



INSTRUCTIONS FOR:

## SAW BLADE SHARPENER - BENCH MOUNTING 110W

MODEL No: **SMS2003**

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 , are fitted with live (brown) and neutral (blue) wires only.

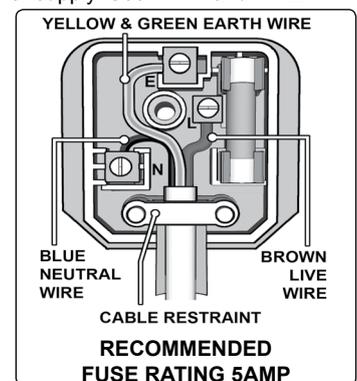
To rewire, connect the wires as indicated above -

**DO NOT connect either wire to the earth terminal.**

- 1.1.10. Products which require more than 13Amps 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.
- 1.1.11. 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 1.5mm<sup>2</sup>, 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 2.5mm<sup>2</sup> section cable.

#### 1.2. GENERAL SAFETY

- WARNING!** Disconnect the saw blade sharpener from the mains power, and ensure that the cutting disc is at a complete standstill before attempting to service or perform any maintenance.
- ✓ Maintain the saw blade sharpener 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 blade sharpener in a suitable work area. Bolt securely to the workbench through the four holes on the base. Ensure that the surface is flat and capable of supporting the weight of the sharpener (see fig.1). Keep the area clean and tidy and free from unrelated materials, and ensure that there is adequate lighting.
- ✓ Keep the saw blade sharpener clean for best and safest performance and check moving parts alignment regularly.
- WARNING!** Before each use check that the grinding stone is secure and that it is not worn or damaged. Test the grinding stone by running it for a minute prior to its use. **NOTE:** Only competent persons should attempt to change grinding stones.
- ✓ Ensure that replacement stones are not damaged in any way - cracks or deformations etc. Also check the mounting flanges to check that they are not deformed, burred or chipped. **DO NOT** over tighten a stone and never tamper with a stone in order to adapt it to a different size holder.
- WARNING!** Never operate the sharpener without the grinding wheel cover in place.
- ✓ Ensure that replacement grinding wheels meet the speed rating of the tool.
- WARNING!** This machine is designed to sharpen saw blades. **DO NOT** attempt to sharpen any other tools and **DO NOT** attempt to grind any other objects.
- WARNING!** Wear approved safety eye protection, ear defenders and gloves.
- ✓ Remove ill fitting clothing. Remove ties, watches, rings and other loose jewellery and contain long hair.
- ✓ Maintain correct balance and footing. Ensure the floor is not slippery and wear non-slip shoes.
- ✓ Keep children and unauthorised persons away from the work area.



- WARNING!** Keep away from the grinding wheel when it is turning, and make sure no one is standing close in the line of the grinding wheel trajectory.
- x **DO NOT** allow untrained persons to operate the saw blade sharpener.
- x **DO NOT** get the machine wet, or use in damp or wet locations or areas where there is condensation.
- WARNING! DO NOT** use the saw blade sharpener where there are flammable liquids, solids or gases such as paint solvents and including waste wiping rags etc.
- x **DO NOT** operate the saw blade sharpener if any parts are missing or damaged as this may cause failure and/or personal injury.
- x **DO NOT** operate the saw blade sharpener when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- ✓ When not in use switch off the saw blade sharpener and remove the plug from the power supply.

## 2. INTRODUCTION & SPECIFICATIONS

Suitable for sharpening TCT saw blades ranging from Ø90 to Ø400mm. Fitted with a Ø100mm diamond coated grinding disc for optimising saw blade performance. Precision 0-25° angle adjustment allowing each tip to be sharpened exactly the same. Quick and easy to use, whilst saving money on having to constantly buy new blades.

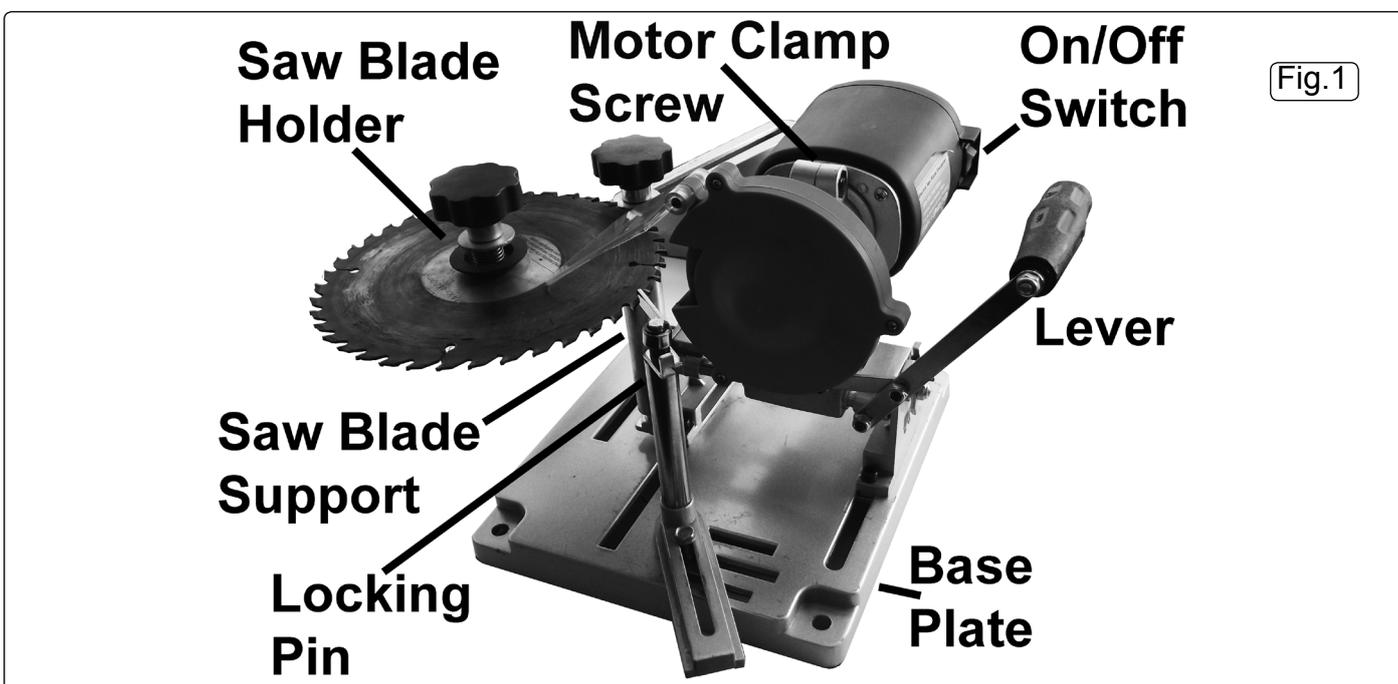
### Specifications:

Model No: . . . . . SMS2003  
 Motor Power: . . . . . 110W - 230V  
 Free Speed: . . . . . 5300rpm  
 Wheel Diameter: . . . . . 100mm  
 Minimum Blade Diameter: . . . . . 90mm

Maximum Blade Diameter: . . . . . 400mm  
 Angle Adjustment: . . . . . 0-25°  
 Weight: . . . . . 5kg

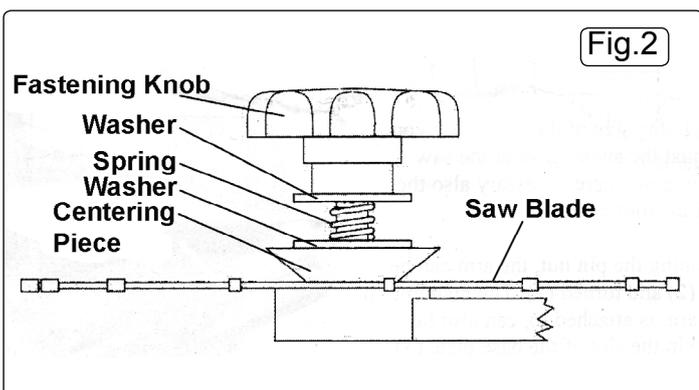
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Unpack the product and check the contents. Ensure that there is no damage. If any problem is noted, contact your supplier immediately.



## 4. OPERATION

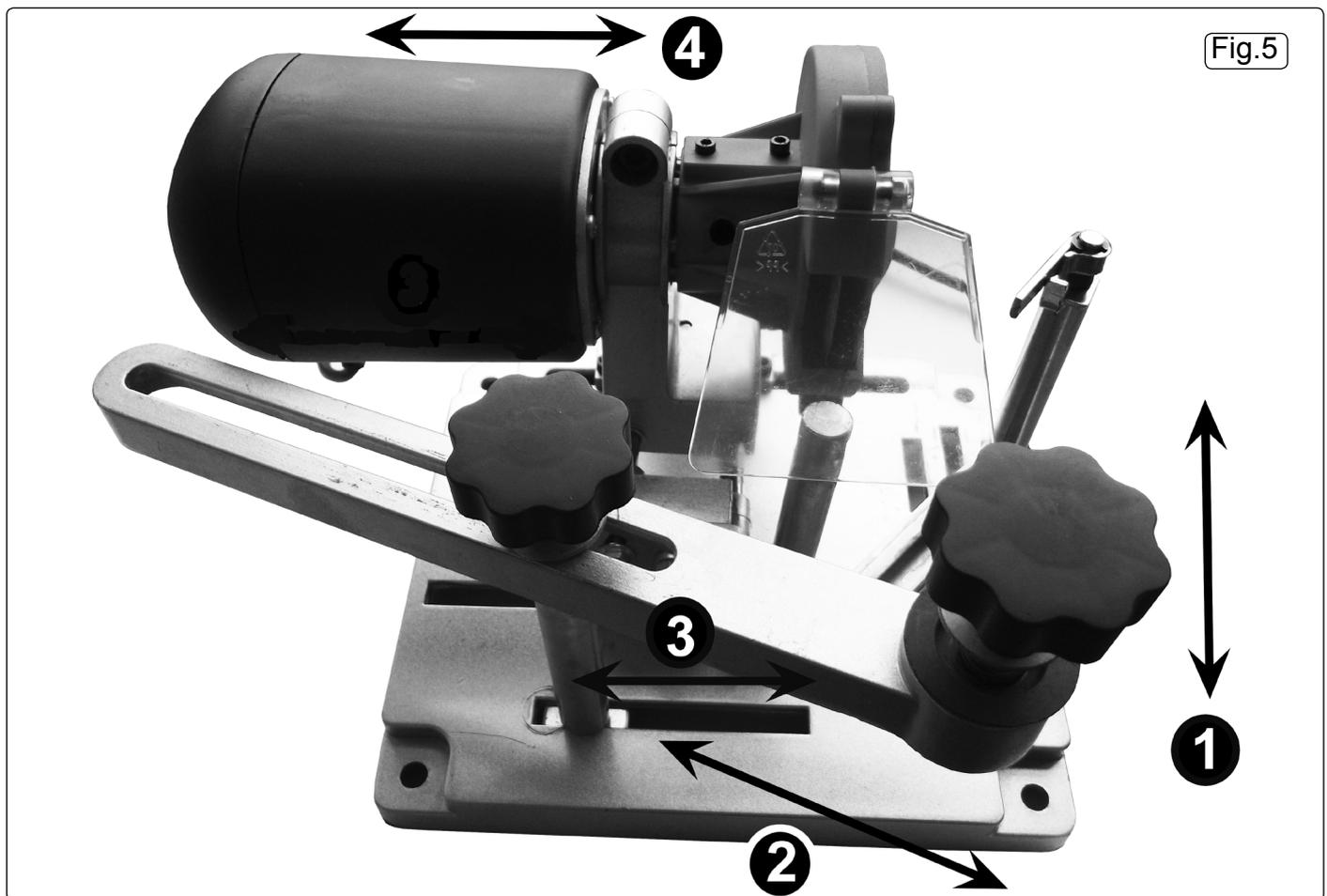
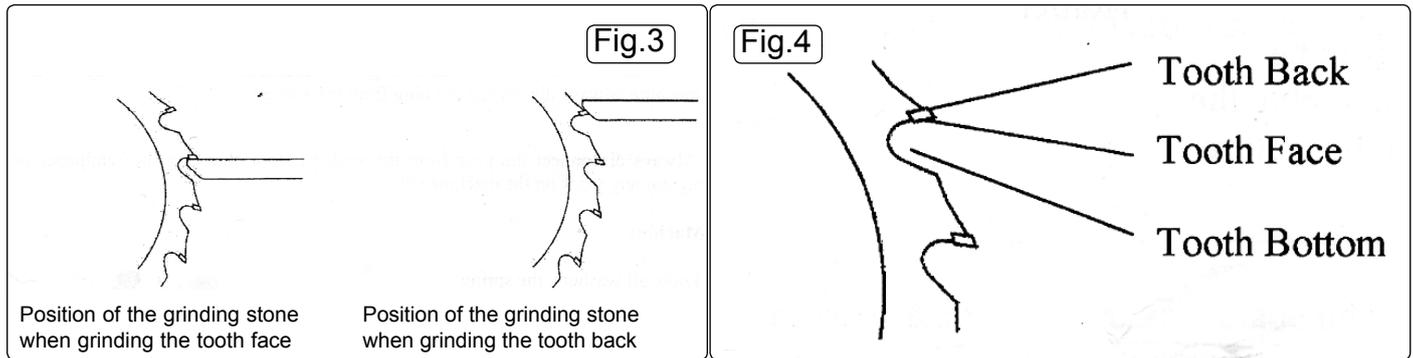
- ✓ **Before sharpening saw blades ensure that you wear approved safety goggles, ear defenders, and safety gloves. All safety instructions in Section 1 must be followed.**
  - WARNING!** Always ensure that the machine is switched off before connecting the plug to the socket and always disconnect before carrying out any work on the machine.
- 4.1. Remove the knob, all washers, the spring and the centring piece from the saw blade holder.
  - 4.2. Put the saw blade (which needs to be sharpened), on the bolt and reassemble in the order indicated on the picture below. (See fig.2).



- 4.3. The saw blade only needs to be centred but not tightly fixed. Screw down the fastening knob only as much as necessary for sufficient tension, so that the saw blade can still be turned. Make sure that the centring piece is not slanted. (See fig.2).

#### 4.4. ADJUSTMENT OF THE SAW BLADE

4.4.1. The position of the saw blade has to be adjusted in accordance to the grinding stone. Depending on whether you want to sharpen the tooth face or the tooth back, the saw blade must be adjusted as shown in the following drawings. The surface which is to be ground must be parallel to the corresponding side of the grinding stone. (See figs 3 & 4).



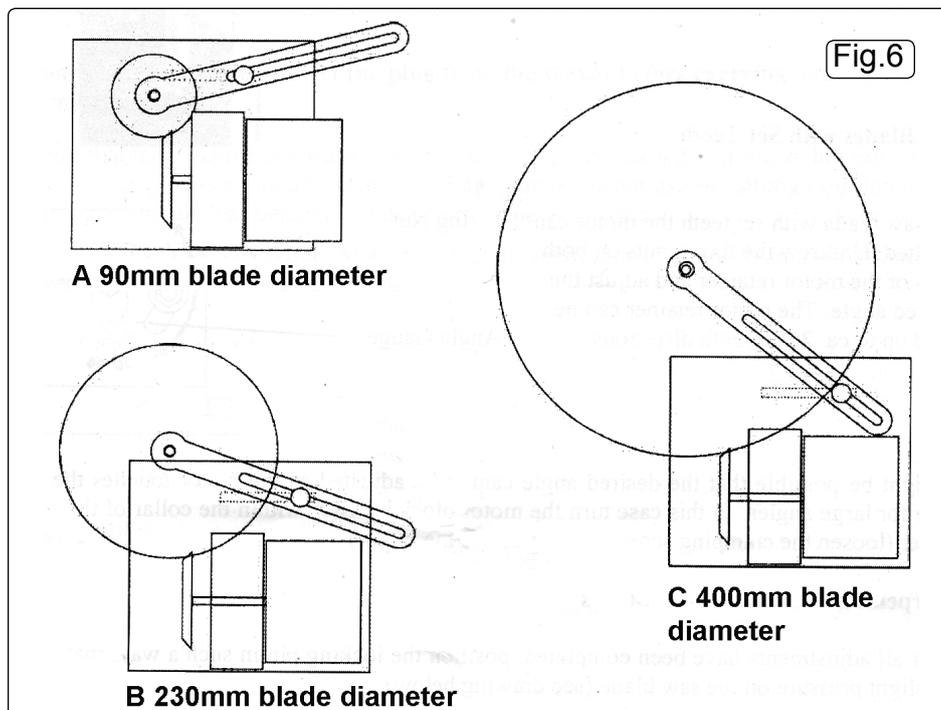
#### Refer to fig.5

- 4.4.2. According to the size of the saw blade you need to adjust the the swivel arm of the saw blade holder and where necessary also the position of the motor block.
- 4.4.3. After loosening the knob, the arm (2) can be pulled out and turned (1). The mandrel, to which the arm is attached, can also be moved within the slot in the base plate (3). A multitude of adjustments are possible for every diameter of saw blade between 90cm and 400cm. The motor block can also be moved back and forth on the base plate (4), for bigger blade diameters.
- 4.4.4. During grinding the stone is moved backwards and forwards by means of the lever. The lever must be pulled toward the saw blade when adjusting the correct position, so that the grinding stone can lock into the tooth bottom.

#### 4.5. ADJUSTMENT EXAMPLES FOR DIFFERENT SAW BLADE DIAMETERS

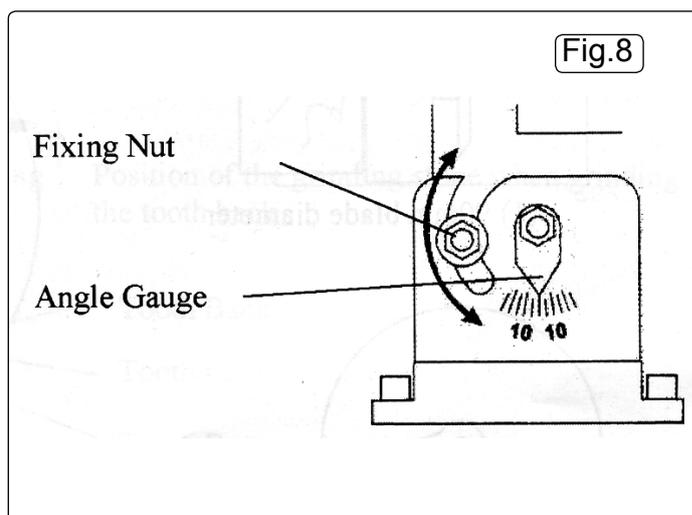
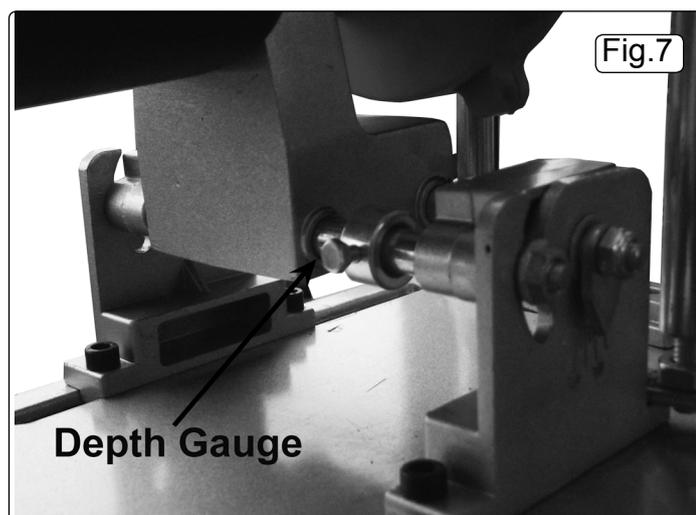
##### Refer to fig.6.

- 4.5.1. (A) 90mm saw blade, motor moved backwards.
- 4.5.2. (B) 230mm saw blade, motor must be moved forward in order to avoid any collision with the arm.
- 4.5.3. (C) 400mm saw blade, motor moved forward, arm must be aligned in such a way that the pin nut does not collide with the saw blade.



#### 4.6. DEPTH GAUGE

- 4.6.1. After adjusting the correct position of the arm, motor and saw blade, the depth gauge needs to be adjusted.
- 4.6.2. To adjust the depth gauge, position the grinding stone into the tooth bottom, so that the tooth face can be completely sharpened, but the grinding stone does not touch the tooth bottom (there must be a space of some mm). Tighten the fastening screw of the depth gauge to fix the correct position. (See fig.7).



#### 4.7. SAW BLADE SUPPORT

- 4.7.1. For better stability and more accurate positioning, it is necessary to place the saw blade support as close as possible to the grinding stone, so that the saw blade can rest on it. (See fig.1).

#### 4.8. SAW BLADES WITH SET TEETH

- 4.8.1. For saw blades with set teeth the motor can be tilted. Unscrew the fixing nuts on both sides of the motor retainer and adjust to the desired angle. The motor can be tilted up to 25° in both directions. (See fig.8). It might be possible that the desired angle cannot be reached as the motor touches the base plate for large angles. In this case turn the motor block by 180° within the collar of the motor holder (loosen the clamping screw, (see fig.1) on the neck of the motor). (See fig.8).

#### 4.9. SHARPENING OF CIRCULAR SAW BLADES

- 4.9.1. After all the adjustments have been completed, position the locking pin in such a way, that it will put slight pressure on the saw blade. (See fig.9).
- 4.9.2. Switch the machine on to start the sharpening process and operate the lever to move the grinding stone towards the tooth until it has reached the adjusted depth gauge.
- 4.9.3. Pull back the grinding stone (by the operating lever) and turn the saw blade to sharpen the next tooth. Repeat these steps until all teeth have been sharpened.

**NOTE:** In case of set teeth, only grind every second tooth and then reverse the angle to grind the remaining teeth.

- 4.9.4. When grinding the tooth back make sure the grinding stone and saw blade are orientated as shown in fig.3.

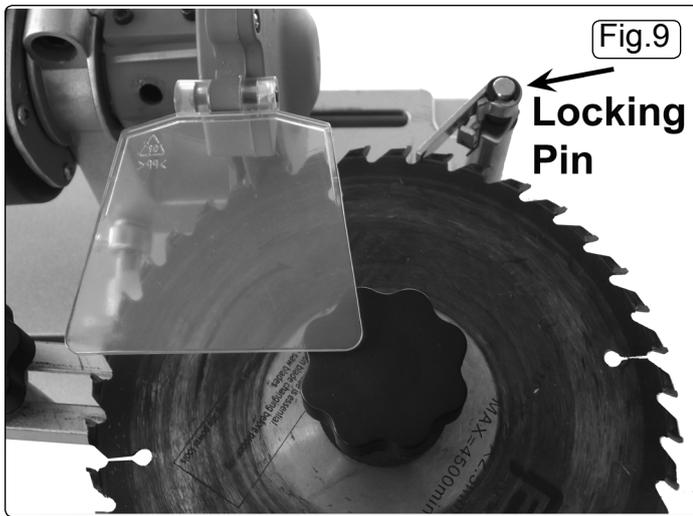


Fig.9

Locking Pin

## 5. MAINTENANCE

- WARNING! Always disconnect the plug from the socket before carrying out any work on the machine.**
- 5.1. Ensure that the machine is always clean and dry. To clean use a dry or moist, but not wet, towel. Lubricate moving parts from time to time.
- 5.2. **DO NOT** use any strong or flammable cleaning agents.
- 5.3. The motor is maintenance free, make sure that all ventilation slots are free and left open to prevent the machine from over heating.

Parts support is available for this product. To obtain a parts listing and/or diagram, please log on to [www.sealey.co.uk](http://www.sealey.co.uk), email [sales@sealey.co.uk](mailto:sales@sealey.co.uk) or phone 01284 757500.



### Environmental Protection.

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycle centre and disposed of in a manner which is compatible with the environment.



### WEEE Regulations.

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment. When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

**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 product.

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

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



Sole UK Distributor, Sealey Group,  
Kempston Way, Suffolk Business Park,  
Bury St. Edmunds, Suffolk, IP32 7AR



01284 757500



01284 703534



[www.sealey.co.uk](http://www.sealey.co.uk)



[sales@sealey.co.uk](mailto:sales@sealey.co.uk)