

MAGNETI MARELLI

**Helper 4Fd - Multipurpose Bead Lifting/Pressing
Rh Side Helper, For Sport Tyres.**

User's manual

007960001050



Magneti Marelli Aftermarket Spółka z.o.o.

Plac Pod Lipami 5, 40-476 Katowice

Tel.: + 48 (032) 6036107, Faks: + 48 (032) 603-61-08

e-mail: checkstar@magnetimarelli.com

www.magnetimarelli-checkstar.pl

INTRODUCTION

The purpose of this manual is to provide the owner and operator with effective and safe instructions for the use and maintenance of the HELPER.

If these instructions are followed carefully, the machine will provide you with efficient and long-lasting service, thus making your work considerably easier. The following paragraphs define the levels of danger, associated with the warning captions found in this manual:

DANGER

Immediate danger, causing serious injury or death.

WARNING

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

CAUTION

Danger or unsafe procedures that could cause minor injury or material damage. Read these instructions carefully before powering up the equipment. Keep this manual and all illustrative material supplied with the machine in a folder near the tyre changer, where it is readily accessible for consultation by the machine operator. The technical documentation supplied is considered an integral part of the machine; in the event of sale all relative documentation must remain with the equipment. The manual is only to be considered valid for the machine of the model and serial number indicated on the nameplate applied to it.



WARNING

The instructions and information described in this manual must always be complied with: the manufacturer declines all liability in the case of uses of the machine not specifically described and authorised in this manual.

Note

Some of the illustrations in this manual have been taken from photographs of prototypes; standard production machines may vary in some respects.

These instructions are for the attention of personnel with basic mechanics skills. We have therefore condensed the descriptions of each operation by omitting detailed instructions regarding, for example, how to loosen or tighten the fixing devices. Do not attempt to perform operations unless properly qualified or with suitable experience. If necessary, please contact an authorised Service Centre for assistance.

TRANSPORT, STORAGE AND HANDLING

Machine transport conditions and technical data

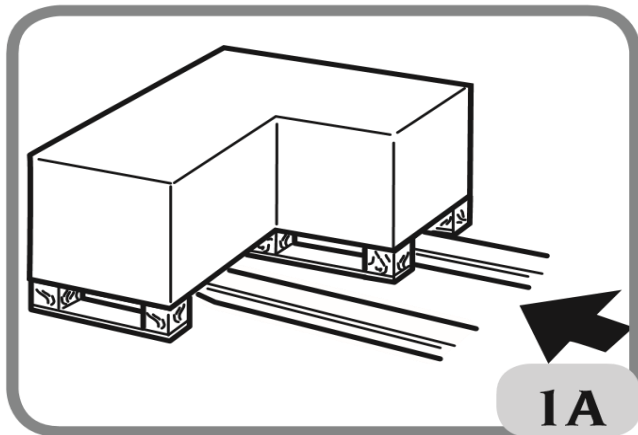
Helper must be always be transported in its original packaging and kept in the correct position, as indicated on the packaging.

The HELPER is available packed in two different configurations:

CONFIGURATION A

with arm installed.

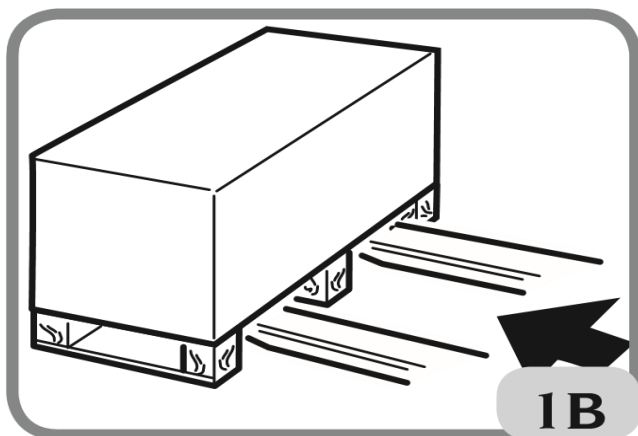
Packaging dimensions 825x1200xH420 mm



CONFIGURATION B

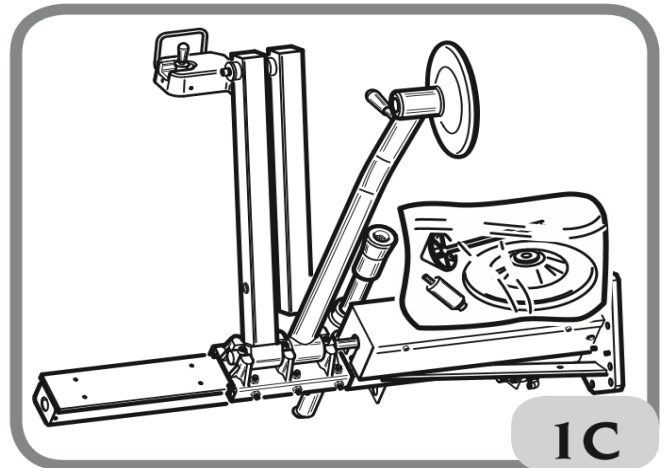
with arm not installed.

Packaging dimensions 530x1200xH420 mm



In this case, the instructions (4-115316) with the correct procedure for installing the arm are also provided.

Fig. 1C shows the unit with the arm installed.



- operating pressure.....bar7
- presser cylinder force6600 N at 7 bar
- weight:
- with packaging.....110 kg
- net70 kg

Ambient conditions for machine transport and storage

Temperature range: -25° - +55°C.



CAUTION

To avoid damage, never place other items on top of the packaging.



WARNING

Keep the original packaging; it could be useful in the future for machine transfer.

SAFETY REGULATIONS

The equipment is intended for professional use only.



CAUTION

Only one operator at a time can work with the machine.



WARNING

Failure to observe these instructions and warnings can cause serious injuries to operators or any other person present. Do not operate the machine until you have read and understood all the danger/warning/ caution notices in this manual.

The correct use of this machine requires a qualified and authorised operator. This operator must be able to understand the manufacturer's written instructions, be suitably trained and be familiar with the safety procedures and regulations. Operators are forbidden from using the machine under the influence of alcohol or drugs that could affect his/her physical and mental capacity. The following conditions are essential under any circumstances:

- Read and understand all instructions on how to use the machine.
- Make sure to have a thorough knowledge of the capabilities and characteristics of this machine.
- Keep unauthorised persons well clear of the area of operation.
- Make sure the machine has been installed in compliance with legislation and standards in force.
- Make sure that all machine operators are suitably trained, that they are capable of using the machine correctly and that they are adequately monitored during their work.
- Never leave nuts, bolts, tools or other equipment on the machine to avoid the risk that they could become entrapped between moving parts during work.
- Do not touch power lines or the inside of electric motors or other electrical equipment until the power has been disconnected and locked out.
- Read this manual carefully and learn how to use the machine correctly and safely.
- Always keep this user and maintenance manual in a place where it can be readily consulted and consult it whenever you are in need of confirmation or explanations.



CAUTION

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

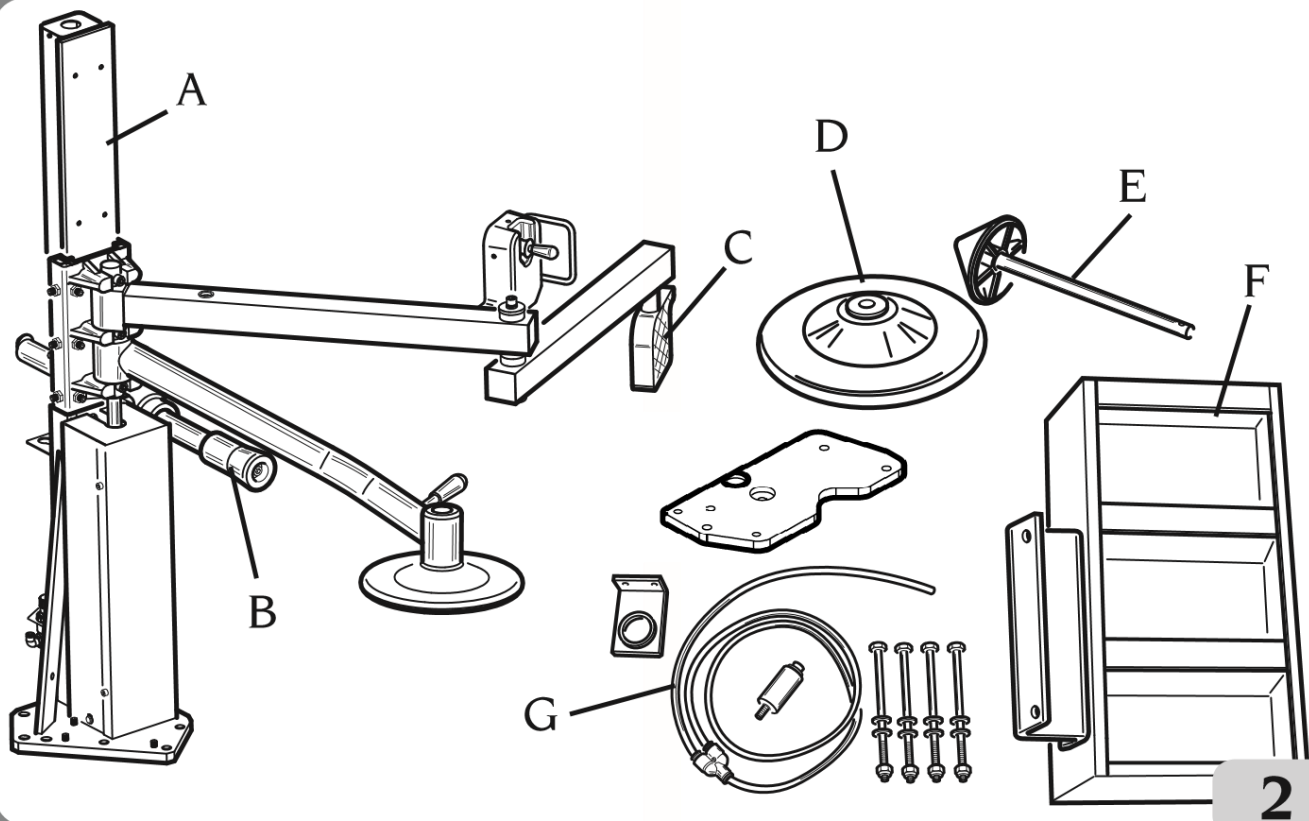
- When using and servicing the machine, observe the standardised industrial accident prevention regulations for high voltages.

- Any unauthorised changes or modifications made to the machine shall automatically release the manufacturer from any liability for damage or accidents attributable to such alterations. In particular the tampering or the removal of the safety devices constitute the infringement of the safety rules.



CAUTION

When operating or servicing the equipment, tie back long hair and do not wear loose-fitting clothes, ties, necklaces, rings or wristwatches which could become entrapped by moving parts



INSTALLATION



CAUTION Take the utmost care when unpacking, assembling, and setting up the machine as described below. Failure to comply with these recommendations may cause damage to the machine and put the operator at risk.

Free the accessory from the upper part of the packaging, making sure that it was not damaged during transport.

Packaging content Fig. 2

A Help body

B Presser roller

C Presser pad

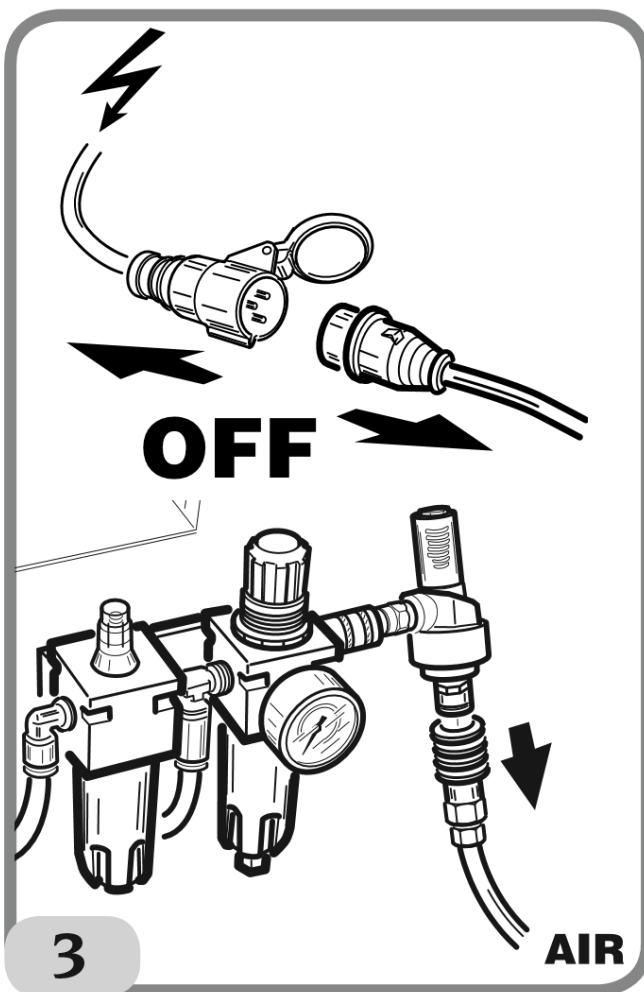
D Bead lifter disc

E Rim pressing tool

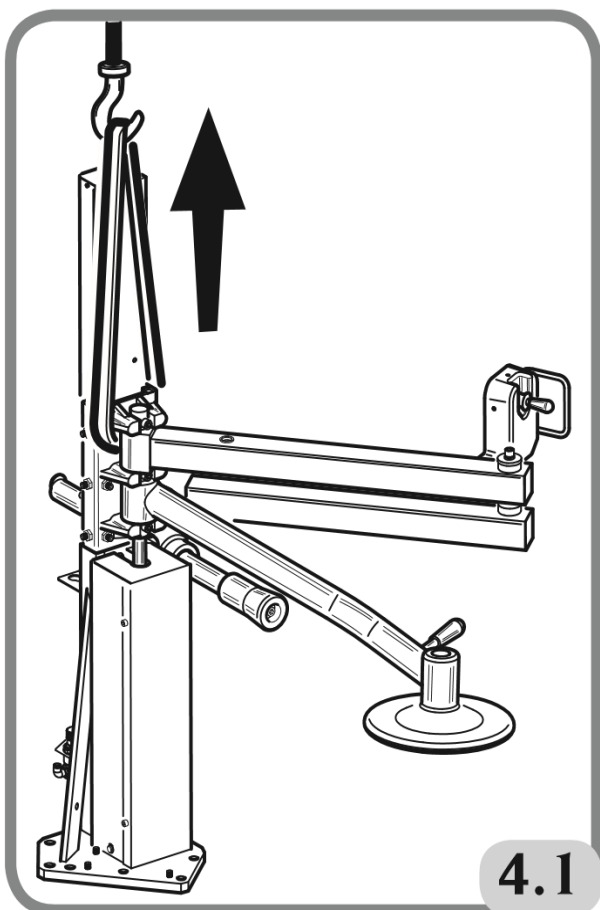
F Accessory holder

G Mounting material

1. Disconnect the machine from the mains and compressed air line Fig. 3.



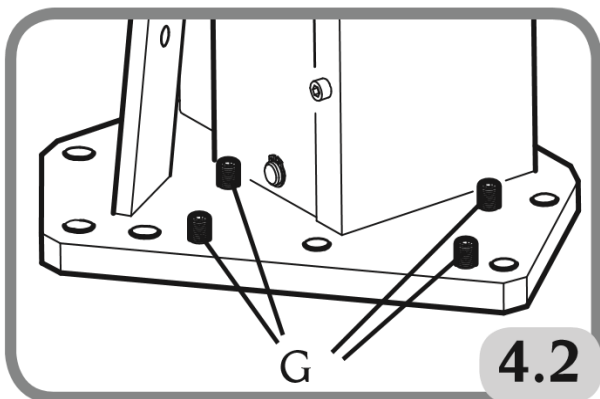
2. Move the unit as shown in figure 4.1



4.1

3. Remove the hole protection caps.

4. Loosen the dowels **G** Fig. 4.2.



4.2

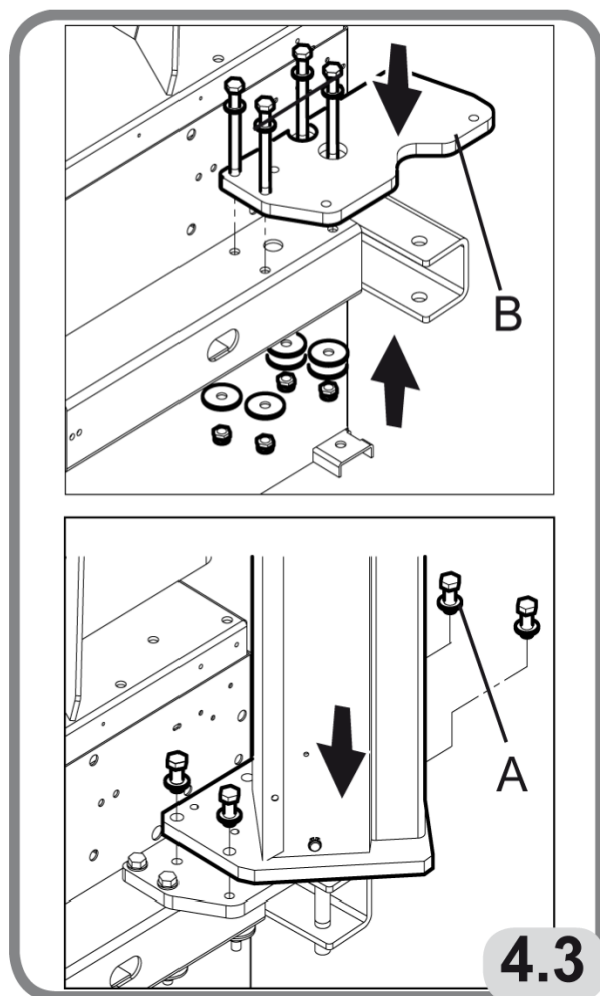
5. Fix plate **B** to the casing using the appropriate screws (see Fig. 4.3)

6. Fix the helper on the plate using the 4 fasteningscrews **A**, without tightening them completely (see Fig. 4.3)

7. If necessary, adjust the dowels **G** Fig. 4.2 to change the inclination of the help unit.

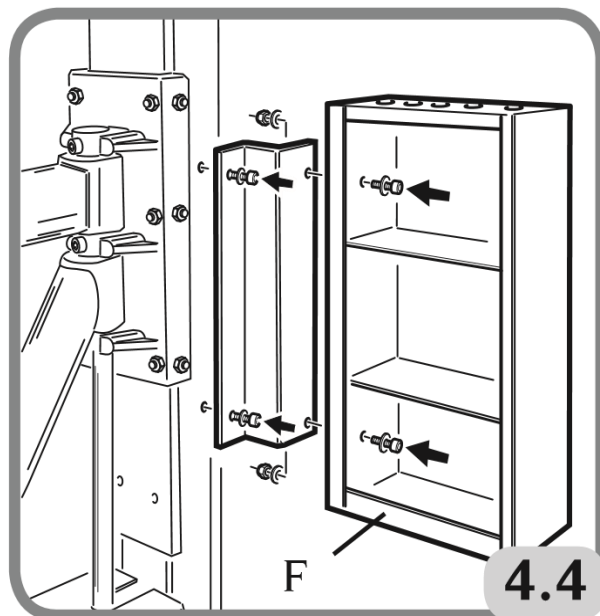
8. Finally tighten the fastening screws **A**

Fig. 4.3.



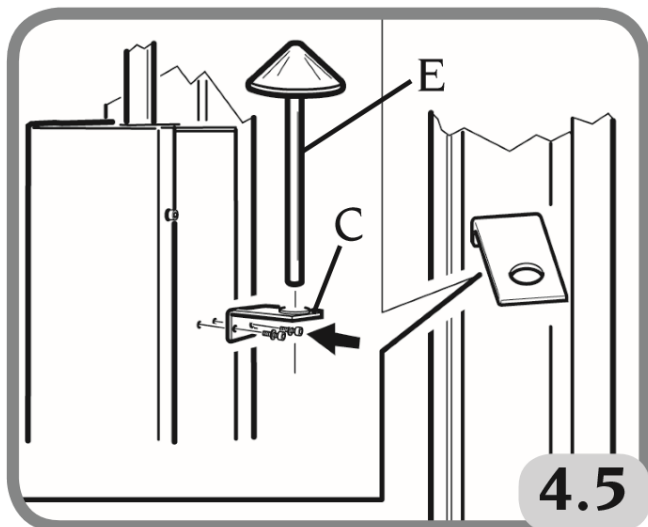
4.3

9. Fasten the accessory holder **F** to the column Fig. 4.4.

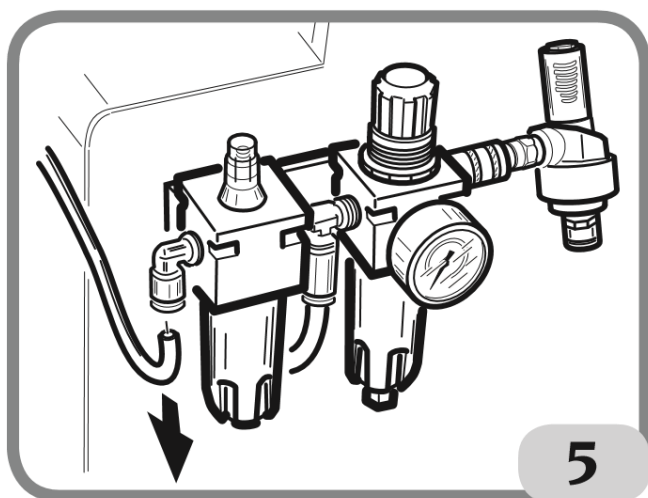


4.4

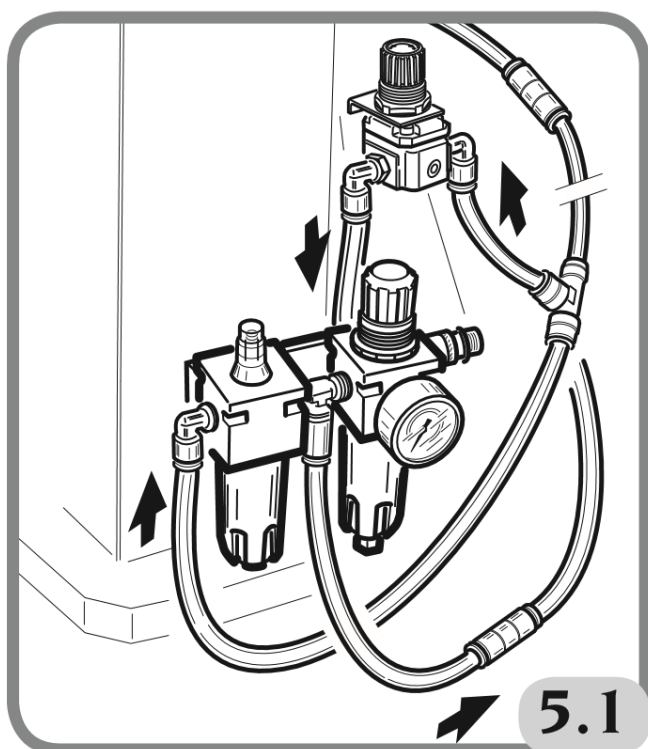
10. Fasten the support **C** to the column for the rim clamping cone **E** Fig. 4.5.



11. Disconnect the air pipe Fig. 5.

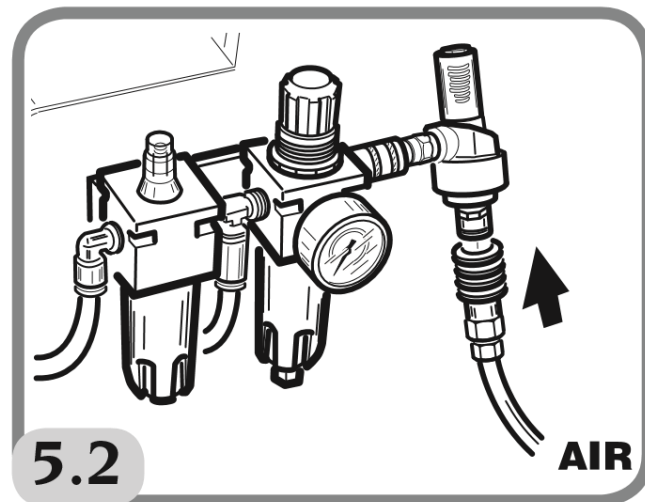


12. Remove the lubricator filter unit from its position on the casing and fix it on the Helper column as shown in Fig. 5.1

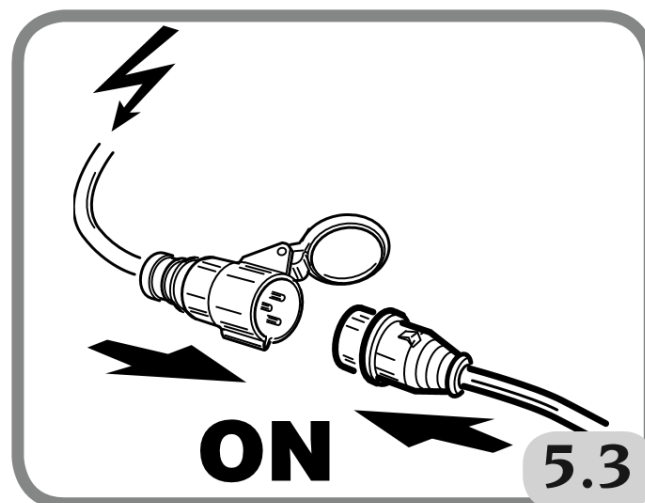


13. Use the pipe with the Y connector provided in the kit to make the new connections, as shown in fig. 5.1

14. Reconnect the machine to the compressed air line fig. 5.2



15. Reconnect the machine to the electric mains fig.5.3.



OPERATION

Demounting



CAUTION

For all tyre mounting/demounting procedures not specifically described, refer to the tyre changer use and maintenance manual.

The help has been designed to simplify demounting and mounting light alloy rims and especially stiff low-profile tyres. Proceed as follows to get the best performance from these accessories.

Demounting:

- For particularly stiff tyres with beads that tend to slip back into place, use the rim clamping:

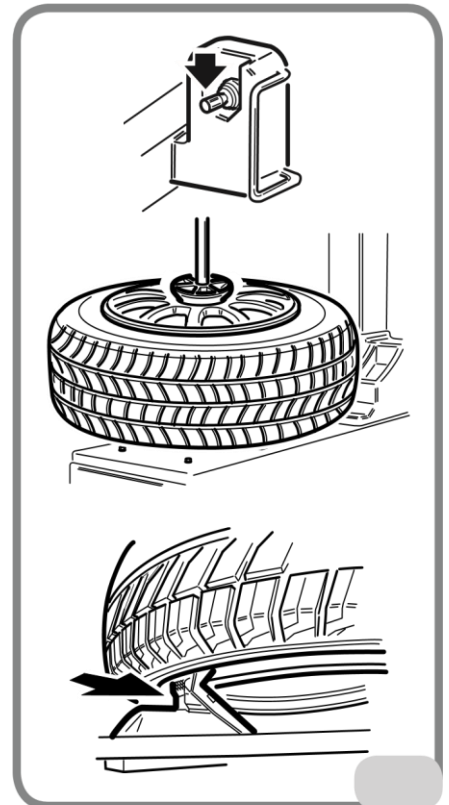
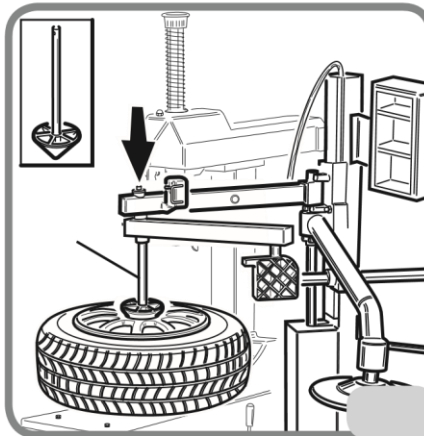
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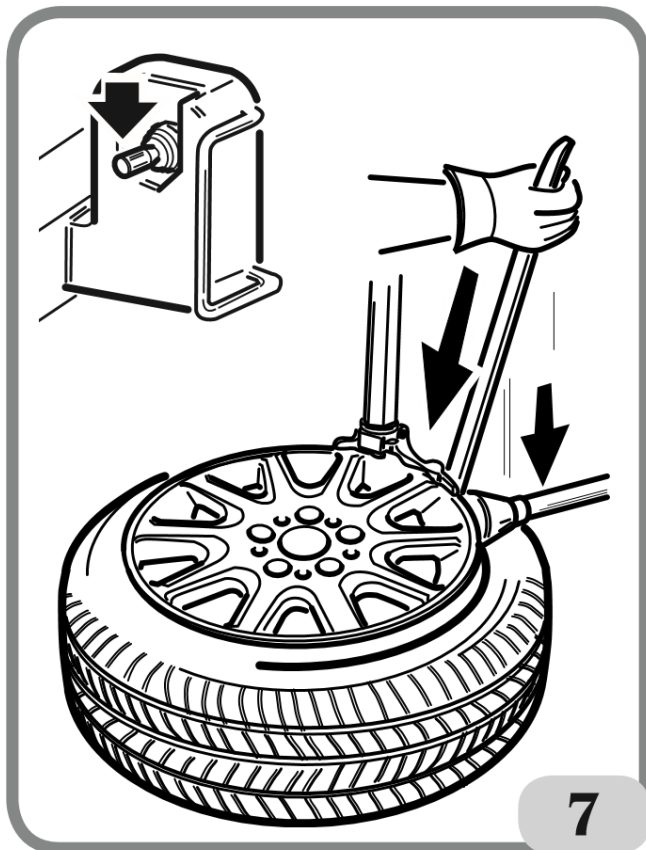
After breaking the bead of the wheel, place it on the turntable and clamp it on the outside. Fit the rim clamping cone in the specific seat in the articulated joint of the arms Fig. 6, align the cone with the hole in the centre of the rim and press the down lever until the sliding clamps have been inserted between the rim and the tyre (Fig. 6.1), then press the pedal to clamp the wheel. Remove the centring cone and return it to its seat Fig. 4.3.

6.1

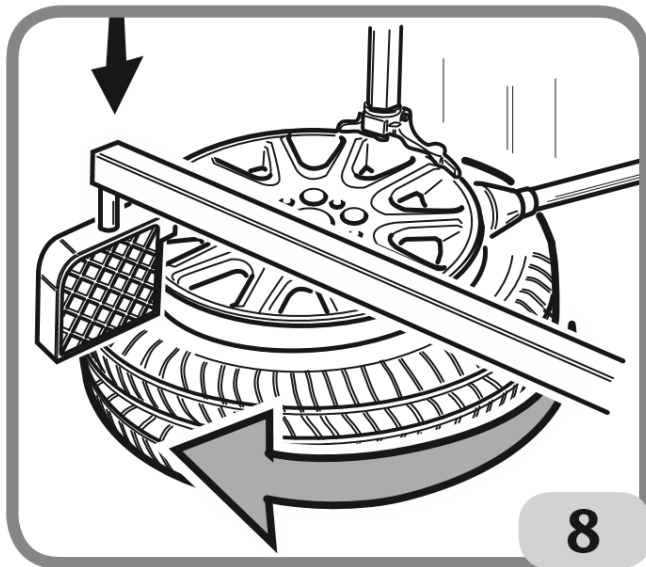
- Tilt the column forward and position the mounting/demounting tool, place the presser roller at a tangent to the external diameter of the rim, and press the down lever to create a gap between the mounting/ demounting tool and the tyre large enough to insert the lever (Fig. 7) and remove the presser roller.

- In the case of particularly stiff tyres use the presser pad in the position opposite to the mounting/demounting tool (Fig. 8), press the down lever to insert the bead inside the drop centre of the rim, then place the bead on the mounting/demounting tool (Fig. 9), move the bead presser block away, press the rotation pedal and extract the first bead.





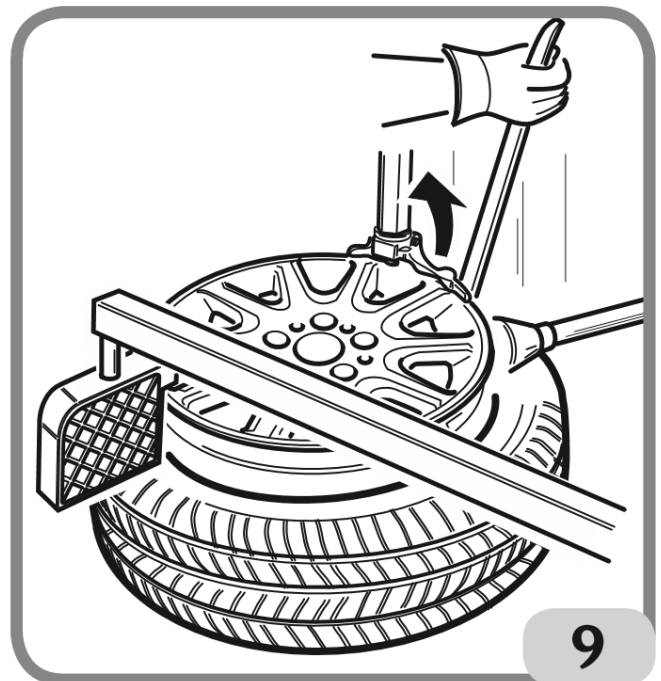
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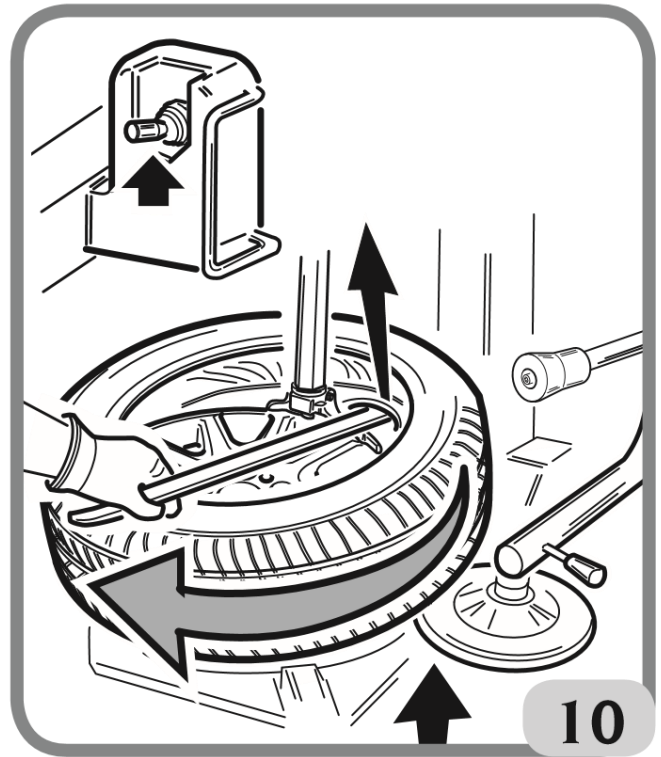
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- Bring the bottom bead up to the top edge of the rim; in some cases, even if the bead has already been broken, the bottom bead will remain in place because it has stuck to the rim.

If this occurs, use the bead lifter disc, inserting it between the bottom bead and the rim (Fig. 10), press the rotation pedal and lift.



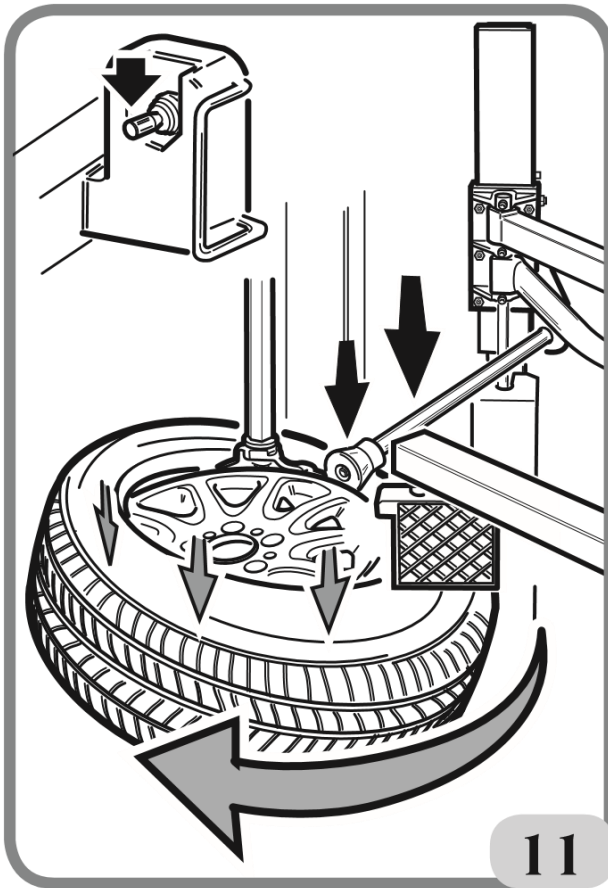
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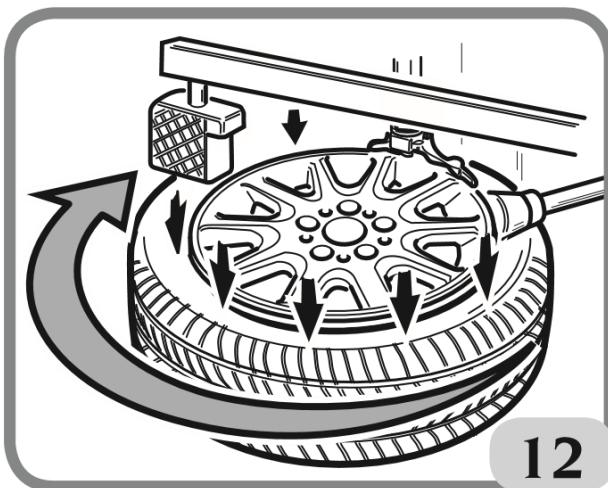
10

Mounting

- Always carefully lubricate the rim and the beads.
- Place the tyre on the rim and tilt the column forward, then fit the first bead.
- Position the upper bead under the mounting/demounting tool, at the same time position the presser roller near the rim and the presser pad as shown in Fig. 11.



- Then press the down lever in order to lower the rim pressing tool under the top edge of the rim, press the rotation pedal and mount the tyre (Fig. 12).



You will now see that the presser roller holds the bead underneath the head of the mounting/demounting tool and the rim clamping block will follow the wheel in its rotation, keeping the bead inside the drop centre. This guarantees that the tyre is mounted correctly without the operator

having to use his hands.

Note: stop rotation when the block is next to the mounting/demounting tool.

- Press the up lever and free the wheel from the roller and presser pad.

MAINTENANCE



CAUTION

The manufacturer declines all responsibility for claims resulting from the use of non-original spares or accessories.



CAUTION

Before proceeding with any adjustment or maintenance work, disconnect the machine from pneumatic and electric power supply, and check that all the moving parts are locked in place.



CAUTION

Do not remove or make changes to any part of this machine (only the assistance service may do this).



DANGER

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



WARNING

Keep the work area clean. Do not clean the machine with compressed air, jets of water or thinner.

INFORMATION ABOUT SCRAPPING

If the machine is to be scrapped, remove all electrical, electronic, plastic and metal parts. Dispose of them separately, as provided for by local regulations in force.

ENVIRONMENTAL INFORMATION

The following disposal procedure must be applied to the machines having the crossed-out bin symbol on their data plate



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

We therefore provide you with the following information to prevent releases of these substances and to improve the use of natural resources.

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

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

This prevents the inappropriate disposal of the substances which this product contains, or the improper use of some of them, from having hazardous consequences for the environment and human health. Furthermore, this helps to recover, recycle and reuse many of the materials contained in these products.

To this end, electrical and electronic manufacturers and distributors have set up proper collection and treatment systems for these products. At the end of life your product contact your distributor to have information on the collection arrangements.

When buying this new product your distributor will also inform you of the possibility to return free of charge another end of life equipment as long as it is of equivalent type and has fulfilled the same functions as the supplied equipment.

Anyone disposing of the product otherwise than as described above will be liable to prosecution under the legislation of the country where the product is scrapped.

We also recommend you to adopt more measures for environment protection: recycling of the internal and external packaging of the product and proper disposal of used batteries (only if contained in the product).

With your help it is possible to reduce the amount of natural resources used to produce electrical and electronic equipment, to minimise the use of landfills for the disposal of the products and to improve the quality of life by preventing

During cleaning operations, try as far as possible to prevent dust from forming or rising.
that potentially hazardous substances are released in the environment.

RECOMMENDED FIRE EXTINGUISHING EQUIPMENT

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

	Dry combustibles	Inflammable liquids	Electrical fires
Water	YES	NO	NO
Foam	YES	YES	NO
Dry chemical	YES*	YES	YES
CO ₂	YES*	YES	YES

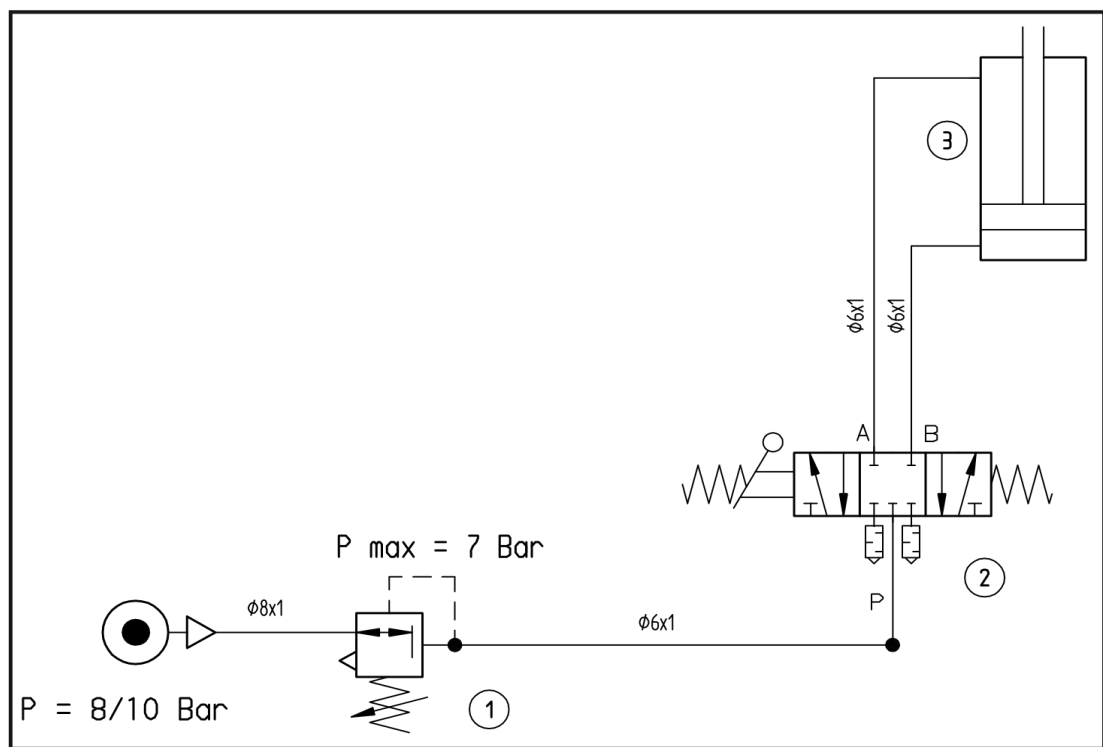
YES* Use only if more appropriate extinguishers are not on hand or when the fire is small.



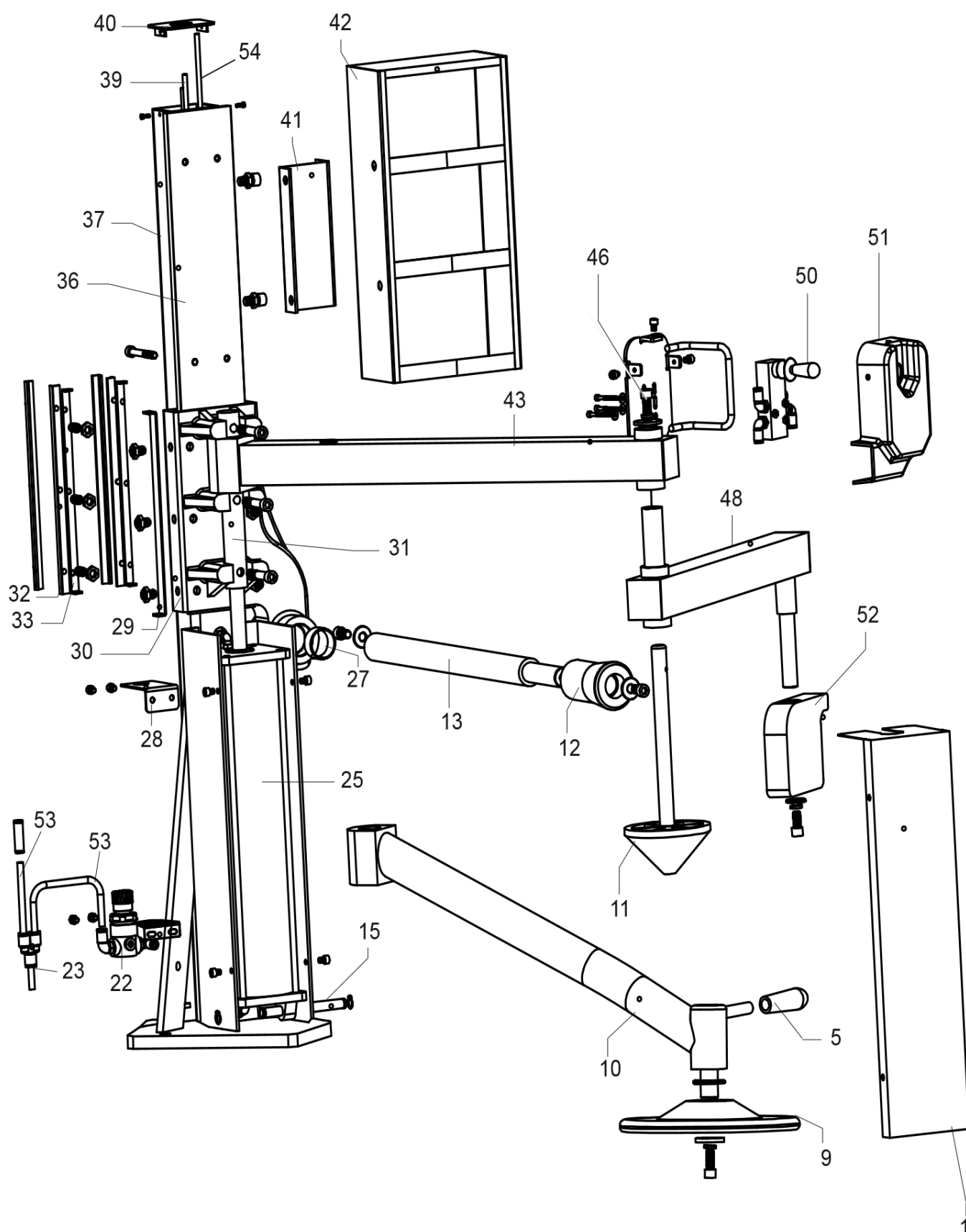
The indications given in this table are of a general nature and should be used as a general guide. All the applications of each type of extinguisher must be obtained from the relevant manufacturer.

COMPRESSED AIR SYSTEM DIAGRAM

- 1 Pressure regulator
- 2 Valve 5/3
- 3 Cylinder



Spare parts



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