



Kit Pax System Artiglio Master

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Italiano

Manuale d'uso

English

Operator's manual

Français

Manuel d'utilisation

Deutsch

Betriebsanleitung

Español

Manual de uso

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Italiano

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Español

Elaborazione grafica e impaginazione

Ufficio Pubblicazioni Tecniche

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UNPACKING/ASSEMBLY



WARNING

Carry out the unpacking, assembly and installation operations described below with care.

Failure to comply with these recommendations may damage the components of the PAX System wheel kit and put the operator's safety at risk.

- Remove any packaging from the PAX System wheel kit. Make sure that it has not been damaged in transit. Place the PAX System wheel kit components in a position where they cannot fall over and be damaged.
- The PAX System wheel kit comprises the following six items (fig. 1a):
 - A) double roller top tool. Incorporating a main roller A1, an indicator roller A2, and a side fork A3 to support the top arm.
 - B) bottom disc tool
 - C) pin for fixing the double roller top tool.
 - D) réglette. Special plastic component for protecting the rim. It has a central tang with a slot, allowing the lever used to break the top bead to be inserted without damaging the rim.
 - E) top bead breaker lever
 - F) tyre bead retention belt.

CORGHI S.p.A. also supplies the machine complete with a tool tray Z which can be fitted to its structure. This tool tray provides a convenient place for the operator to put the PAX tools not in use, within easy reach.

DESCRIPTION

ARTIGLIO Master in configuration for PAX System wheels

The ARTIGLIO Master in configuration for PAX System wheels makes it incredibly easy to break the bead of, demount and mount any type of the tyres referred to above having rim diameter from 360 to 560 mm. The machine operates with the wheel horizontal, clamped and perfectly centred on the self-centring turntable, in all processing stages.

Its absolutely innovative operating principle still uses all the technologies incorporated in the ARTIGLIO Master, in particular for this configuration:

- electronic presetting of the rim diameter with automatic radial positioning of the tool head and of the specific tools fitted on the dual arm;
- a pneumatic dual arm equipped with special tools, with two-way vertical movement. With automatically controlled penetration and overlapping, it allows optimum tyre mounting and demounting;
- a tool head with two-way vertical movement controlled from the console, allowing performance of specific phases during tyre mounting;
- a pneumatically operated wheel lift for loading and unloading the wheel from the working area (optional).

The drive controls are grouped together on an ergonomic console, with a display for setting and displaying the wheel data and a control pedal unit.

The layout adopted means the operator can work in complete safety without leaving his working position.

The ARTIGLIO Master in configuration for PAX System wheels maintains all the objectives achieved in the conventional version:

- reduced physical effort on the part of the operator;
- no risk of damage to rim, support or tyre;
- the greatest possible automation of operations previously carried out by the operator by hand.

TECHNICAL DATA

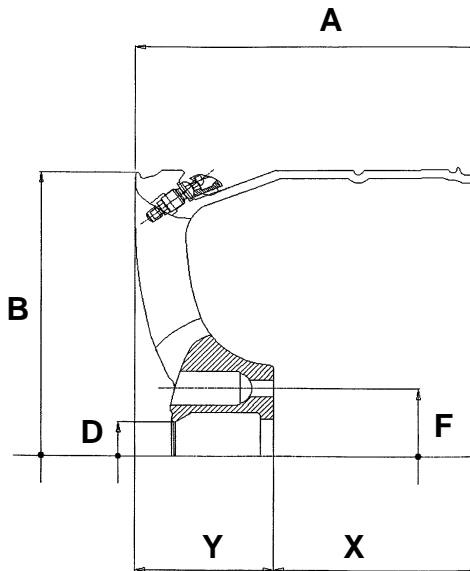
ARTIGLIO Master in configuration for PAX System wheels

- Tyre types processed PAX System
- maximum size of PAX tyre 920 mm
- minimum rim hole diameter 40 mm
- operating pressure (minimum) 7 bar
- operating pressure (maximum) 10 bar
- pneumatic cylinder force (at 7 bar) 6500 N
- Weight of PAX System wheel kit 12 Kg

The ARTIGLIO Master equipped for PAX wheels is able to work on PAX System wheels with full width and clippé support having the following technical characteristics (for symbols A, B, D, F, X and Y see drawing below).

PAX System wheels with full width and clippé support

- diameter (B) from 360 to 560 mm
- width (A) from 155 to 335
- Internal offset (X) 260 mm max.
- External offset (Y) 330 mm max.
- hole diameter (D) from 40 to 105 mm
- fixing hole circumference diameter (F) from 98 to 170



INSTALLATION

Note:

The PAX wheel kit supplied can only be installed on ARTIGLIO Master tyre changers. The PAX wheel kit may only be installed by qualified personnel authorised by Corgi S.p.A.. Installation by unqualified personnel leads to loss of the warranties concerning performance of the device.

ARTIGLIO Master in configuration for PAX System wheels

First fix the tool tray 1 fig.1b provided in the PAX wheel kit to the machine's structure. Fix it as shown in fig.1b, using the screws 2 fig.1b already present in the top of the structure.

Preliminary checks

Check that the air lines 1 fig.2 are not positioned as shown in the diagram. In this position, they interfere with application of the side fork A3 fig. 1a which supports the upper arm with twin roller tool.

If they are positioned as shown, remove the band clamps which secure them and lay them along a new path (dotted line 2 fig.2), keeping the pipelines outside the zone where the side fork is housed. Obtain band clamps for fixing the pipelines and lay them in a higher position as shown in figure 2.

Tooling procedure

Fig 1 illustrates the ARTIGLIO Master tyre changer equipped for PAX System wheels. The ARTIGLIO Master is set up to operate on PAX System wheels by following the tooling procedure described below:

- Remove the bottom bead breaker disc 1 - fig. 3, removing the locking pin 2 - fig.3 which retains it.
- Fit the disc-type bottom tool for PAX System wheels 1 - fig.4 in the place of the previous bottom bead breaker disc. Secure the bottom disc tool to the arm using the locking pin 2 - fig.4 removed earlier.
- Remove the top bead breaker disc 1 - fig. 5, removing the locking pin 2 - fig.5 which retains it.
- Fit the double roller top tool for PAX System wheels as follows:
the side fork for supporting the tool 1 fig. 6 must fit between the fixed pins A and B (fig.6) at the base of the top arm; the recess on each of the two fixing forks of the double roller tool 2 fig.5 must fit round the relative fixed pin A on each side of the arm.
- Support the double roller top tool on the arm and secure it using the fixing pin 1 - fig.7 provided.

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SPECIFIED CONDITIONS OF USE

Operator position

A - fig. 8 shows the position the operator occupies during the various working phases.

MAIN OPERATING PARTS



WARNING

Get to know your machine: the best way to prevent accidents and obtain top performance is to get to know it well. Learn the function and location of all controls. Check carefully that all the machine's controls are working correctly. To avoid accidents and injury, the machine must be installed properly, operated correctly and serviced regularly.

The machine's main operating parts are still as illustrated in the equivalent chapter of the previous manual.

Once the ARTIGLIO Master has been set up to operate on PAX System wheels, some components will have been modified and replaced by others specifically designed for processing this type of wheel - see fig. 1:

- G) Wheel lift (optional accessory).
- H) Centring handle (device for clamping the wheel to the self-centring turntable).
- I) Mobile tool on tool head (for mounting the tyre).
- J) Tool head.
- K) Top arm fitted with double roller tool.
- L) Display for setting and displaying the wheel data - see fig. 10a and relative description in CONTROLS of ARTIGLIO Master for PAX System wheels section.
- M) Side fork for supporting the top arm.
- N) Lever for releasing the top arm.
- O) Control console - see fig. 10b and relative description of the functions of the individual pushbuttons/selectors in CONTROLS of ARTIGLIO Master for PAX System wheels section.
- P) Bottom arm fitted with disc tool.
- Q) Pedal unit - see fig. 10c and relative description in CONTROLS of ARTIGLIO Master for PAX System wheels section.
- R) Doyfe union (union for connection to the wheel valve for inflation).

Controls of ARTIGLIO Master for PAX System wheels

Display for setting and displaying the wheel data - fig. 10a

1 - Air pressure gauge

Pressure gauge which displays the air pressure set with the pedal 3 fig.10c.

Displays the tyre's pressure.

2 - PAX System wheel program activation lever

Lever which allows the tyre changer to be set to accept parameters relating to two categories of wheel: conventional car, off-road vehicle or van wheel or PAX System wheel. This lever has a safety feature which ensures that its position can only be changed intentionally. To vary the type of wheel selected, the lever has to be moved in two ways simultaneously: extract it from its seat by pulling out, and at the same time move it in the direction required (fig.9).

3 - Rim diameter display.

With the Lever 2 fig.10a set in the PAX position, the display shows the rim diameter in millimetres. The figure displayed consists of three figures.

4 - Rim diameter setting keypad

With the Lever 2 fig.10a set in the PAX position, the following keypad keys are enabled:

- keys for entering the numerical values of the tens A. Use these keys to enter the value of the tenths by increasing (+) or decreasing (-) the value set; The value on the display changes in steps of two tens (e.g.: (+) 360 > 380 > 400 ... ; (-) 500 > 480 > 460 ...).
- keys for entering the numerical values of the units B. Use these keys to enter the value of the units by increasing (+) or decreasing (-) the value set; The value on the display changes in steps of two units (e.g.: (+) 362 > 364 > 366 ... ; (-) 500 > 498 > 496 ...).

5 - Deflation button

Press this button to discharge any excess air from inside the tyre. This button can only be used during inflation of the tyre with the Doyfe union of the inflation line connected to the spool of the valve.

6 - Master switch

Green two-position switch beside the display for setting and displaying the wheel data. On "0" - the machine is not receiving mains power.

On "1" - the machine is powered up.

Control console - fig. 10b

Area A - Twin tool arm functional controls

1 - Lever controlling vertical movement of the top arm with double roller tool.

2 - Lever controlling vertical movement of the bottom arm with disc tool.

Area B - Tool head functional controls

3 - Switch without detent controlling head rotation

Turn the switch to the right to rotate the tool head through 180°. This control allows the mobile tool to be preset for use during mounting of the tyre. The control is only active when the head is close to its rest position; this ensures that head and therefore tool rotation cannot be accidentally started in the working position, damaging the tyre.

4 - Head movement control lever

Lever which moves the tool head in 4 directions: up-down-forward-back. The head's forward travel stroke is limited by the rim approach limit position set automatically when the wheel data are set.

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Area C - Functional controls for auxiliaries and for PAX System wheels

5 - Tyre lift operating lever

Lever which operates the tyre lift, on the frame of which the wheel is positioned. Move the lever up to operate the pneumatic lift and bring the wheel placed on the frame from the ground to the working position on the turntable. Move the lever down to operate the pneumatic lift and bring the wheel placed on the frame from the working position on the turntable to the ground.

When the pneumatic lift is ascending or descending, a beeper sounds to warn the operator that this operation is in progress.

6 - PAX tool tangential/above rim positioning selector switch

Lever which allows the PAX tools in use to be placed tangential to or above the rim. The selector switch is only enabled with the machine in PAX mode, Lever 2 fig. 10a set to the side marked with the Pax System symbol (up position).

Turn the switch to the left to set the PAX tools tangential to the rim.

Turn the switch to the right to set the PAX tools above the rim; display 3, fig. 10a flashes.

Pedal control unit - fig. 10c

1 - Self-centring turntable rotation pedal

This pedal starts rotation of the self-centring turntable to which the wheel is fixed. The pedal has 4 different positions, providing 4 different rotation speeds.

1. Pedal raised (without detent): slow anti-clockwise rotation.
2. Pedal in rest position (with detent): self-centring turntable at a standstill.
3. Pedal pressed slightly down (without detent): slow clockwise rotation.
4. Pedal pressed right down (without detent): fast clockwise rotation.

2 - Tyre inflation pedal

Press with the Doyfe union of the inflation line fitted to the valve to deliver air into the tyre and inflate it.

3 - Wheel clamping pedal

Pressed to release the system which locks the turntable centring handle. In its rest position, the system which clamps the turntable centring handle is normally active. The pedal is used during positioning and clamping of the wheel on the turntable, and to release the wheel when the job is done.

COMMISSIONING

Preliminary checks

Check on the pressure gauge of the filter regulator + lubricator unit that there is a pressure of at least 7 bar.

Check that the machine has been hooked up to the electrical mains correctly.

Switching on the machine

Power up the machine using the green master switch 6 fig. 10a beside the Display fig. 9a. To switch on the machine, press the master switch to the -I- (ON) position. The master switch illuminates to indicate that the machine is powered up.

If it is not already set in the correct position, pull the Lever 2 fig. 10a out of its seat and move it in the direction of the PAX Symbol to enable the ARTIGLIO Master to process PAX System wheels (fig.9).

The turntable and the twin arm with PAX tools automatically reset in the radial position suitable for processing PAX rims 560 mm in diameter.

The machine is now ready to accept the correct settings and continue with the subsequent jobs.

Special instructions

PAX System wheels with clippé support

Some PAX System wheels have clippé support (fig.11).

Their special feature is a groove running around the entire circumference of the outer edge of the rim. The clips of the support fit into this groove. Therefore, when mounting the support it is important to fit the parts together correctly.

How to decide the side of the wheel from which to demount the tyre.

See fig. 11.

Identify the sides of the PAX wheel with smaller rim diameter A and larger rim diameter B. The tyre must be demounted or mounted with the PAX wheel positioned on the turntable with the side with the smaller rim diameter A facing upward.

Instructions for choosing the replacement tyre

To obtain full benefit from the characteristics offered by a tyre and to obtain the necessary guarantees of safety in use, it is necessary to adopt a series of precautions when choosing and installing it.

The dimensional and construction characteristics and service characteristics can be identified by interpreting the markings on the wall of the tyre.

The tyre size marking, e.g. 195/620 R 420 A - see fig. 12 - can be broken down into its various parts to obtain the information needed to set the machine correctly. The value in millimetres of the outside diameter of the rim of the PAX wheel being processed (e.g.: 420) is especially important.

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Procedure for calibrating the PAX System tools

Before putting the PAX System wheel kit into normal service, the tools should be calibrated in relation to a standard PAX rim.

In practice, a PAX rim of any diameter can be used, but use of a standard PAX rim with outside diameter of 420 mm is recommended.

The correct calibration procedure, to be carried out on first installation, is described below.

Note that once the PAX tools have been calibrated in relation to the standard rim, the calibration is also effective for all the other different diameters of rim the machine is able to process.

- Check that the *Lever 2* fig. 10a is set to the side marked with the Pax System symbol (up position).

Make sure that the Selector switch 6 fig. 10b is set on the tangential setting. Set the diameter value of the standard PAX rim using the keypad provided 4 fig. 10a. The display 3 fig. 10a shows the rim diameter in millimetres.

The figure displayed consists of three figures. As this value is set both the self-centring turntable and the two arms with PAX tools automatically move to the ideal radial position for performing the calibration operations.

- Load the standard PAX rim on the wheel lift G fig. 1.
- Operate the *Lever 5* fig. 10b and lift the wheel to position it in the working position on the turntable.
- Press the *Pedal 3* fig. 10c to release the turntable clamping system. Take hold of the centring handle H fig. 1 and adjust the position of the wheel by hand to fit the toothed hexagon into its open centre and the radial rod into one of the holes used for the fixing bolts. Insert the toothed hexagon and the radial rod right through the wheel and into the self-centring turntable device. Release the *Pedal 3* fig. 10c. The clamping system is now active and the rim is locked to the turntable by means of the centring handle.

Calibrating the twin roller tool of the upper arm

- Check the working position of the top arm with the relative twin roller tool. If it is in the support position, raise the arm slightly to remove the side fork from its supporting condition. Lower the arm by hand using the fixed gripper lever provided.
- Operate the *Lever 1* fig. 10b and position the main roller of the top tool so that its outside is close to the shoulder of the rim (fig. 13a).
- Using the 8 mm Allen key provided 1 fig. 13, undo the locking screws 2 fig. 13. The position of the twin roller tool can now be adjusted along the slot in the rod which fixes it to the upper arm.
- Adjust the tool until the outside of the main roller is touching the shoulder of the rim - see detail fig. 13a.
- After checking that this condition has been met, secure the twin roller tool to its arm by retightening the fixing screws 2 fig. 13.
- Operate the *Lever 1* fig. 10b to remove the upper arm from the working area.

Calibrating the disc tool of the lower arm

- Operate the *Lever 2* fig. 10b to bring the disc of the bottom tool close to the shoulder of the rim (fig. 14). Take care that it does not knock against the shoulder of the rim in spite of its tangential position.

- Use a suitable screwdriver 1 fig.14 to turn the screw with lock-nut 2 fig.14 and adjust the position of the edge of the bottom tool disc until it is touching the shoulder of the rim - see detail fig.14a, screwing in to move the disc further away and unscrewing to bring it nearer.
- Once the two parts are touching as described, tighten the screw with lock-nut 2 fig.14 with the CH17 spanner.
- Finally, use a 4 mm Allen key 1 fig.15 to adjust the release stroke of the disc using its regulator dowel 2 fig.15. With the ideal setting, the end of the dowel is 3 mm from the stop position - detail fig.15 (the disc stroke this allows will prevent it from colliding with the edge of the rim and causing accidental damage).
- Operate the *Lever* 2 fig. 10b to remove the lower arm from the calibration area.
- Press the *Pedal* 3 fig. 10c to release the turntable clamping system. Take hold of the centring handle and remove it. Release the *Pedal* 3 fig. 10c.
- Operate the *Lever* 5 fig. 10b and remove the standard PAX rim from the working area.
- With the wheel lift on the ground, collect the PAX rim and place it in store for further uses or calibration procedures.

BEAD BREAKING



WARNING

Before doing any work on the valve or the pressure sensor, first refer to the manual supplied by the manufacturer of the transducer, and follow the instructions it contains.

PAX System wheels with full width and clippé support

- Check that the *Lever* 2 fig.10a is set to the side marked with the Pax System symbol (up position).
- **Make sure that the Selector switch 6 fig. 10b is set on the tangential setting.** Set the rim diameter value, displayed earlier, using the keypad provided 4 fig. 10a. The display 3 fig.10a shows the rim diameter in millimetres.
The figure displayed consists of three figures. As this value is set both the self-centring turntable and the two arms with PAX tools automatically move to the ideal radial position for performing the job.



WARNING

If the figure set flashes, the PAX wheel - tool reciprocal positioning Selector Switch - 6 fig. 9b, is still in the “above the rim” position. This informs the operator that as soon as the selector is turned to the tangential position the value set will automatically be modified and returned to the value set before the one entered now. It is therefore important to pay great attention to the status of the display in order to avoid damaging the wheel being processed.

- Load the wheel on the lift G fig. 1.
- Operate the *Lever* 5 fig. 10b and lift the wheel to position it in its working position on the turntable.

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- Press the Pedal 3 fig. 10c to release the turntable clamping system. Take hold of the centring handle 1 fig. 16 and adjust the position of the wheel by hand to fit the toothed hexagon into its open centre and the radial rod 2 fig. 16 into one of the holes used for the fixing bolts. Support the toothed hexagon and the radial rod right through the wheel and into the self-centring turntable device - fig. 16. Release the Pedal 3 fig. 10c. The wheel clamping system is now active and the wheel is locked to the turntable by means of the centring handle, moving as one with it.
- Remove the cap from the valve and completely deflate the tyre.
- Breaking the bottom bead. The bottom arm is already in the ideal radial position for breaking the bead on the underside of the tyre. Operate the Lever 2 fig. 10b to bring the disc of the bottom tool into contact with the tyre.
- Turn the wheel by pressing the Pedal 1 fig. 10c and lubricate the tyre carefully along the whole circumference of the bottom bead using a liquid mounting lubricant for touring applications. This will facilitate demounting and prevent damage to the bead (fig. 17).
- Keeping the Pedal 1 fig. 10c pressed, gradually operate the Lever 2 fig. 10b so that the tool disc penetrates further into the wheel. The insertion of the disc into the wheel as it turns completely separates the bottom bead of the tyre from the rim, shifting it into the mounting groove (fig. 17a).
- **Operate the Lever 2 fig. 9b to return the entire bottom arm downward, removing it from the working area.**
- Breaking the top bead. Check the working position of the top arm with the relative double roller tool. If it is in the rest position, raise the arm slightly to remove the side fork from its supporting condition. Lower the arm by hand using the fixed gripper lever provided.
- Operate the Lever 1 fig. 10b to bring the main roller of the top tool into contact with the tyre. The wheel data have been set correctly if the main roller is tangential to the rim.
- Turn the wheel by pressing the Pedal 1 fig. 10c and lubricate the tyre carefully along the whole circumference of the top bead using a liquid mounting lubricant for touring applications. This will facilitate demounting and prevent damage to the bead (fig. 18).
- Inserting the réglette. Raise the Pedal 1 fig. 10c to turn the turntable in the opposite direction and operate the Lever 1 fig. 10b again until the main roller has penetrated about $\frac{1}{2}$ cm into the wheel. This makes the space for the réglette to be placed between the rim and the tyre (fig. 19).



WARNING

One réglette may be used for several demounting operations. However, first it is advisable to check its conditions. If there are signs of wear or damage on the tang of the réglette, it should be replaced with a new one.

- With the Pedal 1 fig. 10c still raised to turn the turntable in the opposite direction, fit the réglette provided between the rim and the tyre. Take care to fit the réglette the correct way round; the recess A fig. 19 designed to engage with the bead breaker lever (E fig. 1) must be facing towards the tyre or the outside of the wheel (fig. 20a).
- Keep the Pedal 1 fig. 10c raised until the réglette has been completely inserted between the rim and the tyre. During the rotation, the tang of the réglette must pass underneath the main roller (fig. 16).
- Operate the Lever 1 fig. 10b to return the entire top arm upward, removing it from the working area. Return the top arm to the rest position by hand using the relative movable lever underneath the arm on the operator side (N fig. 1) and the side fork (A3 fig. 1), which must be returned to the supporting condition (resting on the pin B fig. 6).

- Press the Pedal 1 fig.10c and turn the turntable to bring the réglette into the operator area.
- Support the bead breaker lever E fig. 1 supplied into the slot provided in the réglette (fig. 21 and fig. 21a).



WARNING

Before lifting the bead, it is important to make sure that the bead breaker lever has penetrated a sufficient distance underneath the top bead.

- Use leverage on the tyre until the top bead of the tyre is completely detached from the rim. If necessary, assist the process by lifting the bottom of the tyre by hand (fig.21b).
- Remove the réglette (fig.22) and use the bead breaking lever to place it on a suitable supporting surface, convenient for reuse.



WARNING

Take care not to drop the réglette into the tyre. There is a risk it may be left inside the tyre during the mounting operations which follow.



WARNING

Take great care not to allow the top bead of the tyre or the tools to come into contact with the pressure sensor. Contacts involving abnormal stresses may damage pressure sensors or create sealing problems between the valve and the rim.

DEMOUNTING

PAX System wheels with full width and clippé support

- Operate the Lever 2 fig. 10b to bring the disc of the bottom tool into contact with the tyre at the height of the mounting groove in the rim (fig.23).
- Turn the Selector switch 6 fig. 10b to the above rim position to bring the disc of the bottom tool close to the outer edge of the rim to which the support is fixed. When the rim diameter value shown on the display flashes, this means that the tool is located above the rim.
- Press the Pedal 1 fig.10c and operate the Lever 2 fig.10b. Since the bead of the tyre has been completely broken, the disc of the bottom tool is applying its force directly to the mounted support. The upward thrust of the disc of the bottom tool and the rotation of the wheel allow the support and the tyre to be completely removed from the rim (fig.24).
- Return the Selector switch 6 fig. 10b to the tangential position. This prevents the collision between the disc and the edge of the rim which would inevitably occur during retraction of the bottom tool if this were to take place with the tool above the wheel. When the rim diameter value shown on the display stops flashing, this means that the tool is tangential to the rim.
- Now operate the Lever 2 fig. 10b to return the entire bottom arm downward, removing it from the working area.
- The tyre and its support have therefore now been completely demounted from the rim. Place them temporarily on the wheel lift frame G fig.1.
- Remove the support from the tyre being replaced and then place them both on the ground (fig.25).

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TYRE MOUNTING

Instructions for choosing the tyre

Once the appropriate tyre/support/rim combination has been chosen from those permitted for use on the vehicle with PAX System wheels, the mounting procedure can be begun.

The PAX System wheel comprises the following 4 items (fig. 26):

- 1) rim with special PAX System profile **T** (for full width or clippé support).
- 2) support **S** (full width or clippé type).
- 3) PAX System tyre **R**
- 4) pressure sensor **T1**.



ATTENTION

Always check that the tyre/support/rim are compatible (tyre with relative support for PAX wheels on rim for PAX wheels) and that their geometrical dimensions also correspond (assembly diameter, tyre wall size, etc.) before assembling.

Also check that rims are not deformed, that their fixing holes have not become oval, that they are not encrusted or rusty and that they do not have sharp burrs on the valve holes. Make sure that the tyre and its support are in good condition and show no signs of damage.

Fitting the support inside the tyre

PAX System wheels with full width and clippé support

- Place the tyre for mounting on the frame of the lift G fig.1.
- Lubricate the inside of the tyre with the zero-pressure running gel, with the aid of the trowel provided (fig.27). This special gel for running at zero pressure (applied inside the tyre) ensures that if the car is driven at zero pressure the tyre will not suffer friction damage.



WARNING

When lubricating the inside of the tyre with the special zero pressure running gel, take care not to dirty the beads of the tyre. The beads of the tyre should be lubricated with a touring mounting lubricant.



WARNING

The support must be placed in the tyre the correct way round, in case of both full width or clippé support PAX System wheels.

- Place the support inside the tyre (fig. 28), taking care to position it the correct way round (fig.11).

PAX wheels with clippé support. Check that the clip inside the support is placed so that it can engage properly with the groove provided on the outside circumference of the rim (fig.11a).

Fitting the tyre/support on the rim

PAX System wheels with full width and clippé support

- Lubricate the beads with the touring liquid mounting lubricant (fig.29).
- With the aid provided by the shape of the PAX System wheel itself, which is asymmetrical with different diameters (smaller diameter facing up and larger diameter facing down), place the tyre-support combination already prepared, and suitably lubricated, inside the width of the rim (fig.30).
- Raise the top arm with its double roller tool slightly to prevent the side fork from hindering this movement. Then bring the arm into the working position using the fixed gripper lever provided.
- Operate the Lever 1 fig. 10b to bring the main roller of the top tool into contact with the tyre. The wheel data have been set correctly if the main roller is tangential to the rim.
- Press the Pedal 1 fig. 10c. One complete turn of the wheel will bring the side surface of the support level with the rim's top shoulder (fig.31a).
- Force the tyre with your hands to place the main roller of the top tool between the tyre and the rim, so that it is able to act directly on the side surface of the support (fig.31b).
- Operate the Lever 1 fig. 10b and press the Pedal 1 fig.10c. Slowly, the action of the main roller of the top tool pushes the support into the seat provided on the outside edge of the rim (fig.31c).

- Condition of complete insertion for PAX System wheels with clippé support.

When the indicator roller A fig.31c is touching the top edge of the rim, the operator knows that mounting of the support has been completed.

- Operate the Lever 1 fig. 10b to return the entire top arm upward, removing it from the working area.
- For the tyre to be mounted correctly, both the beads (top and bottom) must be outside the width of the rim. Generally, the bottom bead does not meet this requirement. In this case, the mobile tool I fig. 1 of the tool head J fig. 1 must be used.
- Operate the Lever 4 fig. 10b to guide the tool head into the working zone. While the head is moving, if necessary turn the Selector switch 3 fig.10b to prepare for use of the mobile tool. To allow its use, the mobile tool must be facing upward (fig.32a).
- Move the mobile tool forward to the limit position and raise it until it has been completely inserted between the rim's bottom shoulder and the bottom bead of the tyre (fig. 32b and 32c).
- Operate the Lever 4 fig.10b to lower the mobile tool below the shoulder of the rim. The hook of the mobile tool will engage with the bottom bead of the tyre, dragging it outside the shoulder (fig.32d).
- Press the Pedal 1 fig. 10c. One complete turn of the wheel will extract the bottom bead from the rim.
- Operate the Lever 4 fig.10b to remove the mobile tool from the working area. The tool head must be lowered to the limit position and moved completely back (fig.32e).
- Turn the Selector switch 6 fig.10b to the tool above position. **When the rim diameter value shown on the display flashes, this means that the tool is located above the rim.**
- Operate the Lever 2 fig.10b to move the disc of the bottom tool so that it rests on the surface of the bottom edge of the rim (fig. 33a).
- Operate the Lever 1 fig.10b to bring the main roller of the top tool into contact with the surface of the top edge of the rim (fig. 33b).

- Apply the bead retainer belt F fig.1 to secure the tyre to the rim (fig. 29c). The bead retainer belt prevents the tyre from rising above the shoulder of the rim during the next stage when the tyre is mechanically locked to the rim
- Press the Pedal 1 fig.10c. Turn the wheel through one complete revolution. The containing force applied by the tools during the rotation fixes the beads to the rim. The special locking mechanism and the new-concept bead mean that the tyre will not move out of position in any foreseeable circumstances during its use.
- Operate the Lever 1 fig.10b to return the entire top arm upward, removing it from the working area.
- Operate the Lever 2 fig. 10b to return the entire bottom arm downward, removing it from the working area.
- Return the Selector switch 6 fig.10b to the tangential position. **When the rim diameter value shown on the display stops flashing, this means that the tool is tangential to the rim.**
- Press the Pedal 1 fig.10c. Turn slightly until the bead retainer belt is facing the operator. Remove the bead retainer belt.



WARNING

After fitting the support ring, always wipe the following parts clean with a dry cloth:

- the tyre beads
- the grooves in the wheel which house the tyre
- the support ring positioning roller

INFLATION



WARNING

Inflation is well known to be a dangerous operation. It must be carried out in accordance with the instructions below. Non-magnifying safety goggles and safety footwear must be worn.



DANGER

Although the machine limits the pressure, it does not provide sufficient protection if the tyre bursts during inflation.

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



DANGER

NEVER exceed the pressure recommended by the tyre manufacturer. Tyres may burst if they are inflated beyond these limits or their structures may incur serious damage not visible at the time. **KEEP THE HANDS AND THE WHOLE BODY WELL AWAY FROM THE TYRE DURING INFLATION.** Make sure you are concentrated during this operation and check the tyre pressure continuously to avoid excess inflation. A bursting tyre can cause serious injury or even death.

Inflating the tyres of PAX System wheels

PAX System wheels with full width and clippé support

- Make sure that the wheel on which the tyre is mounted is firmly clamped to the self-centring turntable using the centring handle H fig. 1. Also make sure that the tool head J fig. 1 and the top and bottom bead arms K-P fig. 1 are well clear of the working area, if possible in the rest position.
- Connect the Doyfe union of the inflation line R fig. 1 to the spool of the valve. Inflate the tyre by pressing Pedal 2 fig. 10c. The tyre expands slightly, bringing the beads into the fully engaged condition, where they are perfectly airtight (fig.34).
- Continue inflating up to the value recommended by the tyre's manufacturer. Make sure you are concentrated during this operation and check the tyre pressure on the *Air pressure display pressure gauge* 1 fig. 9a continuously to avoid excess inflation.
- Fit the cap on the valve to protect its internal mechanism from dust and ensure an airtight seal.
- Press the Pedal 3 fig.10c to release the turntable clamping system. Take hold of the centring handle and remove it. Release the Pedal 3 fig.10c.
- Operate the Lever 5 fig.10b and remove the wheel from the working area. With the wheel lift on the ground, take the PAX System wheel ready for fitting on the vehicle.



WARNING

Never exceed the maximum inflation pressure specified by the tyre's manufacturer for any reason - danger of damaging the tyre.

TROUBLESHOOTING

The machine has cut out due to a sudden power failure

If the machine is out of operation after a sudden power failure, the message "AZZ" appears on the Display 3 - fig.10a.

To re-enable operation of the machine, if the power failure has occurred during operation, move the tool head or the arms out of the working area.

Then press any of the numerical value input keys on the Keypad 4 - Fig. 10a.

GB

GLOSSARY

PAX System tyre

Mechanical locking system.

With the PAX System, the tyre is connected to the rim mechanically. Instead of the air pressure, the tyre is held in place by the tension of its body. This means that a PAX System tyre cannot come off the rim in case of a puncture.

Support.

This is a ring placed inside the wheel, which is mounted on the outside edge of the rim and provides the tyre with support in case of a puncture. It also allows the car to keep on travelling in safety. During mounting, a zero pressure running gel is applied between the inside of the tyre and the support. This means that if the car is driven with no pressure in the tyre, the tyre will not suffer friction damage.

Pressure sensors.

Fitted inside the wheel, they measure the pressure and temperature of the air inside the tyre and transmit this information by radio to a computer which uses state-of-the-art software to identify any pressure anomalies and inform the driver accordingly.



Kit Pax System Artiglio Master

Cod.462266 - 2.0 del 09/02

Italiano

Illustrazioni e schemi

English

Illustrations and diagrams

Français

Illustrations et schémas

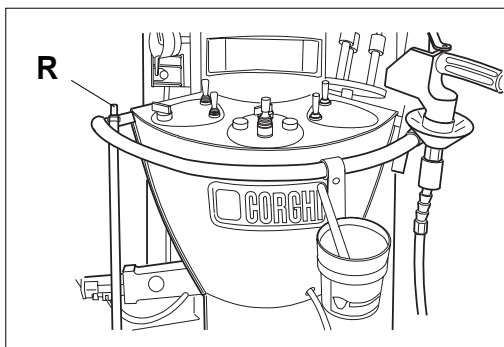
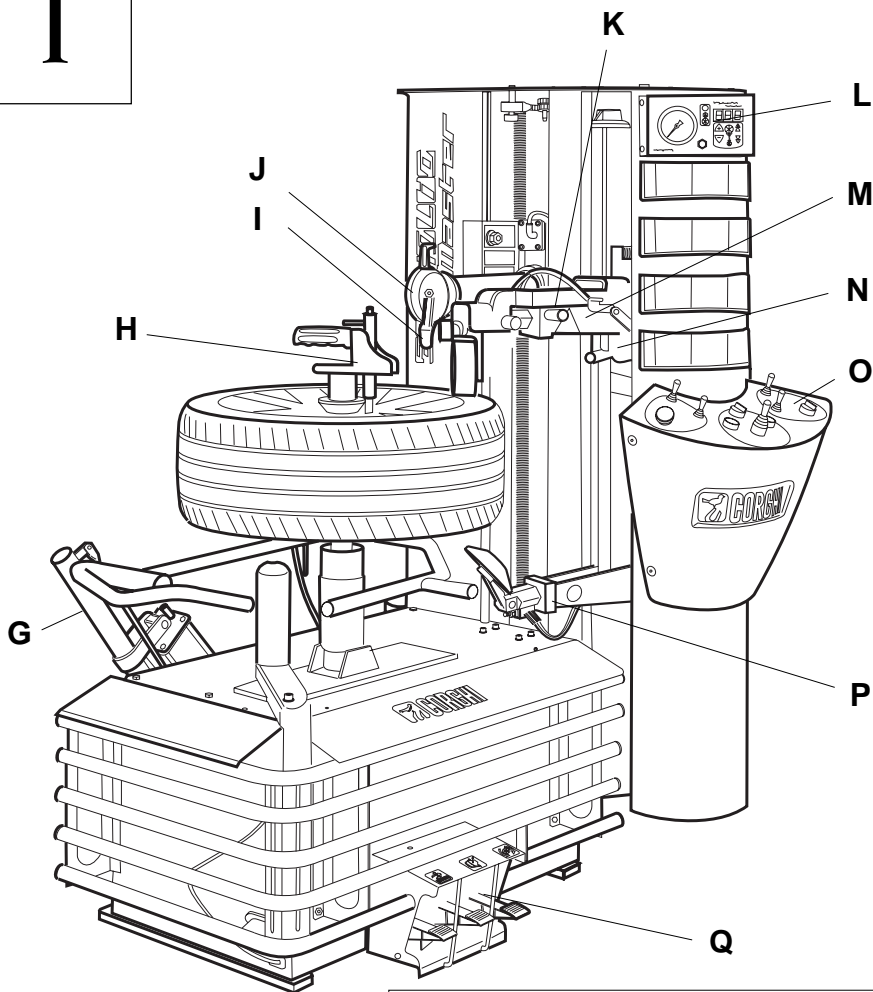
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Bilder und Zeichnungen

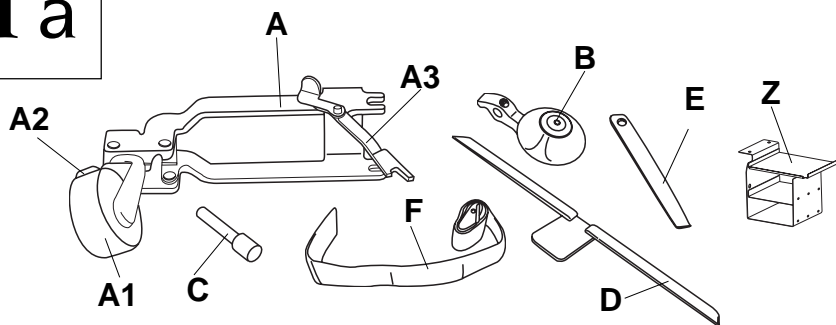
Español

Ilustraciones y esquemas

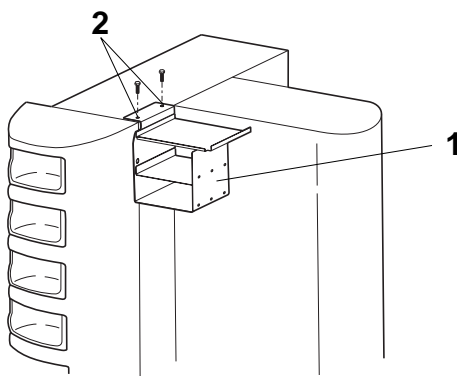
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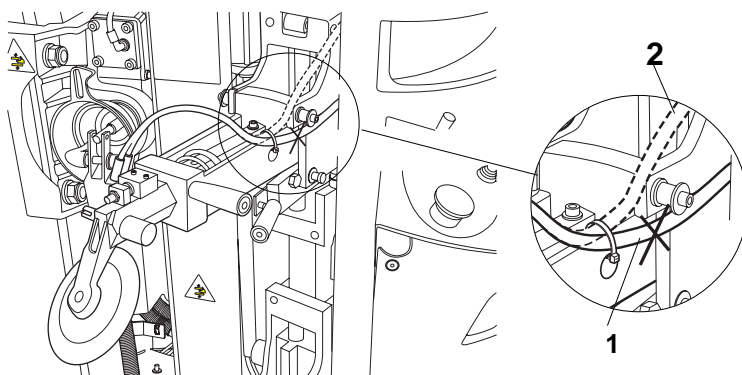
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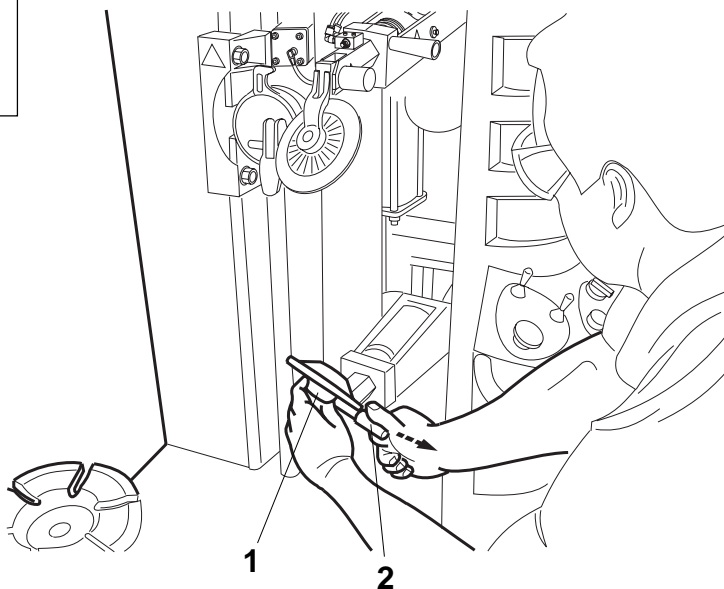
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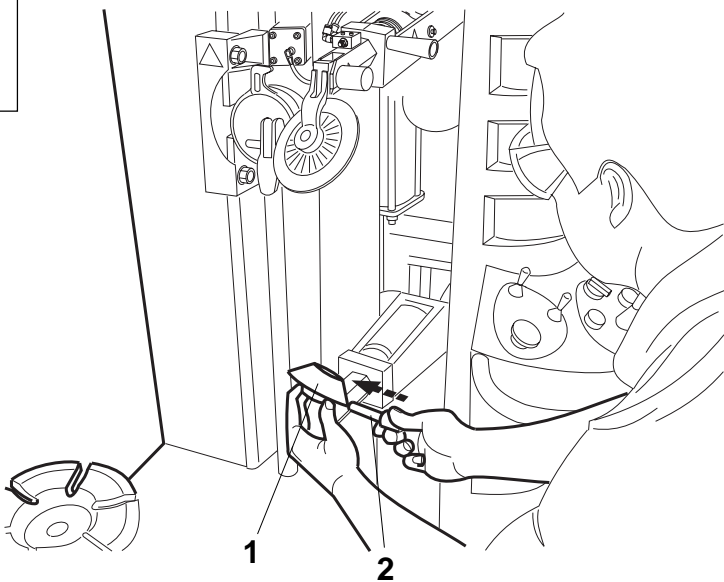
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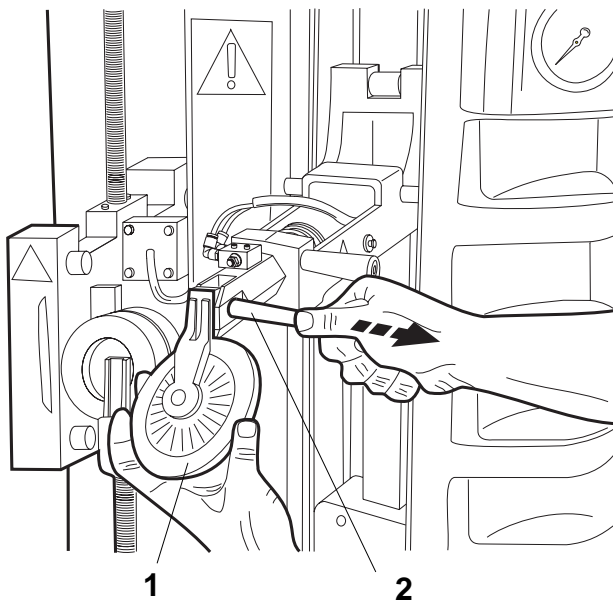
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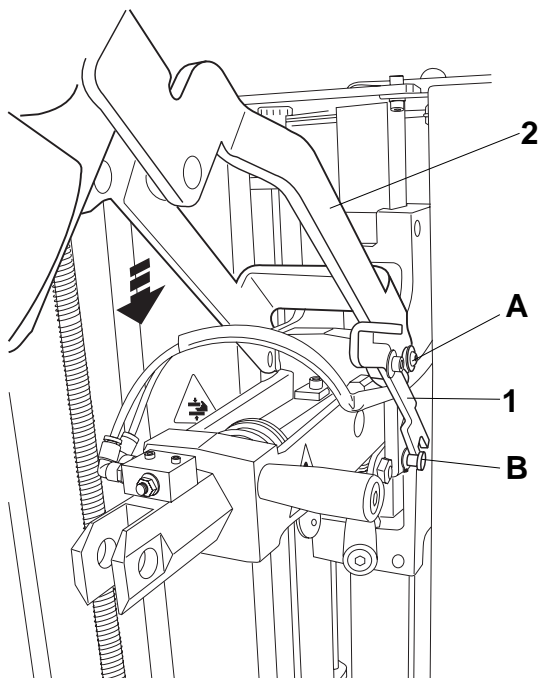
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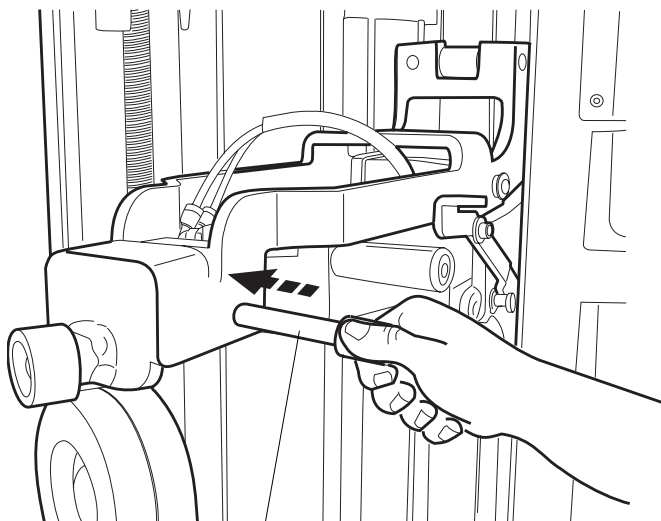
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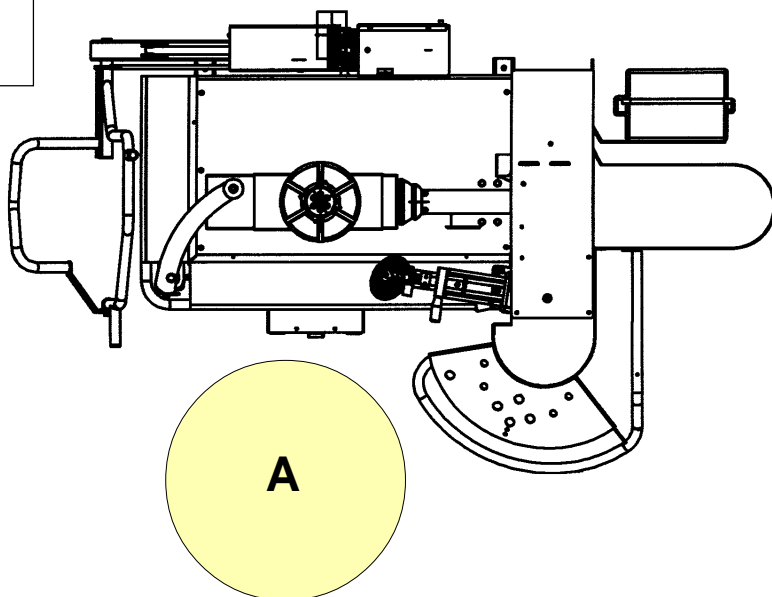


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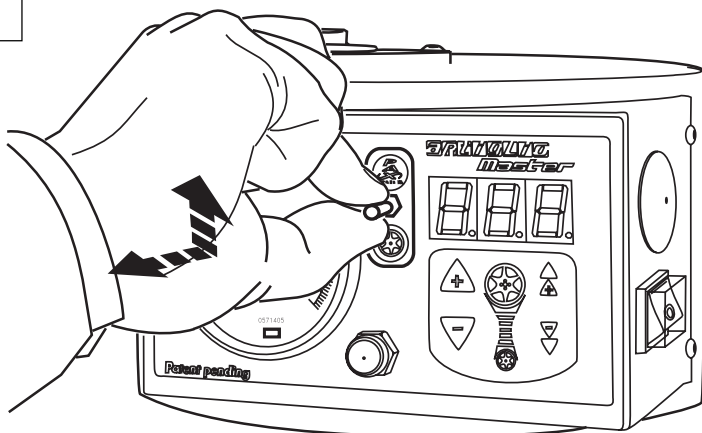


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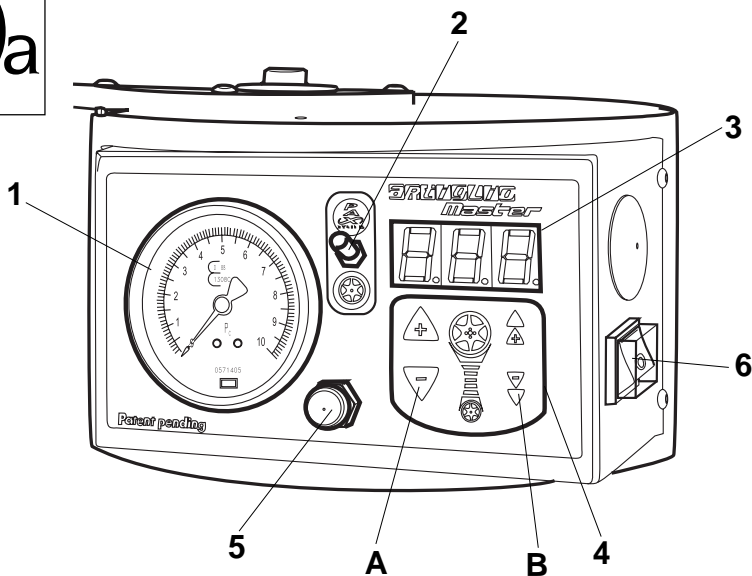
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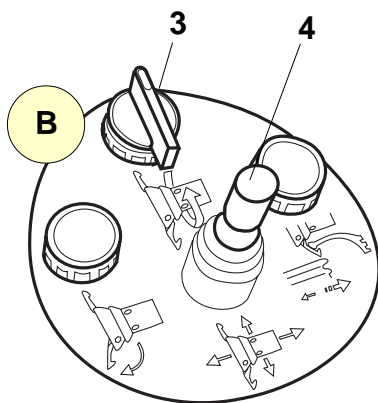
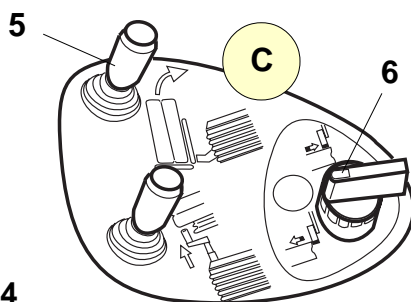
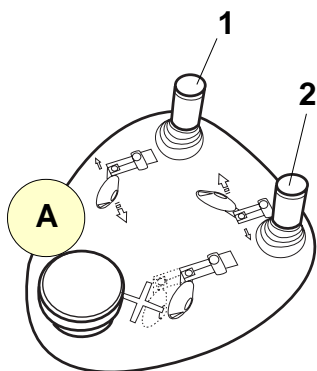
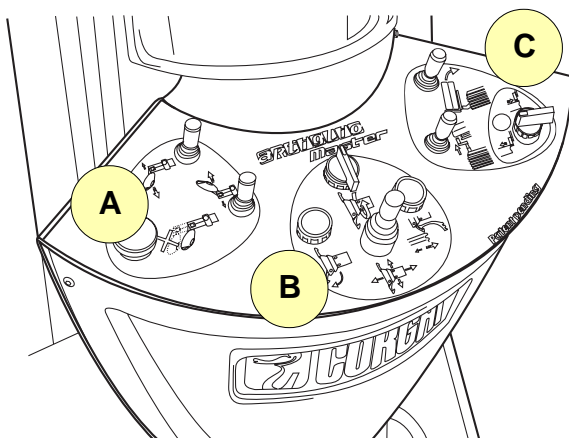
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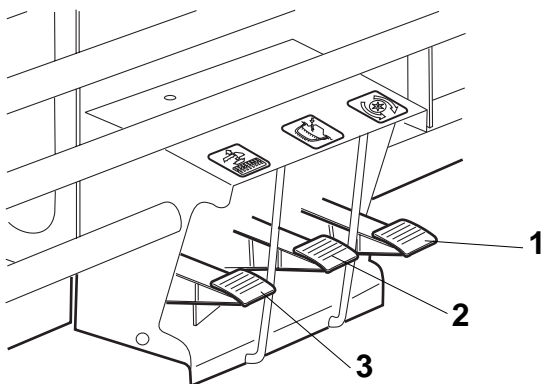
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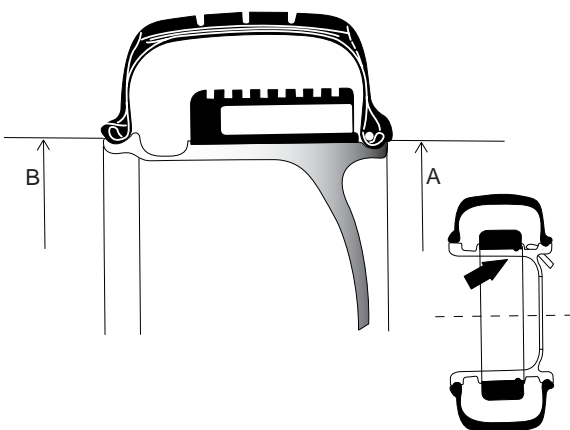
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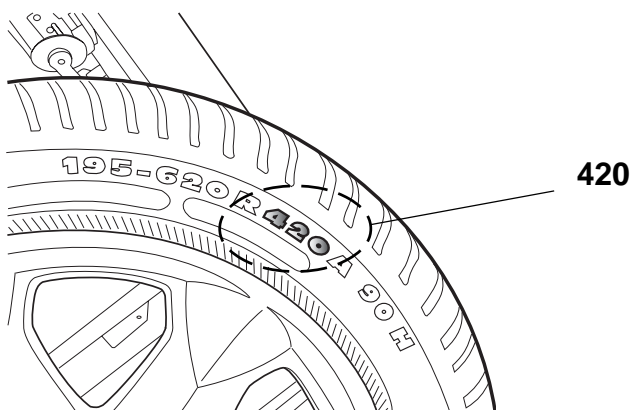
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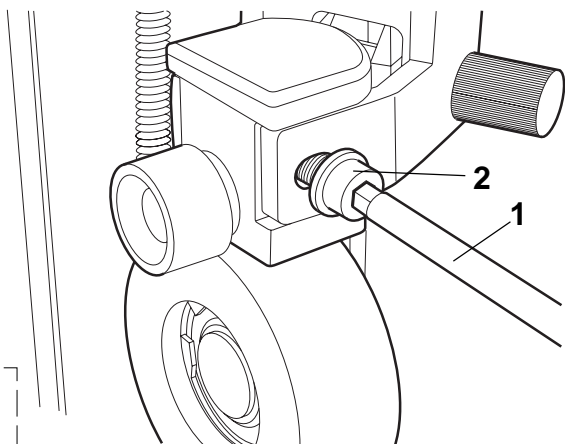
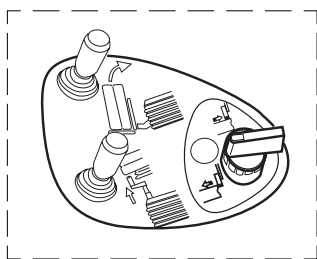
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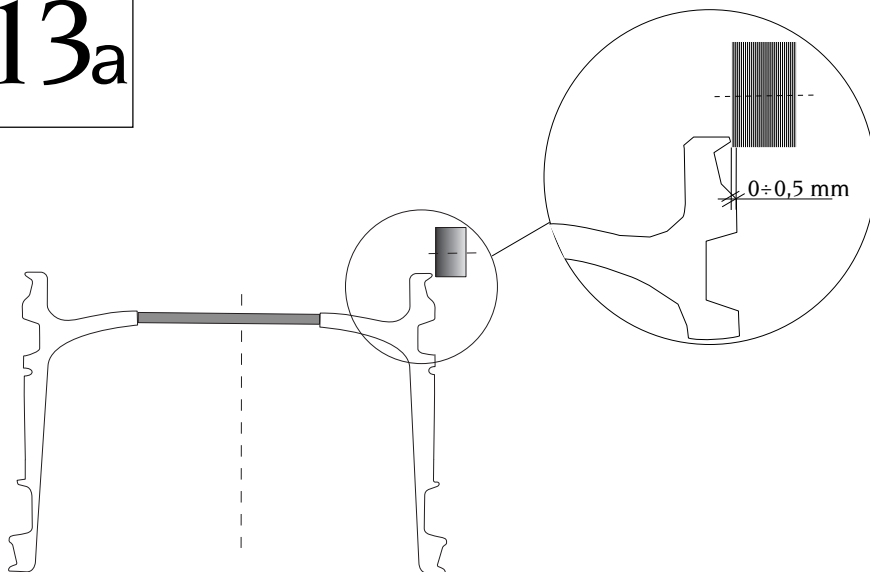
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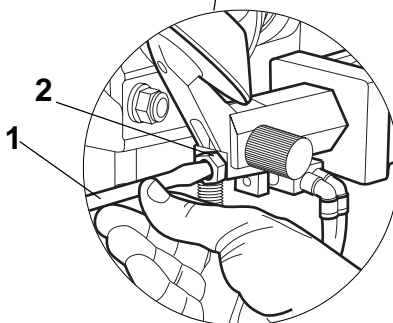
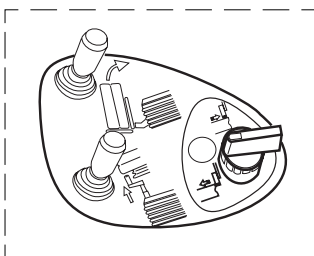
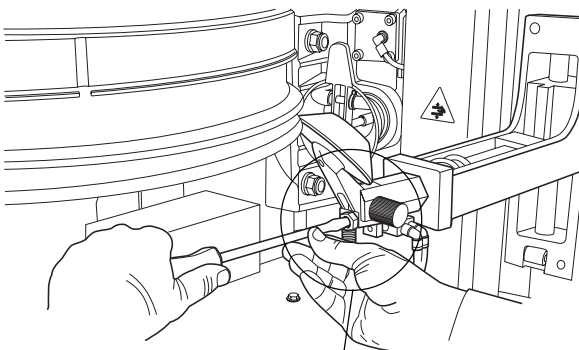
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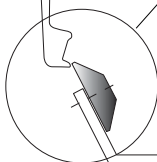
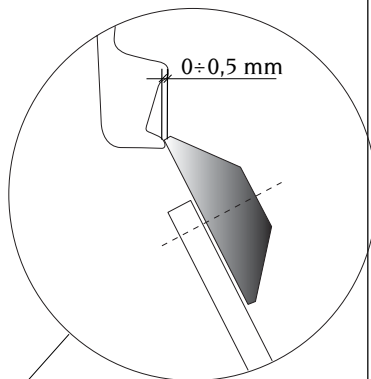
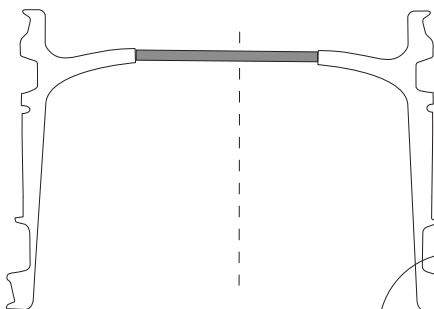
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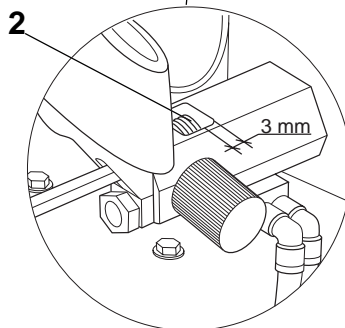
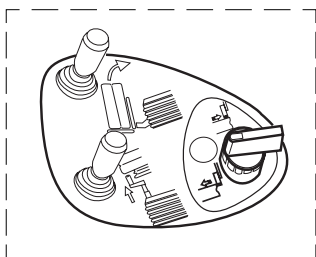
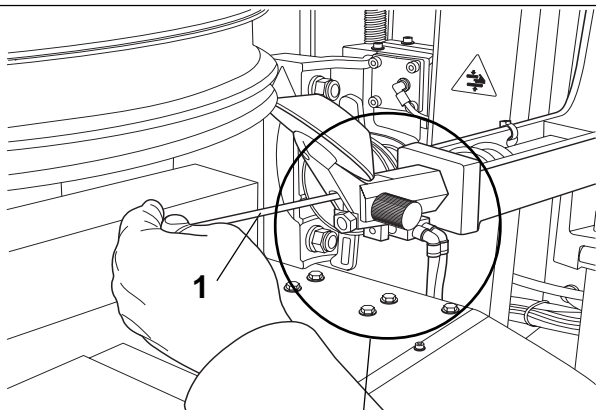
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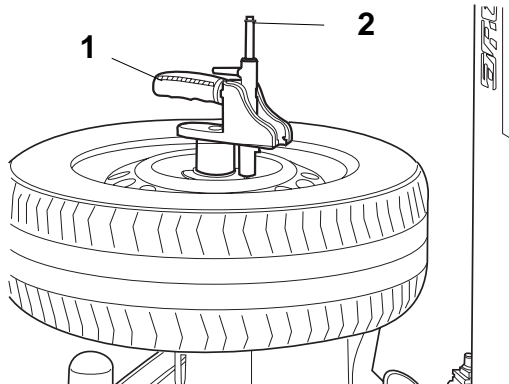
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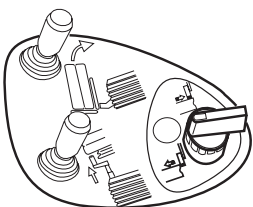
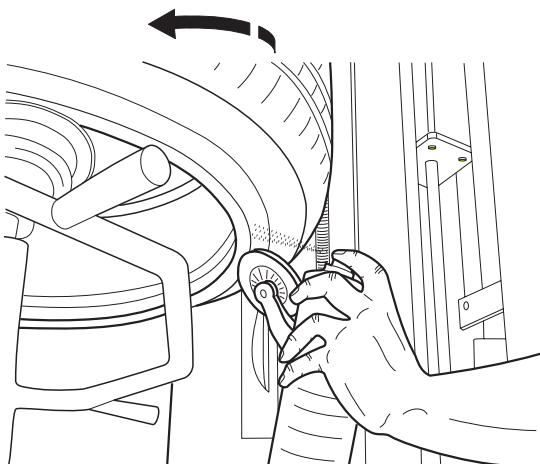
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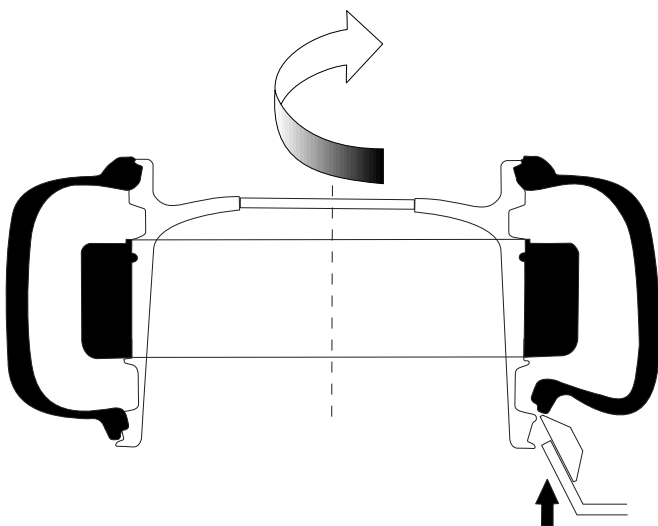
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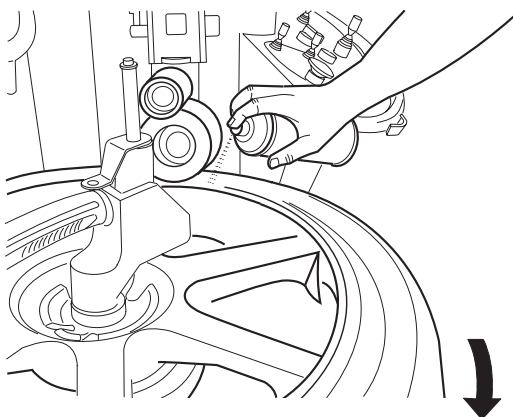
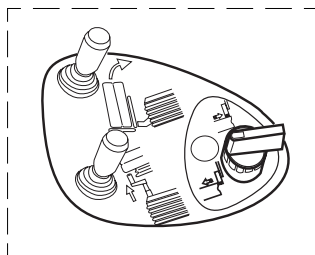
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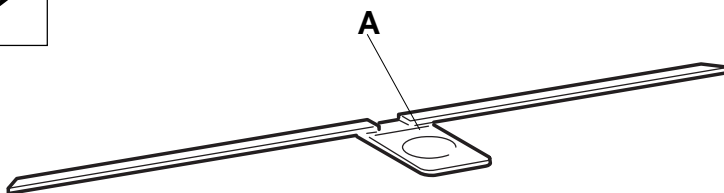
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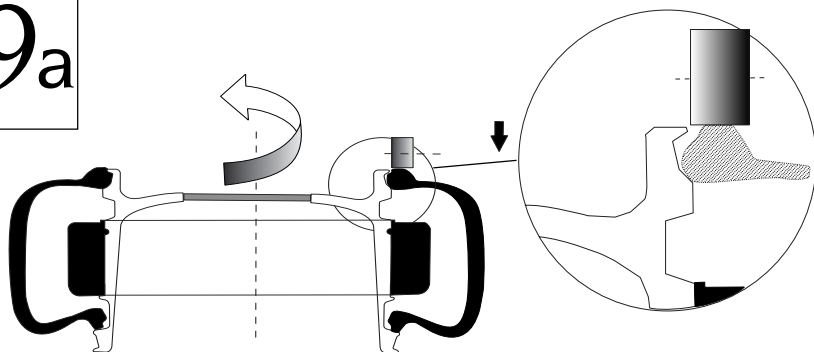
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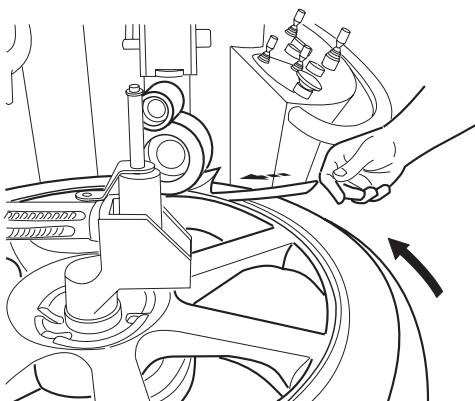
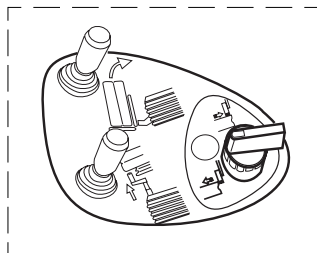
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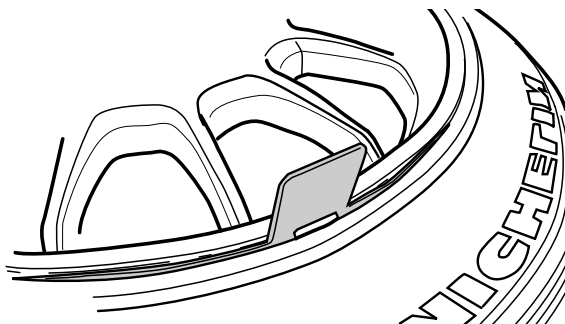
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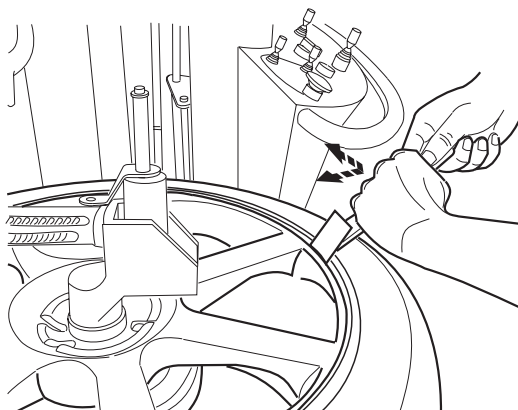
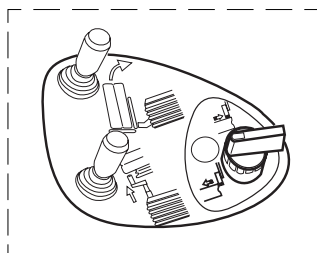
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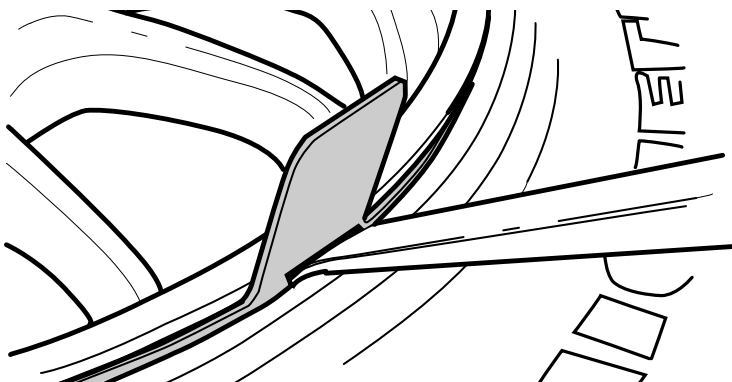
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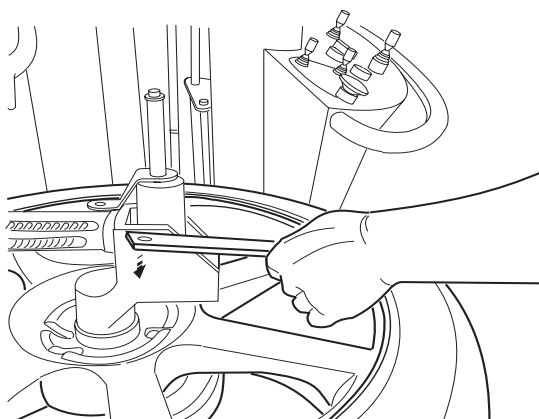
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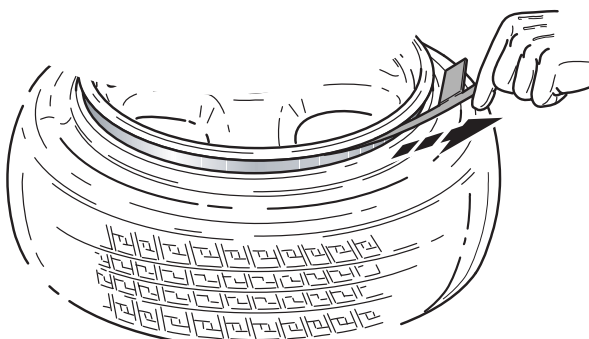
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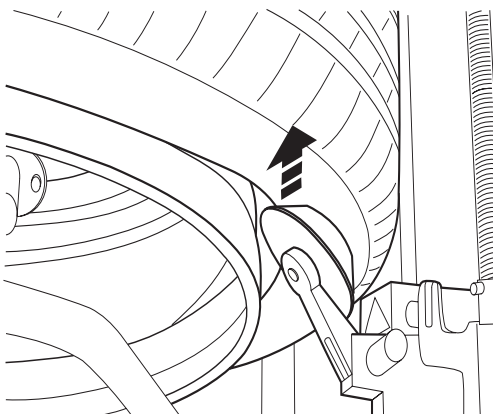
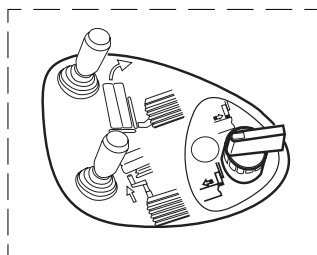
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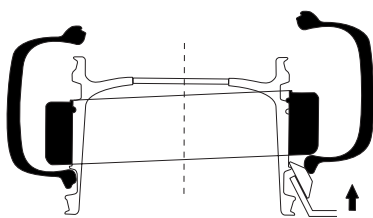
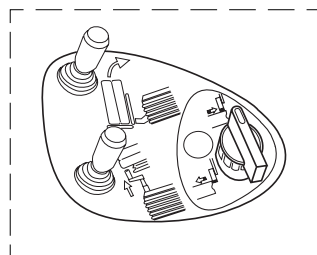
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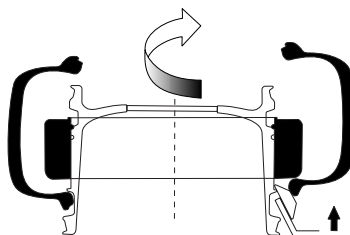
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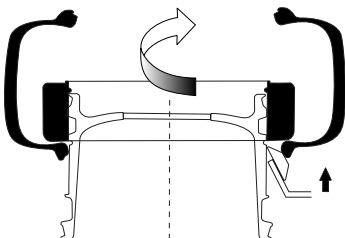
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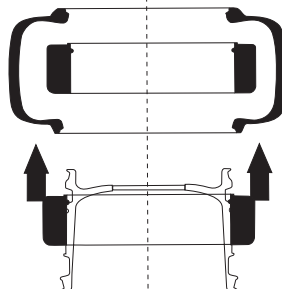
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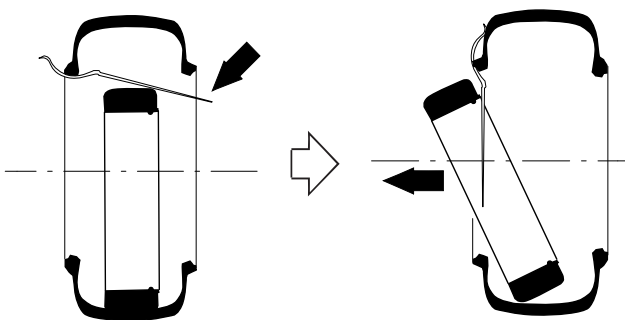


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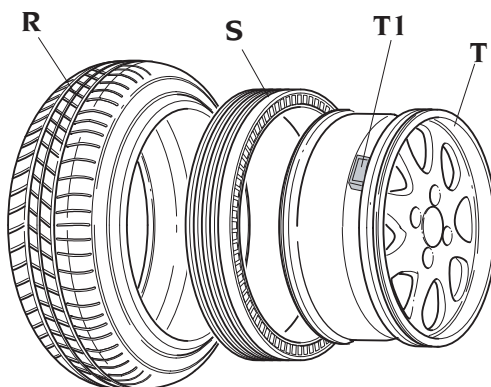


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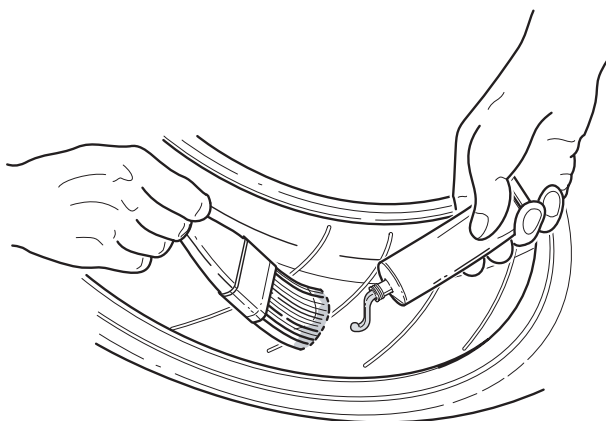
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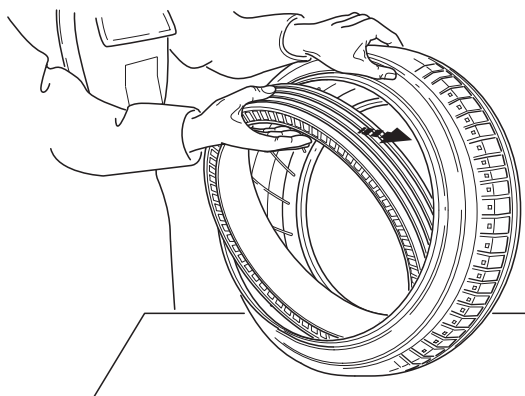
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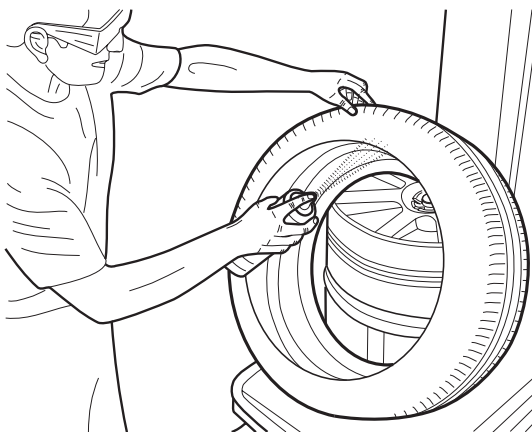
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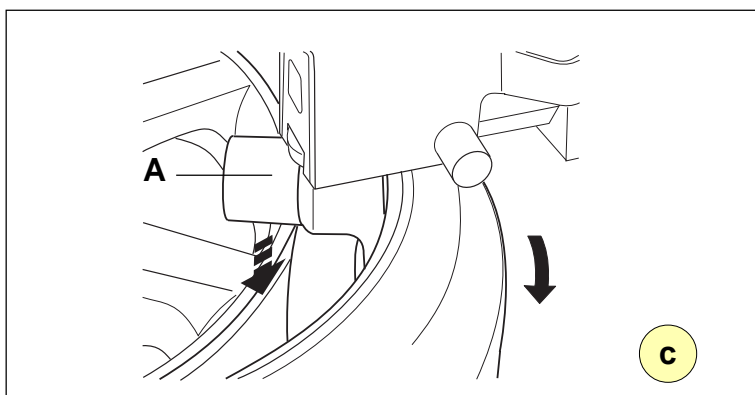
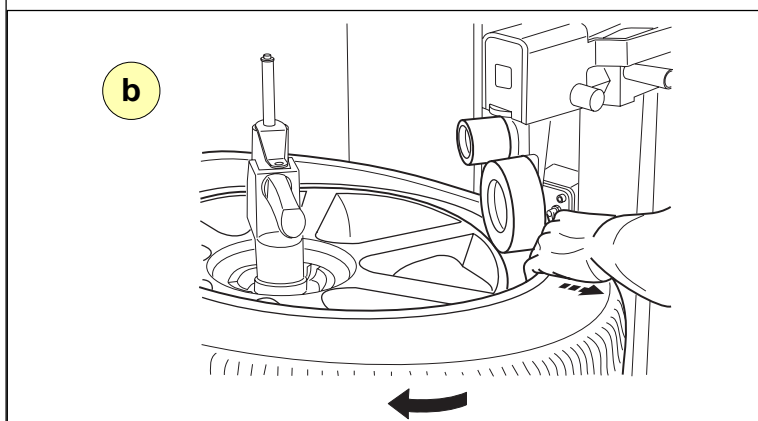
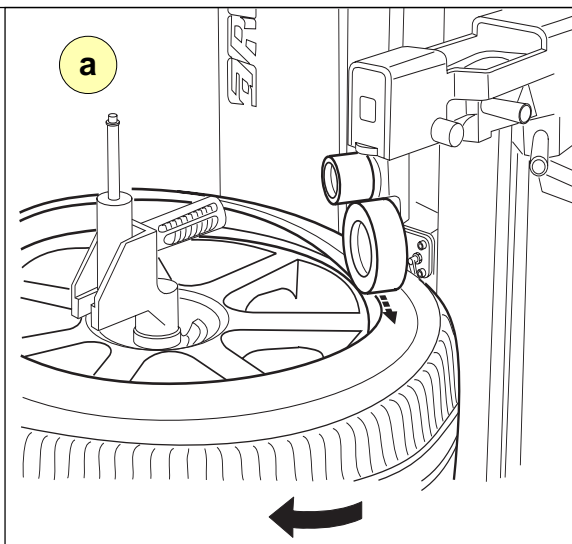
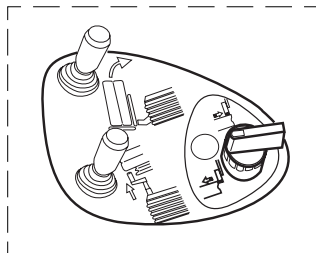
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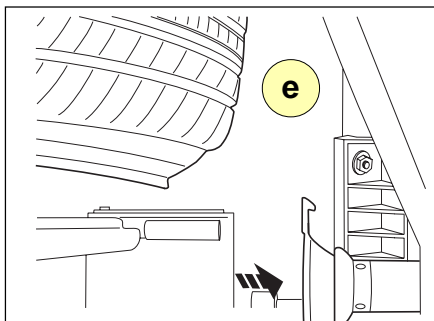
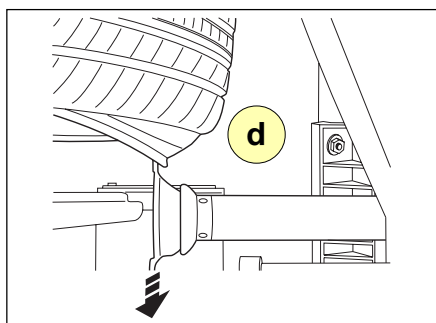
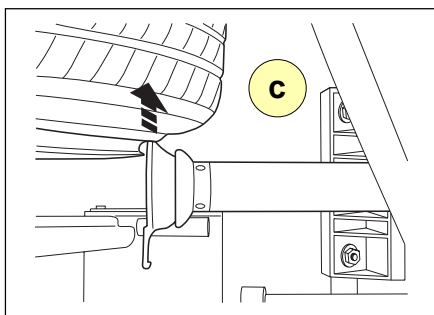
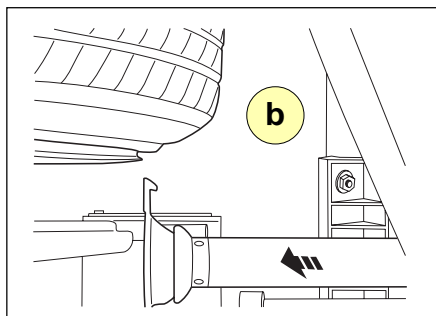
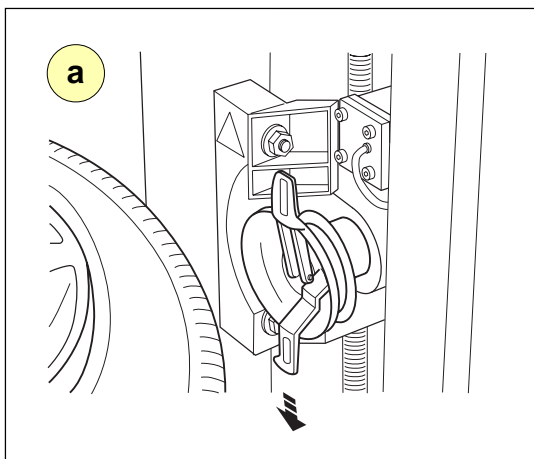
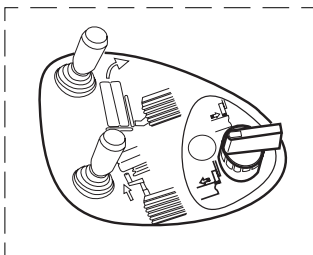
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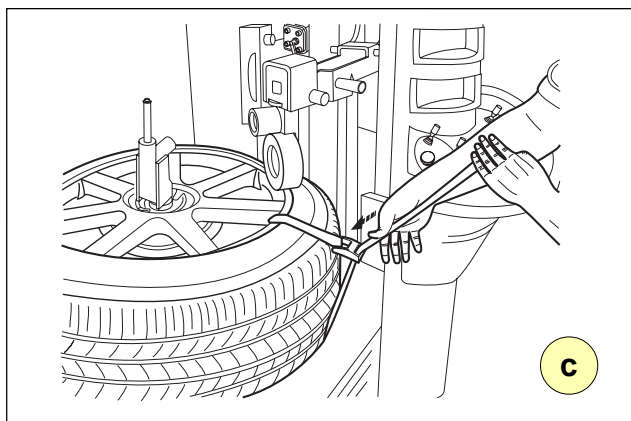
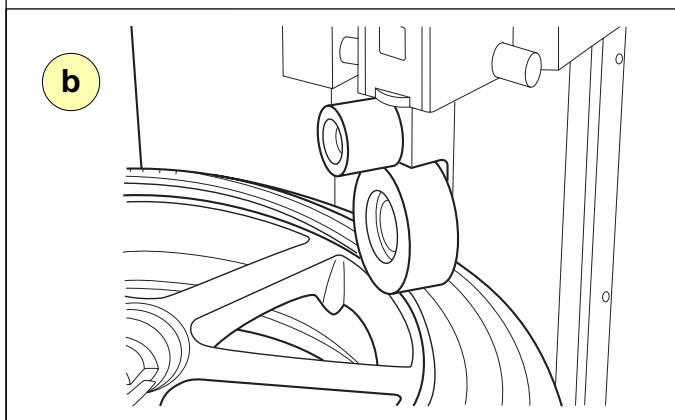
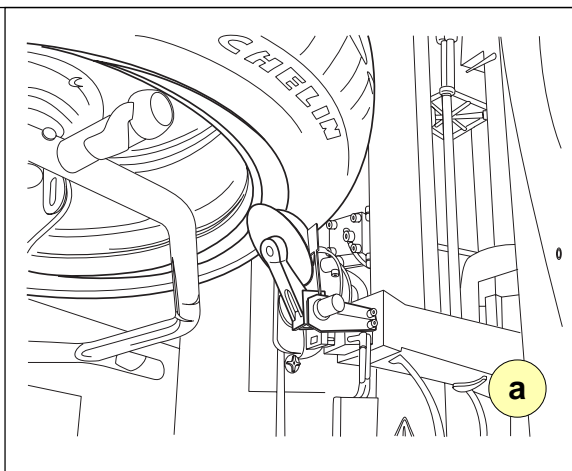
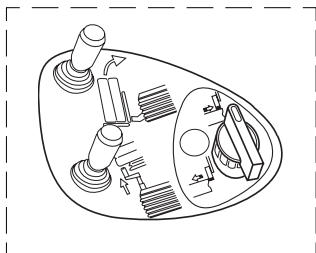
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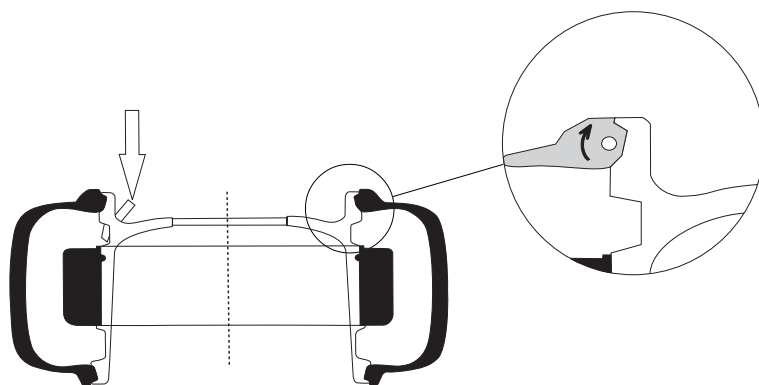
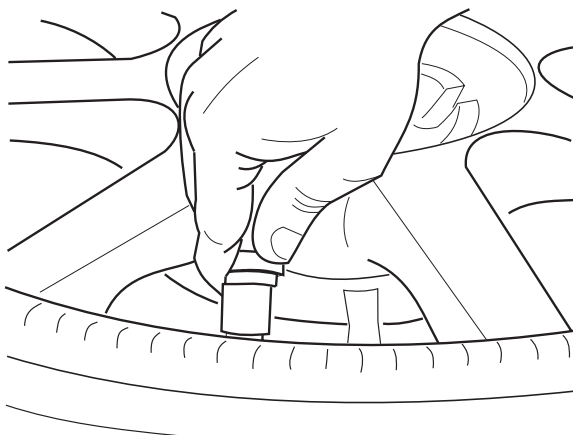
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