

# MORTISE ATTACHMENT

Model No. CMA 1B

OPERATING & MAINTENANCE INSTRUCTIONS



Thank you for selecting this CLARKE Bench Mortising Attachment.

This attachment is compatible with the following CLARKE Drill Presses.

## CDP3201B • CDP251F • CDP301B • CDP351F

Before operating the machine, please read this leaflet thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to the machine giving you long and satisfactory service.

### **GUARANTEE**

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase.

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

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

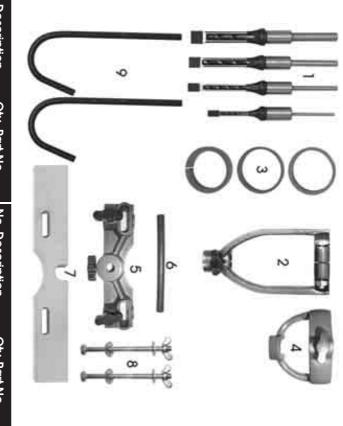
## SPECIFICATIONS





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## REPLACEMENT PARTS



ω	2	_	_	_	_	S
3 Reducing Collar (set) 1 EFCMA1B03	Chisel Holder	5/8" Chisel	1/2" Chisel	3/8" Chisel	1/4" Chisel	No. Description 6
<u>-</u>	_	-	-	-	_	γīV
EFCMA1B03	EFCMA1B02	6500028	6500027	6500026	6500025	OTY Part No.
9	00	7	0	Çī	4	NO.
9 Hooks	8 Screw w/Wing Nut	7 Fence	Hold Down Post	Hold Down Support 1 EFCMA1B05	4 Hold Down	No. Description
N	N	_	_	_	_	Q
2 EFCMA1B09	2 Not Available	EFCMA1B07	1 EFCMA1B06	EFCMA1B05	1 EFCMA1B04	Qiy Part No.

## **ACCESSORIES**

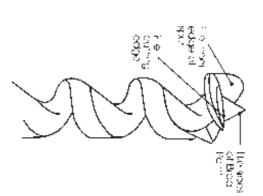
The following Morticing Chisels and Bits are available from your CLARKE dealer.

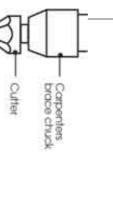
4	ω	5	-	
16mm (5/8")	13mm (1/2")	9mm (3/8")	6mm (1/4")	Mortise Width
4. 16mm (5/8")6500028	3. 13mm (1/2") 9mm 6500027	2. 9mm (3/8") 6mm 6500026	1. 6mm (1/4")6500025	Bit Shank Size
6500028	6500027	6500026	6500025	Part No.

## SHARPENING THE DRILL BIT & CHISEL

For best performance the chisel and bit need to be kept sharp. Blunt cutting edges will give untidy and inaccurate mortises, and can cause overheating and breaking of the chisel and bit.

Sharpen the bit by using a small smooth file, following the original shape of the bit. File the inside edge of the spur, the sides of the brad point, and the cutting edge inwards towards the flutes of the bit to restore sharpness. Do not file the outside edge of the spur as this will affect the diameter of the bit.





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Use a Mortise chisel cutter with the correct size pilot to sharpen the chisel. Two or three turns of the cutter in a carpenters hand brace should be enough to sharpen the chisel. Remove any burrs from the outside of the chisel with a fine oilstone.

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Chisels and bits will need replacing when they become badly worn and difficult to sharpen.



# GENERAL SAFETY RULES FOR OPERATING MACHINERY

#### WARNING:

As with all machinery, there are certain hazards involved with their operation and use. Exercising respect and caution will considerably lessen the risk of personal injury. However, if normal safety precautions are overlooked or ignored, persona injury to the operator or damage to property, may result.

- READ and BECOME FAMILIAR with the entire operating manual. Learn the machines' applications and limitations as well as the specific potential hazards peculiar to it.
- EARTH ALL MACHINES. If the machine is equipped with three-pin plug, it should be plugged into a three-pin electrical socket. Never remove the earth pin.
- ALWAYS ensure that ADEQUATE LIGHTING is available. A minimum intensity of 300 lux should be provided. Ensure that lighting is placed so that you will not be working in your own shadow.

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- CHECK for DAMAGE. Before using the machine, any damaged part, such as a guard etc., should be checked to ensure that it will operate properly, and perform its intended function. Check for alignment of moving parts, breakage of parts, mountings, and any other condition that may affect the machines' operation. Any damage should be properly repaired or the part replaced. If in doubt, DO NOT USE the machine, Consult your local dealer.
- DISCONNECT the MACHINE from the power supply before servicing and when changing accessories or performing maintenance tasks.

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KEEP GUARDS in place and in working order.

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- ALWAYS WEAR SAFETY GOGGLES, manufactured to the latest European Safety Standards. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses do not have impact resistant lenses, they are NOT safety glasses.
- KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
- DON'T FORCE the Machine. It will do a better and safer job at the rate for which it was designed.
- REMOVE ADJUSTING KEYS AND WRENCHES. Form the habit of checking to see that keys and adjusting wrenches are removed from the machine before switching on.

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- 11. DRUGS, ALCOHOL, MEDICATION. Do not operate machine whilst under the influence of drugs, alcohol or any medication.
- USE RECOMMENDED ACCESSORIES. The use of improper accessories could be hazardous.
- NEVER LEAVE MACHINE RUNNING UNATTENDED. Turn power OFF. Do not leave machine until it comes to a complete stop.



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Hold chisel in soff face jaws

- KEEP CHILDREN AWAY. All visitors should be kept a safe distance from the work area, especially whilst operating the unit.
- 15. MAINTAIN MACHINE IN TOP CONDITION. Keep tools sharp and clean for the best and safest performance. Follow maintenance instructions.
- 16. DON'T OVERREACH. Keep your proper footing and balance at all times. For best footing, wear rubber soled footwear. Keep floor clear of oil, scrap wood, etc.
- 17. WEAR PROPER APPAREL. Loose clothing or jewellery may get caught in moving parts. Wear protective hair covering to contain long hair.
- 18. BE AWARE that accidents are caused by carelessness due to familiarity. ALWAYS concentrate on the job in hand, no matter how trivial it may seem.

# ADDITIONAL SAFETY INSTRUCTIONS when MORTISING

- DO NOT USE until unit is completely assembled and installed according to these instructions.
- IF YOU ARE NOT thoroughly familiar with the mortising operations, you should obtain advice from a qualified person.
- 4. NEVER TURN MACHINE ON before clearing the table of all objects (tools, scrap pieces, etc.).
- 5. ALWAYS KEEP hands, fingers and hair well away from the rotating bit.
- 6. DO NOT ATTEMPT to mortise materials that do not have a flat surface.
- 7. ALWAYS use the 'Hold Down' to prevent work from lifting when withdrawing the chisel.
- 8. ALWAYS SUPPORT workpiece securely against fence to prevent rotation.
- 9. ENSURE chisel and bit is sharp, undamaged and properly secured before use.
- 10. ENSURE the chuck key is removed before starting.
- 11. NEVER START the machine with the drill bit or chisel pressed against the workpiece.
- NEVER PERFORM LAYOUT, assembly or setup work on the machine with the cutting tool rotating.
- 13. ALWAYS ADJUST DEPTH STOP wherever possible, to avoid drilling into the table.
- 14. ALWAYS STOP the machine before removing scrap pieces from the table.
- 15. SHUT OFF POWER, remove the drill bit and chisel and clean the table before leaving the machine.
- NEVER PLACE YOUR FINGERS in a position where the drill or cutting tool could contact them if the workpiece should shift unexpectedly.



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Observing all precautions (refer to your drill press manual), and ensuring there are no obstructions, or tools in the vicinity, plug into the mains supply and switch ON. Gently lower the chisel so that it contacts the work, and, ensuring it is properly positioned, proceed to force the chisel into the work.

If your drill press is provided with a depth stop, it may be used to limit the depth of the chisel cut. Refer to your drill press manual for the method of adjustment.

#### NOTES:

- It is recommended that you check the position, and depth of cut, on a piece of scrap of similar size before cutting your workpiece.
- The rate of penetration of the chisel must be fast enough to prevent burning at the tip of the bit, but not so fast as to cause the machine to slow or stall. With experience you will find suitable feed rates to suit various types of timber.
- You may encounter smoke from the bit or material once the chisel has engaged
  the material. The smoke created is a natural operating occurrence in hollow chisel
  mortising and is caused by material chip friction and the resins in the stock being
  burned off. Bluing of the chisel after initial use is not indicative of a dull chisel, but a
  combination of friction and resin buildup on the cutting faces of the chisel.
- A dull chisel can be detected by the amount of excess force required to complete a cut.
- After the first cut, the workpiece must be moved along in the correct direction
  relative to the slot in the chisel, to allow chips to clear freely. Move the workpiece
  so that the chisel slot is releasing chips into the already cut part of the mortise.
- Do not have the slot against the blind end of the mortise, as the chips will not be able to clear from the chisel. This will cause overheating and possible breakage to the chisel or bit.
- When cutting deep mortises, make the cut in several stages of no more than 25mm each, to allow chips to clear.
- Always switch the mortising machine off after use. Never leave the machine running unattended.
- If the Morticing attachment is left on the drill press, ensure the plastic protection cap (provided), is placed over the end of the chisel to avoid the possibility of people damaging themselves on the sharp points subsequently.



against the fence. pulling the workpiece up Hooks in the mannershown fence, then attach the two the table, up against the Place the workpiece on to

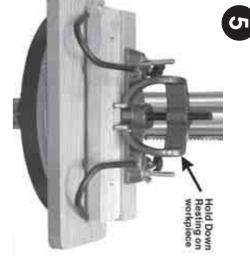
clearly identified. Check them off as follows:

Unpack the shipping carton, and lay out the components so that they can be

with the workpiece. that it makes contact Lower the Hold Down so laterally, by hand firm, but allowed to move

workpiece, it should be DO NOT force the

by hand. allowed to move laterally workpiece should be hold down - the Again DO NOT force the



the table) so it is directly above the Lower the chisel and bit, (or raise proposed Mortise.

#### NOTE:

about the column, ensure it is directly beneath the chisel. secured with the hole in the table If your table is capable of rotating

a position where the assembly can so that the proposed Mortise lies be manoeuvred, in the radial slots, axis, you need to lock the table in radial slots, which rotates about its If you have a round table with directly beneath the chisel.

> with proposed mortice Chisel square, and in line

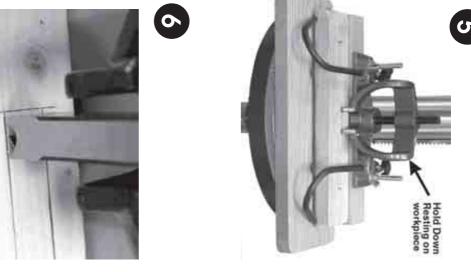
beforehand. Mortise on the workpiece clearly, You should always mark your

to the table using the wing nuts on the hold down support securing bolts. assembly on the table until you are satisfied it is, then clamp the complete assembly The chisel must be square with the workpiece, as shown. Move the complete

Your Morticing Attachment is now set up and ready for use







contact your Clarke dealer immediately Should there be any deficiency or damage to any of the components, please

- Chisel Sets -4 off (see Accessories)
- Chisel Holder
- **Chisel Holder Collars Hold Down**
- 4. Hold Down
- Hold Down Support

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- 6. Hold Down Post
- Fence
- <u>,</u> Mounting Bolts w/Wing Nuts and 2 x Flat Washers - 2 off
- % Workpiece Securing Hooks - 2 off





## INSTALLATION

### VARNING:

For your own safety, do not connect the Drill Press to a power source unit the Morticing Attachment is fully assembled, and you have read and understood all safety and operational



holder to fit correctly. Three such collars are provided. collar insert in order for the Tighten the pinch bolt `A' It may be necessary to use a



## Install the chisel and bit as follows:

### WARNING

chisel and bit...the edges are Use the plastic protection cap extremely sharp. Take great care when handling the

chisel up through the hole in the Chisel Holder. holder, and nip up the securing screw to Push the chisel up as far as possible into the

Separate the chisel and bit, then Insert the

(provided), whenever possible

#### NOTE

Chisel

temporarily hold it in this position.

the securing knob

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to the right or left, never to the front or rear. The opening Chisel Parallel to Workpiece' on page 10. allows chips to escape during operation. See 'Adjusting The opening in the side of the chisel should always be

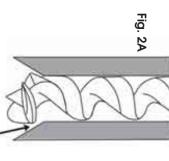
> Push the bit up throught he chisel, and into the opened jaws of the chuck

### **IMPORTANT!**

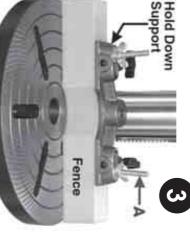
A clearance of 1/16" (1.5mm) MUST exist between the mating faces of ther chisel and bit, as shown in Fig. 2A.

contact with the chisel, either grind off the end of the bit (shank), or, slacken the screw securing the chise If the bit bottoms out in the chuck before it makes coorrect clearance may be set. holder and lower the holder sufficiently so that a

It should also be noted that it may be necessary to cutting deep mortices. increase the size of the gap with hardwoods, or when



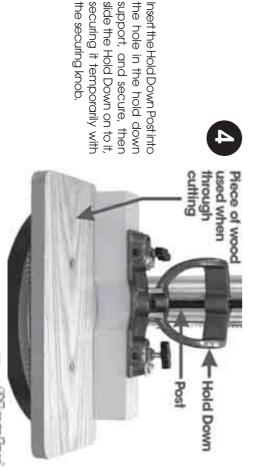
Drill Bit must bottom out here first, NOT in the chuck.....then adjust so that a gap of at least 1/16" exists



Do not fully tighten the wing nuts at this Support to the table in the manner shown. Attach the Fence and the Hold Down

of table being used). breakthrough (Depending upon the type damage to the chisel and bit on splintering of the workpiece and possible mortices are to be cut, and will avoid may be used as a bed, on which to place Note that the securing bolts (A) are extra the workpiece. This is used when through be placed beneath the fence, which long. This is to allow a piece of timber to

Such a setup is shown in '4' below.



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