The information contained herein may be changed without notice.

Thank you for choosing our car tire changer

Dear Customer

Thank you for purchasing our equipment.

As long as the machine is used and maintained in accordance with the instructions provided in this manual, your machine will continue to provide you with safe and reliable service. Anyone who uses and/or maintains this equipment must read, understand and follow all warnings and instructions provided in this manual and receive appropriate training. This instruction manual should be considered an integral part of your equipment and should be kept with the equipment. However, nothing in this manual and anything installed on the equipment is a substitute for proper training, correct operation, careful evaluation of procedures and safe working practices.

Always ensure that your equipment is in good working order. If any malfunction or potentially hazardous condition is observed, shut down the machine immediately and resolve the situation before continuing use.

For any questions regarding the proper use or maintenance of your device, please contact your local official service provider.

Index

1.debug

1.1. Introduction

1.1.a. Purpose of the Manual

The purpose of this manual is to provide the instructions necessary for optimal operation, use, and maintenance of this machine. If you sell this machine, give this manual to the new owner.

This manual assumes that the technician has a thorough understanding of rim and tire identification and maintenance. She/he must also have a thorough understanding of the operation and safety features of all relevant tools used (such as racks, lifts or floor jacks) and use the tools necessary to work in a safe manner. The first section describes basic information about the equipment. The following sections contain detailed information about the equipment, procedures and maintenance. Bold type is used to refer to specific sections of this manual where additional information or instructions are provided. These references must be read for additional information beyond the instructions provided. The owner of the equipment has the sole responsibility for implementing safety procedures and arranging for technician training. The equipment may only be used by qualified, specially trained technicians. The owner or manager has the sole responsibility for storing documentation related to qualified personnel.

Additional copies of this manual and the documentation accompanying the machine may be obtained from the manufacturer, specifying the machine type and serial number. WARNING: Design details are subject to change. Some illustrations may differ slightly in appearance from the machine you own.

1.2.Safety Warning

DANGER: It indicates an imminently hazardous situation which, if not avoided, could result in serious injury or death.

WARNING

WARNING: It indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

CAUTION

CAUTION: It indicates a potentially hazardous situation which, if not avoided, may result in minor injury.

WARNING

WARNING: No safety hazard symbol. Indicates a potentially hazardous situation which, if not avoided, may result in material damage.

1.2.a. General warnings and instructions

WARNING

Proceed with caution to avoid any injury. Carefully read, understand and follow the warnings and instructions given in this manual.

1、If the maintenance procedures described in this manual are not performed correctly, or if other instructions contained therein are not followed, accidents may occur. This manual constantly mentions the possibility of accidents. Any accident could result in serious or fatal injury to the operator or nearby persons, or cause property damage.

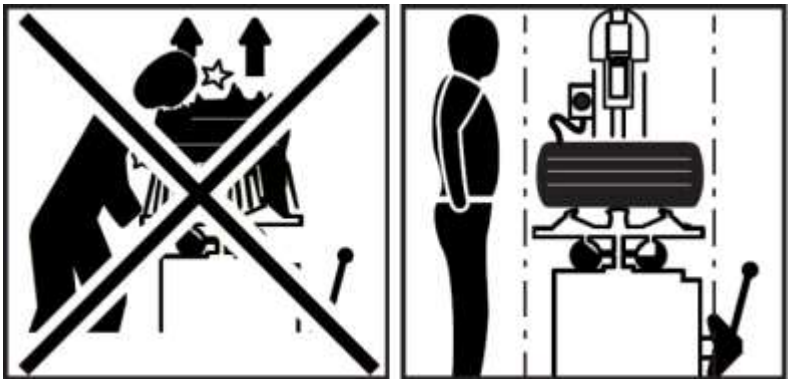
2、Over-inflated tires can explode, creating flying debris that could cause a dangerous accident.

3、Tires and rims that have different diameters are "mismatched". Never attempt to mount or inflate a tire and rim that do not match. For example, never mount a 16.5" tire on a 16" rim or vice versa. This is extremely dangerous. Mismatched tires and rims can explode and cause an accident.

4、Never exceed the tire inflation pressure stated by the manufacturer on the side of the tire. Double-check that the inflation hose is properly inserted into the valve nozzle.

5、Never place your head or other body parts near the tire during inflation or bead insertion operations. This machine is not a safety device to prevent explosion of the tire, air chambers or rim.

6、Maintain a suitable distance from the tyre changer while inflating. Do not approach it.



DANGER :The tire changer is not a safety device and cannot prevent tire and rim explosion. Keep all persons not working on the machine away from the work area.

DANGER

A tire blowout may cause parts of the tire to protrude into the surrounding area with enough force to cause serious injury or death.
Do not install the tire if the tire size (marked on the side) does not exactly match the rim size (printed inside the rim), or if the rim or tire is defective or damaged.
Never exceed the tire pressure recommended by the tire manufacturer.

7、Hazard of crushing. Presence of moving parts. Contact with moving parts can result in accidents. The machine may only be used by one operator at a time.

- Keep bystanders away from the tire changer.
- Keep your hands and fingers away from the edge of the rim during mounting and dismounting.
- Keep hands and fingers away from the tool head during operation.
- Keep your hands and other body parts away from moving parts.
- Do not use tools other than those included with the tire changer.
- Use a tire-specific lubricant to prevent the tire from seizure.
- Pay attention when handling rims or tires and when using the levers.

8、Hazard of electric shock.

- Do not clean electrical components with water or high-pressure air jets.
- Do not operate the machine if the cable is damaged.
- If an extension cord is required, use a cord with rated characteristics equal to or greater than the machine's characteristics. A cord with rated characteristics less than the machine's characteristics may overheat and cause a fire.
- Make sure the cables are positioned so they cannot be pulled and avoid being a tripping hazard.

9、During the bead insertion and inflation phases, debris, dust and fluid may be ejected into the air. Clear all debris from the tire tread and tire surface. Wear OSHA, CE certified or other approved eye protection during all work phases.

10、Always inspect the machine carefully before use. Missing, damaged or worn parts (including hazard labels) must be repaired or replaced before starting up.

11、Never leave nuts, bolts, tools or other materials on the machine. They can become entangled in moving parts and cause malfunction or be ejected.

12、Do not install or inflate a tire that is cut, damaged, rotten or worn. Do not install a tire on a rim that is damaged, bent, rusted, worn, warped or deformed.

13、If the tire is damaged during the mounting phase, do not attempt to complete the mounting operation. Remove it, take it away from the repair area and mark it as "damaged".

14、Inflate the tire gradually, constantly monitoring the pressure and checking the tire itself, the rim, and the bead. Never exceed the pressure limit indicated by the manufacturer.

15、The internal parts of this equipment may produce sparks if exposed to flammable vapors (gasoline, paint thinner, solvents, etc.). Do not install the machine in confined areas or place it below the floor level.

16、Do not operate the machine while under the influence of alcohol, drugs and/or medications. If you are taking medications, contact your physician to learn about their possible side effects on safe operation of the machine.

17、Always use OSHA, CE approved and authorized personal protective equipment (PPE) or equipment with equivalent certification when operating machinery. Consult your supervisor for additional instructions.

18、Do not wear jewelry, watches, loose clothing, ties or long hair while using the machine.

19、Wear protective shoes when using a tire changer.

20、Wear a suitable backrest and use correct lifting techniques when positioning, lifting or removing wheels on a tire changer.

21、Only properly trained personnel may use, service, and repair machines. Repairs may only be performed by qualified personnel. The manufacturer's technicians are the most qualified persons. If an operator attempts to perform repairs, the employer must determine whether the employee is qualified to safely perform any machine repairs.

22、Before starting the machine, the operator must pay close attention to the warning labels attached to the equipment.

23、Failure to use or maintain the machine or workshop pneumatic system can cause disconnection of the pneumatic supply, which may subject the pneumatic components to pressure. Use the controls on the pneumatic system to bleed the pneumatic system.

24、If the wheel weight exceeds 10 kg, use a lifting device and the lifting frequency exceeds 20 wheels/hour.

1.2.b. Connection of air source and power supply

WARNING

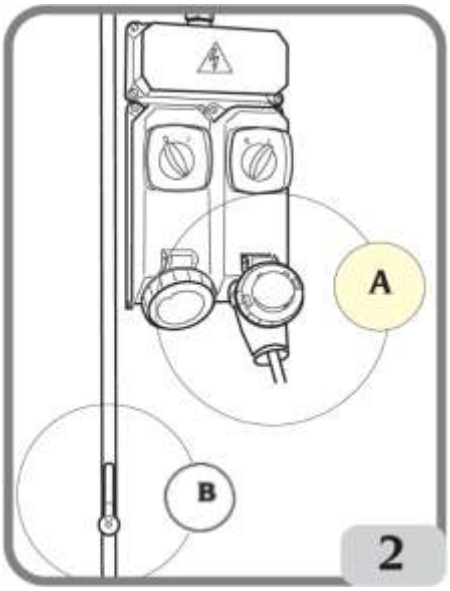
A good ground connection is crucial to the correct use of the machine!

The electrical connections used must be of the appropriate size:

- The power of the machine is indicated on its nameplate (Figure 1);
- The distance between the machine and the power connection point must ensure that the voltage drop at full load does not exceed 4% of the rated voltage value specified on the nameplate (10% at startup);

~ User must:

- Install a power plug on the power cord that complies with current regulations;
- connect the machine to its own electrical connection and fit a differential safety circuit-breaker with 30 mA residual current;
- Install protection fuses on the power line that are suitably sized in accordance with the indications provided on the machine data plate (Fig. 1);



- Connect the machine to an industrial socket outlet; the machine must not be connected to a domestic socket outlet.

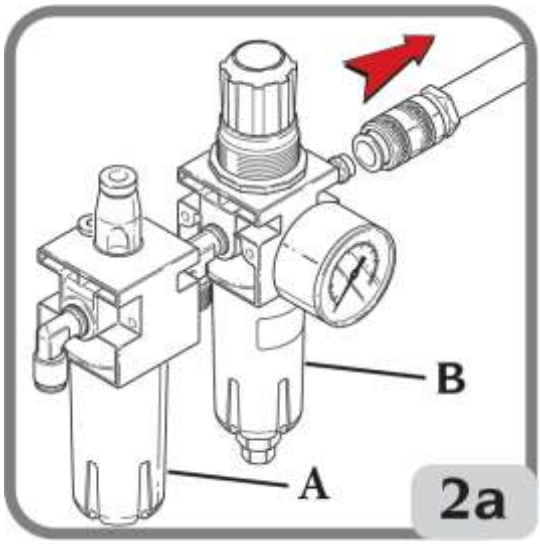
Make sure the available pressure and performance of the air supply is compatible with the pressure required for the correct operation of the machine. For the correct operation of the machine, the air supply must provide a pressure range from a minimum of 8 bar to a maximum of 16 bar.

WARNING

In order to ensure the normal operation of the equipment, the air source entering the machine must be properly treated.

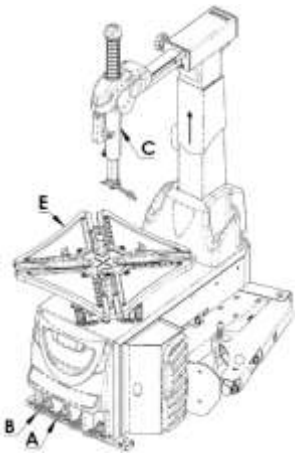
Check whether there is lubricating oil in the oil cup (Fig. 2a-A); the lubricating oil must not be lower than the minimum oil level in the oil cup. Please use SAE20 oil.

The air source pipeline must be installed with a Shut-off valve upstream of the oil-water separator (Figure 2a-B).



DANGER

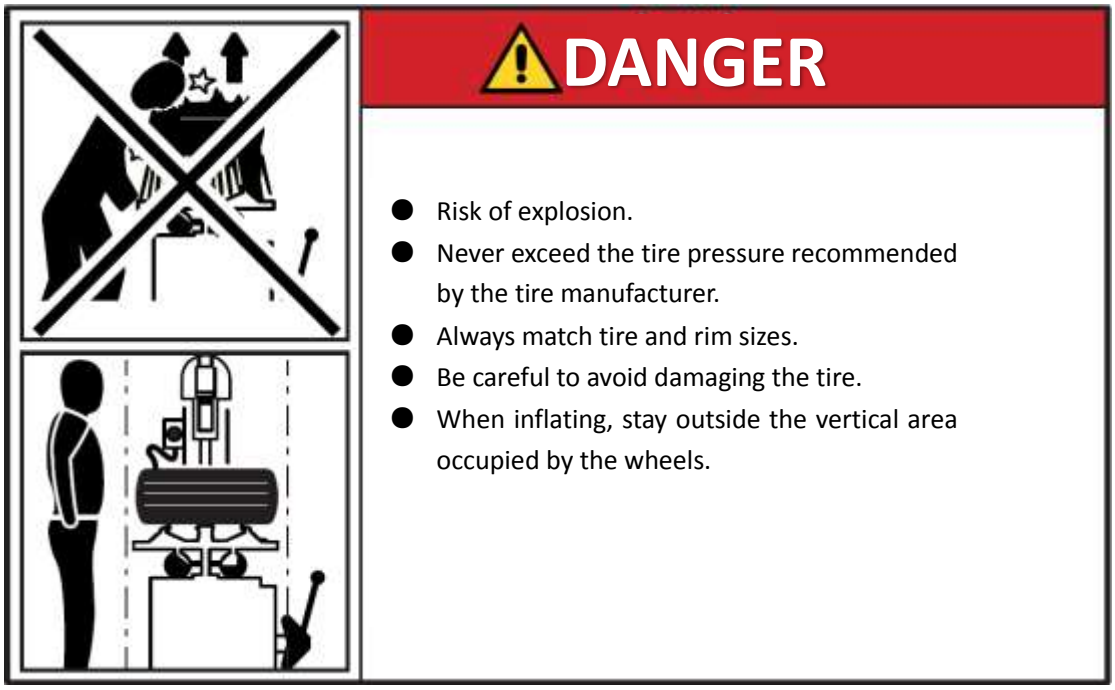
Before connecting the machine to power and air, and before restoring power and air, make sure the machine is in the following configuration:



Pedal A is fully depressed (sliding clamp E is closed)

Pedal B is in the highest position (horizontal arm C is in forward)

1.2.c. Air pressure



The machine is equipped with an internal pressure limiting valve to minimize the risk of over-inflation of the tires.

1. Do not exceed these pressure limits

●The supply circuit pressure (from the compressor) is 220 psi (16 bar).

●The operating pressure (shown on the regulator) is 150 psi (10 bar).

●The tire inflation pressure (shown on the pressure gauge) must not exceed the pressure indicated by the manufacturer on the sidewall of the tire.

2. Activate the inflation nozzle only after the tire has been mounted.

3. Before disconnecting the power cord or other pneumatic components, fully bleed the air pressure system. Air is stored in the air tank to operate the inflation nozzle.

4. The inflation nozzle may only be activated if the rim is correctly clamped on the tire changer (if necessary) and the tire is fully secured.

1.3.Special rim/tyre information

WARNING

Wheels equipped with pressure sensors and special rims or tires may require specific dismounting and mounting procedures. Refer to the wheel and tire manufacturer's service manual.

1.4.Intended use of the machine

This machine is intended for mounting and dismounting vehicle tires from rims using only the tools provided with the machine. Any other use is inappropriate and may result in personal injury.

1.5.Staff training

1、Employers are responsible for providing training programs for all employees who work on wheels, covering the hazards associated with maintenance and the safety procedures to be followed. Service or maintenance refers to the mounting and dismounting of wheels and all related activities such as inflation, deflation, mounting, dismounting and handling.

●Employers must ensure that operators do not work on wheels until they have received proper training on the correct maintenance procedures and operating safety procedures for the type of wheel being serviced.

● The information used for the training program shall include, at a minimum, the information contained in this manual.

2、Employers are required to make sure that every employee demonstrates and maintains

the ability to work on the wheels safely, including the performance of the following activities:

●Demounting of tires (including deflation).

●Inspection and identification of rim components.

●Tires mounting.

●Use of any restraint device, cage, barrier or other system.

●Operation with tire changer.

●Inflate the tire.

●When inflating a tire, stay away from the tire changer and do not bend over to check the wheel during the inflation process.

●Loading and removing of the wheels.

3、Employers must assess their employees' ability to perform these tasks and work on wheels in absolute safety and must provide additional training as needed to ensure all employees maintain their skills.

1.6.Initial examination

Before starting work, carefully check that all machine parts, especially rubber or plastic parts, are in place, in good condition and operating properly. If the inspection reveals any damage or excessive wear, no matter how slight, it should be replaced or repaired immediately.

Walk around the machine to ensure that all parts are in good condition and operable and that there are no foreign objects or debris (rags, tools, etc.) in or near the machine that could affect its operation.

The following checks must be carried out:

●Inspection before starting the machine.

●Regular check-ups.

●After any modifications or repairs.

Only start the machine after successfully completing this pre-use check. Do not use the machine if it has been taken out of service for adjustment, maintenance, lubrication, etc.

1.7.Usage process

If you hear strange or unusual noises or detect any unusual vibrations, if a component or system does not operate properly, or if you observe any abnormal conditions, stop using the machine immediately.

●Determine the cause and implement any necessary corrective actions.

●If necessary, contact your supervisor.

●Make sure all other persons are standing at least 6 meters (20 feet) away from the machine. To shut down the machine in an emergency:

●Disconnect the power plug.

●Interrupt the compressed air supply by disconnecting the supply line.

WARNING

Proceed with caution to avoid any injury. Carefully read, understand and follow the warnings and instructions given in this manual.
This manual is an integral part of the product. For future reference, please store it with the machine in a safe place.

1.8.Optional accessories

Contact sales to find all optional accessories available for this machine.

2.Transport, storage and handling

Machine transportation conditions

The tire changer must be shipped in its original packaging and kept in the position indicated on the packaging.

Environmental conditions for machine transportation and storage Temperature: -25°÷+55°C.

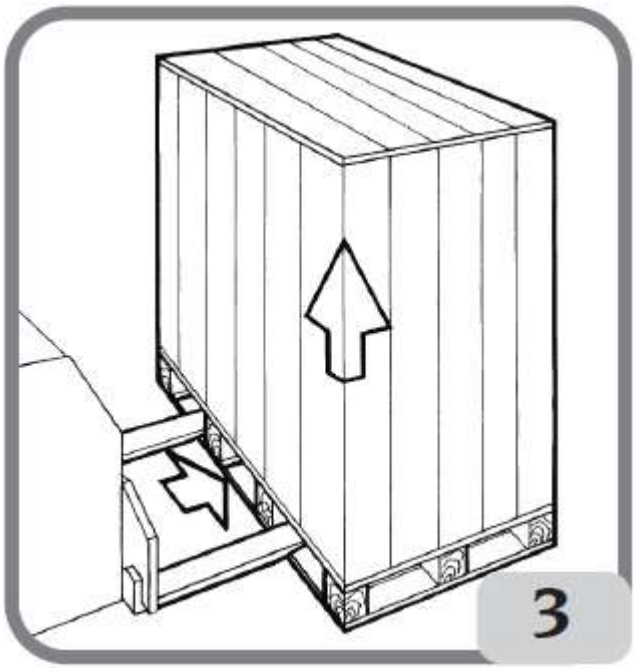
WARNING

Do not stack other goods on top of the packaging to avoid damaging the packaging.

Handling

To move a package, insert the forks of the forklift into specific slots in the bottom of the package itself (pallet) (Figure 3).

Before moving the machine, refer to the Lifting/Handling section.



WARNING

Keep the packaging materials intact for possible future transportation of the machine.

3.Unpacking

WARNING

Take care when unpacking, assembling, moving, and installing the machine as described below. Failure to follow these instructions may damage the machine and endanger the operator's safety.

WARNING

Before removing the machine from the pallet, make sure the parts shown below are removed.

Remove the upper cover and surrounding packaging to ensure that the machine is not damaged during transportation.

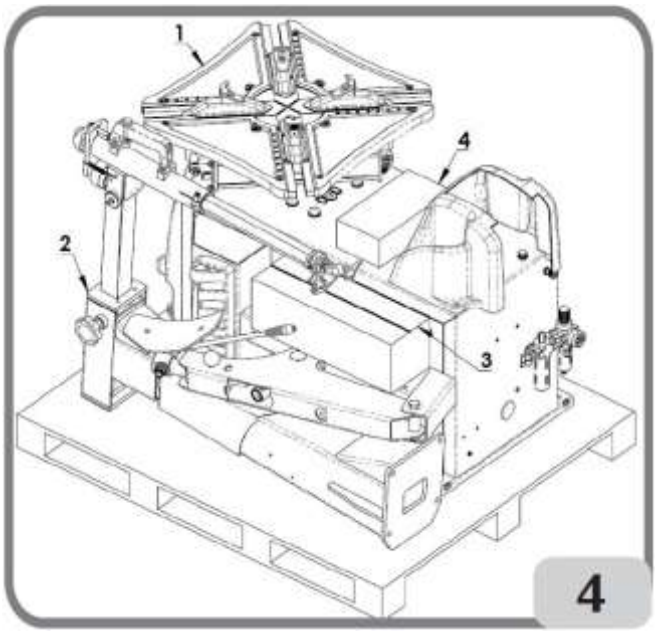
The machine has the following parts (Figure 4):

1-Body;

2-Column;

3-Accessory box;

4- Pressure gauge with deflation push-button

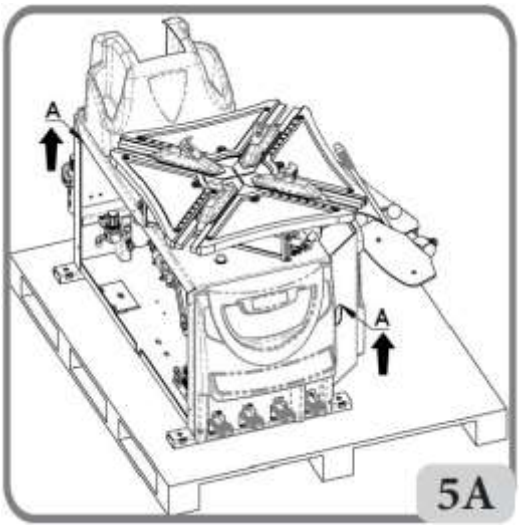


4.Install

4.1. Lifting/handling

4.1.1. Remove the screws that secure the machine to the packaging, remove the machine parts from the pallet, and place them where they will not tip over or injure anyone.

4.1.2. Remove the side panels from the body and lift the machine using the lifting equipment according to the preset lifting point (Figure 5A). This lifting point must be used whenever the position of the machine needs to be changed. Do not attempt to move the machine before it is disconnected from the power and pneumatic supply networks.



4.1.3. Installation Area

WARNING

Install the machine in accordance with all applicable safety standards, including but not limited to those issued by OSHA.

CAUTION

IMPORTANT: For proper and safe operation of the device, the ambient lighting level should be at least 300 Lux.

CAUTION

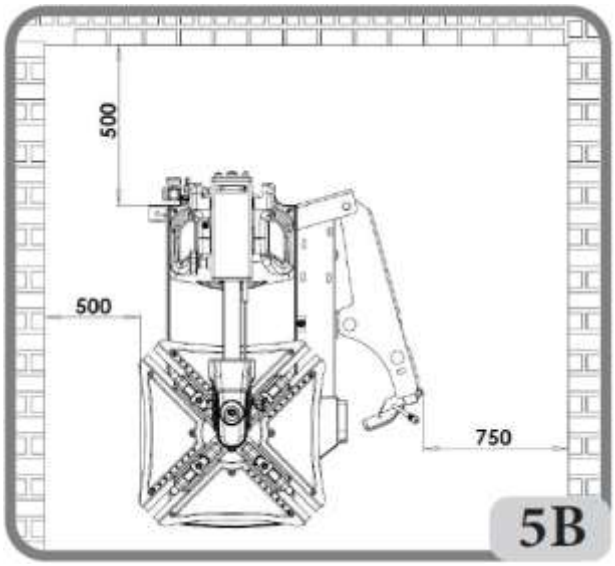
IMPORTANT: Do not install this machine outdoors. It is designed for use in an enclosed, covered area.

DANGER

Risk of explosion or fire.
Do not use the machine in areas where it may be exposed to flammable vapors (gasoline, paint solvents, etc.). Do not install the machine in a confined area or place it below the floor level.

Install the tire changer in the selected working position, following the minimum clearance shown in Figure 5B.

The supporting surface must have a load-bearing capacity of at least 1000kg/m2.



Environmental working conditions:

- Relative humidity 30%÷95%, non-condensing.
- Temperature 0°C ÷ 50°C.

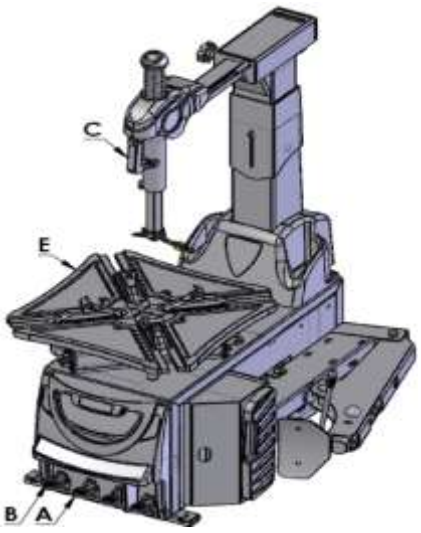
WARNING

Whenever the machine has been disconnected from the pneumatic line for an extended period, before restoring the pneumatic supply, check the configuration of the pedals as shown below.

DANGER

Before proceeding with the power and air connections, and when restoring power and air, ensure the machine is

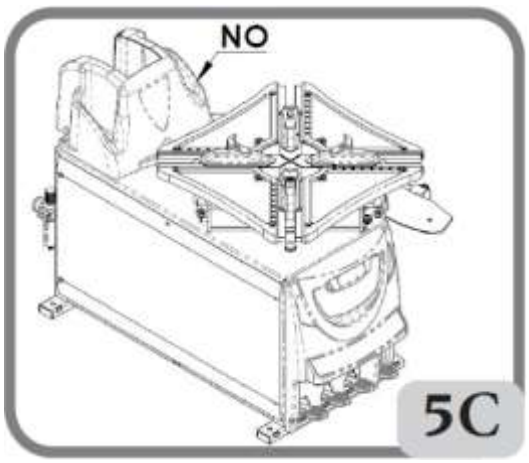
- Pedal A fully lowered position (turntable E closed).
- Pedal B fully lowered position (C is in straight front).

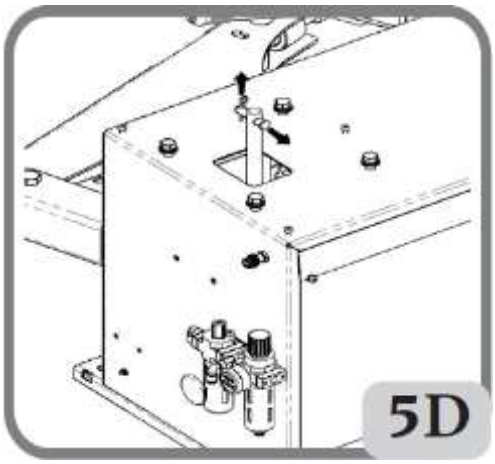


4.2. Install the machine

-Remove the plastic cover from the main body (Figure 5C).

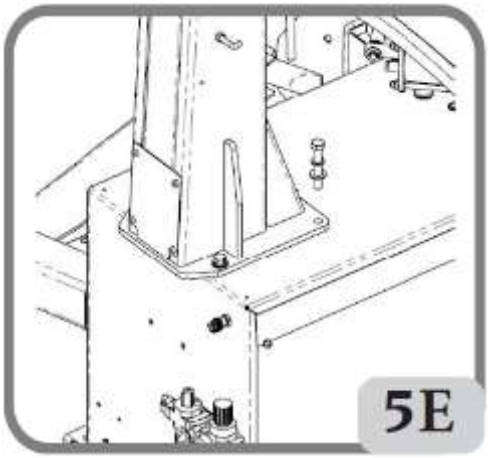
-Remove the pin from the cylinder (Figure 5D).

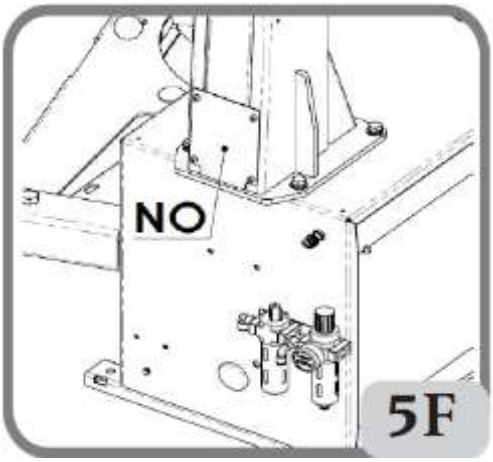




-Use the bolts to fix the column to the main body (Figure 5E).

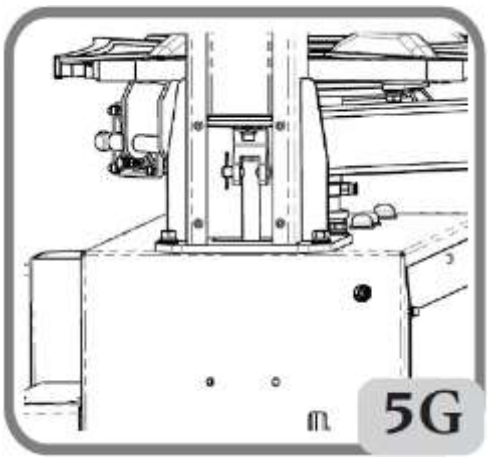
-Remove the cover at the rear end of the column (Figure 5F).

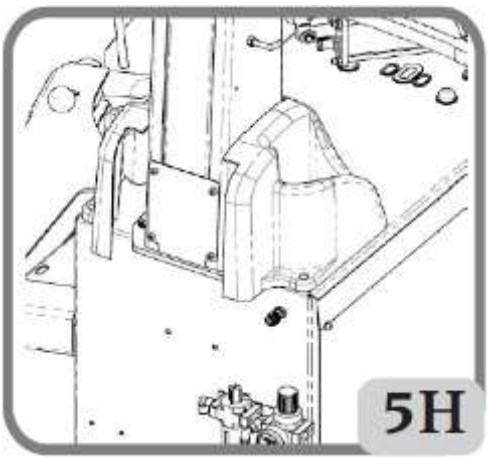




-Use a pin to pass through the hole of the connecting block on the column and the cylinder rod, connect the cylinder and the column, and fix them with an R-type pin (Figure 5G).

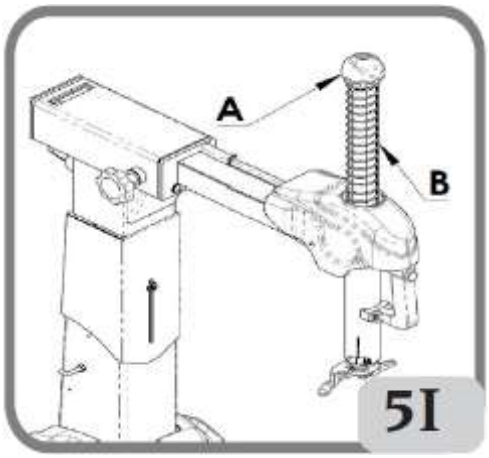
-Install the cover on the column and put the plastic cover back on (Figure 5H).

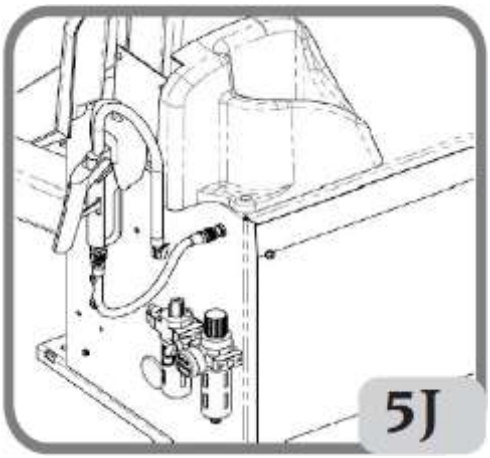




-Remove the vertical shaft cap (Figure 5I-A) on the upper end of the hexagonal shaft, put the spring sleeve (Figure 5I-B) on the hexagonal shaft, reinstall the vertical shaft cap, and install horizontal arm cover (Figure 5I) (excluding the lever-less model).

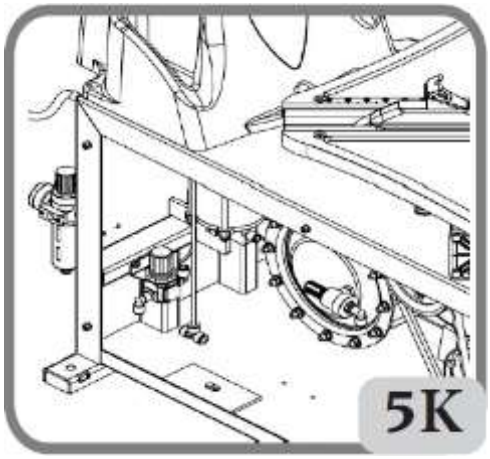
-Take out the inflation device and connect. (Figure 5J).

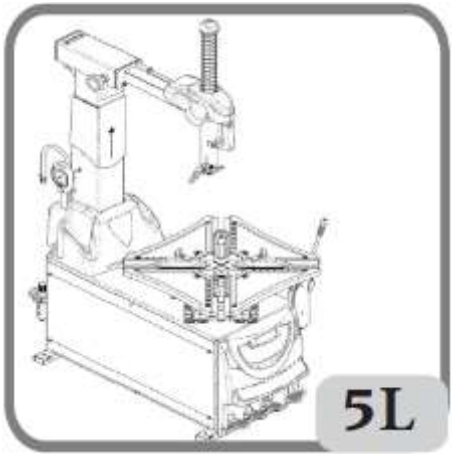




-Connect the hose remaining in the column to the joint inside the box (Figure 5K).

-Reinstall the side panel and the machine installation is complete (Figure 5L).





5.Description of the machine

The machine is a hybrid electric and pneumatic tire changer.

It is suitable for all types of grooved rims with weights and dimensions as stated in the technical data section.

This machine is of solid construction. It performs bead breaking with the wheels in vertical position and tire mounting and dismounting in horizontal position. All machine movements are controlled by the operator via pedals.

Each machine has a nameplate, Figure 6 shows its identification data and some technical data.

In addition to the manufacturer's details, it also states:

Model: the model of the machine;

Date: the production date of the machine;

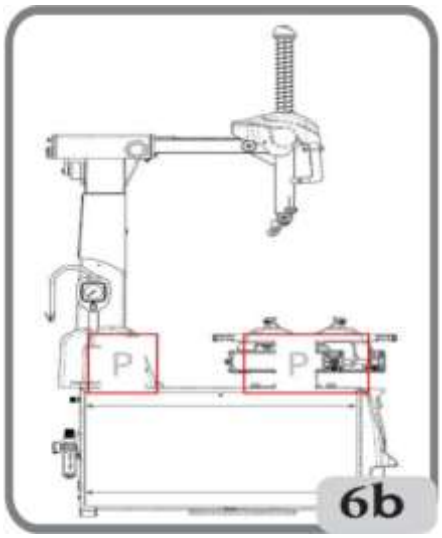
ID: the production number of the machine;

Weight: Net weight of the machine;

Power supply: The power supply voltage that must be guaranteed for the normal operation of the machine;

Air source: The air pressure that must be guaranteed for the machine to work normally;

CE: EU safety certification mark;



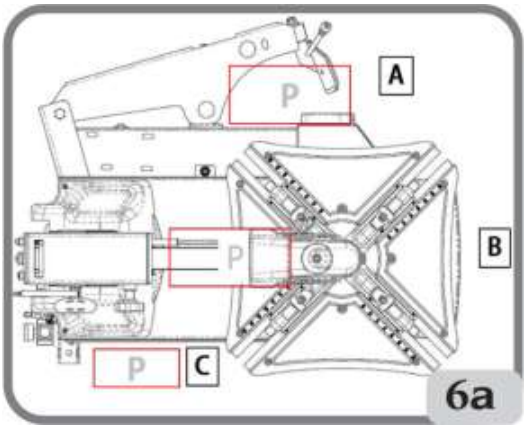
5.1. Operation position

Figures 6a and 6b show the position of the operator and the associated danger zone (P) during the different work phases:

A、 Bead breaking;

B、 Mounting and dismounting tires;

C、 Inflation area;



6.The main working components of the machine

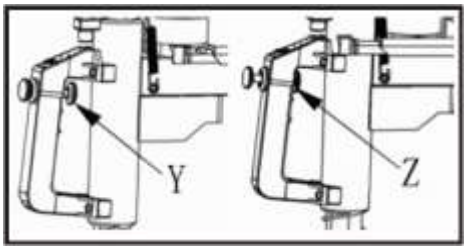
WARNING

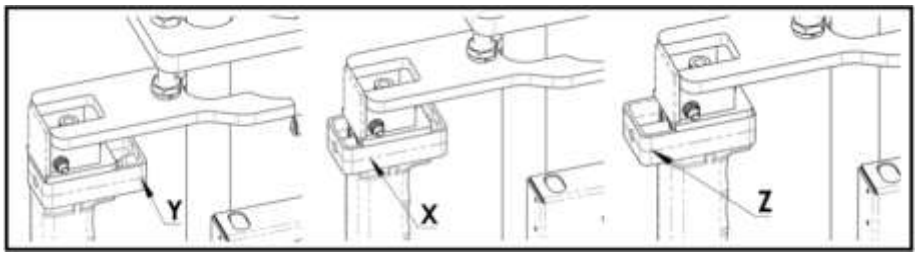
Understand Your Machine: The best way to ensure safety and machine performance is to understand how the machine works accurately.Understand the functions and layout of all controls.Carefully check that all control devices on the machine are working properly.To avoid accidents and injuries, the machine must be properly installed, operated correctly, and maintained regularly.

1) Locking handle: 2 positions;

- When the handle valve button is in the "Z" position, tool arm and horizontal arm will be released;
- When the handle valve button is in the "Y" position, tool arm and horizontal arm will

be locked;





1A), Locking handle: 3 positions (only for lever-less models);

-When the handle controller is in the "Z" position, the tool head can move upward and horizontal arm will be released;

-When the handle controller is in the "Y" position, tool arm and horizontal arm will be locked;

-When the handle controller is in the "X" position, the tool head can move downward and the horizontal arm will be released;

2) tool arm (for installing and positioning the tool head);

3) Tool head (for mounting and dismounting tires);

3A), lever-less tool head (for mounting and dismounting tires) (only for lever-less models);

4) Rotary movable column;

5) Column base;

6) Sliding clamp(used to lock the wheel on the turntable);

7) Turntable (a platform for supporting wheels);

8) Rotary movable column pedal (two-position control pedal for controlling the rotary column (4));

9) Clamp control pedal (a three-position control pedal for controlling the sliding clamp(6). When the pedal is in the highest position, the clamp retracts inward; when the pedal is in the middle position, the clamp stops moving; when the pedal is in the lowest position, the clamp expands outward;);

10) A bead breaker control pedal (a control pedal for controlling tire shovel (12);

11) Turntable control pedal (control pedal used to control the rotation of the turntable, standard single speed, optional double speed, step-less speed control);

● The pedal is in the middle position and the turntable is stationary;

● Press the pedal downwards and the turntable will rotate clockwise;

● Lift the pedal upwards and the turntable will rotate counterclockwise;

12) Tire shovel (used to separate tire and rim);

13) Air regulator (used for regulating pressure, filtering, removing water and lubricating compressed air supply);

14) Tire protection rubber;

15) Bead lifting tool;

16) Pressure gauge unit (used to inflate the wheel and read the pressure data);

17) Union connector(union to be fitted on the wheel valve for inflation);

18) Air tank (used to store compressed air for inflation, only for models with air blaster function);

19) Inflation control pedal (a pedal that controls the operation of the inflation, not a standard model configuration);

20) Control handle for tire shovel;

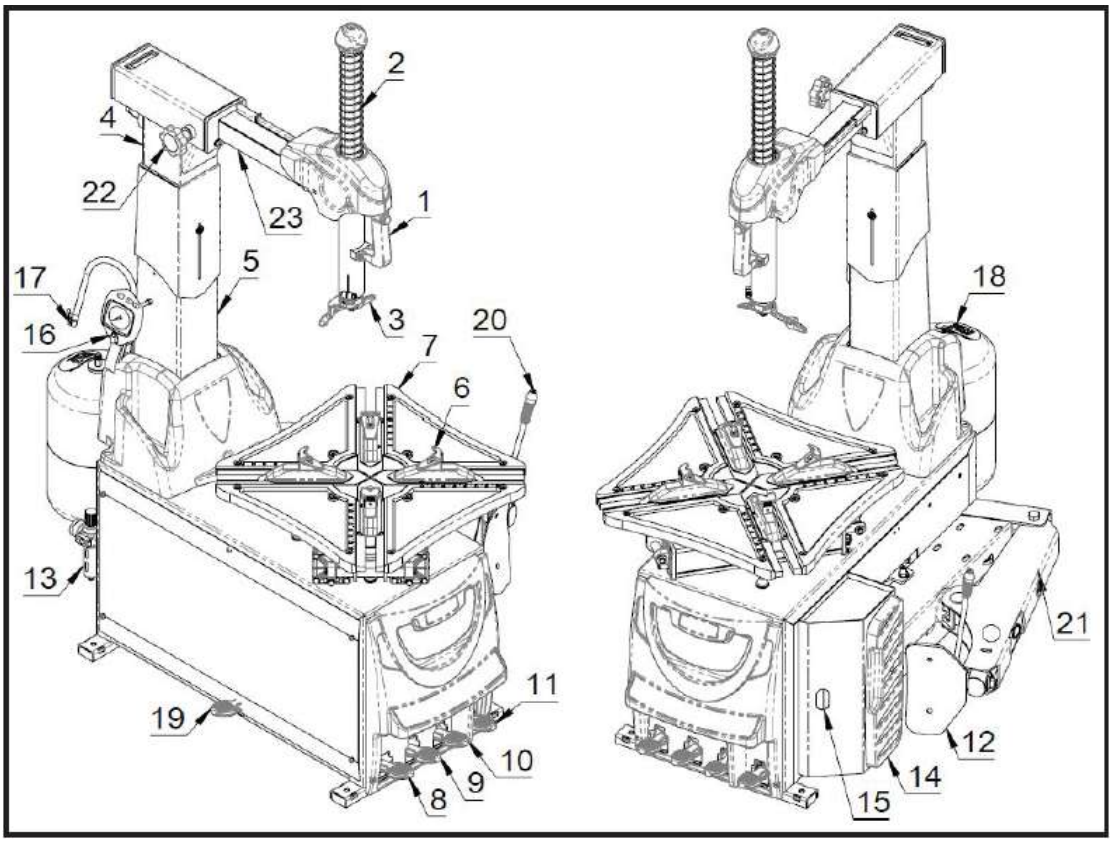
21) Tire shovel arm (a component used to support the tire shovel);

22) Locking handle (used to manually lock the horizontal arm to eliminate gap);

23) Horizontal arm;

24) Tool head adjusting handle;

25) Tool head control cylinder;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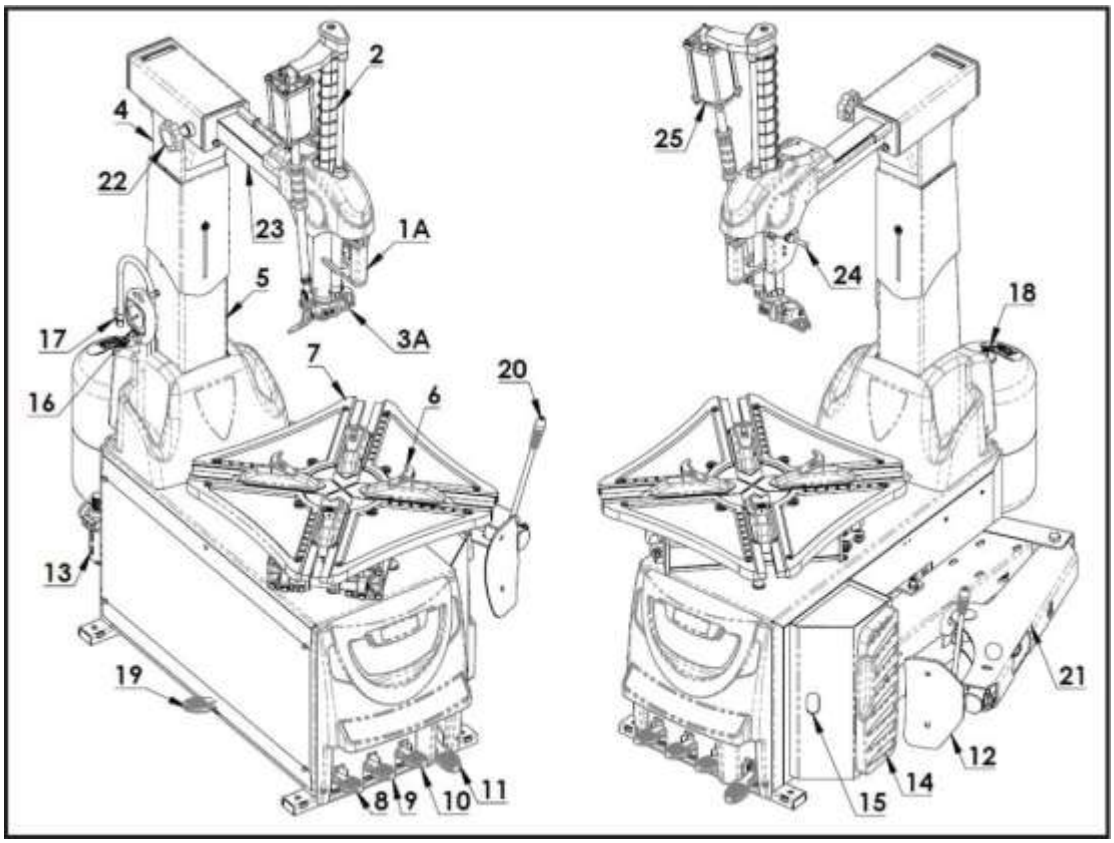
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WARNING

Explosion Hazard

For technical characteristics, warnings, maintenance and any other information on the air tank (optional), please refer to the relevant operation and maintenance manual provided in the attached documentation.

7.Basic usage procedures

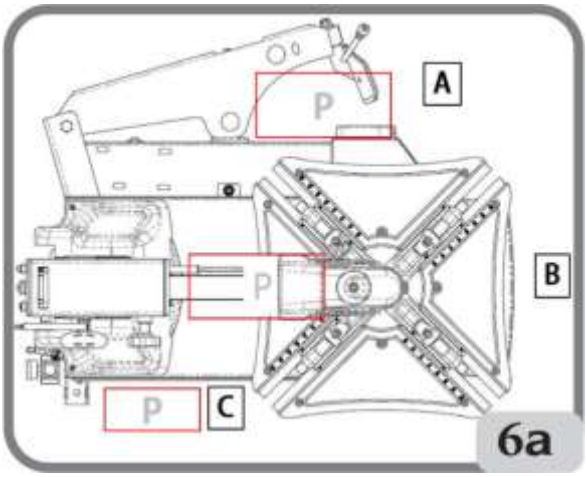
WARNING

Squeeze Risk:

Certain parts of the machine, such as the tool head, tire shovel, turntable, and rotary column, move and may create a potential crushing hazard. Keep your hands and other body parts away from the moving parts of the machine.

Impact risk:

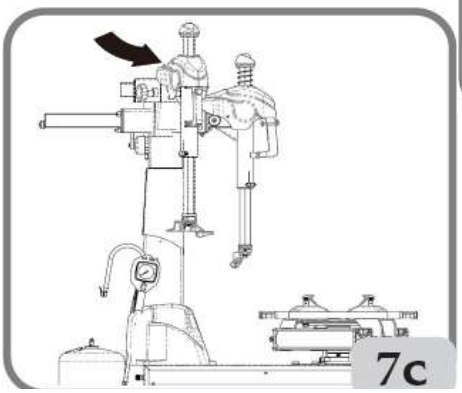
The horizontal arm and the rotary column may cause potential risk of collision with body. The side swing operation must be performed in position B. For more information, please refer to the relevant operation and maintenance manual provided with the attached documents.

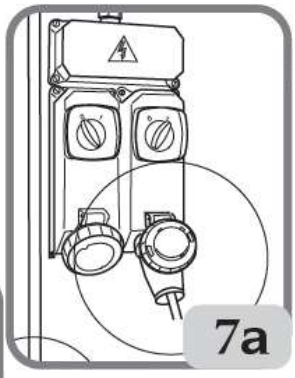


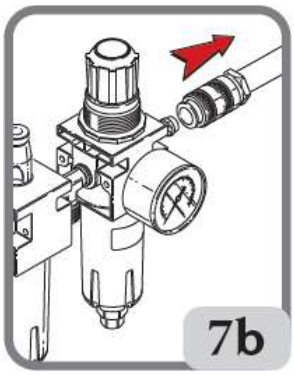
WARNING

Before performing maintenance on the machine, avoid any physical damage:

1. Place the machine in a stable configuration with the horizontal arms fully retracted, the tool arm in the lowest position, and the rotary column in the working position (Figure 7c).







2. Disconnect the power plug (Fig. 7a).

3. Isolate the compressed air line by disconnecting or closing the valve (Figure 7b).

WARNING

To prevent machine damage or accidental movement, it is recommended to use only original spare parts and accessories.

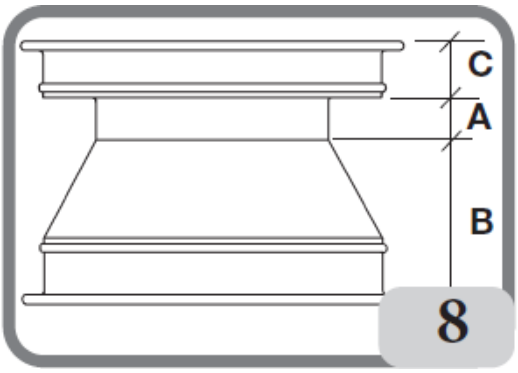
7.1. Preliminary inspection

Check that the pressure on the air regulator pressure gauge is at least 8 bar. If the pressure is below the minimum level, the operation of the machine may be restricted or insufficient.

Once the correct pressure is restored, the machine will operate normally. Check that the machine is adequately connected to the electrical and pneumatic power sources.

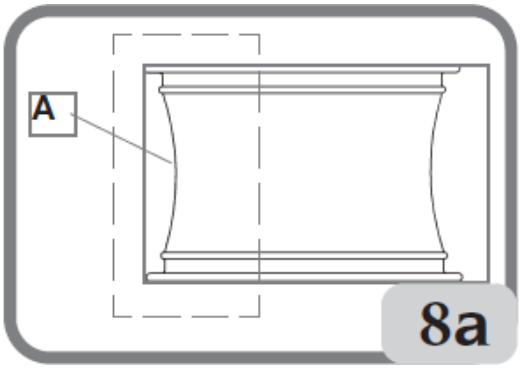
7.2. Deciding from which side of the wheel the tyre must be removed

Find the position of the channel A on the rim. Identify the largest width B and the smallest width C. The tire must be mounted and dismounted with the side of smallest width C facing upward(Figure 8).

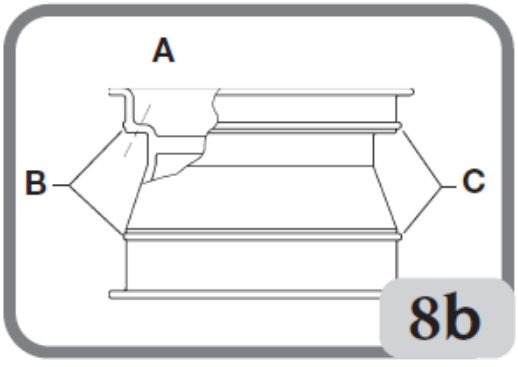


Special wheels

Alloy rim: Some alloy rim wheels have a very small rim channel A or no rim channel (Figure 8a). These rims are not approved to DOT standards (Department of Transportation). The DOT initials certify that the tire meets safety standards adopted in the United States and Canada (these wheels cannot be sold in these markets).

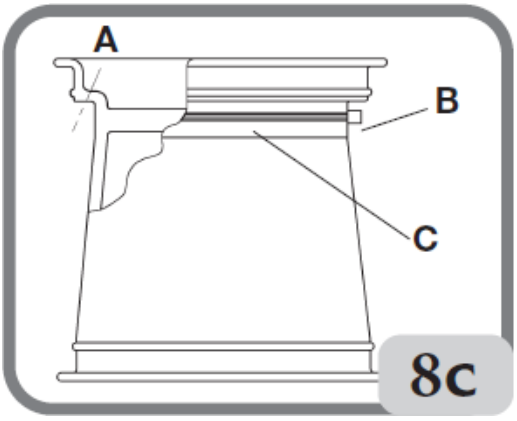


High-performance wheels: (Fig. 8b) The rims of some European area wheels have a very pronounced curvature C, except in the area of the valve hole A, where the curvature is less pronounced. On these wheels, the tyre shovel work on both sides of



the wheel must first be started at the location of the valve hole.

Wheels with pressure sensors: (Figure 8c) For correct operation on these wheels and to avoid damage to the sensor (the sensor can be integrated in the valve, fixed to the belt, glued inside the tire, etc.), the appropriate mounting / dismounting procedures must be followed (see "Standard Mounting / Dismounting Procedures for Run-Flat and UHP Tires").



WARNING

Before starting working operations, remove the old weights from the rim.

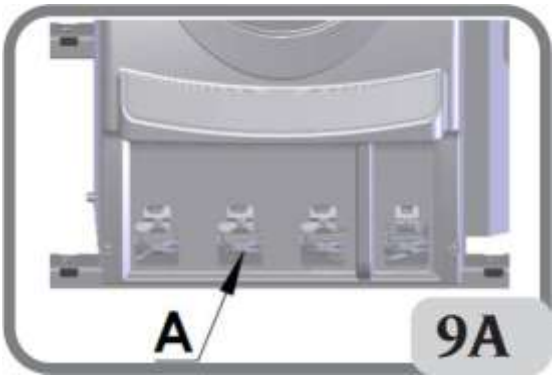
7.3. Tire shovel

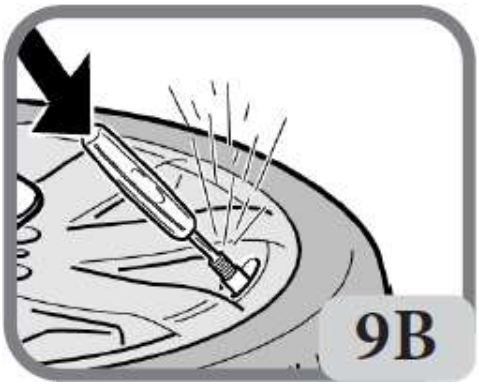
WARNING

Before the bead breaking operation, completely close the turntable (lock the jaws) (Figure 9-A), and keep both hands away from the moving parts.

-Depress pedal A (Fig. 9A) and bring it into the fully lowered configuration. In this configuration, the sliding clamp are fully closed.

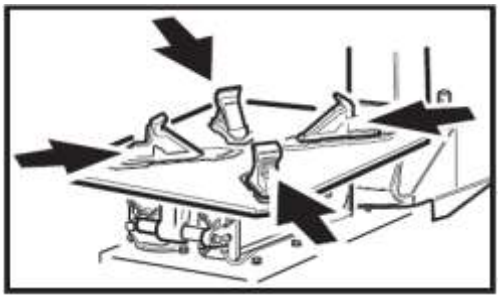
-Remove the valve core (Figure 9B) and completely deflate the tyre.

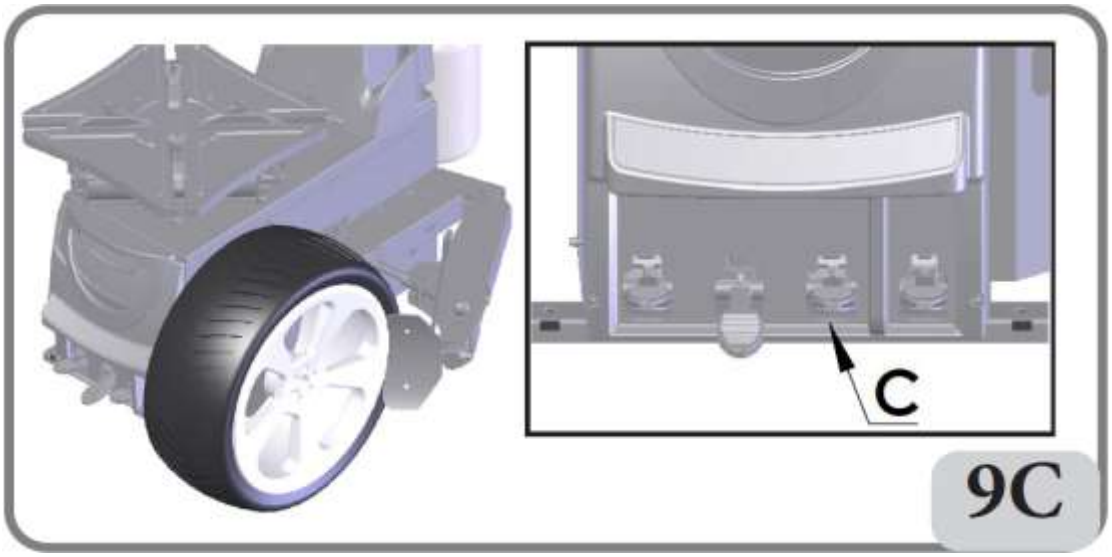




WARNING

During the tire shovel operation, it is recommended to always keep the sliding clamp in the closed state (clamping jaws in the most central position).





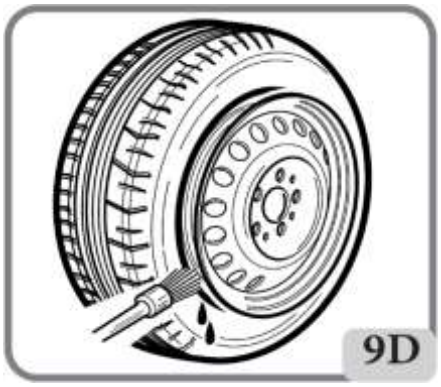
-Depress the pedal (Figure 9-C) to operate the bead breaker and separate the tire bead from the rim.

Repeat this on the other side of the wheel.

It may be necessary to shovel the tire at several points to completely loosen it.

Release the pedal to make the bead breaking cylinder move in the reverse direction.

After, remove the old weight.



-Lubricate the lower and upper bead thoroughly around the entire circumference to facilitate bead breaking and avoid damaging the bead (Figure 9D).

7.4. Locking wheels

WARNING

When moving the wheel or grippers, hands and other body parts should be kept away from the moving parts of the machine.

WARNING

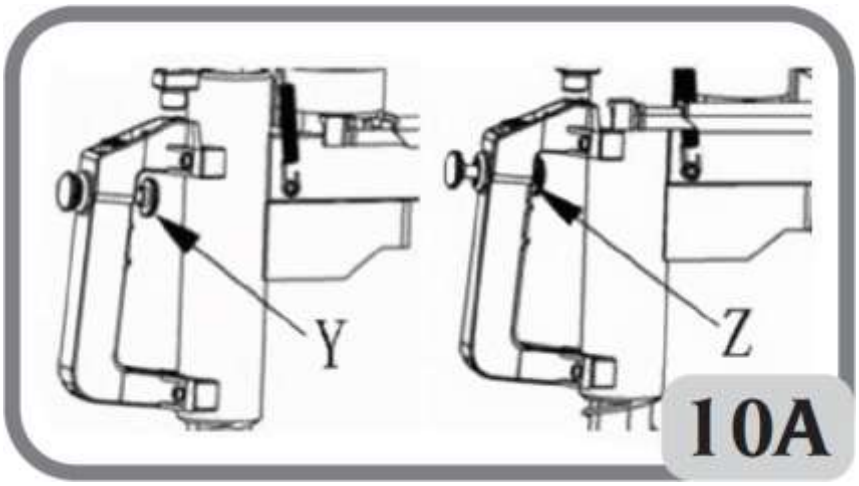
If the wheel weight exceeds 10 kg and the lifting frequency exceeds 20 wheels/hour, it is recommended to use a lifting device (optional).

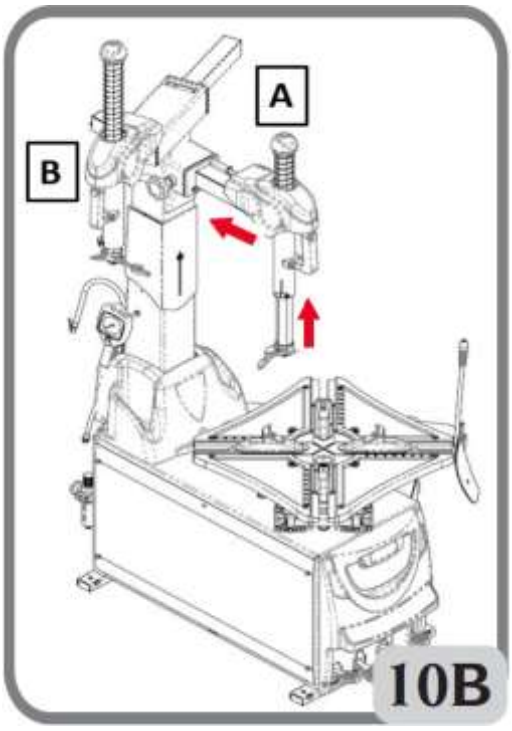
-Pull the unlocking button (position Z, Figure 10A) to put the tool arm in the "non-operating" position (tool head at the top, horizontal arm fully retracted) (Figure 10B).

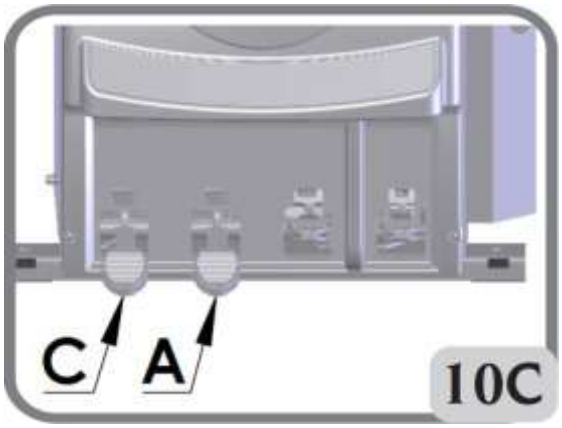
-Pressing the locking button (position Y, FIG. 10A) to secure the tool arm in the “non-operating” position.

-Depress the pedal (Figure 10C-C) to move the column into the "non-working"

position (Figure 18B-B).



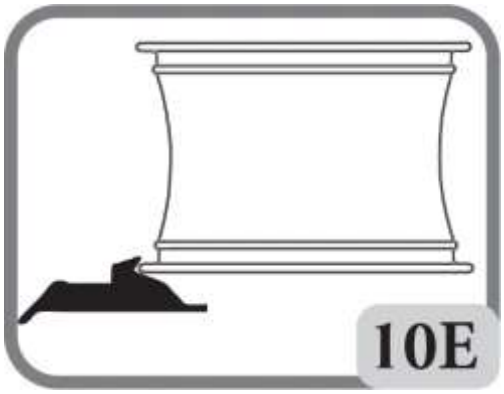




-Step on the pedal (Fig. 10C-A), and the sliding clamp open outwards;

-Place the tire with the bead completely separated from the rim side upward on the turntable (FIG. 10D);

-Step on the pedal (10C-A), and the sliding clamp close inwards and lock the wheels (10E);



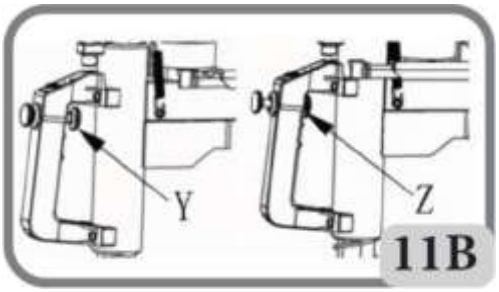
7.5. Dismounting tyre

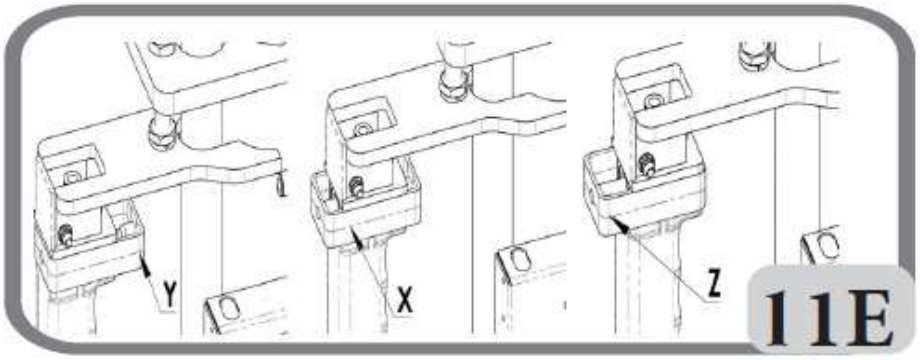
7.5.1 Positioning tool head

-Depress the pedal (11A-C) to move the column to the working position (Fig. 11A).

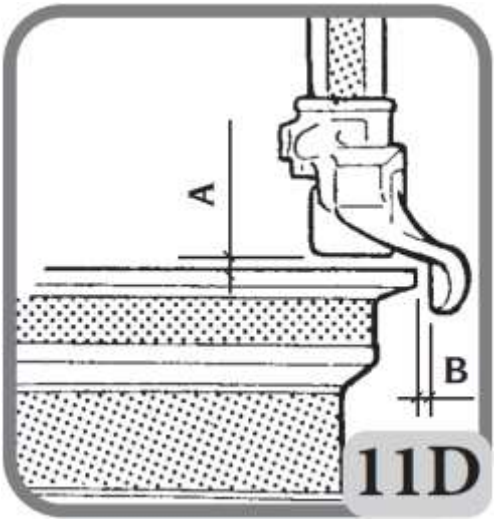
-Pull the button switch to the "Z" position to unlock the tool head movement (Figure 11B).

-Pull the handle controller to the "X" position, the tool head can move downward and the horizontal arm will be released; (Figure 11E) (only for lever-less models).





-Move the tool head to the edge of the rim (Figure 11C).

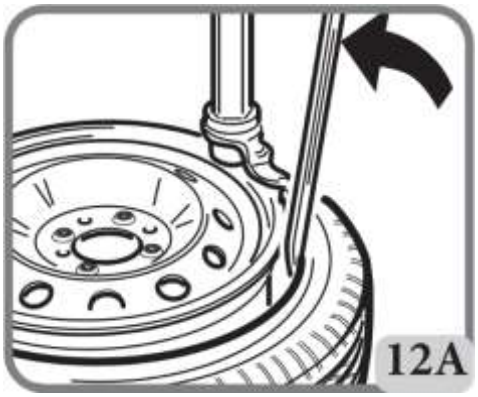


-Press the button switch to the "Y" position to lock the tool head in the working position (Figure 11B). Important: When the button is pressed to the "Y" position, the tool head is locked in both vertical and horizontal movement, the tool head moves slightly upward and away from the edge of the rim (Figure 11D).

As long as the control button is in the locked position, the space between the wheel rim and the tool head remains constant. The operator can freely control the rotary column (for example, when dismounting tyre of the same size) without having to reposition the tool head.

7.5.2 Tyre dismounting

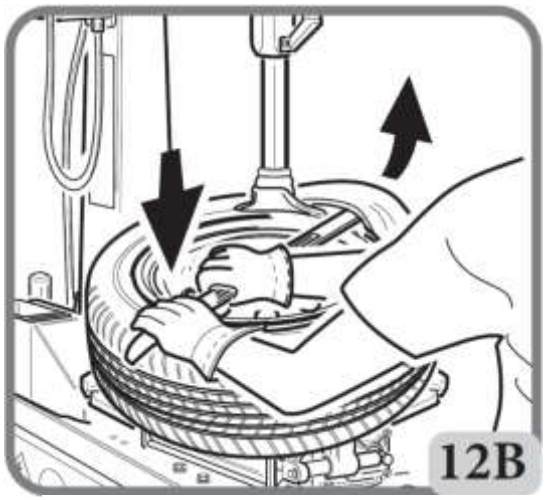
-Insert and place the bead lifting tool onto the tool head (FIG. 12A).



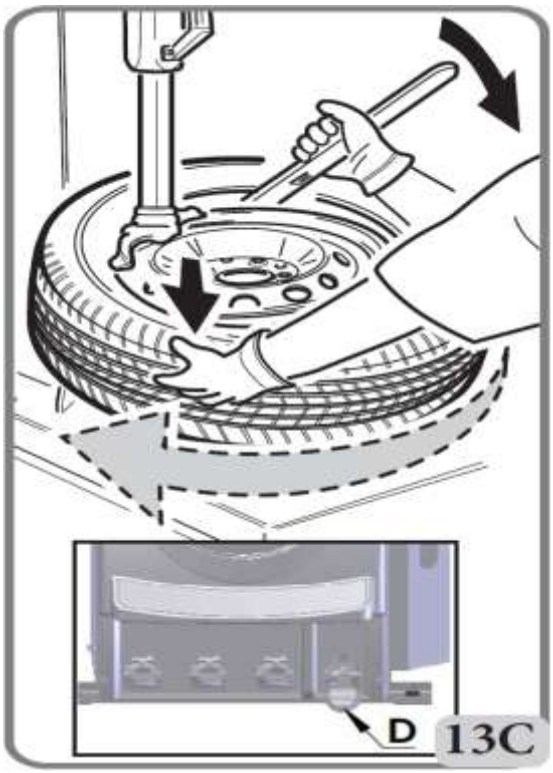
WARNING

Be sure to hold the crowbar(bead lifting tool) firmly during operation.

- Lift the upper bead above the rear part of the tool head and push one part of the upper bead into the rim channel by pushing the tyre sidewall downwards from the side opposite to the tool head.(Figure 12B)



Press(Figure 13C-D) turntable pedal with light strokes to start the dismounting operations. Note: the upper bead is automatically moved over the rim shoulder.(Figure 13C).



-Repeat the procedure for the lower bead.

NOTE: If the tyre has an inner tube, move the arm outwards to its non-working position, then remove the inner tube.

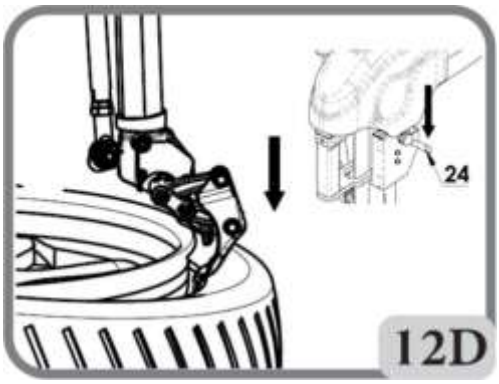
The rotation of the turntable can be stopped at any time by using the rotation control pedal. To rotate in the opposite direction, simply lift the pedal.

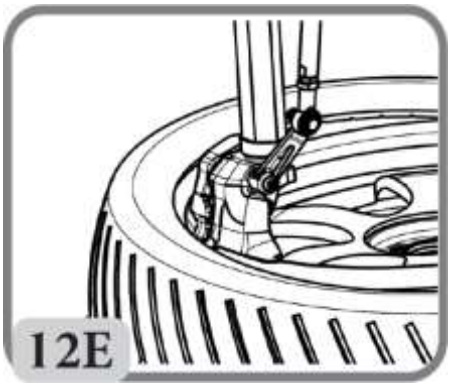
-Manually lift the second bead with a crowbar, then rotate the turntable clockwise until the tire is completely removed from the rim.

-Move the rotary column to the "non-operating" position.

7.5.3 Tire dismounting (lever-less model)

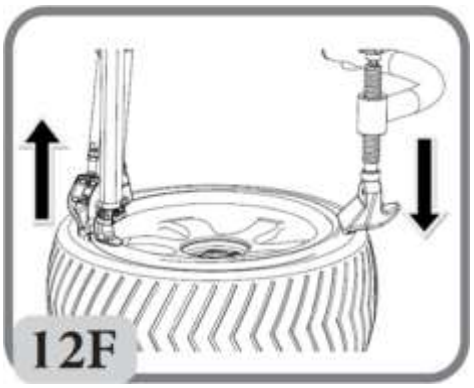
- push the control lever down （Fig. 12D-24）to place the hook under the bead. If the tool head reaches the bottom, however without hooking under the bead , you can gently press the pedal to make the turntable rotate slightly, allowing to place the hook under the bead as shown in Figure 12D. Another situation if the tire bead is too stiff, you can use the bead depressor to press down the tire bead, so that the hook can be placed under the bead.

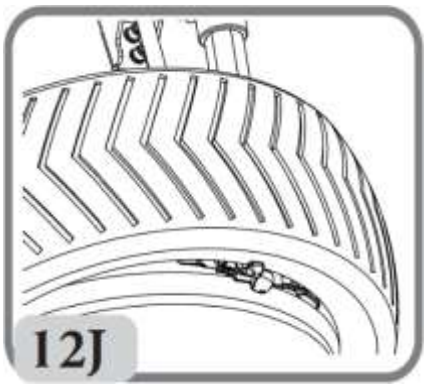




- Push the control lever up to lift the bead over the demounting head. Press the turntable drive pedal, making the wheel turn clockwise. The upper bead will be automatically guided up and over the rim edge (Fig. 12E).

- If the upper bead will not be guided up and over the rim edge due to the stiffness characteristic of some run-flat tires, you can use the bead depressor to assist in pressing down the tire. Depress the sidewall of the tire 40-80 mm from the side opposite to the tool head. This will help guide the upper bead up and over the rim edge, as shown in Fig.12F.





If there is an obstacle in demounting the tire, stop the operation immediately, lift the pedal, and let the turntable rotate counterclockwise to resolve the issue!

-For tyres with an air chamber, after disassembling the upper bead, remove the air chamber before continuing to disassemble the lower bead. Then lift the lower tire bead to the upper edge of the rim, lower the tool head, and hook the lower tire bead, as shown in Figure 12J. Then press the turntable pedal to disassembling the lower bead.

-Step on the pedal (11A-C) to turn the column to the non-operating position and

remove the tire.

7.6. Mounting tyres

DANGER

RISK OF EXPLOSION. Before mounting, always check that the tyre/rim combination is correct in terms of compatibility (tubeless tyre on tubeless rim, tube-type tyre on tube-type rim) and geometry (reduced diameter, width cross section, offset and shoulder profile).
Avoid risk of personal injury or death.
Also check whether the rim is deformed, whether its fastening hole has become oval, whether there is crust or rust, and whether there are sharp burrs on the valve hole.

Check that the tires are in good condition and show no signs of damage.

-Before beginning tire mounting operations, lubricate the tire bead (Figure 14A).

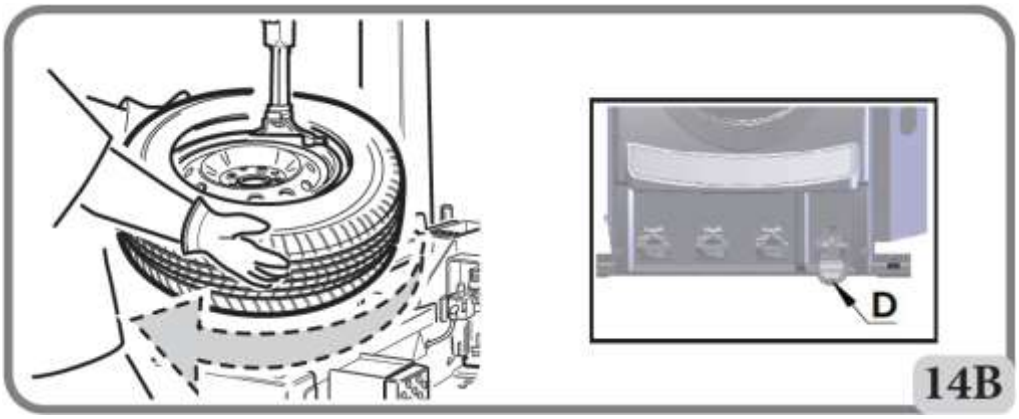
Adequately lubricating the bead requires less force when mounting the tire and can prevent damage.

-Check that the tires are in good condition and show no signs of damage.

-Adjust the tire on the rim and put the operating arm into working position.

-Place the lower tire bead (Figure 14B) under the right side of the tool head.

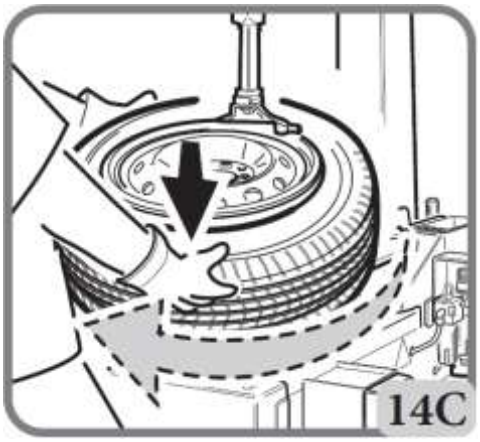
-Press down the turntable control pedal (D) to rotate clockwise and mount the tire bead. Press the tire sidewall into the channel of the rim to reduce the torsional stress on the bead when rotating the wheel. (Figure 14B).



-Repeat the above steps (Figure 14C).

-Move the tool arm to the "non-operating" position.

-Release the wheel and remove it from the turntable.



7.7. Inflation

7.7.1. Safety instructions

DANGER

- Risk of explosion.
- Never exceed the tire pressure recommended by the tire manufacturer.
- Always match tire and rim sizes.
- Be careful to avoid damaging the tire.
- When inflating, stay outside the vertical area as shown in the figure occupied by the wheels.

DANGER

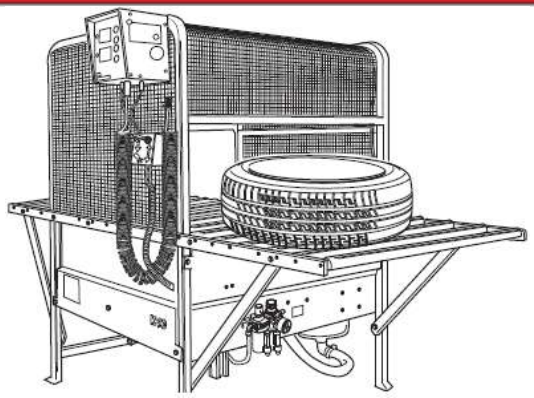
It is not permitted to use an inflation device connected to an air source external to the machine to perform inflation work on the tyre changer.

WARNING

In accordance with the principle that higher standards prevail over lower standards, always comply with national safety regulations, which may be more restrictive than those in this manual.

DANGER

If a vehicle requires a tyre pressure that exceeds the inflation valve pressure limit valve., inflation should be performed by placing the tyre and wheel in a suitable safety device.



WARNING

Be careful of possible injuries. Read carefully, understand and follow the following instructions.

1、Over-inflated tires can explode, creating dangerous flying debris that can cause an accident.

2、Tires and rims with different diameters are "mismatched". Never attempt to mount or inflate any tire and rim that do not match. For example, never mount a 16" tire on a 16.5" rim (or vice versa). This is extremely dangerous. Mismatched tires and rims can explode and cause an accident.

3、Never exceed the tire inflation pressure indicated by the manufacturer. Double-check that the air hose is properly connected to the wheel valve hole.

4、Never place your head or other body parts near the tire during inflation or tire cleaning operations.

This machine is not a safety device to prevent the risk of tire or rim explosion.

5、Keep a proper distance from the tire changer while inflating. Do not get close to it.

WARNING

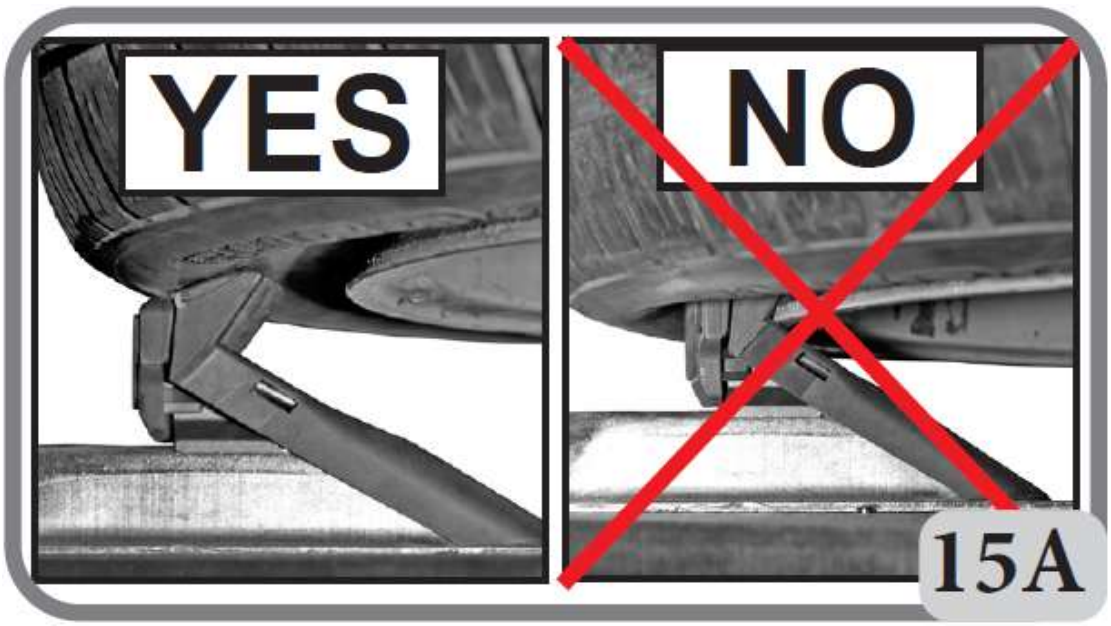
This operation stage may involve noise level of 85 dB (A).
Therefore, it is recommended to wear ear protectors.
It is recommended to wear goggles to prevent injury from contact with dust or any debris. Follow the instructions below.

DANGER

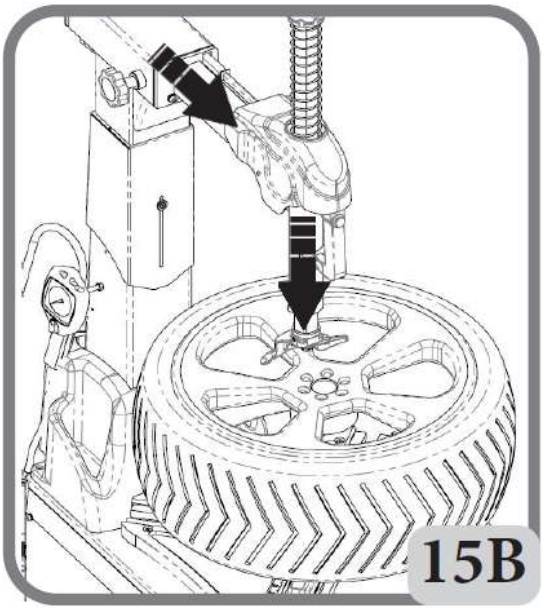
A tire blowout can cause parts of the tire to be propelled into the surrounding area with enough force to cause serious injury or death.Do not mount the tire if the tire size (marked on the side) does not exactly correspond to the rim size (printed inside the rim), or if the rim or tire is defective or damaged.
Never exceed the tire manufacturer's recommended pressure.The tire changer is not a safety device and cannot prevent tire and rim explosion. Keep all persons not working on the machine away from the work area.

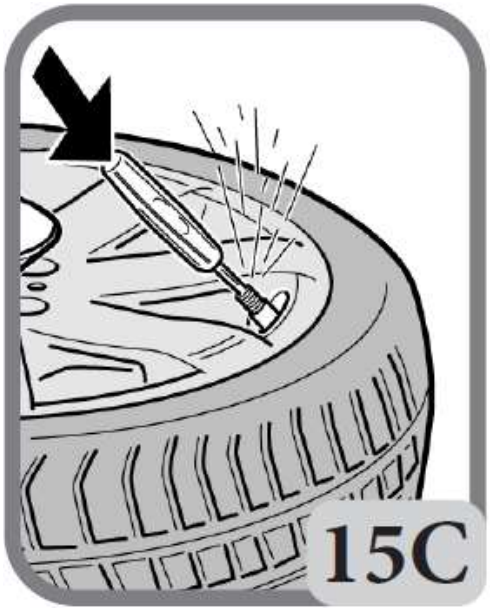
7.7.2. Tire inflation

-Ensure that the sliding clamp is positioned correctly as shown in the (Figure 15A).



- Move the horizontal arm to the center of the wheel.
- Lower the tool head until it contacts the rim (Fig. 15B) and lock the tool arm in this position.





-Remove the valve core if it has not already been removed (Figure 15C).

-Attach the connector of the air hose to the valve stem (Figure 15D).

-Disconnect the inflation hose from the valve stem of the wheel inflation nozzle.

-Place the rotary column in the "non operation" position.

-Remove the wheel from the turntable.

7.7.3. Special inflation operation (air blaster version optional)

for bead seating

The air blaster version facilitates bead seating and inflation of tubeless tires by emitting a strong jet of air from a nozzle close to the clamping jaws.

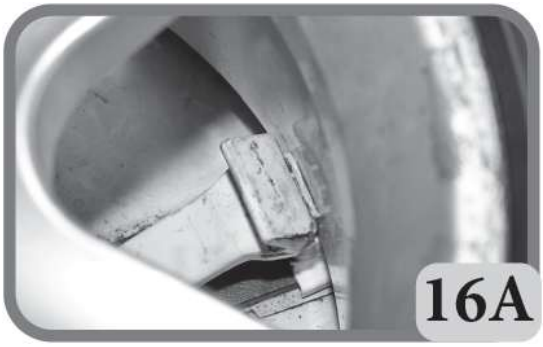
WARNING

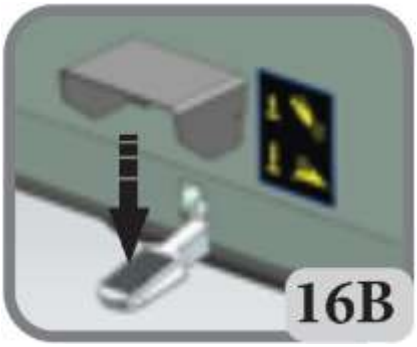
Before starting the following operations, make sure there is no dirt, dust near the inflation nozzle. Wearing goggles is recommended.

-Verify that both the upper and lower tire beads and the rim beads are properly lubricated with an approved grease.

-Move the horizontal arm to the center of the wheel (Figure 15B).

-Make sure the wheel is clamped by the clamping jaws from the inside of the rim (Figure 16A).





-Lower the tool head until it contacts the rim (Figure 15B) and lock the arm in this position.

-Remove the valve core if it has not already been removed (Figure 15C).

-Attach the connector of inflation hose to the valve stem (Figure 15D).

NOTICE

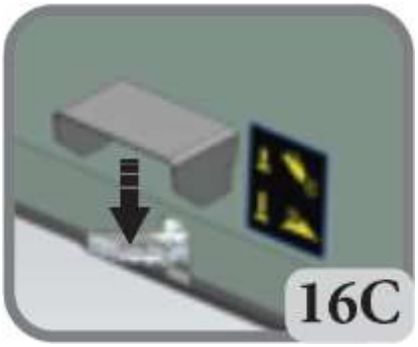
To increase the effectiveness of the inflation jets, plentifully lubricate the beads and raise the lower bead while activating inflation jets.

WARNING

In order to improve the operation of the tubeless tire inflation system, the pipeline pressure must be between 8 and 10 bar.

-Fully and briefly depress the inflation pedal (Figure 16B). The tire will inflate and the bead will seat.

-Move the inflation pedal to the middle position (Figure 16C) to inflate the tire. Check frequently that the pressure never exceeds the maximum pressure indicated by the manufacturer on the tire.



WARNING

There is a risk of explosion. During the inflation stage, do not exceed the maximum pressure indicated by the manufacturer.

WARNING

Operate the inflation nozzle only when inflating the tires.

WARNING

The inflation nozzle can only be operated after ensuring that the rim is correctly secured.

WARNING

Explosion risk. Do not install tires and rims with different diameters (for example, 16.5-inch tires coupled 16-inch rims).

If the tire is over-inflated, you can release the air by pressing the manual deflate button

-Disconnect the inflation hose from the valve stem of the wheel inflation nozzle.

-Move the rotary column to the "non-operating" position.

-Remove the wheel from the tire changer.

8. Troubleshooting

WARNING

The following information and the "Spare Parts" manual do not authorize users to perform maintenance operations on the machine when it malfunctions. They provide accurate information to the technical support center to reduce maintenance time. Any intervention in machines or systems must be carried out by qualified and authorized personnel.

The turntable cannot rotate

Insufficient power supply:

-Check whether the power connection is functional

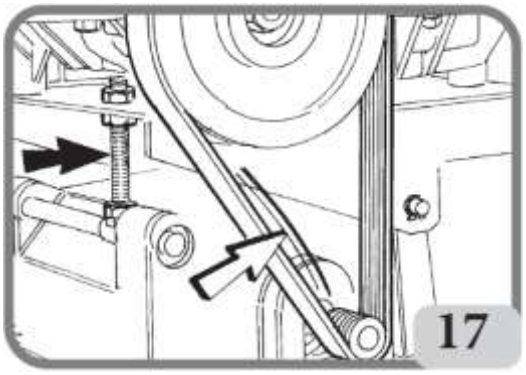
Motor not running:

-Check whether the pedal switch is functional

-Replace the motor

Belt damage:

-Replace the belt



Reducer stuck:

-Replace the reducer

Insufficient torque of turntable rotating

Insufficient belt tension:

-Adjust the belt tension or replace the belt (Figure 17)

The sliding clamp cannot lock the wheels

Locking cylinder failure:

-Replacement of cylinder

Clamping Jaw wear:

-Replacement of clamping jaws

The foot pedal does not return to its original position

Pedal spring broken:

-Replace the pedal spring

The tire shovel force is weak, the tire cannot be shoveled, or the tire shovel cylinder is leaking

Muffler clogged

-Replace the muffler

Cylinder seal wear

-Replace the cylinder seal

-Replace the cylinder

The hexagonal bar locking plate cannot perform the locking function.

Hexagonal bar locking plate failure

-Replace the hexagonal bar locking plate

Hexagonal bar locking plate is not adjusted properly

-Adjust the hexagonal bar locking plate

The rotary column does not work

Cylinder failure

-Replacement of rotary cylinder seals

-Replacement of rotary cylinder

Rotary cylinder without air supply

-Check the pipeline and restore the air supply

Air valve leakage

-Replace the air valve

The rotary column moves too fast or too slow

Air pressure need to be checked

-Adjust the pressure regulating valve and set the pressure value to 8bar~10bar

-Increase the air supply pressure and flow rate

Incorrect speed control valve setting

-Adjust the exhaust valve setting

9. Maintenance

WARNING

Do not perform any operations that alter the preset values of the pressure regulator or pressure limiter. The manufacturer disclaims any liability for damage caused by tampering with these valves.

WARNING

Before making any adjustments or maintenance to the machine, please disconnect the power and air supply, and ensure that all moving parts are locked in place.

WARNING

Do not remove or modify any parts of the machine.

WARNING

Pressure parts hazard. When the machine is disconnected from the pneumatic supply, some parts may remain pressured. The pictogram on the side has been applied on those parts of the machine where the danger remains.

WARNING

Before performing any routine maintenance operations or refilling the lubricant, please disconnect the machine from the compressed air supply line.

WARNING

The manufacturer declines any liability for claims resulting from the use of non-original spare parts or accessories.

-Clean the dirt on the machine regularly.

-Keep all guide rail clean and lubricated (hexagonal bar, square bar, slide cover)

-The purpose of the oil/water separator is to filter the air, regulate the pressure and lubricate the air.

The oil/water separator supports a maximum input pressure of 16 bar and has an adjustment range between 0.5 and 10 bar. This adjustment can be modified by pulling the handle to the withdrawn position and turning it. At the end of the adjustment, push the handle back down to the locked position (Figure 18a).

Lubricant flow adjustment is made by turning the screw on the oil cup (Fig. 18b); typically the unit is pre-calibrated to a pressure of 10 Bar with a SAE 20 viscosity lubricant so that one drop of lubricant is visible for every 4 operations of the tire shovel.

Check the lubricant level regularly through the specified window and top up as shown in Figure 18c. Top up only with 50cc of SAE20 oil.

The filter cup has an automatic condensate drain system, so no special maintenance is required under normal conditions of use. However, the condensate can be drained manually at any time (Fig. 18d). It is usually not necessary to remove the cup, but check whether maintenance operations are required after prolonged use. If manual operation is not sufficient, use the specific key provided (Fig. 4e).

Clean with a dry cloth. Avoid contact with solvents.

Note: For information on oil, please refer to the specific section in the machine user manual.

WARNING

In order to maintain the machine in optimal safety and operating conditions, the employer must have the following periodic inspections carried out by an authorized service.

Regular inspection

a. Check the inflation pressure gauge regularly every 2 years.

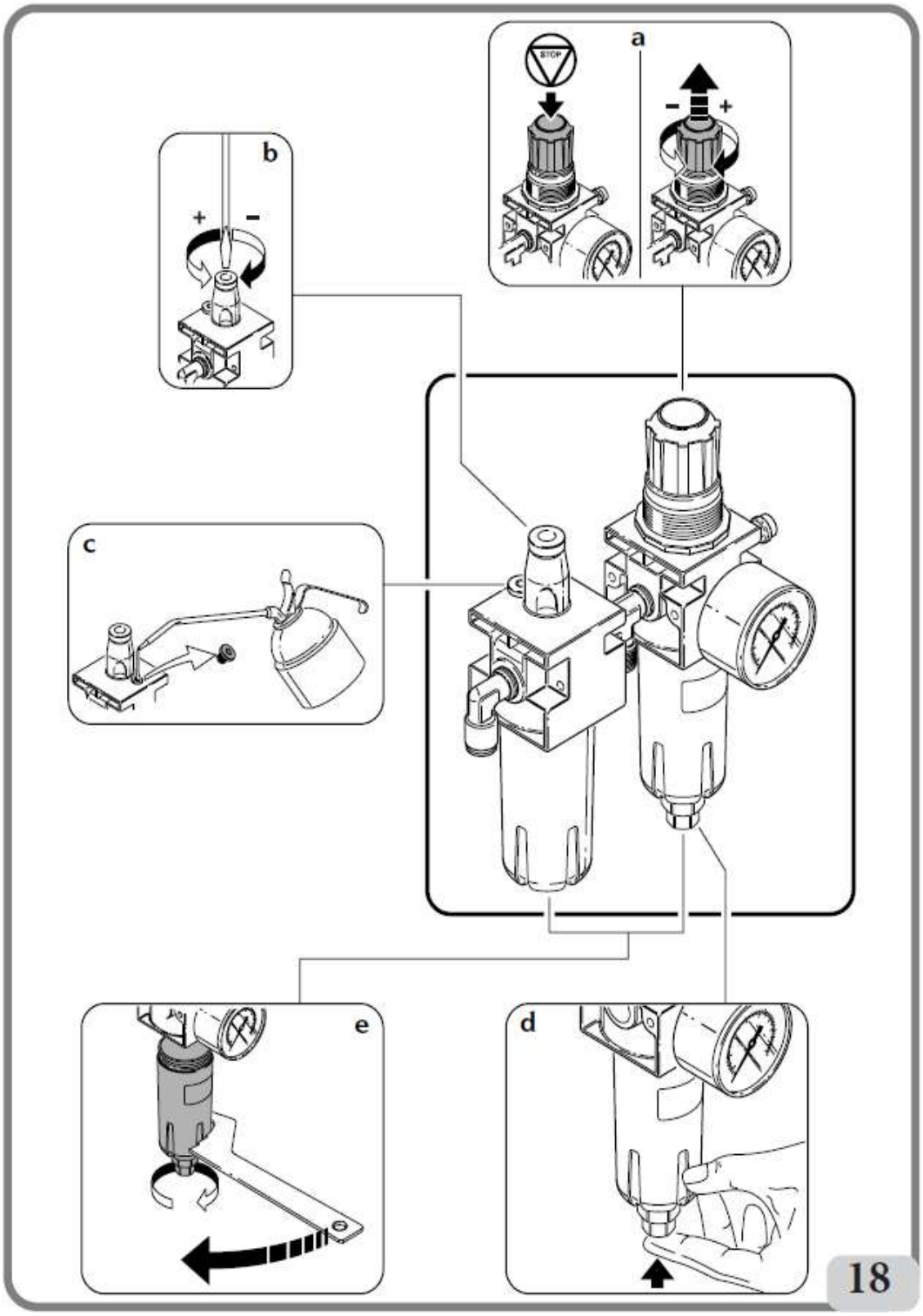
b. Check the inflation pressure limiting valve regularly every 2 years.

c. Perform a regular inspection of the air regulator at the machine inlet every 2 years.

d. Check the function of all machine controls regularly every 2 years.

e. Carry out regular inspection of the pressure relief valve installed on the air tank every 2 years.

f. Check certain parts of the machine, such as: safety and protection devices, parts subject to wear, parts susceptible to pressurized fluid (oil tanks, connections, pipes, etc.), electrical connections, etc.


a
STOP
b
+
–
c
d
e
18

10.Scrapping information

If the device is to be scrapped, separate all electrical, electronic, iron and plastic parts. Dispose of the parts separately in accordance with local regulations.

11.Environmental Information

The disposal procedures described below apply only to equipment that has the barrier-barred waste bin symbol on the nameplate.

Unless properly disposed of, this product may contain substances that are potentially harmful to the environment and human health.

The information provided below is intended to prevent the release of these substances into the environment and to improve the use of natural resources.

Electrical and electronic equipment must not be disposed of with normal municipal waste and must be collected separately for proper treatment.

The prohibited trash bin symbol affixed to the product and displayed on this page is intended to remind the user that the product must be disposed of correctly at the end of its life cycle.

This can prevent improper disposal of the substances contained in this product, or improper use of its components, and the resulting harm to the environment and human health. It also helps ensure that many of the materials contained in this product can be recovered, recycled and reused.

For this purpose, manufacturers and distributors of electrical and electronic equipment maintain special systems for the collection and disposal of such equipment.

At the end of the product life cycle, please contact your dealer for information on disposal procedures.

After purchase, the purchaser has the opportunity to return his scrapped equipment to the dealer free of charge, provided that the equipment is of the same type and intended for the same purpose as the new purchase.

Depending on the laws of the country where the product is disposed of, anyone who disposes of the product may be subject to a fine in addition to the above provisions.

We also urge you to take other environmental steps: recycle the inner and outer packaging materials that came with your product, and properly dispose of used batteries

(if installed in your product).

With your help, we can reduce the amount of natural resources used to produce electrical and electronic equipment, minimize the use of landfills for old products, and improve quality of life by preventing the release of potentially hazardous substances into the environment.

12.Warnings about oil products

Waste oil treatment

Never pour waste oil into sewers, storm drains, rivers or streams; collect and deliver to a company authorized to collect it.

Oil leak or leakage

Contain spills using soil, sand or other absorbent material. The contaminated area must be degreased with a solvent to avoid the formation and retention of vapors, and all remaining cleaning materials must be disposed of in accordance with the procedures prescribed by law.

Precautions for using oil

-Avoid contact with skin.

- Do not allow oil mist to form or spread in the atmosphere.
- Take these simple hygiene precautions:
  - ● Avoid oil splashes (suitable clothing, protective cover on the machine)
  - ● Wash yourself frequently with soap and water; do not use cleaning products or solvents that irritate the skin or strip it of its natural protective oils.
  - ● Do not wipe your hands with dirty or oily rags.
  - ● If your clothes are wet, or in any case, change them at the end of your shift.
  - ● Never smoke or eat with greasy hands.
- The following preventive and protective measures should also be taken:
  - ● Wear wool-lined, mineral oil-resistant gloves.
  - ● Wear goggles to prevent splashing.
  - ● Wear a mineral oil resistant apron.
  - ● Wear splash protection.

First Aid Instructions for Mineral Oil:

- In case of ingestion: Seek medical attention immediately and provide full description of the type of mineral oil ingested.
- Inhalation: When exposed to high concentrations of smoke or mist, move affected persons to open air and seek medical attention immediately.
- If splashed into eyes: Rinse with plenty of tap water and seek medical attention immediately.
- If on skin: Wash with soap and water.

13.Recommended firefighting measures

Please refer to the table below to select the most suitable fire extinguisher:

Dry matter fire

water	Applicable
Foam	Applicable
Dry powder	Applicable
carbon dioxide	Applicable

Flammable liquid fire

water	not applicable
Foam	Applicable
Dry powder	Applicable
carbon dioxide	Applicable

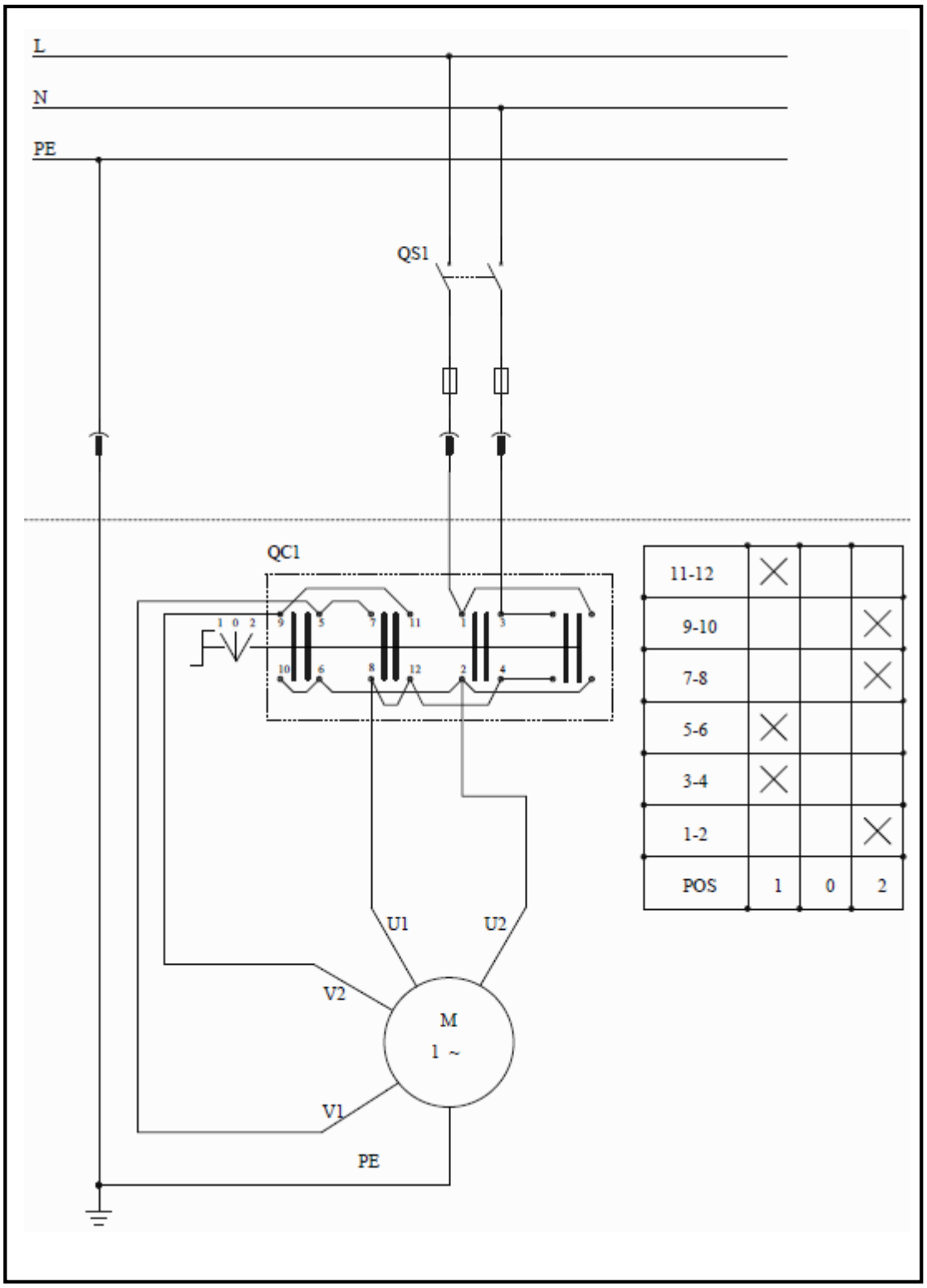
Electrical fire

water	not applicable
Foam	not applicable
Dry powder	Applicable
carbon dioxide	Applicable

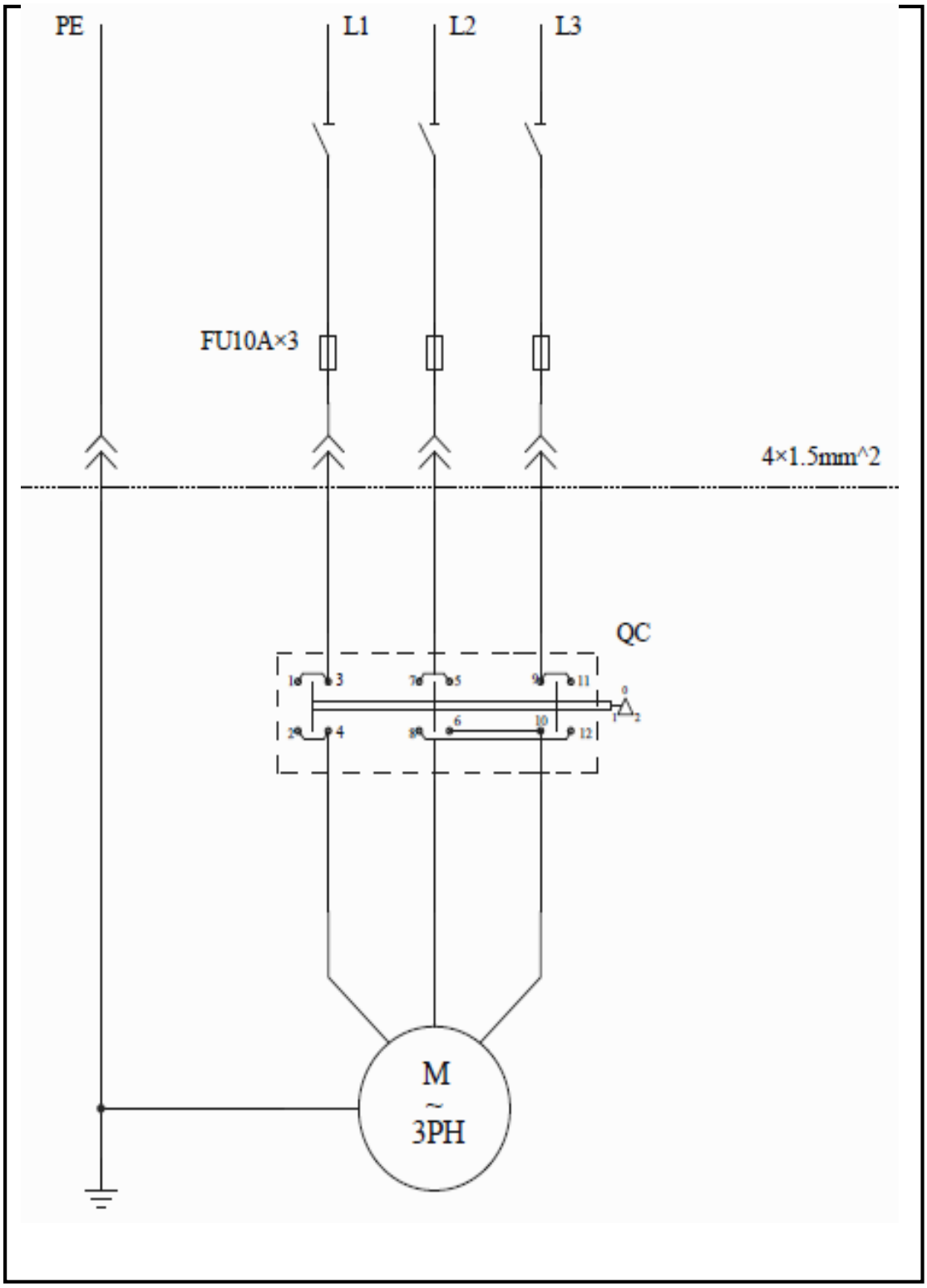
Applicable* Use only when no more suitable fire extinguisher is at hand or the fire is small.

14.Electrical Schematic Diagram

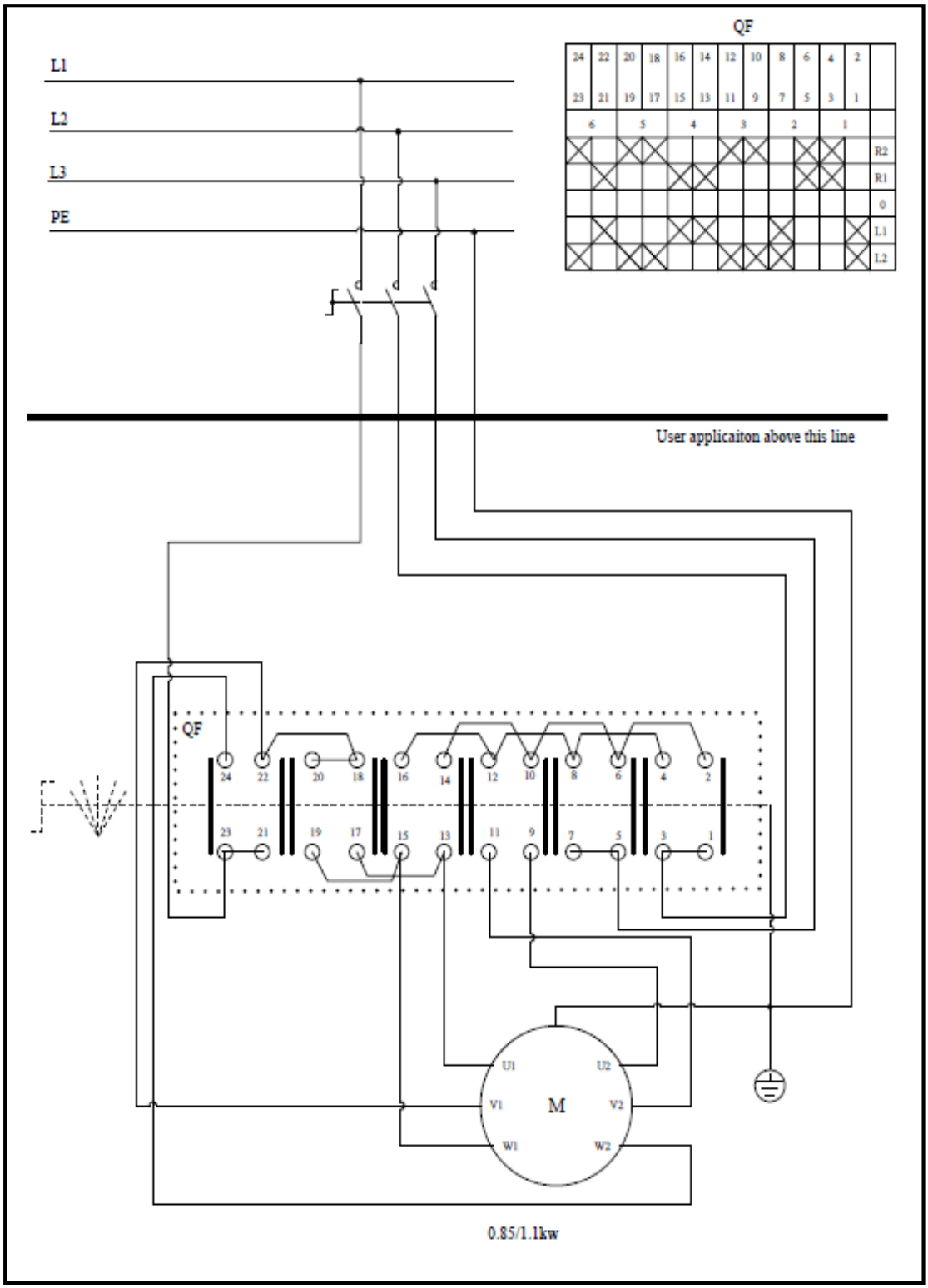
Single phase



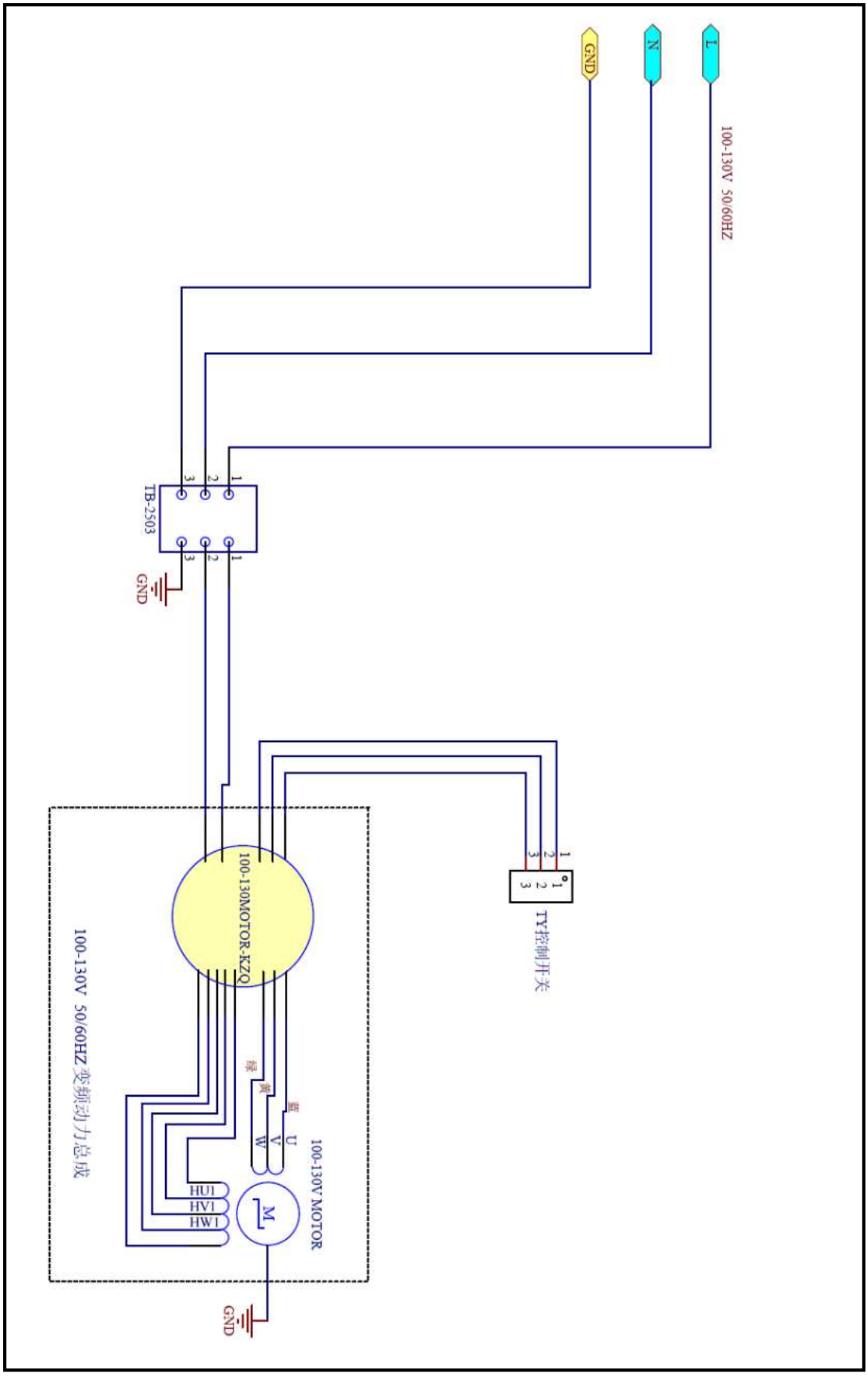
Three phase, single speed motor



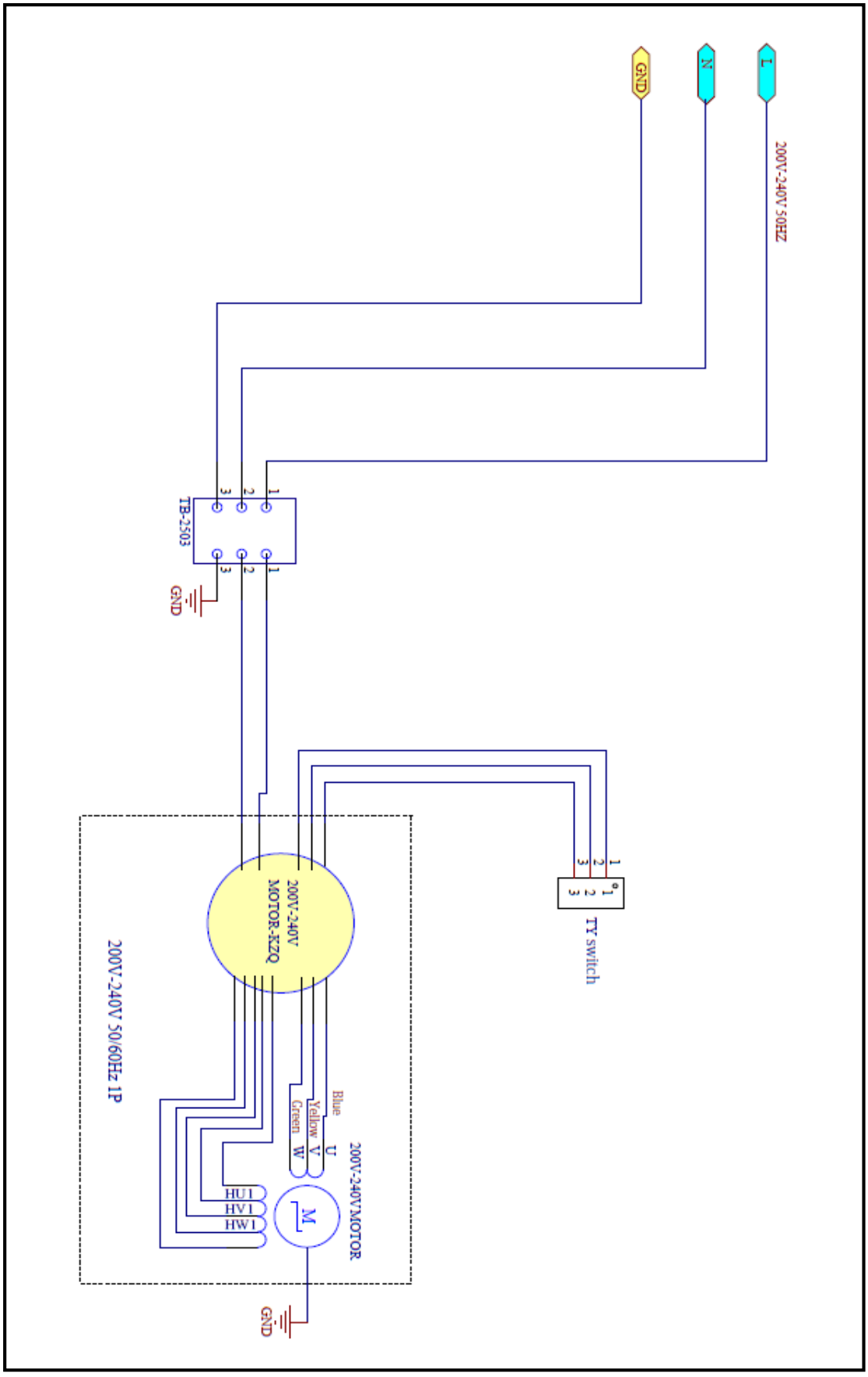
Three phase, dual speed motor



100V~ 130V direct drive frequency converter



200V~240V direct drive frequency converter



15. Pneumatic schematic diagram

0	1	2	3	4	5	6
气动三联件	立柱控制	卡爪撑夹控制	靠胎控制	推拉臂锁紧控制	轮胎充气（可选）	爆充（可选）
	上升 ↑ ↓ 下降	开 关	开 关	锁紧 松开