OPERATING & MAINTENANCE

MODEL NO. CMA 1B

MORTISE ATTACHMENT
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.

The following Mortising Chisels and Bits are available from your CLARKE dealer:

**SPECIFICATIONS**

- Chisel Collar Size: 3/4" 6600020
- Fence Size: 40x350mm 6600026
- Net Weight: 24kg 6600025

**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 affect your statutory rights.

**REPLACEMENT PARTS**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>6500025</td>
<td>1 1/4&quot; Chisel</td>
<td>1</td>
</tr>
<tr>
<td>6500026</td>
<td>1 3/8&quot; Chisel</td>
<td>1</td>
</tr>
<tr>
<td>6500027</td>
<td>1 1/2&quot; Chisel</td>
<td>1</td>
</tr>
<tr>
<td>6500028</td>
<td>1 5/8&quot; Chisel</td>
<td>1</td>
</tr>
<tr>
<td>6500029</td>
<td>2 Chisel Holder</td>
<td>1</td>
</tr>
<tr>
<td>6500030</td>
<td>Reducing Collar</td>
<td>1</td>
</tr>
<tr>
<td>6500031</td>
<td>7 Fence</td>
<td>1</td>
</tr>
<tr>
<td>6500032</td>
<td>Hold Down Post</td>
<td>1</td>
</tr>
<tr>
<td>6500033</td>
<td>Hold Down Support</td>
<td>1</td>
</tr>
<tr>
<td>6500034</td>
<td>Hold Down Post</td>
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<tr>
<td>6500035</td>
<td>Hold Down Support</td>
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<td>1</td>
</tr>
<tr>
<td>6500039</td>
<td>Hold Down Support</td>
<td>1</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

The following Mortising Chisels and Bits are available from your CLARKE dealer:

<table>
<thead>
<tr>
<th>Mortise Width</th>
<th>Bit Shank Size</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6mm (1/4&quot;&quot;)</td>
<td>5mm</td>
<td>6500025</td>
</tr>
<tr>
<td>9mm (3/8&quot;&quot;)</td>
<td>6mm</td>
<td>6500026</td>
</tr>
<tr>
<td>13mm (1/2&quot;&quot;)</td>
<td>9mm</td>
<td>6500027</td>
</tr>
<tr>
<td>16mm (5/8&quot;&quot;)</td>
<td>13mm</td>
<td>6500028</td>
</tr>
</tbody>
</table>

Thank you for selecting this CLARKE Bench Mortising Attachment.
SAFETY PRECAUTIONS

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, personal injury to the operator or damage to property, may result.

1. 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.

2. 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.

3. ALWAYS MAKE SURE LIGHTING is adequate. A minimum intensity of 300 lux is required when operating cutting machines.

4. 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.

5. DISCONNECT the MACHINE from the power supply before servicing and when changing accessories or performing maintenance tasks.

6. KEEP GUARDS in place and in working order.

7. 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.

8. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

9. DON'T FORCE the Machine. It will do a better and safer job of the job.

10. 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.

11. DRUGS, ALCOHOL, MEDICATION. Do not operate machine whilst under the influence of drugs, alcohol or any medication.

12. USE RECOMMENDED ACCESSORIES. The use of improper accessories could be hazardous.

13. NEVER LEAVE MACHINE RUNNING UNATTENDED. Turn power off. Do not leave the machine unattended when not in operation.

SHARPENING THE DRILL BIT & CHISEL

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 tip of the bit to restore the chisel. Do not file the outside edge of the spur as this will affect the diameter of the bit.

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

Chisels and bits will need replacing when they become badly worn and difficult to sharpen. For best performance the chisel and bit need to be kept sharp. Burn cutting edges and points of the chisel and bit will need replacing when they become dull. The edge of the chisel with the cutting edge should be ground down to the correct angle. It should be ground down to a three-grit position and then reduced to a two-grit position. The chisel and bit should be ground down to a two-grit position and then reduced to a one-grit position.

For best performance the chisel and bit need to be kept sharp. Burn cutting edges and points of the chisel and bit will need replacing when they become dull. The edge of the chisel with the cutting edge should be ground down to the correct angle. It should be ground down to a three-grit position and then reduced to a two-grit position. The chisel and bit should be ground down to a two-grit position and then reduced to a one-grit position.
14. 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 the 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

1. DO NOT USE until unit is completely assembled and installed according to these instructions.

2. 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.).

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 operation.

11. NEVER START the machine with the drill bit or chisel pressed against the workpiece.

12. NEVER PERFORM LA YOUT, 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.

16. NEVER PLACE YOUR FINGERS in a position where the drill or cutting tool could contact them if the workpiece should unexpectedly move.

NOTES: It is recommended that you check the position, and depth of cut, on a piece of scrap 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 friction and material 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. A dull chisel can be detected by increased vibration of the drill press.

Always switch the mortising machine off after the main switch is turned off, and check that the drill bit is completely out of the workpiece. Avoid the risk of accident by loosening the chuck key before starting the machine.

NOTES: It is recommended that you check the position, and depth of cut, on a piece of scrap before cutting your workpiece.

16. KEEP CHILDREN AWAY. All visitors should be kept a safe distance from the work area, especially whilst operating the unit.

17. SHUT OFF POWER. Always turn off the drill press before leaving the work area.

18. ALWAYS STOP the machine after clearing the table of all objects (tools, scrap pieces, etc.).
### UNPACKING

1. Chisel Sets
2. Chisel Holder
3. Chisel Holder Collars
4. Hold Down
5. Hold Down Support
6. Hold Down Post
7. Fence
8. Mounting Bolts w/Wing Nuts
9. Workpiece Securing Hooks
10. Workpiece on the table, up against the fence, then attach the two Hooks in the manner shown, pulling the workpiece up against the fence.

### Your Morticing Attachment is now set up and ready for use.

The chisel must be square with the workpiece, or shown. Move the complete assembly on the table until you are satisfied it’s then clamp the complete assembly.

1. Chisel square, and in the proposed mortise, and line it up with the fence. You should always mark your Mortise on the workpiece clearly, beforehand.

2. The chisel must be square with the workpiece, or shown. Move the complete assembly on the table until you are satisfied it’s then clamp the complete assembly.

3. Chisel square, and in the proposed mortise, and line it up with the fence. You should always mark your Mortise on the workpiece clearly, beforehand.

4. Lower the Hold Down so that it makes contact with the workpiece. Again DO NOT force the hold down — the workpiece should be allowed to move laterally by hand.

5. Lower the chisel and bit, (or raise the table) so it is directly above the proposed Mortise. If your table is capable of rotating about the column, ensure it is secured with the hole in the table directly beneath the chisel. You should always mark your Mortise on the workpiece clearly, beforehand.

6. The chisel must be square with the workpiece, or shown. Move the complete assembly on the table until you are satisfied it’s then clamp the complete assembly.

7. By hand, allow the workpiece to move laterally by hand.

8. The chisel must be square with the workpiece, or shown. Move the complete assembly on the table until you are satisfied it’s then clamp the complete assembly.
INSTALLATION

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

1. Install the chisel and bit as follows:
   - Mount the Chisel Holder on the collar surrounding the drill press spindle, as shown.
   - It may be necessary to use a collar insert in order for the holder to fit correctly. Three such collars are provided.
   - Tighten the pinch bolt 'A'.
   - Separate the chisel and bit, then insert the chisel up through the hole in the Chisel Holder.
   - Push the chisel up as far as possible into the holder, and nip up the securing screw to temporarily hold it in this position.
   - The opening in the side of the chisel should always be to the right or left, never to the front or rear. The opening allows chips to escape during operation. See 'Adjusting Chisel Parallel to Workpiece' on page 10.

WARNING!
Take great care when handling the chisel and bit... the edges are extremely sharp.

NOTE:
Use the plastic protection cap (provided), whenever possible...

2. Push the bit up through the chisel, and into the opened jaws of the chuck.
   - IMPORTANT! A clearance of 1/16" (1.5mm) MUST exist between the mating faces of the chisel and bit, as shown in Fig. 2A. If... also be noted that it may be necessary to increase the size of the gap with hardwoods, or when cutting deep mortises.

3. Attach the Fence and the Hold Down Support to the table in the manner shown.
   - Do not fully tighten the wing nuts at this stage. Note that the securing bolts (A) are extra long. This is to allow a piece of timber to be placed beneath the fence, in order to increase the distance between the chisel and bit on breakthrough (Depending upon the type of table being used). Such a setup is shown in '4' below.

4. Insert the Hold Down Post into the hole in the hold down support, and secure, then slide the Hold Down on to it, securing it temporarily with the securing knob.

WARNING:
While it is possible to increase the distance between the chisel and bit on breakthrough, care must be taken to ensure that the chisel holder is clear of the fence, in order to prevent damage to the fence, and to prevent damage to the workpiece, as shown in Fig. 2A.

NOTE:
Correct clearance may be set if the fence is clear of the chisel holder, and lower the holder sufficiently so that the background is clear of the fence. The securing screw must also be tightened, as shown in Fig. 2A.

WARNING:
For your own safety, do not connect the drill press to a power source until the Morticing Attachment is fully assembled, and you have read and understood all safety and operational instructions.