CORGHI

MTS 40”- 20”
MTS 40”

Cod. 4-105237 del 05/06

Italiano — Manuale d’uso

English — Operator’s manual

Français — Manuel d’utilisation

Deutsch — Betriebsanleitung

Español — Manual de uso

Elaborazione grafica e impaginazione

Ufficio **P**ubblicazioni **T**ecniche

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INTRODUCTION

The purpose of this manual is to furnish the owner and operator of this Corghi machine with a set of practical and safe instructions for the use and maintenance of the MTS 40" - 20" MTS40" tyre changers.
Follow all the instructions carefully and your tyre changer will assist you in your work and give lasting and efficient service in keeping with CORGHI traditions.
The following paragraphs define the levels of danger regarding the machine associated with the warning captions found in this manual:

DANGER
Refers to immediate danger with the risk of serius injury or death.

WARNING
Dangers or unsafe procedures that can cause serious injury or death.

ATTENTION
Dangers or unsafe procedures that can cause minor injuries or damage to property.

Read these instructions carefully before powering up the machine. Conserve 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; in the event of sale all relative documentation must remain with the jack.
The manual is only to be considered valid for the machine of the model and with the serial number indicated on the nameplate carried by the machine.


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

NOTE
Some of the illustrations in this manual have been taken from photographs of prototypes; the standard production model may differ slightly in certain respects.
These instructions are for the attention of persons 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. In case of need, please contact our nearest authorised Service Centre for assistance.

TRANSPORT, STORAGE AND HANDLING

Conditions for transporting the machine

The tyre changer must be transported in its original packing and maintained in the position shown on the outer packing.

MTS 40" - 20" MTS 40"

- Machine packing dimensions:

- width ..... mm 800
- depth..... mm 1140
- height ..... mm 970

- Shipping weight:	**in cardboard**	**in wood**
• STD version	kg 259	kg 269
• T.I. version	kg 273	kg 283

Ambient conditions for storage and transport

Temperature range from -25° to +55°

WARNING

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

Handling

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

Before moving the machine refer to the chapter HOISTING AND MOVING.

ATTENTION

Keep the packing material intact for possible future transport of the machine.

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UNPACKING / ASSEMBLY

WARNING

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

Failure to observe these instructions can lead to damage to the machine and injury to the operator or other persons.

- Remove the upper part of the packing 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 five main sections (fig.1):
  1 tower
  2 tower guard
  3 box with pressure gauge
  4 air tank
  5 cabinet

MTS 40" - 20" MTS 40"

- After removing the tower 1, it is advised to place it in a horizontal position to prevent it from falling and getting damaged.
- Take off the side cover.
- Insert the air hose G fig.2 into hole A behind the tower tilt cylinder.
- Assemble the tower 1, insert pin B into hole C and lock with screw and washer D.
- Insert pin E into hole F and into U-bolt F1 on the tower tilt cylinder and lock with ring M.
- Connect hose G to the intermediate connection linked to the tower-lifting cock H.
- Fit the box with pressure gauge 3 on to the tower 1 and lock with screw and washer S.
- Fit the tower guard 2 and lock with screws and washers L.
- Insert the tank 4 outlet into hose Q. Fix the tank 4 to the machine with nuts and washers R and tighten clamp O on hose Q (T.I. version only).
- Open the bead break arm Z.
- Insert the spacer pad U on to the bead break cylinder pin V, re-close the bead break arm by passing the bead break cylinder pin back through the adjustable outlet.
- Nut T is to be screwed on to bead break cylinder pin V only when the machine is installed and hooked up to the compressed air line.
  Tighten nut T until P is 3-4 mm.

HOISTING / MOVING

To remove the machine from the pallet, sling it as shown in figure 3.
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.

INSTALLATION CLEARANCES

WARNING

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

IMPORTANT: for correct, safe use of the equipment, users must ensure a lighting level of at least 300 lux in the place of use.

ATTENTION

If the machine is to be installed outdoors, it must be properly protected from adverse weather by a roof.

Place the tyre changer in the designated work position observing the minimum clearances shown in figure 4.

Ambient conditions in the place of operation

- Relative humidity from 30% to 95% without condensation.
- Temperature range from 0°C to 50°C.

ATTENTION

The machine must not be operated in potentially explosive atmosphere.

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ELECTRICAL AND PNEUMATIC HOOK-UPS

WARNING

All operations required for the electrical hook-up of the machine must be carried out exclusively by a qualified electrician.

- The electrical supply must be suitably sized in relation 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 4% (10% in the case of start-up) below the rated voltage specified on the dataplate.
- The user must equip the machine with the following:
  - a dedicated power plug in compliance with the relevant electrical safety standards;
  - a type A and B suitable 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.
  - power line fuses in accordance with specifications in the main wiring diagram of this manual;
  - a suitable earthing system installed on the workshop mains line.
- To prevent unauthorised use of the machine, always disconnect the mains 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 correct operation of the machine the compressed air supply line must provide a pressure range from a minimum of 8 bar to a maximum of 16 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 7 or 8 bar.

ATTENTION

For correct and safe operation of the machine it must be connected to an efficient grounding circuit.

NEVER connect the ground wire to a gas pipe, water pipe, telephone line or other makeshift system.

Before making the electrical and pneumatic hook-ups, make sure that the machine is configured as described below (fig.5):

- pedals A and B (if present) in fully depressed position
- tower C vertical (not tilted)

SAFETY REGULATIONS

The equipment is intended for professional use only.

WARNING

Only one operator may work on the equipment at a time.

WARNING

Failure to observe these instructions and the relative danger warnings can cause serious injury to the operator and others. Do not power up the machine before you have read and understood all the danger/warning/attention notices in this manual.

This machine must be used only by qualified and authorised personnel. A qualified operator is construed as a person who has read and understood the manufacturer's instructions, is suitably trained, and is conversant with safety and adjustment procedures to be adhered to during operations. 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:

- The operator must be able to read and understand all the information in this manual.
- Make sure you have a thorough knowledge of the capabilities and characteristics of this machine.
- Keep unauthorised persons well clear of the area of operations.
- Make sure that the machine has been installed in compliance with established legislation and standards.
- Make sure that all machine operators are suitable trained, that they are capable of using the machine correctly and that they are adequately supervised during their work.
- Never leave nuts, bolts, tools or other equipment on the machine to avoid the risk that they could become entrapped between moving parts during work.
- Do not touch power lines or the inside of electric motors or other electrical equipment until the power has been disconnected and locked out.
- Read this manual 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 when working with the machine and consult it whenever you are in need of confirmation or explanations.

WARNING

Do not remove or deface the safety Danger, Warning or Instruction decals. Replace any missing or illegible Danger, Warning or Instruction decals. Missing or damaged decals can be obtained at your nearest Corghi dealer.

- When using and carrying out maintenance on the machine observe the unified industrial accident prevention regulations for high voltage industrial equipment.
- Any unauthorised alterations made to the machine automatically release the manufacturer from any liability in the case of damage or accidents attributable to such alterations. Specifically, tampering with or removing the machine's safety devices is a breach of the regulations for industrial accident prevention.

WARNING

When operating or servicing Corghi equipment do not wear ties, loose fitting clothes, necklaces or wristwatches and any other articles that could become entrapped by moving parts. Tie back long hair or cover with a scarf or a cap.

DESCRIPTION OF TYRE CHANGERS

The MTS 40" - 20", MTS 40" are electro-pneumatic tyre changers.
The machines are designed to mount and demount tyres on all types of integral wheels with drop centre and weights and dimensions as described in the heading TECHNICAL BRIEF.
The machine is solidly constructed. It operates with the wheel in a vertical position for bead breaking and horizontal for mounting and demounting tyres. All machine movements are controlled by the operator by means of the pedals.

TECHNICAL BRIEF

MTS 40" - 20" MTS 40"

- Table top clamping capacity:
  - inside clamping MTS 40" - 20", MTS 40"from 13" min
  - outside clamping MTS 40" - 20", MTS 40" ..... 10" to 24"
- Rim width: ..... 3.5" to 14"
- Maximum tyre diameter: ..... 1100 mm (43")
- Maximum tyre width: ..... 360 mm (14")
- Table top rotation torque: 1200Nm-
  Table top rotation speed:
  - MTS 40" - 20", MTS 40" min.6 max.15rpm
- Bead breaker opening:
  - normal position: ..... from 45 mm to 300 mm
  - racing position: ..... from 125 mm to 380 mm
- Bead breaking pressure: ..... 15000 N (at 10 bar)
- Power supply voltage
  - single-phase ..... 115±10%Volt 50/60Hz
- Motor rating:
  - single-phase ..... 0,75 kW
- Air pressure ..... 10 bar
- Weight ..... 234 kg (T.I. version 248 kg)
- Noise level when running ..... ≤ 70 dB (A)

OPTIONAL ACCESSORIES

KDP MK2 Kit for SP2000.....8-11100013
SP2000 Kit 801255567
SP2000 upright 8-11100026
SP2000D pneumatic bead breaker.....801255567
SX1000 Kit.....801250542
Set of 4 motorcycle wheel adapters 801258650
Set of 4 8-24" adapters for 10-20" turntable 801263517
SX1000 bead lifter.....801248740
RFT rim clamp kit.....801255584
PU1500 basic module 8-11100027
PU1500 upright.....8-11100030
Bead presser-lifter kit 8-11100027

SPECIFIED CONDITIONS OF USE

The MTS 40" - 20", MTS 40" tyre changers are designed exclusively for mounting and demounting tyres, using the tools with which the machines are equipped in accordance with the instructions in this manual.

WARNING

Any other operations carried out on the machine are considered improper use and shall be construed as negligence.

The machine is equipped with an inflation system that is independent from the systems described above. Extreme caution must be exercised during the use of the machine inflation system (read INFLATION heading).

WARNING

When working with the machine it is strongly recommended to avoid using equipment or tools not manufactured by CORGHI.

Figure 7 shows the positions assumed by the operator during the various stages of work with the machine.

A Bead breaker
B Tyre demounting and mounting
C Inflation area.

WARNING

The tower tilting operation must be carried out from work position C (fig.7), keeping your hands well away from all moving parts of the machine.

WARNING

To stop the machine in an emergency:
- unplug from the electrical supply;
- isolate the air supply network by disconnecting the shut-off valve (rapid insert).

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MAIN OPERATING PARTS OF THE MACHINE

WARNING

Get to know your machine: the best way to prevent accidents and obtain top performance from the machine is to ensure that all operators know how the machine works. Learn the function and location of all commands.
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.

Fig.8

1 Vertical slide movement cylinder.
2 Locking button: 3-position button
- A Up
- B Down
- C Locked

3 Vertical slide / swing arm (to position the mount/demount head).
4 Mount/demount head (for fitting and removing tyre).
5 Tilt tower.
6 Sliding clamp (secures wheel to table top).
7 Sliding clamp table (rotary platform supporting the wheel).
8 Tower (5) tilt pedal (2-position pedal to operate tower tilt).
9 Clamp (6) control pedal (3-position pedal for opening and closing rim clamps).
10 Bead breaker pedal (2-position pedal to operate the bead breaker (13).
11 Table top (7) pedal (3-position pedal)
- position 0: table top stationary
- depressed (held with foot): clockwise rotation at speed proportional to pedal pressure.
- raised (held with foot): single speed counter-clockwise rotation.

12 Inflation pedal (two-position pedal in the MTS 40" - 20", MTS 40" and three-position in the T.I. version, for inflation of tyre with Doyfe inflator chuck (21)).
13 Bead breaker shoe (mobile shoe to detach bead from rim).
14 Valve release button (button for manual release of excess air from tyre).
15 Pressure gauge (for tyre pressure readings).
16 Rim support (in the A 2024 the rim support retracts to aid bead breaking on Racing wheels).
17 Safety relief valve (max. pressure 11 bar) + Pressure gauge (T.I. versions only).
18 LFilter/lubricator and pressure regulator (regulates pressure, removes water, lubricates and filters the compressed air supply).
19 Lube bottle.
20 Bead lifting tool (raises and positions the tyre bead on the mount/demount head).
21 Doyfe inflator chuck (clips on to the tyre valve for inflation).

22 Inflation nozzles (air blast from nozzles expands tyre sidewalls to seal beads and allow inflation) (T.I. versions only).

23 Air tank (T.I. versions only).

24 Lever (for locking the vertical side arm and the swing arm).

25 Blade protection.

WARNING

For technical characteristics, attention notices, maintenance and all other information regarding the air tank, refer to the air tank user and maintenance manual supplied with the machine documentation.

Key to danger warning decals.

Risk of crushing.
Never place any part of the body between the bead breaker shoe, the rim and the rim support.

When securing the rim on the table top, never place your hands between the sliding clamp and the rim.

NEVER stand behind the machine.

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During lowering of the mount/demount head, never place your hands between the wheel and the head.

BEAD BREAKING

ATTENTION

During this stage of operations noise levels may be up to 85 dB(A). We recommend that operators wear hearing protectors.

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

Fig.9

A Narrow side - Side for mounting the tyre
B Rim channel
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 channels or are even completely without rim channels (these wheels are not DOT approved).

Fig.9a

A No rim channel

DANGER

When working these wheels it is possible to damage the tyre, the rim or both, with the risk of the tyre exploding under pressure causing serious injury or death. When mounting tyres on this type of wheel, use the utmost caution.

European style high performance wheels (asymmetrical curvature)

Some European wheels have very pronounced curves on the rim edge, except in the area of the valve hole. On this type of wheel bead breaking must be performed in correspondence with the valve hole and on the lower and upper side of the wheel.

Fig.9b

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.9c
A Valve hole
B Transmitter
C Attachment belt

Bead breaking

- Fully deflate the tyre, removing the valve
  (On the MTS 40" - 20", MTS 40" use lever A fig.10 to adjust the rim support in the correct position for the width of the wheel the bead of which is to be broken. On the MTS 40" - 20", MTS 40" adjust the position of the blade using the lever B, fig. 10a to suite the tyre size fig. 10c.
- Position the wheel as shown in fig.11 and bring the bead breaker shoe to the edge of the rim.
  IMPORTANT: During the bead breaking operation, you are advised to keep the table top closed (locking clamp towards center) (A fig.11).
- Press the pedal 10 (fig.11) 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.
  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 the demounting and avoid damaging the beads (fig.12).
- Tilt the tower backwards by holding the button in the "locked" position (fig.13).
- Set the clamps to the open or closed position (fig.14).
  Place the wheel on the table top (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.13).
- Tilt the tower forward again (fig.15). Release the locking button (release the lever on the A 2005) to free both the vertical slide and the swing arm (fig.15a) and to set the mounting/demounting device in the correct position against the edge of the rim (fig.16).
  IMPORTANT: when the button is pressed (or the lever turned anti-clockwise on the A 2005), this will simultaneously lock both the vertical slide and the swing arm, with the mounting/demounting vertical slide moving slightly up and away from the edge of the rim (fig.16a).
  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 (eg. 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.17).
  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.

- Raise the upper bead to above the rear part of the demounting vertical slide (fig.17a) and force part of the upper bead into the rim groove by pushing down on the side wall of the tyre nearest to the operator.

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- Press the pedal to turn the table top clockwise. The upper bead will automatically be guided up and over the rim (fig.18).
  Repeat the last three points to detach the lower bead.
- Tilt the tower backwards.

NOTE: 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 table top can be stopped at any time by releasing the pedal.
To rotate in the opposite direction, simply raise up the pedal.

TYRE MOUNTING

WARNING

Always check that the size of the tyre is compatible with the size of the wheel before proceeding with mounting.

- Before you start with tyre mounting operations, apply a liberal amount of tyre manufacturer approved rubber lubricant to both beads (fig.19).
  Lubricated beads require less force to mount/seat and are protected against torsional damage.
  Make sure that the tyre is in good condition without any signs of undue wear or damage.
- Place the tyre over the wheel and tilt the tower forward. Position the bottom bead (fig.20) 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.20).
- Once you have mounted the bottom bead, repeat the same steps for the upper bead (fig.21).
- Tilt the tower back, free the wheel and take it off the tyre changer.

Special tools

To facilitate mounting/demounting of low-profile tyres, it is advisable to use the *bead presser pliers* (optional accessory).

INFLATION

WARNING

Tyre inflation is a dangerous operation. Always inflate tyres in the strictest observance of the following instructions.

ATTENTION

During this stage of operations noise levels of 85 dB(A) may be present. We recommend that the operator wears hearing protectors.

WARNING

During the bead insertion and inflation procedure, safety goggles and ear defenders must be worn.

DANGER

The machine, even if it limits pressure, does not provide sufficient protection against exploding tyres during inflation.
Failure to observe the following instructions will make tyre inflation extremely dangerous.

DANGER

USERS MUST ABSOLUTELY NEVER exceed the pressure recommended by the tyre manufacturer. Tyres may explode if inflated beyond these limits or the structures may incur serious damage not visible at the time. KEEP THE HANDS AND BODY WELL CLEAR OF THE TYRE DURING INFLATION. Make sure you are well concentrated during this stage of operations and make frequent checks on the tyre pressure to avoid the risk of excess inflation. Exploding tyres can cause serious injury or death.

Inflation

The machine is equipped with a tyre inflation pedal and a pressure gauge for reading the tyre pressure.
- 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.26.
- Connect the Doyfe inflation chuck (21) on the air hose to the valve stem.

Inflate the tyre by pressing the pedal briefly and repeatedly; check the pressure gauge frequently to make sure that the pressure NEVER exceeds the maximum pressure specified by the tyre manufacturer.

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Inflating tubeless tyres (T.I. 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 (21) 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.22b). The tyre will expand and the beads will seat.
- Continue to press the pedal in the inflation position (fig.22b) 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 8/10 bar.

TROUBLE SHOOTING

Table top will not rotate

Power cord conductor shorting to ground.

➥ Check the wiring.

Motor shorted.

➥ Renew the fuses (versions DV).

➥ Renew the motor.

Rotation control pedal fails to return to the central position

Control spring broken.

➥ Renew the spring.

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

Control spring broken.

➥ Renew the spring.

No oil in lubricator.

➥ Top up lubricator with SAE20 non-detergent oil.

Air leak inside the machine

Air leak from bead breaker cock.

➥ Renew the cock.

➥ Renew bead breaker cylinder.

Air leak from the table top cock.

➥ Renew table top cylinder.

➥ Renew swivel connector.

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

Silencer plugged.

➥ Renew silencer.

Cylinder seals worn.

➥ Renew seals.

➥ Renew bead breaker cylinder.

Bead breaker cylinder leaks air around the rod

Air seal worn.

➥ Renew seals.

➥ Renew bead breaker cylinder.

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Table top will not rotate in either direction

Inverter faulty.
➥ Replace inverter.

Belt broken.
➥ Renew belt.

Gear unit broken.
➥ Renew gear unit.

Gear unit noisy. The table top makes 1/3 of a revolution and then stops

Gear unit seizing.
➥ Renew gear unit.

Table top fails to clamp wheels

Table top does not clamp rim.
➥ Renew table top cylinder.

Clamp grippers are worn.
➥ Renew clamp grippers.

Table top mounts or demounts tyres with difficulty

Insufficient belt tension.
➥ Adjust belt tension (fig.23) or renew it.

Vertical slide lifts too little or too far from rim

Clamping plate not adjusted.
➥ Adjust plate.

Vertical slide ascends under strain

Defective clamping plate.
➥ Renew plate.

Clamping plate not adjusted.
➥ Adjust plate.

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

Defective clamping plate.
➥ Renew plate.

Clamping plate not adjusted.
➥ Adjust plate.

Vertical and horizontal limit stops do not operate

No air passage through cock.

➥ Renew cock.

Tower does not tilt

Faulty tower tilt cylinder.

➥ Renew tower tilt cylinder.

No air supply to cylinder.

➥ Renew cock.

Air escapes from cock.

➥ Renew cock or tower tilt cylinder.

Arm and vertical slide locking cock leaks air

Valve seal damaged.

➥ Renew cock.

The tower tilts violently or slowly

Incorrect release valve setting.

➥ Adjust.
Hares: increase speed.
Tortoise: decrease speed.

Tyre pressure gauge needle fails to return to 0

Pressure gauge faulty or damaged.

➥ Renew pressure gauge.

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's manual, but enables the user to provide the technical assistance service with precise information, in order to reduce delay.

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MAINTENANCE

WARNING

Corghi declines all liability for claims deriving from the use of non-original spares or accessories.

WARNING

It is expressly forbidden to attempt to alter operating pressure of the relief valves or the pressure regulator.

The manufacturer declines all liability for damage resulting from tampering with these components.

WARNING

Before making any adjustments or carrying out maintenance, disconnect the electrical supply from the machine and make sure that all moving parts are suitable immobilised.

WARNING

Do not remove or modify any parts of this machine except in the case of service interventions.

DANGER

When the machine is disconnected from the air system, the devices bearing the above plate may remain pressurized.

The FRL unit (filter, regulator and lubricator) is installed to filter the air, regulate its pressure and lubricate it.

The FRL unit withstands a maximum input pressure of 18 bar and has a regulation range from 0.5 to 10 bar. The setting can be modified by pulling the knob to the OUT position and turning it; after adjusting, return the knob to the locked position by pushing it down (fig.25a).

The lubricating flow-rate is adjusted by turning the screw on the element "L", (fig.25b); normally the unit is preset at a pressure of 10 Bar, with lubricant having viscosity SAE20, so that one drop of lubricant is dispensed every 4 times the bead-breaker is operated (check through the transparent cup).

DANGER

Before carrying out any maintenance operation or topping up with lubricant, disconnect the machine from the compressed air supply line.

Check the lubricant level periodically through the windows provided and top up as shown in fig.25c. Top up only with SAE20 non detergent oil to a total quantity of 50 cc.

The FR filter regulator unit is equipped with an automatic system for drainage of the condensation water, so in normal conditions it does not require any particular maintenance. However, the water may be drained by hand at any time (fig.25d).

Normally it is not necessary to remove the cups, but this may be necessary after long periods out of use; if the cup cannot be removed with the hands only, use the spanner provided (fig.25e).
Clean with dry cloth. Avoid contact with solvents.

ATTENTION

Keep the work area clean.
Do not clean the machine with compressed air or jets of water.
When cleaning the area avoid raising dust as far as possible.

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.

OIL - WARNINGS AND RECOMMENDATIONS

Disposal of used oil

Do not dispose of used oil into sewage mains, storm drains, rivers or streams. Contact a specialised firm for disposal.

Oil spills and leaks

When the oil has been removed, degrease the area with suitable solvents taking care to disperse solvent fumes. Dispose of all residual cleaning material in accordance with procedures as prescribed by law.

Precautions when using oil

- Avoid contact with the skin.
- Avoid the formation and diffusion of oil mist
- Apply the following hygiene measures:
  - protect personnel and equipment from oil splashes (wear suitable clothing, install screens on the machine)
  - wash frequently with soap and water; do not use cleaning products or solvents that irritate the skin or remove its natural protective oil
  - do not dry hands with dirty or greasy rags
  - change clothing if impregnated with oil and in any event at the end of each work shift
  - do not smoke or eat when your hands are greasy
- Apply the following preventive and protective measures:
  - wear lined industrial gloves designed to resist mineral oils
  - use safety goggles to protect the eyes
  - use aprons resistant to mineral oil
  - use protective screens to protect from oil splashes

Mineral oil: First Aid procedures

- Ingestion: 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 DEVICES

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

	Dry combustibles	Inflammable liquids	Electrical fires
Water	**YES**	NO	NO
Fuam	**YES**	**YES**	NO
Dry chemical	YES*	**YES**	**YES**
CO_2	YES*	**YES**	**YES**

YES* U*se only if more appropriate extinguishers are not on hand and when the fire is small.*

WARNING

The indications in this table are of a general nature. They are designed as a guideline for the user. The applications of each type of extinguisher will be illustrated fully by the respective manufacturers on request.

GLOSSARY

Air release valve
A special fitting that allows you to control the flow rate of discharging air

Bead
The edge of the tyre that remains in contact with the rim when the tyre is installed.

Bead breaking
Operation that serves to detach the tyre bead from the edge of the rim

Bead seating
This operation is performed during inflation. Bead seating assures that the tyre bead and the edge of the rim are perfectly positioned.

Tubeless
A tyre without an inner tube.

Tubeless tyre inflation (T.I.)
Inflation system for tubeless tyres.

GB

GENERAL ELECTRICAL LAYOUT

MTS 40" - 20" MTS 40"

Fig. 27

XS1	Power supply socket
QS1	Inverter
M1	Motor
R1	Resistance
C1	Condenser

Fig. 29

DV

XS1	Power supply socket
ZI	Mains filter
AP1	Single / two-speed motor circuit board
M1	Motor
SQ1	Two-speed microswitch
SQ2	Microswitch (CLOCKWISE rotation)
SQ3	Microswitch (COUNTERCLOCKWISE rotation)

COMPRESSED AIR LAYOUT

Fig. 28

1	Quick coupling
2	Regulator filter unit
3	Inflation foot pedal
4	Inflation gun
5	Air release button
6	Pressure gauge
7	Tower tilt valve
8	Table top valve
9	Bead breaker valve
10	Bead breaker cylinder
11	Rh table top cylinder
12	Lh table top cylinder
13	Tower tilt cylinder
14	Clamping handle valve
15	Front clamping cylinder
16	Rear clamping cylinder
17	Tower tilt cylinder
18	Swivel valve
19	Air blast valve
20	Tank
21	Relief valve
22	Normal-racing cylinder Ø 110
23	Rim support cylinder Ø 40
24	Loading unloading cylinder
25	Bead breaker coupling cylinder Ø 30
26	Pneumatic motor
27	Anti-crush safety valve
28	Selector valve
29	Console valve
30	Inflator valve unit
31	5V - 3P motor air valve
32	Inflating regulator unit
33	Automatic distributing device for rapid air discharge
34	Deflation valve
35	Doyfe inflator chuckrapid air discharge
34	Deflation valve
35	Doyfe inflator chuck

Fig. 1

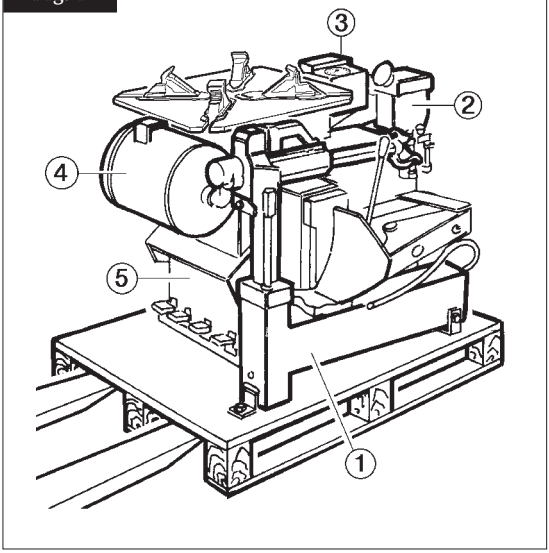
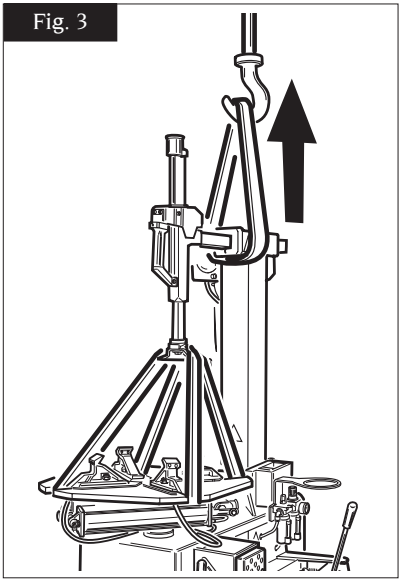


Fig. 3



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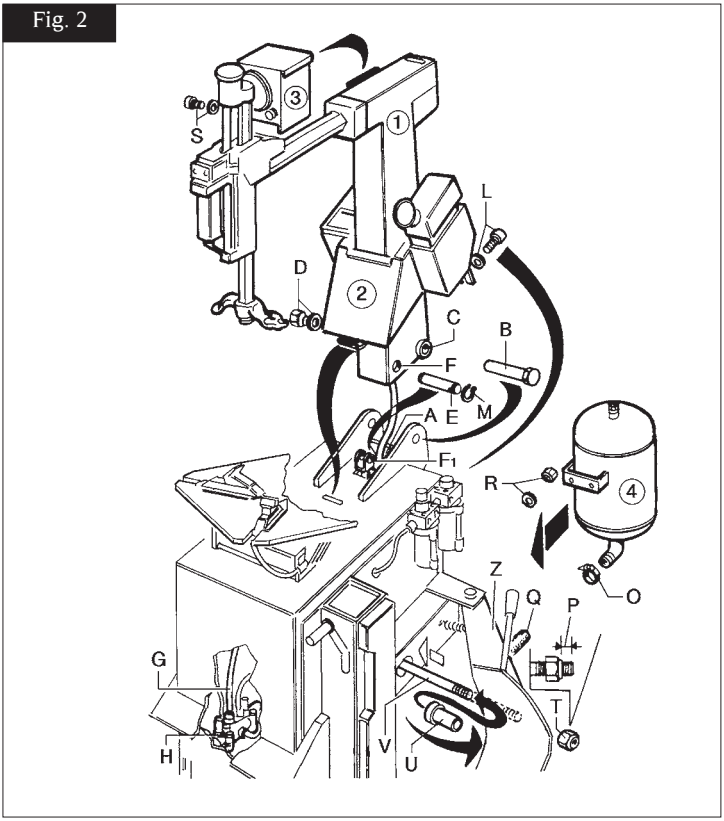

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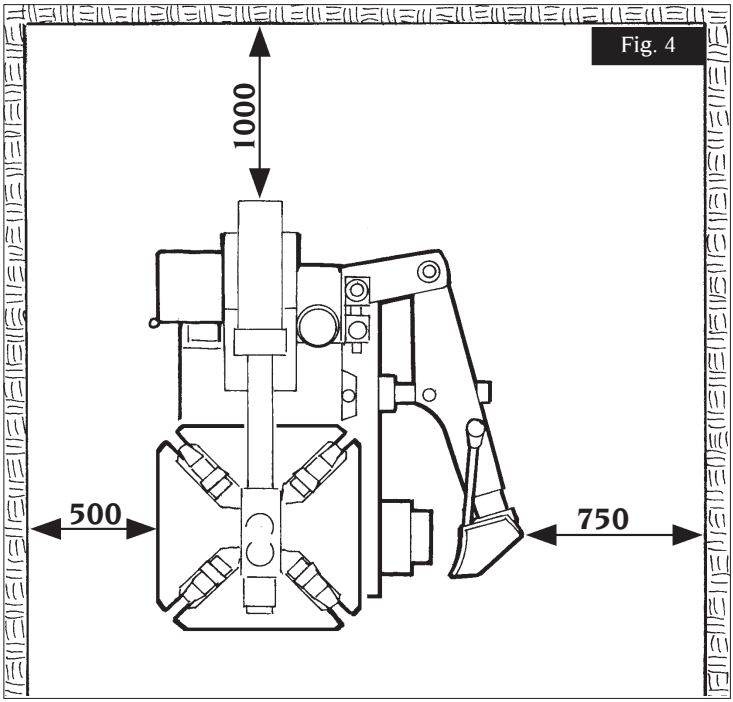


Fig. 5

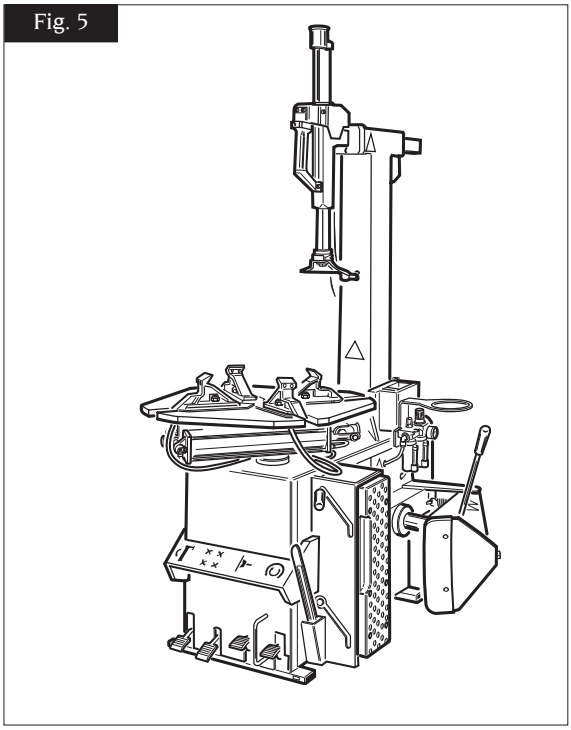
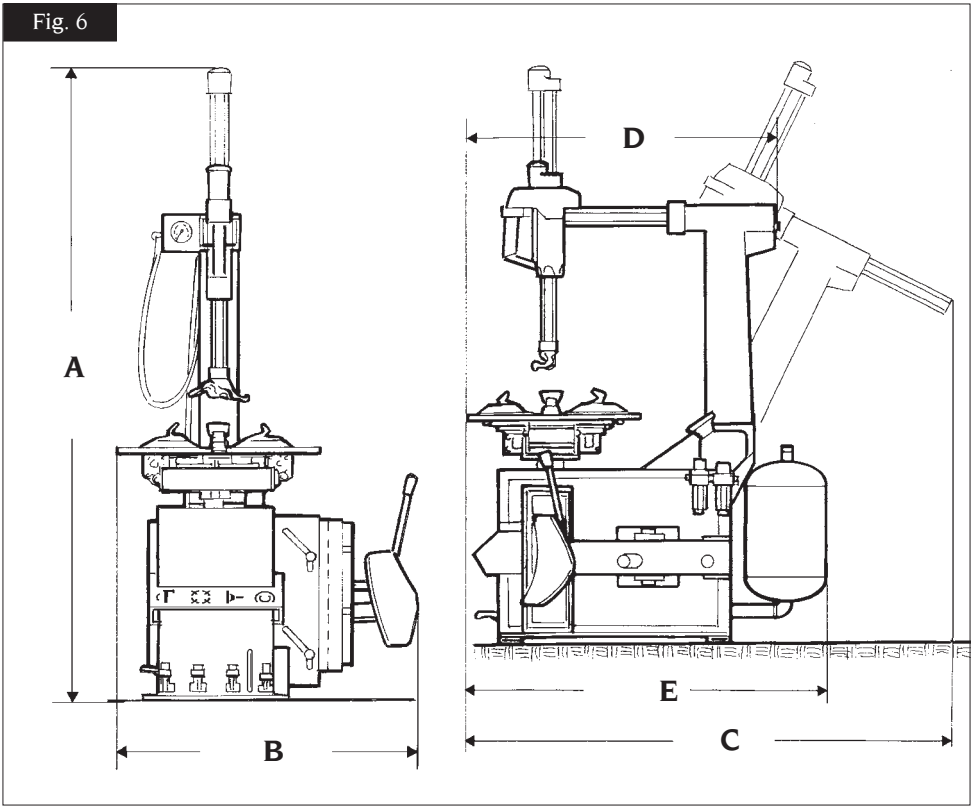
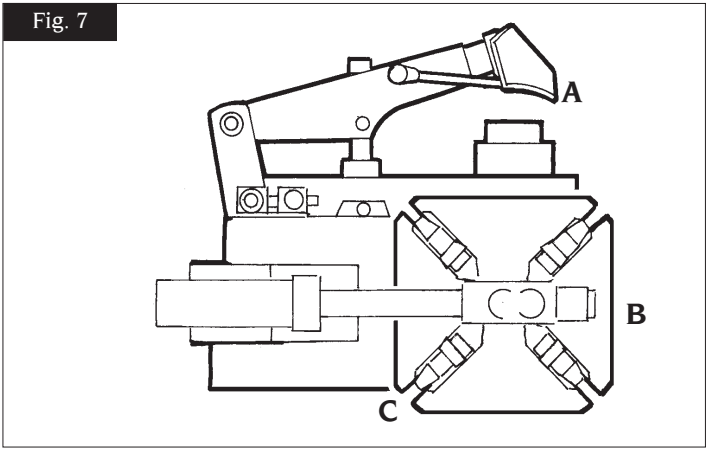


Fig. 6



	mm	A	B	C	D	E
MTS 40" - 20"	min	1560	915	1490	-	-
MTS 40"	max	1835	1090	1700	1100	-

Fig. 7



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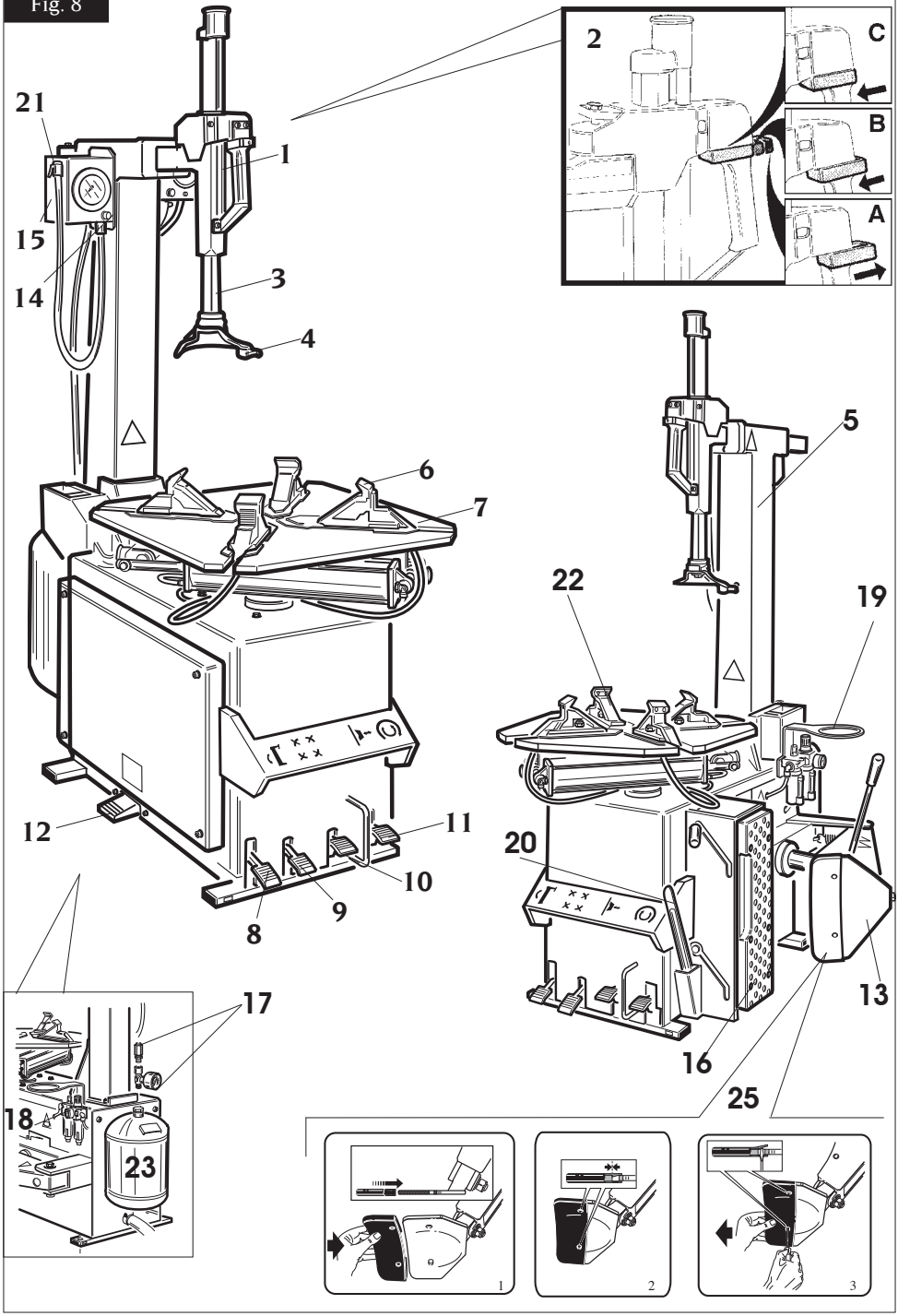

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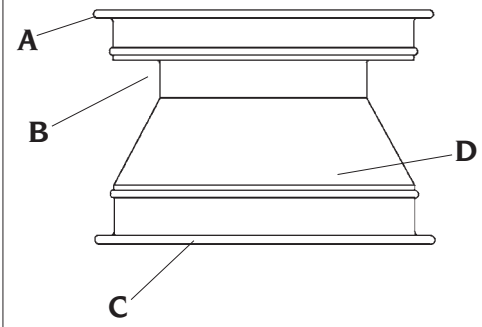
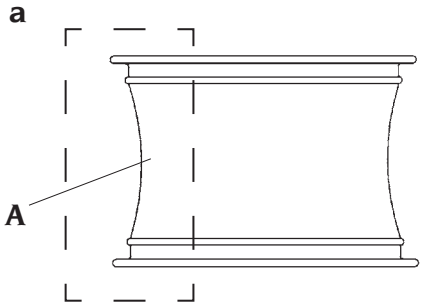
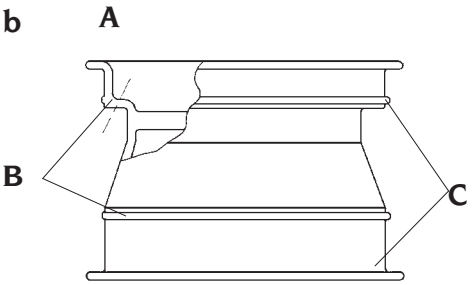






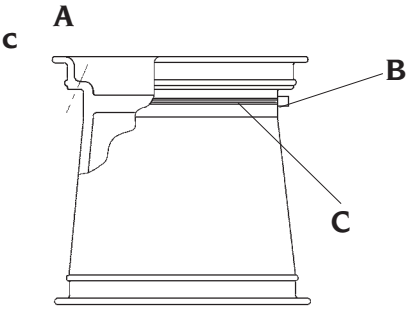
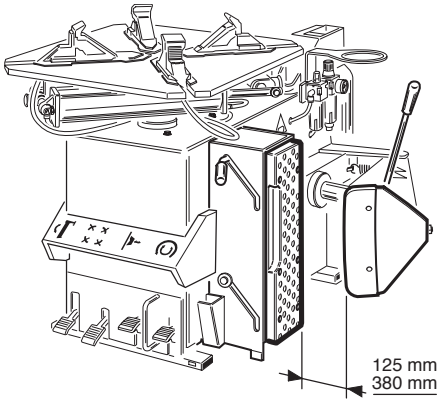


Fig. 10



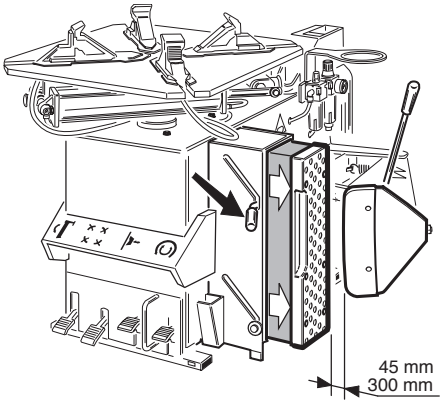
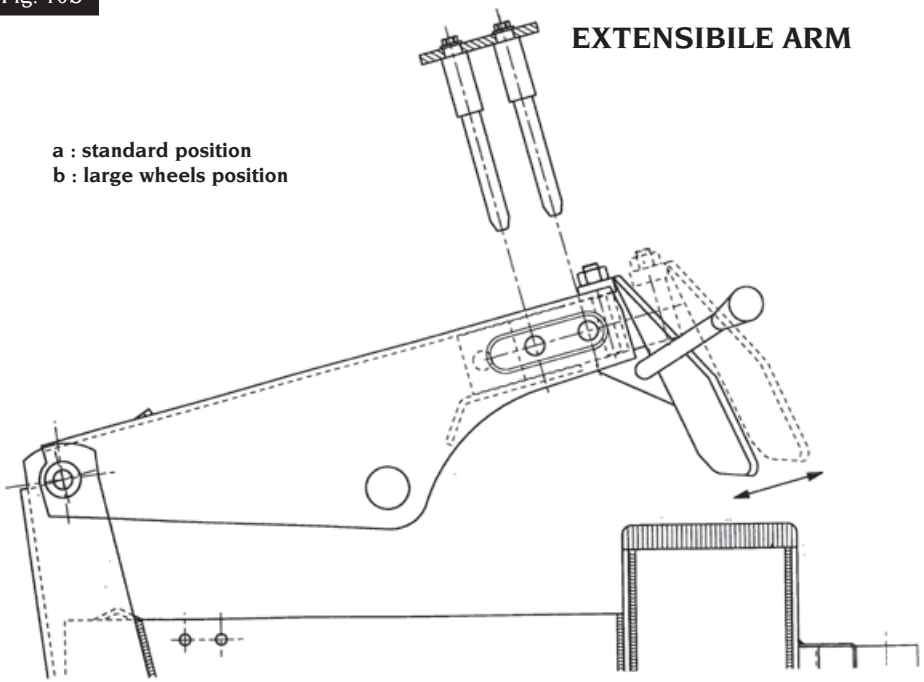


Fig. 10b

EXTENSIBILE ARM

a : standard position
b : large wheels position



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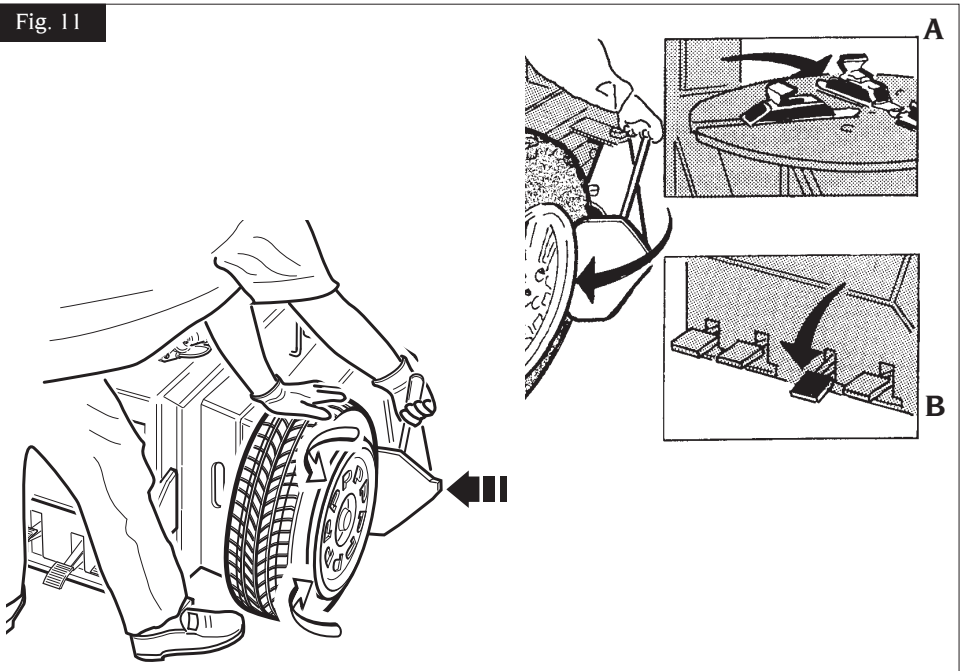


Fig. 13

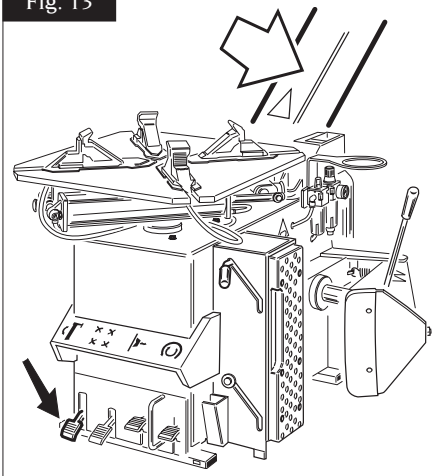


Fig. 14

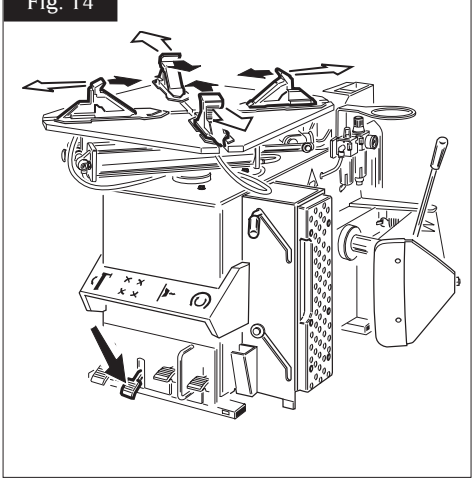
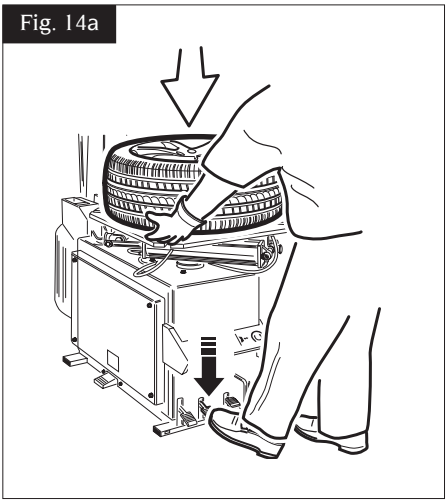


Fig. 14a



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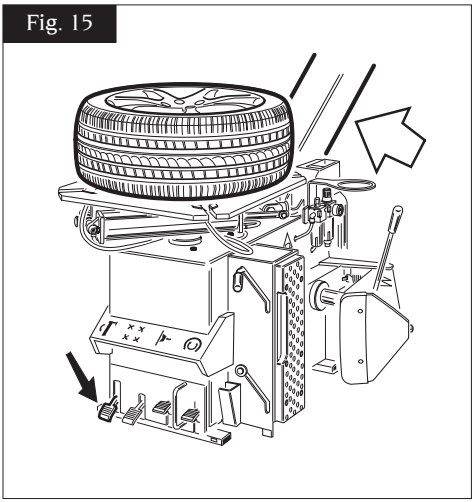


Fig. 15a

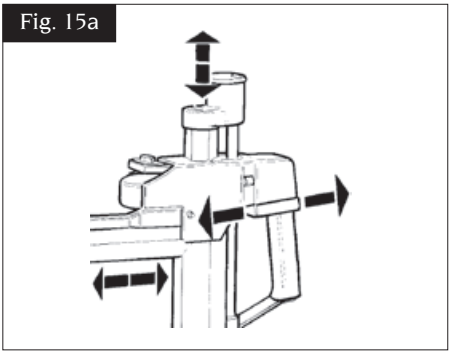
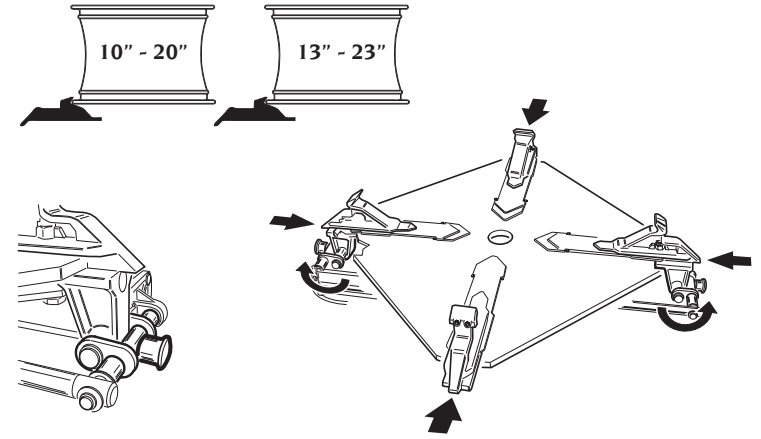
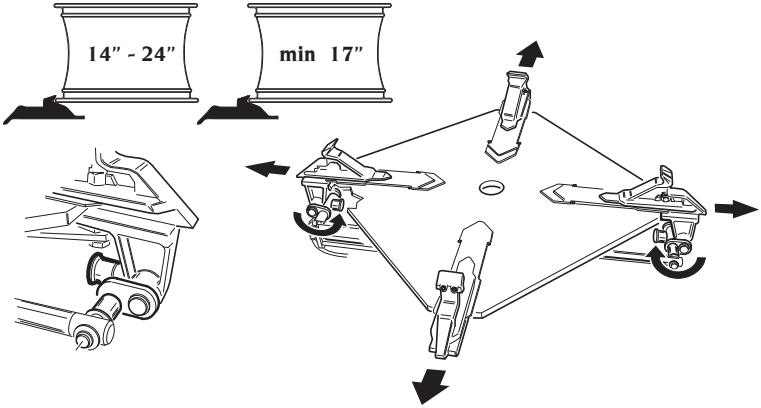


Fig. 14b





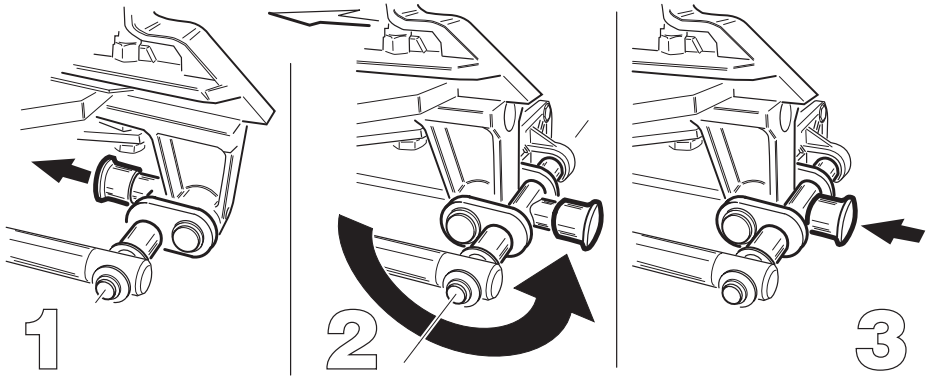


Fig. 16

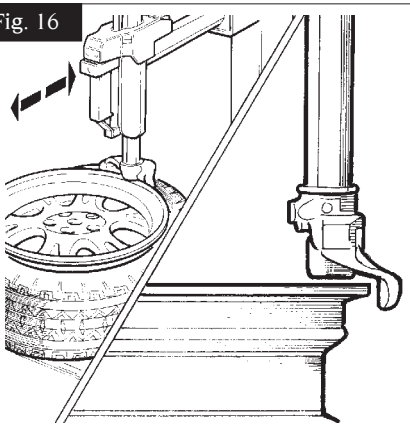


Fig. 16a

Fig. 17

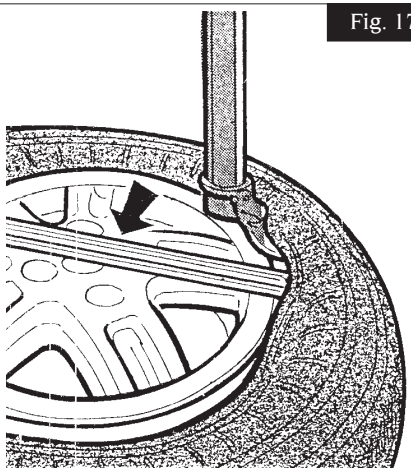


Fig. 17a

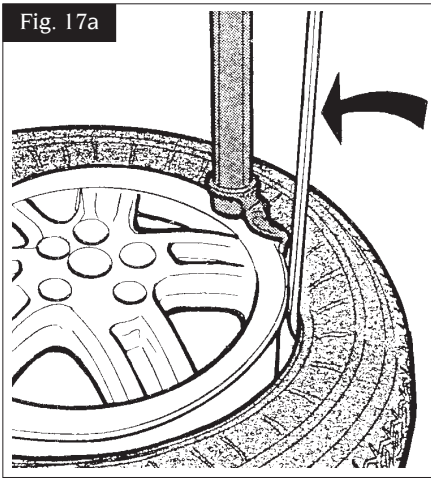


Fig. 18

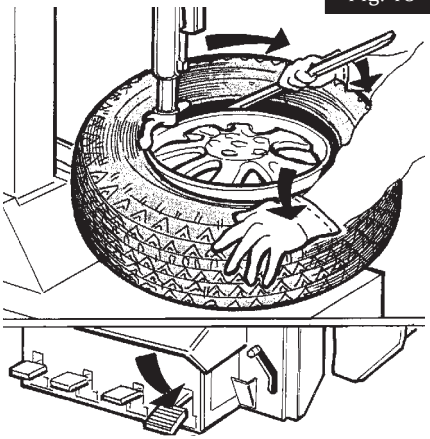


Fig. 19

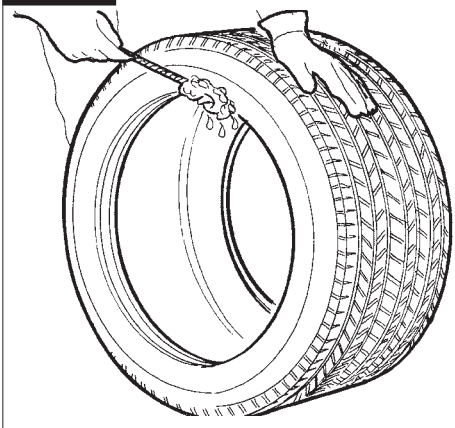


Fig. 20

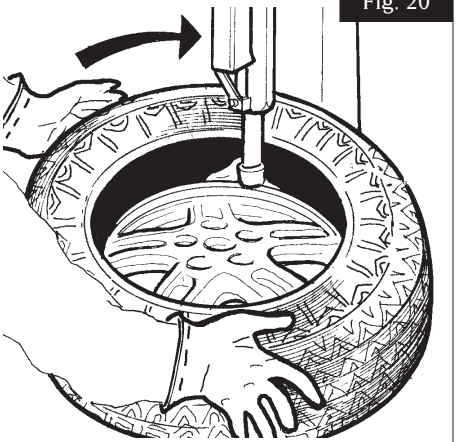


Fig. 21

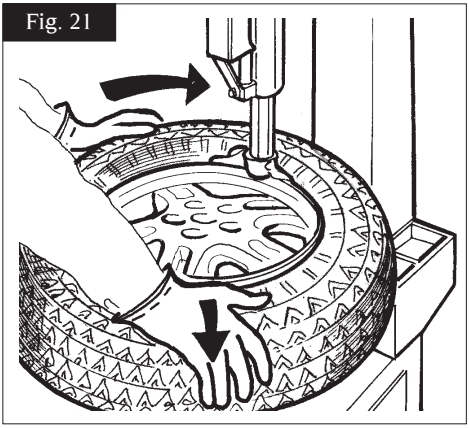


Fig. 22a

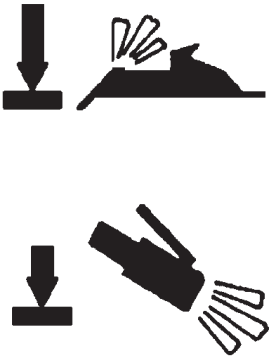
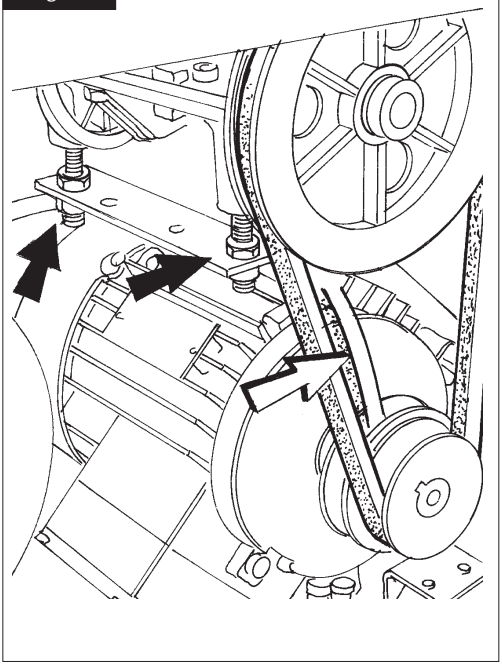


Fig. 22b

Fig. 23



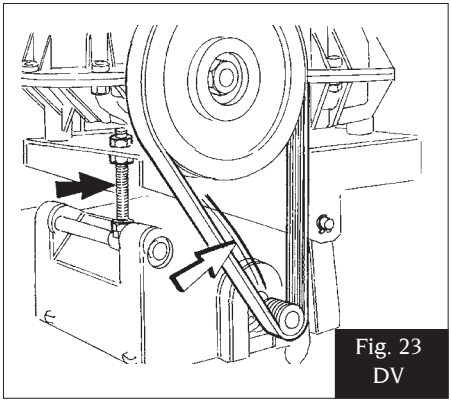


Fig. 23
DV

Fig. 25

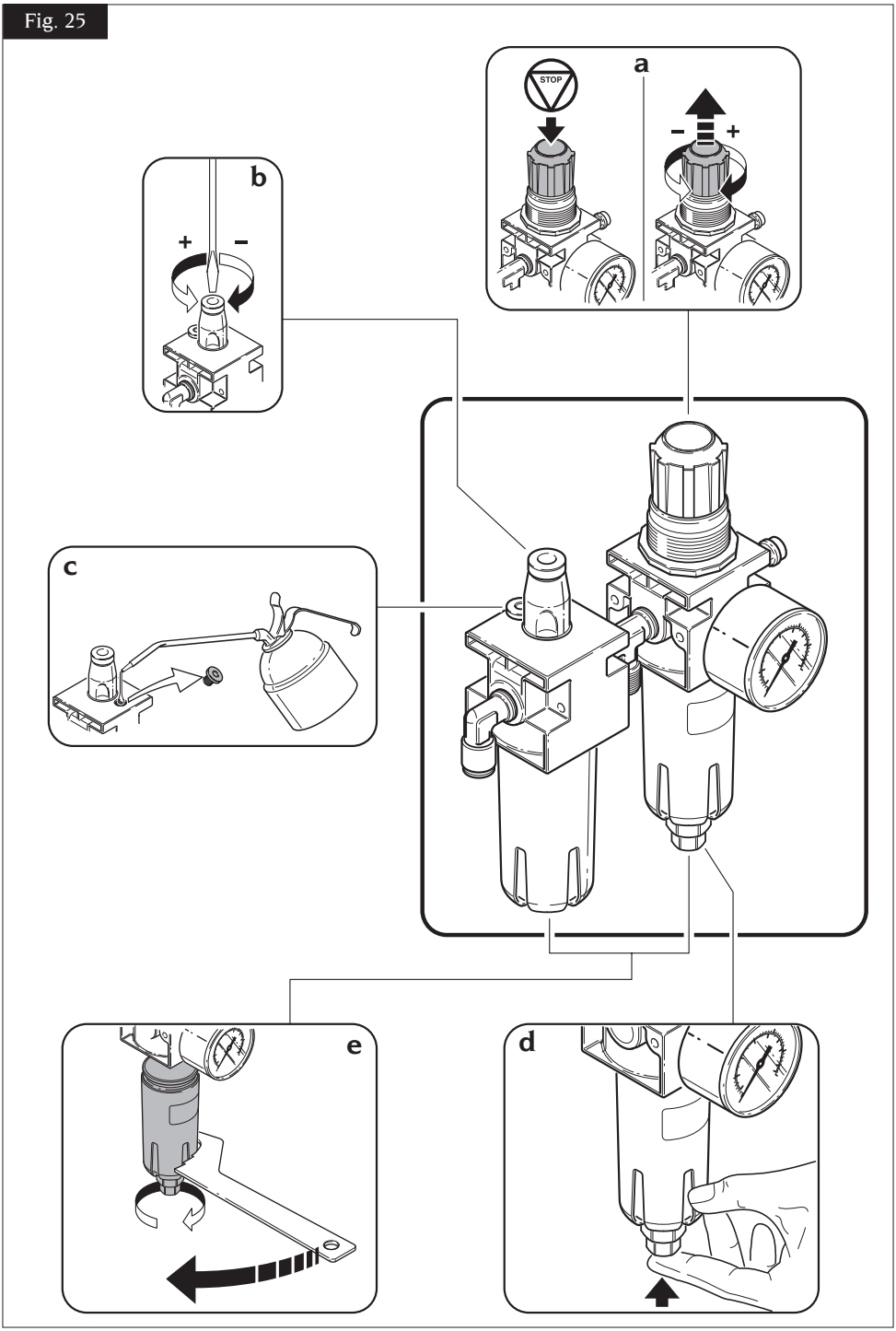


Fig. 26

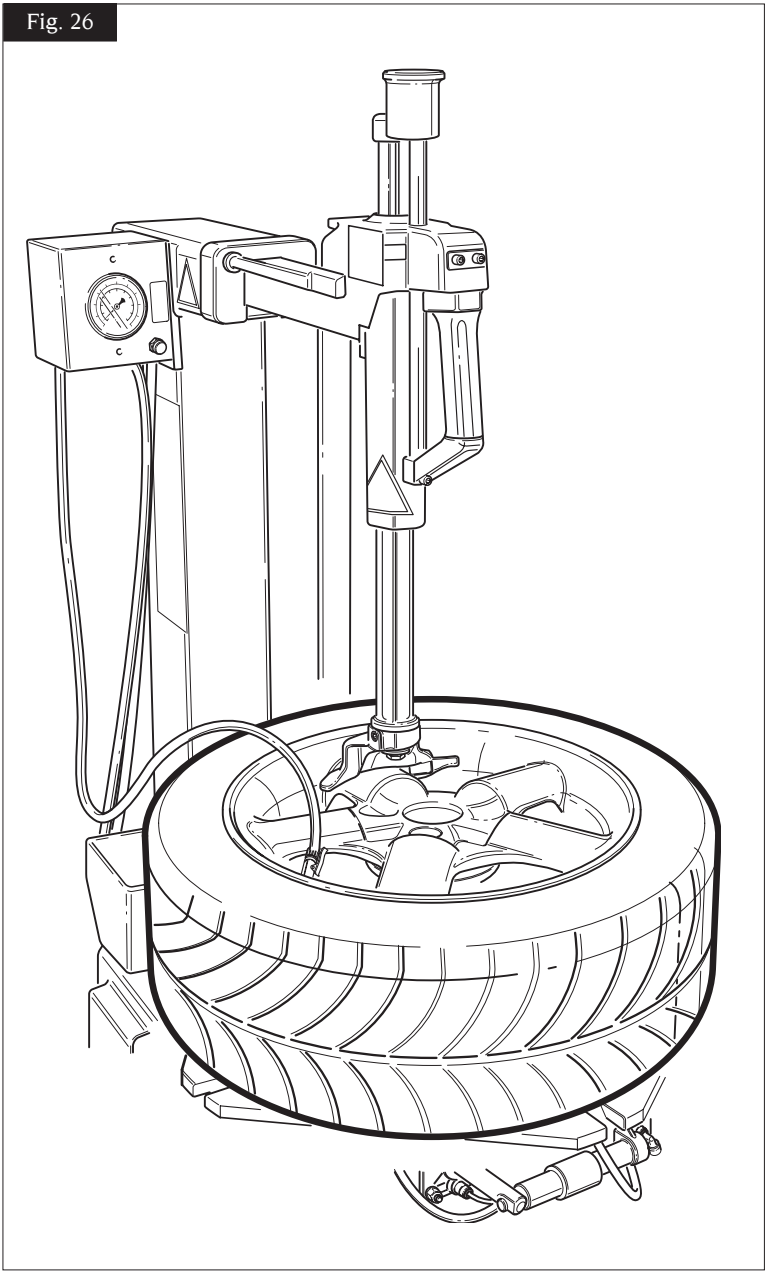


Fig. 27

Posizione / Position		Situazione	Situation
A	QS1	Pedale abbassato Rotazione antioraria del motore Rotazione oraria del piatto autocentrante	Pedal depressed Motor anti-clockwise rotation Turntable clockwise rotation
B	QS1	Pedale alzato Rotazione oraria del motore Rotazione antioraria del piatto autocentrante	Pedal lifted Motor clockwise rotation Turntable anti-clockwise rotation
Neutral	QS1	Pedale in posizione orizzontale Motore spenta Piatto autocentrante fermo	Pedal in horizontal position Motor off Turntable still

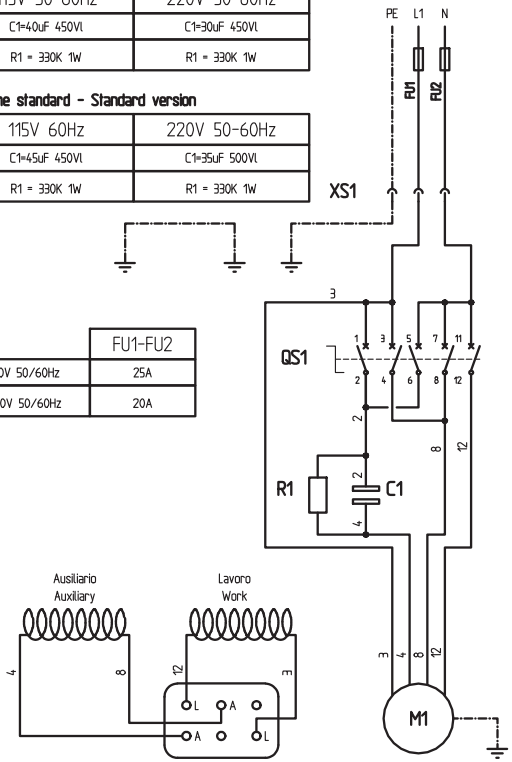
Solo versione CSA - CSA version only

115V 50-60Hz	220V 50-60Hz
C1=40uF 450Vl	C1=30uF 450Vl
R1 = 330K 1W	R1 = 330K 1W

Versione standard - Standard version

115V 60Hz	220V 50-60Hz
C1=45uF 450Vl	C1=35uF 500Vl
R1 = 330K 1W	R1 = 330K 1W

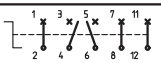
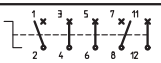
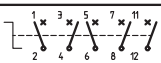
	FU1-FU2
110V 50/60Hz	25A
220V 50/60Hz	20A



Schema cablaggio morsettiera
Wiring diagram terminal-blok

Cod. 430710C2 **1 ph**

Fig. 27

Posizione / Position		Situazione	Situation
A	QS1 	Pedale abbassato Rotazione antioraria del motore Rotazione oraria del piatto autocentrante	Pedal depressed Motor anti-clockwise rotation Turntable clockwise rotation
B	QS1 	Pedale alzato Rotazione oraria del motore Rotazione antioraria del piatto autocentrante	Pedal lifted Motor clockwise rotation Turntable anti-clockwise rotation
Neutral	QS1 	Pedale in posizione orizzontale Motore spenta Piatto autocentrante fermo	Pedal in horizzontal position Motor off Turntable still

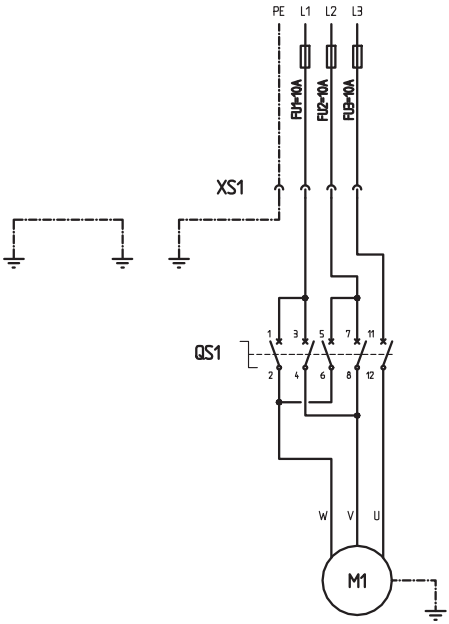
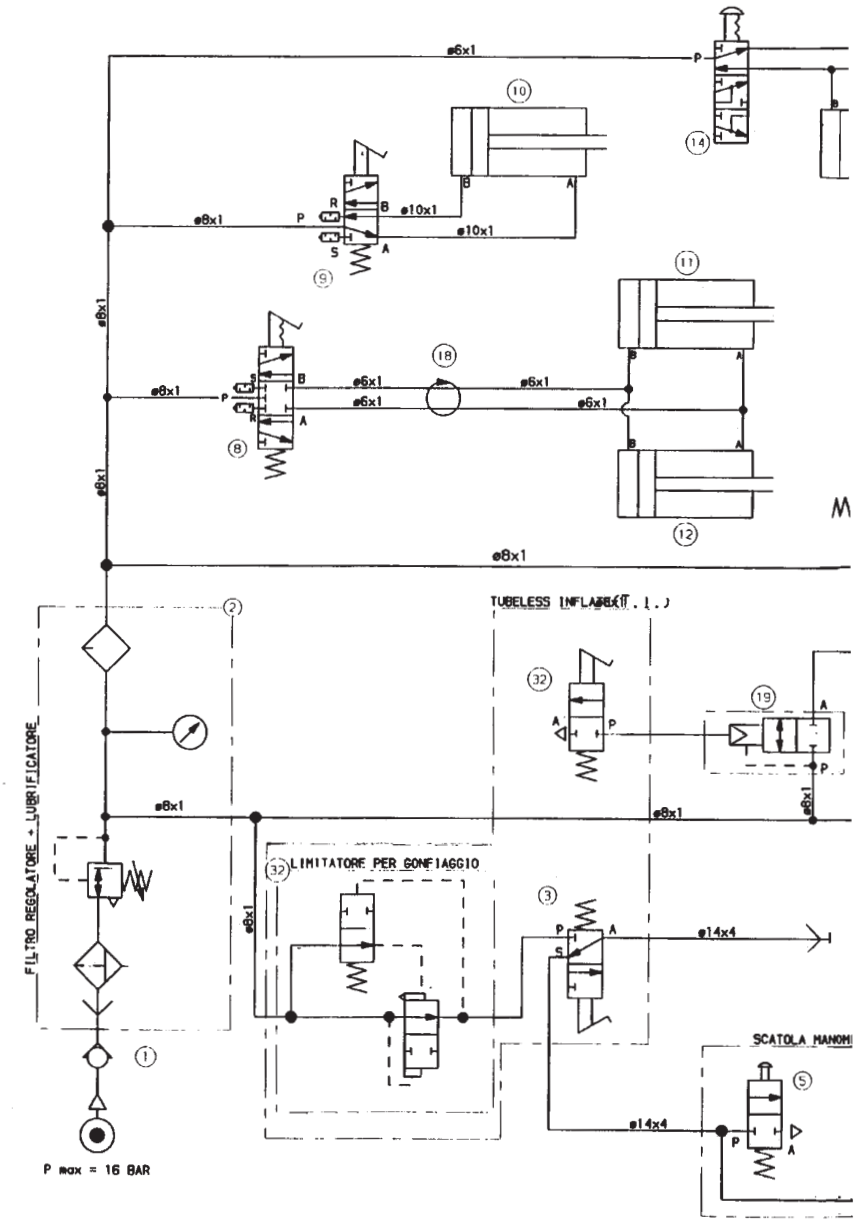
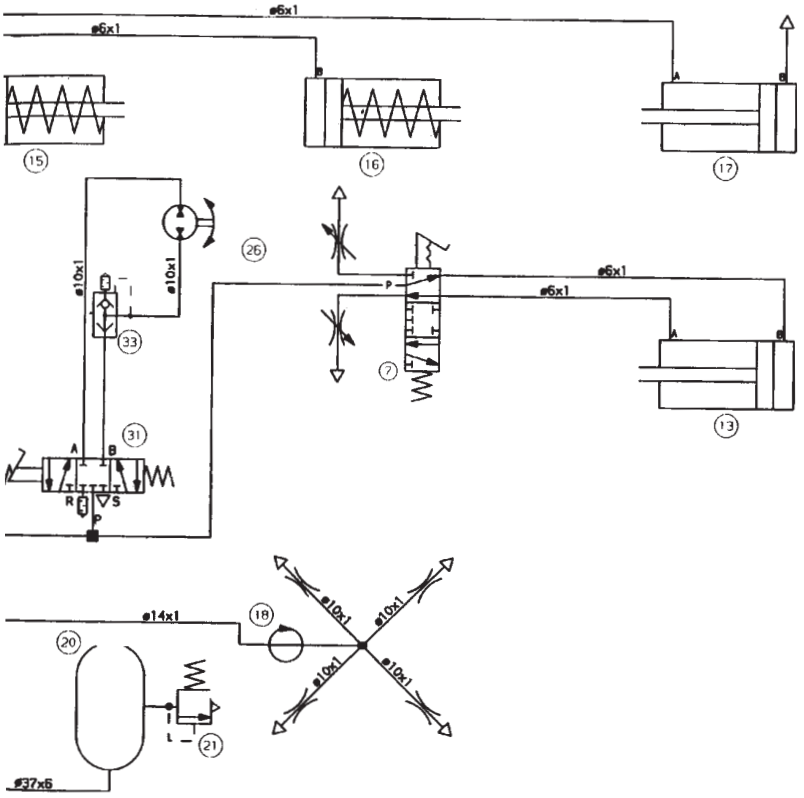


Fig. 28



Cod. 450661_1


ø6x1
ø6x1
15
16
17
26
ø10x1
ø10x1
33
31
A
B
R
S
P
P
ø6x1
ø6x1
7
13
ø14x1
18
20
ø10x1
ø10x1
ø10x1
ø10x1
L
21
ø37x6

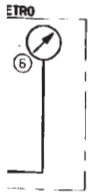
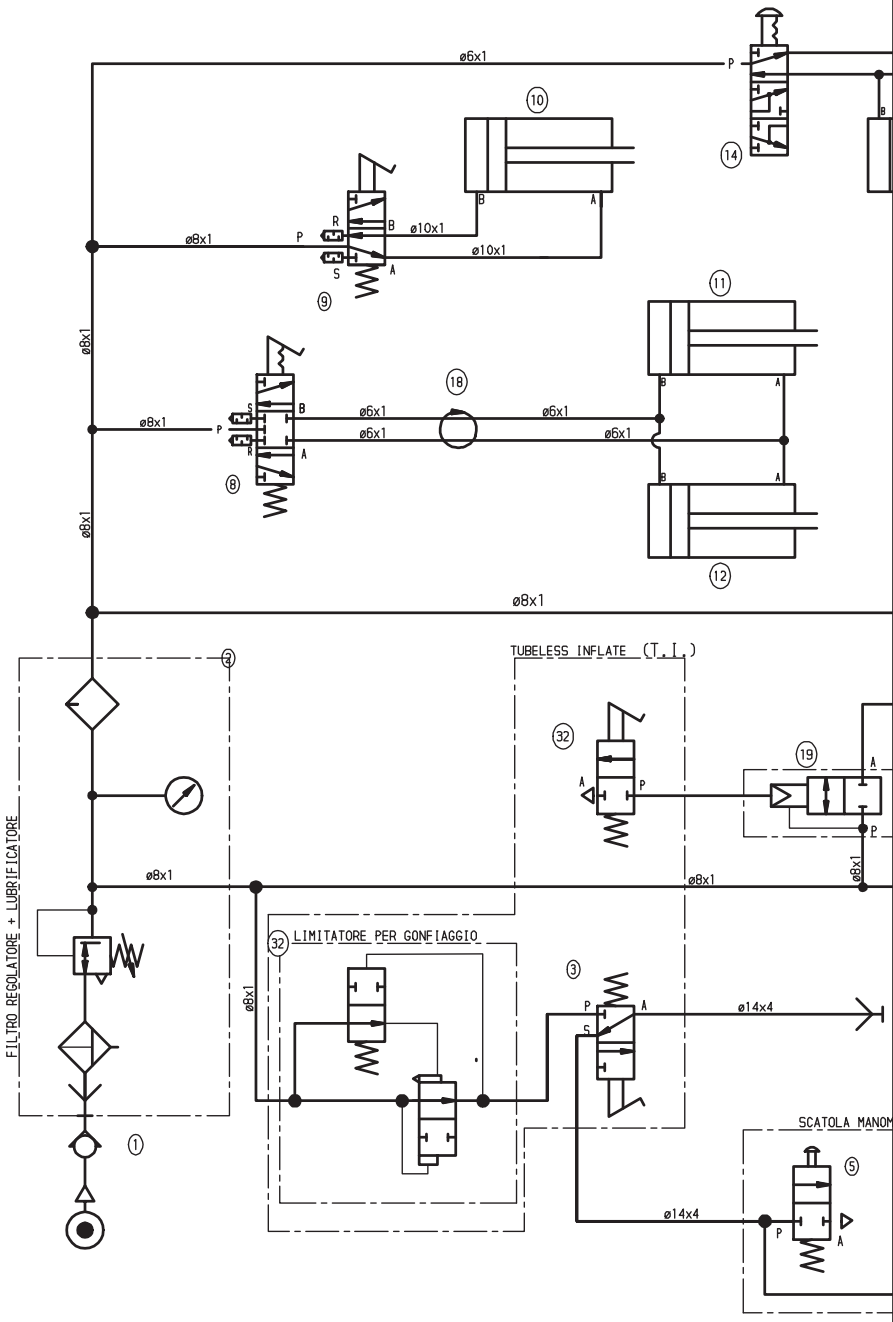

ETRO
6

Fig. 28



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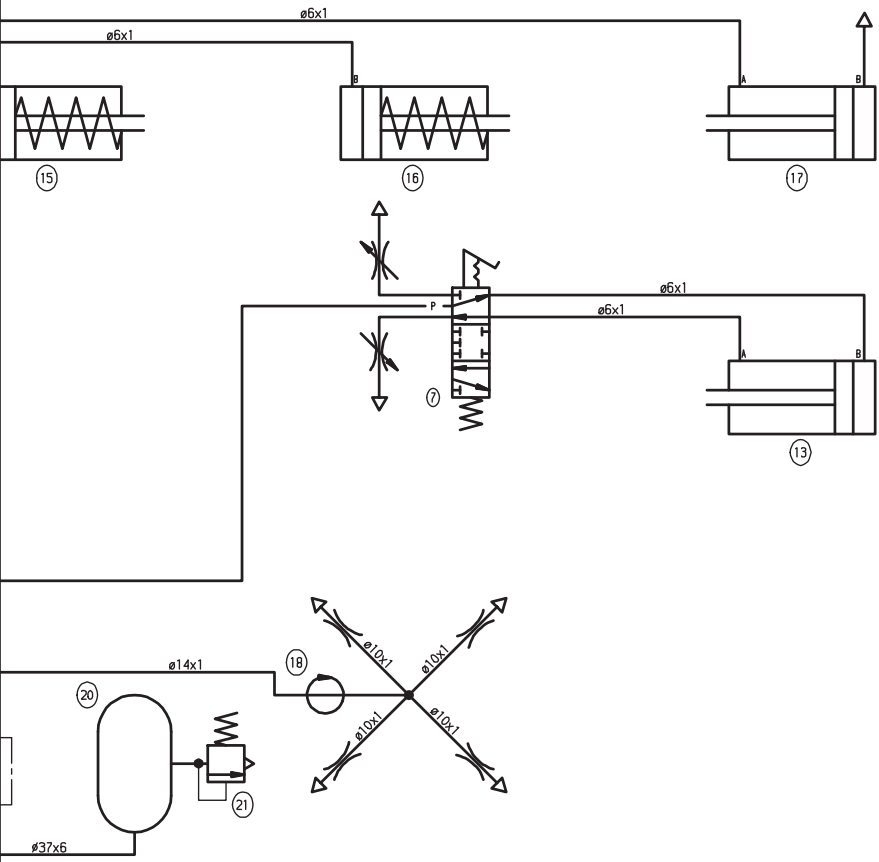

ø6x1
ø6x1
B
A
B
15
16
17
P
ø6x1
ø6x1
A
B
7
13
ø14x1
18
20
ø10x1
ø10x1
ø10x1
ø10x1
21
ø37x6

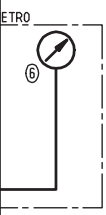
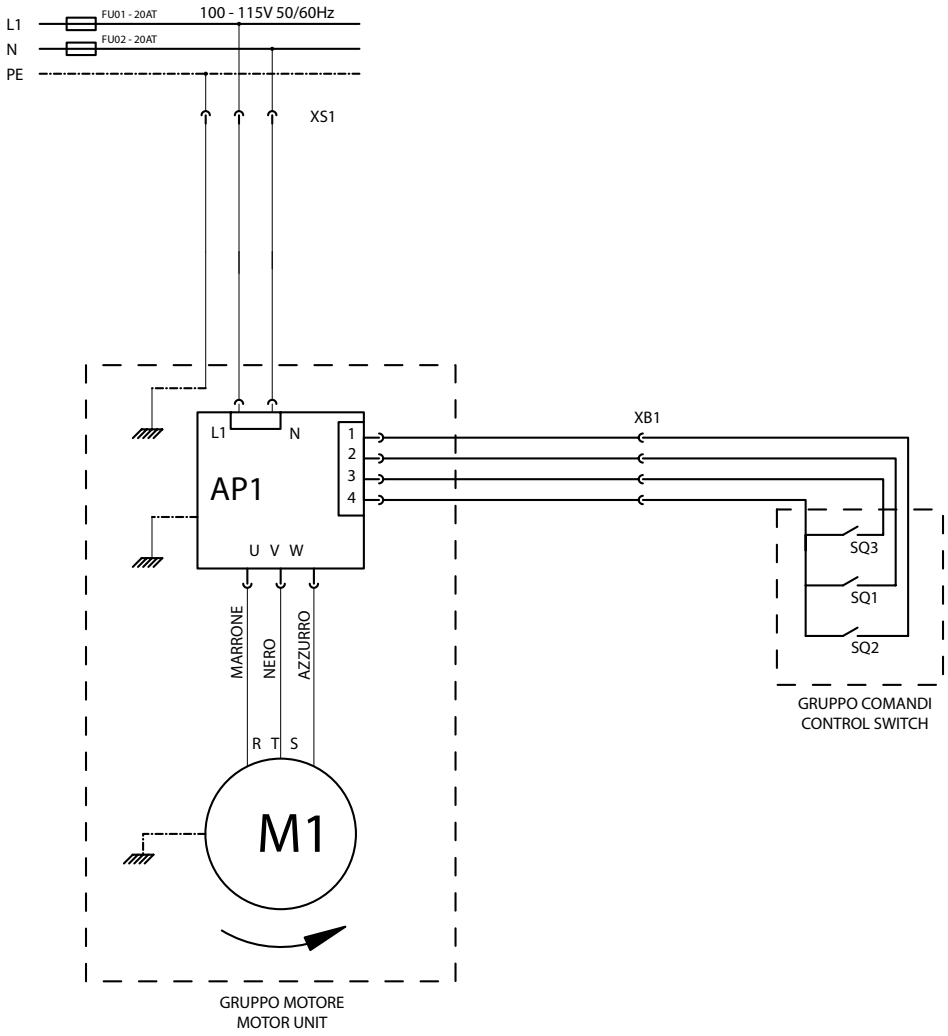

ETRO
6

Fig. 29



Cod. 4-104805 **DV**

COMIM - Cod.4-105237 - 05/06.

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