

### INSTRUCTIONS FOR:

# SCROLL SAW MODEL: SM43.V2

Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.



IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.

# 1. SAFETY INSTRUCTIONS

#### 1.1. ELECTRICAL SAFETY

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a Residual Current Device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your Sealey dealer. You must also read and understand the following instructions concerning electrical safety.

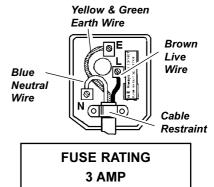
- 1.1.1. The **Electricity at Work Act 1989** requires that all portable electrical appliances, if used on business premises, are tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.
- 1.1.2. The **Health & Safety at Work Act 1974** makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of the appliance operators. **If in any doubt about electrical safety, contact a qualified electrician.**
- 1.1.3. Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply. See 1.1.1. and 1.1.2. and use a Portable Appliance Tester.
- 1.1.4. Ensure that cables are always protected against short circuit and overload.
- 1.1.5. Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that none is loose.
- 1.1.6. Important: Ensure that the voltage marked on the appliance matches the power supply to be used and that the plug is fitted with the correct fuse see fuse rating at right.
- 1.1.7. **DO NOT** pull or carry the appliance by the power cable.
- 1.1.8. DO NOT pull the plug from the socket by the cable.
- 1.1.9. DO NOT use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician. When a BS 1363/A UK 3 pin plug is damaged, cut the cable just above the plug and dispose of the plug safely. Fit a new plug according to the following instructions (UK only).
  - a) Connect the GREEN/YELLOW earth wire to the earth terminal 'E'.
  - b) Connect the BROWN live wire to the live terminal 'L'.
  - c) Connect the BLUE neutral wire to the neutral terminal 'N'.
  - d) After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable outer insulation extends beyond the cable restraint and that the restraint is tight.

Double insulated products, which are always marked with this symbol  $\square$ , are fitted with live (brown) and neutral (blue) wires only. To rewire, connect the wires as indicated above - **DO NOT** connect either wire to the earth terminal.

1.1.10. If an extension reel is used it should be fully unwound before connection. A reel with an RCD fitted is preferred since any appliance plugged into it will be protected. The cable core section is important and should be at least 1.5mm², but to be absolutely sure that the capacity of the reel is suitable for this product and for others which may be used in the other output sockets, we recommend the use of 2.5mm² section cable.

#### 1.2. GENERAL SAFETY

- WARNING! Ensure that Health & Safety, local authority and general workshop practice regulations are adhered to when using this equipment.
- ✓ Familiarise yourself with the application, limitations and hazards of the saw.
- □ **WARNING!** Disconnect the saw from the mains power and ensure that the cutting blade is at a complete standstill before attempting to change blades or perform any maintenance.
- Maintain the saw in good condition (use an authorised service agent).
- Replace or repair damaged parts. Use genuine parts only. Unauthorised parts may be dangerous and will invalidate the warranty.
- WARNING! Keep all guards and holding screws in place, tight and in good working order. Check regularly for damaged parts. A guard or any other part that is damaged should be repaired or replaced before the machine is used. The safety guard is a mandatory fitting where the saw is used on premises covered by the Health & Safety at Work Act.
- Locate saw in a suitable work area and keep area clean and tidy and free from unrelated materials. Ensure that there is adequate lighting.
- ✓ Keep the saw clean and blades sharp for best and safest performance.
- ✓ Ensure that there are no flammable or combustible materials in or near the work area.
- WARNING! Always wear approved eye or face protection when operating the saw. Use a face or dust mask if dust is generated.
- ✓ Maintain correct balance and footing. Ensure the floor is not slippery and wear non-slip shoes.
- Remove ill fitting clothing. Remove ties, watches, rings and other loose jewellery and contain and/or tie back long hair.





- Keep children and unauthorised persons away from the work area.
- Check moving parts alignment on a regular basis.
- Remove adjusting keys and wrenches from the machine and its vicinity before turning it on.
- Avoid unintentional starting.
- DO NOT use the saw for any purpose other than that for which it is designed. X
- DO NOT operate the saw if any parts are damaged or missing as this may cause failure and/or personal injury. X
- WARNING! DO NOT cut any materials containing asbestos.
- DO NOT switch on the saw whilst the blade is in contact with the workpiece. X
- DO NOT attempt to cut a workpiece so small that you have to remove the finger guard. X
- Always provide additional support, at table height, for large workpieces.
- DO NOT use the saw out of doors. X
- DO NOT get the saw wet or use in damp or wet locations or areas where there is condensation. X
- **DO NOT** allow untrained persons to operate the saw. X
- DO NOT allow children to operate the saw. X
- DO NOT operate the saw when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- DO NOT leave the saw operating unattended.
- DO NOT pull the cable from the power supply.
- Use a qualified person to lubricate and maintain the saw.
- When not in use, switch off the saw, disconnect from the power supply and store in a childproof area.

#### **INTRODUCTION & SPECIFICATION**

#### Introduction

The SM43.V2 is a Scroll Saw for cutting intricate shapes in wood, plastic and thin metal sheet. It is supplied with a safety guard and an integral blower to keep the cut-line free of saw dust.

#### **Specification** 2.2.

Throat Depth	406mm	Table Size	365 x 200mm
Max. Cut	50mm	Table Tilt	0-45° Left
Stroke	19mm	Motor	85W/230V
Speed	1440spm		

#### **CONTENT & ASSEMBLY**

- IMPORTANT! DO NOT attempt to lift saw by holding the upper blade arm as this will cause damage. Lift by the base only.
- WARNING! DO NOT plug saw into mains until assembly is complete and saw has been firmly mounted to work surface.  $\Box$

#### 3.1.

- 3.1.1. Check the package content against the list below. If any items are missing or damaged contact your supplier immediately.
  - Scroll Saw

- Blade Guard
- · Bolt, Washer & Knurled Nut, guard retaining

- · Blower Tube, Pipe & Support Bracket
- Blade · Hex. Key

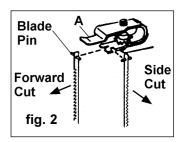
· Blade Holders, plain-ended blades

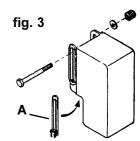
#### 3.2. Assembly

- 3.2.1. Blade may be fitted either with teeth facing forward or to right hand side, see fig.2.
- Remove tension on blade arm by turning tension knob anticlockwise.
- With blade teeth pointing downward, insert blade through table access hole and engage end of 3.2.3. blade in lower blade holder. Keeping an upward tension on the blade locate upper end in the upper blade holder. Push blade holder down slightly to achieve this.
- 3.2.4. Tension blade by turning tension knob clockwise. Use only finger effort, DO NOT use tools.
- Grasp upper blade holder and manually move blade up and down a couple of times to check that the blade pins are correctly located in holders.
- Fit blade guard to end of upper blade arm with blower tube support bracket (fig.3.A) between guard and arm. Retain with bolt, washer 3.2.6. and knurled nut. Bolt must be fitted from left side, as shown in fig.3.
- 3.2.7. Push plastic blower tube onto one end of copper pipe as far as the bend.
- 3.2.8. Insert free end of tube up through support bracket and draw through until section with pipe inside can be pushed firmly into the bracket.
- 3.2.9. Push free end of tube onto stub mounted on blade arm (see fig.1).
- 3.2.10. Mount saw to work surface utilising the three mounting holes in the base. In order to reduce noise and vibration saw may be mounted on a foam pad (approx. 12mm thick). If this is done, do not over-tighten the mounting bolts but leave some vibration absorbing 'cushion' in the pad.
- 3.2.11. Adjust table scale pointer as follows:
  - Set table at 90° to blade using a set square.
  - Tighten table lock knob.
  - Adjust pointer so that it lines up with the zero mark on the scale.

Note: The scale is intended as a guide only. If a cut angle is critical then make test cuts and fine adjustments to table before cutting workpiece.

WARNING! DO NOT attempt to saw with the table at an angle if the blade is in the side-cut position.





#### **OPERATION**

Ensure you read, understand and apply the safety instructions in Section 1.

If you have no experience of using a scroll saw, it is recommended that you practice until you have familiarised yourself with the applications, limitations and hazards of the saw.

Keep alert. DO NOT allow familiarity (from frequent use) to cause a careless mistake. Remember, a careless second is sufficient to inflict damage or serious injury.

- Set blade to front or side cutting as required, set table angle, adjust guard to just clear workpiece (so that fingers cannot touch blade) and align blower tube to keep cut line visible.
- 4.2. Plug saw into mains power and switch on.
- 4.3. Workpiece may now be guided slowly into the blade taking care to keep the workpiece pressed down firmly onto the table. DO NOT bend or twist the blade as this will cause it to break.

# MAINTENANCE

- 6.1. Keep table clean to give easy and smooth movement of workpiece.
- Every 50 hours of use oil the lower arm bearings with SAE20 oil. Access bearings from rear of machine. 6.2.

#### **TROUBLESHOOTING**

PROBLEM	CAUSE	SOLUTION
Breaking blades	Incorrect tension     Over-worked blade     Wrong blade     Twisting blade with workpiece	<ol> <li>Adjust blade tension.</li> <li>Feed workpiece more slowly.</li> <li>Use narrow blades for thin workpieces, wide blades for thick.</li> <li>Avoid side pressure, or twist, on blade.</li> </ol>
Motor will not operate	Power supply fault     Motor fault	Check power supply and fuses.     Contact local authorised Service Agent.
Vibration	Mounting or mounting surface     Loose table     Loose motor	Ensure mount bolts are tight. The more solid the surface the less the vibration.     Tighten table lock knob and pivot screws.     Tighten motor mounting screws.
Blade run-out	Blade holder(s) misaligned	Loosen blade holder screw(s) and realign.

### **DECLARATION OF CONFORMITY**

#### Scroll Saw Model: SM43.V2

73/23/EEC Low Voltage Directive 89/336/EEC EMC Directive 98/37/EC Machinery Directive 93/68/EEC CE Marking Directive

Declaration of Conformity We, the sole importer into the UK, declare that the product listed here is in conformity with the following standards and directives



Signed by Mark Sweetman



5th August 2003

The construction file for this product is held by the Manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.
For Jack Sealey Ltd. Sole importer into the UK of Sealey Quality Machinery.

NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

IMPORTANT: No liability is accepted for incorrect use of the product.

WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim.

INFORMATION: For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.





Sole UK Distributor, Sealey Group,

Bury St. Edmunds, Suffolk.

