



*Manuale d'uso  
Operator's manual  
Manuel d'utilisation  
Betriebsanleitung  
Manual de uso*

# ***S 122 - S 122TI - S 112***



Code 4-109926 - 05/10

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**Español**

Elaborazione grafica e impaginazione

**Ufficio Pubblicazioni Tecniche**

# TRANSLATION OF ORIGINAL INSTRUCTIONS

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# NAMEPLATE

Note here the following information, obtained from the serial number plate.

**SERIAL NUMBER:**

**MODEL NUMBER:**

**DATE OF MANUFACTURE:**

## GUARANTEE CLAUSE

The machine, including the operating system, tools and accessories, is covered by a 1-year guarantee after confirmation of the absence of damage or improper use. During this period, the manufacturer will repair or replace the parts returned or the machine itself, sustaining the costs but not accepting responsibility for normal wear and tear, incorrect use or transportation, or failure to carry out maintenance. The manufacturer will not inform the customer about any improvements to the products or the upgrading of the production lines, as the resulting difference is not covered by this guarantee. All the modifications in this guarantee clause refer to the model and serial number of the machine, and all complaints must indicate the above-mentioned information.

## INTRODUCTION

The purpose of this manual is to provide the owner and machine operator with effective, safe instructions for the use and maintenance of the tyre changer. Following these instructions carefully will ensure efficient, durable service from your machine, contributing to significantly facilitate your work.

The following paragraphs define the levels of danger regarding the machine associated with the warning captions found in this manual:

### DANGER

Immediate danger, causing serious injury or death.

### WARNING

Danger or unsafe procedures that could cause serious injury or death.

### WARNING

Danger or unsafe procedures that could cause minor injury or material damage.

Read these instructions carefully before powering up the machine. Keep this manual and all illustrative material supplied with the machine in a folder near the tyre changer, where it is readily accessible for consultation by the machine operator.

The technical documentation supplied is considered an integral part of the machine, and must always accompany the equipment if it is sold or transferred to a new owner.

The manual is only to be considered valid for the machine of the model and serial number indicated on the nameplate applied to it.



### WARNING

Adhere to the contents of this manual: The producer declines all liability in the case of actions not specifically described and authorised in this manual.

### NOTE

Some of the illustrations contained in this manual were derived from photos of prototypes; the standard production machines may differ in some details.

These instructions are for the attention of personnel with basic mechanical skills. We have therefore condensed the descriptions of each operation by omitting detailed instructions regarding, for example, how to loosen or tighten the fixing devices on the machine. Do not attempt to perform operations unless properly qualified and with suitable experience. If in need of assistance, call an authorised assistance centre.

# TRANSPORT, STORAGE AND HANDLING

## Conditions for transporting the machine

The tyre changer must be transported in its original packaging and stowed in the position shown on the packaging itself.

### S 122

#### - Packaging dimensions:

- width ..... mm 0
- depth ..... mm 111
- height ..... mm 10 0

#### - Packaging weight ..... kg 2

### S 122 TI

#### - Packaging dimensions:

- width ..... mm 0
- depth ..... mm 111
- height ..... mm 10 0

#### - Packaging weight ..... kg 2

### S 112

#### - Packaging dimensions:

- width ..... 0 mm
- depth ..... mm 111
- height ..... mm 10 0

#### - Packaging weight kg ..... 2 0

## Machine storage and shipping specifications

Temperature range: -2 ° - °C.

### WARNING

Do not stack other goods on top of the packaging or damage may result.

### Handling

To move the packed machine insert the forks of a fork-lift truck in the channels at the base of the pallet (fig.1).

Before moving the machine refer to the **HOISTING AND HANDLING** chapter.

### WARNING

Keep the original packages for possible future transportation.

## UNPACKING / ASSEMBLY

### WARNING

Take utmost care when unpacking, assembling, hoisting and installing the machine as described in this heading.

Failure to observe these instructions can damage the machine and compromise the operator's safety.

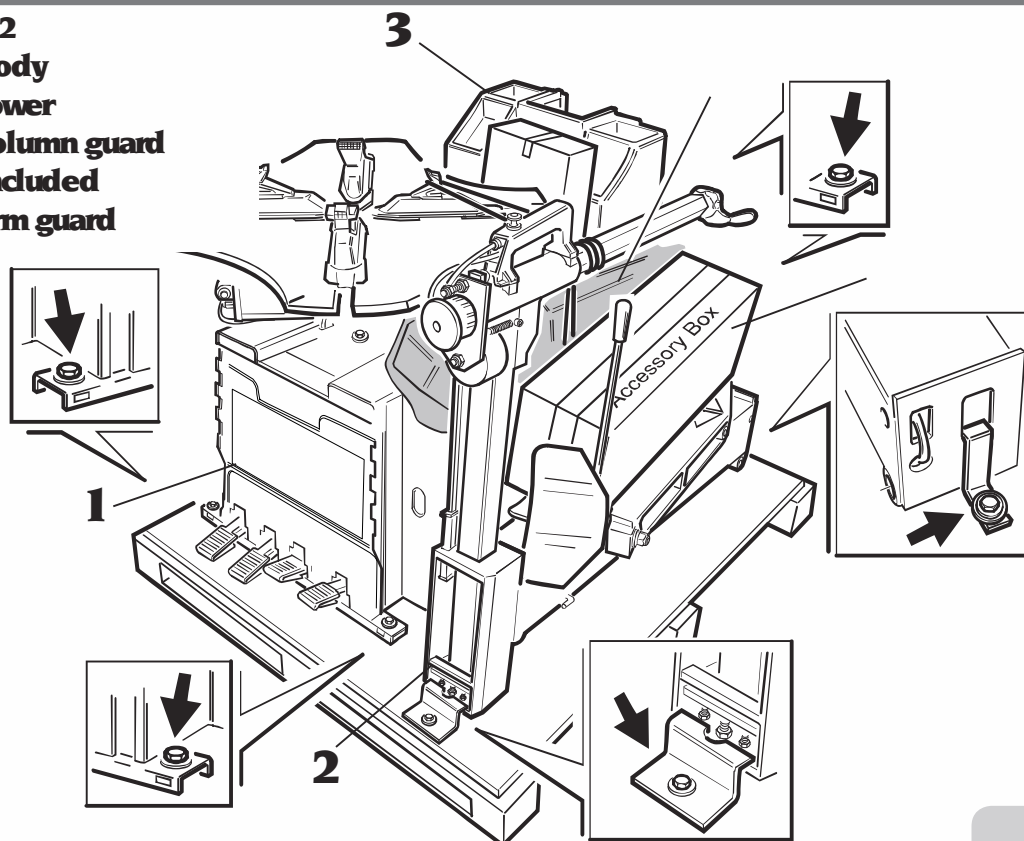
- Remove the upper part of the padding and make sure that the machine has not suffered damage in transit identify the points at which the machine is anchored to the pallet.

- The machine comprises the following main units (fig.1):

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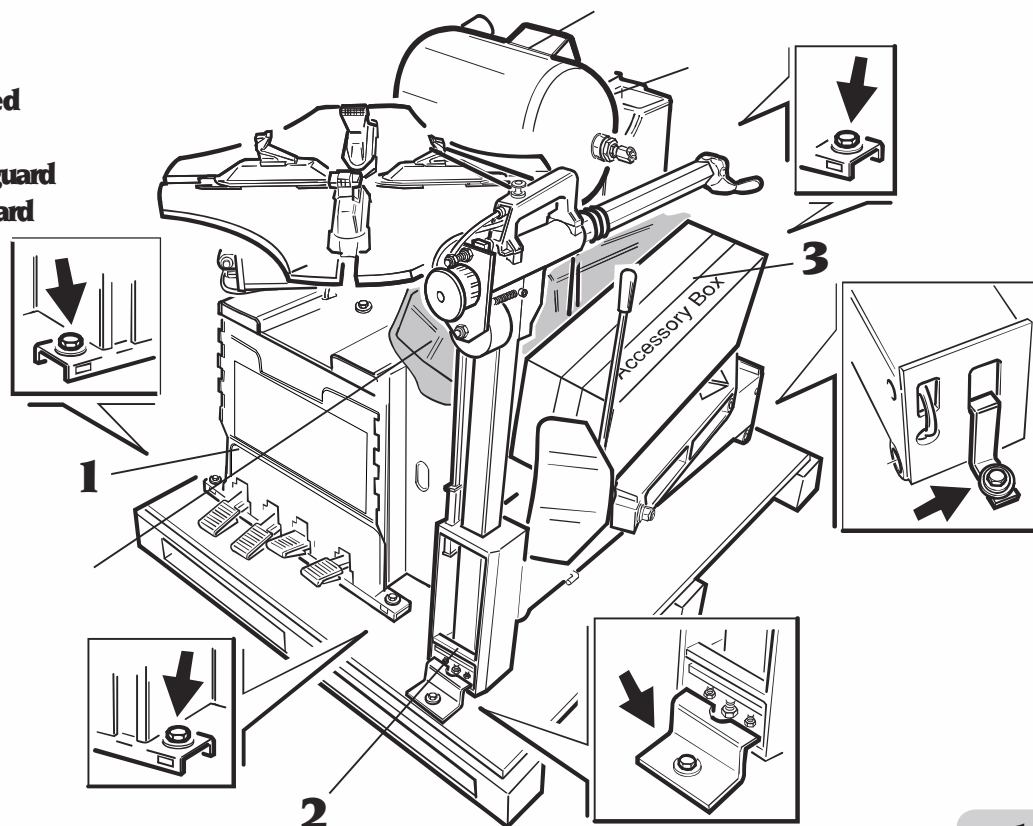
### S 122

- 1 body
- 2 tower
- 3 column guard  
included  
arm guard

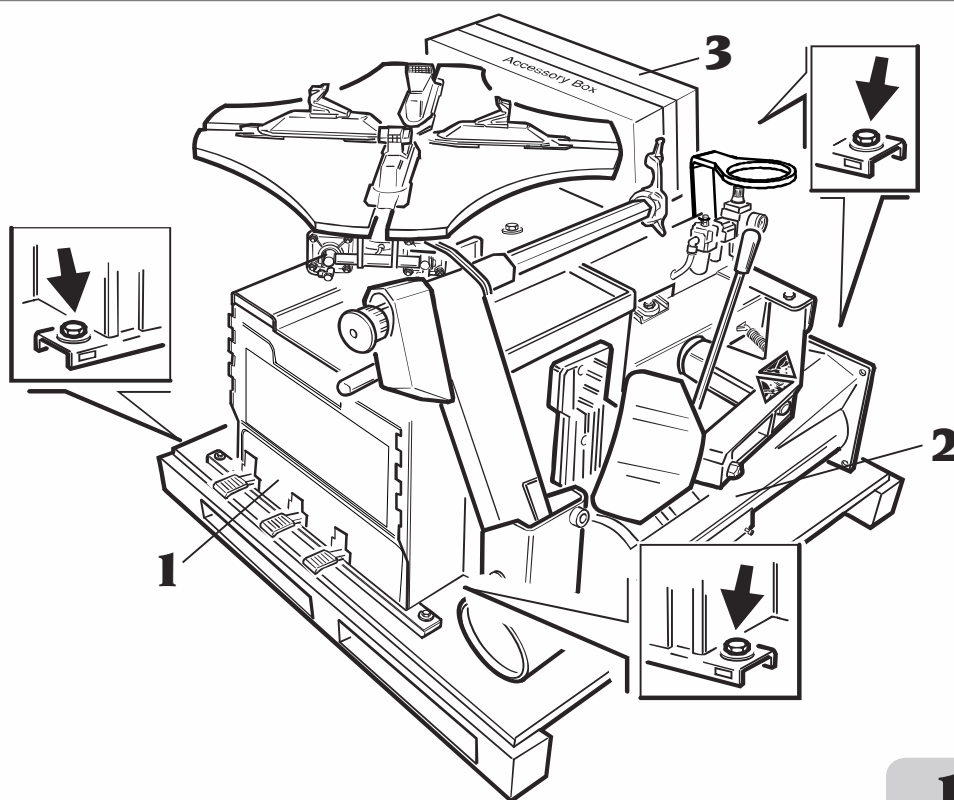


### S 122 TI

- 1 body
- 2 tower
- 3 included  
tank  
tower guard  
arm guard

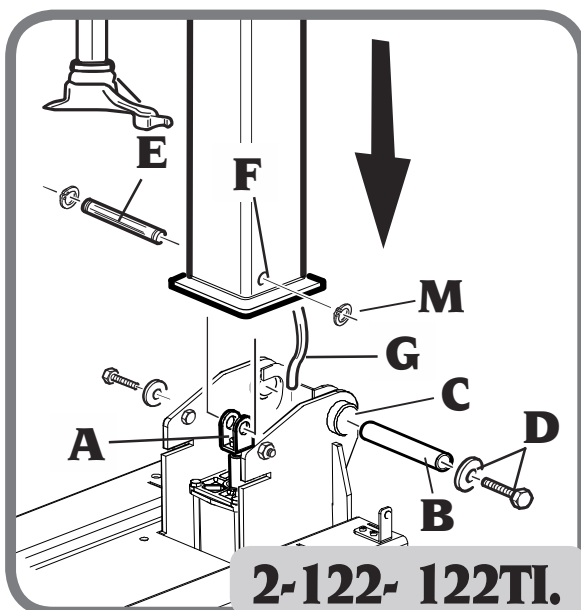


**S 112**  
**1 body**  
**2 tower**  
**3 included**



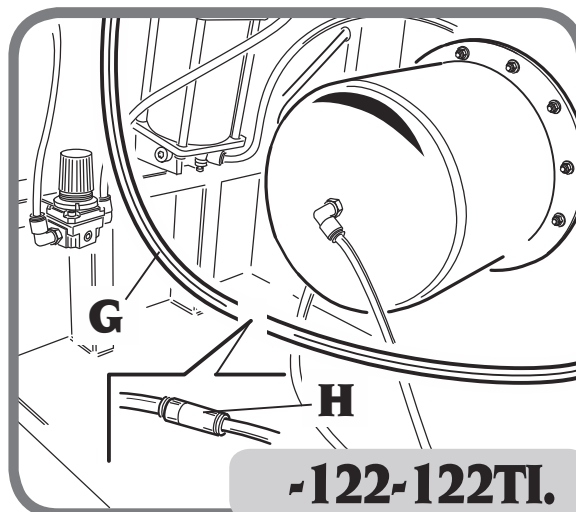
#### **S 122 - S 122 TI**

- After removing the tower 2, preferably keep it in horizontal position to prevent it from falling and being damaged. (Fig. 1).
- Remove the side cover:
- Insert the air hose G (fig. 2) into the hole behind the column tilting cylinder:
- Assemble head 2, insert pin B into hole



**C and lock it with the screw and washer D. (Fig. 2).**

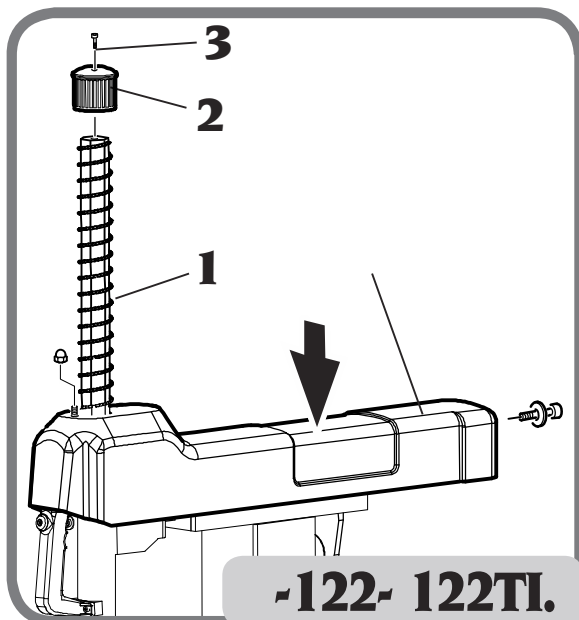
- Insert pin E into hole F and into the U-bolt A of the column tilting cylinder, and fasten with ring M (Fig. 2).
- Connect the hose G to the intermediate coupling (H). (Fig. ).



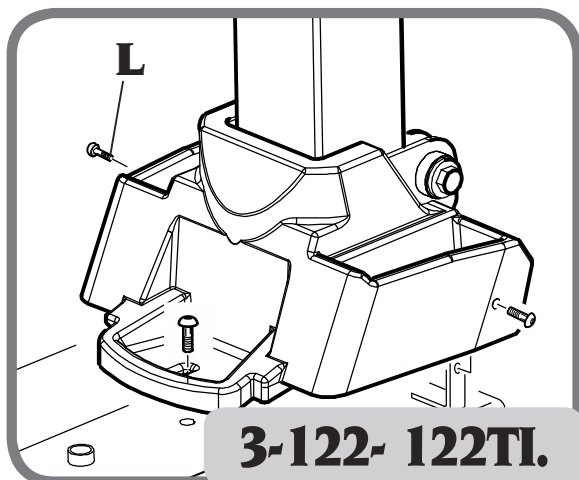
- Fit the arm guard . (Fig. ).
- Fit the spring (1) and the knob (2) tighten the screw (3). (Fig. ).

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- Fit the column guard and fasten with the screws L (Fig. 3).



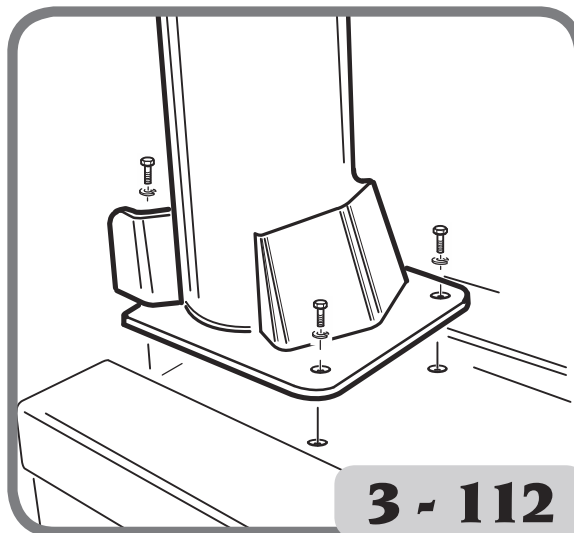
- Fit the grease container on the mounting (Fig. ).



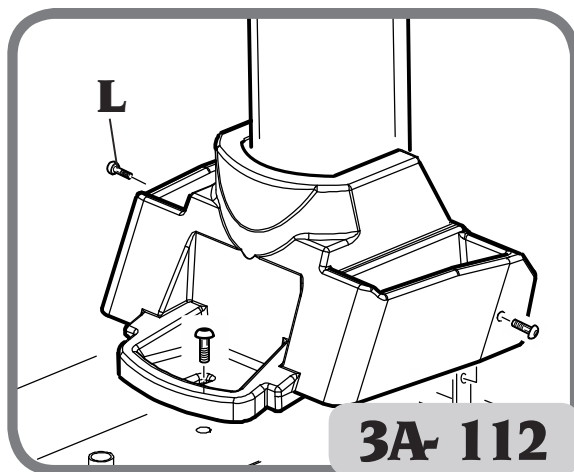
- Refit the cover.

### S 112

- After removing the tower 2, preferably keep it in horizontal position to prevent it from falling and being damaged. (Fig. 1).
- Remove the side cover
- Fit the tower (Fig.3).

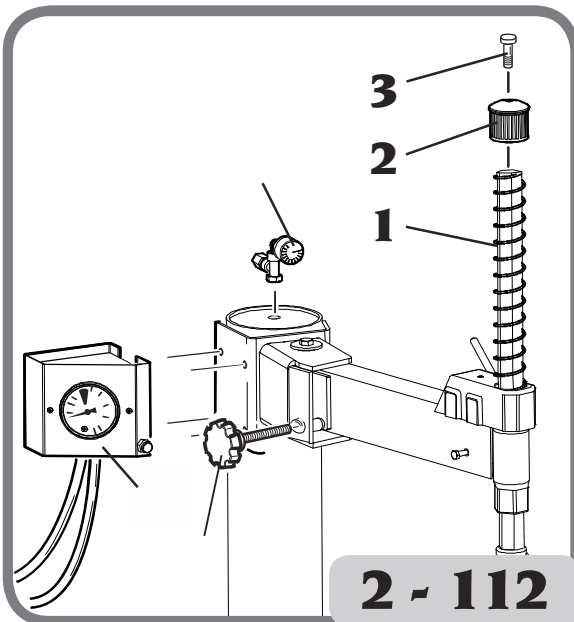


- Fit the column guard and fasten with the screws L (Fig. 3a).

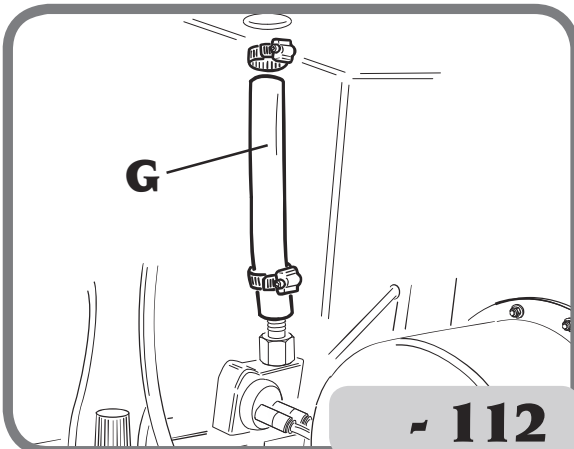


- Fit the spring (1) and the knob (2) tighten the screw (3). (Fig. 2).
- Fit the adjustment knob ( ). (Fig. 2).
- Fit the box with pressure gauge ( ) on the column. (Fig. 2).
- Fit the safety valve ( ) (Fig. 2).

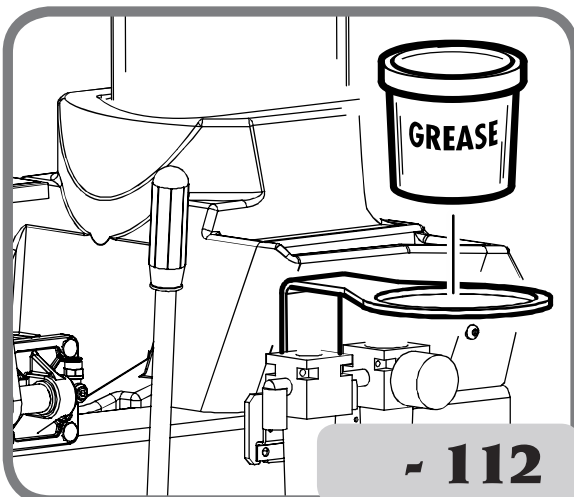




- Connect pipe G to the valve (Fig. ).



- Fit the grease container on the mounting (Fig. ).

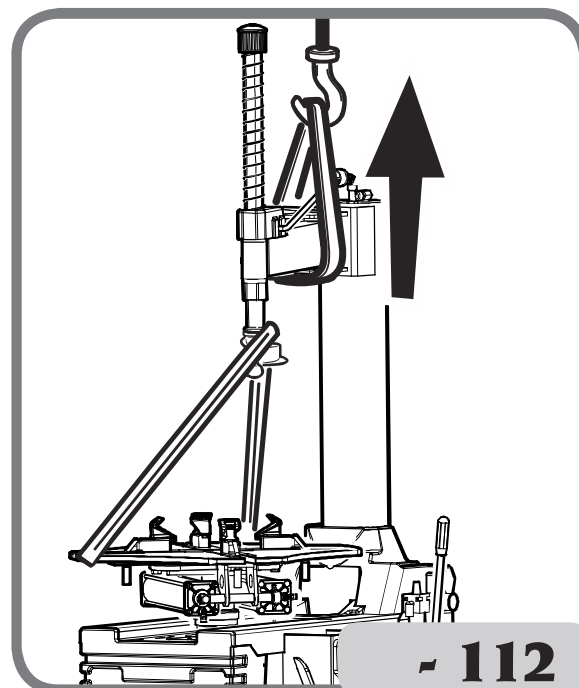
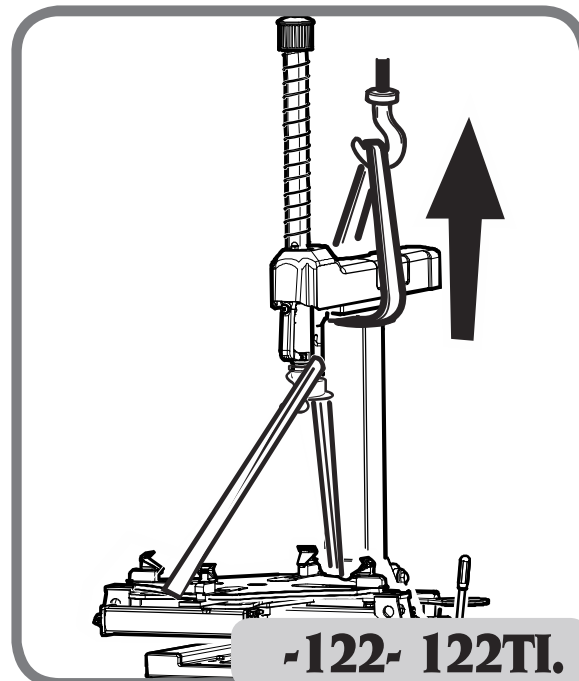


- Refit the side cover

## HOISTING

To remove the machine from the pallet, attach as shown in (Fig. ).

This lifting point must be used whenever you need to change the position of the machine.

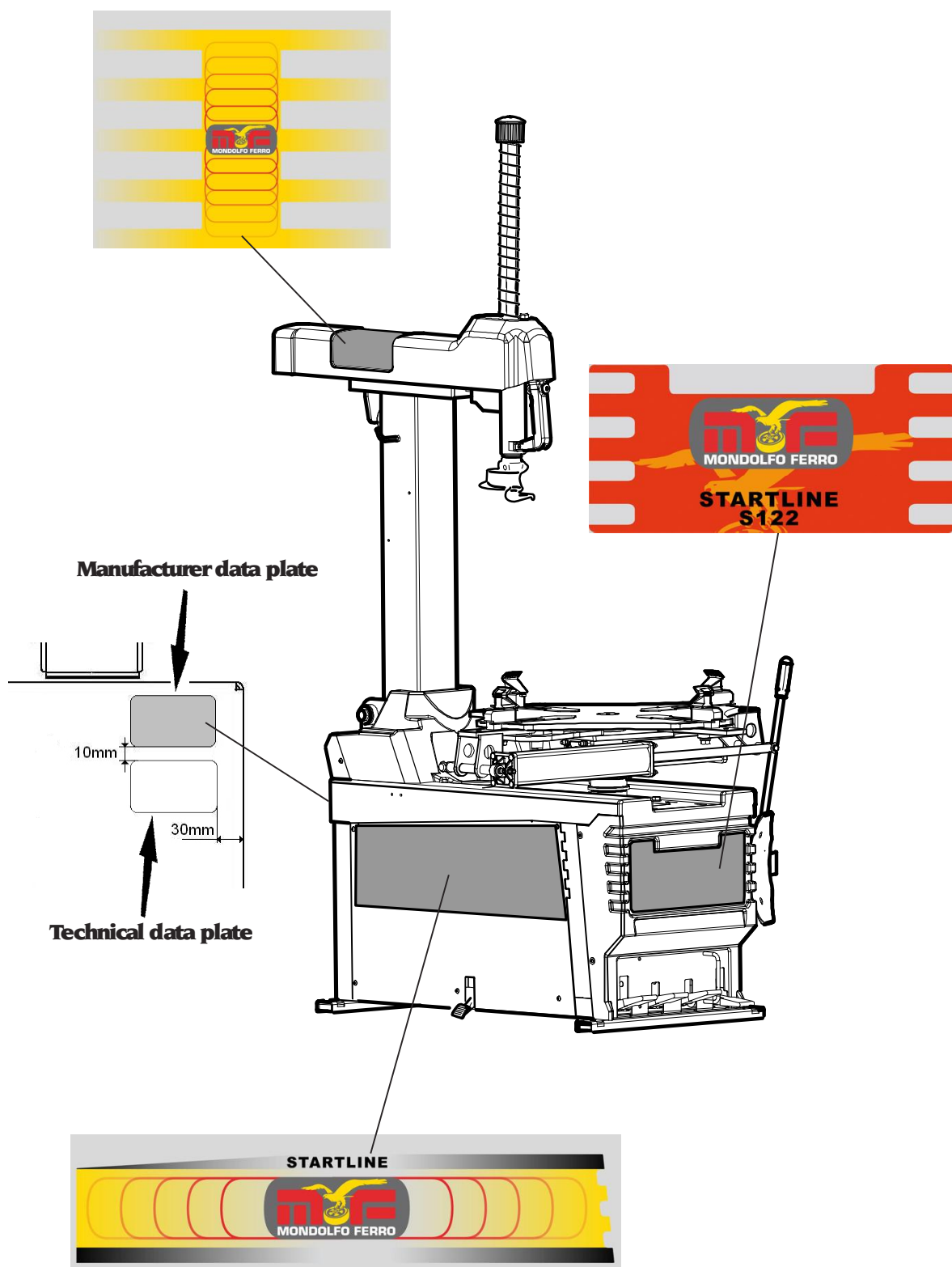


Do not attempt to move the machine until it has been disconnected from the electrical and air networks.

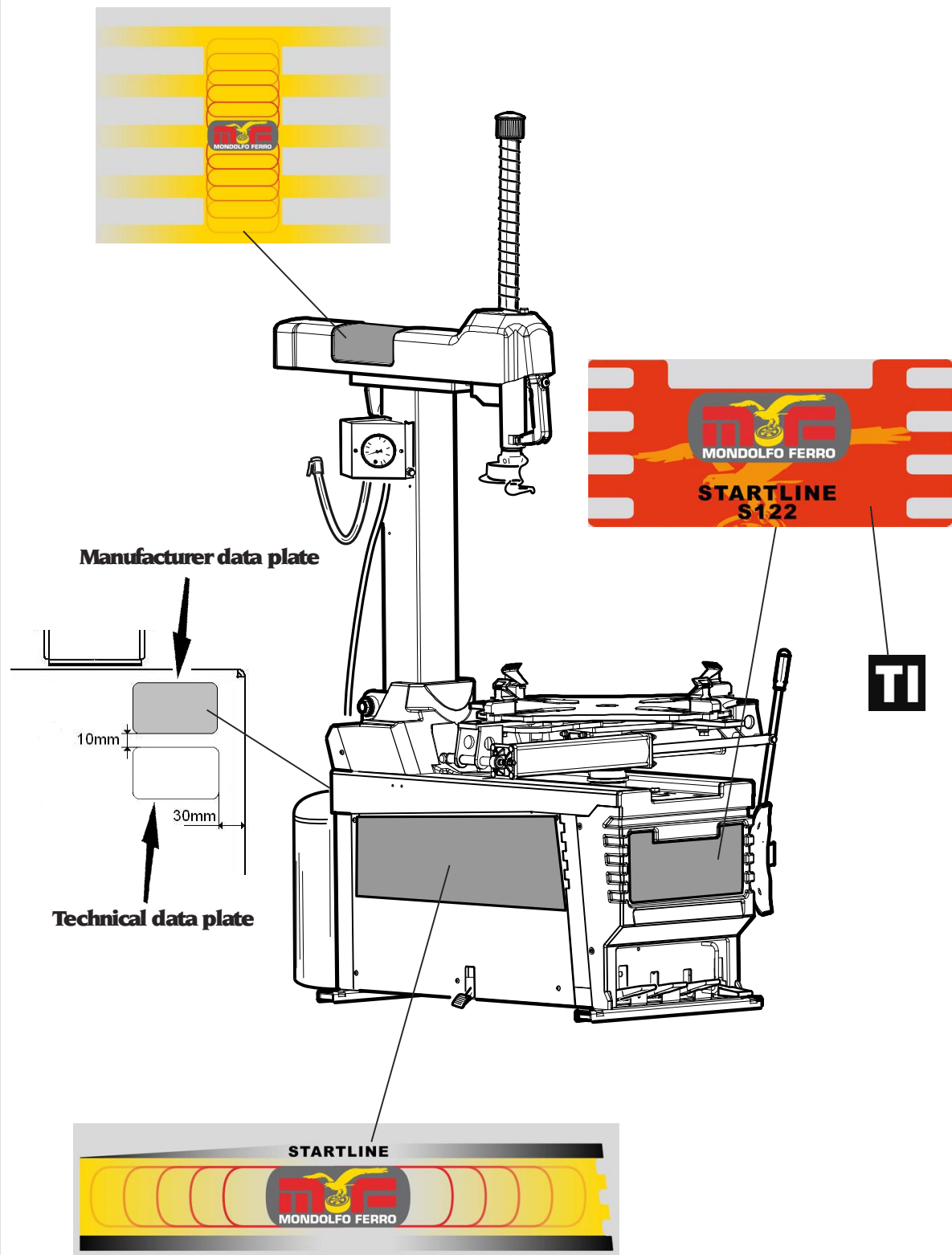
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# CUSTOMISATION

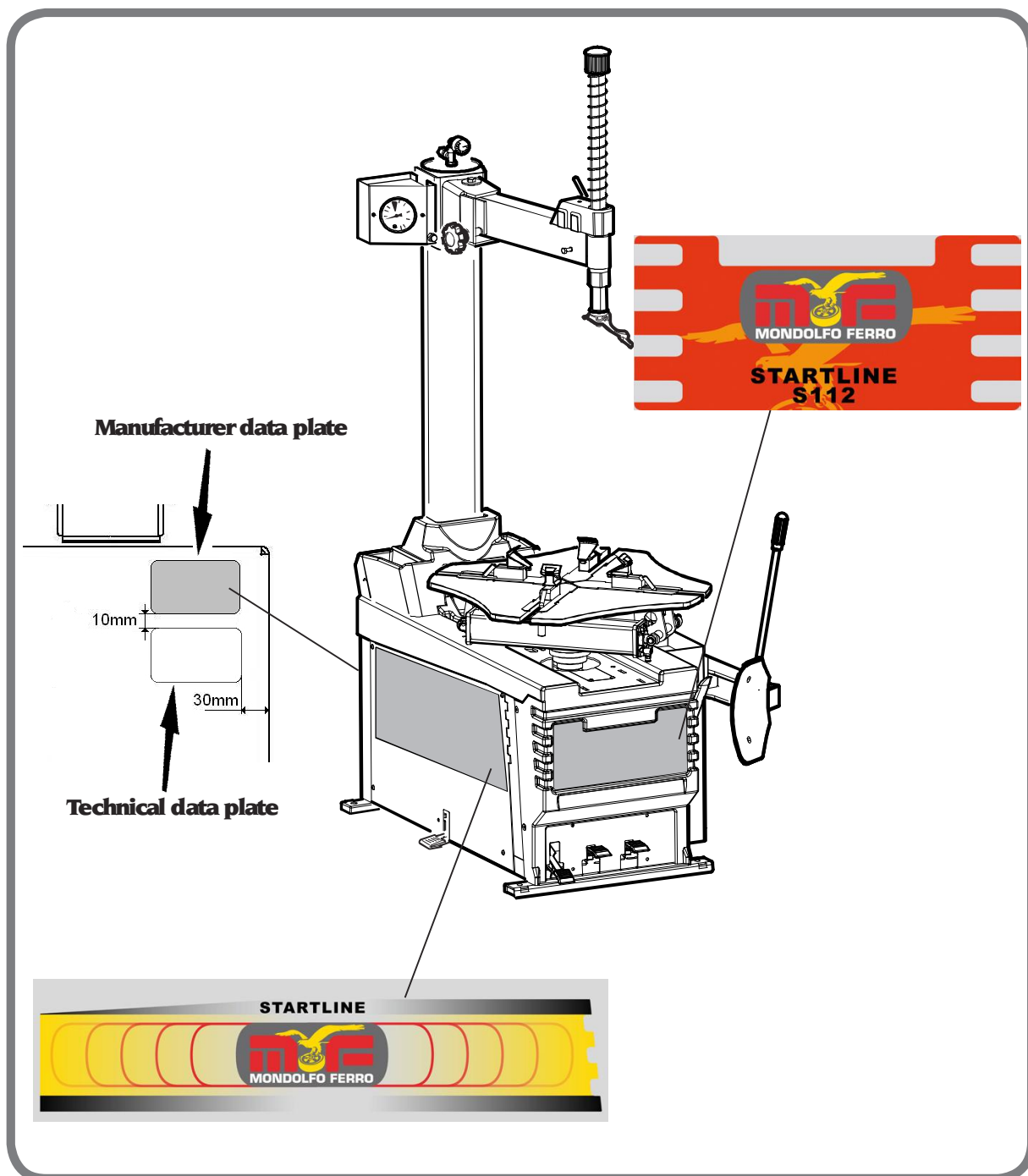
S 122



## S 122 TI



## S 112



# INSTALLATION CLEARANCES

## WARNING

Choose the place of installation in strict observance of local regulations regarding safety in the workplace.

**IMPORTANT:** for the correct and safe operation of the machine, the lighting level in the place of use should be at least 300 lux.

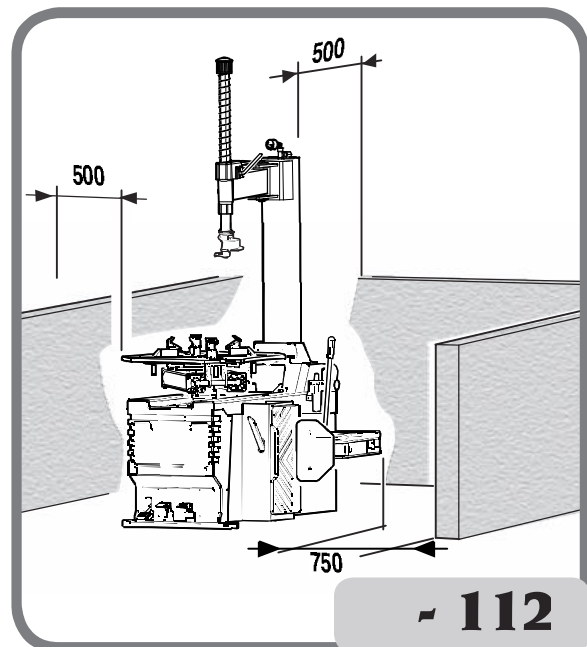
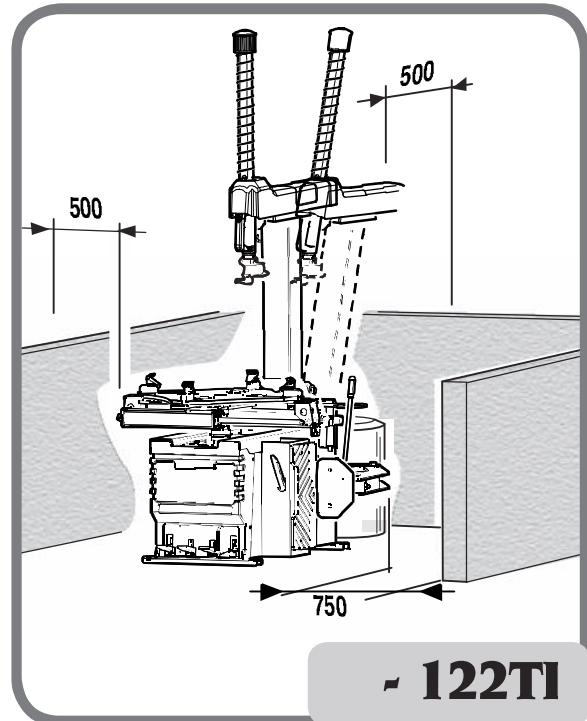
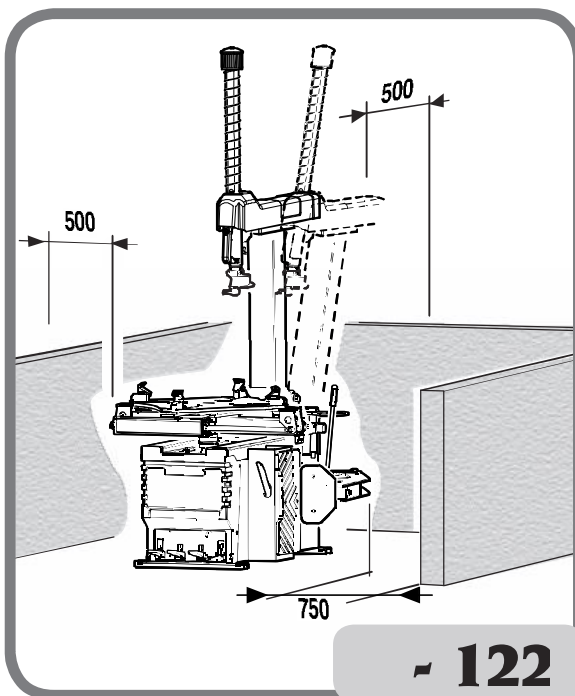
## WARNING

If the machine is installed outdoors, it must be properly sheltered under a roof.

## WARNING

The floor must be able to support a load equal to the sum of the weight of the equipment plus the maximum load allowed, taking into consideration also the resting base and any fixing means envisaged.

Install the tyre changer in the desired position, observing the minimum clearances indicated in fig.9.



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## Work environment conditions

- Relative humidity from 30 to without condensation.
- Temperature range from 0°C to 0°C.

## WARNING

The machine must not be operated in a potentially explosive atmosphere.

# ELECTRICAL AND PNEUMATIC CONNECTIONS

## WARNING

Any operations to hook up to the electrical board of the workshop must only be carried out by qualified personnel, in accordance with the regulations of the current laws, and this is the duty and responsibility of the customer.

- The electrical hook-up must be performed according to:

- absorbed power specifications indicated on the machine dataplate.
- the distance between the machine and the power supply hook-up point, so that voltage drops under full load do not exceed (10 during start-up) compared with the rated voltage specified on the data plate.

- The operator must:

- a dedicated power plug in compliance with the relevant electrical safety standards
- a type A and B suitable differential circuit-breaker (residual current set to 30 mA) on the mains connection

**WARNING: only a type A and B differential security breaker of the specified kind will be tripped correctly in response to all the failure currents which may occur on the machine.**

- mount power line protection fuses, suitably sized according to the specifications indicated on the main wiring diagram contained in this manual
- a suitable earthing system installed on the workshop mains line.

- Prevent unauthorised use of the machine, always disconnect the power supply plug when the machine is not used (switched off) for extended periods of time.

- If the machine is connected directly to the power supply by means of the main electrical panel and without the use of a

plug, install a key-operated switch or suitable lock-out device to restrict machine use exclusively to qualified personnel.

For the correct operation of the machine the compressed air supply line must provide a pressure range from a minimum of bar to a maximum of 12 bar.

## NOTE

The machine is equipped with a pressure regulator set at 10 bar (standard machine operation). If you are working with easily deformable rims (motor cycle wheels for example) we recommend lowering the pressure temporarily to or bar.

## WARNING

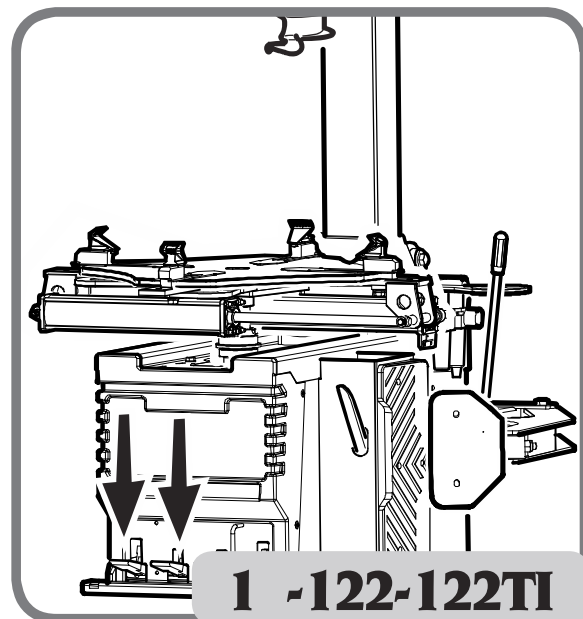
For the correct functioning of the machine it is vital to have a good ground connection.

NEVER connect the grounding line to gas or water lines, to telephone wires, or to other non-suitable objects.

**For S 122 - S 122 TI only**

Before making the electrical and pneumatic hook-ups, make sure that the machine is configured as described below (fig.14):

- pedals, indicated by the arrows, in fully depressed position
- column vertical (not tilted).





# SAFETY REGULATIONS



## WARNING

Failure to comply with the instructions and danger warnings can cause serious injuries to the operator or other persons. Do not operate the machine until you have read and understood all the danger/warning notices in this manual.

In order to operate the machine correctly, it is necessary to be a qualified and authorised operator, able to be trained and to know the safety regulations. Operators are expressly forbidden from using the machine under the influence of alcohol or drugs capable of affecting physical and mental capacity.

The following conditions are essential:

- read and understand the information and instructions described in this manual
- have a thorough knowledge of the features and characteristics of the machine
- keep unauthorised persons well clear of the working area
- make sure that the machine has been installed in compliance with all relevant standards and regulations in force
- Make sure that all machine operators are suitably trained, that they are capable of using the machine correctly and safely and that they are adequately supervised during work
- do not touch power lines or the inside of electric motors or other electrical equipment before making sure that they have been powered off
- read this booklet carefully and learn how to use the machine correctly and safely
- always keep this user manual in a place where it can be readily consulted and do not fail to refer to it.



## WARNING

Do not remove or deface the DANGER, WARNING, CAUTION or INSTRUCTION decals. Replace any missing or illegible decals. If one or more decals have been detached or damaged, replacements can be obtained from your nearest dealer.

- When using and carrying out maintenance on the machine, observe the unified industrial accident prevention regulations for high voltage industrial equipment and rotating machinery.
- Any unauthorised changes or modifications made to the machine shall automatically release the manufacturer from any liability for damage or accidents attributable to such alterations. Specifically, tampering with or removal of the machine safety devices is a breach of the regulations relating to Safety at work.



## WARNING

During work and maintenance operations, always tie back long hair and do not wear loose clothing, ties, necklaces, wristwatches or any other items that may get caught up in the moving parts.

## TYRE CHANGER DESCRIPTION

The S 122, S 122 TI and S 112 are electro-pneumatic tyre changers.

These tyre changer models are designed to mount and demount tyres on all types of integral wheels with drop centre and weights and dimensions as described in the TECHNICAL BRIEF section.

The machine is solidly constructed. It operates with the wheel in a vertical position for bead breaking and a horizontal position for mounting and demounting tyres. All machine movements are controlled by the operator by means of the pedals.

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# TECHNICAL DATA

## S 122 - S 122 TI

- **Turntable clamping capacity:**
  - internal clamping ..... **12 to 2**
  - external clamping..... **10 to 22**
- Bead breaking pressure ..... **12000 N (at 10 bar)**
- **Bead breaker opening** ..... **00 mm**
- **Max. tyre diameter**..... **1140 mm (44.5")**
- **Max. tyre width**..... **350 mm (14")**
- Air pressure ..... **10 bar**
- Power supply voltage
  - Single-phase motor ..... **11 /230 10 Volt 0/ 0 Hz**
  - three-phase..... **00 10 Volt 0/ 0 Hz**

Model	Motor rating	kW	Rotation speed rpm	Torque Nm	Weight of electric/ electronic part kg
<b>S 122</b> <b>S 122 TI</b>	<b>00 Volt</b> <b>3 ph 0 Hz</b>	<b>0,</b>	<b>,</b>	<b>1100</b>	<b>11,</b>
	<b>200-230 Volt</b> <b>3 ph 0 Hz</b>	<b>0,</b>	<b>,</b>	<b>1100</b>	<b>11,</b>
	<b>200-230 Volt</b> <b>3 ph 0 Hz</b>	<b>0,</b>	<b>,</b>	<b>1100</b>	<b>11,</b>
	<b>200/230 Volt</b> <b>1 ph 0 Hz</b>	<b>0,</b>	<b>,</b>	<b>1100</b>	<b>11,</b>
	<b>200/230 Volt</b> <b>1 ph 0 Hz</b>	<b>0,</b>	<b>,</b>	<b>1100</b>	<b>11,</b>
	<b>11 Volt</b> <b>1 ph 0 Hz</b>	<b>1,1</b>		<b>1000</b>	<b>11,</b>

- **Weight**..... **2 Kg (S 122) -2 Kg (S 122 TI)**
- **Machine dimensions**..... **(Fig. 10)**
- **Noise level in operating conditions** ..... **0 dB (A)**

## S 112

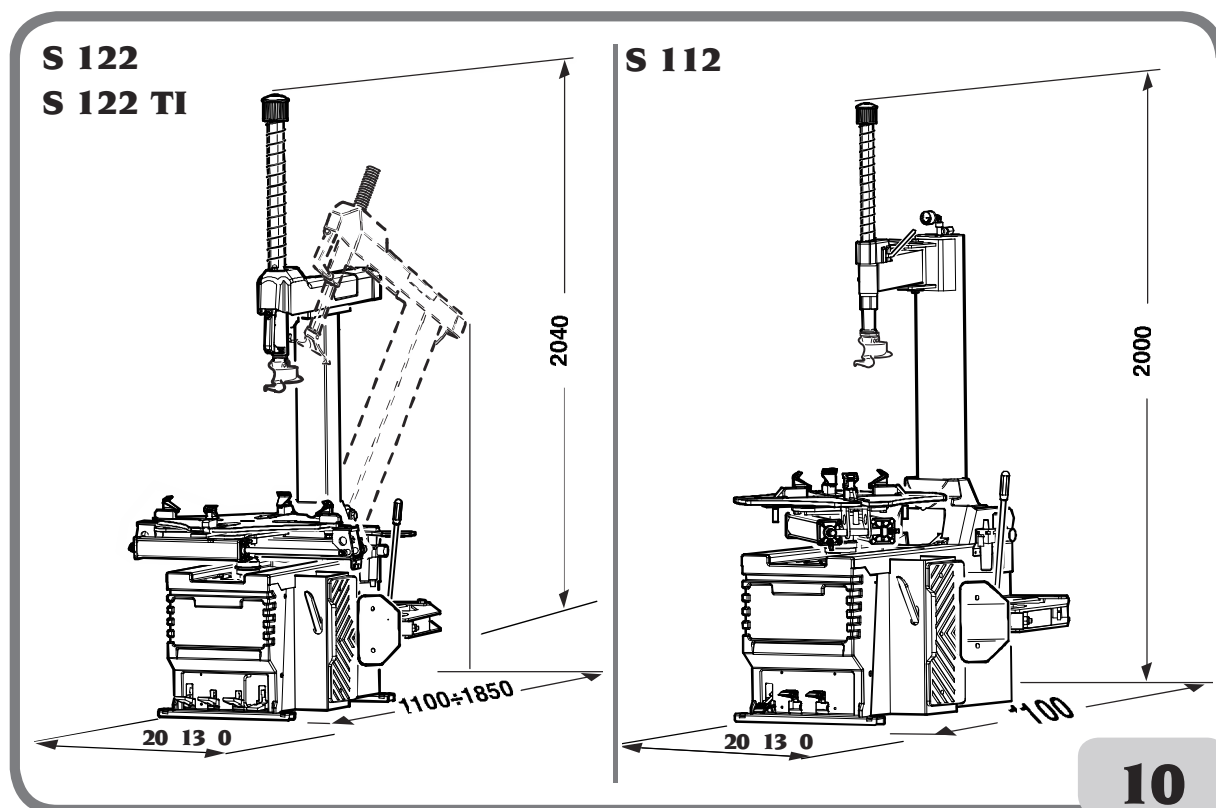
- **Turntable clamping capacity:**
  - internal clamping ..... **12 to 2**
  - external clamping..... **10 to 22**
- **Bead breaking pressure** ..... **12000 N (at 10 bar)**
- **Bead breaker opening** ..... **00 mm**
- **Max. tyre diameter**..... **1100 mm ( . )**
- **Max. tyre width** ..... **300 mm (1 . )**
- Air pressure ..... **10 bar**

- Power supply voltage

- Single-phase motor ..... 11 /230 10 Volt 0/ 0 Hz
- three-phase..... 230/ 00 10 Volt 0/ 0 Hz

Model	Motor rating	kW	Rotation speed rpm	Torque Nm	Weight of electric/ electronic part kg
S 112	00 Volt 3 ph 0 Hz	0,	,	1100	11,
	200-230 Volt 3 ph 0 Hz	0,	,	1100	11,
	200-230 Volt 3 ph 0 Hz	0,	,	1100	11,
	200/230 Volt 1 ph 0 Hz	0,	,	1100	11,
	200/230 Volt 1 ph 0 Hz	0,	,	1100	11,
	11 Volt 1 ph 0 Hz	1,1		1000	11,

- Weight:..... 230 kg
- Machine dimensions..... (Fig.10)
- Noise level in operating conditions ..... 0 dB (A)



## INTENDED OPERATING CONDITIONS

The S 122, S 122 TI and 122 tyre changers are designed exclusively for mounting and demounting tyres, using the tools the machines are equipped with in accordance with the instructions in this manual.

### WARNING

Any use other than those described in this manual is to be considered improper and unreasonable.

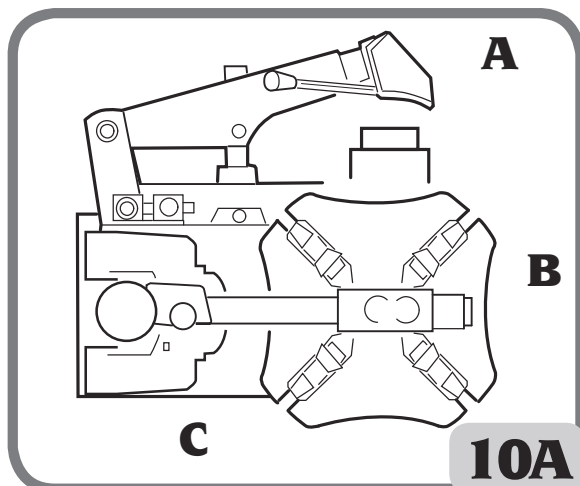
The S 122 TI and S 112 machines are equipped with an inflation system that operates independently of the other functions described above. The S 122, on the other hand, is equipped solely with a connector for an inflating gun (INFLATING GUN NOT SUPPLIED TOGETHER WITH MACHINE). Take great care when using it (read the INFLATION chapter).

### WARNING

You are strongly advised not to use non-original equipment or tools.

Figure 10A shows the operator's working positions at the different working stages:

- A      **Bead breaking**
- B      **Tyre demounting and mounting**
- C      **Inflation area.**



## MAIN WORKING ELEMENTS OF THE MACHINE

### WARNING

Get to know your machine: your familiarity with its exact operation is the best guarantee of safety and performance.

Learn the function and location of all controls. Carefully check that all the commands on the machine are working properly. To avoid accidents and injury, the machine must be installed properly, operated correctly and serviced regularly.

### S 122- S 122 TI (Fig. 11)

- 1 Arm clamp/release button.
- 2 Vertical and horizontal arm (to position the mounting/ demounting tool).
- 3 Mounting/ demounting tool (to mount and demount the tyre from the rim).

Tilting movable column.

Clamp gripper (secures the rim to the turntable).

Turntable (rotary platform supporting the wheel).

Movable column control pedal ( ) (two-position pedal for tilting the column unit).

Clamp grippers ( ) opening and closing control pedal (three-position pedal for opening and closing rim clamps).

Bead breaker control pedal (two-position pedal to operate the bead breaker shoe (11)).

### 10 Turntable ( ) rotation control pedal (three-position pedal):

- position 0: table stop (stationary)
- Pressed down (Unstable position) clockwise rotation.
- Lifted (Unstable position) anti-clockwise rotation.

**11 Bead breaker shoe (movable shoe to detach the bead from the rim).**

**12 Rim support.**

**13 FilterRegulator LubricatorUnit (regulates pressure, filters, removes humidity of and lubricates the compressed air supply).**

**1 Pressure gauge (reads tyre pressure) (S 122 TI only)**

**1 Bead lifting lever (raises and positions the tyre bead on the mounting/demounting tool).**

**1 Connector for inflation gun (not supplied with machine)**

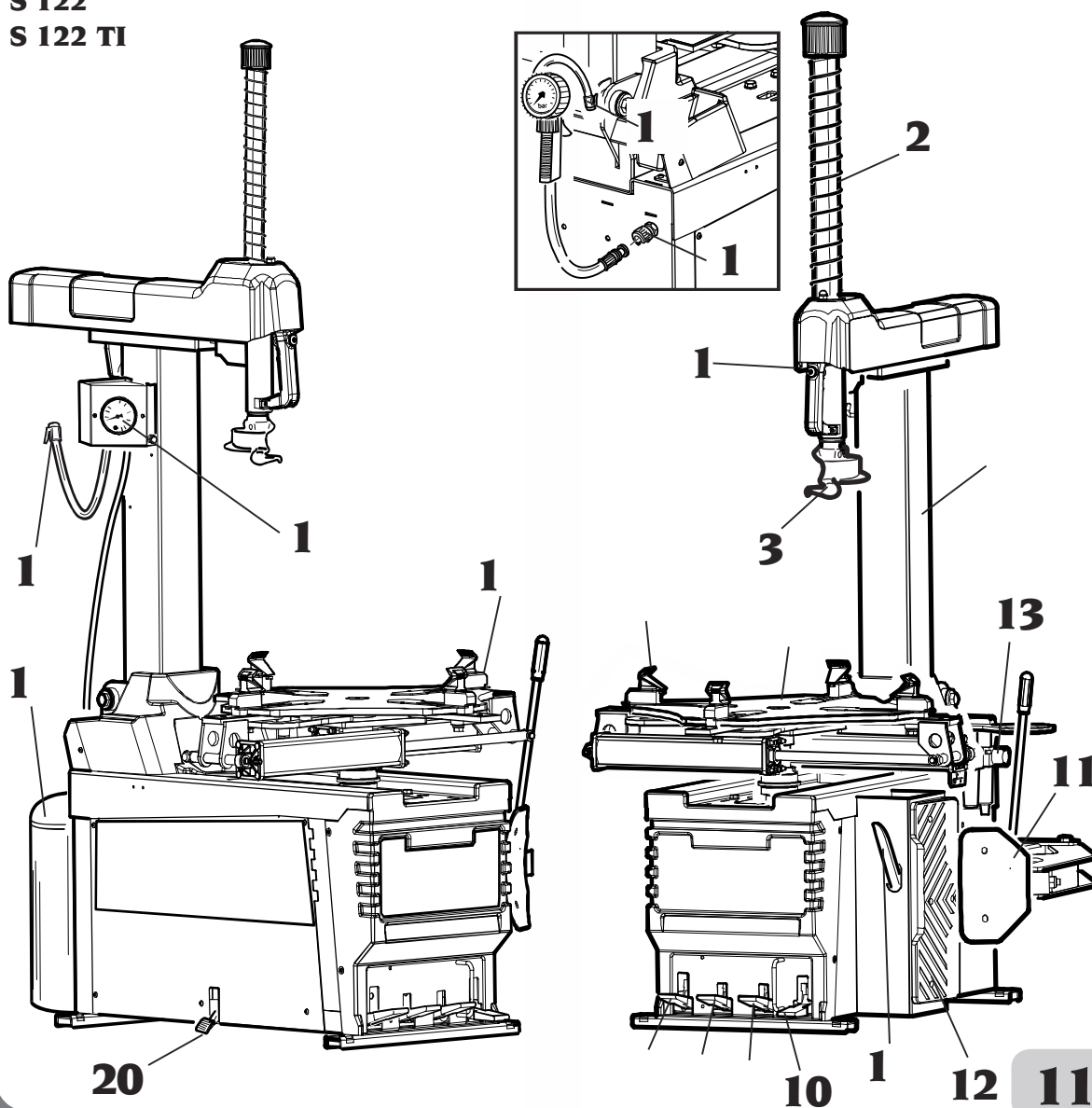
**1 Air tank with safety valve (S 122 TI only).**

**1 Doyfe inflator chuck (clips on to the tyre valve for inflation).**

**1 Inflation nozzles (air introduced through the nozzle pushes the tyre bead outward out, forming a seal and permitting inflation) (S 122 TI only)**

**20 Inflation pedal (three-position pedal for inflating tyre through the Doyfe connector) (S 122 TI only).**

**S 122  
S 122 TI**



**UK**

## S 112 (Fig. 12)

- 1 Arm clamp/release lever.
- 2 Vertical arm (to position the mounting/demounting tool).
- 3 Mounting/ demounting tool (to mount and demount the tyre from the rim).

Inflation pedal (three-position pedal to inflate the wheel through the Doyfe inflator chuck)

**Clamp gripper (secures the rim to the turntable).**

**Turntable (rotary platform supporting the wheel).**

Deflation push-button (button to remove the extra air inside the wheel)

**Clamp grippers ( ) opening and closing control pedal (three-position pedal for**

**opening/closing rim clamps).**

**Bead breaker control pedal (two-position pedal to operate the bead breaker shoe (11)).**

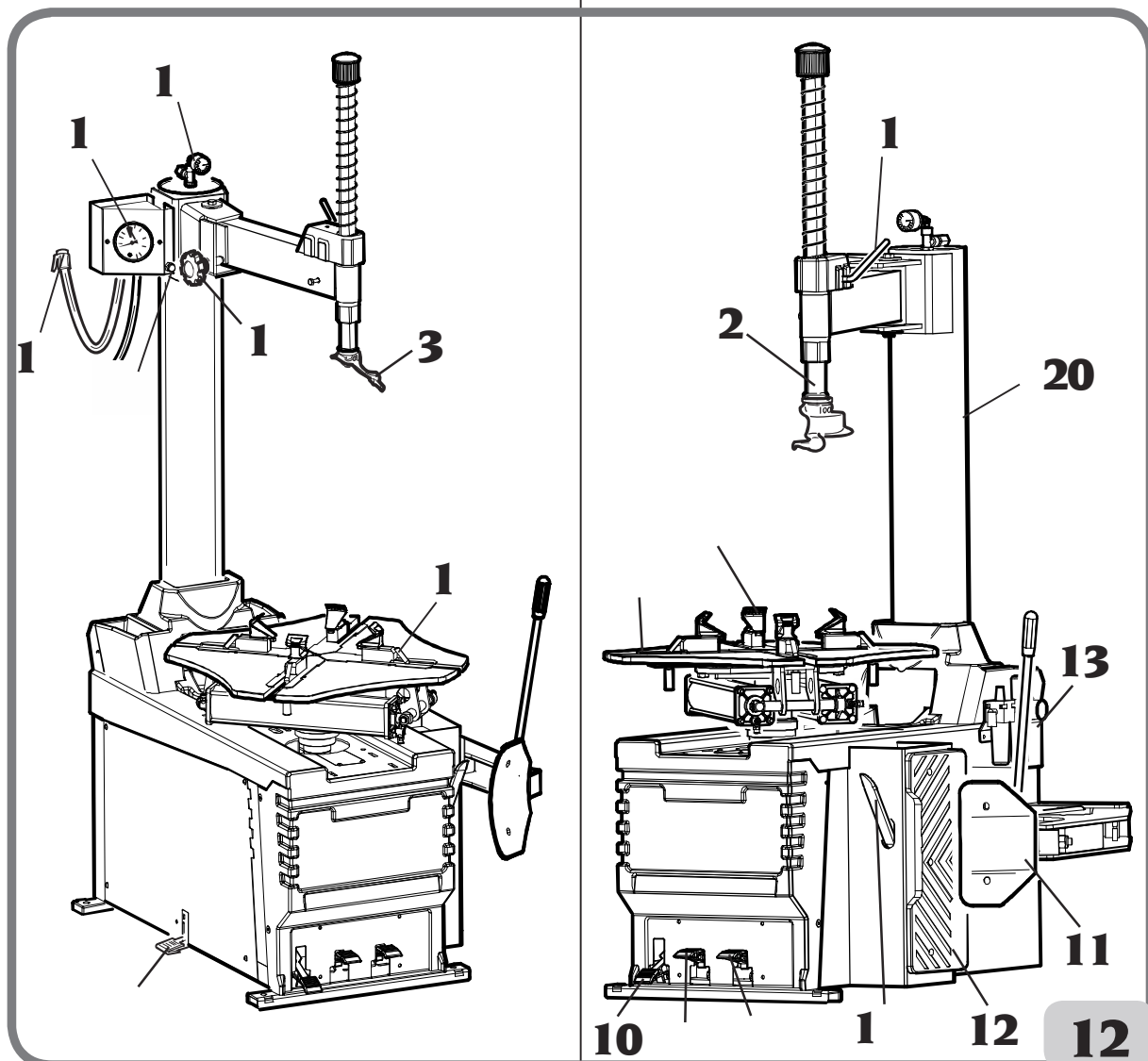
**10 Turntable ( ) rotation control pedal (three-position pedal):**

- position 0: table stop (stationary)
- Pressed down (Unstable position) clockwise rotation.
- Lifted (Unstable position) anticlockwise rotation.

**11 Bead breaker shoe (movable shoe to detach the bead from the rim).**

**12 Rim support**

**13 FilterRegulator LubricatorUnit (regulates pressure, filters, removes humidity of and lubricates the compressed air supply).**



- 1 Adjustment knob**
- 1 Bead lifting lever** (raises and positions the tyre bead on the mounting/demounting tool).
- 1 Pressure gauge** (reads the wheel pressure)
- 1 Safety relief valve** (max. pressure 12 bar) (TI versions only).
- 1 Doyfe inflator chuck** (clips on to the tyre valve for inflation).
- 1 Inflation nozzles** (through these nozzles, **an air jet makes tyre beads expand** for sealing and for enabling inflation)
- 20 Air tank column**

## WARNING AND INSTRUCTION DECALS APPLIED ON THE MACHINE



**Risk of crushing.**  
**Never insert body parts**  
**between the bead breaking**  
**shoe, rim and rim rest.**



**When locking the rim on the**  
**turntable, never insert your**  
**hands between the rim and**  
**the damp gripper.**



**NEVER stand behind the**  
**machine.**



**NEVER insert your hands**  
**between the wheel and the**  
**head when lowering the**  
**head.**



**To protect the eyes, operators**  
**should wear protective goggles**  
**when tyres are being inflated**  
**using the machine equipped with**  
**the GT system.**



**Never place your hands between**  
**the rim and the tyre when the tyre**  
**is being inflated in order to avoid**  
**any injury to operators.**

# INSTRUCTIONS FOR USE

Only trained technicians can operate the machine.

## BEAD BREAKING

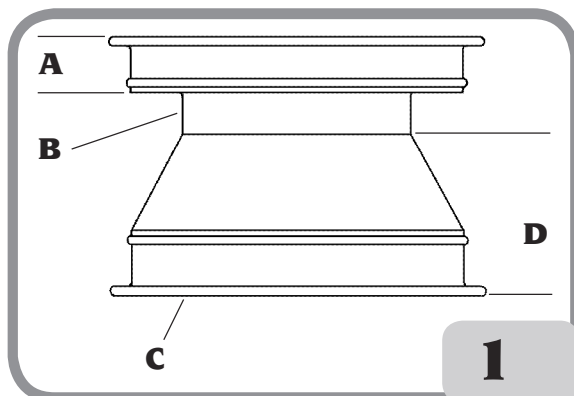


### WARNING

This operating phase may involve noise levels of dB (A).  
Wearing ear defenders is recommended.

Deciding from which side of the wheel the tyre must be demounted

(Fig. 1 )



- A Narrow side - Side for mounting the tyre
- B Rim well
- C Wheel
- D Wider side - You cannot mount tyres from this side

The two sides may be almost identical, but only the narrow side serves for tyre mounting and demounting

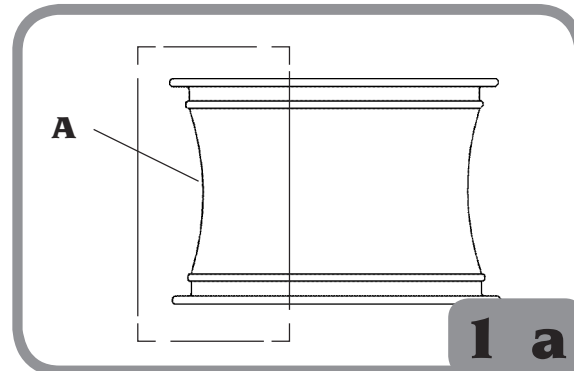
Identify the side for tyre mounting and make sure that this side is facing upward when you install the tyre on the table top (i.e. facing toward the mount/demount head)

## Special instructions

### Alloy wheels

Some alloy wheels on the market have minimal rim wells or are even completely without rim wells (these wheels are not DOT approved).

Fig.1 a



A No rim well



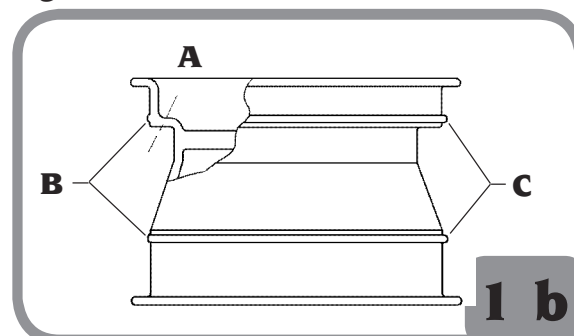
### DANGER

When working on this tyre type, the tyre, the rim or both may get damaged, with the risk of the tyre exploding due to pressure causing serious injuries or even death. When mounting tyres on this type of wheel, use the utmost caution.

### European style high performance wheels (asymmetrical curvature)

Certain European wheels feature a very pronounced curvature that continues around the entire circumference of the wheel, with the exception of the area near the valve hole. On this type of wheel, bead breaking must be performed near the valve hole, on both the lower and upper sides of the wheel.

Fig.1 b



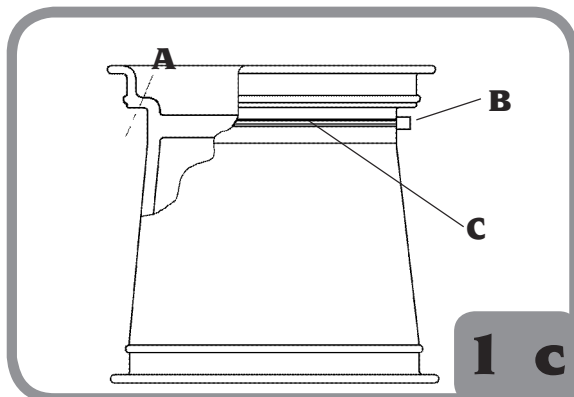
- A Valve hole
- B Slight curvature
- C Pronounced curvature



**Wheels for Corvette, BMW, Lamborghini and other wheels with Low pressure indicator system**

Some types of high performance wheels are equipped with a pressure transmitter secured to the rim with a belt on the side opposite the valve hole. On this type of wheel bead breaking must be done initially in correspondence with the valve hole, on both sides of the rim.

**Fig.1 b**



- A Valve hole
- B Transmitter
- C Attachment belt

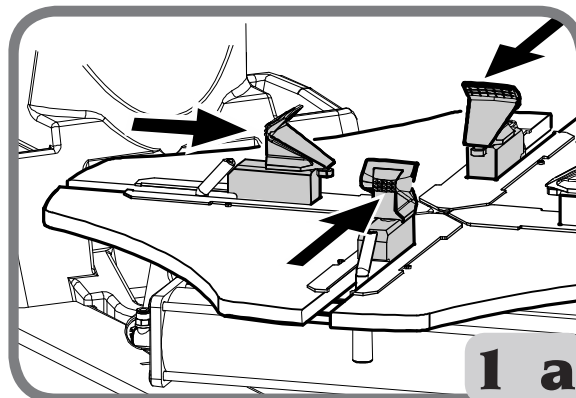
**Bead breaking**

- Fully deflate the tyre, removing the valve

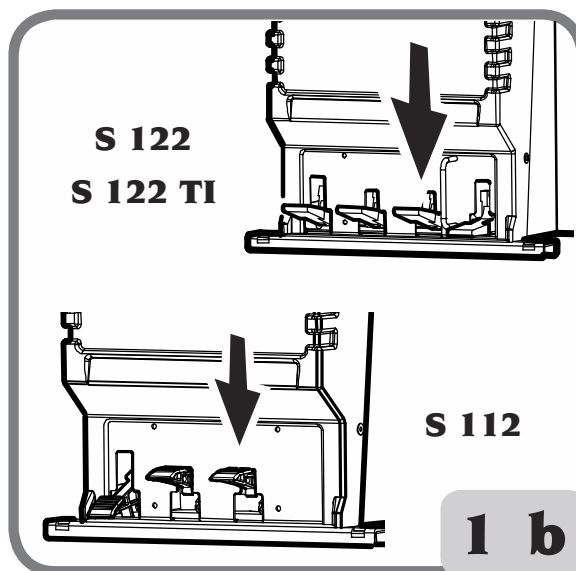


- Position the wheel as shown in fig.17 and bring the bead breaker shoe to the edge of the rim.

**IMPORTANT:** Preferably keep the turntable closed (clamp gripper towards the centre) during bead breaking (Fig.1 a).



- Press the pedal (Fig.1 b) to operate the bead breaker and detach the bead from the rim.



Repeat this operation on the other side of the wheel.

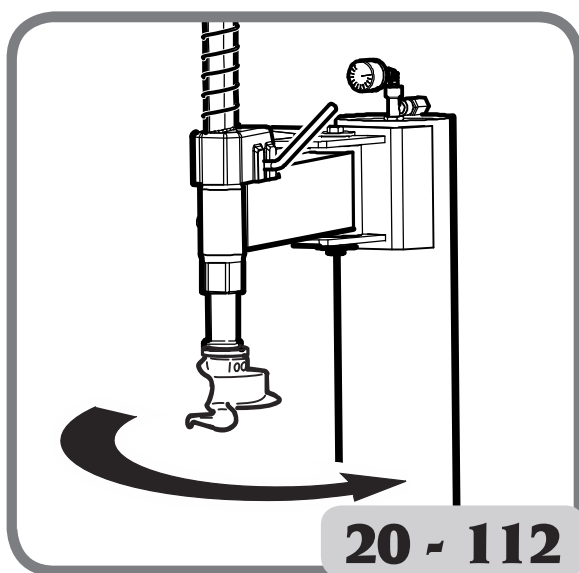
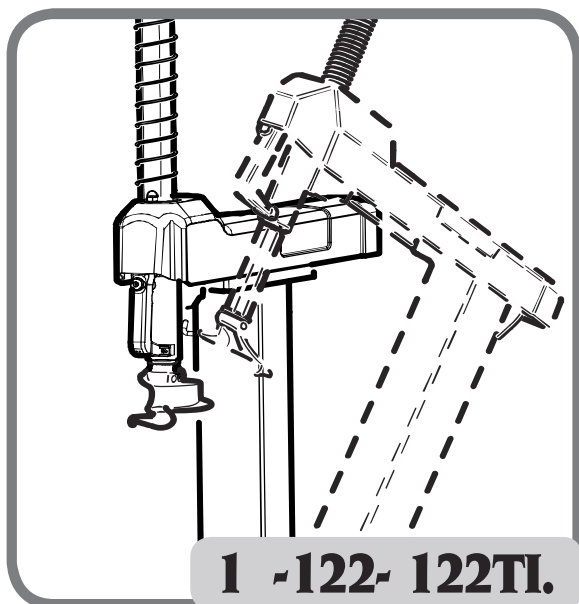
It may be necessary to break the bead at several points to free it completely.

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# PNEUMATIC DEMOUNTING

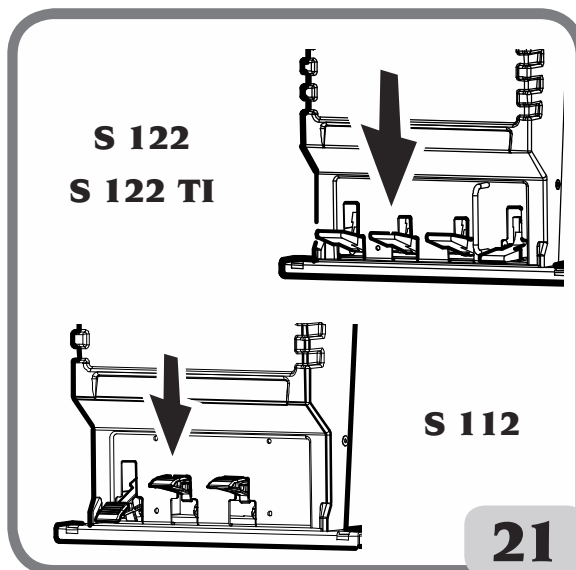
After detaching the beads, remove the old balancing weights.

- Thoroughly lubricate the sides of the tyre around the entire circumference of the lower and upper bead to facilitate demounting and avoid damaging the beads.
- Tilt the column backwards while holding the button in the damped position (S 122 - S 122 TI)(Fig.1 ) and move the arm away (S 112)(Fig.20).

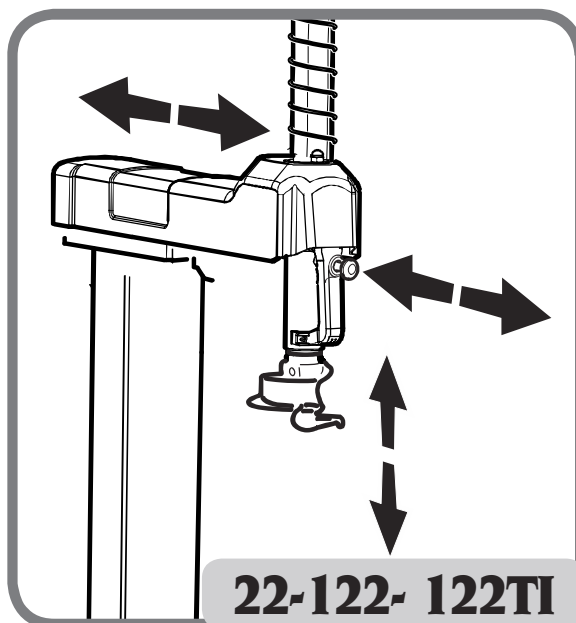


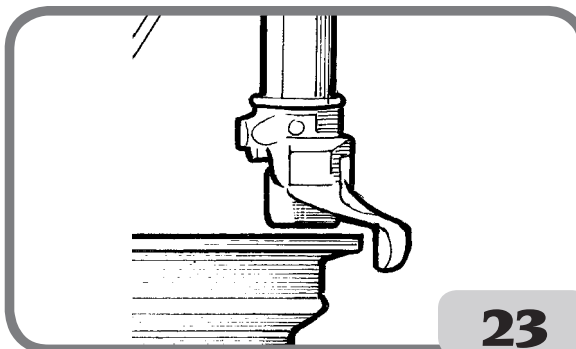
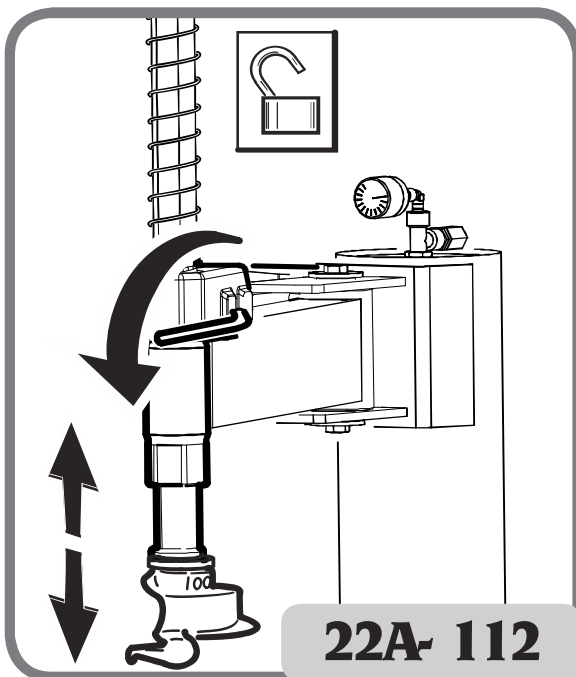
- Place the grippers in open or closed position.

Place the wheel on the turntable (with the narrow part of the rim structure facing upwards), push lightly downwards and use the control pedal to lock the wheel in position (fig.21).

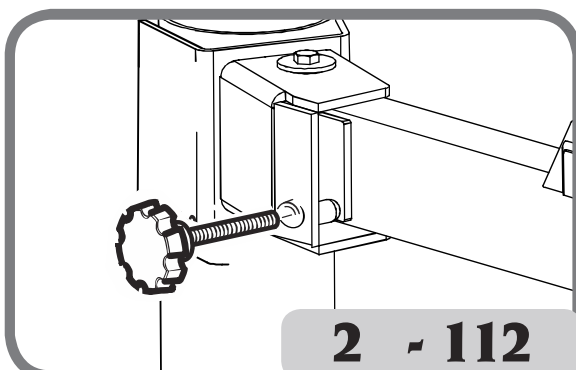


- Move the column forward again (S 122 - S 122 TI, Fig.1 ) or bring the arm closer (S 112, fig.20).
- Release the damp button (S 122 - S 122 TI, Fig.22) or release the lever (S 112, fig.22a) to free the arms and bring the mounting/demounting device into the correct position against the wheel rim (Fig.23)





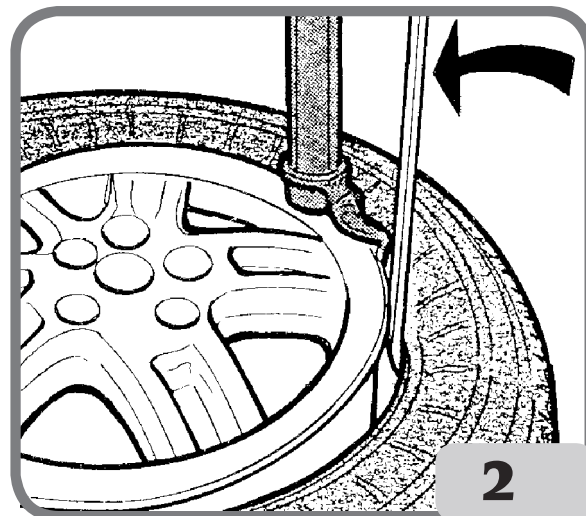
**IMPORTANT:** when the button is pressed (S 122 - S 122 TI, Fig. 22), both the vertical and horizontal arms are clamped simultaneously, while the mounting/demounting head rises slightly, moving away from the rim edge (fig. 22). On the S 112, turn the lever to clamp the vertical arm (Fig. 22a) and use the knob to adjust the horizontal position (Fig. 2 ).



This space between the rim and the vertical

slide will be maintained for as long as the button is in the locking position. The operator can tilt the tower freely (e.g. when demounting wheels of the same size) without repositioning the vertical slide.

- Insert and position the bead lifting tool on the mounting vertical slide (fig. 26).



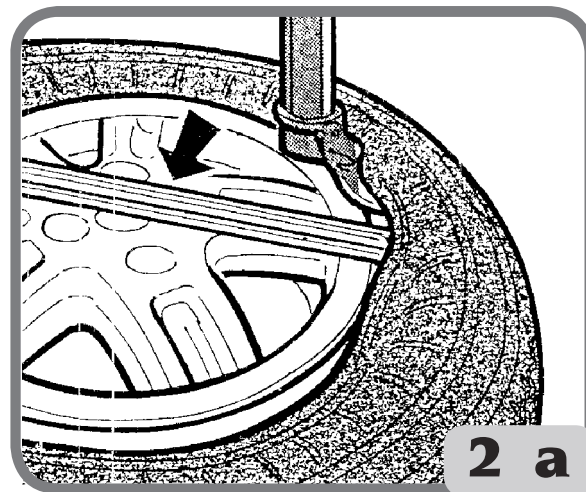
When working with alloy wheels or wheels with delicate paintwork, you are advised to remove the bead lifting tool before proceeding with the demounting.

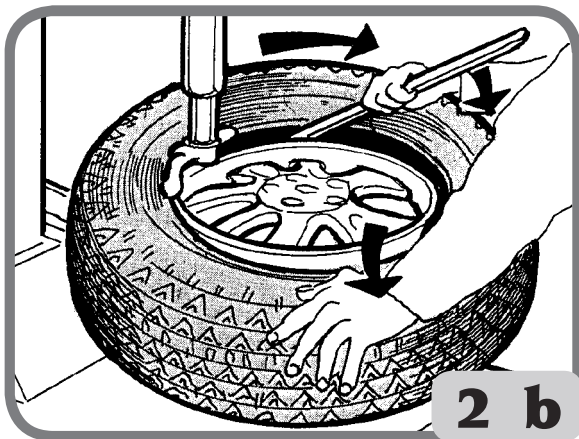
#### WARNING

Grip the bead lifting tool firmly during use.

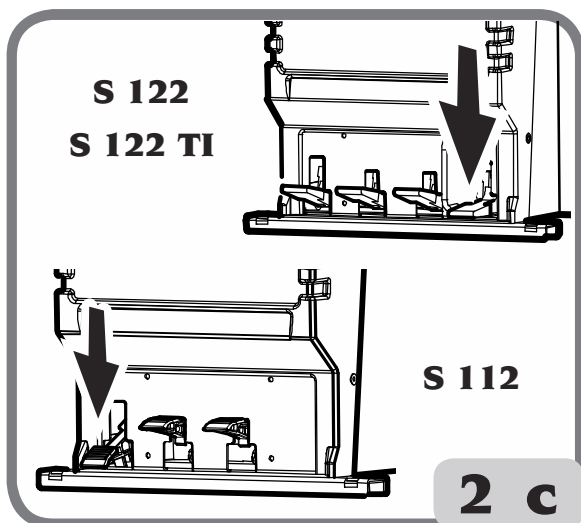
- Lift the upper bead above the rear part of the demounting head (fig. 26a) and force part of the upper bead into the rim well by pushing down on the side wall of the tyre nearest to the operator. (Fig. 2 b)

UK





- Press the turntable pedal (fig. 26c) by **turning the wheel clockwise**. The upper bead will be automatically guided up and over the rim edge (fig. 26b).



**Repeat the last three points to detach the lower bead.**

- **Tilt the column backwards.**

**Notes:** If the tyre has an inner tube, after detaching the upper bead, tilt the tower back and remove the inner tube before proceeding to demount the lower bead.

The rotation of the turntable can be stopped at any moment by releasing the drive pedal.

For rotation in the opposite direction, just lift the pedal.

## PNEUMATIC MOUNTING

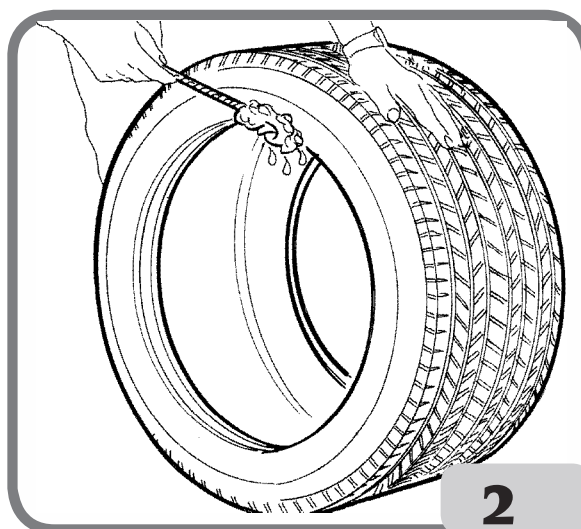
### WARNING

**Always check that the tyre size is compatible with the rim size before mounting.**

- Before you start with tyre mounting operations, lubricate the beads (fig.27).

**Lubricated beads require less force to mount/seat and are protected against torsional damage.**

**Check that the tyre is in good condition with no signs of damage.**



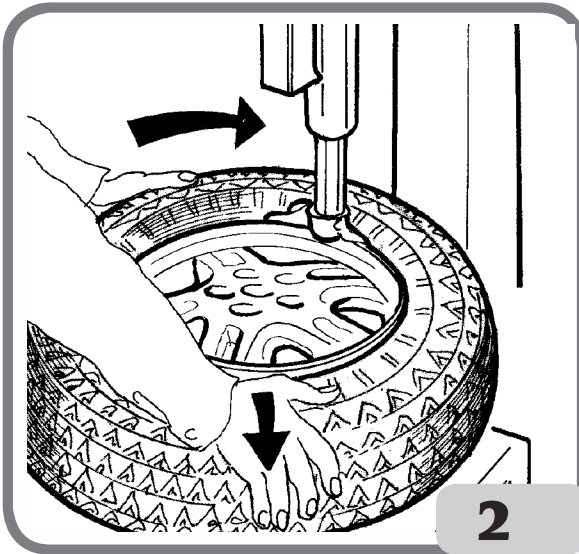
- **Place the tyre over the wheel and tilt the tower forward. Position the bottom bead (fig.28) beneath the right hand side of the mount/demount head.**





Press the table top control pedal to turn the table clockwise and mount the bead. Use the drop centre by pressing the sidewall opposite the head to reduce tensional force on the bead as the wheel rotates (fig.29).

- Once you have mounted the bottom bead, repeat the same steps for the upper bead (fig.29).



- Tilt the column backwards (S 122 - S 122 TI), or move the arm away (S 112), release the wheel and remove from the tyre changer.

## INFLATING PROCEDURE

### Warnings and Hazards

**WARNING:** Inflation can notoriously be dangerous. This operation must be performed according to the instructions specified below.

**CAUTION:** This operating phase may involve noise levels of dB (A). It is therefore suggested that ear protectors be worn.

**WARNING:** During bead insertion and inflation, the use of ear protectors and goggles is recommended.

**DANGER:** Although it limits pressure,

the machine does not ensure sufficient protection in case of tyre explosion during inflation.

Failure to comply with the instructions below will render tyre inflation dangerous.

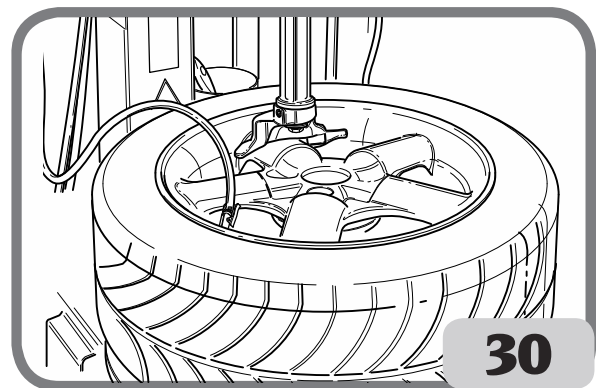
**DANGER: NEVER exceed the pressure value recommended by the tyre manufacturer.** Tyres may explode if inflated beyond these limits or their structure may be damaged seriously although not visibly at that moment. **KEEP THE HANDS AND BODY AWAY FROM THE TYRE DURING INFLATION.** Avoid being distracted during this operation and check the tyre pressure often to prevent the tyre from being excessively inflated. A bursting tyre can cause serious injuries or even death.

- Keep your hands and body away from moving parts during operation so as to prevent any injury. Make sure the tyre does not get damaged during inflation and its pressure does not exceed 3. bar

### Inflation procedure

- Release the wheel from the sliding clamps on the table top.
- Bring the horizontal arm to the fully extended position.
- Lower the vertical rod until it touches the rim.
- Lock the horizontal arm and the vertical rod in the positions described above (Fig. 30).

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- Connect the Doyfe inflator chuck on the air **hose to the valve stem.**

Inflate the tyre by operating the proper gun **(NOT INCLUDED) at short intervals check the pressure gauge frequently to make sure that the pressure NEVER exceeds the maximum pressure specified by the tyre manufacturer.**

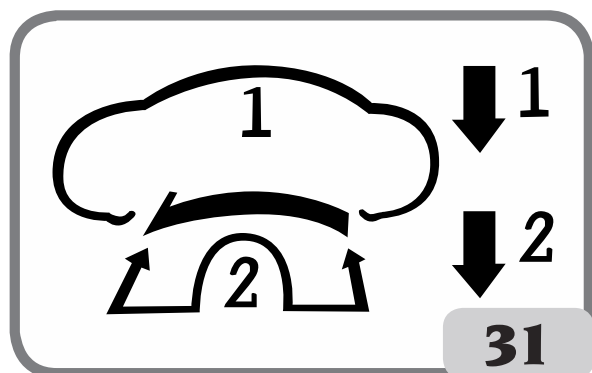
## Procedure for tubeless tyres (TI versions only)

### WARNING

**Before carrying out the operations described below, always make sure that there is no dirt, dust or other impurities on the jaws near the air outlet holes.**

- **Make sure that the wheel is secured to the table top with inside clamping.**
- Connect the Doyfe inflator chuck on the **air hose to the valve stem.**
- **Hold the tyre with your hands and lift it until there is a slight gap between the lower bead and bottom edge of the rim in order to close the upper bead and the top of the rim.**
- Press the inflation pedal fully down for a **short period to the bead seating position** (fig. 30). The tyre will expand and the **beads will seat.**
- Continue to press the pedal in the inflation position (fig. 31) until the beads are **completely sealed.**

**Note: to improve the operation of the tubeless tyre inflation system the compressed air line pressure must be between 7/10 bar.**



## TROUBLE SHOOTING

### Turntable will not turn

**Earth line wire.**

- ➔ **Check the wiring.**

**Motor in short-circuit.**

- ➔ **Replace the motor.**

### Rotation control pedal fails to return to central position

**Control spring broken.**

- ➔ **Replace the control spring.**

### Bead breaker pedal and table top pedal do not return to home position

**Control spring broken.**

- ➔ **Replace the pedal return spring.**

**No oil in lubricator.**

- ➔ **Top up lubricator with SAE20 non-detergent oil.**

### Air leak inside the machine

**Air leak from bead breaker cock.**

- ➔ **Replace the cock**
- ➔ **Replace bead breaker cylinder:**

**Air leak from the table top cock.**

- ➔ **Replace turntable cylinder:**
- ➔ **Replace swivel connector.**

### Bead breaker cylinder lacks force, fails to break beads and leaks air

**Silencer plugged.**

- ➔ **Replace silencer**

**Cylinder gaskets worn.**

- ➔ **Replace seals.**
- ➔ **Replace bead breaker cylinder:**

**Bead breaker cylinder leaks  
air around the rod**

**Air gaskets worn.**

- ➔ Replace seals.
- ➔ **Replace bead breaker cylinder.**

**Turntable will not rotate in  
either direction**

**Inverter faulty.**

- ➔ Replace inverter.

**Belt broken.**

- ➔ **Replace belt.**

**Gear unit clamped.**

- ➔ **Replace gear unit.**

**Gear unit noisy. The turntable  
makes 1/3 of a spin and then stops**

**Gear unit seizing.**

- ➔ **Replace gear unit.**

**Turntable fails to clamp rims**

**Turntable does not clamp rim.**

- ➔ **Replace turntable cylinder.**

**Clamp grippers are worn.**

- ➔ Replace clamp grippers.

**Turntable mounts or demounts  
wheels with difficulty**

**Insufficient belt tension.**

- ➔ Adjust belt tension (Fig. 32-32a) or replace belt.

**Vertical head does not raise or  
does it too far from rim**

**Clamping plate not adjusted.**

- ➔ Adjust plate.

**Vertical slide ascends under strain**

**Defective clamping plate.**

- ➔ **Replace plate.**

**Clamping plate not adjusted.**

- ➔ Adjust plate.

**When the column tilts back,  
the arm and vertical slide slip  
to their limit stops**

**(for S 122 - S 122 TI only)**

**Defective clamping plate.**

- ➔ **Replace plate.**

**Clamping plate not adjusted.**

- ➔ Adjust plate.

**Vertical and horizontal clamp  
functions do not work  
(for S 122 - S 122 TI only)**

**No air passage through cock.**

- ➔ **Replace the cock**

**Column does not tilt  
(for S 122 - S 122 TI only)**

**Faulty tower tilt cylinder.**

- ➔ **Replace column tilting cylinder.**

**No air supply to cylinder.**

- ➔ **Replace the cock**

**Air escapes from cock.**

- ➔ **Replace cock or column tilting cylinder.**

**Air leakage from vertical and  
horizontal arm clamp cock  
(for S 122 - S 122 TI only)**

**Valve seal damaged.**

- ➔ **Replace cock handle.**

**Air leakage from  
arm clamping cylinders  
(for S 122 - S 122 TI only)**

**Faulty piston or gaskets.**

- ➔ Replace pistons and seals.

**Tyre pressure gauge needle  
fails to return to 0**

**Pressure gauge faulty or damaged.**

- ➔ Replace the pressure gauge.

**UK**



## WARNING

The Spare parts handbook does not authorise the user to carry out work on the machine with the exception of those operations explicitly described in the User Manual. It only enables the user to provide the technical assistance service with precise information, to minimise delays.

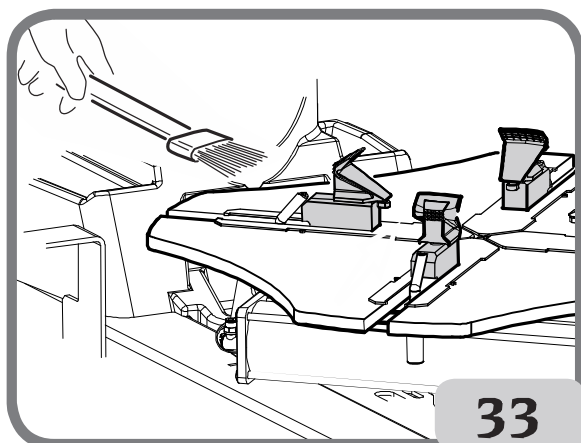
## MAINTENANCE

The following maintenance operations must be performed at least once every month. Before performing any maintenance operation, disconnect the machine from the power supply and air source.

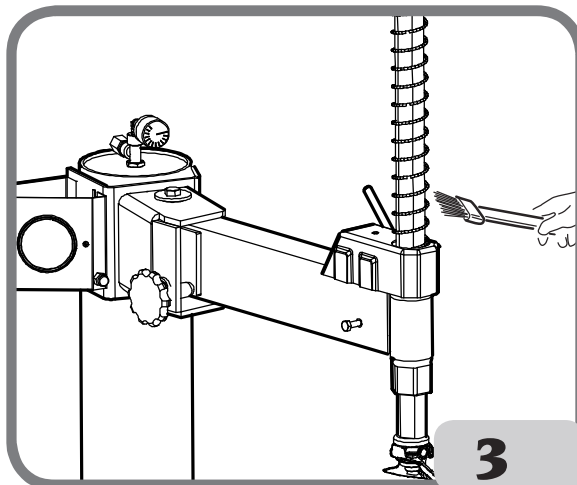
Only specialised technicians are authorised to perform maintenance operations.

Check the oil level in the compressed air cup periodically. If it needs to be topped up, disconnect the machine from the air supply, then fill up with SAE20 oil.

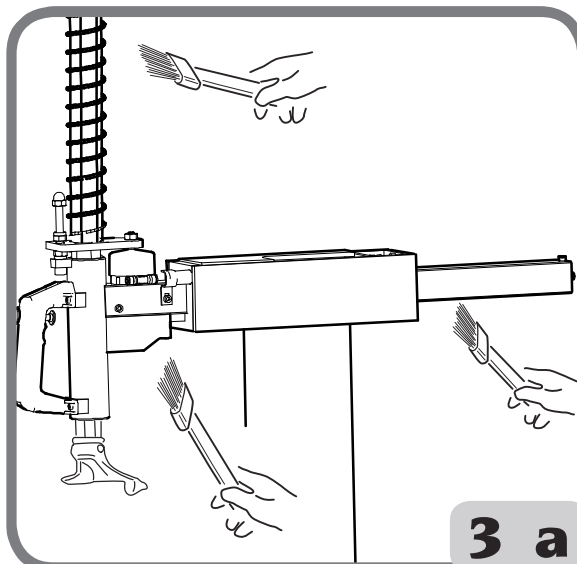
- Clean and lubricate all the moving parts of the turntable (fig. 33).



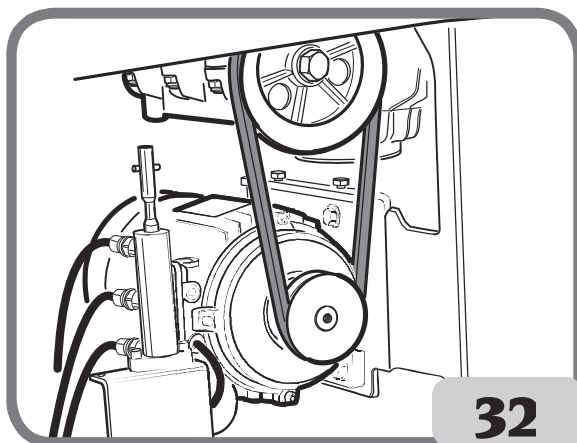
- Check all connection nuts and parts periodically and tighten them if necessary.
- Keep the hexagonal vertical axle clean and lubricate periodically (S 112, Fig.3 ).



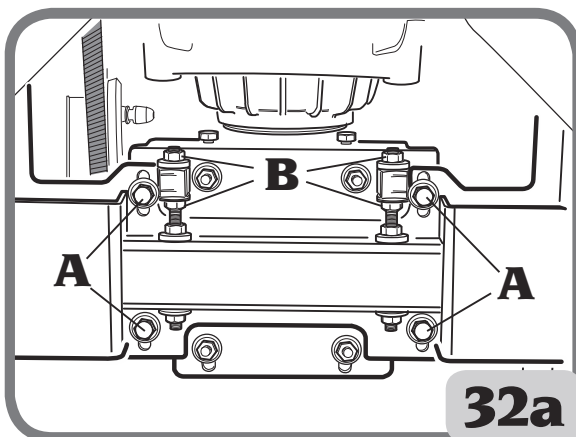
- Keep the hexagonal vertical axle and the horizontal axis guides clean and lubricate periodically (S 122 - S 122 TI, Fig.3 a).



- Check and adjust the driving belt tension (Fig. 32).



**Loosen the bolts (A, Fig. 32a).**  
**Adjust the belt tension with the motor height adjustment nuts (B, Fig. 32a).**  
**Retighten the bolts (A).**



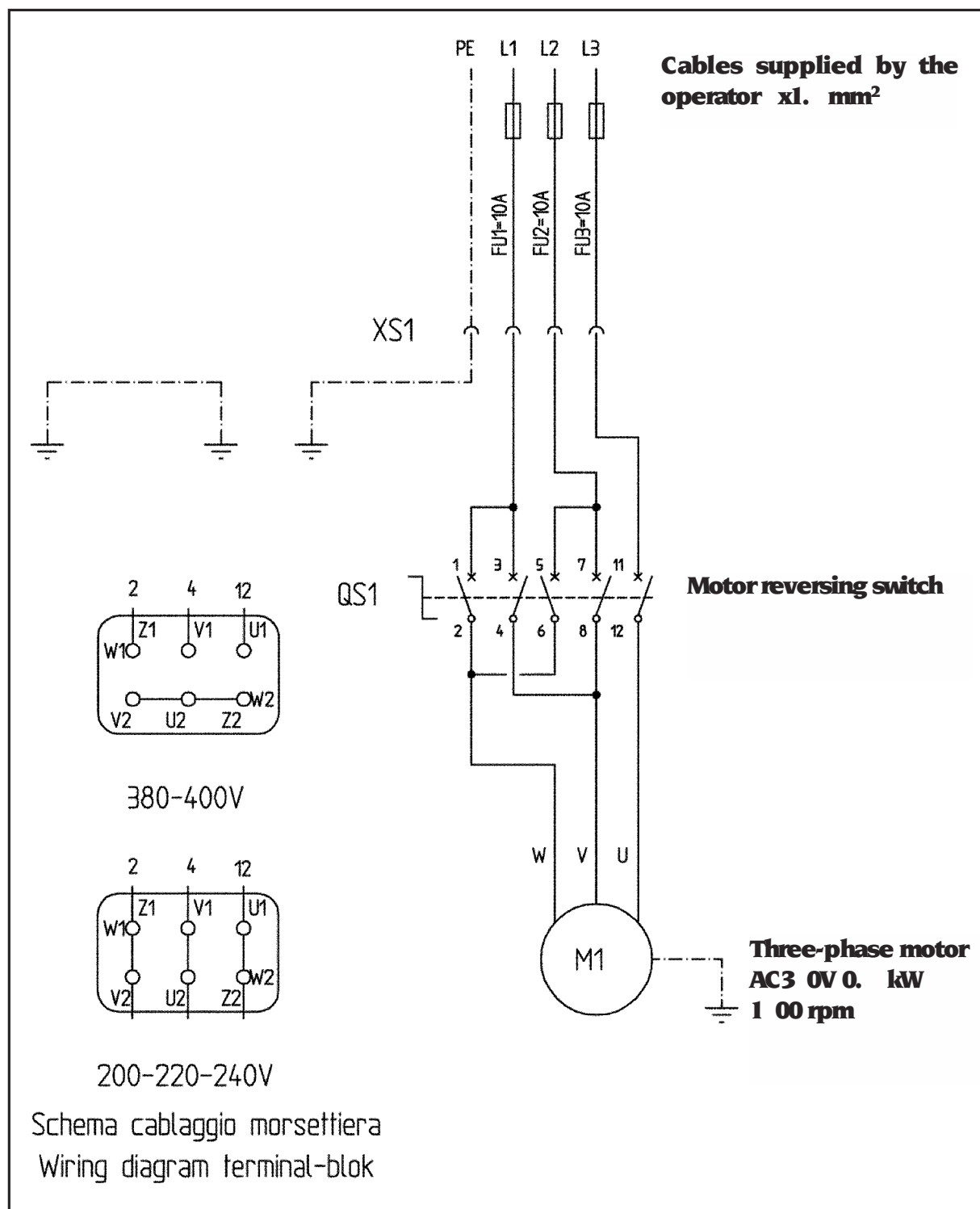
- Keep the machine and the working area **clean so as to prevent dust from entering the moving parts.**
- Lubricate the entire moving side of the **machine weekly.**
- Set a dehumidifier near the air compressor **so as to reduce the amount of water in the air entering the machine.**

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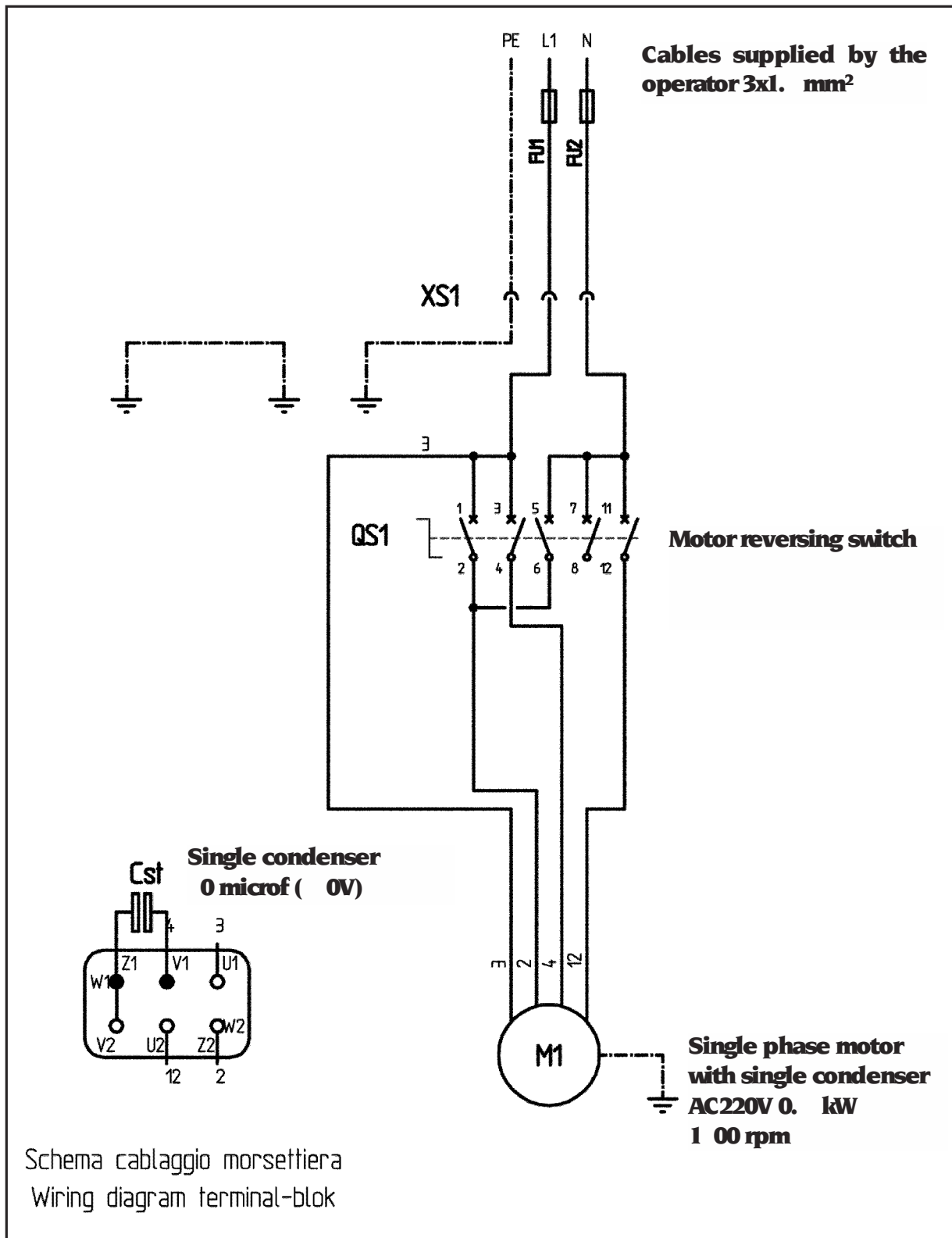
# WIRING DIAGRAM

- Make sure the machine is grounded before starting it up.
- Operations involving the electrical system must be performed by an authorised operator.

## Wiring diagram for tyre changers with three-phase power supply system

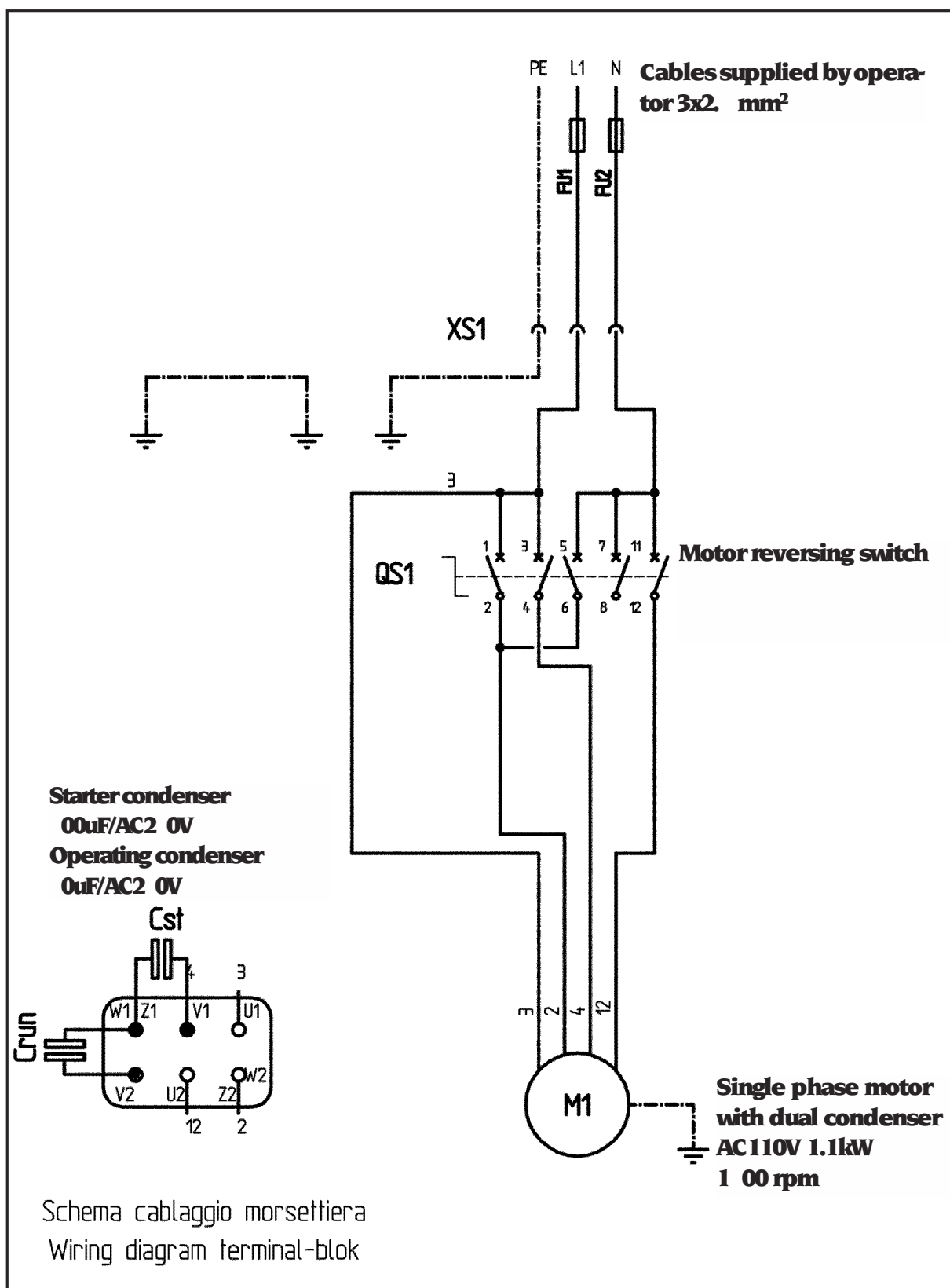


## Wiring diagram for tyre changers with 220V single-phase power



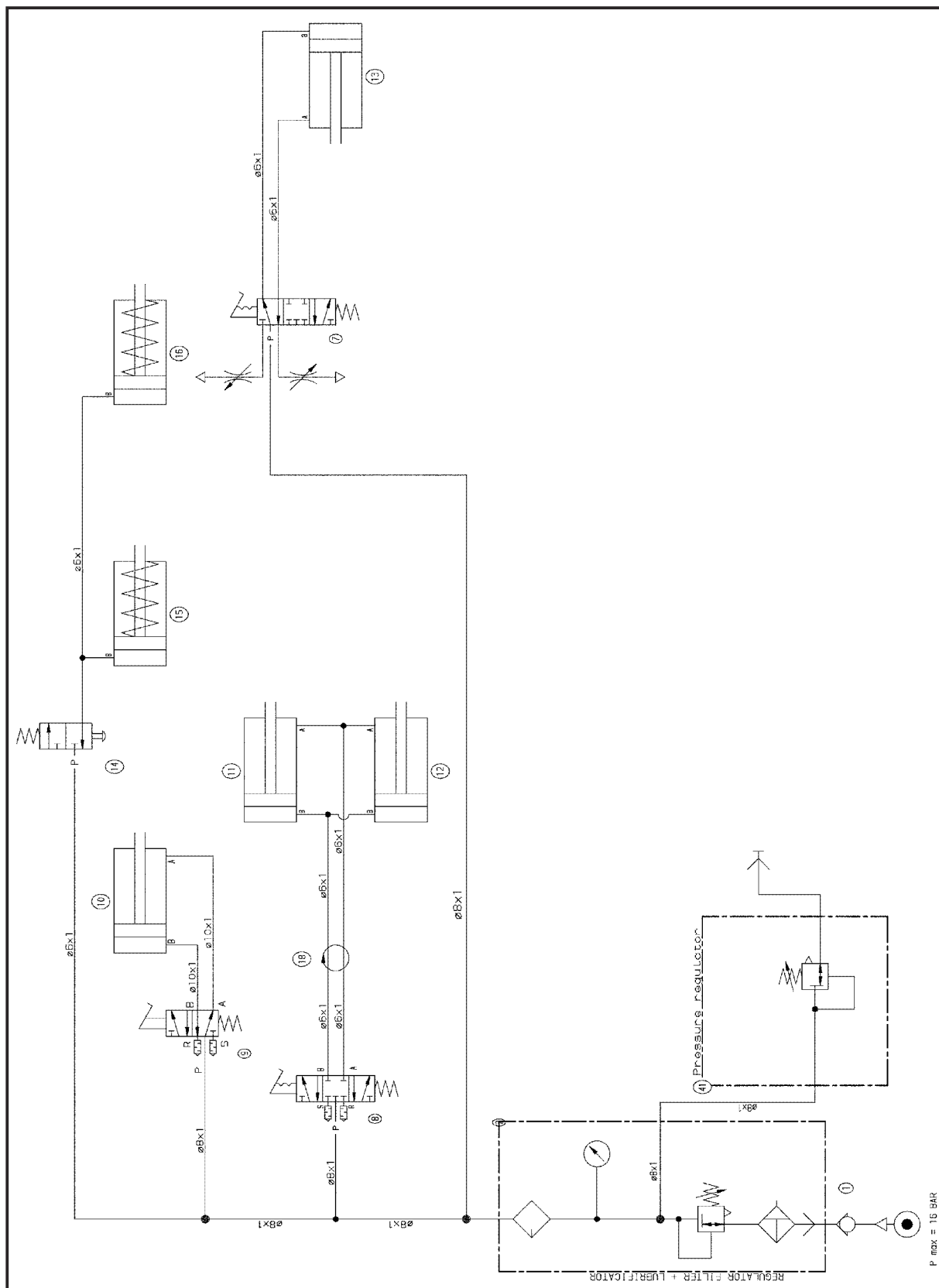
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## Wiring diagram for tyre changers with 110V single-phase power



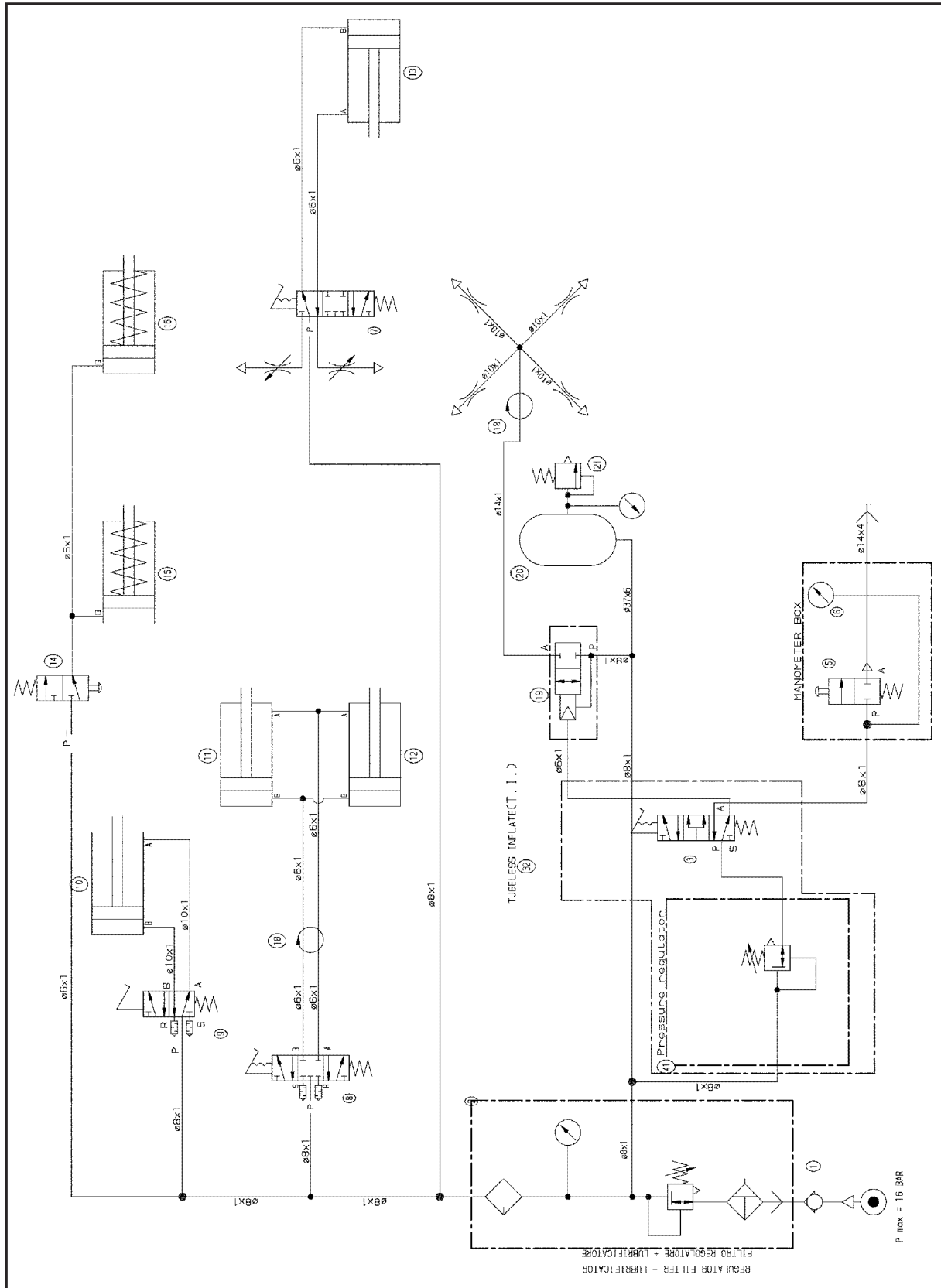
# PNEUMATIC DIAGRAM

S 122

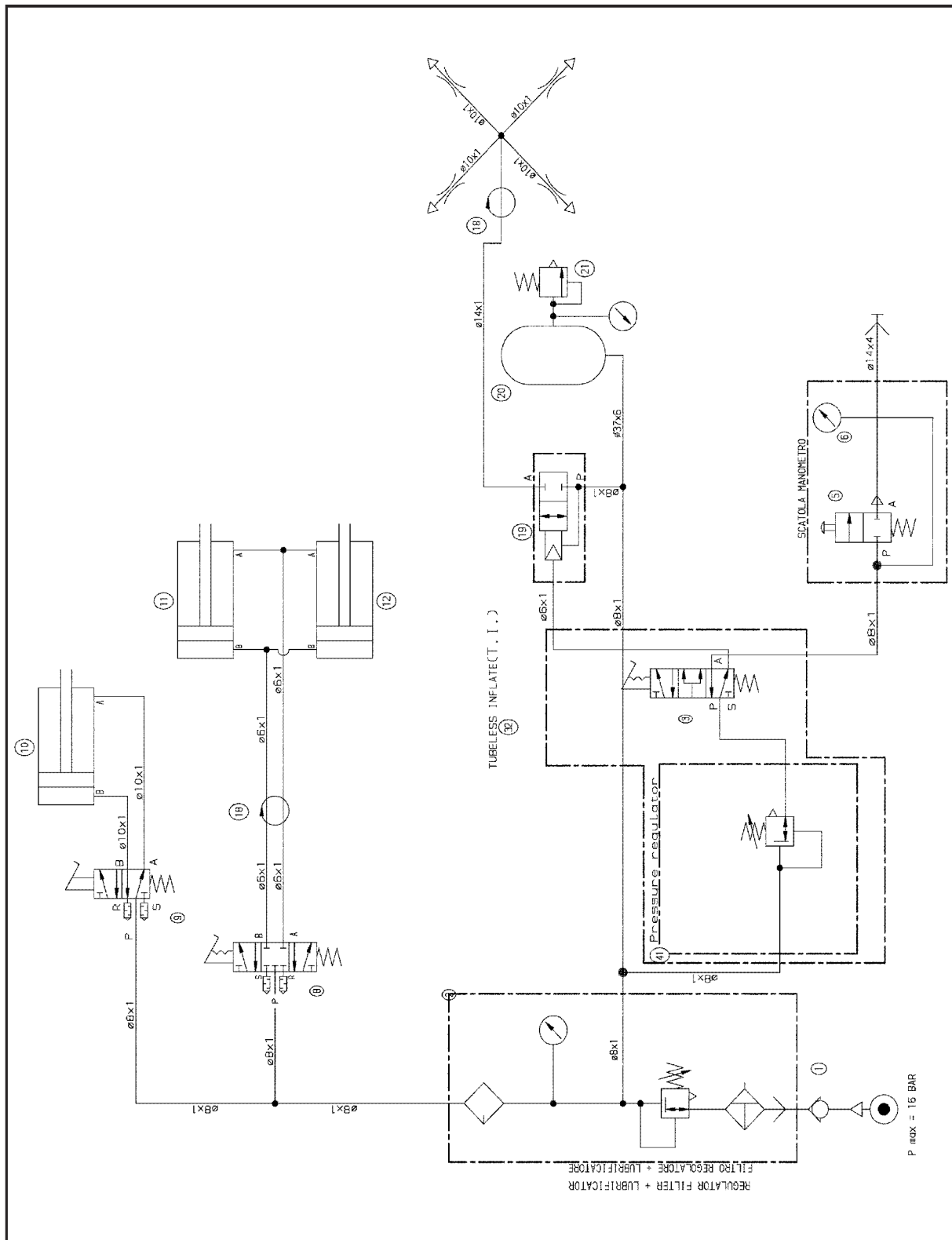


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# S 122 TI







## Pneumatic diagram component key

<b>1</b>	Quick release connector
<b>2</b>	Regulator filter + lubricator unit
<b>3</b>	Inflation pedal
	Deflation button
	Pressure gauge
	Column translation valve
	Turntable valve
	Bead breaker valve
<b>10</b>	<b>Bead breaker cylinder</b>
<b>11</b>	<b>RH turntable cylinder</b>
<b>12</b>	<b>LH turntable cylinder</b>
<b>13</b>	<b>Column tilting cylinder</b>
<b>1</b>	Clamping handle valve
<b>1</b>	<b>Front clamping cylinder</b>
<b>1</b>	<b>Rear clamping cylinder</b>
<b>1</b>	Swivel union
<b>1</b>	Delivery valve
<b>20</b>	<b>Air tank</b>
<b>21</b>	Overpressure valve
<b>32</b>	Inflation limiter unit
<b>1</b>	Pressure regulator, 0-5 bar

## INFORMATION ABOUT DEMOLITION

**If the machine is to be scrapped, remove all electrical, electronic, plastic and metal parts and dispose of them separately in accordance with current provisions as prescribed by law**

## ENVIRONMENTAL INFORMATION

**The disposal procedure described below only applies to machines with the symbol of**



**the waste bin with a bar across it  on their data plates.**

**This product may contain substances that can be hazardous to the environment and to human health if it is not disposed of properly.**

**We are therefore providing you with the information below in order to prevent these substances from being released into the environment, and to improve the use of natural resources.**

**This product may contain substances that can be hazardous to the environment and to human health if it is not disposed of properly.**

**We are therefore providing you with the information below in order to prevent these substances from being released into the environment, and to improve the use of natural resources.**

**Electrical and electronic equipment must never be disposed of in the usual municipal waste but must be separately collected for their proper treatment.**

**The crossed-out bin symbol, placed on the product and on this page, reminds the user that the product must be disposed of properly at the end of its life.**

**Thus, the hazardous consequences that non-specific treatments of the substances contained in these products, or improper use of parts of them, may have on the environment or on human health are prevented. Furthermore, this helps to recover, recycle and reuse many of the materials contained in these products.**

Electrical and electronic manufacturers and distributors set up proper collection and treatment systems for these products for this purpose.

At the end of the product's working life, contact your supplier for information about disposal procedures.

When you purchase this product, your supplier will also inform you that you may return another worn-out appliance to him free of charge, provided it is of the same type and has provided the same functions as the product just purchased.

Any disposal of the product performed in a different way from that described above will be liable to the penalties provided for by the national regulations in force in the country where the product is disposed of.

Further measures for environmental protection are recommended: recycling of the internal and external packaging of the product and proper disposal of used batteries (only if contained in the product).

Your help is crucial to reduce the amount of natural resources used for manufacturing electrical and electronic equipment, minimise the use of landfills for product disposal and improve the quality of life, preventing potentially hazardous substances from being released in the environment.

## ADVICE AND WARNINGS ON HYDRAULIC FLUID

### Disposing of spent fluid

Do not dispose of used oil in sewers, storm drains, rivers or streams collect it and consign it to an authorised disposal company.

### Fluid leaks or spills

Contain the spilt product from spreading using soil, sand or any other absorbent material. The contaminated zone must be degreased with solvent, taking care not to allow vapours to form or stagnate, and the residual material from the cleaning process must be disposed of as envisaged by law.

### Precautions for the use of hydraulic fluid

- Avoid contact with skin.
- Avoid formation and spreading of oil mists into the atmosphere.
- Adopt the following simple sanitary precautions:
  - avoid spatters (suitable clothing, protective shields on machines)
  - wash frequently using water and soap; **do not use cleaning products or solvents that irritate the skin or remove its natural protective oil**
  - do not dry your hands using soiled or **greasy rags**
  - change your clothes if soaked or, in any **case, at the end of the work shift**
  - do not smoke or eat with greasy hands
- Adopt the following preventive and protective measures as well:
  - mineral oil resistant gloves with plush **lining**
  - goggles, in case of spatters

UK

- mineral oil resistant aprons
- protective shields, in case of spatters

#### Mineral oil: first aid indications

- **Swallowing:** seek medical attention immediately and provide all characteristics of the oil type ingested.
- **Inhalation:** for exposure to high concentrations of fumes or oil mist, move the affected person to the open air and seek medical attention immediately.
- **Eyes:** bathe with plenty of running water and seek medical attention immediately.
- **Skin:** wash with soap and water.

## RECOMMENDED FIRE EXTINGUISHING EQUIPMENT

When choosing the most suitable fire extinguisher consult the following table:

	Dry materials	Flammable liquids	Electrical equipment
Water	YES	NO	NO
Foam	YES	YES	NO
Powder	YES	YES	YES
CO <sub>2</sub>	YES	YES	YES

**YES** Use only if more appropriate extinguishers are not at hand and when the fire is small.



#### WARNING

The indications given in this table are of a general nature and should be used as a general guide. All the applications of each type of extinguisher must be obtained from the relevant manufacturer.

## GLOSSARY

### Tubeless tyre inflation system

Inflation system that makes easier the inflation of tubeless tyres.

### Insertion system

Operation that is obtained during inflation and that ensures perfect centring between the bead and rim edge.

### Bead breaking

Operation that allows detaching the tyre bead from the rim edge.

### Bead

Cover edge in contact with the rim.

### Tubeless

Air pressure tyre.

## Notes

UK

Notes

## **Dichiarazione CE di conformità**

Noi Mondolfo Ferro SPA, Viale dell'industria, 20 - 61037 MONDOLFO (PU) - ITALY, dichiariamo che il prodotto

**smontagomme S 122 - S 122 TI**

al quale questa dichiarazione si riferisce e di cui abbiamo costituito e deteniamo il relativo fascicolo tecnico è conforme alle seguenti norme e/o documenti normativi:

- EN ISO 12100-1 ; EN ISO 12100-2
- EN 60204-1

in base a quanto previsto dalle direttive:

- 2006/42/CE
- 2006/95/CE
- 87/404/CEE modificata dalle dir. 93/68/CEE del 22/07/93
- 86/217/EEC del 26/05/86
- 2004/108/CE

Mondolfo, 05/10

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Mondolfo Ferro S.p.A.  
Ing. Corrado Bassoli

**IMPORTANTE:** La dichiarazione CE di conformità decade nel caso in cui la macchina non venga utilizzata unicamente con accessori originali Mondolfo Ferro e/o comunque in osservanza delle indicazioni contenute nel Manuale d'uso.

Il modello della presente dichiarazione è conforme a quanto previsto nella EN 45014.



### EC declaration of conformity

We, Mondolfo Ferro SPA, Viale dell'industria, 20 - 61037 MONDOLFO (PU), ITALY, do hereby declare, that the product

#### S 122 - S 122 TI tyre changer

to which this statement refers, manufactured by us and for which we hold the relative technical dossier, is compliant with the following standards:

- EN ISO 12100-1 ; EN ISO 12100-2
- EN 60204-1

with reference to EC directives:

- 2006/42/EC
- 2006/95/EC
- 87/404/EEC, amended by directives 93/68/EEC of 22/07/93
- 86/217/EEC of 26/05/86
- 2004/108/EC

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Ing. Corrado Bassoli

IMPORTANT: The EC declaration of conformity becomes null and void if the equipment is not used solely with Mondolfo Ferro original accessories and/or in compliance with the instructions provided in the Operator's Manual.

The form of this declaration is compliant with EN 45014.

### Déclaration de conformité EC

Nous, Mondolfo Ferro SPA, Viale dell'industria, 20 - 61037 MONDOLFO (PU), ITALY, déclarons que l'appareil

#### démonte-pneus S 122 - S 122 TI

objet de cette déclaration, dont nous avons élaboré le livret technique, restant en notre possession, est conforme aux normes suivantes:

- EN ISO 12100-1 ; EN ISO 12100-2
- EN 60204-1

sur la base de ce qui est prévu par les directives:

- 2006/42/EC
- 2006/95/EC
- 87/404/EEC, modifiée par les directives 93/68/EEC du 22/07/93
- 86/217/EEC du 26/05/86
- 2004/108/EC

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Ing. Corrado Bassoli

IMPORTANT : La déclaration de conformité EC n'est plus valable si l'appareil n'est pas utilisé uniquement avec les accessoires d'origine Mondolfo Ferro et/ou, de toute façon, conformément aux indications contenues dans le Manuel d'utilisation.

Le modèle de la présente déclaration est conforme à ce qui est prévu par la norme EN 45014.

### EC - Konformitätserklärung

Mondolfo Ferro SPA, Viale dell'industria, 20 - 61037 MONDOLFO (PU), ITALY, erklärt hiermit, dass das Produkt

#### Reifenmontiermaschine S 122 - S 122 TI

worauf sich die vorliegende Erklärung bezieht und dessen technische Akte diese Firma entwickelt hat und innehält, den Anforderungen folgender Normen entspricht:

- EN ISO 12100-1 ; EN ISO 12100-2
- EN 60204-1

auf Grundlage der Vorgaben durch folgende Richtlinien:

- 2006/42/EC
- 2006/95/EC
- 87/404/EEC mit Änderung durch die Richtlinien 93/68/EEC von 22/07/93\*
- 86/217/EEC von 26/05/86
- 2004/108/EC

\* Gültig nur für Version mit T.I.

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...  ..  
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Ing. Corrado Bassoli

WICHTIG: Die EC-Konformitätserklärung verliert ihre Gültigkeit, falls die Maschine nicht ausschließlich mit Original-Zubehör von Mondolfo Ferro und/oder nicht unter Beachtung der in der Betriebsanleitung aufgeführten Hinweise verwendet wird.

Die vorliegende Erklärung entspricht in Form und Inhalt den Vorgaben der Norm EN 45014.

### Declaración EC de conformidad

La empresa abajo firmante, Mondolfo Ferro SPA, Viale dell'industria, 20 - 61037 MONDOLFO (PU), ITALY, declara que el producto:

#### desmontagoms S 122 - S 122 TI

al cual se refiere la presente declaración y del que hemos redactado y poseemos el correspondiente expediente técnico, se conforma a las siguientes normas:

- EN ISO 12100-1 ; EN ISO 12100-2
- EN 60204-1

en base a lo contemplado en las Directivas:

- 2006/42/EC
- 2006/95/EC
- 87/404/EEC, modificada por las Directivas 93/68/EEC del 22/07/93\*
- 86/217/EEC del 26/05/86
- 2004/108/EC

\* Válido solamente para versión con T.I.

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...  ..  
Mondolfo Ferro S.p.A.  
Ing. Corrado Bassoli

IMPORTANTE: La declaración EC de conformidad caduca en el supuesto que la máquina no sea exclusivamente utilizada con accesorios originales Mondolfo Ferro y/o en cualquier caso en cumplimiento de las indicaciones contenidas en el manual de uso.

El modelo de la presente declaración se conforma a lo dispuesto en la EN 45014.







COMIM - Cod. 4-109926 del 05/10



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