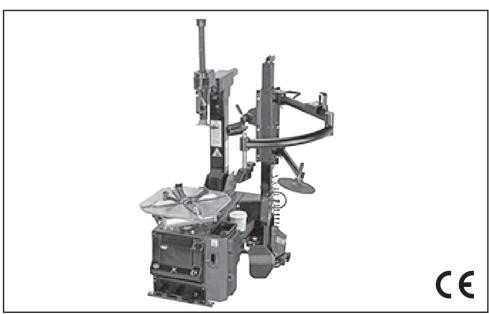




SEMI AUTOMATIC

TYRE CHANGER WITH ASSIST ARM

78612



These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

1. TITLE PAGE

1.1 INTRODUCTION:

USER MANUAL FOR: Semi-Automatic Tyre Changer with assist arm

Stock No: 78612 Part No: TC200

1.2 REVISIONS:	
Date first published July 2017.	

As our user manuals are continually updated, users should make sure that they use the very latest version.

Downloads are available from: http://drapertools.com/manuals

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1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

WARNING! – Information that draws attention to the risk of injury or death. **CAUTION!** – Information that draws attention to the risk of damage to the product or surroundings.

1.4 COPYRIGHT © NOTICE:

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3. GUARANTEE

3.1 GUARANTEE

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact:

Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England.

Telephone Sales Desk: (023) 8049 4333 or:

Product Helpline (023) 8049 4344.

A proof of purchase must be provided.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee period covering parts/labour is 12 months from the date of purchase except where tools are hired out when the guarantee period is 90 days from the date of purchase. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

Note: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the guarantee period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.

4. INTRODUCTION

4.1 SCOPE

This semi-automatic tyre changer is designed and constructed for mounting and un-mounting tyres from wheel rims of motor vehicles.

4.2 SPECIFICATION

Stock no	78612
Part no	TC200
Rated voltage	230V~
Rated frequency	50Hz
Motor	1.1kW
Bead breaker force	2100kg
Pneumatic supply working pressure	80 - 115psi (6 - 8bar)
Minimum wheel width	3"
Maximum wheel width	18"
Minimum rim diameter (internal locking)	13"
Maximum rim diameter (internal locking)	26"
Minimum rim diameter (external locking)	
Maximum rim diameter (external locking)	25"
Maximum wheel diameter	45"
Overall dimensions	. 1900mmH x 1650mmD x 2000mmW
Net weight	350kg

4.3 HANDLING AND STORAGE

To maintain machine and user safety, the responsibility of the owner is to read and follow these instructions:

- Follow all installation instructions
- Make sure installation conforms to all applicable local environmental/health and safety rules and regulations.
- Carefully check the unit for correct initial function.
- · Read and follow the safety instructions. Keep them readily available for machine operators.
- Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- · Allow unit operation only with all parts in place and operating safely.
- · Carefully inspect the unit on a regular basis and perform all maintenance as required.
- Service and maintain the unit only with authorized or approved replacement parts.
- Keep all instructions permanently with the unit and all decals/labels/notices on the unit clean and visible.
- · Do not override safety features.

5. HEALTH AND SAFETY INFORMATION

5.1 GENERAL SAFETY INSTRUCTIONS

When using any type of machine there are steps that should be taken to make sure that you, as the user, remain safe.

Common sense and a respect for the machine will help reduce the risk of injury.

Read the instruction manual fully. Do not attempt any operation until you have read and understood this manual.

Most important you must know how to safely start and stop this machine, especially in an emergency.

Keep the work area tidy and clean. Attempting to clear clutter from around the machine during use will reduce your concentration. Mess on the floor creates a trip hazard. Any liquid spilt on the floor could result in you slipping.

Find a suitable location. The location should provide good natural light or artificial lighting as a replacement. Avoid damp and dusty locations as it will have a negative effect on the machine's performance.

Do not expose the machine to rain or any direct or indirect water spray. In all cases do not operate power tools near any flammable materials.

Beware of electric shock. Avoid contact with earthed surfaces; because they can conduct electricity if there is an electrical fault with the machine. Always protect the power cable and route it away from danger.

Keep bystanders away. Children, onlookers and passers by must be restricted from entering the work area for their own protection. The barrier must extend a suitable distance from the tool user.

Do not overload or misuse the machine. All machines are designed for a purpose and are limited to what they are capable of doing. Do not attempt to use the machine (or adapt it in any way) for an application it is not designed for. Select the machine appropriate for the size of the job. Overloading the machine will result in its failure and user injury: This covers the use of accessories.

Dress properly. Loose clothing, long hair and jewellery are all dangerous because they can become entangled in moving machinery: This can also result in parts of body being pulled into the machine.

Clothing should be close fitted, with any long hair tired back and jewellery and neck ties removed. Footwear must be fully enclosed and have a nonslip sole.

5. HEALTH AND SAFETY INFORMATION

Wear personal protective equipment (PPE). Dust, noise, vibration and swarf can all be dangerous if not suitably protected against. If the work involving the power tool creates dust or fumes; wear a dust mask. Vibration to the hand, caused by operating some tools for longer periods must be protected against. Wear vibration reducing gloves and allow long breaks between uses. Protect against dust and swarf by wearing approved safety goggles or a face shield. These are some of the more common hazards and preventions; however, always find out what hazards are associated with the machine/work process and wear the most suitable protective equipment available.

Do not breathe contaminated air. If the work creates dust or fumes; connect the machine (if possible) to an extraction system either locally or remotely.

Move the machine as instructed. Always refer to the instructions for the correct method.

Do not overreach. Extending your body too far can result in a loss of balance and you falling. This could be from a height or onto a machine and will result in injury.

Maintain your tools correctly. A well maintained tool will do the job safely. Replace any damaged or missing parts immediately with original parts from the manufacturer. As applicable; keep blades sharp; moving parts clean, oiled or greased; handles clean; and emergency devices working.

Wait for the machine to stop. Unless the machine is fitted with a safety brake; some parts may continue to move due to momentum. Wait for all parts to stop; then unplug it from the power supply before making any adjustments, carrying out maintenance operations or just finishing using the tool.

Remove and check setting tools. Some machinery requires the use of additional tools or keys to set, load or adjust the power tool. Before starting the power tool always check to make certain they have been removed and are safely away from the machine.

Prevent unintentional starting. Before plugging any machine in to the power supply, make sure the switch is in the OFF position. If the machine is portable; do not hold the machine near the switch and take care when putting the machine down; that nothing can operate the switch.

This machine is not suitable for use with an extension lead.

Concentrate and stay alert. Distractions are likely to cause an accident. Never operate the machine if you are under the influence of drugs (prescription or otherwise), including alcohol or if you are feeling tired. Being disorientated will result in an accident.

Have this machine repaired by a qualified person. This machine is designed to conform to the relevant international and local standards and as such should be maintained and repaired by someone qualified; using only original parts supplied by the manufacturer: This will ensure the machine remains safe to use.

5. HEALTH AND SAFETY INFORMATION

5.2 SPECIFIC SAFETY INSTRUCTIONS FOR TYRE CHANGER USE

- Make sure this machine is used on a dry, flat, level, oil/grease free, concrete surface capable of supporting the weight of the tyre changer, any additional tools, equipment and wheel tyre combination.
- Before each use, always examine the tyre changer for structural cracks and bends, damage to the safety guard, electrical wiring, and any other condition that may affect the safe operation of the machine. Do not use the tyre changer even if minor damage is apparent.
- Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, and other debris. Do not use the tyre changer in a damp or wet location. Do not use the tyre changer in areas near flammable chemicals, dusts, and vapours.
- This tyre changer is designed for use with most passenger car and light commercial vehicle wheels. Do not attempt to exceed this machine's maximum wheel diameter capacity.
- Always keep hands, fingers, and feet away from the moving parts of the tyre changer while the
 machine is in use.
- Never leave the tyre changer unattended when it is running. After completing a tyre changer
 job, always turn the Power Switch to its "OFF" position, and wait until the machine comes to a
 complete stop before leaving.
- Make sure you read and understand all instructions and safety precautions as outlined in the manufacturer's manual for the wheel you are balancing, and the vehicle the wheel is to be used on.
- Always unplug the tyre changer from its electrical supply source before performing any inspection, maintenance, or cleaning procedures.
- WARNING: People with pacemakers should consult their physician(s) before using this product.
 Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.

5.3 CONNECTION TO THE POWER SUPPLY

CAUTION: Risk of electric shock. Do not open.

This appliance is supplied with a moulded 3 pin mains plug for your safety. The value of the fuse fitted is marked on the pin face of the plug. Should the fuse need replacing, ensure the substitute is of the correct rating, approved to BS1362 and ASTA or BS Kite marked.



The fuse cover is removable with a small plain slot screwdriver. Ensure the fuse cover is replaced before attempting to connect the plug to an electrical outlet. If the cover is missing, a replacement must be obtained or the plug replaced with a suitable type.

If a replacement plug is to be fitted this must be carried out by a qualified electrician.

The damaged or incomplete plug, when cut from the cable shall be disabled to prevent connection to a live electrical outlet.

This appliance is Class I† and is designed for connection to a power supply matching that detailed on the rating label and compatible with the plug fitted.

If an extension lead is required, use an approved and compatible lead rated for this appliance. Follow all the instruction supplied with the extension lead.

†Earthed $\stackrel{\bot}{=}$: This product requires an earth connection to protect against electric shock from accessible conductive parts in the event of a failure of the basic insulation.

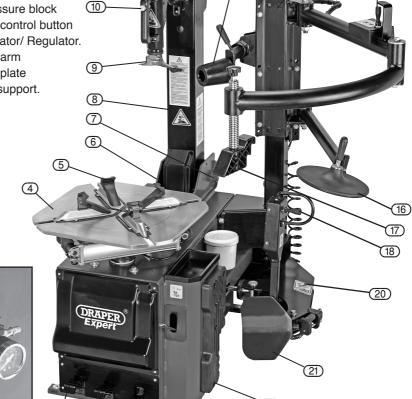
TECHNICAL DESCRIPTION 6.

6.1 IDENTIFICATION

- (1) Turn table rotation control pedal.
- 2 Locking jaw open and close control pedal.
- 3 Tilt column control pedal.
- Turntable
- Locking jaw wedges.
- Post base.
- 4 5 6 7 8 Post pivot point.
- Post.
- 9 Head.
- 10 Locking lever.
- (11) Compression spring and cap.
- (12) Roller.
- (13) Assist arm column.
- (14) Assist arm sliding mechanism.
- (15) Assist arm control switch raise/lower.
- (16) Lift disc.

(19)

- (17) Adjustable pressure block
- 18) Bead breaking control button
- (19) Air filter/ Lubricator/ Regulator.
- 20) Bead breaking arm
- (21) Bead breaking plate
- 22) Anti- abrasion support.



(14)

7. UNPACKING AND CHECKING

7.1 PACKAGING

Carefully remove the packaging from around the tyre changer and assist arm, and examine it for any sign of damage that may have happened during shipping.

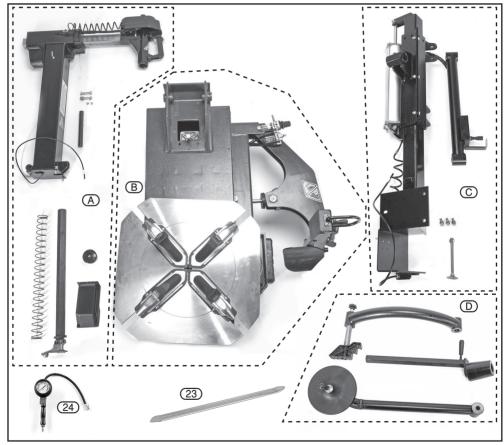
The packaging material should be retained at least during the guarantee period: in case the machine needs to be returned for repair.

Warning! Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.

If any of the packaging is to be thrown away, make sure they are disposed of correctly; according to local regulations.

7.2 WHAT'S IN THE BOX?

The packaging contains several parts and semi-assembled elements that require final assembly. It is supplied in two pallet crates.



- A Pneumatic Column unit
- B Base unit
- C Assist arm unit

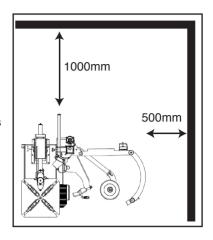
- Attachments for assist arm
- 23) Tyre lever
- 24) Tyre inflator

8.1 DETERMINE THE PROPER LOCATION FOR THE TYPE CHANGER.

Warning! Make sure this machine is used indoors on a dry, oil/grease free, flat, level CONCRETE surface capable of supporting the weight of the tyre changer and any additional tools, equipment and tyre/ wheel combinations.

For safe and ergonomic use of the machine it is advisable to locate the machine a minimum of 500mm from the side walls and 1000mm from back wall.

- The tyre changer is designed for indoors use only. Do not install or use outdoors, or in damp or wet locations away from the risk of any liquid.
- Make sure to check the desired location for possible obstructions such as a low ceiling, overhead lines, adequate working area, access ways, exits, etc.
- The tyre changer MUST be located in an area free of flammable materials and liquids.



IMPORTANT

BEFORE YOU START YOU WILL NEED THE FOLLOWING ITEMS.
Engine crane, load slings, (drill and drill bits suitable for drilling into a concrete floor), floor bolts.

⚠ WARNING: ⚠

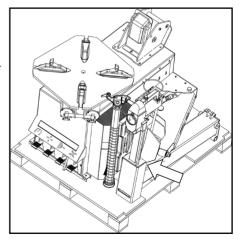
Do not attempt to install this on your own! Minimum 2 person job.

8.2 ASSEMBLY

This equipment is supplied on a wooden pallet.

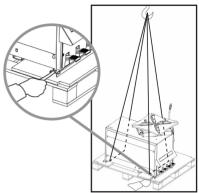
First remove the pneumatic column unit from the pallet.

WARNING: This unit is heavy and requires careful handling.



8.3 MAIN BODY

Using an engine crane or other suitable lifting equipment and load slings to remove main body from pallet after unbolting it from the pallet.



8.4 INSTALL MAIN BODY.

Using floor bolts/anchors fix the main body to the floor. The floor must be smooth and level concrete, able to support the weight of the machine. Main body must be bolted down BEFORE assembly!

Note: If the machine is not bolted to the floor, this will invalidate your warranty.

WARNING: Failure to correctly bolt the machine to the floor will cause personal injury or death. Correct installation is critical to the safe use of this machine



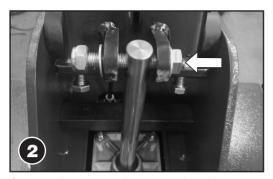
8.5 ASSEMBLY AND ATTACHMENT OF PNEUMATIC COLUMN STEPS 1 TO 8.

1. Lift the column into place.

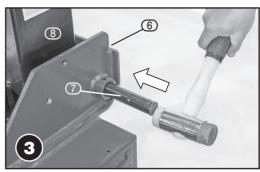
WARNING:

Pneumatic column is heavy and requires two people to position and fit safely.

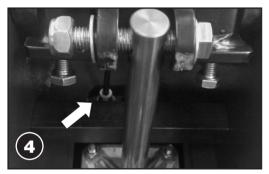




Connect the pneumatic ramp to the column with nut and bolt and washer supplied.



Align the spindle holes, then carefully tap with a soft face hammer to insert the pivot pin.



Connect the pneumatic column air pipe.



Fit column base cover.



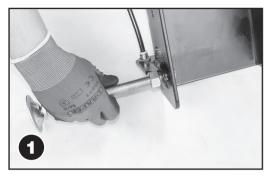




Tilt pneumatic column backwards and hold in place while you insert head and then secure the compression spring with cap and hex. head screw.

8.6 ASSEMBLY AND ATTACHMENT OF ASSIST ARM — STEPS 1-5

The assist arm is supplied in it's own pallet, it will need to be attached to the main body and assembled.

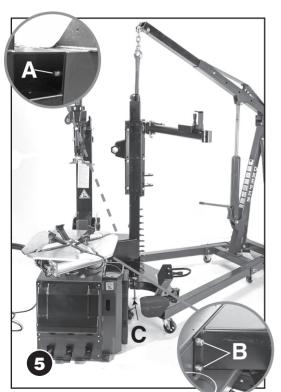


Screw the support leg into the base of the assist arm.



Attach the top arm with control switch.

Insert arm into bracket .



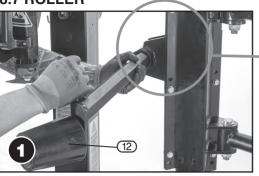
Using an engine crane position and bolt the assist arm column to the main body with 3 bolts supplied (2 at side, 1 from the back) and adjust the support leg C to meet the floor.

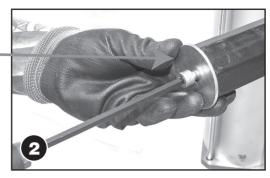


Insert pivot pin.



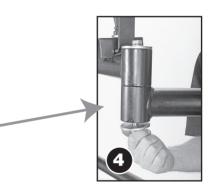
8.7 ROLLER





8.8 ADJUSTABLE PRESSURE BLOCK

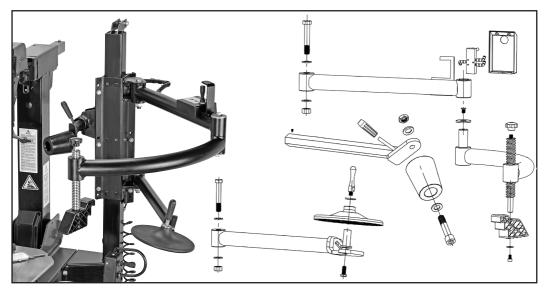




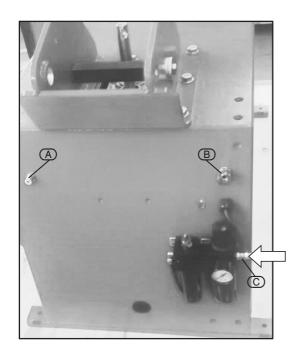
8.9 LIFT DISC







Each of the arms will need to be bolted to the post, if more detail needed please consult the parts list above.

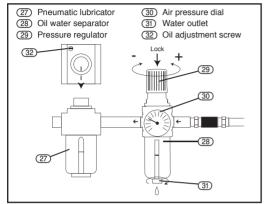


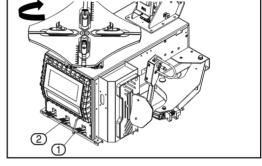
8.10 ADJUSTMENT OF PNEUMATIC LUBRICATOR AND AIR SERVICE UNIT.

Connect the air tube from the assist arm to the back of the main unit (A).

Connect the tyre inflator gun to the upper connector (B).

Connect the air supply to inlet (C).





Press pedal ② 3 to 5 times = 1 drop of oil into pneumatic lubricating cylinder.

If not adjust screw 32.

9. OPERATION AND USE

9.1 PRELIMINARY OPERATIONS

Completely deflate the tyre.

WARNING: If tyre pressure monitoring sensors (TPMS) are fitted to the tyre, the pressure must be released slowly. Sudden loss of pressure may damage the sensors. Always check with the vehicle manufacturer before deflating tyre.

Remove wheel balancing weights to avoid any interference with the clamping mechanism.

9.2 BEAD BREAKING.

WARNING: Tyre MUST be deflated before bead breaking.

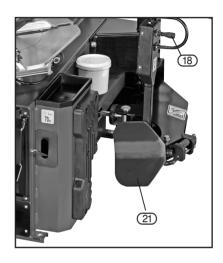
Place the wheel on the ground near the bead breaker, move the plate (21) to the bead and press the bead breaking control switch (18).

This operation is repeated at various points on the wheel until the bead is completely detached.

Repeat the operation on the opposite side of the wheel.

Note: The lip of the bead breaker must be as close as possible to the tyre bead to work effectively. Just pressing the tyre wall will NOT allow the bead breaker plate to separate the tyre from the wheel.

WARNING: When using the bead breaking arm, take care not trap limbs between the tyre and the bead breaker.

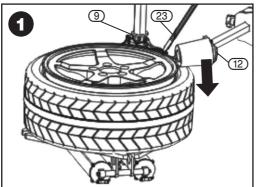


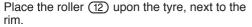
9.3 REMOVE TYRE STEPS 1 TO 3

First deflate the tyre completely, and use the bead breaker as shown opposite.

Note: Use external rim clamping when using the assist arm.

Warning: Do not use the internal rim clamps or serious damage to the wheel, machine and user will occur when using the assist arm.

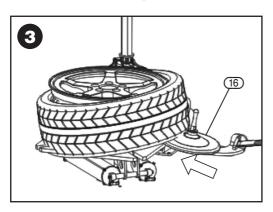




Press roller down on tyre. (use switch (18) to raise and lower the assist arm while lubricating the tyre bead).

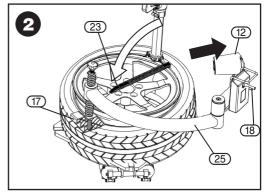
Place the mounting head (9) on tyre.

Insert tyre lever (23) between mounting head and tyre bead (the mounting head will protect the wheel from scratching by the tyre bar).



Swing in the lift disc 16 under the tyre, (ensure it does not touch the wheel rim).

Press foot pedal 1 to spin the wheel and raise the disc with switch 18 at the same time until the tyre is free from wheel.



With the tyre lever (23) still under the bead remove roller (12).

Use the adjustable pressure block (17) and press down directly opposite to mounting head.

Press down on tyre lever to lift bead onto mounting head. Press pedal ① to rotate wheel, the mounting head will lift the bead over the wheels rim.

Raise and remove arm 25.

9. OPERATION AND USE

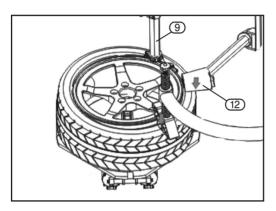
9.4 FIT ON THE TYRE

Place the tyre on the rim after lubricating the tyre bead, move the mounting head ③ on the rim edge, press the pedal ① and turn the plate until the tyre bead fits on the rim.

Raise the assist arm, move the roller (12) upon the tyre, turn the arm to position the adjustable pressure block into position. Using the switch (18) put slight pressure on the tyre.

Note: Do not let the pressure block press against the wheel rim during the operating, this will cause damage to the wheel.

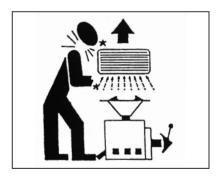
Press the pedal ① to turn the turntable, ensure the block also follows the rotation accordingly, until the upper bead fits into the wheel, with the help of mounting head.



9.5 INFLATING OPERATIONS.

NOTE: REMOVE THE WHEEL FROM THE MACHINE BEFORE INFLATING.

- WARNING: THE INFLATION PROCESSES IS POTENTIALLY DANGEROUS.
- THE OPERATOR MUST ADOPT ALL THE MEASURES NECESSARY IN ORDER TO GUARANTEE SAFE CONDITIONS.
- KEEP FINGERS AWAY FROM WHEEL RIM.



10. MAINTENANCE & TROUBLESHOOTING

10.1 INSPECTION, MAINTENANCE, AND CLEANING

To guarantee the efficiency and correct functioning of the machine (for all versions) it is essential to clean it and to conduct periodic routine maintenance. The operations of routine maintenance must be carried out by the user according to the maker's instructions given below. Before proceeding to any cleaning or maintenance operation, remove the plug from the electrical socket! **Mechanical parts**: Keep the moving parts clean and lubricating them with oil or grease. In particular:

Lubricator: Check and maintain the level of oil in the pneumatic lubricator. The level must not go outside the min/max indicated. If necessary add air tool oil.

Air filter: Periodically remove the water condensation that forms in the air filter.

Roller: Check that the roller always turns freely. Periodically clean and if necessary lubricate with oil.

Motor drive belt: Check that the motor belt is at the correct tension and that it does not slip.

11. EXPLANATION OF SYMBOLS

11.1 EXPLANATION OF SYMBOLS



Single value noise marking. (Maximum declared A-Weighted sound power level in decibels).



Do not dispose of WEEE* unsorted municipal waste.



Warning!



Warning! Wear suitable foot protection.



Warning! Read the instruction manual.



Warning! Keep bystanders away.



Danger! Risk of electrocution.

12. DISPOSAL

12.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not abandon in the environment.
- Do not dispose of WEEE* as unsorted municipal waste.



* Waste Electrical & Electronic Equipment.

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For aftersales servicing or warranty repairs, please contact the Draper Tools Helpline for details of an agent in your local area.

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