

Clarke®



SCROLL SAW

MODEL NO: CSS400D

PART NO: 6462153

OPERATION & MAINTENANCE INSTRUCTIONS

UK
CA | CE



ORIGINAL INSTRUCTIONS

GC0621 rev 1

INTRODUCTION

Thank you for selecting this Clarke scroll saw.

The scroll saw is designed for cutting wood up to a maximum thickness of 50mm. It may also be used to cut other materials, including plastic and composite boards.

IMPORTANT

Read all instructions carefully before you use this scroll saw. 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 YOUR SCROLL SAW. MAKE SURE THAT THESE CAUTIONS ARE READ AND UNDERSTOOD AT ALL TIMES.

GUARANTEE

The scroll saw is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Your receipt is required as proof of purchase.

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

Faulty goods must be returned to their place of purchase, it must not be returned to us without prior permission.

This guarantee does not effect your statutory rights.

GENERAL SAFETY INSTRUCTIONS

1) 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 can ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) ELECTRICAL SAFETY

1. **Power tool plugs must match the outlet. NEVER modify the plug in any way. Do not use adapter 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 the cable for carrying, pulling or unplugging the power tool. Keep the cable away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords 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.

3) 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 can 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.** Ensure 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 adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool can 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.

4) POWER TOOL USE AND CARE

1. **DO NOT force the power tool.** Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate which it was designed.
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 making any adjustments, 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 the power tool.** 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 can affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
6. **Keep cutting tools sharp and clean.** Well maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, 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.

5) 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.

SCROLL SAW SAFETY INSTRUCTIONS

1. Wear safety goggles as protection against flying wood chips and sawdust.
2. A dust mask is recommended to keep sawdust out of your lungs.
3. This scroll saw is for indoor use only.
4. **DO NOT** cut pieces of material which are too small to be held by hand.
5. Clear the work table of all objects except the work piece (tools, scraps, rulers etc.) before turning the saw on.
6. Make sure the blades' teeth are pointing down, toward the table, and that the blade tension is correct.
7. When cutting a large piece of material, support it at the height of the table.
8. **DO NOT** feed the work piece through the blade too fast. Feed only as fast as the blade will cut.
9. Keep your fingers away from the blade. Use a push stick as you near the end of the cut.
10. Take care when cutting a work piece which is irregular in cross section. Mouldings for example must lie flat, and not 'rock' on the table while being cut. A suitable support must be used.
11. Switch off the saw and make sure the blade has come to a complete stop before clearing sawdust or off-cuts from the table.
12. Make sure there are no nails or foreign objects in the part of the work piece to be sawn.
13. Be extra cautious with very large or small, or irregularly shaped work pieces.
14. Set up the machine and make all adjustments with the power OFF, and disconnected from the supply.
15. **DO NOT** operate the machine with the covers off. They must all be in place and securely fastened when performing any operation.
16. Be sure to use the correct blade size and type.
17. Use approved replacement saw blades. Contact your local CLARKE supplier for advice. The use of inferior blades can increase the risk of injury.

ELECTRICAL CONNECTIONS



WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS FULLY BEFORE CONNECTING THE SCROLL SAW TO THE MAINS SUPPLY.

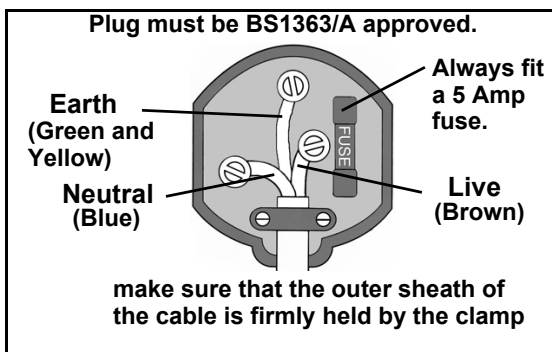
This scroll saw is provided with a standard 230 volt (50Hz), BS 1363 plug, for connection to a standard, domestic electrical supply. Should the plug need changing, make sure that a plug of identical specification is used.



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

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.

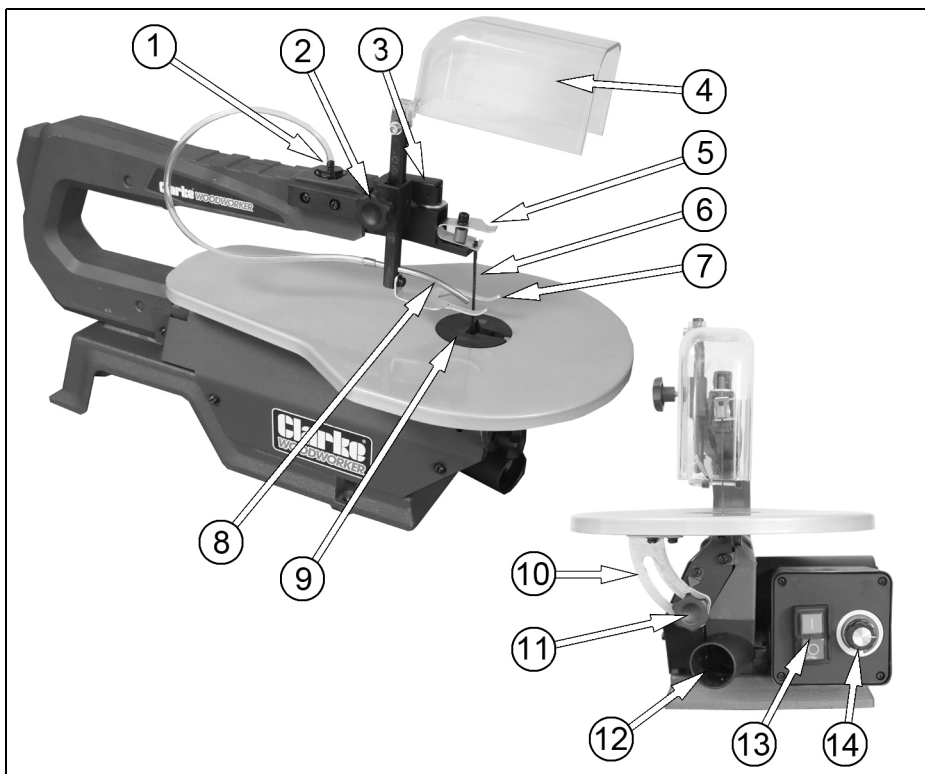
- Connect the **blue** wire to the terminal which is marked **N**.
- Connect the **brown** wire to the terminal which is marked **L**.
- Connect the **yellow and green** wire to the terminal which is marked **E** or $\perp$.



AN APPROVED RESIDUAL CURRENT DEVICE (RCD) WHICH HAS A TRIPPING CURRENT OF LESS THAN 30mA MUST BE USED.

If you are not sure, consult a qualified electrician. DO NOT try to do any repairs.

OVERVIEW



NO	DESCRIPTION	NO	DESCRIPTION
1	Sawdust blower output hose	8	Blower nozzle
2	Pressure plate height adjustment knob	9	Table insert
3	Blade tension release lever	10	Angle adjustment scale
4	Blade guard	11	Table tilt lock knob
5	Top blade holder	12	Dust extraction outlet
6	Blade	13	On/Off switch
7	Work piece pressure plate	14	Blade speed regulator

INVENTORY

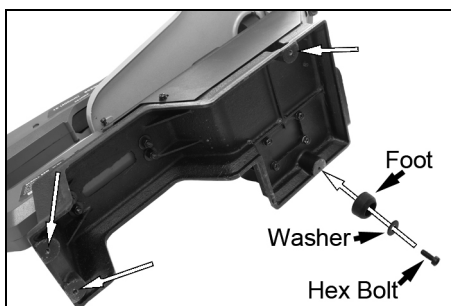
1 x Scroll Saw	1 x Blade Guard
2 x Hexagon Keys	1 x Fixings Pack
2 x Blades - (one is installed)	

ASSEMBLY

ATTACHING THE FEET

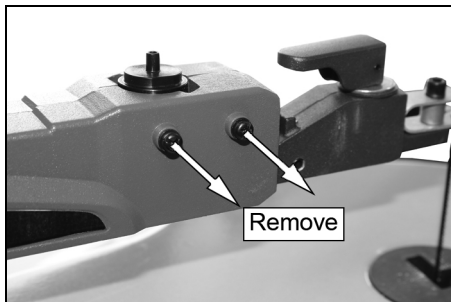
1. Use the bolts and flat washers supplied to attach the feet to the scroll saw.
 - Alternatively you can use suitable nuts and bolts (not supplied), to attach the scroll saw directly to a workbench.
 - To decrease vibration and noise, install a fine ribbed rubber mat 3-13 mm thick (not supplied) between the workbench and scroll saw.
 - Rubber mats are available from your Clarke supplier.

NOTE: DO NOT over tighten the bolts.

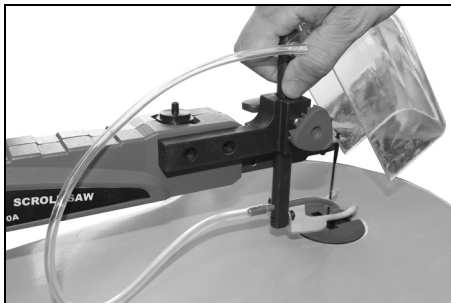


ATTACH THE BLADE GUARD ASSEMBLY

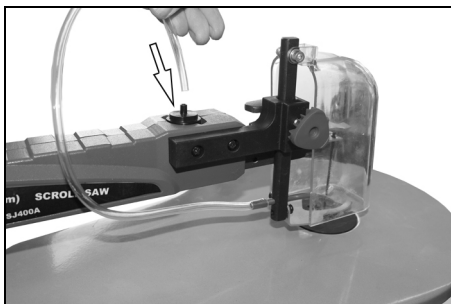
1. Remove the screws shown in the picture.



2. Attach the blade guard support arm and replace the screws removed in step 1.

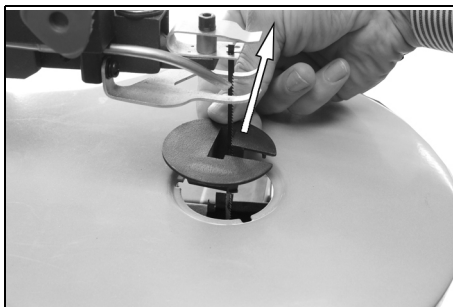


3. Connect the plastic tube to the dust outlet on top of the scroll saw.



CHANGING THE BLADES

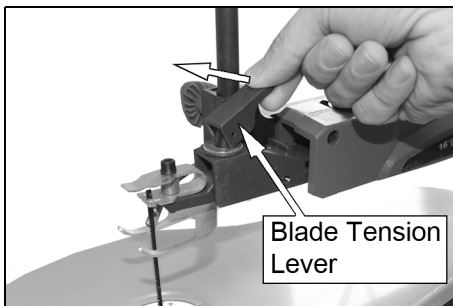
1. Disconnect the saw from the power supply.
2. Remove the table insert.



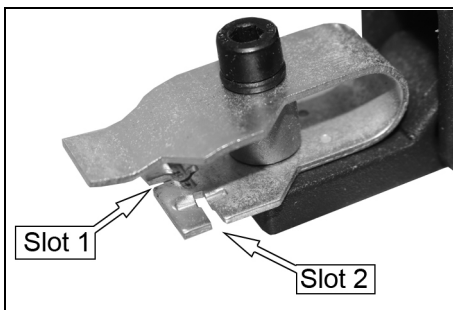
3. Raise the blade tension lever to remove the tension from the saw blade.

4. Push down the upper arm and remove the blade.

- Blades are available from your Clarke supplier.
- 10TPI (Part No: 6468050)
- 18TPI (Part No: 6468052)
- 25TPI (Part No: 6468054)



- Hook the new blade onto the blade holder.
- The blade holder has two slots.
- Use slot 1 to cut in line with the upper arm.
- Use slot 2 to cut at right angles to the upper arm.



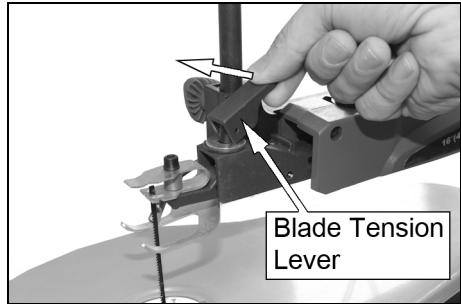
5. Push the blade tension lever down to re-tension the blade.
6. Replace the table insert.

BLADE TENSION

1. Raise the blade tension lever.
2. Rotate the blade tension lever:
 - Clockwise to increase the blade tension
 - Anti-clockwise to decrease the blade tension.
3. Lower the blade tension lever

NOTE: Too much tension will decrease the life of the blade.

NOTE: Not enough tension can cause the blade to bend or break.



USING THE SCROLL SAW

Before you start, turn the saw on and listen to the sound it makes. If you notice excessive vibration or an unusual noise, stop the saw immediately and unplug it. Do not start the saw until you have corrected the problem.

- It is possible that some blades will break whilst you learn how to use and adjust the blade tension correctly.
- Hold the workpiece tightly against the saw table.
- Use light pressure and two hands when feeding the work piece into the blade.
- Feed the work piece slowly towards the blade.
- Avoid awkward hand positions where a sudden slip can cause you to touch the blade.
- DO NOT put your hands close to the blade.
- When cutting an irregularly shaped workpiece, plan your cut so the work piece will not pinch the blade.



WARNING: BEFORE REMOVING OFFCUTS FROM THE TABLE, TURN THE SAW OFF AND WAIT FOR THE BLADE TO COME TO A FULL STOP.

THE CONTROLS

ON / OFF SWITCH

- To start the saw, push the ON button.
- To stop, push the OFF button.

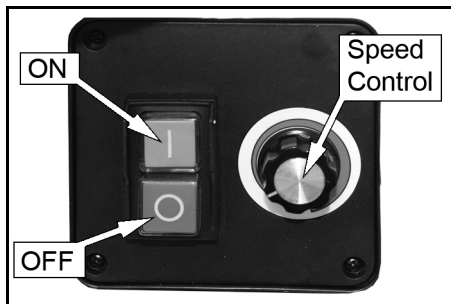
NOTE: The scroll saw switches off automatically if power is lost.

SPEED CONTROL

The speed control lets you select the correct blade speed for the material being cut.

The speed range is 400 to 1,600 Strokes Per Minute.

- To increase the speed, turn the speed control clockwise.
- To decrease the speed, turn the speed control counterclockwise.



CARRYING OUT INTERNAL CUTS

A scroll saw can be used to make scroll cuts within a work piece without breaking or cutting through the edge or perimeter of the work piece.

1. Drill a 6.3 mm (1/4") hole inside the boundary of the aperture to be cut from the work piece.
2. Remove the blade.
3. Place the work piece on the saw table with the drilled hole above the blade access hole.
4. Install the blade through the hole in the work piece and adjust the blade tension.
5. When you have completed the internal cut, remove the blade from the blade holders and take the work piece off the table.

STACK CUTTING



WARNING: TO PREVENT INJURY, DO NOT CUT A STACK OF WORK PIECES UNLESS THEY ARE PROPERLY ATTACHED TO EACH OTHER.

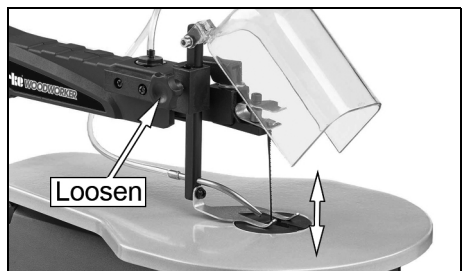
Stack cutting can be used when several identical shapes need to be cut. Several work pieces can be stacked one on top of the other and secured to each other before cutting.

Pieces of wood can be joined together by placing double sided tape between each piece or by wrapping tape around the corners or ends of the stacked wood.

The stacked pieces must be attached to each other in such a way that they can be handled on the table as a single work piece.

SAWDUST BLOWER

The sawdust blower is designed to direct air to the most effective point on the cutting line. Make sure the pressure plate is adjusted to secure the work piece and direct air at the cutting surface.



WHAT TO DO IF THE SAW BLADE JAMS IN THE WORK PIECE

When withdrawing the work piece, the blade can bind in the kerf (cut). This is usually caused by sawdust clogging the kerf or by the blade coming out of the blade holders. If this happens:

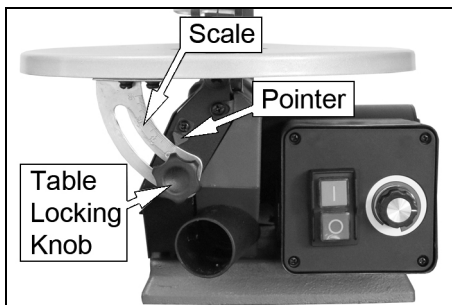
1. Push the OFF button.
2. Wait until the saw has stopped and unplug it from the power source.
3. Remove the blade and the work piece.
4. Wedge the kerf open with a small flat screwdriver or wooden wedge then remove the blade from the work piece.

ADJUSTMENTS

TILTING THE SAW TABLE

1. Loosen the table locking knob.
2. Set the table to the necessary angle then tighten the table lock knob to secure.

IMPORTANT: For accurate work you must first do a trial cut and then re-adjust the angle as necessary.

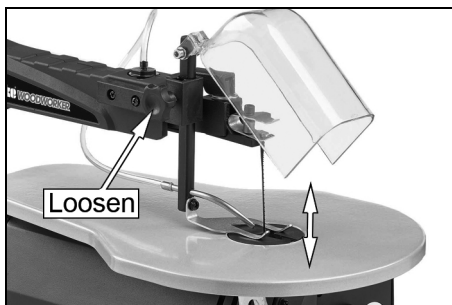


SQUARING THE SAW TABLE TO THE BLADE



WARNING: TO AVOID ACCIDENTAL STARTING WHICH COULD RESULT IN SERIOUS INJURY, TURN THE SAW OFF, AND UNPLUG THE SAW FROM THE POWER SOURCE.

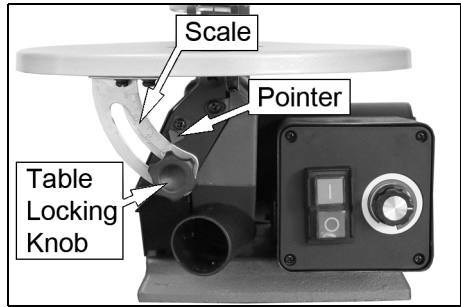
1. Loosen the pressure plate adjustment knob.
2. Raise the pressure plate and lock it in the raised position.



3. Loosen the table locking knob and tilt the table until it is approximately at right angles to the blade.
4. Place a small set square on the saw table next to blade and lock the table at 90° to square.
5. Retighten the table lock knob.

SETTING THE SCALE INDICATOR

1. Loosen the securing screw holding the scale indicator. Move the indicator to the 0° mark and securely tighten the screw.
 - Remember, the scale is a guide only and should not be relied upon for precision.
 - Make practice cuts on scrap material to ensure your angle setting is correct.
2. Lower the pressure plate so it just rests on top of the work piece and lock in place.



MAINTENANCE



WARNING: SWITCH OFF AND DISCONNECT THE PLUG FROM THE POWER SUPPLY BEFORE YOU PERFORM MAINTENANCE WORK ON YOUR SCROLL SAW.

- Keep your scroll saw clean.
- If the power cable is worn, cut, or damaged, have it replaced immediately by a qualified service technician. Failure to do so can result in serious injury.
- Clean your scroll saw with a dry cloth. Do not use water or chemical cleaners to clean your scroll saw.
- Keep your scroll saw in a dry place.
- Keep all controls free of dust.

SPECIFICATIONS

Model Number	CSS400D
Rated Voltage (V)	230V
Input Power	120W
Maximum Cutting Width (throat)	406 mm
Maximum Cutting Depth @0°	50 mm
Maximum Cutting Depth @45°	18 mm
Speed	400 - 1600 strokes per minute
Stroke Length	14 mm
Blade Length	132 mm
Table Size	410 x 254 mm
Table Tilt Angle	0-45°
Duty Cycle	S2 (10 min.)
Sound Power (L _{WA} dB)	103.1 dB
Dimensions (L x W x H)	615 x 290 x 400 mm
Weight	9 kg

ENVIRONMENTAL PROTECTION



Through purchase of this scroll saw, 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 scroll saw must not be discarded with general waste. Refer to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

DECLARATION OF CONFORMITY-UK



Hemncall 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 statutory requirement(s):

Supply of Machinery (Safety) Regulations 2008

Electromagnetic Compatibility Regulations 2016.

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

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

EN 62841-1:2015, EN ISO 12100:2010, EN 55014-1:2006+A1+A2, EN 55014-1:2017,

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 legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The UKCA mark was first applied in: 2021

Product Description: Variable Speed Scroll Saw
Model number(s): CSS400D
Serial / batch Number: N/A
Date of Issue: 24/05/2021

Signed:


.....
J.A Clarke
Director

DECLARATION OF CONFORMITY



Clarke[®]
INTERNATIONAL

Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

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):

2006/42/EC *Machinery Directive.*

2014/30/EU *Electromagnetic Compatibility Directive.*

2011/65/EU *Restriction of Hazardous substances.*

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

EN 62841-1:2015, EN ISO 12100:2010, EN 55014-1:2006+A1+A2, EN 55014-1:2017,

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: 2009

Product Description: Variable Speed Scroll Saw
Model number(s): CSS400D
Serial / batch Number: N/A
Date of Issue: 24/05/2021

Signed:


.....
J.A Clarke
Director

A SELECTION FROM THE VAST RANGE OF

Clarke®

QUALITY PRODUCTS

AIR COMPRESSORS

From DIY to industrial, Plus air tools, spray guns and accessories.

GENERATORS

Prime duty or emergency standby for business, home and leisure.

POWER WASHERS

Hot and cold, electric and engine driven - we have what you need

WELDERS

Mig, Arc, Tig and Spot. From DIY to auto/industrial.

METALWORKING

Drills, grinders and saws for DIY and professional use.

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Saws, sanders, lathes, mortisers and dust extraction.

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Cranes, body repair kits, transmission jacks for all types of workshop use.

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Submersible, electric and engine driven for DIY, agriculture and industry.

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Angle grinders, cordless drill sets, saws and sanders.

STARTERS/CHARGERS

All sizes for car and commercial use.



PARTS & SERVICE: 0208 988 7400

Parts Enquiries

Parts@clarkeinternational.com

Servicing & Technical Enquiries

Service@clarkeinternational.com

SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

Clarke INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG
www.clarkeinternational.com