

# CLAMPOR®



**85 MM PLUNGE SAW**

**MODEL NO: CPS85**

**PART NO: 6460230**

## OPERATION & MAINTENANCE INSTRUCTIONS



**ORIGINAL INSTRUCTIONS**

LS0419 - ISS 1

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## INTRODUCTION

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Thank you for purchasing this CLARKE 85 mm Plunge Saw.

Read this manual fully before you use this product and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

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## GUARANTEE

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This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

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## CONTENTS

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The following items should be supplied in the pack. If any parts are missing or damaged, please contact the Clarke dealer where you purchased the tool.

- 1 x 550W Plunge Saw
- 1 x TCT saw blade 85 x 10 mm, 24T (wood cutting)
- 1 x HSS saw blade 85 x 10 mm, 80T
- 1 x Diamond saw blade 85 x 10 mm
- 1 x 5 mm hex key
- 1 x Parallel guide
- 1 x Dust pipe
- 1 x Carry Case

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## ENVIRONMENTAL RECYCLING POLICY

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Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

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## SPECIFICATIONS

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Model Number	CPS85
Rated Voltage	230V~50Hz
Maximum Depth of Cut	27 mm
Blade Dimensions	Diameter - 85 mm Bore - 10 mm Blade Thickness - 1 mm
Sound Pressure Level LpA	93 dB(A)
Sound Power Level LWA	104 dB(A)
Uncertainty Factor (K)	3 dB(A)
Weight	2.1 kg
Vibration (main handle)	Cutting Wood 2.4 m/s <sup>2</sup> Cutting Metal 4.7 m/s <sup>2</sup> Uncertainty Factor 1.5
Dimensions (L x W x H)	380 x 60 x 170 mm

# GENERAL POWER TOOL SAFETY WARNINGS

Read all instructions carefully before you use this product. Pay attention to all sections of this user guide that display warning symbols and notices.



**WARNING: THIS SYMBOL IS USED THROUGHOUT THE USER GUIDE WHEN THERE IS A RISK OF PERSONAL INJURY. MAKE SURE THAT THESE WARNINGS ARE READ AND UNDERSTOOD AT ALL TIMES.**



**CAUTION: THIS SYMBOL IS USED THROUGHOUT THE USER GUIDE WHEN THERE IS A RISK OF DAMAGING THE TOOL. MAKE SURE THAT THESE CAUTIONS ARE READ AND UNDERSTOOD AT ALL TIMES.**

## WORK AREA

1. **Keep the work area clean and well lit.** Cluttered and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

## ELECTRICAL SAFETY

1. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use adaptor plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce the risk of electric shock.
2. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
3. **Do not abuse the cable. Never use it for carrying, pulling or unplugging the power tool. Keep the cable away from heat, oil, sharp edges or moving parts.** Damaged or entangled cables increase the risk of electric shock.
4. **When operating a power tool outdoors, use an extension cable suitable for outdoor use.** Use of a cable suitable for outdoor use reduces the risk of electric shock.
5. **If operating the power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.**

## PERSONAL SAFETY

1. **Stay alert, watch what you are doing and use common sense when operating a power tool.** Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in personal injury.

2. **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. **Avoid accidental starting.** Make sure that the switch is in the off position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
4. **Remove any wrench before turning the power tool on.** A wrench left attached to a rotating part may result in personal injury.
5. **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. **Dress properly.** Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

## POWER TOOL USE AND CARE

1. **Do not force the power tool.** Use the correct accessories for your application. The correct power tool will do the job better and safer at the rate which it was designed for.
2. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. **Disconnect the plug from the power source before changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **Store idle tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate it.** Power tools are dangerous in the hands of untrained users.
5. **Maintain power tools.** Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
6. **Use the power tool and accessories in accordance with these instructions and in the manner intended, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from intended could result in a hazardous situation.
7. The performance of this tool may vary, depending upon variations in line voltage. Extension cable usage may also affect performance.

## SERVICE

1. **Have your power tool serviced by qualified service personnel using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

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# SAW SAFETY WARNINGS

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## CUTTING PROCEDURES

- a. **Keep hands away from cutting area and the blade.** If both hands are holding the saw, they cannot be cut by the blade.
- b. **Do not reach underneath the workpiece.** The guard cannot protect you from the blade below the workpiece.
- c. **Adjust the cutting depth to the thickness of the workpiece.** Less than a full tooth of the blade teeth should be visible below the workpiece.
- d. **Never hold the piece being cut in your hands or across your leg. Secure the workpiece to a stable platform.** It is important to support the work properly to minimise body exposure, blade binding, or loss of control.
- e. **Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- f. **When ripping, always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.
- g. **Always use blades with the correct size and shape of arbor holes.** Blades that do not match the mounting hardware of the saw will run eccentrically causing loss of control.
- h. **Never use damaged or incorrect blade washers or bolt.** The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

## KICKBACK CAUSES AND RELATED WARNINGS

- Kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator.
- When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator.
- If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a. **Maintain a firm grip on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.** Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator if proper precautions are taken.
- b. **When the blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the workpiece until the blade**

**comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.** Investigate and take corrective actions to eliminate the cause of the blade binding.

- c. **When restarting a saw in the workpiece, centre the saw blade in the kerf so that the saw teeth are not engaged into the material.** If a saw blade binds, it may walk up, or kickback from the workpiece as the saw is restarted.
- d. **Support large panels to minimise the risk of blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides near the line of cut and near the edge of the panel.
- e. **Do not use dull or damaged blades.** Un-sharpened or improperly set blades produce a narrow kerf causing excessive friction, blade binding and kickback.
- f. **Blade depth and bevel adjusting locking levers must be tight and secure before making the cut.** If the blade adjustment shifts while cutting, it may cause binding and kickback.
- g. **Use extra caution when sawing into existing walls or other blind areas.** The protruding blade may cut hidden objects that can cause kickback.

## **BLADE SAFETY WARNINGS**

- a. The maximum speed marked on the tool shall not exceed the maximum speed marked on the blade.
- b. Cracked saw blades must be scrapped (repairing is not permitted). Composite (tipped) saw blades, where the tip dimension is reduced to less than 1 mm, shall be taken out of service.

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# SAFETY INSTRUCTIONS FOR PLUNGE TYPE SAWS

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## GUARD FUNCTION

- a. **Check the guard for proper closing before each use. Do not operate the saw if the guard does not move freely and enclose the blade instantly. Never clamp or tie the guard so that the blade is exposed.** If the saw is accidentally dropped, the guard may be bent. Check to make sure that the guard moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- b. **Check the operation of the guard return spring. If the guard and the spring are not operating properly, they must be serviced before use.** The guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- c. **Make sure that the base plate of the saw will not shift while performing a “plunge cut”.** The blade shifting sideways will cause binding and likely kick back.
- d. **Always observe that the guard is covering the blade before placing the saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after the switch is released.

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## EXPLANATION OF SYMBOLS & PICTOGRAMS

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Read Instruction Manual Before Use



Wear Eye Protection



Wear Gloves



## ELECTRICAL CONNECTIONS



**WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS FULLY BEFORE CONNECTING THE PRODUCT TO THE MAINS SUPPLY.**

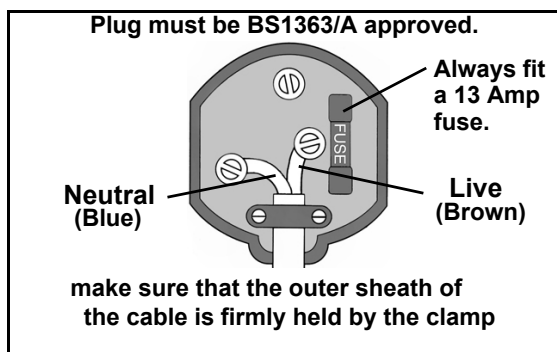
This product is provided with a standard 13 amp, 230 volt (50Hz), BS 1363 plug, for connection to a standard, domestic electrical supply. Should the plug need changing, make sure that a plug of identical specification is used.



**WARNING: THE WIRES IN THE CABLE ARE COLOURED AS FOLLOWS:  
BLUE = NEUTRAL    BROWN = LIVE**

If the colours of the wires in the power cable do not correspond with the markings on the terminals of your plug, proceed as follows.

- Connect the **blue** wire to the terminal which is marked **N**.
- Connect the **brown** wire to the terminal which is marked **L**.



We recommend that this plunge saw is connected to the mains supply via a Residual Current Device (RCD)

If in doubt, consult a qualified electrician. DO NOT attempt any repairs yourself



This symbol indicates that this is a Class II product, and does not require an earth connection.

## CABLE EXTENSION

Always use an approved cable extension suitable for the power rating of this tool (see specifications), the conductor size must be at least the same size as that on the machine, or larger. When using a cable reel, always unwind the cable completely.

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## ADJUSTMENT

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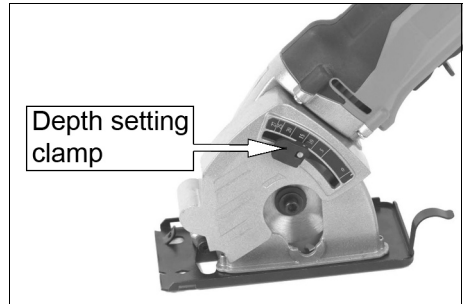
**WARNING: ALWAYS DISCONNECT THE SAW FROM THE POWER SUPPLY BEFORE MAKING ADJUSTMENTS.**

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### SETTING THE CUTTING DEPTH

1. Unlock the depth setting clamp.
2. Move the indicator to the desired cutting depth on the scale.
3. Lock the depth setting clamp again.

**NOTE:** We recommend that the cutting depth is set approximately 2 mm greater than the material thickness. This could help to achieve a clean cut.

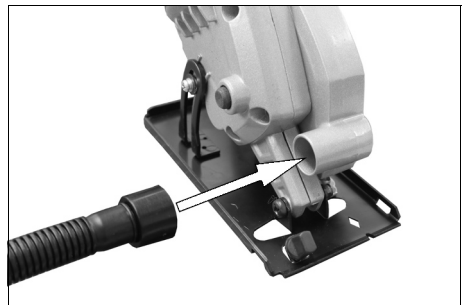


### DUST EXTRACTION

The machine can generate a large amount of dust during cutting. When equipped with the supplied dust extractor adapter, the chips and cutting debris can be removed away from the working area.

1. Connect the small end of the dust pipe to the dust extraction nozzle.
2. Connect the other end of the dust pipe to your dust extractor.
  - Switch on the dust extractor while cutting.

**NOTE:** See your local Clarke dealer for our latest range of dust extractors.

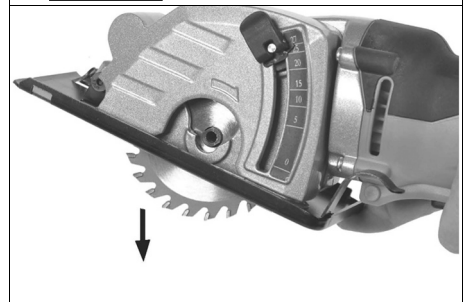
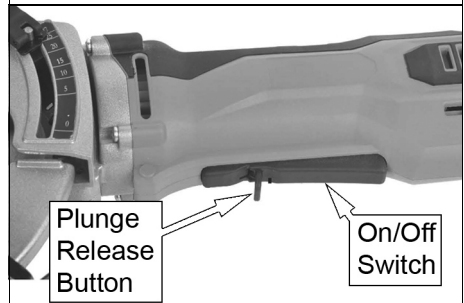
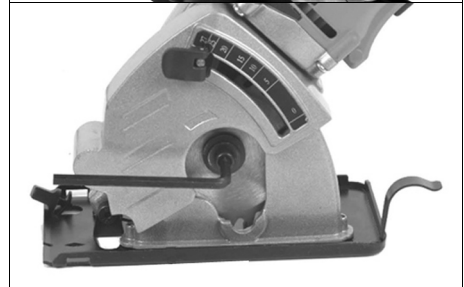
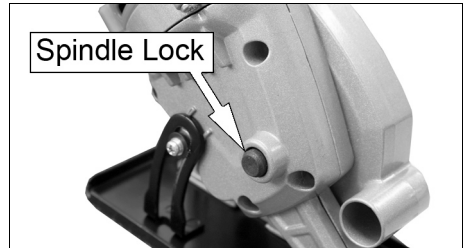


## CHANGING THE SAW BLADE

**WARNING: ALWAYS DISCONNECT THE SAW FROM THE POWER SUPPLY BEFORE MAKING ADJUSTMENTS.**



1. Press and hold the spindle lock button.
2. Loosen the clamping screw using a hex key.
3. Remove the clamping screw, washer and flange.
4. Set the cutting depth to maximum.
5. Press the plunge release button and lift up the base plate.
6. Lift the blade up off the spindle and pull it from the saw.
7. Install the new saw blade in reverse order.
  - The arrow on the saw blade must match the arrow showing the direction of rotation on the guard.
8. Press the spindle lock button and tighten the clamping screw firmly.



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# OPERATION

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## SWITCHING ON/OFF

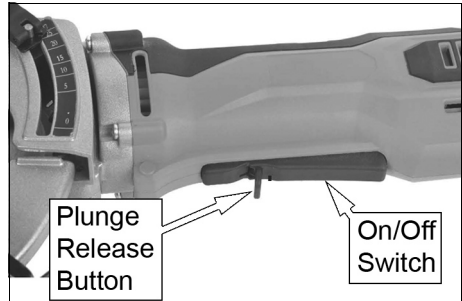
The On/Off switch is equipped with a Plunge Release Button which is designed to prevent accidents.

### TO SWITCH ON:

Push the Plunge Release Button forward and then press the On/Off switch.

### TO SWITCH OFF:

Release the On/Off switch.



## CUTTING WITH SAW



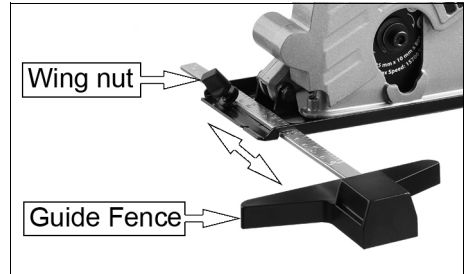
**WARNING: ALWAYS CUT IN A FORWARD DIRECTION. NEVER DRAW THE SAW BACKWARDS WHILE CUTTING.**

1. Check and ensure the protective cover can work properly.
2. Check and ensure the blade is sharp and suitable for the material to be cut.
3. Make any adjustments required to the depth of cut.
4. Secure the workpiece firmly on a flat surface.
5. Plug into main supply.
6. Place the base plate on workpiece. Align the indicator line on base plate with the cutting line marked on workpiece.
7. Grasp the tool firmly. Switch on and wait for the blade to reach full speed.
8. Press the plunge release button and plunge the blade into workpiece slowly. Then push the tool forwards along the cutting line.
9. Once the cut has been finished, lift the tool from the work surface before switching off.



## SETTING THE GUIDE FENCE

1. Release the wing nut on the base plate
2. Insert the guide fence into the slot.
3. Retighten the wing nut.



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## CUTTING SHEET METAL/CERAMICS

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We recommend you learn to use the tool by cutting wood before attempting to cut anything tougher. When cutting tougher material, such as metals, more force is required to hold the tool.



**WARNING: NEVER CUT MATERIALS THAT PRODUCE TOXIC DUST OR FUMES SUCH AS PTFE AND ASBESTOS.**

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## CUTTING SHEET METAL

1. Fit the HSS blade.
  - Remove burrs and rust before cutting to avoid impeding the feed across the material.
  - Apply thick beeswax (furniture polish) to the base plate which can make metal cutting easier.
  - Every 2 minutes of metal cutting should be followed by a rest of at least 3 minutes.

## CUTTING CERAMIC TILES

1. Fit the diamond blade
  - Always connect the tool to a dust extractor as the dust can be hazardous to the operator and prevent the guard operating properly.

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# CLEANING AND MAINTENANCE

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**WARNING: DISCONNECT THE PLUNGE SAW FROM THE MAINS SUPPLY BEFORE CLEANING.**

**WARNING: WEAR PROTECTIVE GLOVES WHEN HANDLING THE SAW BLADE.**

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## CLEANING

- Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible. Wipe the equipment with a clean cloth or blow it with compressed air at low pressure.
- We recommend that you clean the saw immediately each time you have finished using it.
- Clean the equipment regularly with a moist cloth and some soft soap. Do not use cleaning agents or solvents; these could attack the plastic parts of the saw

## MAINTENANCE

There are no parts inside the saw which require additional maintenance.

# DECLARATION OF CONFORMITY



**Clarke**<sup>®</sup>  
**INTERNATIONAL**

Hemnall Street, Epping, Essex CM16 4LG

## DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following directive(s):

2014/30/EU      *Electromagnetic Compatibility Directive.*  
2006/42/EC      *Machinery Directive.*  
2011/65/EU      *Restriction of Hazardous substances.*

The following standards have been applied to the product(s):

EN 60745-1:2009+A11, EN 60745-2-5:2010, EN 60745-2-22:2011+A11, EN 55014-1:2006+A1+A2,  
EN 55014-2:2015, EN 61000-3-2:2014, EN 61000-3-3:2013.

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2019

**Product Description:**            500W Mini Plunge Saw  
**Model number(s):**                CPS85  
**Serial / batch Number:**        N/A  
**Date of Issue:**                    15/03/2019

Signed:

J.A. Clarke  
Director

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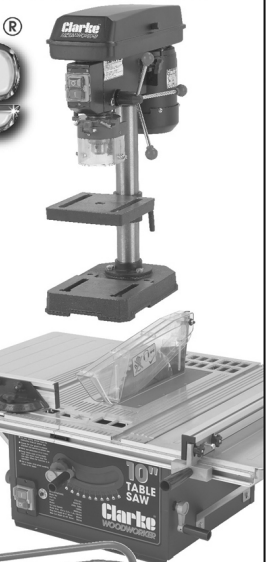
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