



INSTRUCTIONS FOR

# DRILL BIT SHARPENER GRINDING ATTACHMENT

MODEL NO: **SMS01**

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. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instructions



Wear eye protection



Wear a mask



Wear ear protection



Wear safety footwear

## 1. SAFETY

- WARNING!** Disconnect the grinder from the mains power, and ensure the grinding wheels are at a standstill before attempting to position drill bit.
- ✓ Maintain the sharpener in good condition.
- ✓ Replace or repair damaged parts. Use recommended parts only. Non-authorized parts may be dangerous and will invalidate the warranty.
- ▲ **DANGER! DO NOT** use a damaged grinding wheel, to sharpen drill bits.
- ✓ Ensure that the correct grinding wheel is used for sharpening of drill bits.
- 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 tool is next used. The eye shields are a mandatory fitting when grinder is used in premises covered by the Health & Safety at Work Act.
- ✓ Ensure adequate lighting.
- ✓ Before each use check grinding wheels for condition. If worn or damaged replace immediately.
- WARNING!** Always wear approved eye or face protection when operating a grinder.
- ✓ 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 working area.
- ✗ **DO NOT** use the sharpener for a task it is not designed to perform.
- ✗ **DO NOT** operate the grinder if any parts are damaged or missing as this may cause failure and/or personal injury.
- ✗ **DO NOT** switch on the grinder whilst the wheel is in contact with the drill bit.
- ✗ **DO NOT** use grinder where there are flammable liquids, solids or gases, such as paint solvents and including waste wiping or cleaning rags etc.
- ✗ **DO NOT** touch the drill bit close to the ground surface as it will be very hot. Allow to cool. The drill bit may also be very sharp.
- ✗ **DO NOT** sharpen drill bits when you are tired, under the influence of alcohol, drugs or intoxicating medication.
- ✓ When not in use switch off the grinder, disconnect from the mains power supply and clean the machine and working area.

## 2. INTRODUCTION

Ideal for use with any standard bench grinder, the grinding attachment provides quick and precise sharpening of 3-19mm (1/8-3/4") HSS twist drill bits with a 75mm minimum length. Features an angle gauge with pre-sets at 41° (Countersink), 49°, 59°, 68° and 88°. Also features a rotating neck which aids grinding both sides of the drill bit. Perfect for use in any workshop or garage.

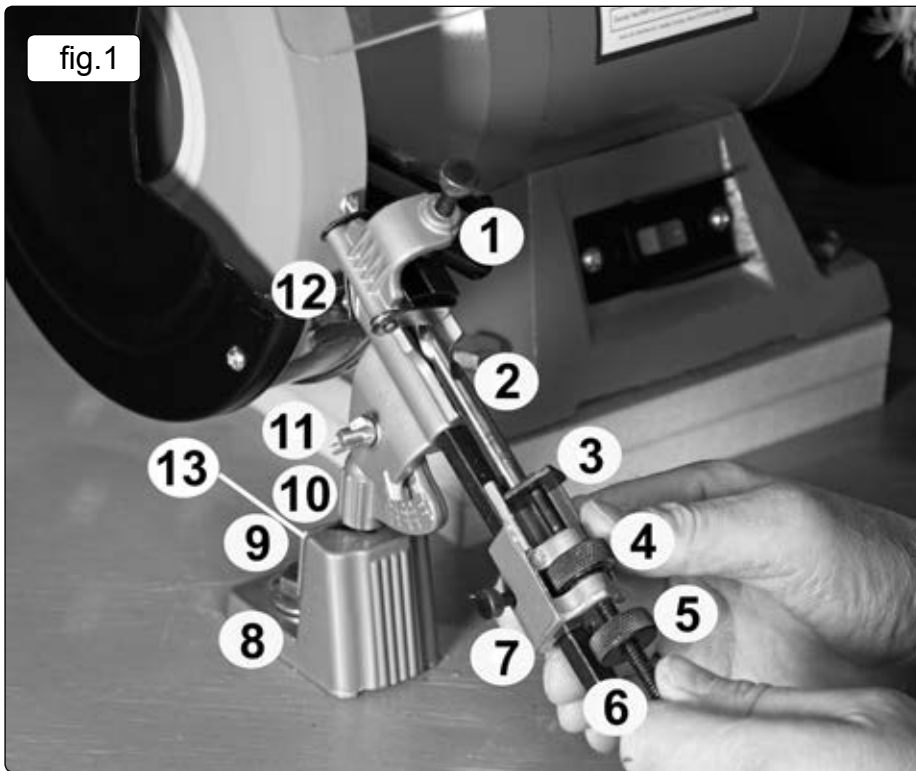
## 3. SPECIFICATION

Model No:..... SMS01  
 Sizes: ..... 3-19mm (1/8-3/4")  
 Angle Adjustment: ..... 41° (Countersink), 49°, 59°, 68°, 88°  
 Minimum Drill Bit Length: ..... 75mm

## 4. MOUNTING

**Refer to fig.1**

- 4.1. For best results grinding must take place at the axle height of the bench grinder. It may be necessary to use suitable packing to raise the height of the grinder.
- 4.2. Fasten grinding attachment to the bench using a bolt, washer and nut (not included).
- 4.3. Ensure all guards are in place.



- 1 Clamp
- 2 Trough
- 3 Rear bracket
- 4 Feed nut
- 5 Lock nut
- 6 Feed screw
- 7 Adjustable slide bracket
- 8 Slotted base
- 9 Mounting bolt/nut (not included)
- 10 Pivot pin
- 11 Angle adjusting nut
- 12 Lip rest
- 13 Tension screws

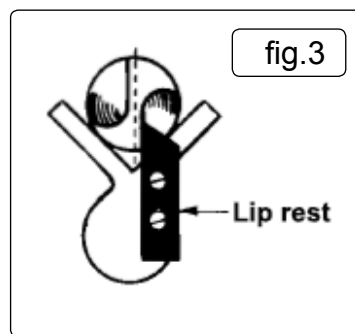
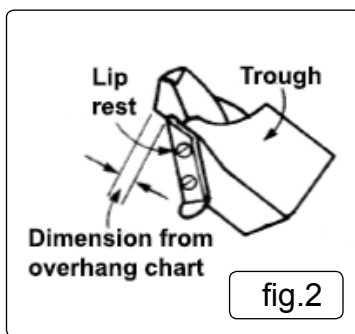
## 5. OPERATION

### 5.1. Inserting drill bit Refer to fig.1

5.1.1. Refer to the point angle/drill overhang chart below and choose the correct angle for the material to be drilled.

5.1.2. Place drill in trough. The amount that the drill point overhangs the lip rest is shown in the chart below for each point angle setting.

Point angle	Overhang	Usage
88°	29.5mm	Hard materials, thin sheet
68°	50% diameter of drill bit	Small drill
59°	50% diameter of drill bit	General purpose drilling
49°	100% diameter of drill bit	Soft materials (i.e. copper, Wood, Plastic)
41°	As required	Countersinks



5.1.3. Adjust the lip rest until it extends into the flute of the drill as shown in fig.2.

5.1.4. Move the rear bracket to support the end of the drill in this position.

5.1.5. Tighten the clamp whilst keeping the drill flute against the lip rest see fig.3.

5.1.6. The drill grinding attachment automatically sets the clearance angle of the drill point.

5.1.7. Ensure the grinder is switched off. Loosen the mounting nut a little and move the slotted base towards the grinding wheel so that the drill just touches the wheel.

5.1.8. Lock the base mounting nut. Move the grinding attachment back and forth past the grinding wheel. If the pivot is too loose/stiff adjust tension screws until the grinding attachment swings smoothly.

### 5.2. Sharpening

5.2.1. Feed the drill by small amounts.

5.2.2. Turn grinder on and sharpen the first lip of the drill with short sweeps. Gradually advance the drill using the feed screw until the entire surface is ground. The clamp should be loosened slightly whilst moving the drill forward then clamped to stop movement of the bit.

5.2.3. To grind the second lip of the drill, move the grinding attachment away from the grinding wheel and only loosen the clamp.

5.2.4. Rotate the drill until the opposite flute rests against the lip rest. Tighten clamp.

5.2.5. Turn grinder on and grind the second face with short sweeps as before.

This process ensures that the two cutting edges are the same length. Switch the grinder off and remove drill from the grinding attachment.

5.3. **Sharpening broken drills**

- 5.3.1. Save time by rough shaping free hand before using attachment. Use water to drip the bit in to prevent overheating.
- 5.3.2. Some drills may sharpen with a heel behind the cutting edges, fig.4. Remove this free hand so that the drill will cut freely.
- 5.3.3. Sharpen drills often to prolong the life of drills.
- 5.3.4. Both cutting edges must be the same length and have the same point angle.
- 5.3.5. There needs to be a definite clearance angle see fig.5.

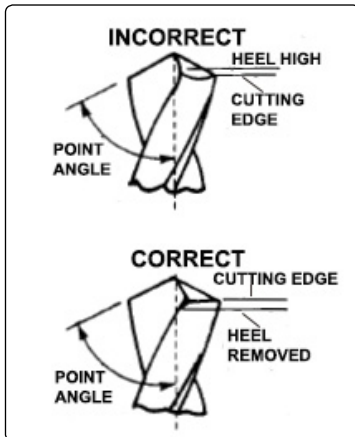


fig.4

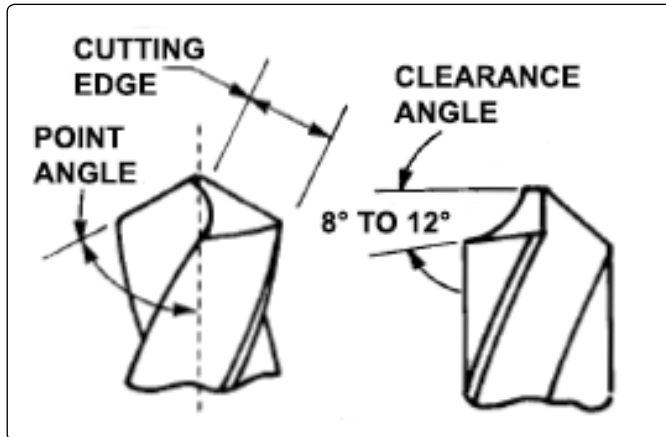


fig.5



**ENVIRONMENT PROTECTION**

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

**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 is required for any claim.

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