

Chisel Mortising Machine

OWNER'S OPERATING MANUAL & SERVICE INSTRUCTIONS

MODEL: CMS3840

CAUTION: Read the instruction manual before using the appliance

INTRODUCTION

GB - ENGLISH

Operating Instructions

Dear Customer,

Many thanks for the confidence you have shown in us with the purchase of this chisel mortising machine. This manual has been prepared for the owner and operators of a **CMS3840 Mortiser** to promote safety during installation, operation and maintenance procedures. Please read and understand the information contained in these operating instructions and the accompanying documents. To obtain maximum life and efficiency from your machine, and to use the machine safely, read this manual thoroughly and follow instructions carefully.

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1. Declaration of conformity

On our own responsibility we hereby declare that this product complies with the regulations* listed on page 2. Designed in consideration with the standards**.

2. Warranty

We guarantee that the supplied product(s) is/are free from material defects and manufacturing faults.

This warranty does not cover any defects which are caused, either directly or indirectly, by incorrect use, carelessness, damage due to accidents, repairs or inadequate maintenance or cleaning as well as normal wear and tear.

Further details on warranty (e.g. warranty period) can be found in the General Terms and Conditions (GTC) that are an integral part of the contract.

These GTC may be viewed on the website of your dealer or sent to you upon request.

We reserve the right to make changes to the product and accessories at any time.

3. Safety

3.1 Authorized use

This mortiser is designed for mortising wood and similar materials only. Machining of other materials is not permitted and may be carried out in specific cases only after consulting with the manufacturer.

The proper use also includes compliance with the operating and maintenance instructions given in this manual.

The machine must be operated only by persons familiar with its operation and maintenance and who are familiar with its hazards.

The required minimum age must be observed.

The machine must only be used in a technically perfect condition.

When working on the machine, all safety mechanisms and covers must be mounted.

In addition to the safety requirements contained in these operating instructions and your country's applicable regulations, you should observe the generally recognized technical rules concerning the operation of woodworking machines.

Any other use exceeds authorization.

In the event of unauthorized use of the machine, the manufacturer renounces all liability and the responsibility is transferred exclusively to the operator.

3.2 General safety notes

Woodworking machines can be dangerous if not used properly. Therefore the appropriate general technical rules as well as the following notes must be observed.



Read and understand the entire instruction manual before attempting assembly or operation.



Keep this operating instruction close by the machine, protected from dirt and humidity, and pass it over to the new owner if you part with the tool.

No changes to the machine may be made.

Daily inspect the function and existence of the safety appliances before you start the machine.

Do not attempt operation in this case, protect the machine by unplugging the power cord.

Before operating the machine, remove tie, rings, watches, other jewellery, and roll up sleeves above the elbows. Remove all loose clothing and confine long hair.

Wear safety shoes; never wear leisure shoes or sandals.

Always wear the approved working outfit:

- safety goggles
- ear protection

- dust protection



Do not wear gloves while operating this machine.



Install the machine so that there is sufficient space for safe operation and workpiece handling.

Keep work area well lighted.

The machine is designed to operate in closed rooms and must be bolted stable on firm and levelled table surface or on the supplied cabinet stand.

Make sure that the power cord does not impede work and cause people to trip. Keep the floor around the machine clean and free of scrap material, oil and grease.

Stay alert!

Give your work undivided attention.

Use common sense. Do not operate the machine when you are tired.

Keep an ergonomic body position. Maintain a balanced stance at all times.

Do not operate the machine under the influence of drugs, alcohol or any medication. Be aware that medication can change your behaviour.



Never reach into the machine while it is operating or running down.



Keep children and visitors a safe distance from the work area.

Never leave a running machine unattended. Before you leave the workplace switch off the machine.

Do not operate the electric tool near inflammable liquids or gases. Observe the fire fighting and fire alert options, for example the fire extinguisher operation and place.

Do not use the machine in a damp environment and do not expose it to rain.

Before machining, remove any nails and other foreign bodies from the workpiece.

Work only with well sharpened tools.

Machine only stock which rests securely on the table.

Always close the chuck cover before you start the machine.

Specifications regarding the maximum or minimum size of the workpiece must be observed.

Do not remove chips and workpiece parts until the machine is at a standstill.

Do not stand on the machine.

Connection and repair work on the electrical installation may be carried out by a qualified electrician only.



Have a damaged or worn power cord replaced immediately.

Make all machine adjustments or maintenance with the machine unplugged from the power source.



3.3 Remaining hazards

When using the machine according to regulations some remaining hazards may still exist.

The rotating drill bit can cause injury.

Thrown workpieces and workpiece parts can lead to injury.

Dust and noise can be health hazards. Be sure to wear personal protection gear such as safety goggles and dust mask. Use a suitable dust collection system.

The use of incorrect mains supply or a damaged power cord can lead to injuries caused by electricity.



4. Machine specifications

4.1 Technical data

Motor speed	1420 rpm
Drill chuck capacity	3-16mm
Chisel capacity	25 x 25mm
Chisel shank capacity	Ø30/Ø19mm
Head stroke	220mm
Table Size	400x150mm
Fence size	70 x 400mm
Base Size	450x300mm
Chisel centre to fence max	140mm
Under holddown capacity	150mm
Maximum vertical distance table to chisel bushing	320mm
Over Size(LxWxH)	850x700x1720mm
Net weight	85 kg
Mains	120v/230v ~1/N/PE 50/60Hz
Output power	750 W S1

4.2 Noise emission

Acoustic pressure level (EN 11202):

Idling 67,4 dB (A)

In operation 75,5 dB (A)

The specified values are emission levels and are not necessarily to be seen as safe operating levels.

As workplace conditions vary, this information is intended to allow the user to make a better estimation of the hazards and risks involved only.

4.3 Content of delivery

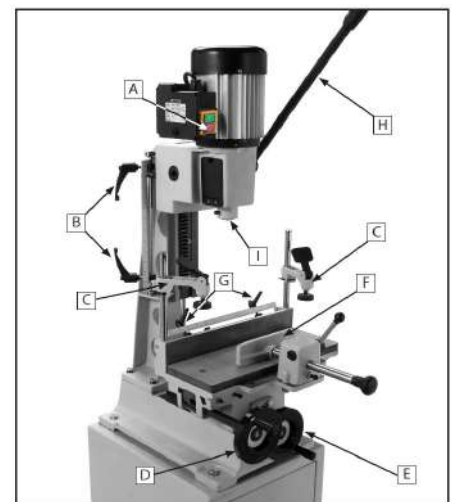


Fig 1

- A.....Switch
- B.....Depth Stop Lock Handles-M8
- C.....Table Clamps
- D.....Left/Right Handwheel
- E.....Forward/backward Handwheel
- F.....Vise
- G.....Table Stop Lock Handles-M8
- H.....Downfeed Handle
- I.....Chisel Bushing

16mm drill chuck
 Chuck key
 Spindle extension
 3/4" (Ø30/Ø19mm) chisel bushing
 Fence assembly
 Work hold down
 MDF table
 Handle
 Gas spring
 Operating manual
 Spare parts list.

5. Transport and start up

5.1 Transport and installation

The machine is designed to operate in closed rooms and must be bolted stable on a firm and levelled table surface.

5.2 Assembly

If you notice transport damage while unpacking, notify your supplier immediately. Do not operate the machine!

Dispose of the packing in an environmentally friendly manner.

Clean all rust protected surfaces with a mild solvent.

To mount the mortiser on the cabinet:

1. With the help of an assistant, set the mortiser onto the cabinet and align the stand holes with those in the base of the mortiser.
2. Have your assistant hold the mortiser in place while you secure the main body to the cabinet with the hex bolts, flat washers, lock washers, and hex nuts, as shown in Fig 2.

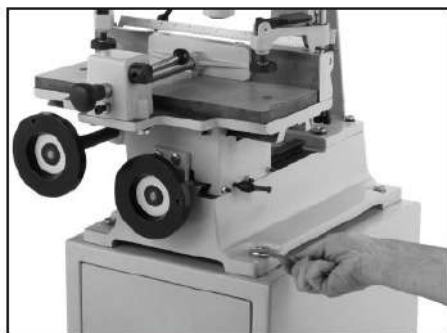


Fig 2

To install the downfeed handle(Fig 3):

1. Remove the hex nut, compression spring, and the two fender washers from the end of the downfeed handle(B Fig 3).
2. Install the downfeed handle into the handle clutch(C) as shown in Fig 3. Ensure that the handle pin(A Fig 3) sits in the groove in the handle clutch.
3. Secure the downfeed handle in place with the fender washers, spring, and hex nut removed in Step 1.

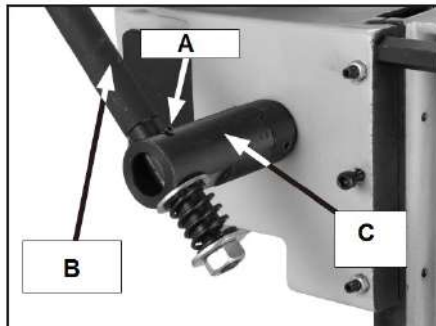


Fig 3

Attach the work stop to either side of the table using the cap screws, flat washers and lock washers as shown in Fig 4.

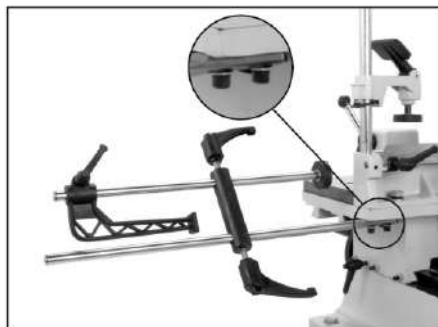


Fig 4

Thread the handwheel handles into the handwheels as shown in Fig 5.



Fig 5

Attach the MDF table to the base using two screws.

5.3 Mains connection

Mains connection and any extension cords used must comply with applicable regulations.
 The mains voltage must comply with the information on the machine licence plate.

The mains connection must have a 10 A surge-proof fuse.

Only use power cords marked H07RN-F

Connections and repairs to the electrical equipment may only be carried out by qualified electricians.

5.4 Dust collection

Use a suitable dust collection and filtration system to avoid a high dust concentration in the air.

Dust the machine down after each use and as necessary.

5.5 Starting operation

You can start the machine with the green on button. The red button on the main switch stops the machine.

6. Machine operation

6.1 Depth Stop

Adjusting the lower depth stop handle(B Fig5) will make sure the mortise cuts are not too deep and are consistent.

Adjusting the upper depth stop handle (A Fig5) prevents the head from raising any farther than necessary. Always make the mortise at least an 3.175mm(1 / 8") deeper than the tenon to allow room for excess glue to squeeze out.

To adjust the depth stop (Fig 6):

1. Lower the mortising chisel to the desired depth of cut.
2. Tighten the lower depth stop against the bottom of the stop plate(C Fig 6).
3. Raise the mortising chisel until it is clear of the workpiece and tighten the upper depth stop against the top of the stop plate.

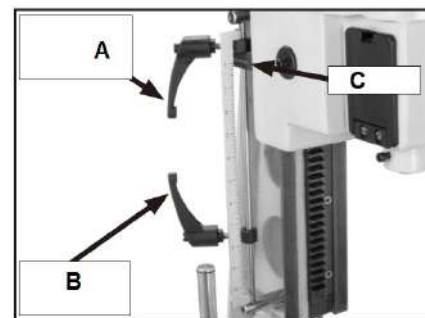


Fig 6

Adjust the fence.

Adjust the hold down so it touches the top of the workpiece and allows it to slide left or right.

Turn on the machine and feed chisel and bit steadily into the workpiece by pulling down the operating handle.

NOTE:

The rate of feed must be fast enough to prevent burning at the tip of the drill bit, but not so fast as to cause the machine to stall. The different rates of feed for different woods must be learned by experience.

After the first cut, the workpiece is moved. The direction of movement must allow the chips to clear freely (Fig 7).

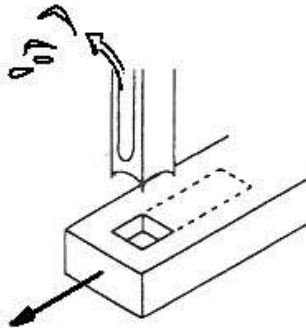


Fig 7

When cutting deep mortises, make the cut in several stages of approx. 25mm each, to allow chips to clear.

To prevent breakout at the back of the workpiece when cutting through mortises, use a piece of scrap material under the workpiece as support.

6.2 Table Controls

Moving the table allows you to create a perfectly straight rectangular mortise with a series of cuts.

To control the table:

1. Move the forward/backward handwheel (A Fig 8) to move the table toward or away from the operator.
2. Move the left/right handwheel (B Fig 8) to move the table horizontally.

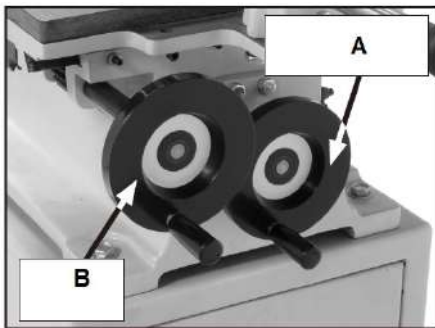


Fig 8

3. Use the table stop handles (A B Fig 9) to control how far the table moves to the left and right.

Note: Use the table stop handles to set the left and right ends of the mortise when setting up to cut a mortise.

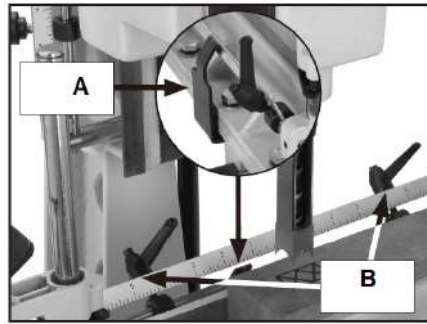


Fig 9

4. Use the table forward/backward lock handle (A Fig 10) to prevent the table from moving forward and back when cutting a horizontal mortise.
5. Tighten the table left/right lock screw (B Fig 10) to lock the table in place when cutting a vertical mortise.

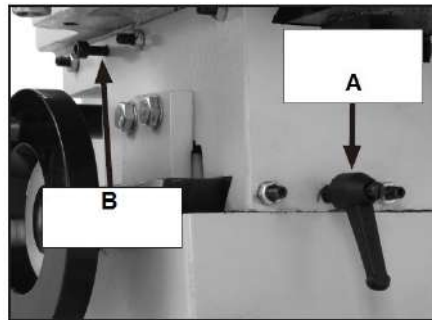


Fig 10

6.3 Table Clamps

To use and adjust the table clamps (Figure 11):

1. Squeeze the small rod clamp (A Fig 11) at the rear of the clamp body to adjust the height.
2. Lift the clamp handle (B Fig 11) to raise the clamp face (C Fig 11), and push it down towards the clamp body to clamp onto a workpiece.

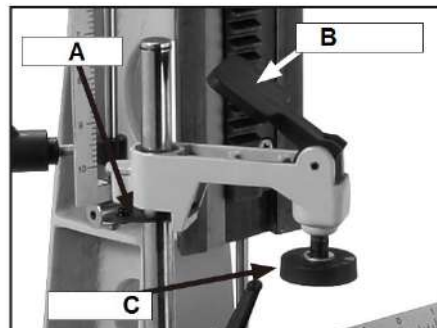


Fig 11

Warning:

Make sure the machine is attached to a firm and stable support surface, to prevent it from tipping during operation. Four holes in the base are supplied for this purpose.

Always keep your hands well clear of the rotating bit.

Always close the chuck cover before you start the machine.

Support long workpieces with helping roller stands.

7. Setup and adjustments

General note:

Setup and adjustment work may only be carried out after the machine is protected against accidental starting by pulling the mains plug.

7.1 Installing chisel and bit

Disconnect the machine from the power source (unplug).

Open the chuck access doors on both sides of the head.

Insert the chisel bushing (3, Fig 12) with the hole facing forward into the head.

Insert chisel and bit together.

Tighten the screw (2, Fig 12) just enough to hold the chisel (4, Fig 12) in place.

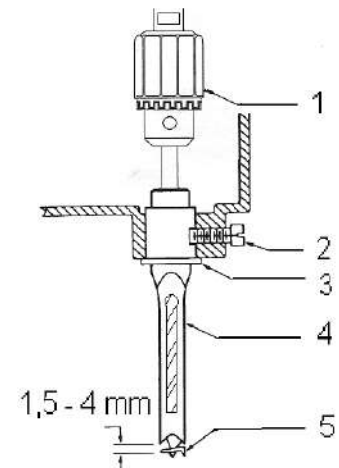


Fig 12

NOTE:

The slot in the chisel should face to the right or left side only. The opening will allow chips to escape during operation.

Push the chisel up as far as possible into the head. Then lower the chisel 1,5 to 4mm, depending on the type of wood being worked. Tighten the screw to hold the chisel in place.

Push the bit up through the chisel opening as far as it will go. Lock the drill bit in place with the chuck key.

Loosen the screw and push the chisel up against the bushing and tighten the screw. This should provide the proper distance between the points of the chisel and the bit.

Close the chuck access doors before starting the machine.

Using bits with shorter shanks:

It will be necessary to attach the spindle extension. Place a 10mm open spanner on the motor spindle and use the chuck key to unscrew the chuck. Attach the spindle extension to the chuck and reinstall.

7.2 To make a mortise:

1. Layout the desired mortise on the workpiece and clamp the workpiece in place with the table clamps and vise.
2. Use the table controls to align the mortising chisel with the layout lines (see Fig 13) and set the depth and table stops.

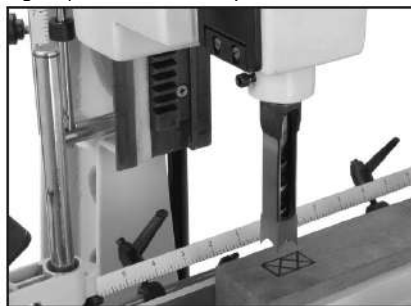


Fig 13

3. Turn the mortising machine **ON** and use the operating handle to steadily feed the mortising chisel into the workpiece.

7.3 Work Stop

The work stop allows you to cut a mortise in the same place on multiple identical parts.

To use the extendable workstop:

1. Attach the work stop to the table as shown on Fig 14.
2. Align the mortising chisel with the layout lines of the workpiece and clamp it in place.
3. Loosen the lock handles on the work stop and slide the stop face against the

end of the workpiece as shown in Fig14, then tighten the lock handles.

4. After the initial mortise is completed, remove the workpiece and slide the new workpiece against the extendable workstop to create an identical mortise.



Fig 14

7.4 180° Head rotation

Remove the four hex socket cap screws at the base and rotate head and column 180°.

Doing this will enable you to outboard mortise taller items.

7.5 Sharpening chisel and bit

The chisel and bit should be kept sharp for best performance.

Sharpen the bit by using a small file, following the original shape of the bit.

File the inside edge of the spur (A, Fig 15), the sides of the centre point (B, Fig 15) and the cutting edge inwards toward the flute of the bit (C, Fig 15)

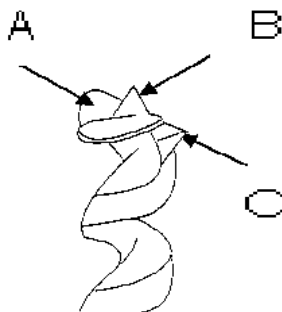


Fig 15

Do not file the outside edges of the spur as this will affect the diameter of the bit.

Sharpen the chisel on the cutting edge inside only.

8. Maintenance and inspection

General notes:

Maintenance, cleaning and repair work may only be carried out after the machine is protected against accidental starting by pulling the mains plug.

The mortise requires only minor maintenance, such as lubrication, routine adjustments and sharpening of chisel and bit.

Clean the machine regularly.

Defective safety devices must be replaced immediately.

Repair and maintenance work on the electrical system may only be carried out by a qualified electrician.

9. Trouble shooting

Motor doesn't start

*No electricity-
check mains and fuse.

*Defective switch, motor or cord-
consult an electrician.

Chisel clogged with chips

*Clearance chisel to bit not enough-
set bit 1,5 to 4mm below chisel.

*chips cannot clear the chisel-
observe chisel slot and working order.

Burned Wood

*Feed too slow-
increase feedrate.

*Worn chisel or bit-
sharpen chisel and bit.

10. Environmental protection

Protect the environment.

Your appliance contains valuable materials which can be recovered or recycled. Please leave it at a specialized institution.



This symbol indicates separate collection for electrical and electronic equipment required under the WEEE Directive (Directive 2012/19/EC) and is effective only within the European Union.

11. Available accessories

Refer to the JET-Pricelist for various accessories.