7300-M009-5

RWC645.26IRB - RWC645.26IAB
RWC645.26IHB - RWC645.26IHRB
RWC645.26IHAB - RWC645.26IHRAB
RWC645D.26IHB - RWC645D.26IHRB

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.

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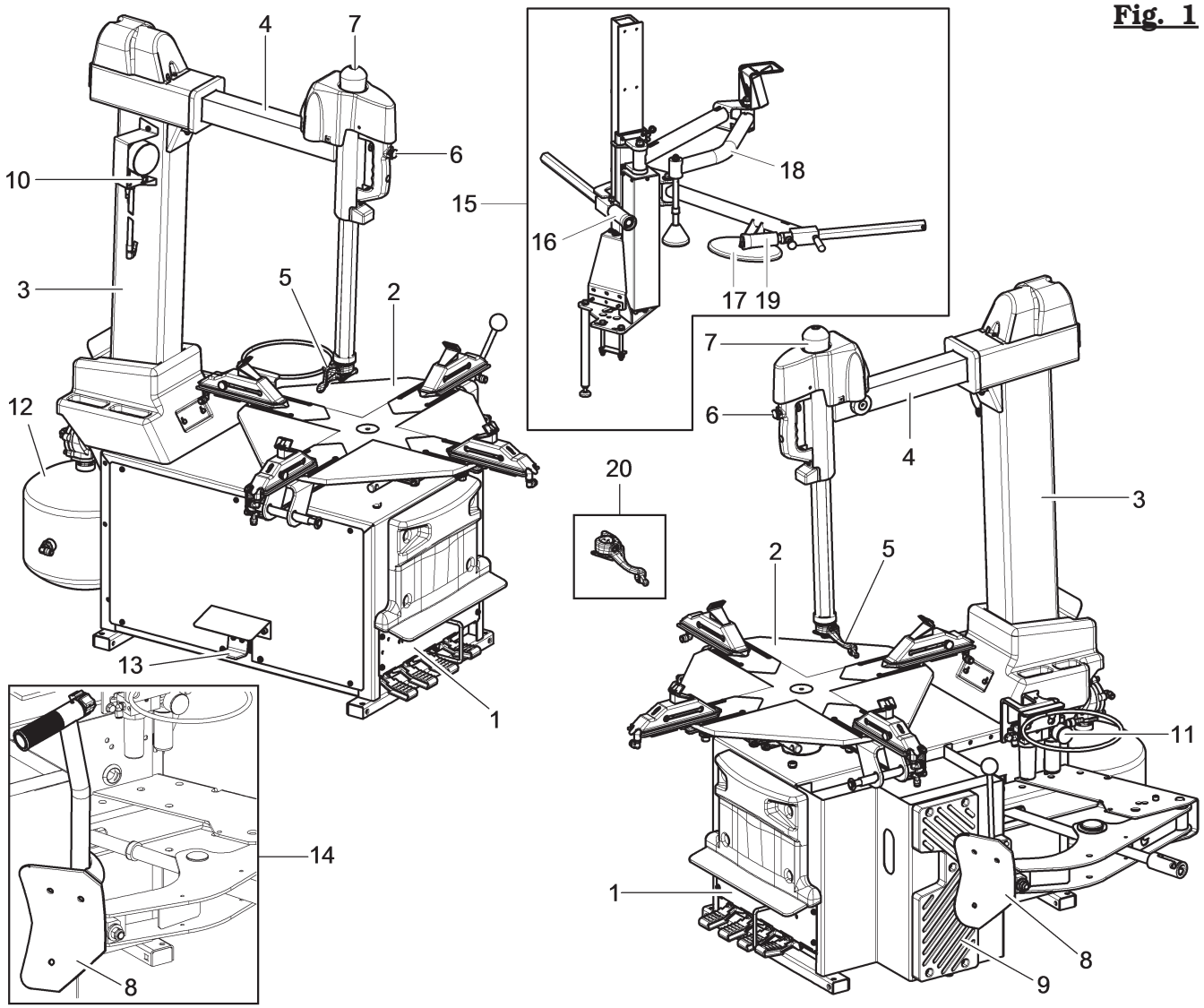
SUMMARY

Fig. 1



KEY

1 – Control pedal
2 – Mandrel
3 – Vertical rod
4 – Horizontal arm
5 – Head
6 – Head shaft and horizontal arm securing/releasing knob push button
7 – Handle
8 – Vane
9 – Pad
10 – Tyre deflating push button
11 – Lubricator filter unit
12 – Tubeless inflation unit device
13 – Inflation pedal
14 – VSG800A102 - Bead breaking control on vane (only for RWC645.26IRB - RWC645.26IHRB - RWC645.26IHRAB - RWC645D.26IHRB models)
15 – PLUS83VSC - Pneumatic bead depressing/lifting device (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)
16 – Presser roll (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)
17 – Bead lifting disc (Only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)
18 – Pusher arm (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)
19 – Presser roll (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)
20 – VSG800A126 - Plastic head unit kit

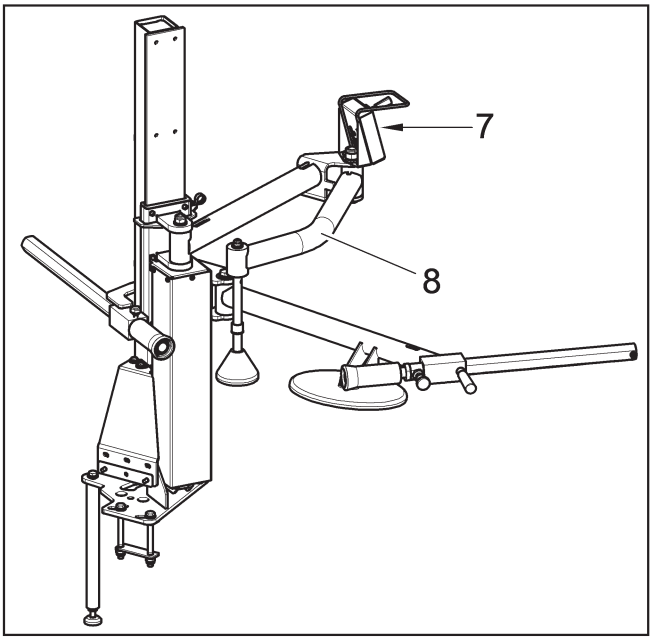
SYMBOLS USED IN THE MANUAL

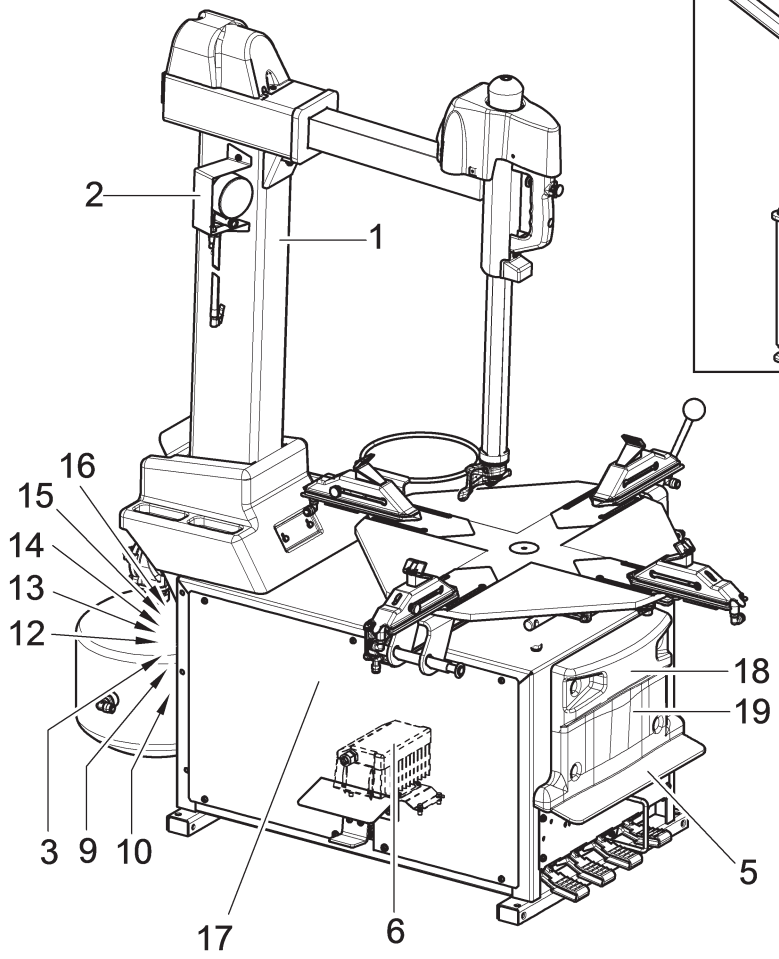
Symbols	Description
	Read instruction manual.
	Wear work gloves.
	Wear work shoes.
	Wear safety goggles.
	Mandatory. Operations or jobs to be performed compulsorily.
	Warning. Be particularly careful (possible material damages).

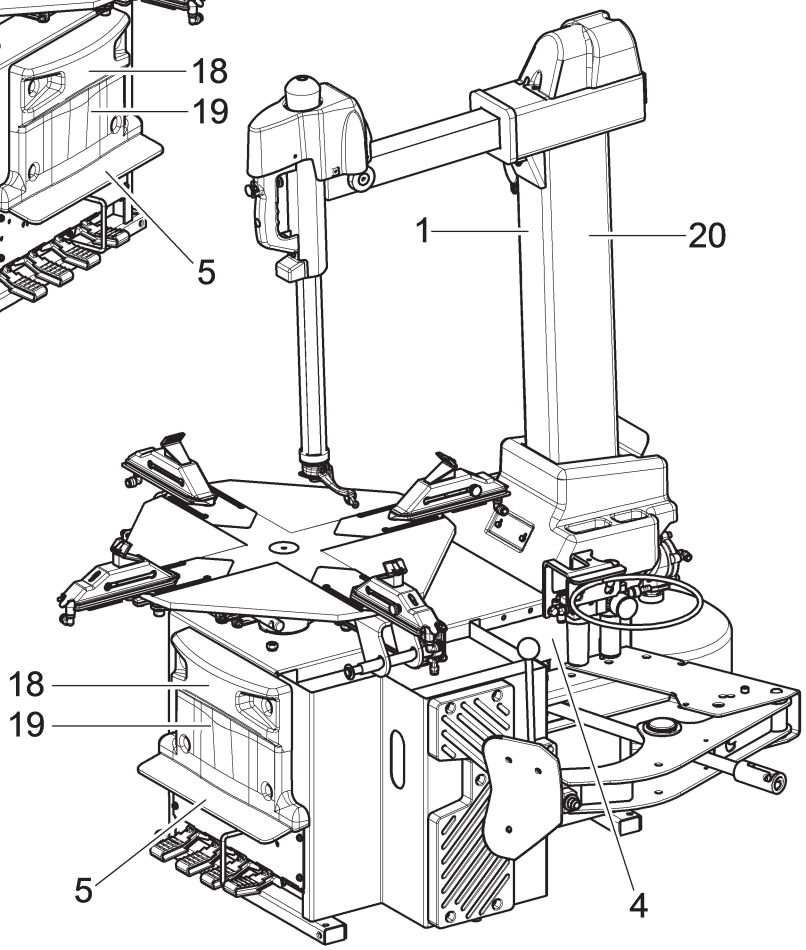
Symbols	Description
	Danger! Be particularly careful.
	Move with fork lift truck or pallet truck.
	Lift from above.
	Technical assistance necessary. Do not perform any intervention.
	Caution: hanging loads.
	Note. Indication and/or useful information.

INFORMATION PLATE LOCATION TABLE

only for models
RWC645.26IHB - RWC645.26IHRB
RWC645.26IHAB - RWC645.26IHRAB
RWC645D.26IHB - RWC645D.26IHRB







Ref.	Code	Description
1	**VS999911870**	*Headphones plate*
2	**VSB2170000**	*Max inflation pressure rating plate*
3	**VS999912550**	*110/60/1 voltage table (except RWC645D.26IHB - RWC645D.26IHRB models)*
4	**VS999916311**	*Rubbish skip label*
5	**VSB2661000**	*4 pedal symbol plate*
6	**VS999916011**	*Motoinverter plate (only for RWC645D.26IHB - RWC645D.26IHRB models)*
7	**VS999914700**	*Bead depressing controls plate (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)*
8	**VSB2166000**	*Bead breaker danger plate (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)*
9	**VS999914290**	*Sirio serial number plate*
10	**VS999923160**	*Prop 65 Attention plate*
11	**VSB4221000**	*Grounding plate (only for RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB models) (placed on the motor)*
12	**VS999923300**	*Label for 1Ph 220V 20A 60 Hz voltage (only for RWC645D.26IHB - RWC645D.26IHRB models)*
	VS999923380	*Label for 1Ph 110V 15A 60Hz voltage (only for RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB models)*
13	**VS999923400**	*UL-CSA ready plate (only for RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB - RWC645D.26IHB - RWC645D.26IHRB models)*
14	**VS999922390**	*Overload protection plate (only for RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB - RWC645D.26IHB - RWC645D.26IHRB models)*
15	**VS999923360**	*Disconnect power supply plate (only for RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB - RWC645D.26IHB - RWC645D.26IHRB models)*
16	**VS999923350**	*Only for indoor use plate (only for RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB - RWC645D.26IHB - RWC645D.26IHRB models)*
17	**VS999921760**	*Rotary 145 TC plate (only for RWC645.26IRB - RWC645.26IAB - RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB models)*
	VS999921830	*Rotary R145D plate (only for RWC645D.26IHB - RWC645D.26IHRB models)*
18	**VS999921740**	*Rotary "R" plate*
19	**VS999921750**	*Rotary "Wheel service" plate*
20	**VS999921730**	*Rotary plate*

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

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

1.0 GENERAL INTRODUCTION

This manual is an integral part of the product and must be retained for the whole operating life of the machine.

Carefully study the warnings and instructions contained in this manual. It contains important instructions regarding **FUNCTIONING, SAFE USE and MAINTENANCE.**

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

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

1.1 Introduction

Thank you for preferring electro-hydraulic 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

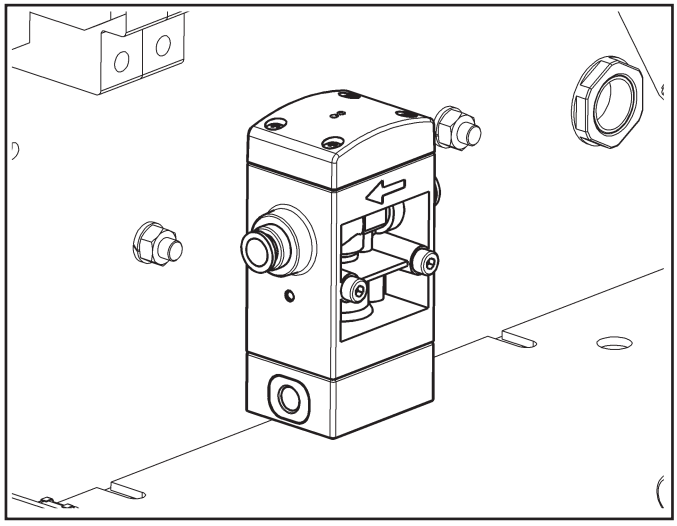
PERIODICALLY, AT LEAST MONTHLY, CHECK THE INTEGRITY AND THE FUNCTIONALITY OF THE SAFETY AND PROTECTION DEVICES ON THE MACHINE.

All the machines are equipped with:

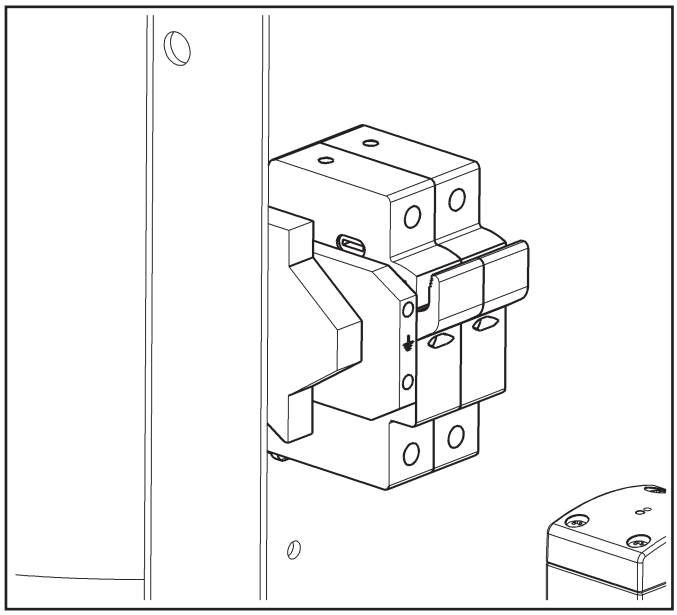
- **Fixed guards.**
  The machine is fitted with a number of fixed guards intended to prevent potential crushing, cutting and compression risks.
- **"Operator attending"** controls (immediate stop by releasing control) for: mandrel rotation, bead breaker vane motion, inflating; other drives such as rim clamping on spindle, head clamping cannot be of the operator-attending type, seen 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.

Moreover, all the machines used for inflating tyres are equipped with the following elements:

- **pressure gauge** for tyre pressure reading, EC-certified and in compliance with 86/217/EEC Standard;
- **motor protection devices** (only for RWC645D.26IHB - RWC645D.26IHRB models). The new "Invemotor" motor is equipped with electronic protection devices. They stop the motor if working defected conditions appear to avoid that the motor itself can be damaged and that the operator safety can be compromised (overvoltage, overload, overtemperature). For other details, see the chapter 14 "Fault-Finding".
- **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.** This allows inflation of tyres in reasonable safety. Inflation of tyres to over 4,2 ± 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 RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB - RWC645D.26IHB - RWC645D.26IHRB 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.

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

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, 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.

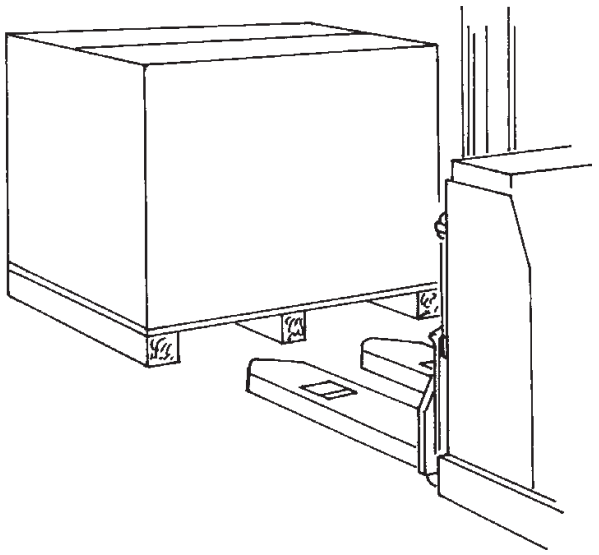
IN CASE OF A CHANCE SUPPLY FAILURE (WHETHER ELECTRICITY OR COMPRESSED AIR), MOVE THE PEDALS TO THE NEUTRAL POSITION.

5.0 PACKING AND MOBILIZATION FOR TRANSPORT

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

The machine is 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 unnail the cardboard box from the pallet it is fixed to. After removing the packing, and in the case of the machine packed fully assembled, check that the machine is complete and that there is no visible damage.

If in doubt **do not use the machine** and refer to professionally qualified personnel (to the seller).
The packing (plastic bags, expanded polystyrene, nails, screws, timber, etc.) should not be left within reach of children since it is potentially dangerous. These materials should be deposited in the relevant collection points if they are pollutants or non biodegradable.

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

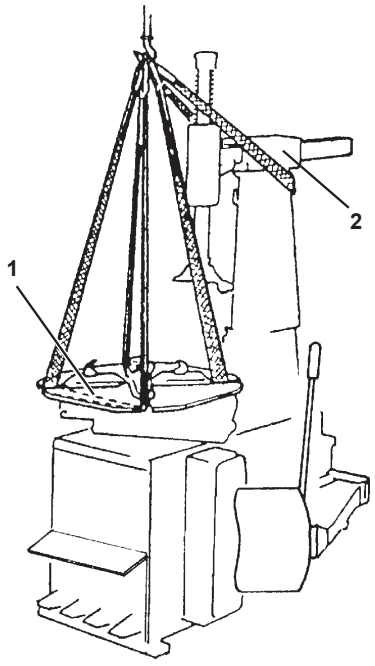
7.0 MOBILIZATION

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

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 limit switch in 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).

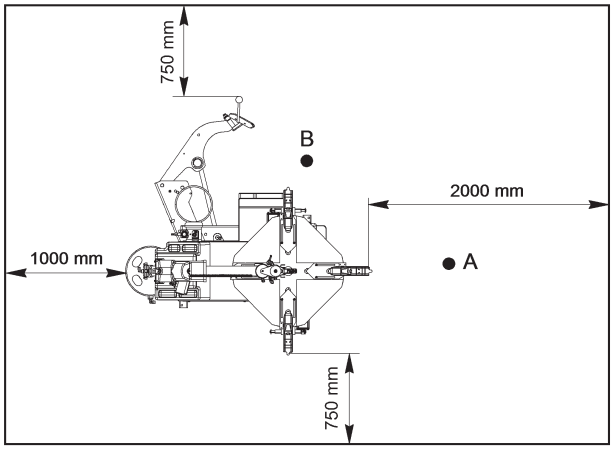
The use of the machine in ambient conditions other than those specified above is only allowed after prior agreement with and approval of the manufacturer.

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

Fig. 4



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

The location of the machine requires a usable space as indicated in **Figure 4**. The positioning of the machine must be according to the distances shown. From the control position the operator is able to observe all the machine and surrounding area. He must prevent unauthorized personnel or objects that could be dangerous from entering the area.

The machine must be fixed on a flat floor surface, preferably of cement or tiled. Avoid yielding or irregular surfaces.
The base floor must be able to support the loads transmitted during operation. This surface must have a capacity load of at least 500 kg/m².
The depth of the solid floor must be sufficient to guarantee that the anchoring bolts hold.

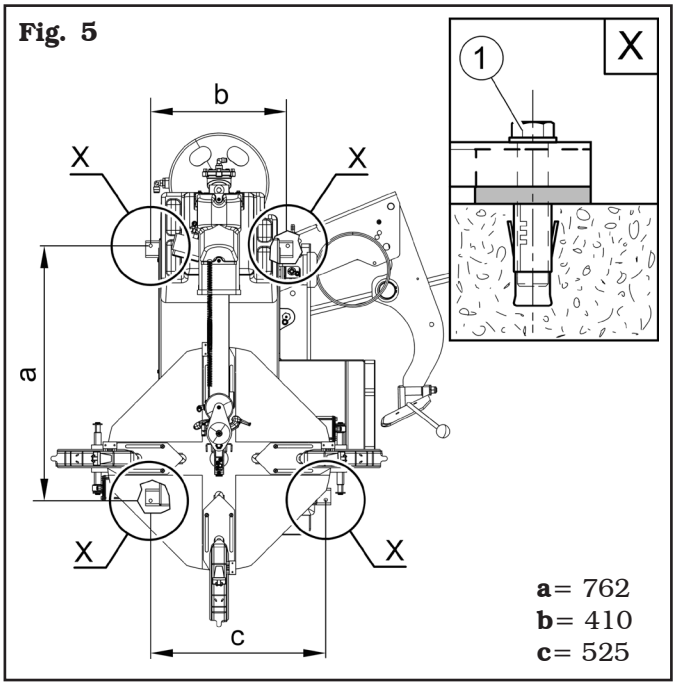
8.3 Lighting

The machine does not require its own lighting for normal working operations.
However, it must be 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**.

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**
VSG299111	*Lever*	**1**
VSG800A26	*Vane*	**1**
VSG800A126	*Head unit kit*	**1**
VSG800A11	*Bead breaker vane guard*	**1**

Only for RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB models

Code	Description	N.
VS520171	*Nema plug 5-15P 15A 125V*	**1**

Only for RWC645D.26IHB - RWC645D.26IHRB models

Code	Description	N.
VS520169	*Nema plug L6-20P*	**1**

10.2 Assembly procedures

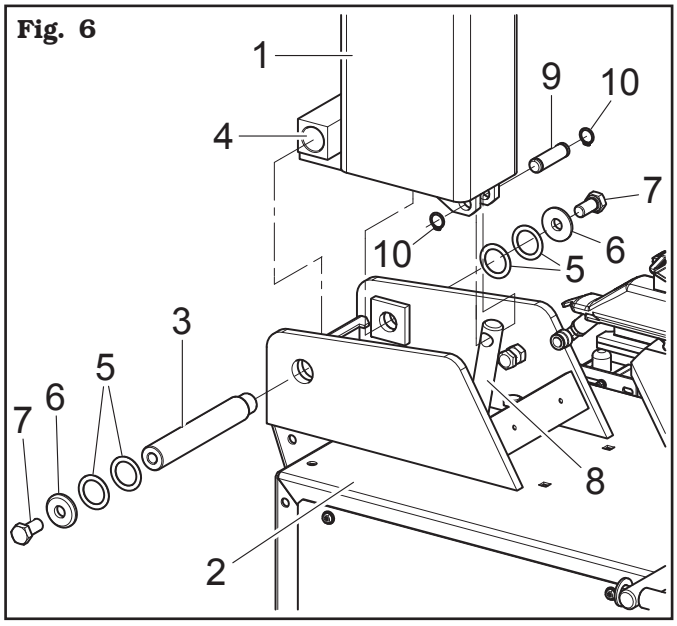
Remove the packaging and free the machine from the wrapping. Lift the machine and position it on the floor.

10.3 Post assembly

In case the post is supplied demounted, proceed following the instructions below.

1. Remove the fixing elements needed to fix the machine to the pallet.
2. Unpack the vertical post (**Fig. 6 ref. 1**) and put it vertically onto the base.
3. Put the post (**Fig. 6 ref. 1**) onto the base (**Fig. 6 ref. 2**) and fit the pin (**Fig. 6 ref. 3**) into the special hole (**Fig. 6 ref. 4**) and block it through the washers (**Fig. 6 ref. 5**), the spacers (**Fig. 6 ref. 6**) and the screws (**Fig. 6 ref. 7**). Fix the post tilting control cylinder (**Fig. 6 ref. 8**) using the pin (**Fig. 6 ref. 9**) and the seegers (**Fig. 6 ref. 10**).

Fig. 6

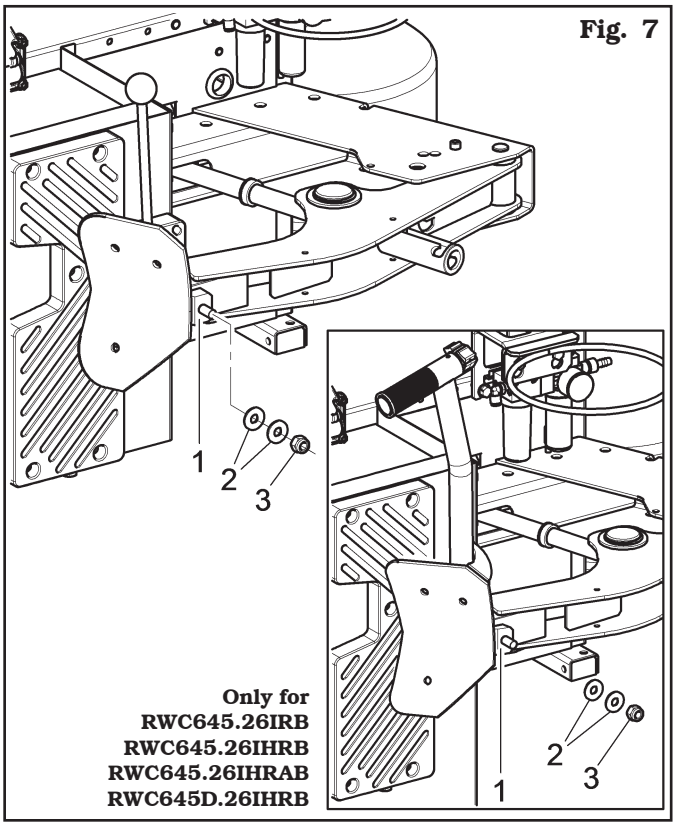


4. At the end mount the rod covering by means of the supplied screws and washers.

10.4 Bead breaker arm mounting

Secure the beading arm vane (**Fig. 7 ref. 1**) using the washers (**Fig. 7 ref. 2**) and the nut (**Fig. 7 ref. 3**), on issue (nut and washers are clamped on the bead breaker vane).

Fig. 7

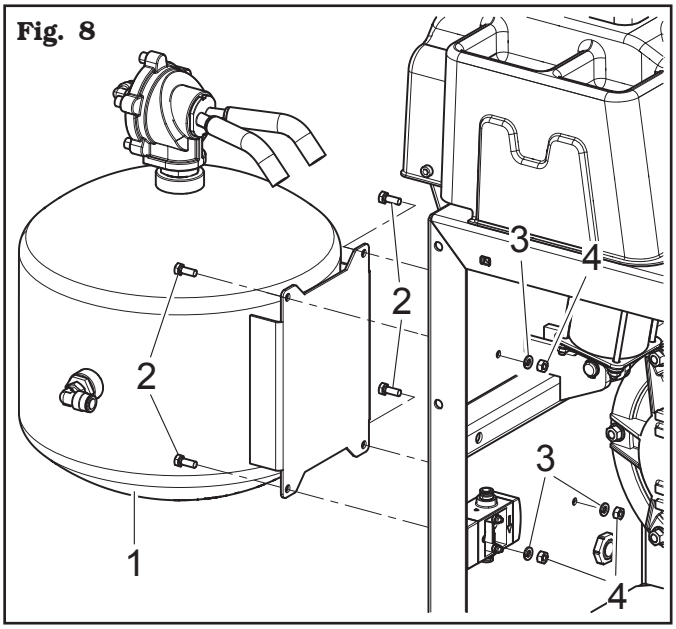


Only for
RWC645.26IRB
RWC645.26IHRB
RWC645.26IHRAB
RWC645D.26IHRB

10.5 Tubeless inflation unit mounting

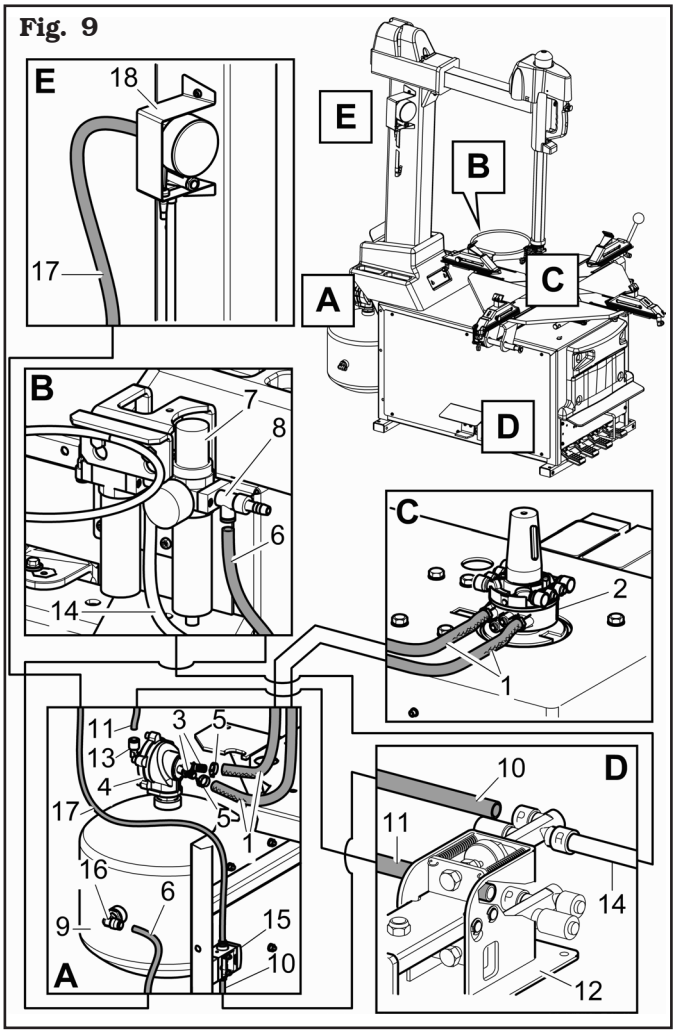
1. Mount the tank (**Fig. 8 ref. 1**) on the base rear part, as shown in **Fig. 8**, using the screws (**Fig. 8 ref. 2**) (tightening torque approx. 8 N·m), the washers (**Fig. 8 ref. 3**) and the nuts (**Fig. 8 ref. 4**).

Fig. 8



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

Fig. 9

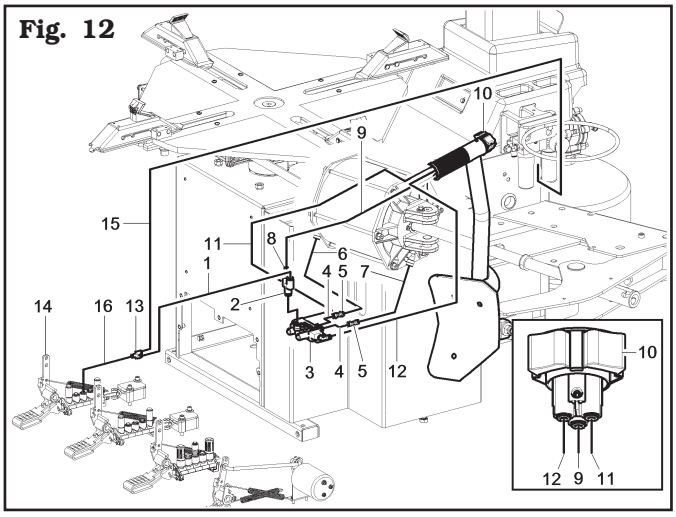


IN CASE OF A CHANCE SUPPLY FAILURE, AND/OR BEFORE ANY PNEUMATIC CONNECTIONS, MOVE THE CONTROLS TO THE NEUTRAL POSITION.

10.6 Pipes connection (only for RWC645.26IRB - RWC645.26IHRB - RWC645.26IHRAB - RWC645D.26IHRB)

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.

Fig. 12



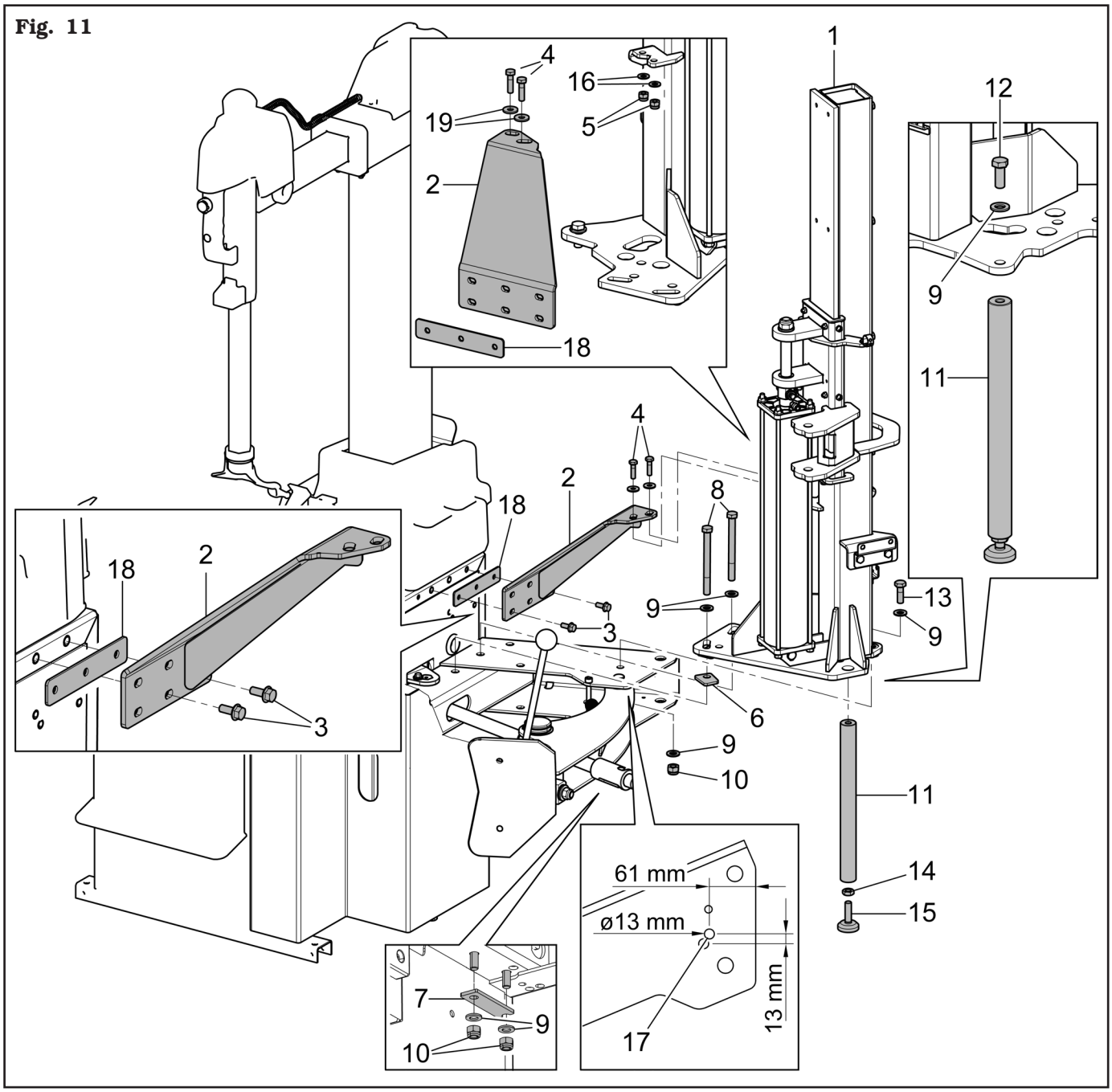
10.7 Assembly of pneumatic bead depressing/lifting device (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)

IF NOT PRESENT ON THE FRAME, MAKE A Ø13 mm HOLE ON BEAD BREAKER ARM SUPPORT (Fig. 11 ref. 17).

1. Fix the device (**Fig. 11 ref. 1**) to the beading arm support, using screws (**Fig. 11 ref. 8**) and (**Fig. 11 ref. 13**), washers (**Fig. 11 ref. 9**) and nuts (**Fig. 11 ref. 10**) by making sure spacers (**Fig. 11 ref. 6**) and (**Fig. 11 ref. 7**) have been interposed, as indicated in **Fig. 11**.

Then fix the rod (**Fig. 11 ref. 2**) to the frame using the screws (**Fig. 11 ref. 3**), by laying the spacer (**Fig. 11 ref. 18**) and fasten everything to the device (**Fig. 11 ref. 1**) using screws (**Fig. 11 ref. 4**), washers (**Fig. 11 ref. 16**) and (**Fig. 11 ref. 19**) and nuts (**Fig. 11 ref. 5**).
Screw foot (**Fig. 11 ref. 15**) to the tubular (**Fig. 11 ref. 11**) interposing the nut (**Fig. 11 ref. 14**).
Fix the tubular (**Fig. 11 ref. 11**) to the device (**Fig. 11 ref. 1**) using screw (**Fig. 11 ref. 12**), washer (**Fig. 11 ref. 9**) as shown in **Fig. 11**.
At the end of the fixing, adjust correctly tubular height (**Fig. 11 ref. 11**) by unscrewing or screwing the foot (**Fig. 11 ref. 15**) and blocking the performed fixing by screwing the nut (**Fig. 11 ref. 14**).

Fig. 11



2. Fit disc support arm (**Fig. 12 ref. 1**) to the slide (**Fig. 12 ref. 2**) using screw (**Fig. 12 ref. 3**), washers (**Fig. 12 ref. 4**) and nut (**Fig. 12 ref. 5**).

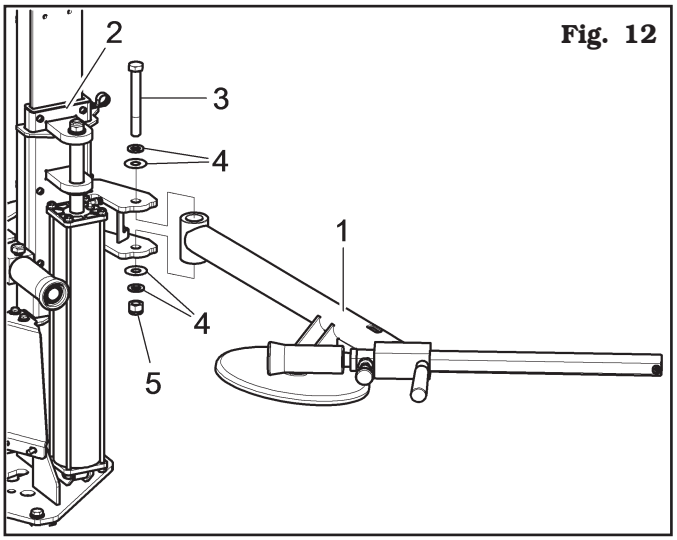


Fig. 12

3. Fit the hexagonal shaft (**Fig. 13 ref. 1**) into the proper seat (**Fig. 13 ref. 2**) locking it by means of the knob (**Fig. 13 ref. 3**).

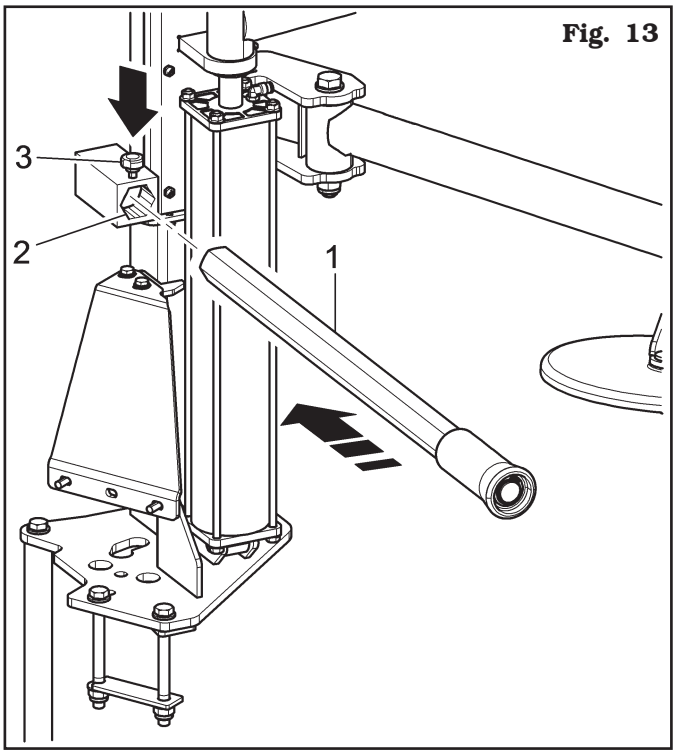


Fig. 13

4. Unscrew nut (**Fig. 14 ref. 5**) and lift the slide (**Fig. 14 ref. 1**) by disengaging it from the centring pin (**Fig. 14 ref. 2**) fixed to the cylinder. Mount the upper arm (**Fig. 14 ref. 3**), as shown in **Fig. 14**. Connect the cylinder pneumatically and activate it so that the centring pin (**Fig. 14 ref. 2**) goes into the prearranged seats on the slide (**Fig. 14 ref. 1**) and into the arm (**Fig. 14 ref. 3**). At the end tighten the nut with a screwer (**Fig. 14 ref. 5**).
Mount the guard (**Fig. 14 ref. 4**) for cylinder protection.

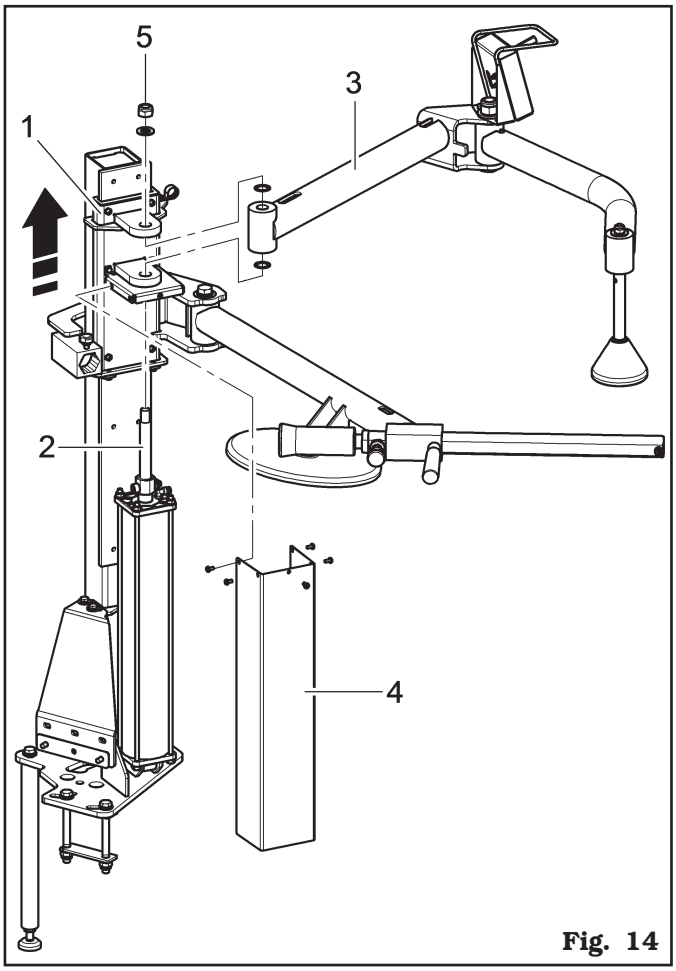


Fig. 14

10.8 Electrical connections (only for RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB - RWC645D.26IHB - RWC645D.26IHRB 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:

MACHINE	VOLTAGE	PHASE	FREQUENCY	AMP	PLUG
645	110V	1ph	60Hz	15A	NEMA 5-15P
645D	220V	1ph	60Hz	20A	NEMA L6-20

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

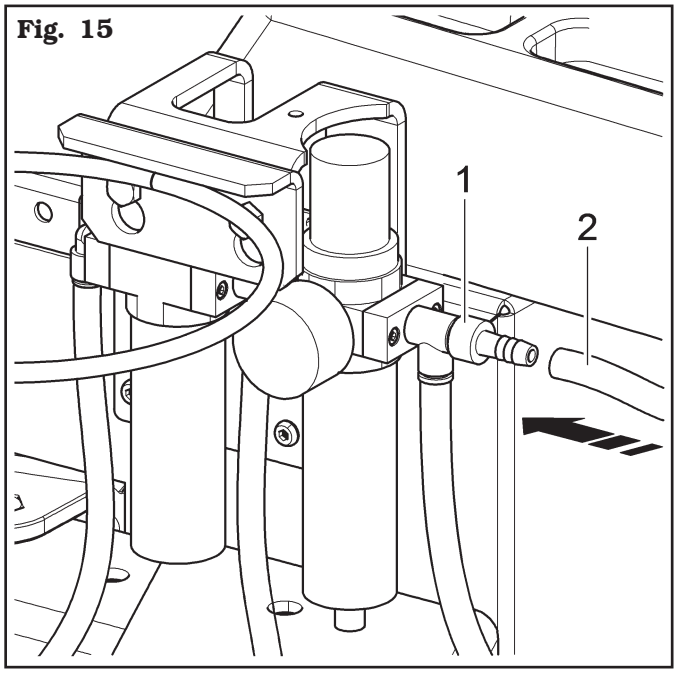
FIT A TYPE-APPROVED (AS REPORTED BEFORE) PLUG TO THE MACHINE CABLE (THE GROUND WIRE IS YELLOW/GREEN AND MUST NEVER BE CONNECTED TO ONE OF THE TWO PHASE LEADS).

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).

10.9 Air connection

Connect the tyre changer to the workshop compressed air system by means of plug (**Fig. 15 ref. 1**).

Fig. 15



The pressurized pipe coming from the mains must have a section of 1/4x10 (**Fig. 15 ref. 2**).
The filter unit is already mounted on the machine.

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

11.0 CONTROLS

11.1 Pedalboard

"Pedal 1" on this type of pedal control unit activates the automatic post and has two fixed operative functions:
the first one (with pedal up) overturns the post from the operator's opposite side; the second one (with pedal down) brings back the post to working position.

"Pedal 2" opens and closes mandrel's locking jaws. It has three stable positions: open – close – approach jaws.

"Pedal 3" 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.

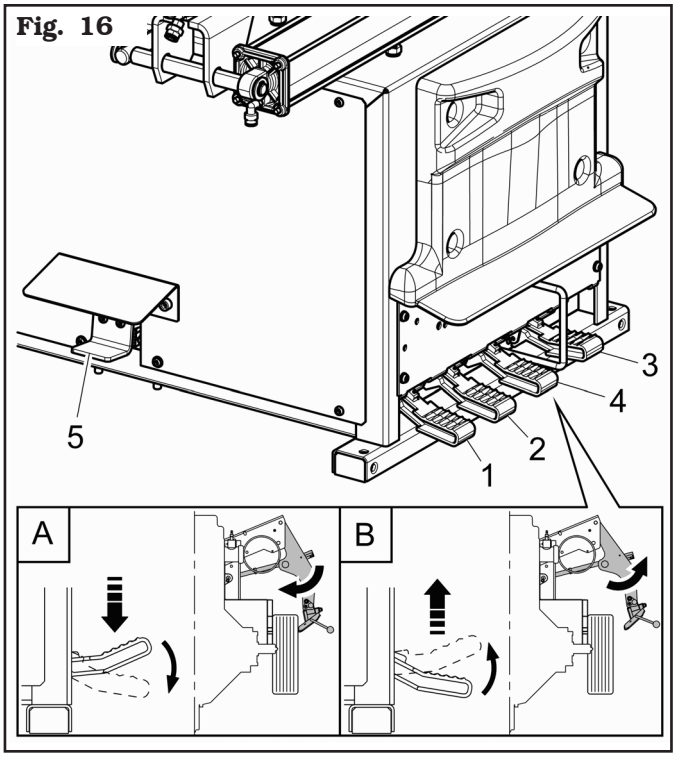
"Pedal 4" (only for RWC645.26IAB - RWC645.26IHB - RWC645.26IHAB - RWC645D.26IHB models) has 2 operative positions: when it is pressed downwards, the cylinder for bead breaking with lateral arm (A) is operated; when such pedal is released, the bead breaking arm is moved back to the initial position (open bead breaker) (B).

The inflation **"pedal 5"**, with "hands-on" operation, delivers air at controlled pressure (max 4,2 ± 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.

Fig. 16



11.2 Lever Bead breaking control (only for RWC645.26IRB - RWC645.26IHRB - RWC645.26IHRAB - RWC645D.26IHRB)

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. 17 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. 17 ref. 2**) has one "hands-on" operating position and when pressed, it operates the opening of the side bead breaker outwards.

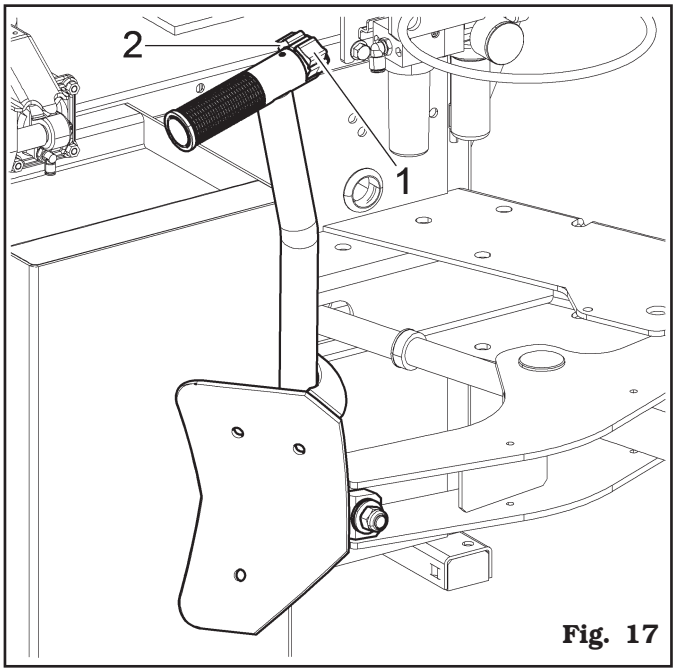
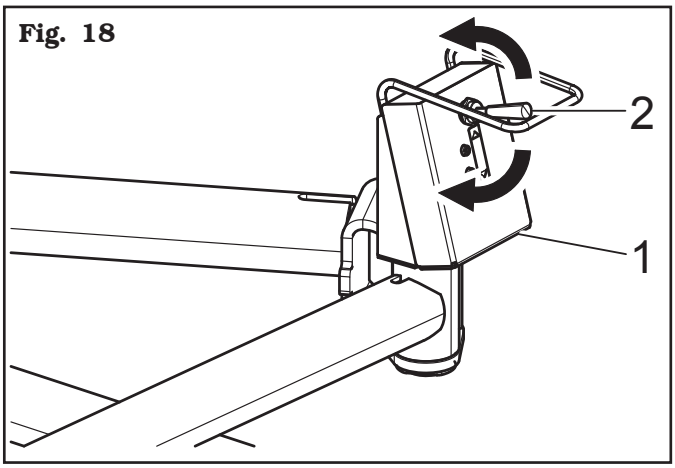


Fig. 17

11.3 Operating unit (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)

It is made up of an handle control (**Fig. 18 ref. 1**), positioned on the device (**Fig. 1 ref. 15**). With this handle control, it is possible to operate the vertical translation of the pusher roll (**Fig. 1 ref. 16**) of the bead lifting disc (**Fig. 1 ref. 17**) and of the pusher arm (**Fig. 1 ref. 18**). Lift the lever (**Fig. 18 ref. 2**) to operate the upwards translation, and lower the lever (**Fig. 18 ref. 2**) to perform the downwards translation. The device arms positioning next to the tyre is a completely manual operation.

Fig. 18



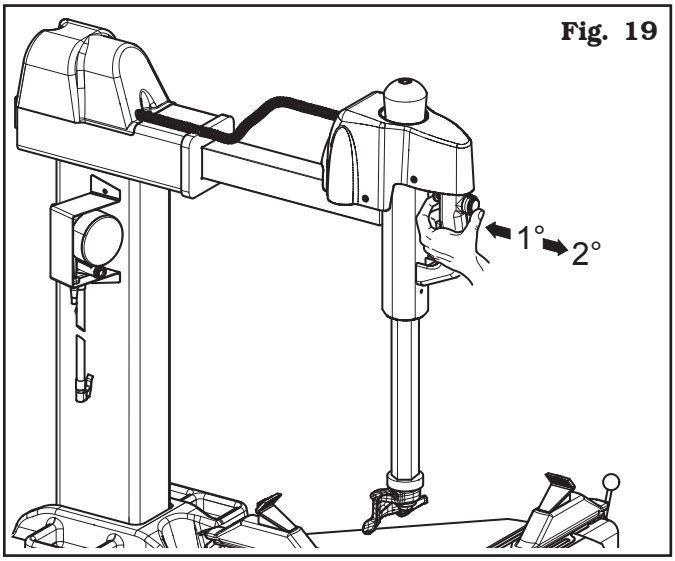
11.4 Post handle manual adjustment

On the post is placed a pneumatically controlled handle that allows the locking and unlocking of the vertical and horizontal arm.
Pushing the push button located on this handle (**Fig. 19**) the following operations can be carried out:

1st tripping: locking of the vertical and horizontal arm in working position;

2nd tripping: unlocking of vertical and horizontal arm and manual rise of vertical arm in rest position (all upward).

Fig. 19



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 RWC645.26IAB - RWC645.26IHB - RWC645.26IHAB - RWC645D.26IHB 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.

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. 20** 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.

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.

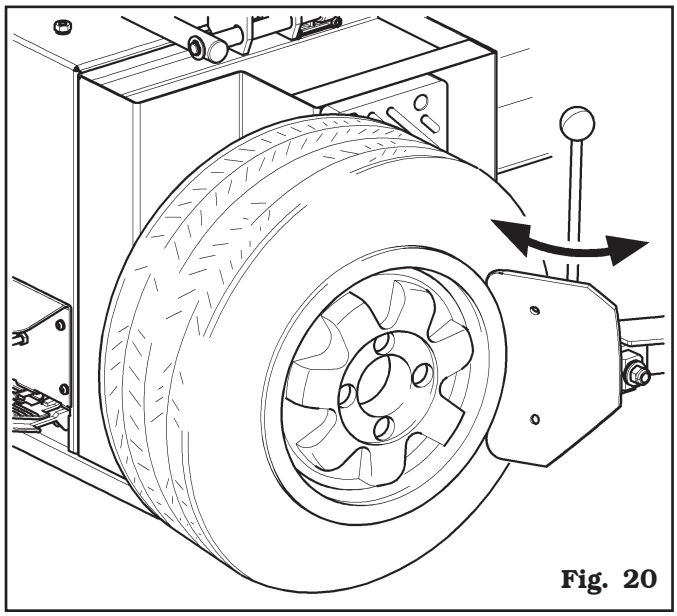


Fig. 20

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

12.4 Bead breaking (only for RWC645.26IRB - RWC645.26IHRB - RWC645.26IHRAB - RWC645D.26IHRB)

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. 21** 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.

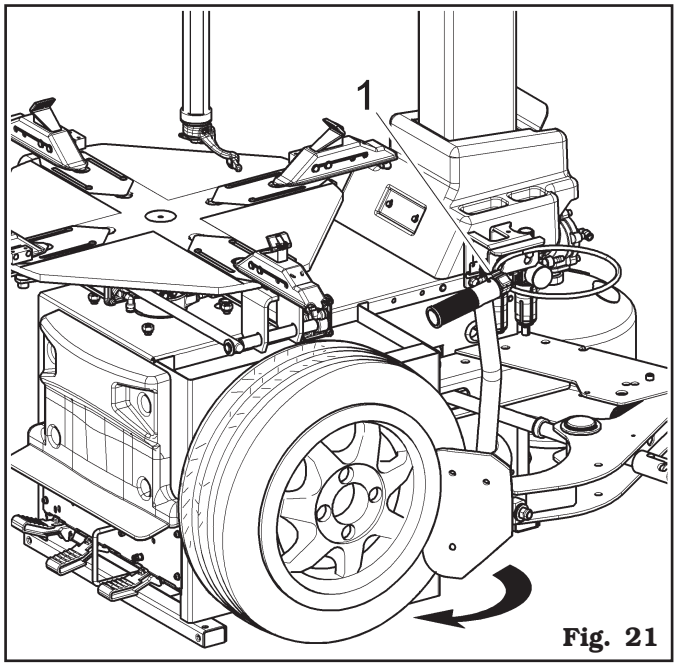


Fig. 21

2. Move the bead breaker vane closer by pushing the push button (**Fig. 21 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. Grease tyre edges with the grease contained in the appropriate cup (see operating figure **Fig. 22**).
2. Release the hexagon shaft (**Fig. 22 ref. 2**) through the relevant push button on handle (**Fig. 22 ref. 1**) and take it up, fully home. Control horizontal arm (**Fig. 22 ref. 3**) tilting through the pedal.
3. The wheel can be secured to the mandrel 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. 22 ref. 6**). Make sure the wheel is clamped by jaws (**Fig. 22 ref. 7**) 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 push button (**Fig. 22 ref. 8**) in correspondence to the required clamping range.

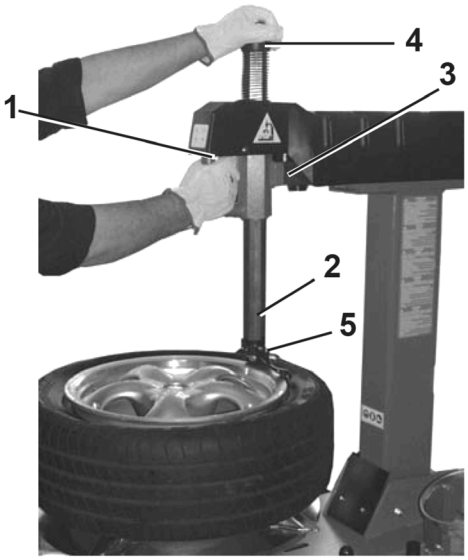
2 pressing pedal (**Fig. 22 ref. 9**) in intermediate position, place the 4 fixing jaws (**Fig. 22 ref. 7**), so that the reference notch on the mandrel is at about the same level of the tyre diameter notched on the sliding element.

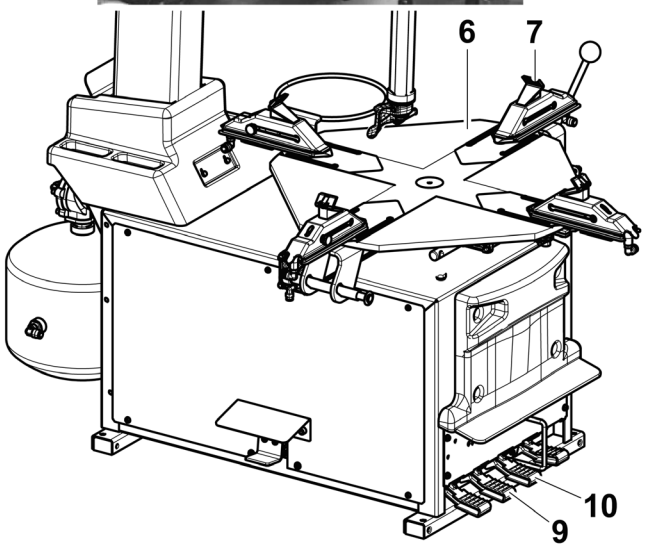
3. Place the wheel on the mandrel, press the rim downward and completely lower pedal (**Fig. 22 ref. 9**) to secure the wheel.

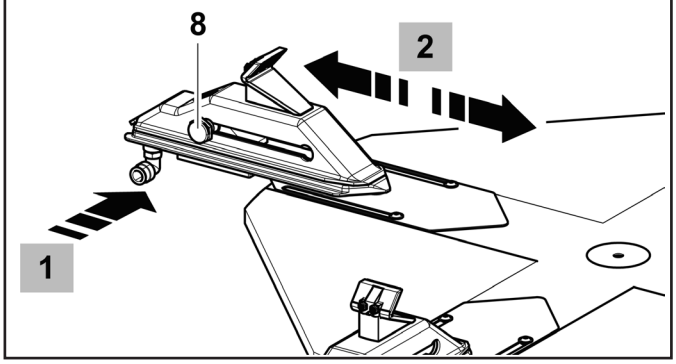
B) WHEEL SECURING (INSIDE THE RIM) (for allowed rim size, see Chapter 15). "Technical specifications")
To block the wheel from inside:

1. place the 4 self-centering jaws by using the appropriate push button (**Fig. 22 ref. 8**) in correspondence to the required clamping range.
2. close preventively fixing jaws (**Fig. 22 ref. 7**), by means of pedal (**Fig. 22 ref. 9**). 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.

Fig. 22



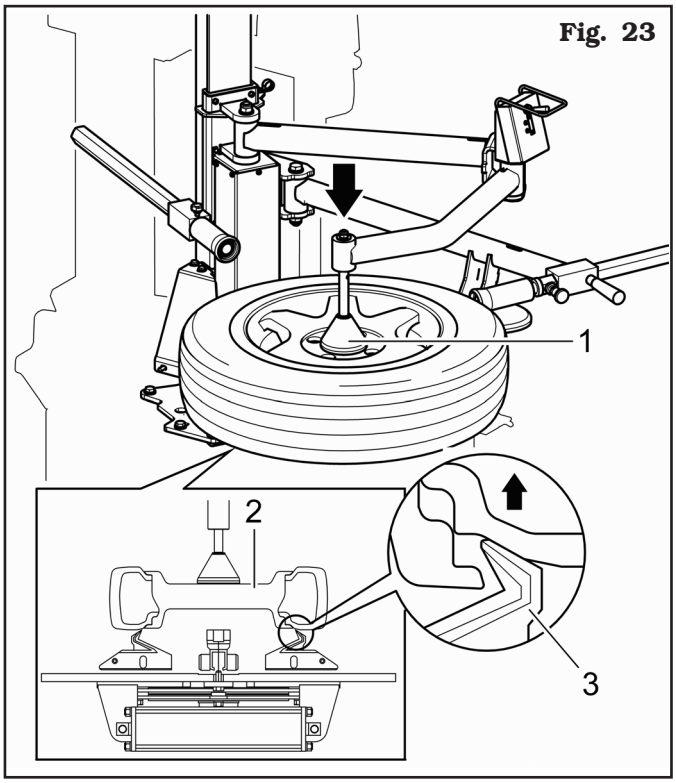




12.6 Wheel clamping with tyre lowered on self-centring chucks (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)

In case of lowered tyres, it is possible to block the rim (**Fig. 23 ref. 2**) inside the jaws (**Fig. 23 ref. 3**) through the vertical thrust of the presser arm (**Fig. 23 ref. 1**), placing it as shown in **Fig. 23**.

Fig. 23



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. 24**.

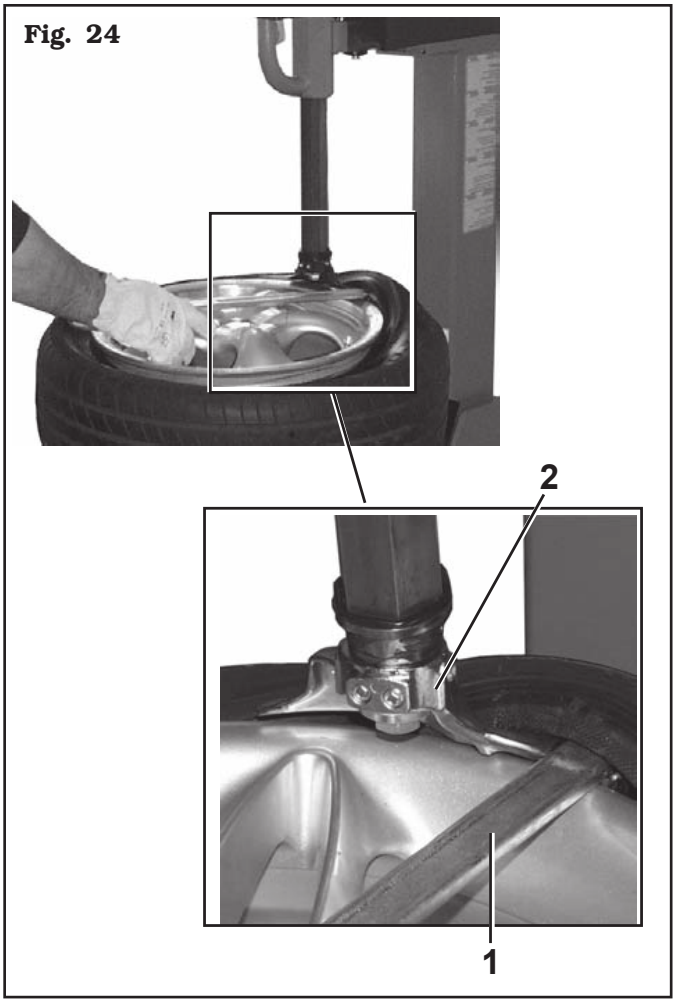
1. Press the rotation pedal to rotate the wheel clockwise until the valve stem reaches " hour 1" position.
2. Place arm (**Fig. 22 ref. 3**) in working position.

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

3. Release the hexagon shaft (**Fig. 22 ref. 2**) and set tool (**Fig. 22 ref. 5**) radially and vertically on rim and lock it in place using the push button on handle (**Fig. 22 ref. 1**);
4. operate lever (**Fig. 24 ref. 1**) to place tyre bead on the head nail (**Fig. 24 ref. 2**).
5. While keeping the lever in this position, turn the mandrel clockwise by means of pedal (**Fig. 22 ref. 10**), until the bead is out of the rim. Operate the pedal by quickly pressing and releasing it.

WHEN OPERATING ON VERY "HARD" RIMS, THE TYRE BEAD TENDS TO SLIP DOWN THE HEAD. BEFORE TURNING THE MANDREL CLOCKWISE, TURN IT ANTICLOCKWISE BY A FEW CENTIMETERS WHILE KEEPING LEVER (Fig. 24 ref. 1) IN THE SAME POSITION.

Fig. 24



6. remove the inner tube (if fitted);
7. place the head as indicated at point 3; then by means of lever (**Fig. 25 ref. 1**) place the other tyre bead on the head nail (**Fig. 25 ref. 2**);
8. while keeping the lever (**Fig. 25 ref. 1**) in this position, turn the mandrel clockwise until the bead is out of the rim.
9. place the arm in idle position and remove the tyre from the rim.

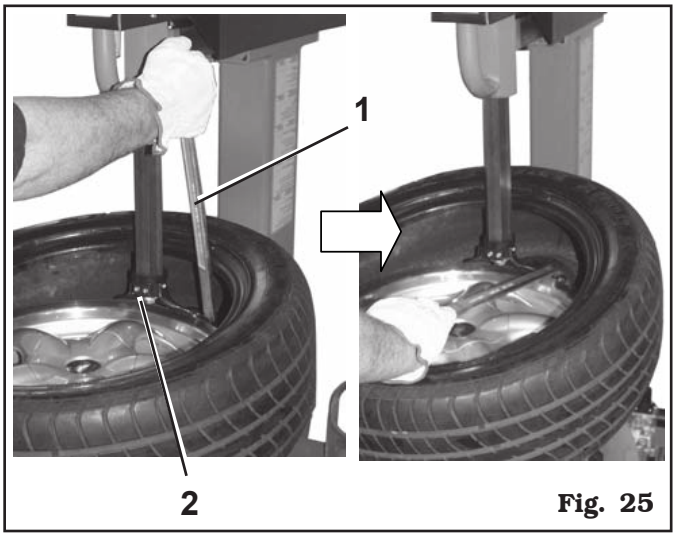
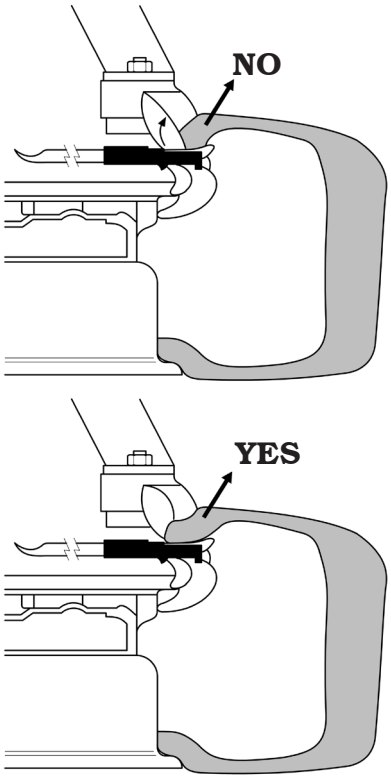


Fig. 25

10. 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. 26**).

Fig. 26



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 Tyre demounting (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)

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

Extraction of the first bead

1. Place the bead depressing roll (**Fig. 27 ref. 1**), as shown in figure, near the tool (**Fig. 27 ref. 2**). Lower the tyre by means of the bead depressing roll (**Fig. 27 ref. 1**) (lowering the relevant lever of the control unit (**Fig. 27 ref. 3**)), to allow an easy positioning of the tool on the rim edge (**Fig. 27 ref. 2**). Then block the tool.

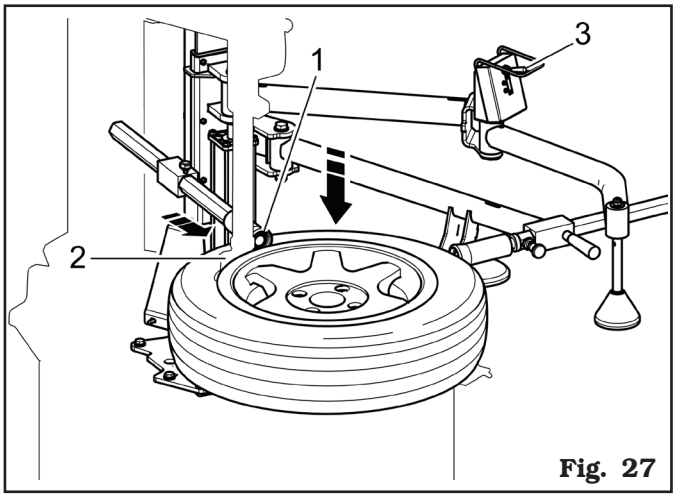


Fig. 27

2. Insert the bead lifting lever (**Fig. 28 ref. 3**) between the tyre (**Fig. 28 ref. 4**) and head (**Fig. 28 ref. 2**).
3. Lift the device by moving the lever upwards (**Fig. 28 ref. 5**); then move the roll backward (**Fig. 28 ref. 1**) to avoid interferences with the tyre.
4. Load the bead on the head by means on the proper lever (**Fig. 28 reif. 3**).

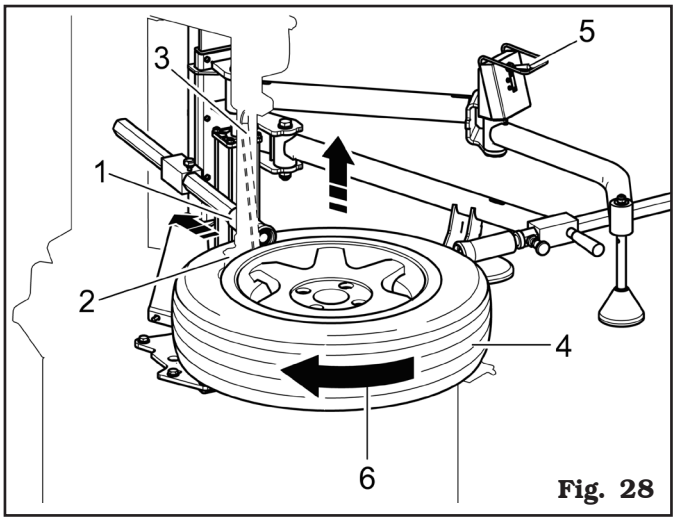


Fig. 28

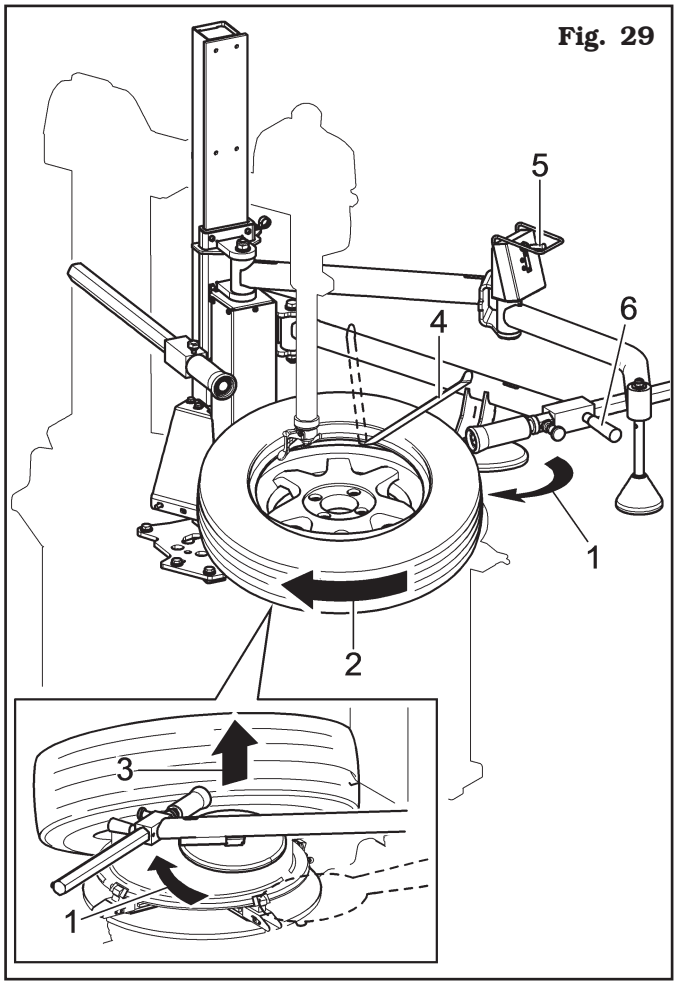
5. Dismount the first bead, by turning the mandrel clockwise (**Fig. 28 ref. 6**).

In order to facilitate the bead lifting on the tool, move the pusher arm (**Fig. 1 ref. 17**) to 120° position compared to the tool, and press until the bead enters the groove; in this way the stress on the tyre during the loading on the tool is reduced.

Extraction of the second bead

6. Rotate the bead lifting disc (**Fig. 29 ref. 1**) from its own seat until placing it between the mandrel plate and the tyre, at about 1 cm from the outer lower edge of the rim. In this phase the handle controls can be of great help (**Fig. 29 ref. 6**).
7. Lift the tyre through the bead lifting disc (**Fig. 29 ref. 3**) by pressing the lever upwards (**Fig. 29 ref. 5**). In this phase maintain firmly the disc handle (**Fig. 29 ref. 6**) or the lever (**Fig. 29 ref. 4**).
8. Load the second bead on the head by means on the proper lever (**Fig. 29 ref. 4**).
9. Turn the mandrel clockwise (**Fig. 29 ref. 2**) and extract the tyre from the rim.

Fig. 29



12.8.1 Demounting of the second bead through the bead lifting roll (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)

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

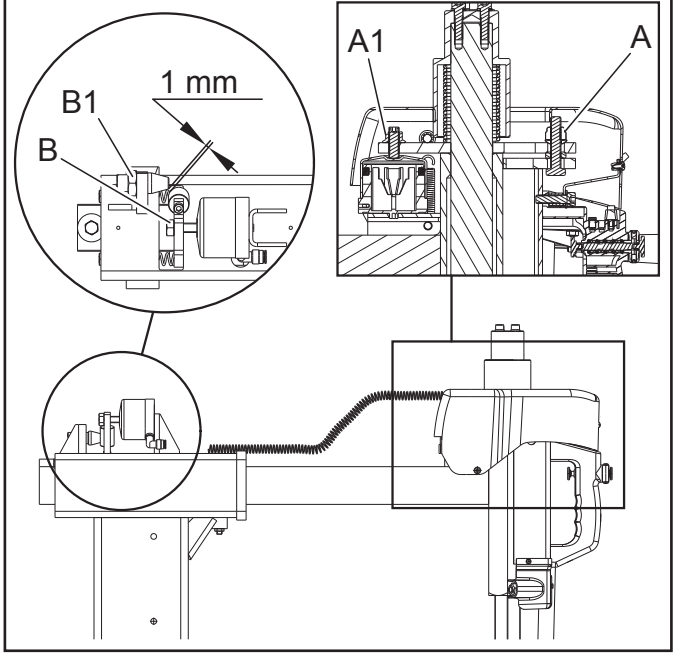
The tool is locked in position to an hexagon stand through 4 upper horizontal-axis dowels and a lower vertical-axis screw. The adjusting clamps lock the tool in its working position. Adjusting clamps also set head distance from the wheel rim. Head top is concave for smoother positioning. For tool setting **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 travel (Fig. 30)**
  Tyre changers equipped with collapsible stand and telescopic arm, tire changers, have both horizontal and vertical adjusting clamps for horizontal and vertical distance of the head from the rim, respectively. Depressurize the air-operated cylinder (remove upper guard and **tighten the nut A1 first so to keep the adjusting clamp horizontally, that is it should be perpendicular to the hex. shaft**) and then turn the nut **A** to adjust:
- turn the nut **A** clockwise for shorter travel of the head;
- turn the nut **A** anti-clockwise for longer travel of the head.
  Depressurize the air-operated cylinder (remove upper guard and **tighten the nut B1 first to lock the cone with respect to the roller – see figure 30).** and then turn the nut **B** to adjust the vertical clamp.
- turn the nut **B** clockwise for shorter travel of the head;
- turn the nut **B** anti-clockwise for longer travel of the head.

Fig. 30



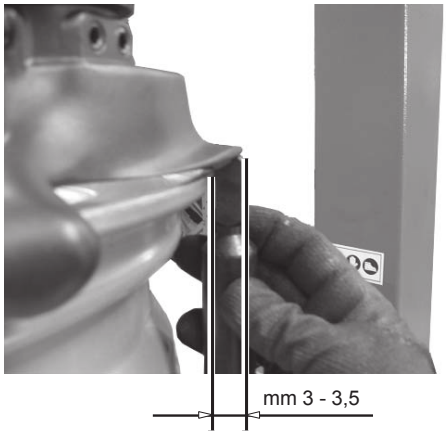
12.9.2 Setting the tool for tyre fitting and removal

When finished with clamp adjustment, set head position along its three orthogonal axes using the 14" diameter sample rim. Tighten the dowels and the lower screw firmly to lock the head in position. When finished, **correct head working position** (equipped with roller or insert) **when locked** should be as shown in **Fig. 31A - 31B**. Tighten bolts and nuts to the following torque values:

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

Fig. 31A

Car rim



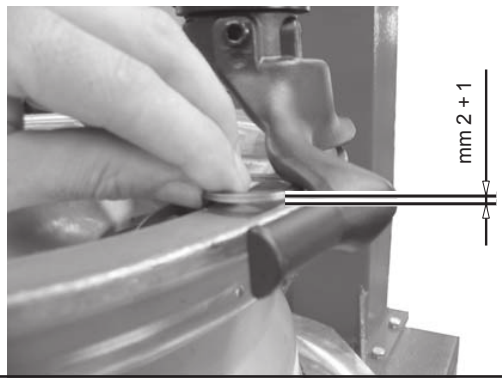
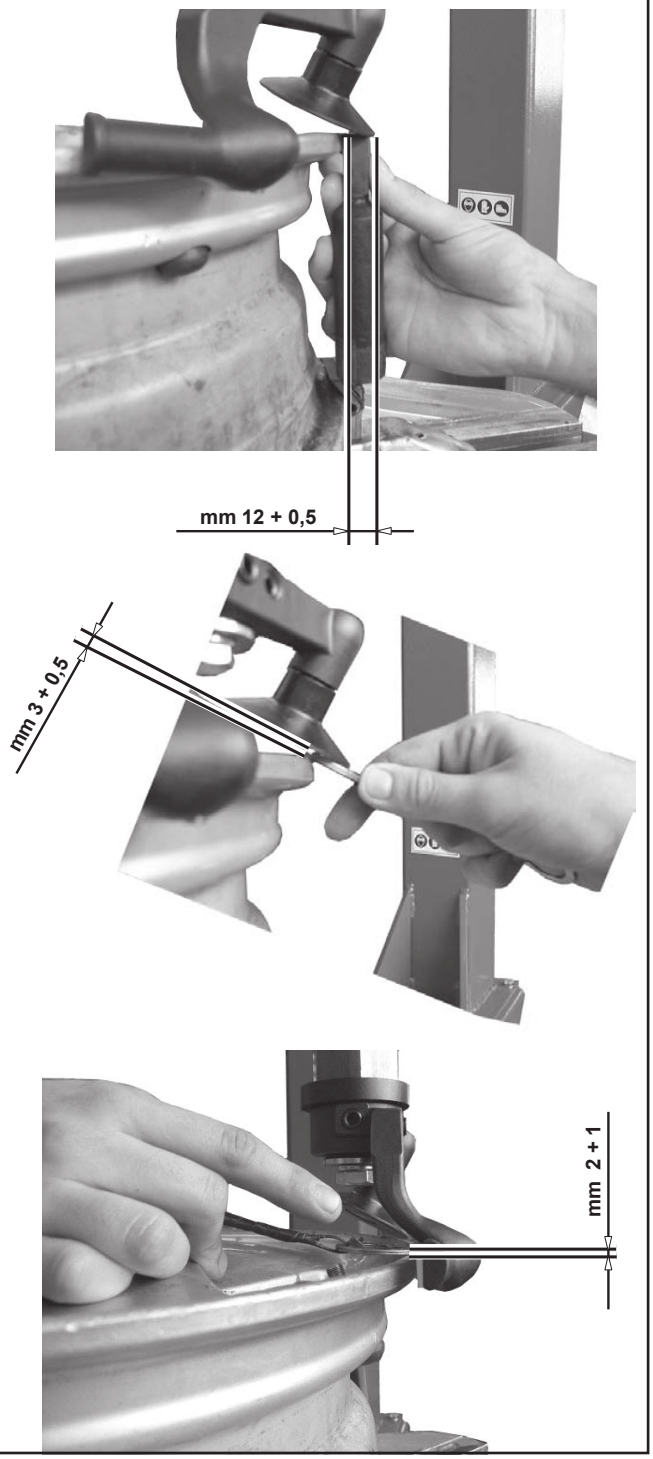


Fig. 31B

Rims with projecting spokes



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. Position the work arm in working position depressing pedal (**Fig. 32 ref. 1**).

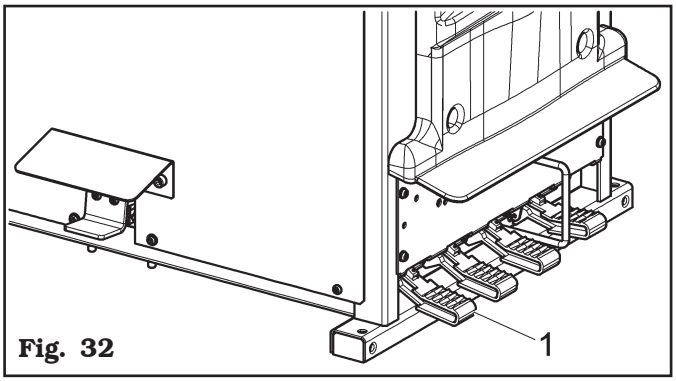


Fig. 32

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

2. Place head (**Fig. 33 ref. 1**) against the rim edge and lock arm (**Fig. 33 ref. 2**).

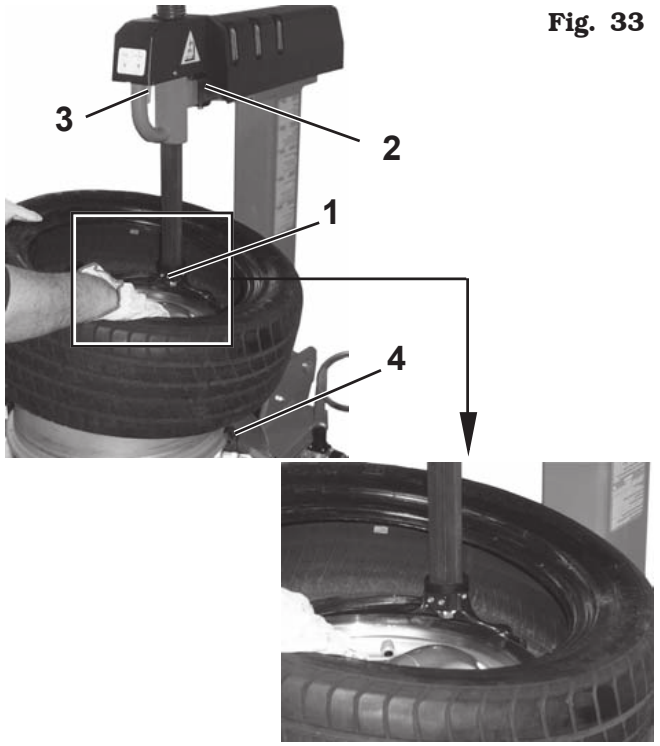
IF TYRE IS FITTED ON THE WHEEL PREVIOUSLY REMOVED OR WHEEL SIZE CORRESPONDS TO RIM SIZE, IT IS NOT NECESSARY TO OPERATE HANDLE (Fig. 33 ref. 3) TO SECURE AND RELEASE THE HEAD, ONLY ARM (Fig. 33 ref. 2) NEEDS TO BE REPOSITIONED.

3. Place the tyre so that the bead passes under head nail (**Fig. 33 ref. 1**) and outside head support (see **Fig. 33** for lower bead).

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

4. Turn mandrel (**Fig. 33 ref. 4**) clockwise. Keep the corresponding lowered and the tyre bead pressed with one's hands in the inner rim groove.

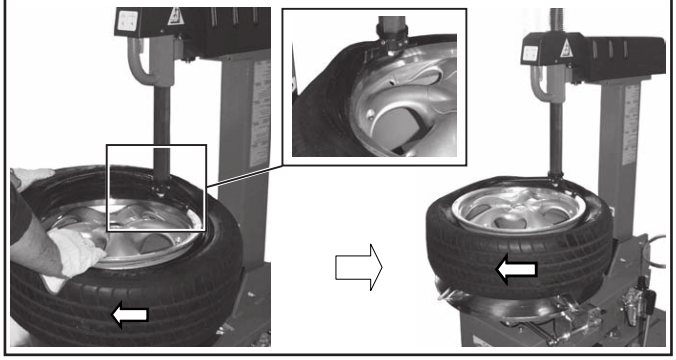
Fig. 33



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

5. If an inner tube tyre must be fitted, insert the inner tube after the first bead is completely inside the rim;
6. repeat the same operations for the upper tyre bead, as shown in **Fig. 34**;
7. once assembly is completed, remove arm and take it to rest position by depressing pedal (**Fig. 32 ref. 1**);
8. push the pedal to release the wheel from the mandrel.

Fig. 34

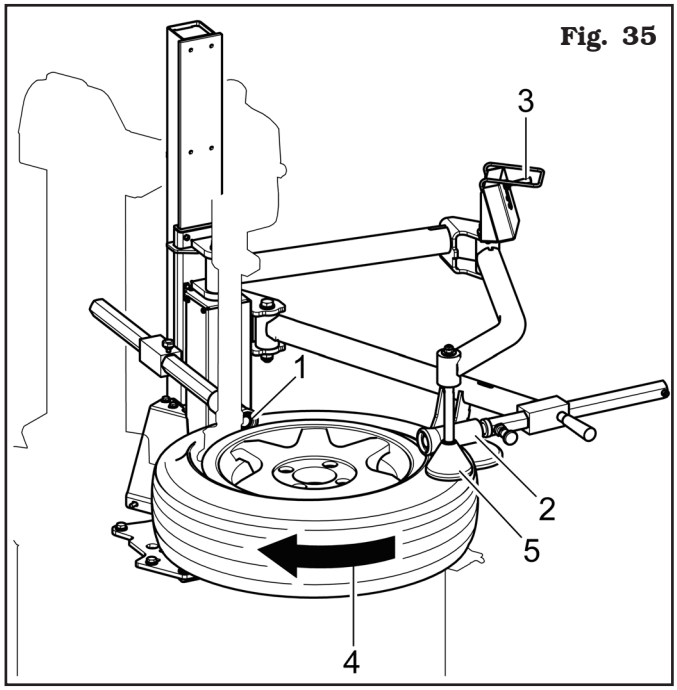


BOTH TYRE FITTING AND REMOVAL MUST BE CARRIED OUT WITH THE MANDREL TURNING CLOCKWISE. TURN THE CHUCKING TABLE ANTICLOCKWISE ONLY IF ADJUSTMENTS ARE REQUIRED.

12.11 Tyre mounting (only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB models)

1. Place the pusher roll (**Fig. 35 ref. 1**) radially compared to the rim at the same time place the bead depressing roll (**Fig. 35 ref. 2**), as shown in the figure. Then place the presser cone (**Fig. 35 ref. 5**) on the bead in order to keep it into the rim groove during the following phases.
2. Lower the pusher roll (**Fig. 35 ref. 1**) and the bead depressing roll (**Fig. 35 ref. 2**), by lowering the relevant lever of the control unit (**Fig. 35 ref. 3**), until the tyre bead is placed next to the rim groove.

Fig. 35



3. Start the mandrel clockwise rotation (**Fig. 35 ref. 4**) by means of the proper pedal control and complete bead mounting.
4. Lift the device by lifting the relevant lever of the control unit (**Fig. 35 ref. 3**) and bring the rolls to rest position.

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.

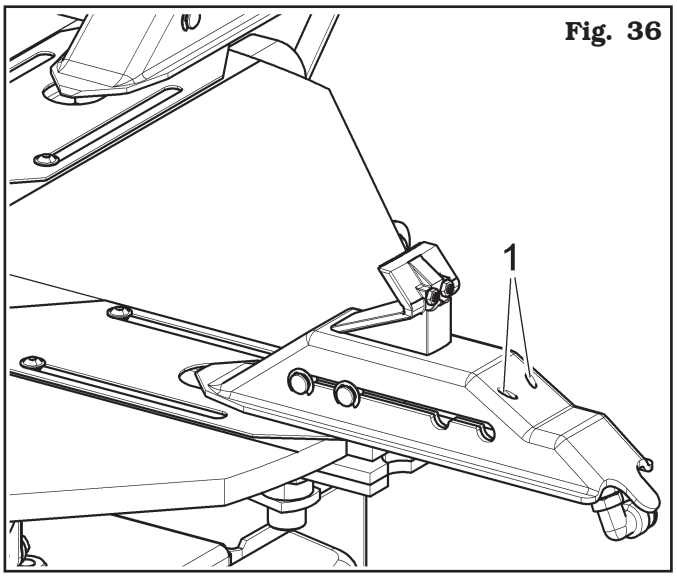


Fig. 36

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 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.

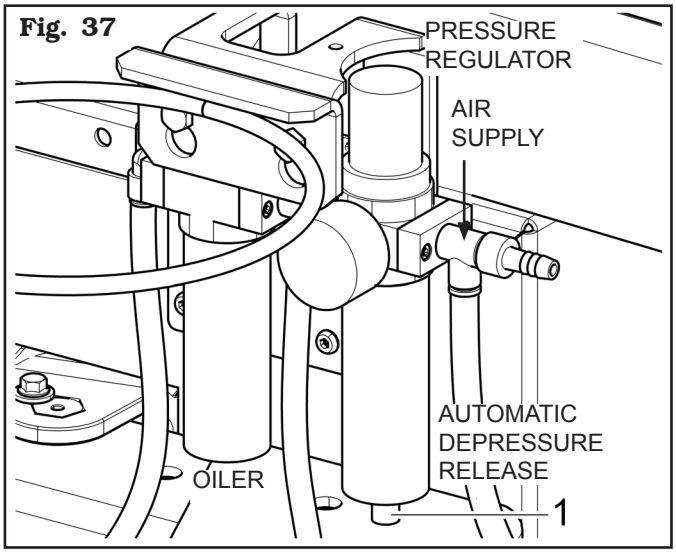
To guarantee the efficiency and correct functioning of the machine, it is essential to carry out daily or weekly cleaning and weekly routine maintenance, as described below.
Cleaning and routine maintenance must be conducted by authorized personnel and according to the instructions given below.

- 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 pressure regulator/oiler 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



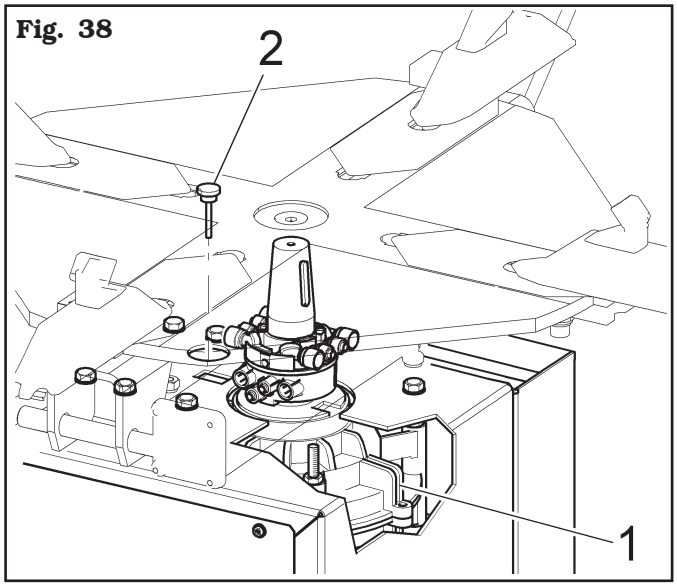
IN ORDER TO ENSURE A GOOD FUNCTIONING AND TO AVOID THE PRESENCE OF CONDENSATION IN THE AIR TREATMENT UNITS WITH SEMI-AUTOMATIC DRAIN, IT'S NECESSARY TO MAKE SURE ABOUT THE CORRECT POSITION OF THE VALVE (FIG. 37 REF. 1), PLACED UNDER THE CAP. TO ACTIVATE A CORRECT DRAIN FUNCTION, THE CAP MUST BE ROTATED 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.
- **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



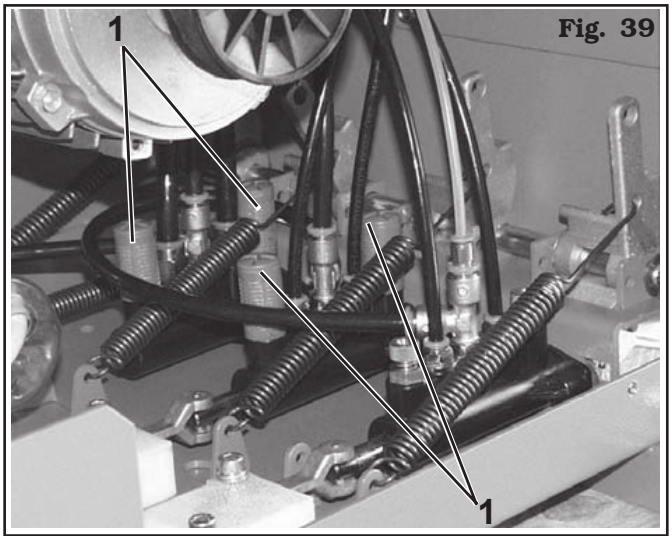
Only for RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB

- Clean and periodically oil the roller horizontal rod.
- Grease every month the joints of the roll holding arms and the lower disc and the vertical sliding column of the device.

Interventions every 1000 working hours

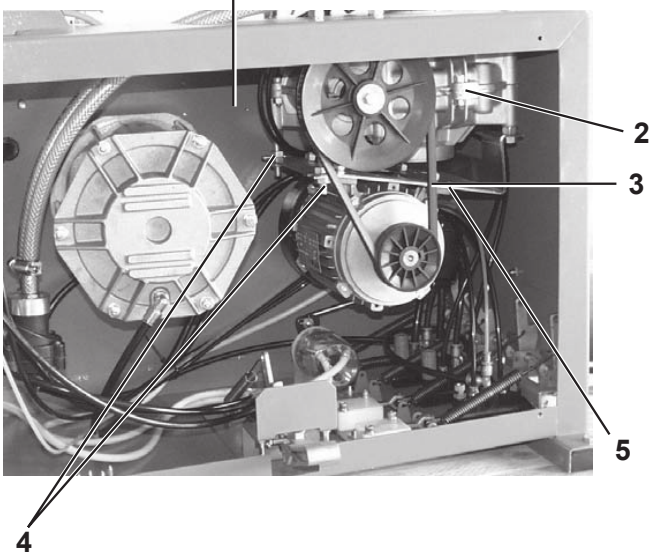
- Clean and/or replace silencers (**Fig. 39 ref. 1**):
  1. Undo the four retaining screws and remove the left side of the tyre changer or undo the fastening screws to remove the whole pedal support unit from machine front;
  2. Undo the silencers (**Fig. 39 ref. 1**) onto the pedal distributor controlling 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;
  2. To tension up the belt (**Fig. 40 ref. 3**) Turn the screws (**Fig. 40 ref. 4**) motor support (**Fig. 40 ref. 5**);
  3. Replace the belt (**Fig. 40 ref. 3**) if worn out using genuine parts;
  4. Fit the tyre changer side panel before continuing with assembly and disassembly procedure;

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!!

13.1 Lubricants

To grease the mandrel movement control gearbox, use **ESSO GEAR OIL GX140 oil** (for RWC645 versions) and **ESSO GEAR OIL GX90 oil** (for RWC645D versions).
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.

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 work if pedal is pressed.	1. No voltage available. 2. Motor faulty. 3. Safety fuses for machine system blown.	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 stops during tyre 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.	1. Clamps worn out. 2. One or more pneumatic cylinders faulty.	1. Replace clamps. 2. Replace pneumatic cylinder gaskets.
The head gets in contact with the rim during assembly/disassembly.	1. Clamping plate not adjusted or faulty. 2. Mandrel retaining screw loose.	1. Adjust or replace the clamping plate. 2. Tighten the screw.
One or more pedals do not return to their original position.	1. Return spring released. 2. Return spring broken.	1. Fasten the spring. 2. Replace the spring.
Bead breaker pneumatic controls do not work.	1. Machine pneumatic system not connected. 2. Air lines clogged.	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. 
The mandrel does not rotate in counter-clockwise direction.	Pedalboard microswitch breakage.	Replace microswitch.
The mandrel 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.

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. 

ONLY FOR RWC645D.26IHB - RWC645D.26IHRB MODELS

Problem	Possible cause	Remedy
The mandrel doesn't rotate.	Inverter overload alarm Or Inverter undervoltage alarm Or Inverter overvoltage alarm	Shorten the length of a possible machine extension cable or increase the conductors section (disconnect and connect again). Lift the motor pedal and wait for the automatic reset.
	Overtemperature alarm	Wait until the motor system cools (the machine does not restart if the temperature level does not go below the set safety threshold).

ONLY FOR RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB MODELS

Problem	Possible cause	Remedy
No movement is generated when the control lever of the lateral bead breaker is operated.	1. Supply missing. 2. The supply pipes have not been correctly assembled. 3. The control valve is not working.	1. Check supply. 2. Check pipes fitting. 3. Call for technical assistance. 
When lateral bead breaker's control lever is operated movement arises in one direction only.	The control valve is not working.	Call for technical assistance. 

ONLY FOR RWC645.26IAB - RWC645.26IHAB - RWC645.26IHRAB MODELS

Problem	Possible cause	Remedy
The mandrel doesn't rotate.	1. Supply missed. 2. The operation pedalboard is broken.	1. Connect the supply. 2. Call for technical assistance. 
The mandrel does not reach the maximum rotation speed.	Wrong pneumatic supply pressure	Adjust supply pressure.
The mandrel does not rotate in counter-clockwise direction.	The operation pedalboard is broken.	Call for technical assistance. 

15.0 TECHNICAL DATA

15.1 Electrical technical data

		RWC645.26IRB RWC645.26IHB RWC645.26IHRB	RWC645.26IAB RWC645.26IHAB RWC645.26IHRAB	RWC645D.26IHB RWC645D.26IHRB
Motor power (kW)		0,75	/	/
Invemotor power (kW)		/	/	0,75
Power supply	Voltage (V)	110	/	220
	Phases	1	/	1
	Frequency (Hz)	60	/	60
Selfcentering chuck rotating speed (rpm)		7,3	5-6	0 ÷ 16

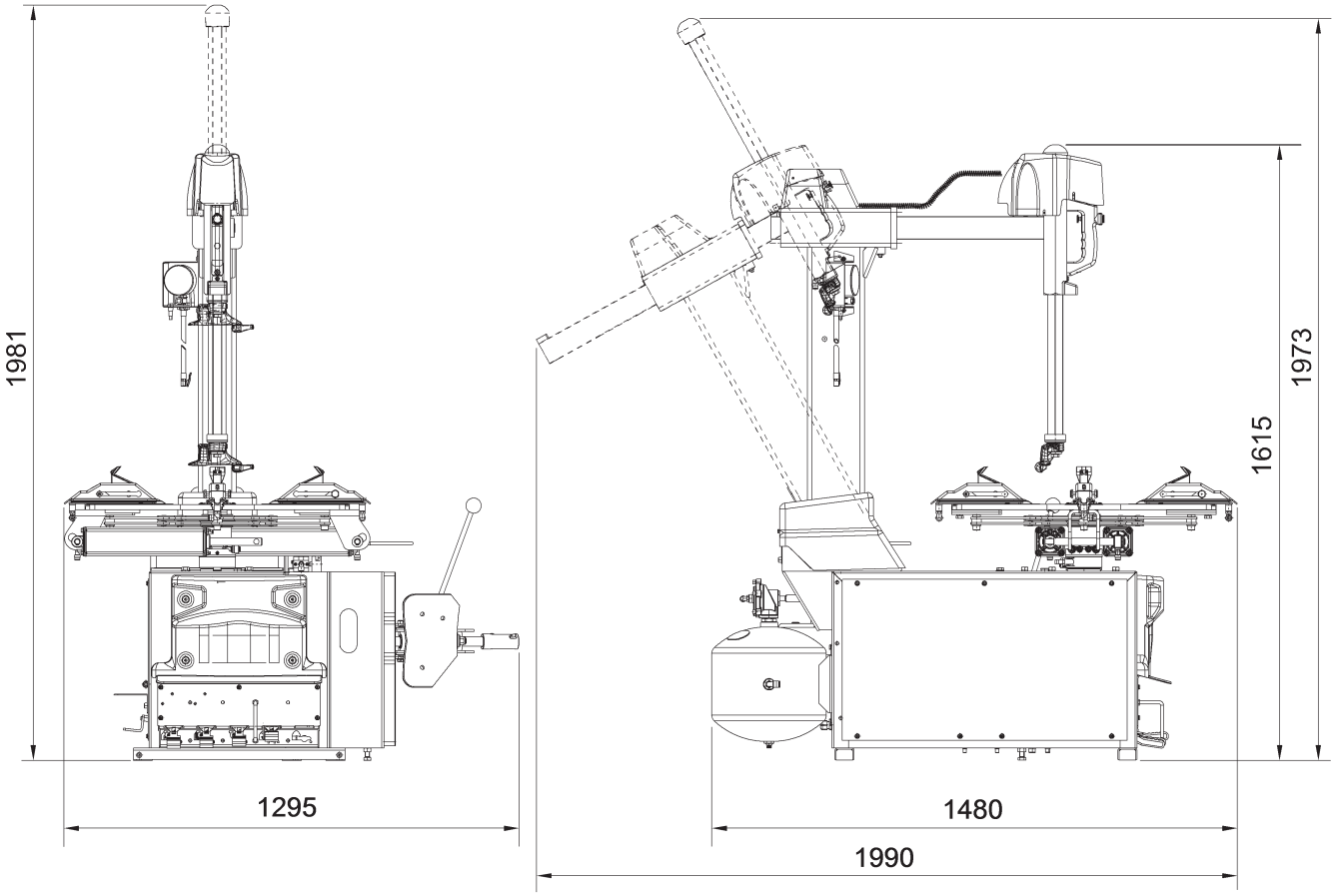
15.2 Mechanical technical data

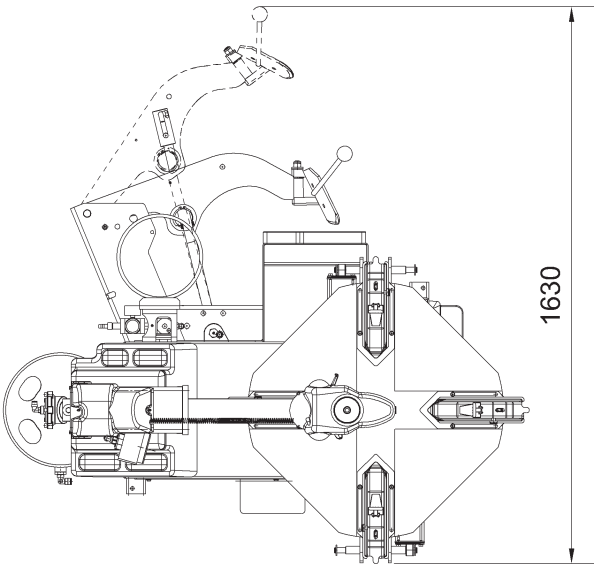
	RWC645.26						RWC645D.26	
	IRB	IHB	IHRB	IAB	IHAB	IHRAB	IHB	IHRB
Max. tyre diameter (mm)	1143 (45")							
Tool working area (inch)	8 ÷ 32							
Wheel max. width (mm)	431 (17")							
Max rotation torque (Nm)	1200 (885 Ft/lb)			1113 (821 Ft/lb)			1200 (885 Ft/lb)	
Bead breaking cylinder force (kg)	3600 (8000 lbs)							
Selfcentering chuck clamping from outside (inch)	10 ÷ 26							
Selfcentering chuck clamping from inside (inch)	12 ÷ 28,5							
Operating pressure (bar)	8 ÷ 10							
Weight (kg)	260	320	330	250	320	330	320	330

15.3 Dimensions

RWC645.26IRB - RWC645.26IAB

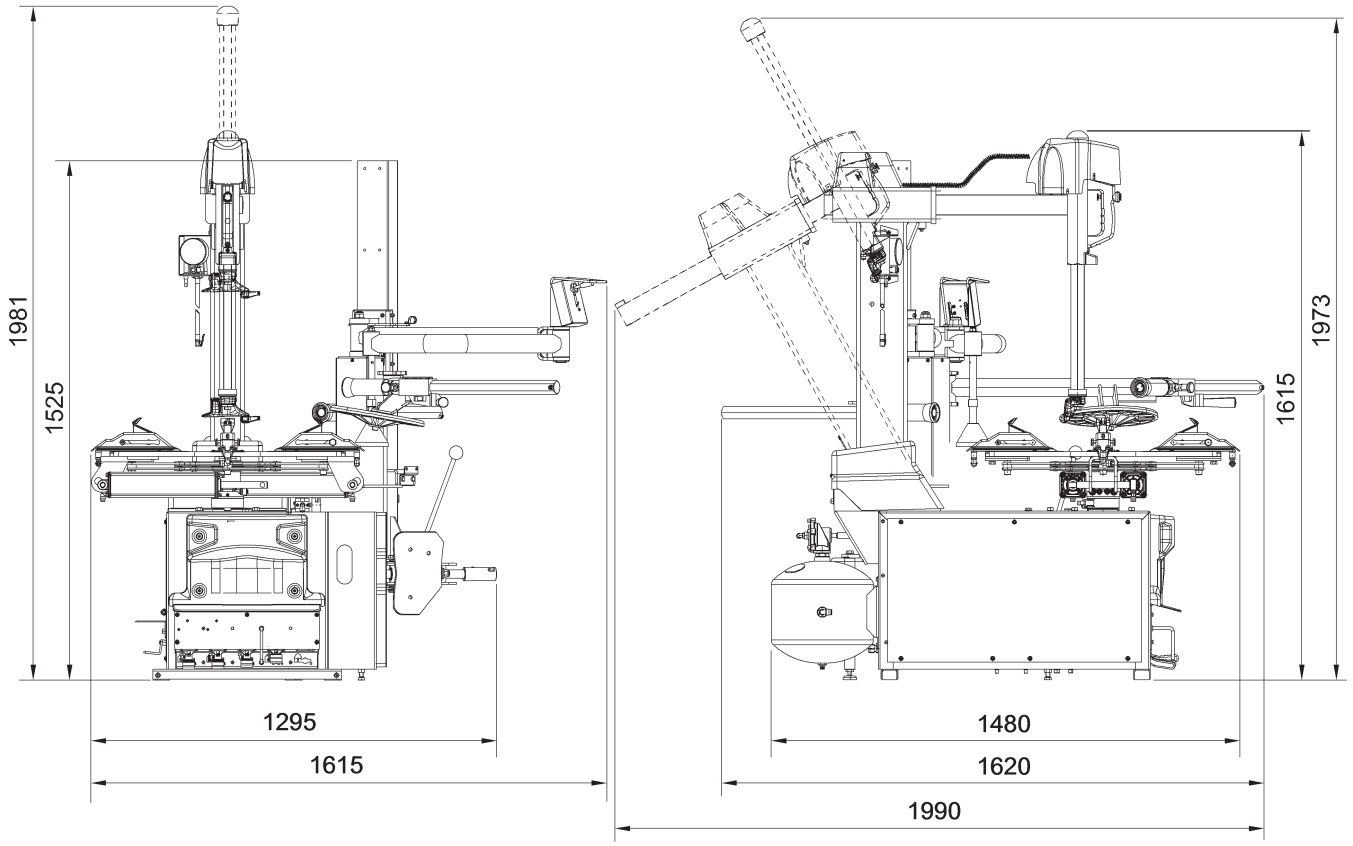
Fig. 41

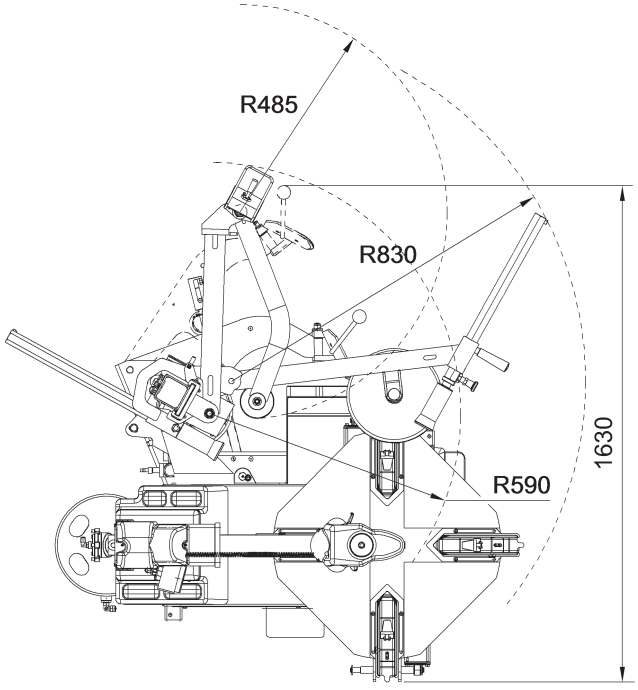




RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB - RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB

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.

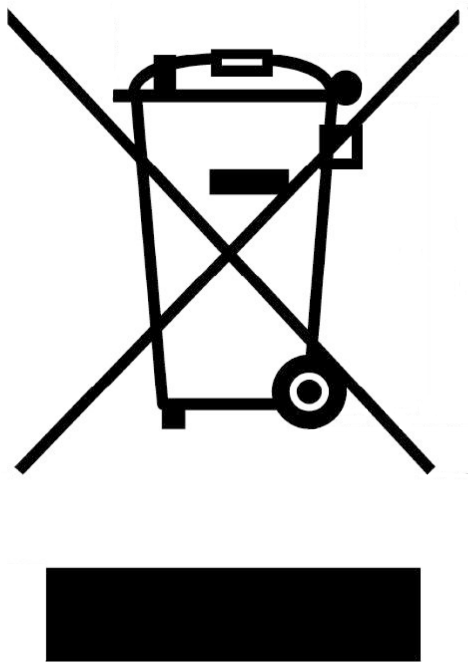
17.0 SCRAPPING

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.

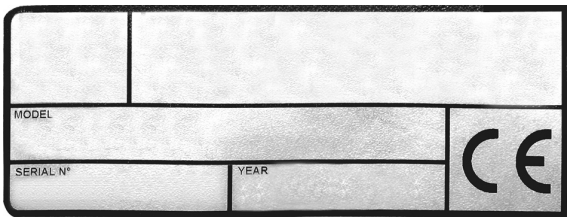
Instructions for the correct management of waste from electric and electronic equipment (WEEE) according to the Italian legislative decree 49/14 and subsequent amendments.

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.

Fig. 43



18.0 REGISTRATION PLATE DATA



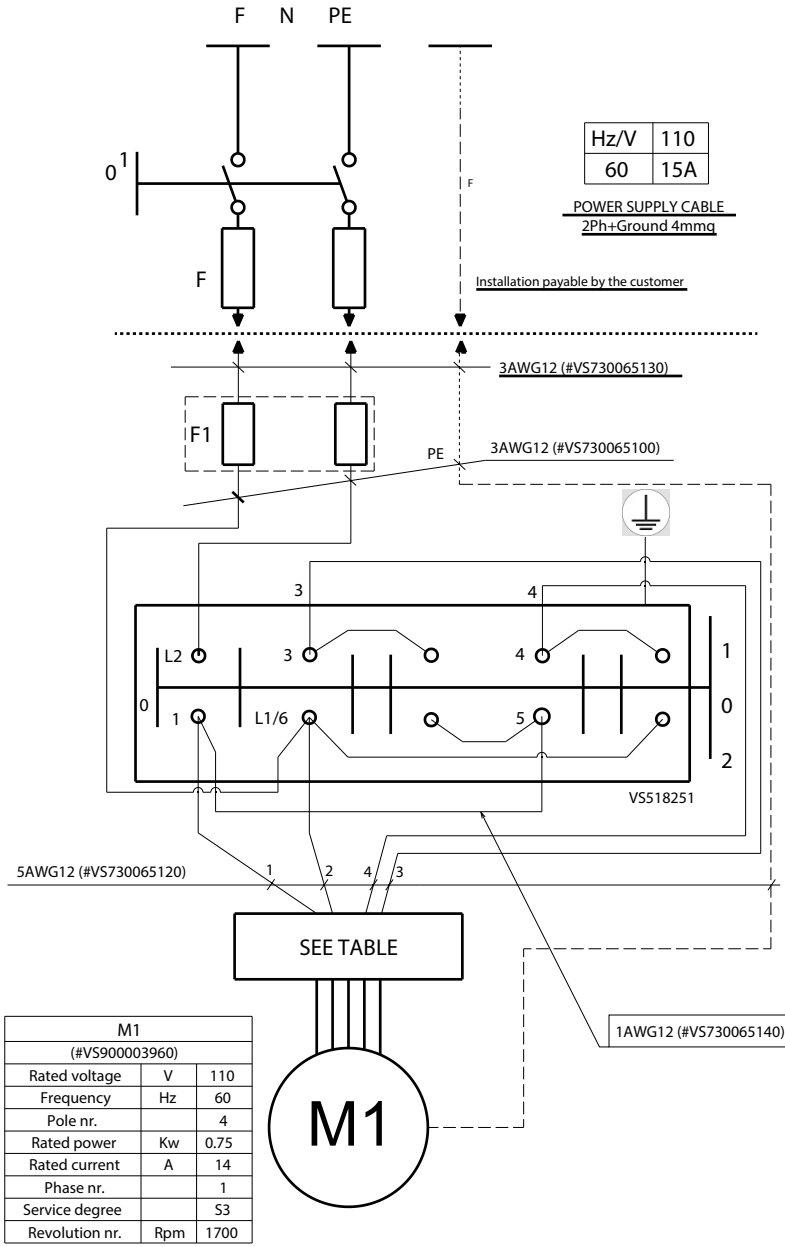
The validity of the Conformity Declaration enclosed to this manual is also extended to products and/or devices the machine model object of the Conformity Declaration can be equipped with.
Said plate must always be kept clean from grease residues or filth generally.

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.



Hz/V	110
60	15A

POWER SUPPLY CABLE
2Ph+Ground 4mmq

M1		
(#VS900003960)		
Rated voltage	V	110
Frequency	Hz	60
Pole nr.		4
Rated power	Kw	0.75
Rated current	A	14
Phase nr.		1
Service degree		S3
Revolution nr.	Rpm	1700

F1

N°2 Fuse carriers	1Ph	600V	30A	CH10	VS515045
N°2 Fuse	600V	15A	aM	CH10	VS507143

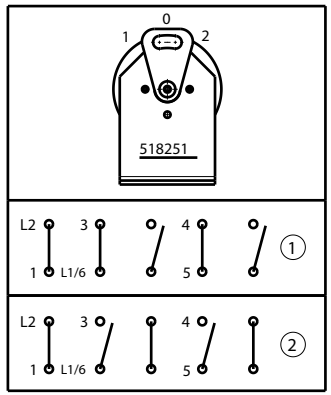


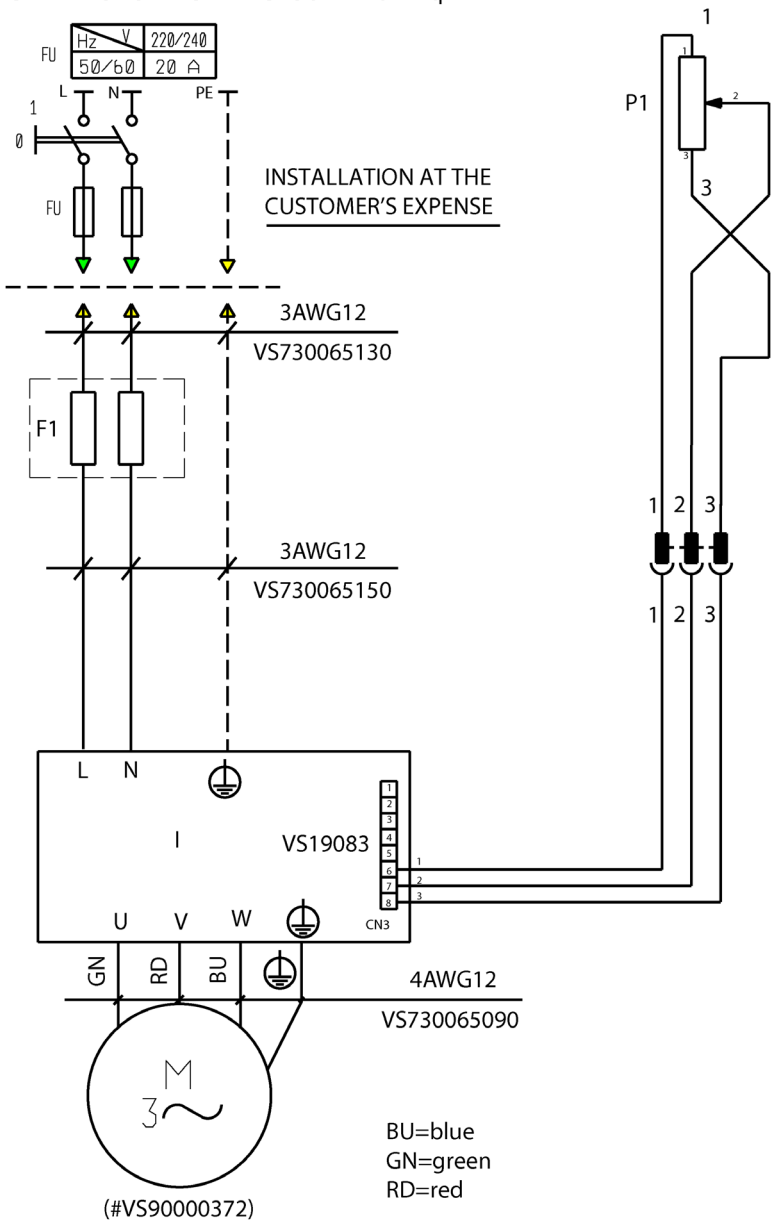
TABLE - TERMINAL BOARD ELECTRICAL CONNECTIONS

M1 VS900003960

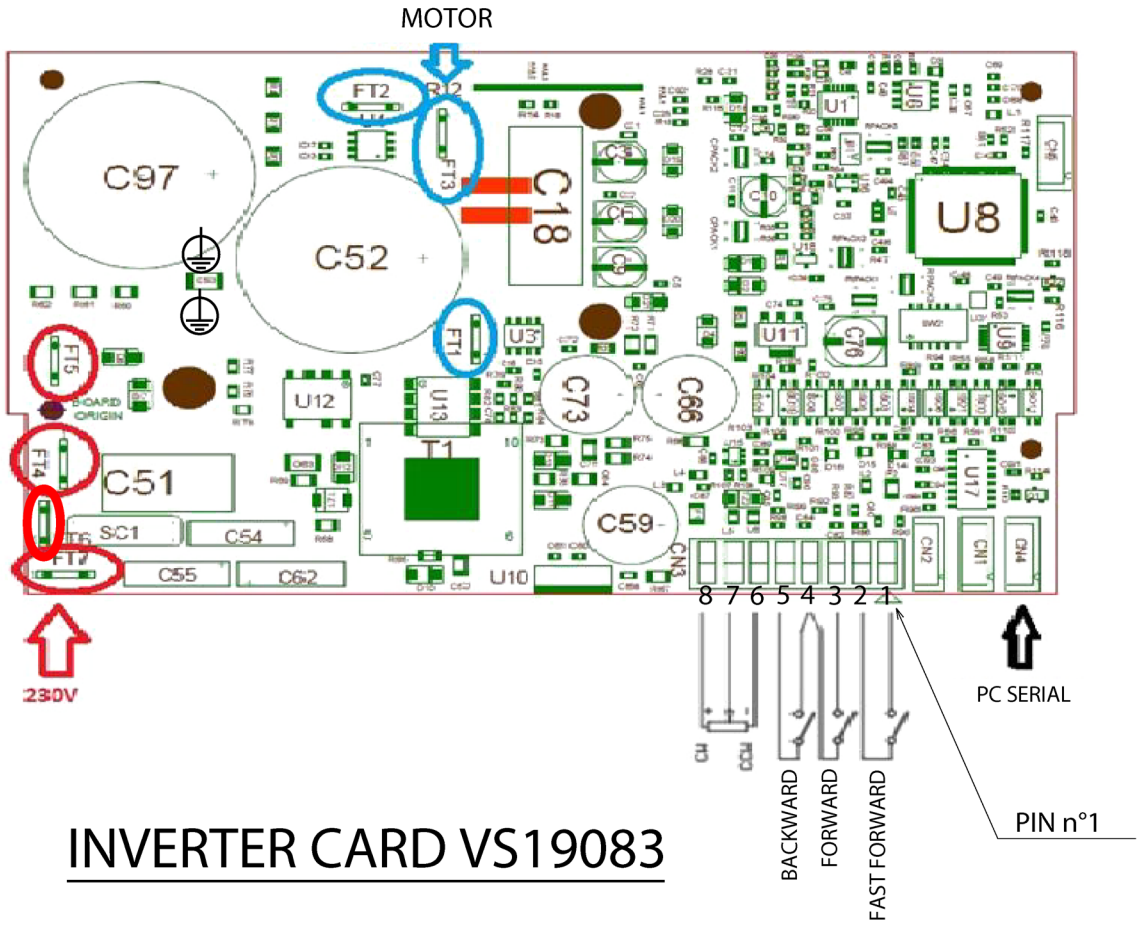
PEDAL ON THE LEFT	PEDAL ON THE RIGHT
When the pedal is down, the commutator reaches position 2, where motor rotation is counter-clockwise and plate rotation is clockwise	When the pedal is down, the commutator reaches position 1, where motor rotation is counter-clockwise and plate rotation is clockwise
2 4 / W2 U2 V2 / U1 V1 W1 / 3 1	2 3 / W2 U2 V2 / U1 V1 W1 / 4 1

VIEW OF MACHINE FRONT AREA

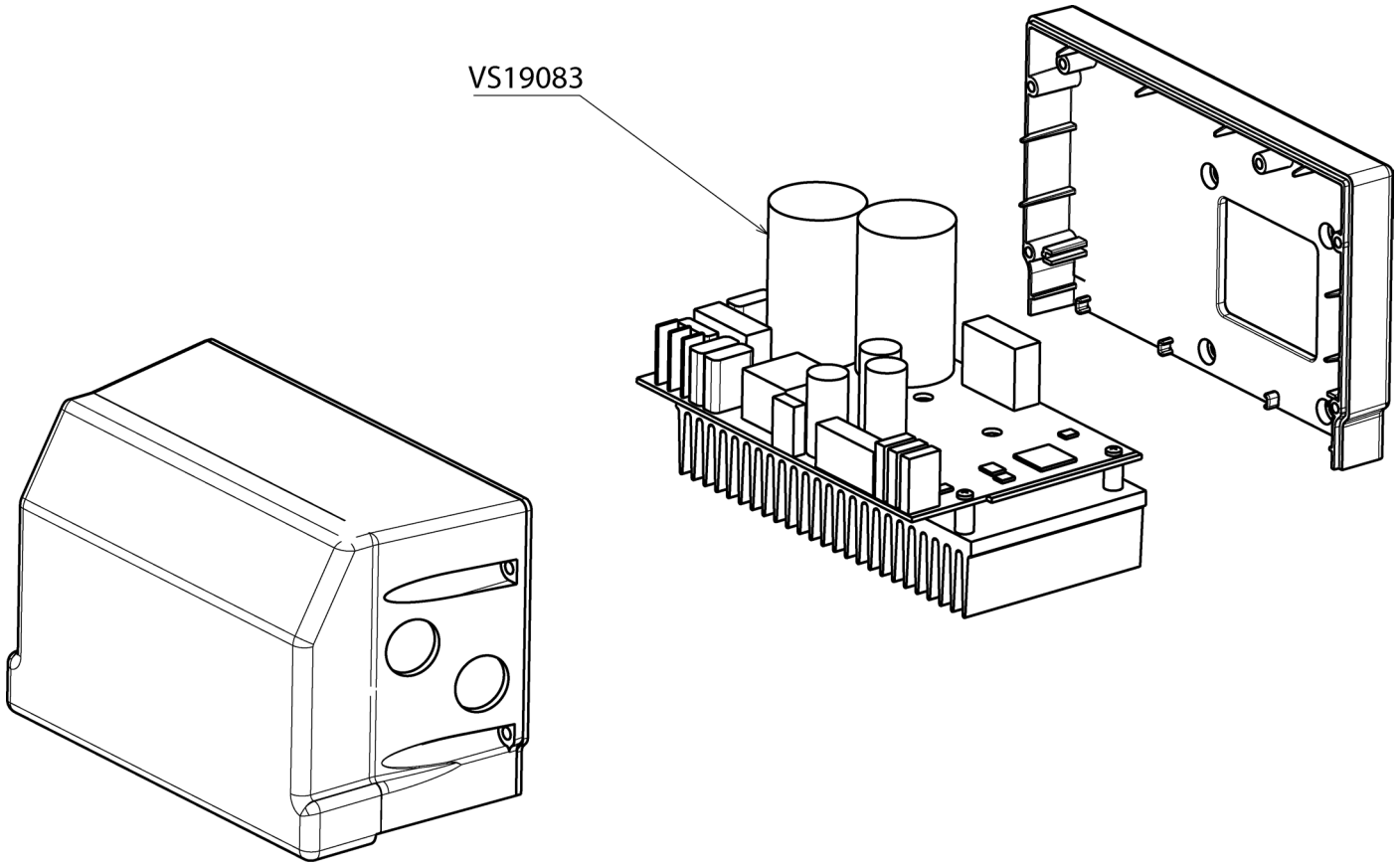
SUPPLY CABLE MONOPHASE 2P+GROUND x bmmq



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

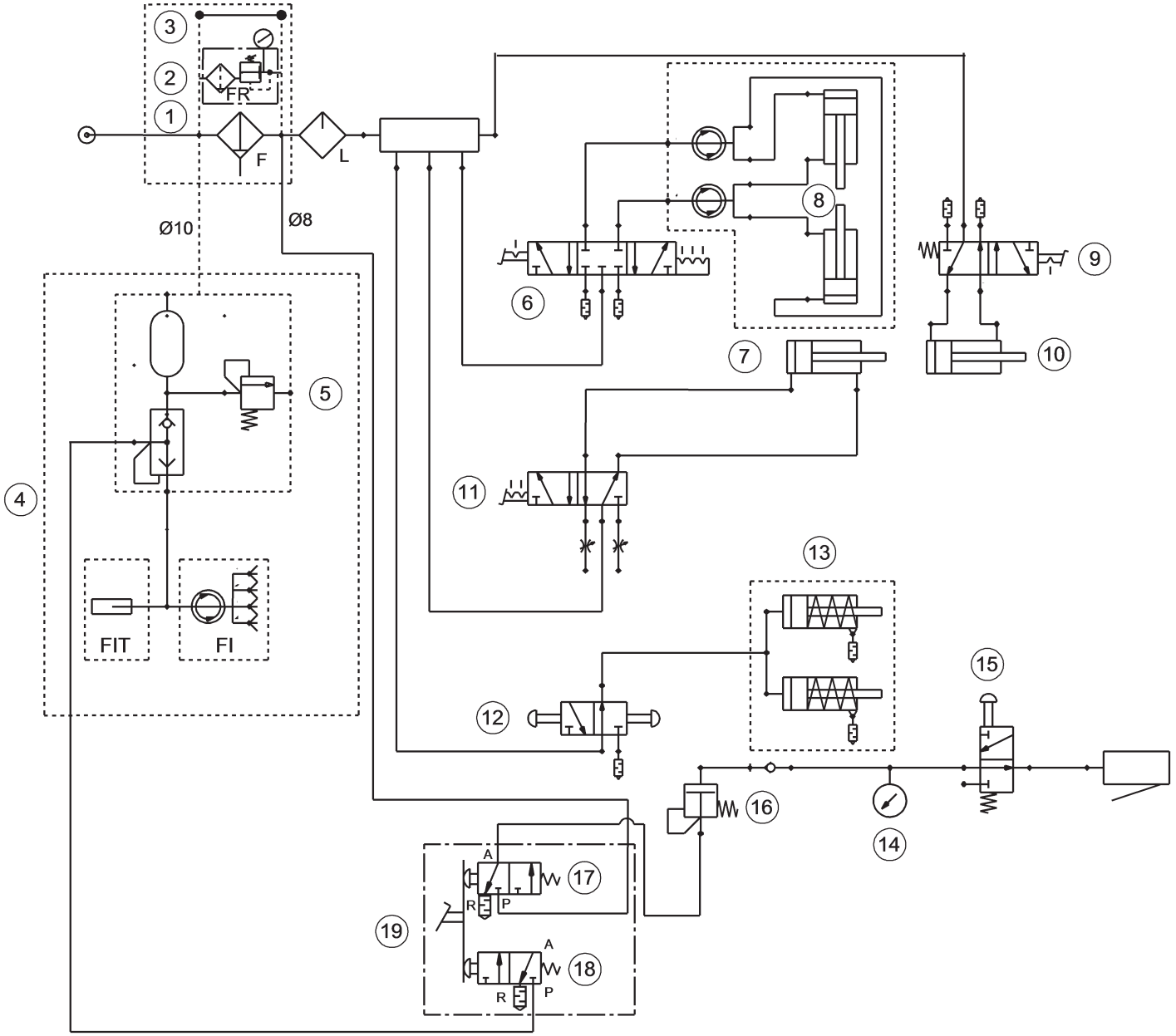


INVERTER CARD VS19083



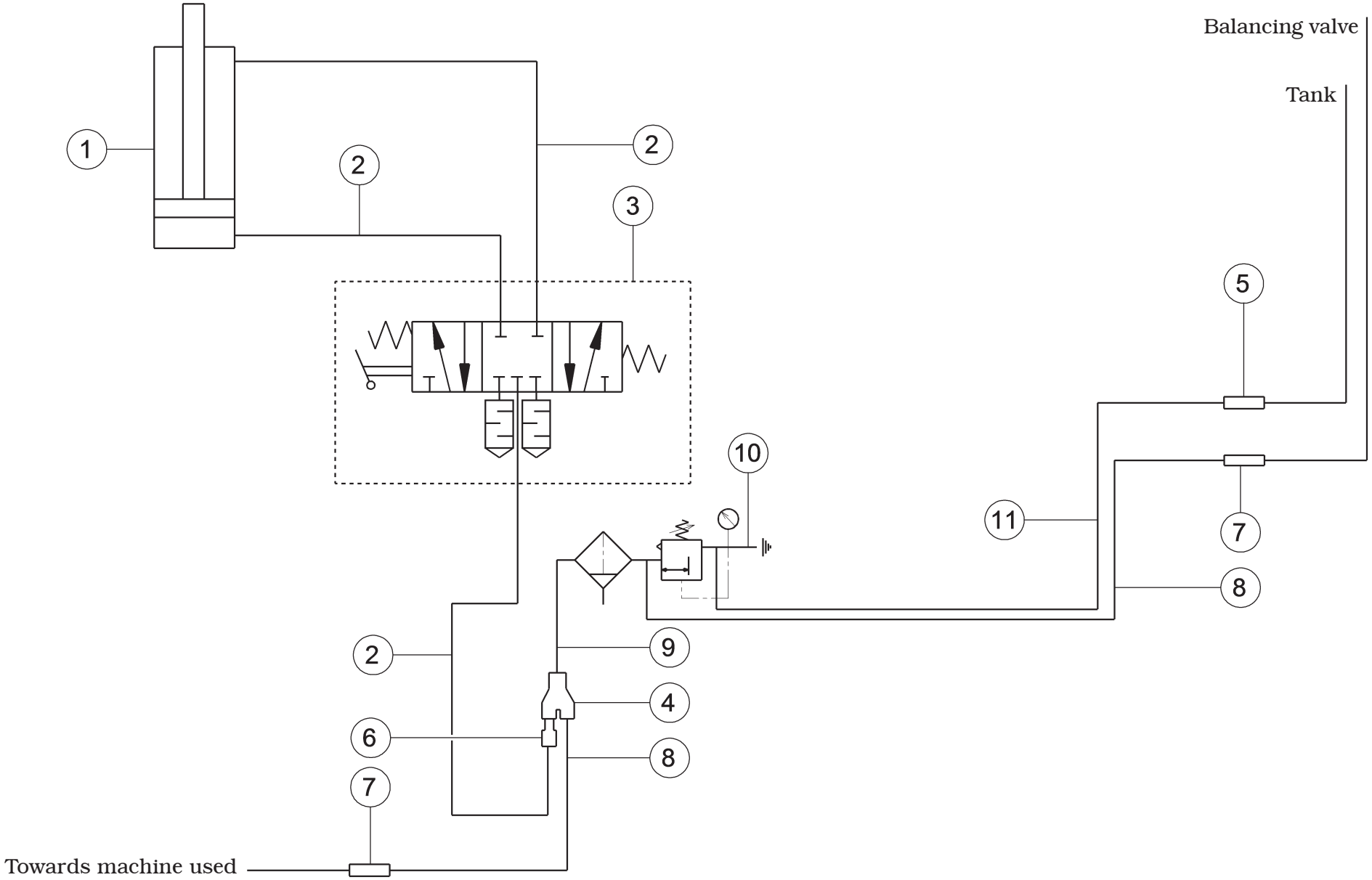
	LIST OF COMPONENTS **LISTE DES PIECES DETACHEES - LISTA DE PIEZAS**		*ELECTRICAL SCHEME 3/4* *SCHEMA ELECTRIQUE 3/4* *ESQUEMA ELECTRICO 3/4* *(RWC645D.26IHB - RWC645D.26IHRB)*	***Page 43 of 50***
	Table N°B - Rev. 2	**VS730005140**		

N°	Cod.	Descrizione	Description	Beschreibung	Description	Descripción
	I		*Motor control inverter*		*Variateur commande moteur*	*Inversor mando motor*
	M		*Threephase asynchronous motor*		*Moteur asynchrone triphasé*	*Motor asincrónico trifásico*
	FC1		*Ccw rotation control microswitch*		*Micro-interrupteur rotation anti-horaire*	*Micro regulador rotación izquierda*
	FC2		*Cw rotation control microswitch (fast gear)*		*Micro interrupteur rotation horaire (marche rapide)*	*Micro interruptor rotación a derecha (marcha veloz)*
	FC3		*Cw rotation control microswitch (slow gear)*		*Micro interrupteur rotation horaire (marche lente)*	*Micro interruptor rotación a derecha (marcha lenta)*
	CN3		*Pedalboard micro inverter connector*		*Connecteur variateur micro pédale de direction*	*Conector inversor micro pedalera*



	LIST OF COMPONENTS LISTE DES PIECES DETACHEES - LISTA DE PIEZAS		*PNEUMATIC CIRCUIT DIAGRAM 1/2* *SCHEMA PNEUMATIQUE 1/2* *ESQUEMA NEUMATICO 1/2* *(RWC645.26IRB - RWC645.26IHB - RWC645.26IHRB* *RWC645D.26IHB - RWC645D.26IHRB)*	***Page 45 of 50***
	Table N°C - Rev. 0	**VS730005070**		

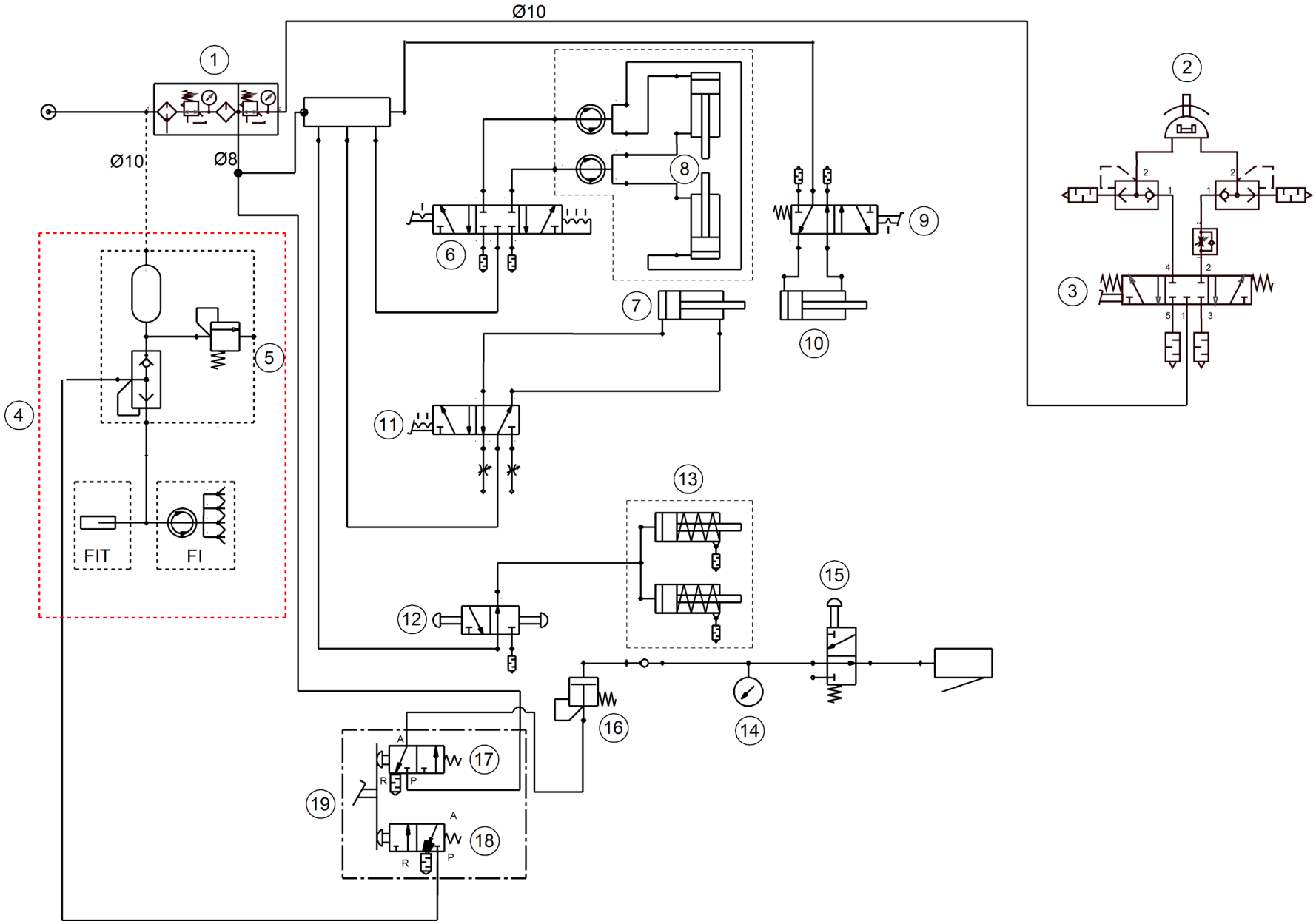
N°	Cod.	Descrizione	Description	Beschreibung	Description	Descripción
1			Version with filter unit + lubricator		Version avec groupe filtre + lubrificateur	Versión con grupo filtro + lubrificador
2			Version with regulator filter unit + lubricator		Version avec groupe filtre régulateur + lubrificateur	Versión con grupo filtro regulador + lubrificador
3			Version with lubricator		Version avec lubrificateur	Versión con lubrificador
4			Line present only in FI models		Ligne présente seulement en modèles FI	Línea presente sólo en los modelos FI
5			Tank unit		Groupe réservoir	Grupo tanque
6			Pedal		Pédale	Pedal
7			Tilting		Basculant	Abatible
8			Plate		Plateau	Plaque
9			Pedal		Pédale	Pedal
10			Bead breaker		Décolle talons	Destalonador
11			Pedal		Pédale	Pedal
12			Handle		Poignée	Manija
13			Necks		Étranglements	Estrangulaciones
14			Pressure gauge		Manomètre	Manómetro
15			Deflation		Dégonflage	Desinflado
16			Balancing valve		Vanne balancement	Válvula balanceo
17			Black - Normally open		Noire - normalement ouverte	Negra - normalmente abierta
18			White - Normally closed		Blanche - normalement fermée	Blanca - normalmente cerrada
19			Inflation pedal valves		Vannes pédales de direction de gonflage	Válvulas pedal de inflado



	LIST OF COMPONENTS LISTE DES PIECES DETACHEES - LISTA DE PIEZAS		*PLUS83VSC PNEUMATIC CIRCUIT DIAGRAM* *SCHEMA PNEUMATIQUE PLUS83VSC* *ESQUEMA NEUMATICO PLUS83VSC* *(RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB* *RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)*	***Page 47 of 50***
	Table N°D - Rev. 0	**VS770705010**		

	LIST OF COMPONENTS LISTE DES PIECES DETACHEES - LISTA DE PIEZAS		PLUS83VSC PNEUMATIC CIRCUIT DIAGRAM SCHEMA PNEUMATIQUE PLUS83VSC ESQUEMA NEUMATICO PLUS83VSC (RWC645.26IHB - RWC645.26IHRB - RWC645.26IHAB RWC645.26IHRAB - RWC645D.26IHB - RWC645D.26IHRB)	
	Table N°D - Rev. 0	VS770705010		

N°	Cod.	Descrizione	Description	Beschreibung	Description	Descripción
1	VS770790672		*D. 80 cylinder*		*Cylindre D. 80*	*Cilindro D. 80*
2	VS317006		*6x4 black rilsan pipe L=2130*		*Tuyau rilsan 6x4 noir L=2130*	*Tubo rilsan 6x4 negro L=2130*
3	VS770790421		*Cylinders control valve*		*Vanne commande cylindres*	*Válvula mando cilindros*
4	VS325181		*V8 union*		*Raccord à V8*	*Enlace a V8*
5	VS325219		*D.10 middle union*		*Raccord intérmediaire D.10*	*Conector intermedio D.10*
6	VS325054		*6-8 reduction*		*Reduction 6-8*	*Reducción 6-8*
7	VS325051		*D.8 right middle union*		*Raccord intérmediaire droit D.8*	*Conector intermedio derecho D.8*
8	VS317007		*8x6 black rilsan pipe L=500*		*Tuyau rilsan 8x6 noir L=500*	*Tubo rilsan 8x6 negro L=500*
9	VS317007		*8x6 black rilsan pipe L=70*		*Tuyau rilsan 8x6 noir L=70*	*Tubo rilsan 8x6 negro L=70*
10	VS730090320		*Pressure reduction filter unit*		*Groupe filtre réducteur de pression*	*Grupo filtro reductor de presión*
11	VS317010		*10x8 black rilsan pipe L=500*		*Tuyau rilsan 10x8 noir L=500*	*Tubo rilsan 10x8 negro L=500*



	LIST OF COMPONENTS LISTE DES PIECES DETACHEES - LISTA DE PIEZAS		*PNEUMATIC CIRCUIT DIAGRAM* *SCHEMA PNEUMATIQUE* *ESQUEMA NEUMATICO* *(RWC645.26IAB - RWC645.26IHAB - RWC645.26IHRAB)*	***Page 49 of 50***
	Table N°E - Rev. 0	**VS730005090**		

	LIST OF COMPONENTS LISTE DES PIECES DETACHEES - LISTA DE PIEZAS		PNEUMATIC CIRCUIT DIAGRAM SCHEMA PNEUMATIQUE ESQUEMA NEUMATICO (RWC645.26IAB - RWC645.26IHAB - RWC645.26IHRAB)	
	Table N°E - Rev. 0	VS730005090		

N°	Cod.	Descrizione	Description	Beschreibung	Description	Descripción
1			Air treatment unit		Groupe traitement air	Grupo tratamiento aire
2			Airmotor gearmotor unit		Groupe motoréducteur Airmotor	Grupo moterreductor Airmotor
3			Pedal		Pédale	Pedal
4			Line present only in FI/FIT models		Ligne présente seulement en modèles FI/FIT	Línea presente sólo en los modelos FI/FIT
5			Tank unit		Groupe réservoir	Grupo tanque
6			Pedal		Pédale	Pedal
7			Tilting		Basculant	Abatible
8			Plate		Plateau	Plaque
9			Pedal		Pédale	Pedal
10			Bead breaker		Décolle talons	Destalonador
11			Pedal		Pédale	Pedal
12			Handle		Poignée	Manija
13			Necks		Étranglements	Estrangulaciones
14			Pressure gauge		Manomètre	Manómetro
15			Deflation		Dégonflage	Desinflado
16			Balancing valve		Vanne balancement	Válvula balanceo
17			Black - Normally open		Noire - normalement ouverte	Negra - normalmente abierta
18			White - Normally closed		Blanche - normalement fermée	Blanca - normalmente cerrada
19			Inflation pedal valves		Vannes pédales de direction de gonflage	Válvulas pedal de inflado