

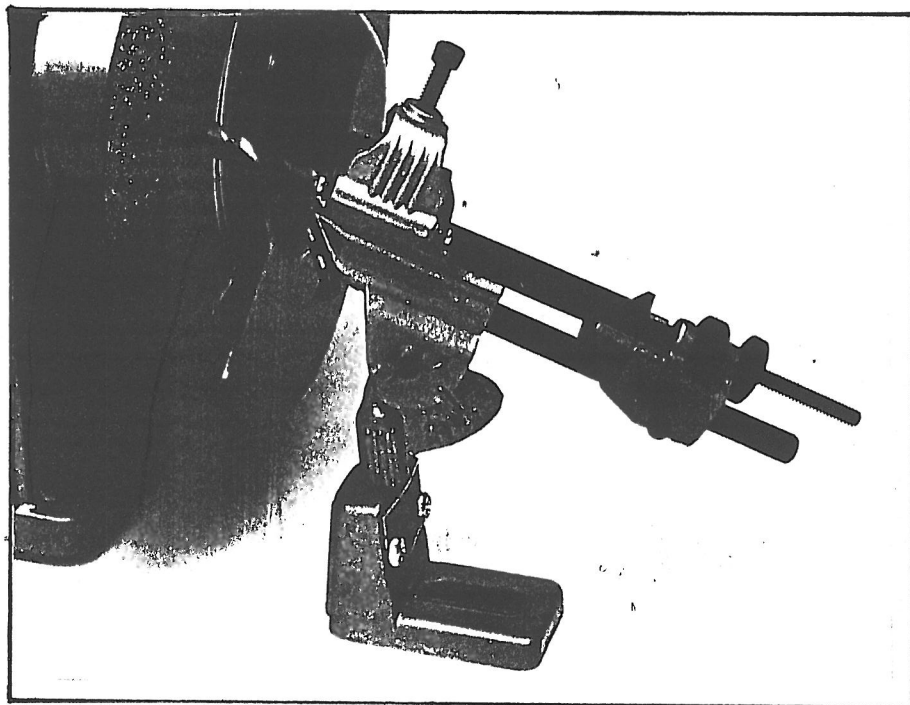
# Clarke

## ***METALWORKER***

INSTRUCTION MANUAL FOR

### **Drill Grinding Attachment (DGA1)**

For quick and easy sharpening  
of blunt drills.



## GUARANTEE

This Clarke product is guaranteed against faults in manufacture for 12 months from purchase date.

Keep your receipt as proof of purchase.

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

Where possible return faulty goods to the place of purchase. No goods should be returned to us without our prior permission.

The reason for return must be clearly stated. This guarantee does not affect your statutory rights.

## SAFETY PRECAUTIONS

- 1) ALWAYS USE SAFETY GLASSES. Everyday glasses only have impact resistance lenses, they are not safety glasses.
- 2) KEEP GUARDS IN PLACE, and check they are not damaged.
- 3) DO NOT USE IN A DANGEROUS ENVIRONMENT. The grinding process produces sparkes, ensure that all inflammable materials are stored safely away from the work area.
- 4) WEAR THE PROPER APPAREL. No loose clothing, gloves, neckties, rings, bracelets, or any other jewellery which might get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

## MOUNTING INSTRUCTIONS

For best results and safe oferation, both the grinder and the drill grinding attachment should be securely fixed to a solid workbench. The drill cradle nose should be approximately level with the height of the grinder spindle. Due to variations in grinder design, it may be necessary to raise either the attachment or the grinder with wooden packing pieces to obtain the correct height.

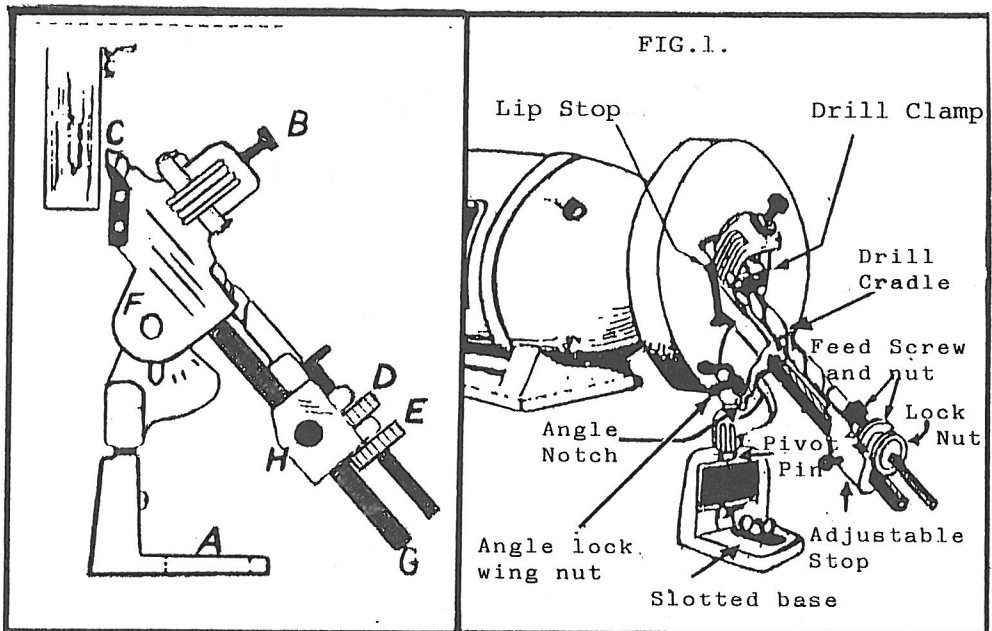
Drill a fixing hole in the workbench approximately 2¼" from the flat face of the grinding wheel, and sufficiently off centre to the grinder spindle, to bring the drill cradle nose halfway between the edge of the wheel and the grinder spindle. Fix the attachment to the workbench with a wing nut, bolt and washer through the base slot.

## INSTRUCTIONS FOR USE

- 1) Cutting lip angles (See Fig.2)  
Set angle notch for cutting lip angle required using wing nut F to tighten as follows:-
  - 59° General Purpose Drilling
  - 88° To prevent snatching on thin materials
  - 68° Recommended angle for small drills
  - 49° For Soft Materials (Copper,Lead,some light alloys etc.)
  - 41° (CSK) For countersinking.

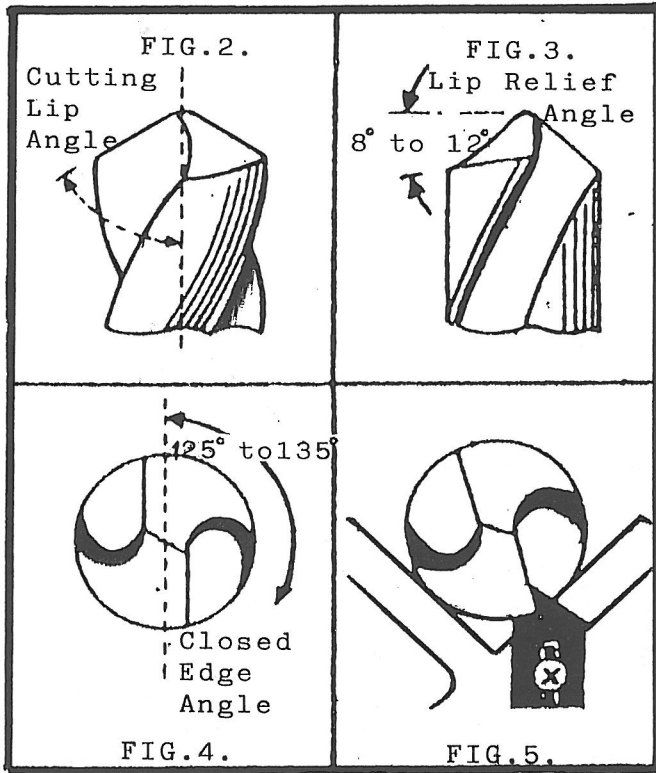
INSTRUCTIONS FOR USE (Cont)

- 2) Loosen clamping screw B. Fully retract the feed nut by rotating the knurled feed screw D anti-clockwise. Place drill in drill cradle such that the point of the drill extends beyond the lip stop C by approximately 1 diametre of the drill. Loosen clamping screw H and slide the adjustable stop upto the drill bit, so that it rests against the feed nut. Tighten clamping screw H to secure the adjustable stop and hold the drill bit in position.
- 3) Using the 2 adjusting screws raise or lower the lip stop so that it just engages the flute of the drill bit (See Fig 5). With the lip stop in position against the cutting edge of the flute tighten the drill clamp B so that it just gently holds the drill in position. (Do not overtighten).
- 4) Loosen the wing nut holding the base A and slide the entire assembly towards the grinding wheel so that the tip of the drill just clears the grinding surface (approximately 1/64" or 0.5mm). Retighten the wing nut when in position.
- 5) Switch on Grinding Machine.
- 6) Loosen knurled lock nut E and advance the feed nut by turning the inner knurled feed screw clockwise (when viewed from above) until the wheel starts to grind, swinging the upper assembly on the pivot pin whilst grinding. Feed the drill bit forward slowly to prevent overheating. When one side of drill is sharpened switch of grinding machine and tighten knurled lock nut E.



- 7) Without altering feed screw position rotate drill bit to engage the other flute. Switch on machine and grind in short sweeps to avoid overheating.

Providing these instructions are followed the drill should appear as in Figures 3 and 4. Due to differences in twist drill design it may be necessary to extend the drill tip by more than 1 diameter in order to obtain the correct relief angle.



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POWER PRODUCTS

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