,5") 26" from outside (10" - 26") / from inside (12" - 28,5")					
Operating pressure	8-10 bar					
Weight	200 kg	230 kg	240 kg	300 kg	230 kg	240 kg

15.1 Dimensions**RWC240.22IB - RWC246.26IB - RWC246.26IRB - RWC246.26IAB -
RWC246.26IRAB**

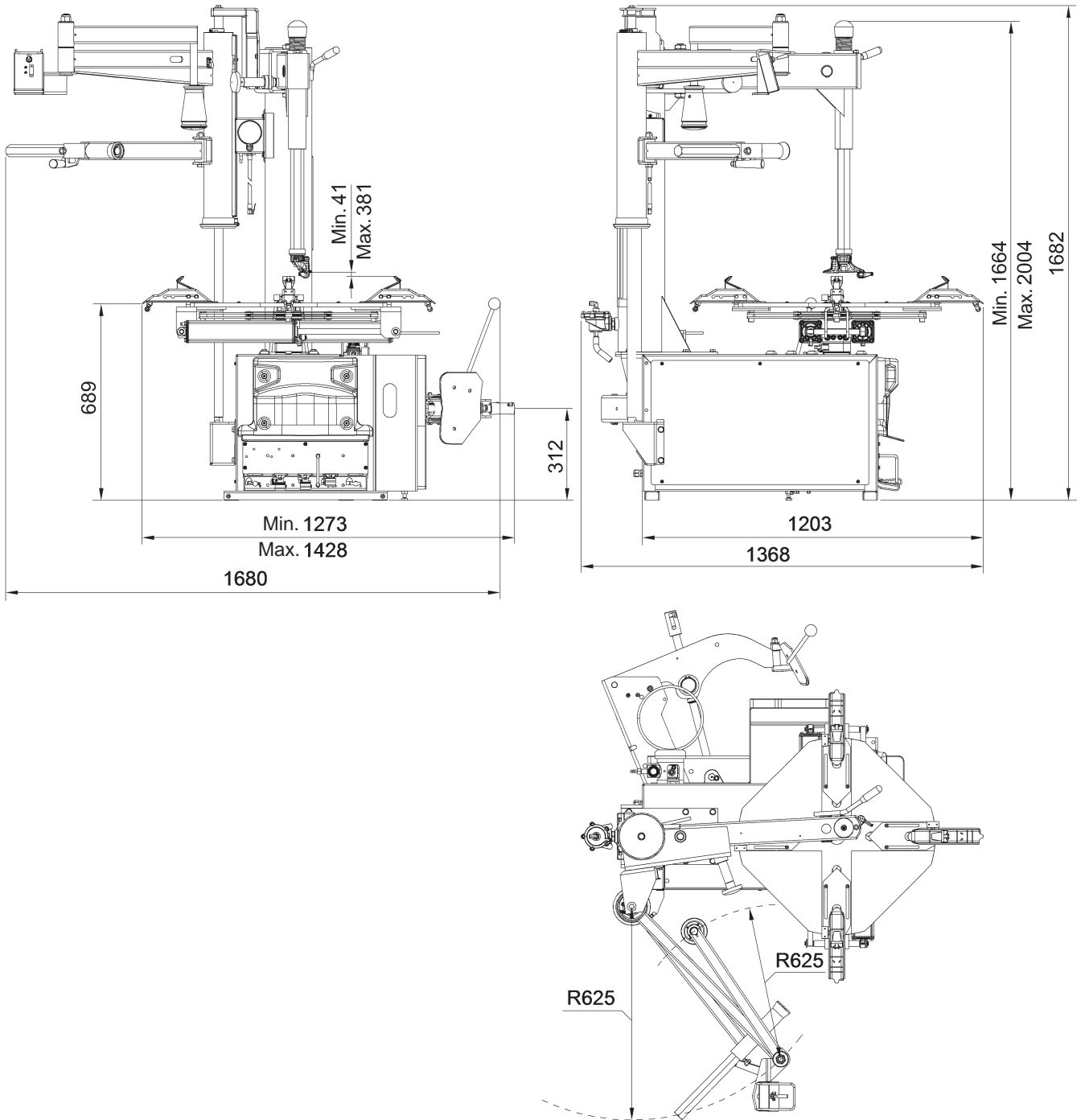
Fig. 41



Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)		G (mm)		H (mm)	GB (mm)	L (mm)	M (mm)	N (mm)		O (mm)		P (mm)
						Min.	Max.	Min.	Max.					Min.	Max.	Min.	Max.	
RWC240.22IB	310	1415	1293	1292	693.5	1522	1834	59	381	617.5	515	942.5	820	323.5	60			1098
RWC246.26IB RWC246.26IRB RWC246.26IAB RWC246.26IRAB	312	-	-	1428	689	1664	2004	41	381	738.5	585	1273	1110	338	405	55	114	1203

RWC246.26IHB

Fig. 42



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.

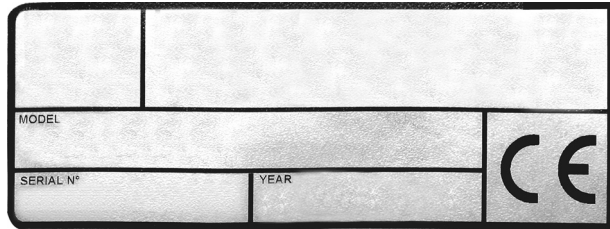
17.0 SCRAPPING

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.

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.



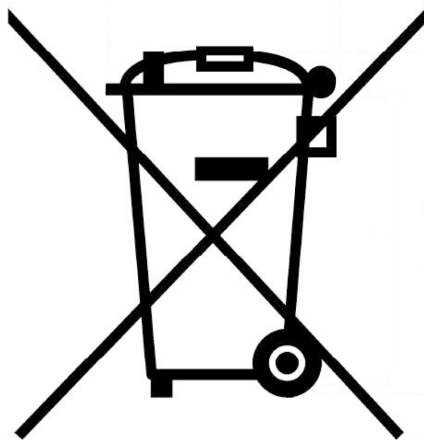
ATTENTION: TAMPERING WITH, CARVING, CHANGING ANYHOW OR EVEN REMOVING MACHINE IDENTIFICATION PLATE IS ABSOLUTELY FORBIDDEN; DO NOT COVER IT WITH TEMPORARY PANELS, ETC., SINCE IT MUST ALWAYS BE VISIBLE.

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.

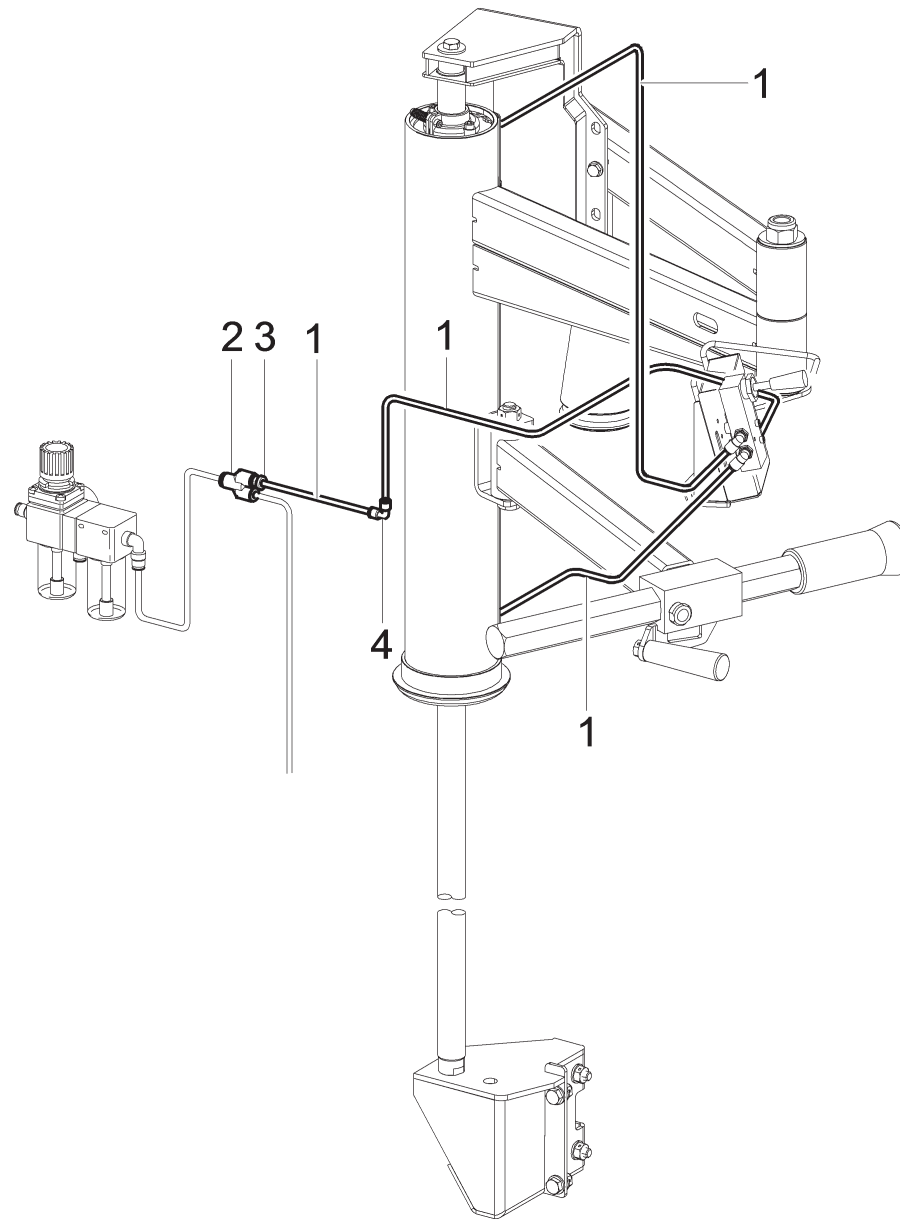
Fig. 43



	LIST OF COMPONENTS LISTE DES PIECES DETACHEES - LISTA DE PIEZAS		
	Table N°C - Rev. 0	VS730005090	

PNEUMATIC CIRCUIT DIAGRAM
SCHEMA PNEUMATIQUE
ESQUEMA NEUMATICO
(RWC246.26IAB - RWC246.26IRAB)

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LIST OF COMPONENTS
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Table N°D - Rev. 0

PLUS91SA PNEUMATIC CIRCUIT DIAGRAM
SCHEMA PNEUMATIQUE PLUS91SA
ESQUEMA NEUMATICO PLUS91SA
(RWC246.26IHB)

