



INSTRUCTIONS FOR:

**STEEL BLADED CUT-OFF SAW**

Model: **SM300**

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 AND CAUTIONS. USE THIS 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 adequate circuit protection is provided - see 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.
- 1.1.10. Products which require more than 230V/13A are supplied without a plug. In this case you must contact a qualified electrician to ensure that a suitably rated supply is available. We recommend that you discuss the installation of an industrial round pin plug and socket with your electrician.

**415V CIRCUIT PROTECTION**  
SUPPLY MUST INCORPORATE  
**16 AMP PROTECTION**

### 1.2. GENERAL SAFETY

- WARNING!** Disconnect the saw from the mains power and ensure that the cutting blade is at a complete standstill before attempting to change accessories, service or perform any maintenance.
- ✓ Maintain the saw in good condition (use an authorised service agent).
- ✓ Replace or repair damaged parts. *Use recommended parts only. Unauthorised parts may be dangerous and will invalidate the warranty.*
- ✓ Locate the saw in a suitable work area. Keep the area clean and tidy and free from unrelated materials and ensure that there is adequate lighting.
- ✓ Keep the saw clean for best and safest performance and check moving parts alignment regularly.
- WARNING!** Before each use check that the blade is secure and that it is not worn or damaged. If worn or damaged replace immediately.
- WARNING!** Keep guard 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 must be repaired or replaced, to ensure that it operates properly and performs its intended function, before the tool is next used. The safety guard is a mandatory fitting where saw is used in premises covered by the Health & Safety at Work Act.
- ✓ Remove adjusting keys and wrenches that are on or near the machine before turning it on.
- WARNING!** Wear approved safety eye protection, ear defenders and gauntlets, and, if dust is generated, respiratory protection.
- ✓ Remove ill fitting clothing. Remove ties, watches, rings and other loose jewellery and contain long hair.
- ✓ Keep hands and body clear of the work table when operating the saw and position your body in line with the blade whilst cutting.
- ✓ Maintain correct balance and footing. Ensure the floor is not slippery and wear non-slip shoes.
- ✓ Always clamp the workpiece in the base vice. NEVER hold a work piece by hand.
- ✓ Keep children and unauthorised persons away from the working area.
- ✓ Avoid subjecting blade to excessive strain, always ease blade down against workpiece (a harsh downward impact may break the blade or teeth). Do not apply undue force on the handle in order to cut workpiece. Maintain a controlled cutting speed through the workpiece.
- WARNING!** DO NOT switch the saw on whilst the blade is in contact with the workpiece. Bring the rotating blade to the workpiece.
- ✓ Avoid un-intentional starting of the saw.
- ✗ DO NOT hold the workpiece by hand. Use base vice to secure the workpiece.
- ✗ DO NOT leave the saw operating unattended.
- ✗ DO NOT use the saw for a task it is not designed to perform.
- ✗ DO NOT allow untrained persons to operate the saw.
- ✗ DO NOT get the saw wet or use in damp or wet locations or areas where there is condensation.
- WARNING!** DO NOT use saw where there are flammable liquids, solids or gases such as petrol, paint solvents, waste wiping rags etc.
- ✗ DO NOT operate the saw if any parts are missing or damaged as this may cause failure and/or personal injury.
- ✗ DO NOT remove the safety guard whilst the saw is in use.
- ✗ DO NOT attempt to remove a workpiece until the blade has stopped rotating.
- ✗ DO NOT touch the workpiece close to the cut as it will be very hot. Allow to cool.
- ✗ DO NOT operate the saw when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- ✓ When not in use switch off the saw and isolate from the power supply.

## 2. APPLICATION & SPECIFICATION

The SM300 is a two-speed circular saw designed to cut ferrous metal - including structural steel - bars and pipes. It **should not** be used to cut any other materials. Blade guard, bar stop, integral workpiece vice and coolant system are included.

### Specification

Blade sizes	See Blade Chart
Max. cutting capacity	See Blade Chart
Max. vice opening	190mm
Motor	1.8/2.2 kW 415Vac 3ph 50Hz
Motor speed	1400 - 2800rpm
Blade speed	.52 - 104rpm
Mitre cuts	45°-0°-45°
Coolant	Water + Sealey SCO/5L soluble oil
Coolant capacity	.3 litre
Oil (gear box)	AGIP ACER 320 or equivalent
Oil capacity	.0.2 litres
Weight	.150kg
Sound pressure level - average	82.6dB(A)
- peak	.90.6dB(A)

### Blade Chart

Workpiece		SM300	
Tube		Blade 300mm dia. x 2.5 x 32mm	
Dia. mm	Wall thickness	Tooth pitch mm	No. teeth
10 - 80	<2	4	220
10 - 80	2 - 4	5	190
20 - 80	4 - 10	6 - 8	160 - 120
Solid bar			
Dia./depth mm			
10 - 18		5	180
18 - 30		6 - 8	160 - 120
30 - 40		10	90
>40		12	80

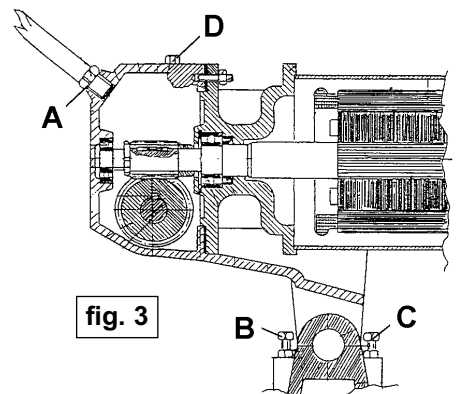
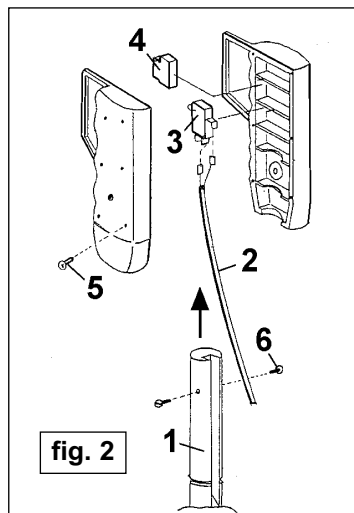
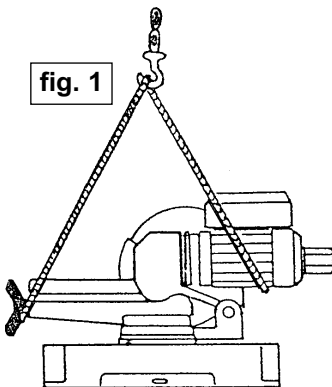
## 3. CONTENTS & ASSEMBLY

**WARNING!** For safe handling and movement use a lift truck or crane. Slings should be located as shown in fig. 1.

- 3.1. Unpack the product and check that all components and tools (five Allan keys) are present and undamaged. If any problem is noted contact your supplier immediately.

Contents:

1. Saw assembly
2. Handle mouldings (2) & screws (3)
3. Micro switch
4. Switch button
5. Control lever
6. End stop
7. Workpiece support arm and roller
8. Allan keys (sizes 3, 4, 5, 6, 14mm)



- 3.2. Set the saw on a flat, stable work bench, or surface strong enough to support the saw and any workpiece. Bolt the saw to the work surface (or pedestal) using the holes provided in the base.

### 3.3. Control lever assembly

- 3.3.1. Check control lever cable slot (fig. 2.1) for burrs or sharp edges - rectify if found - and then screw lever into hole 'A' (fig. 3) in saw head. Position lever with cable slot to the rear and tighten lock nut.
- 3.3.2. Connect cable (fig. 2.2) terminals to microswitch (3) and fit microswitch and button (4) into handle moulding as shown.
- 3.3.3. Fit both handle mouldings around control lever, with button to the rear and cable in cable slot. Insert screw (5) to clamp handle mouldings together, then attach handle to control lever with 2 screws (6).

### 3.4. Blade assembly

- 3.4.1. Fully raise motor block by pushing control lever rearward.
- 3.4.2. Remove screw (fig. 4.1) and rotate blade guard towards the rear.
- 3.4.3. Remove blade retaining screw (fig. 4.2) and blade flange (3).
- 3.4.4. Locate blade on drive face ensuring that rotation arrow on blade matches that on blade guard. Refit flange and screw.
- 3.4.5. **Rotate blade guard forward and refit screw (1). Confirm that guard will prevent fingers touching blade.**
- 3.5. Fill coolant tank - see Section 2 - Specifications. Confirm tap (fig. 7.1) is open.
- 3.6. Check sight-glass and confirm that there is oil in the gearbox.
- 3.7. Pull control lever forward as far as possible, to lower blade, and confirm that blade is clear of saw base in this position. If blade is touching base then adjust abutment screw (fig. 3.B) to achieve clearance.
- 3.8. Raise blade as far as possible and confirm that rear of motor is clear of base. If motor is touching base then adjust abutment screw (fig. 3.C) to achieve clearance.

- 3.9. Confirm that all tools have been removed from saw, main switch (fig. 5.1) is 'Off' and blade guard is in position.
- 3.10. Connect mains lead to supply, **having confirmed that supply matches voltage/phases as shown on motor plate.**
- 3.11. Select position 1 (Normal) on the speed selection switch (fig. 5.2) and confirm that the Emergency Stop switch (fig. 5.3) is in the 'On' position (out). Move main switch to 'On' and operate switch button in control lever handle - motor will run. Confirm motor stops when **either** the button is released **or** the main switch is turned 'Off' **or** the Emergency Stop is pushed. During this test confirm that blade is rotating in the direction shown by the arrow on the guard and that the coolant pump is operating.

fig. 4

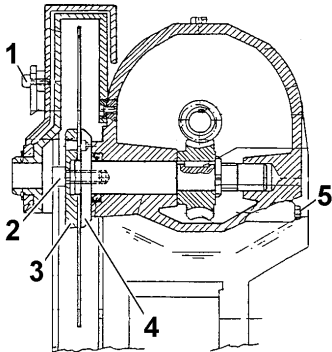
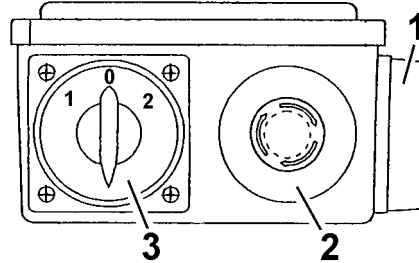


fig. 5



## 4. OPERATING INSTRUCTIONS

**WARNING!** Before sawing ensure you wear approved safety goggles, ear defenders, appropriate dust mask if saw generates dust and safety gloves, and that all other safety instructions in Section 1 are followed carefully.

### 4.1. Securing workpiece.

- 4.1.1. Ensure the saw is switched off at the main switch (fig. 5.1) and then secure workpiece in the base vice (fig. 6.1). We recommend that you place a block of wood (slightly narrower than the workpiece) in the vice below the item to be cut to act as a support.
- 4.1.2. When cutting a long workpiece use the roller support (fig. 6.2) and, if necessary further supports along the length.
- 4.1.3. If multiple workpieces of the same length are required, screw end stop into vice base, secure with locknut and adjust to give the appropriate length (fig. 6.3).

### 4.2. The 'On' and 'Off' switch.

Plug the saw into the mains power supply and switch on main switch. Start the saw by depressing the button located in the handle (fig. 2.4). Release the button to stop the saw.

### 4.3. Speed selection switch.

The speed selection switch (fig. 5.2) has three positions:

1 - Normal cutting speed. 0 - Motor isolated. 2 - High cutting speed

Position 1 is recommended for the majority of cutting operations. When the high speed setting is selected it should be used for **no longer than five minutes in any hour.**

fig. 6

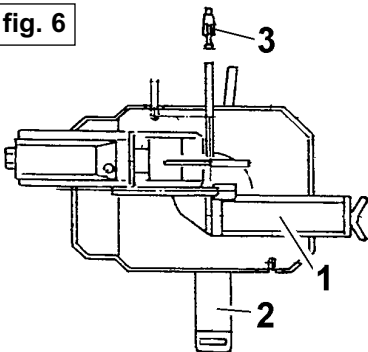


fig. 7

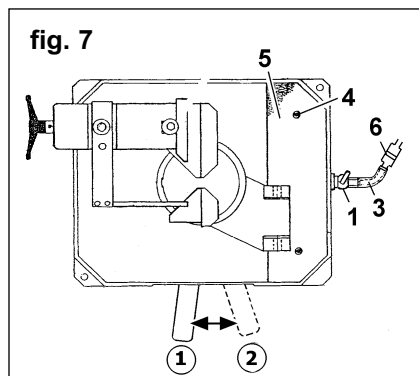
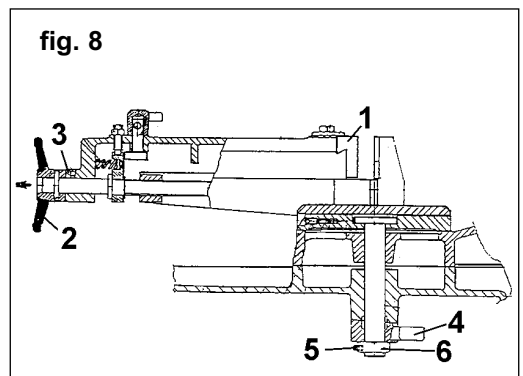


fig. 8



### 4.4. Operating.

**WARNING!** DO NOT switch the saw on whilst the blade is in contact with the work piece. Bring the rotating blade to the workpiece.

- 4.4.1. The blade must be running at its maximum speed (in either normal or high speed range) and the coolant must be flowing before attempting to lower the cutting edge onto the workpiece.
- 4.4.2. Lower the blade slowly and smoothly towards the workpiece (avoid jerky movements).
- 4.4.3. Exert adequate downward pressure on the handle to allow cutting according to the type and size of the material you are working with. Avoid subjecting the blade to excessive strain, always ease the blade down against workpiece (a harsh downward impact may break the blade or damage the teeth). Do not apply undue force on the handle in order to cut workpiece. Maintain a controlled cutting speed through the workpiece.
- 4.4.4. When cutting heavy material, move the blade intermittently through the workpiece with steady progression.

#### 4.5. Completing the cut.

- 4.5.1. When cutting is completed, carefully raise the blade to its full extent.
- 4.5.2. Release the button and wait until the blade has fully stopped before attempting to remove the workpiece.

#### 4.6. Mitre cutting.

To cut the workpiece at an angle the saw head must be adjusted.

- 4.6.1. To effect an angled cut, move the locking lever (fig. 7) to position '2' and rotate the saw/motor assembly to the required angle, reading the graduated scale, up to a maximum of 45° in either direction.
- 4.6.2. Move the locking lever back to position '1' and make the cut.

## 5. CHANGING SAW BLADE

**▲ DANGER! The use of damaged blades is dangerous and may cause personal injury.**

**☐ WARNING! Ensure that the saw is unplugged from the mains power supply before attempting to change the blade.**

Before using a saw blade check that it is undamaged, undistorted and that the teeth are sharp.

**IMPORTANT! Saw blades used with this machine shall be of the specified diameter and thickness, with an adequate speed rating and suitable for the material being cut.**

#### 5.1. Removing blade.

- 5.1.1. Place saw head in the up position.
- 5.1.2. Move the blade guard backwards by removing screw (fig. 4.1).
- 5.1.3. Remove blade retaining screw (fig. 4.2), blade flange (3) and blade.
- 5.1.4. Clean parts before re-assembly.

#### 5.2. Fitting blade.

- 5.2.1. Position the blade on the drive flange (fig. 4.4) having checked mating faces for cleanliness.
- 5.2.2. Fit outer flange (3) and retaining screw (2) and tighten.
- 5.2.3. Move the guard back to its original position and replace screw (1).
- 5.2.4. Check that the guard is free to rotate as the saw blade is raised and lowered.

## 6. MAINTENANCE

**☐ WARNING! Ensure that the saw is unplugged from the mains power supply before attempting any maintenance.**

- 6.1. Regularly remove the dust which accumulates inside the protective guard and on the external parts.
- 6.2. Every 50 hours: Drain coolant tank via tap (fig. 7.1) after removing pipe (3). Remove screws (4) and cover (5), clean sediment from tank, replace cover and screws. Check filter (fig. 7.6) and replace if necessary. Refit pipe to tap and refill tank. Take care not to splash coolant/swarf onto motor or switch box. Check that the locking lever (fig. 8.4) firmly locks and releases the saw head. To adjust, loosen grub screw (5), adjust nut (6) until correct lever operation is achieved and then re-tighten grub screw.
- 6.3. Every 1000 operating hours: Clean and grease saw head pivot, saw head support, moving guard and vice. Dis-assemble vice by removing jaw (fig. 8.1) and then turning hand wheel (2) to withdraw vice slide. After re-assembly apply a small amount of oil to oil hole (3). Drain gearbox oil - remove filler cap (fig. 3.D) and drain screw (fig. 4.5). After draining replace drain screw and refill via filler cap hole. Refit filler cap.

## 7. DECLARATION OF CONFORMITY

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

**Steel Bladed Cut-Off Saw  
Model SM300**

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



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.

Signed by Mark Sweetman

10th February 2003

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 this equipment.

**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.



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