



RECORD POWER
SHEFFIELD · ENGLAND®



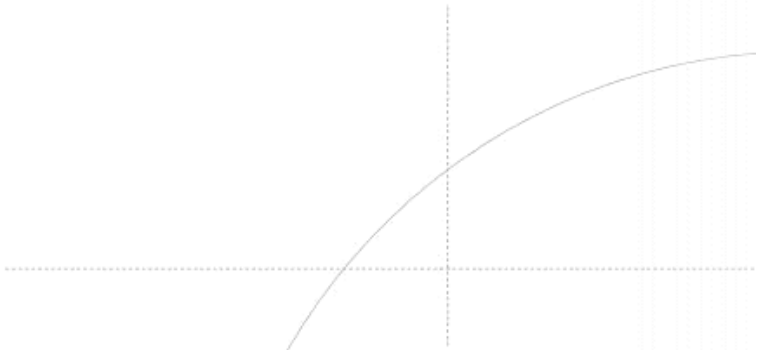

RPM75

Bench top
Morticing Machine

Instruction
Manual

IMPORTANT

For your safety read
instructions carefully before
assembling this product.
Save this manual for
future reference.



Woodworking Machines & Accessories

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Record Power Guarantee

Terms and conditions

Record Power guarantees the mechanical parts of its machines against faulty construction for a period of 5 years from date of purchase. The guarantee is limited to the obligation to repair or replace any parts which prove to be faulty.

All motors, electrics and electronic equipment have a guarantee period of 6 months.

It is understood that in all cases the guarantee does not entitle the customer to any refund for damages, interruption of work or any indirect damage.

Parts will only be replaced if found faulty through a manufacturing defect.

The guarantee does not cover the replacement of worn consumable parts such as belts, bearings, cogs, wheels and blades which will all need replacement over time dependent on use, loading and maintenance of the machine.

Please note the guarantee does not cover

- Accidental damage
- General wear and tear of mechanical parts
- Incorrect electrical connection
- Any unapproved machine modification
- Failure to follow manufacturers instructions
- If machine is used for any material other than that specified in the manufacturers handbook.

No claim for damage in transit will be entertained if goods are not signed for as damaged

Unless stated otherwise, the machines are not intended for continuous industrial use, doing so will invalidate the guarantee.

Claims for the recovery of carriage incurred returning the product, will only be entertained if the product has been demonstrated to fail because of a manufacturing defect.

All guarantee claims should be made through the supplying dealer and must accompanied by proof of purchase.

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1. Health & Safety Guidance

READ ALL THE INSTRUCTIONS IN THIS MANUAL CAREFULLY BEFORE ASSEMBLY, INSTALLATION AND USE OF THIS PRODUCT.

KEEP THESE INSTRUCTIONS IN A SAFE PLACE FOR FUTURE REFERENCE.

WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.

SAFE OPERATION

1. Eye Protection

The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Always wear safety glasses or other suitable eye protection. Wear safety glasses at all times. Everyday glasses only have impact resistant lenses. They are not safety glasses which give additional lateral protection.

2. Keep work area clear.

Cluttered areas and benches invite accidents and injuries.

3. Consider work area environment.

Do not expose the machine to rain or damp conditions.

- Keep the work area well lit.
- Do not use the machine in the presence of flammable liquids or gases.

4. Guard against electric shock.

Avoid body contact with earthed or grounded surfaces.

5. Keep other persons away (and pets).

Do not let persons, especially children, not involved in the work, touch the machine, or extension cord (if used) and keep visitors away from the work area.

6. Store idle tools.

When not in use, tools should be stored in a dry locked-up place, out of reach of children.

7. Do not force the machine.

It will do the job better and work more safely if operated at the speed at which it was intended.

8. Use the right tool.

- Do not force small tools to do the job of a heavy-duty tool.
- Do not use tools for purposes not intended.

9. Dress properly.

- Non-slip footwear is recommended.
- Do not wear loose clothing, neckties or jewelry; they can be caught in the moving parts.
- Roll up long sleeves above the elbow.
- Wear protective hair covering to contain long hair.

10. Use protective equipment

- Use safety glasses. (See note 1. above)
- Use face or dust shield if cutting operation creates dust.

11. Connect dust extraction equipment.

(See additional safety information for morticers, note 10)

12. Do not abuse the cord.

Never yank the cord to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

13. Secure work.

Ensure that your work piece is properly fixed before commencing to cut.

14. Do not overreach.

Keep proper footing and balance at all times.

15. Maintain tools with care.

- Keep chisels and bits sharp and clean for better and safer performance.
- Follow instructions for lubrication and changing accessories.
- Inspect electric cords periodically and, if damaged, have them repaired by an authorized service facility.
- Inspect extension cords (if used) periodically and replace if damaged. Always use proper size extension cord.

16. Disconnect Machine.

When not in use, before servicing etc, disconnect the machine from the power supply.

17. Never leave machine running unattended.

Turn power off, do not leave machine until it comes to a complete stop.

18. Remove adjusting keys and wrenches.

ENSURE chuck key is removed from chuck before switching the machine 'ON', any adjusting wrenches should also be removed from the machine.

19. Avoid unintentional starting.

- Ensure the switch is in the "OFF" position before turning on the power from the main electricity supply.

20. Out-door Extension Leads.

Your morticer should not be used outdoors.

21. Stay alert.

Watch what you are doing, use common sense and do not use the morticer when you are tired.

22. Check for damaged parts.

• Before use of the machine, it should be carefully checked to determine that it will operate properly and perform its intended function.

• Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation.

• A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated in this instruction manual.

Have defective switches replaced by an authorized service centre.

• Do not use the machine if the switch does not turn on and off.

23. Warning!

• The use of any accessory or attachment, other than one recommended in this instruction manual, or recommended by our Company may present a risk of personal injury.

24. Have your machine repaired by a qualified person.

• This electric machine complies with the relevant U.L. safety rules. Only qualified persons using original spare parts should carry out repairs. Failure to do this may result in considerable danger to the user.

Maintenance and Servicing

This machine requires very little maintenance. This handbook gives clear instructions on installation, set up and operation. Read these instructions carefully. Remember always to switch off and unplug from the main electricity supply before carrying out any setting up or maintenance operations.

Should you need advice on repair or maintenance on this product, our Customer Service Department would be happy to assist you.

2. Additional Safety Instructions For Morticing Machines

READ ALL THE INSTRUCTIONS IN THIS MANUAL CAREFULLY BEFORE INSTALLATION AND USE OF THIS PRODUCT. KEEP THESE INSTRUCTIONS IN A SAFE PLACE FOR FUTURE REFERENCE.

WARNING:

FOR YOUR OWN SAFETY, DO NOT ATTEMPT TO OPERATE YOUR MORTICER UNLESS IT IS COMPLETELY ASSEMBLED AND INSTALLED ACCORDING TO THE INSTRUCTIONS.

1. Morticer must be bolted down to a stand or workbench for stability.
2. Avoid awkward hand positions, where a sudden slip could cause a hand to move into rotating bit.
3. Remove all loose knots and bark before installing workpiece.
4. If tools are stored near morticer, hang them on wall near-by. Do not lay them on bench near the machine keeping hands well away from revolving bit when reaching for a tool.
5. DO NOT perform any operation when hand holding the workpiece.
6. DO NOT mount a reamer, milling cutter, wire wheel, buffing wheel, drill bit or any other tool into chuck.
7. It is normal for the motor to run hot. Therefore care should be taken to avoid touching the motor, particularly when changing chisels and bits.

8. **WARNING LABELS** – It is important that labels bearing Health & Safety Warnings are not removed or painted over. New labels are available from Customer Services.

9. **MECHANICAL SAFETY** – The security of all clamps, guards and work holding devices should be checked before switching on.

10. **WOOD DUST** – The fine particles of dust produced in wood cutting operations can be a long term health hazard if excessive. Some woods do give off irritant dust which may cause a burning sensation. We therefore strongly recommend the use of a dust collector on your morticer and suitable dust mask/visor.

WARNING:

DO NOT ALLOW FAMILIARITY (GAINED FROM FREQUENT USE OF YOUR MACHINE) TO BECOME COMMONPLACE. ALWAYS REMEMBER THAT A CARELESS FRACTION OF A SECOND IS SUFFICIENT TO INFLICT SEVERE INJURY.

For further help on any of the above matters please contact our Customer Services Department
Tel: 0870 770 1777
E-mail: sales@recordpower.co.uk

3. Specification

Work Capacities

Max height under fork	6" (150 mm)
Chisel capacity	1/4" (6.4mm) - 9/16" (14.3mm)
Feed distance	3" (75mm)
Max dist. from fence to chisel centre	3 1/4" (95mm)

Motor	240 V 50Hz 4.2A
Motor Power	550W
Speed	2800 min-1
Noise emission	< 85dB(A)

Overall Dimensions

Width	10 1/2" (267mm)
Depth	13" (330mm)
Height	27 1/2" (698mm)
Weight	25kg

4. Unpacking, Assembly & Installation

Remove machine parts from packaging and set down in a clean uncluttered area. Check contents against parts list.

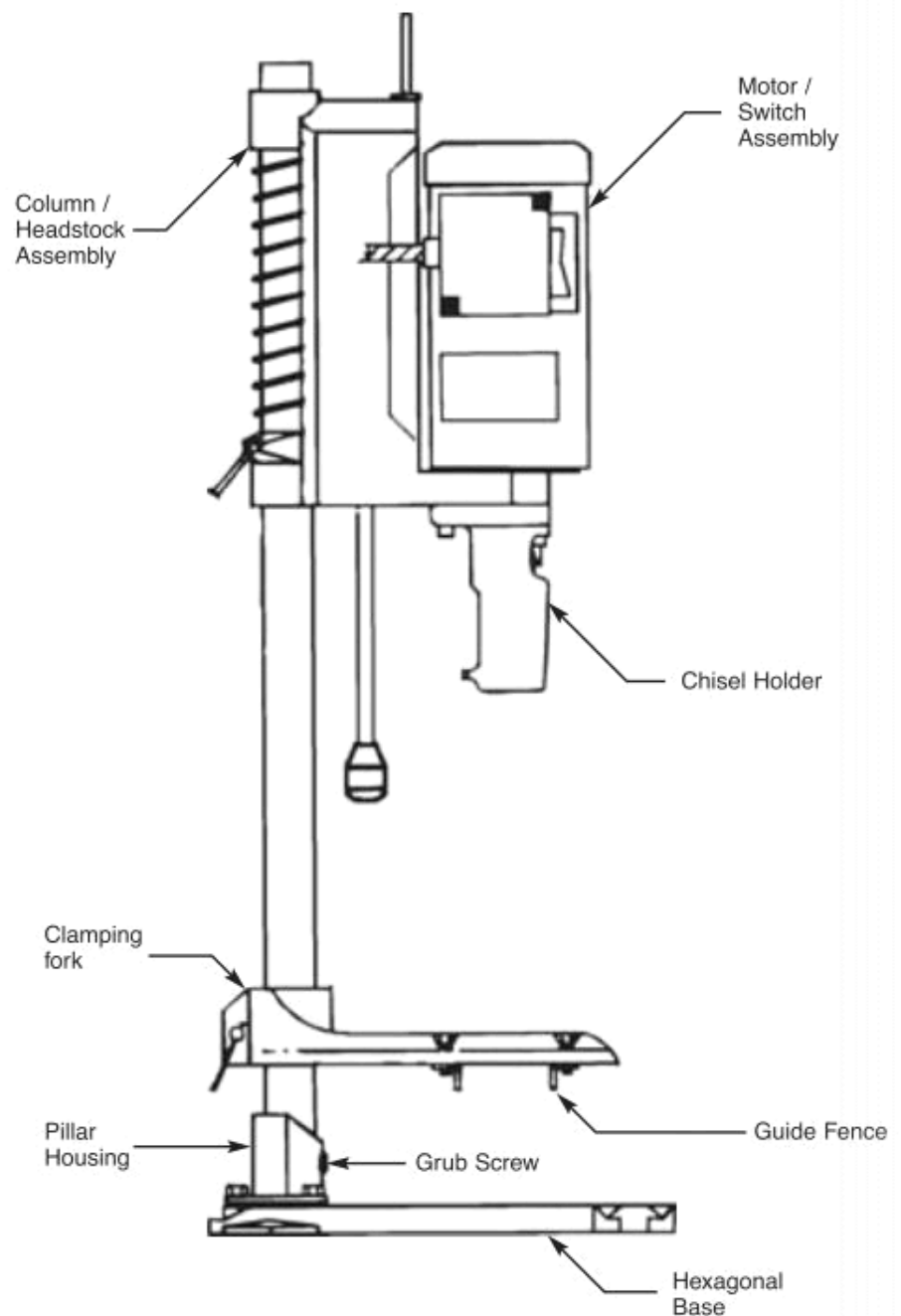
Then proceed as follows:-

1. Fix pillar housing to hexagonal base using three M10x35mm bolts, washers and nuts.
2. Position M10 pillar housing nut into cast nest inside pillar housing and locate from the outside using M10 grub screw. Do not fully tighten at this stage.
3. Insert column / headstock assembly through clamping fork and into pillar housing.
4. Place the guide fence units on the underside of the clamping fork and in the desired position secure using the M8x20mm bolts, washers and wing nuts.

Ensure the operating instructions are studied before use

WARNING: This machine must be firmly secured to a bench or other rigid structure by utilising the bolt holes in the base.

Failure to do so may result in falling of the machine during use, leading to personal injury by the operator.



Wiring Instructions

The mortiser supplied is fitted with a plug.
The wires in the mains lead are coloured in accordance with the following codes.
Green & Yellow: **Earth** Blue: **Neutral**
Brown: **Live**

If a new plug is fitted

The green and yellow wire must be connected to the terminal that is marked with the letter 'E' or by the earth symbol.
The blue wire must be connected to the terminal which is marked with the letter 'N'.
The brown wire must be connected to the terminal which is marked with the letter 'L'.

Machines for use in the UK are fitted with a BS1363 amp. 3 pin plug. Replacement of the power cable should only be carried out by a qualified electrician.

R.C.D (Residual Current Device)

For your additional safety, we always recommend the use of a R.C.D. (Residual current breaker, or Earth leakage circuit breaker).

5. Headstock Position & Adjustment

The headstock position on the column is determined by considering the depth of the workpiece, chisel length and depth of mortice.

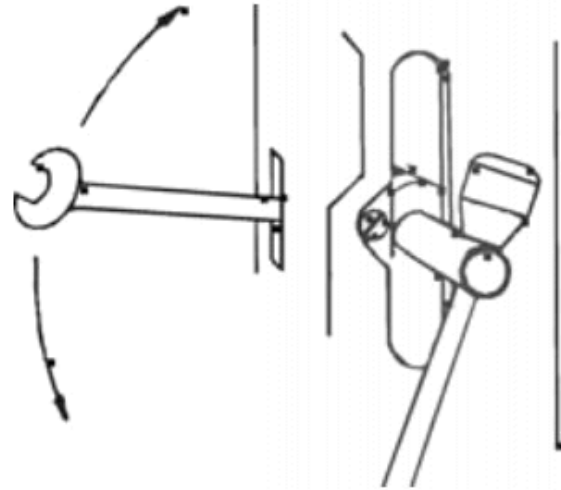
Adjustments must be made before the chisel and bit are attached to the holder and are carried out as follows:-

1. Release the collar locking handle (NOTE: Weight of the headstock and motor must be supported before releasing the collar locking handle.)
2. The headstock can be moved vertically and rotated on the column to the desired position.
3. Re-tighten the collar locking handle. The downward feed from this position is obtained by rotating the main handle.

If the rotational play of the headstock on the column is excessive, adjustment may be made as follows.

1. Remove the motor from the headstock.
2. Rotate the main handle until the head of the adjusting screw is observed through the side window (see Fig. 1).
3. Fit a 10mm wrench through the front window on to the lock nut, which should then be eased off. The adjusting screw should then be turned until slight resistance is felt. It may be necessary to slacken off a fraction otherwise the feed action may be stiff after the lock nut has been re-tightened.
4. Re-tighten the lock nut.
5. Replace the motor on the headstock.

Fig 1.



DEPTH STOP

The depth stop is adjusted as follows:-

1. Loosen the depth stop locking nut.
2. Set the depth stop rod to the desired position (this depends on the thickness of the workpieces, depth of the mortice etc.)
3. Re-tighten depth stop locking nut.

NOTE: Ensure the depth stop is set so that the chisel and bit do not reach the base plate surface when at the bottom of the stroke. This will avoid accidental damage to the chisel, bit and machine base plate.

FENCE

The position of the fence fork on the column is adjusted by loosening the fork locking handle, re-positioning the fork and re-tightening the locking handle. The fence guides can be re-positioned on the fork by loosening the wing nuts, re-positioning the guides and re-tightening the wing nuts.

6. Setting Chisel & Bit

Various morticing machines require various bit shank lengths. A new bit has a shank of universal length which will be longer than needed. The shank of the bit is unhardened so it can be simply cut to length using a hacksaw.

Carefully determine the necessary length, ensuring there is sufficient shank length to securely fix it into your machine chuck when set up with the correct clearance between chisel mouth and nose bit.

The correct setting of chisels and bits is vital for successful mortice cutting and long tool life.

Place the chisel into its socket in the chisel holder then put a coin about 1/16" (1.5mm) thick between the chisel shoulder and the chisel holder face to prevent the chisel being pushed fully home (see Fig. 2) and tighten the chisel securing screw. Put the bit into the drill chuck. Push it as far as possible into the chisel and secure the bit in the chuck. Loosen the chisel securing screw, remove the coin then push the chisel fully home in the chisel holder socket. Re-tighten the chisel securing screw.

This setting will allow sufficient clearance for the bit to run smoothly in the chisel and cut just ahead of the chisel. This set up allows the chips to pass inside the chisel body and exit through the slot in the chisel side. Position the chisel so that the chips are emptied into a previously cut part of the mortice (see Fig. 2).

Ensure the correct clearance between the chisel and bit is always maintained.

Ensure the chisel and bit are securely held in the chisel holder and chuck. If the bit is not tightly secured it may move up into the mouth of the chisel during use. The side lips of the bit will rub against the chisel, the wood chips will not be able to pass up the inside of the chisel and out through the side slot. This will eventually cause the chisel to break.

It is recommended that for best results only 'Record Power' chisels and bits should be used in this machine.

7. Morticing

The following steps should be followed when attempting to cut a mortice.

1. Mark out the workpiece where the mortice is required.
2. Set the chisel holder position.
3. Assemble and set the correct chisel and bit to the machine (see Fig. 2) and adjust the depth stop (see page 5).
4. Position the workpiece on the base, then adjust the fence (see page 5). Check that the chisel is square to and parallel with the workpiece. Secure the workpiece in the fence arms.
5. Connect the machine to the power source and press the START switch marked 'I'.
6. Pull the feed handle towards the operator to engage the chisel and bit into the workpiece. The rate of penetration into the workpiece must be such that the bit does not burn and that the motor does not stall. Suitable feed rates to suit various types of timber will be found with experience.

7. When the depth stop is reached, raise the feed handle to withdraw the chisel bit from the workpiece.
8. Press the STOP switch marked '0', wait till the machine comes to a complete standstill. Re-position the workpiece, secure it in the guide fence and repeat stages 5 – 8 until the desired mortice has been cut.
9. If cutting a deep mortice, it is advisable to take the chisel down in 1" (25mm) stages, moving the workpiece along for each successive cut. This will enable the chips to clear from the chisel and avoid overheating which may cause damage to the chisel and bit.
10. It is important that after the first cut has been made, the workpiece is moved along in the correct direction relative to the slot in the chisel side. This is to allow the chips to escape freely from the chisel (see Fig. 3).

WARNING:

Ensure chuck key is removed from chuck before switching 'ON' machine. Failure to do so could result in ejection of chuck key leading to personal injury of the operator.

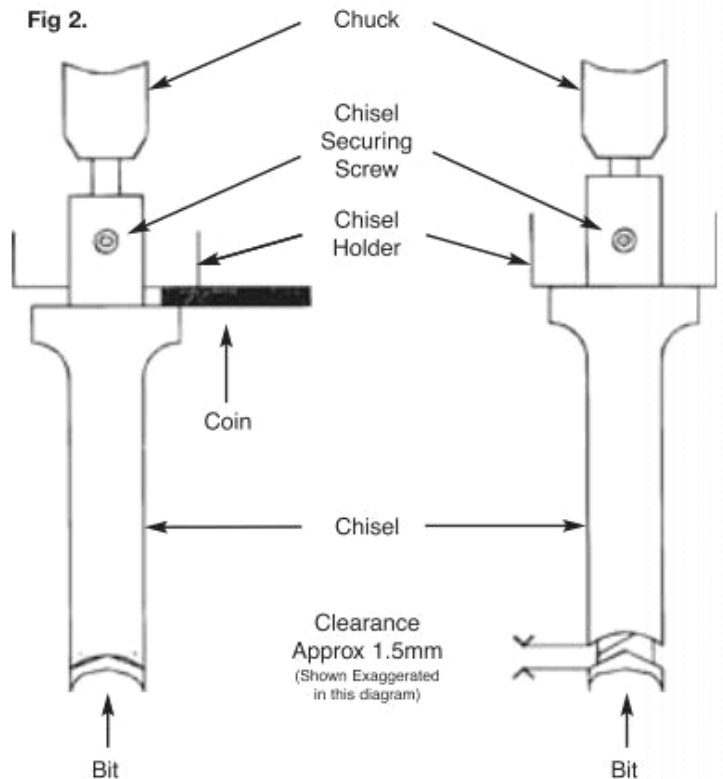
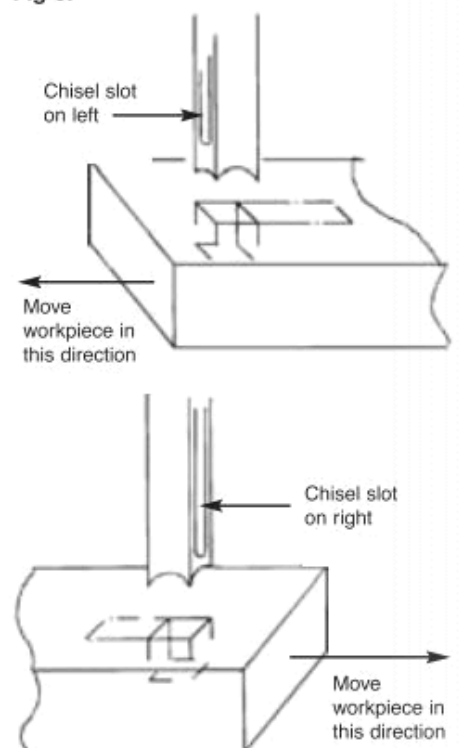


Fig 3.



1. When cutting a 'straight through' mortise, a piece of wood should be placed under the workpiece to prevent 'break-out' of the workpiece and to avoid damaging the chisel and bit.
2. If a 'through' mortise is required an alternative method to 'straight-through' cutting is as follows:-
 - a. Put a mark on the side of the workpiece which will be against the machine fence.
 - b. Mark out the workpiece where the mortise is required.
 - c. Cut the mortise halfway through the workpiece, as described in sections 5 – 8
 - d. Turn the workpiece over. Ensure the side that was previously against the fence is still against the fence and cut out the remainder of the mortise.
3. When using chisel sizes 1/4" to 1/2" inclusive, the chisel bush must be used to allow the smaller diameter chisel shanks to fit into the chisel holder.
4. Never use a chisel beyond its effective depth.

NOTE:

To maintain optimum machine performance the following points should be adhered to.

1. Ensure chips are cleared from the workpiece (chips from resinous wood may be more difficult to clear).
2. Ensure chisels and bits are kept in a sharp condition and are correctly formed. Worn bits lead to poor chip clearance which will result in chisel breakage.
3. Moving parts should be oiled occasionally.

8. Maintenance of Chisels and Bits

SHARPENING THE SPURS

A well sharpened bit will cut fine broken chips which will pass easily and quickly through the twist and are ejected through the slot in the chisel side.

To sharpen the spurs, use a small square or flat smooth file and sharpen on the inside only (see Fig. 4).

SHARPENING THE CUTTER

Use a three square smooth file to sharpen the cutters and always sharpen from below, with the file working in the throat of the bit (see Fig. 5).

Fig 4.

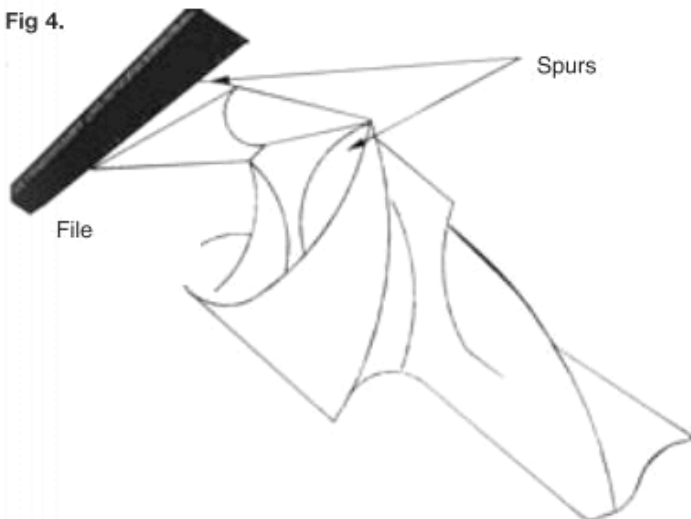
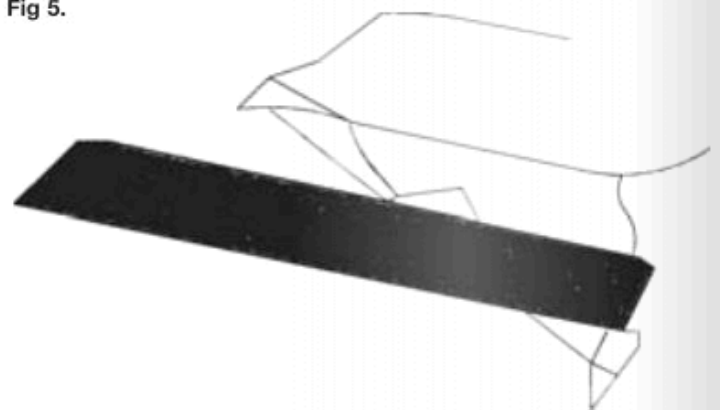


Fig 5.



Never sharpen or stone the bit on the outside or attempt to grind it. If any doubts exist as to the suitability of the bit after prolonged use and repeated sharpening, discard it and purchase a new one. The chisel is the more expensive component and a bad bit will impose a great strain on the chisel.

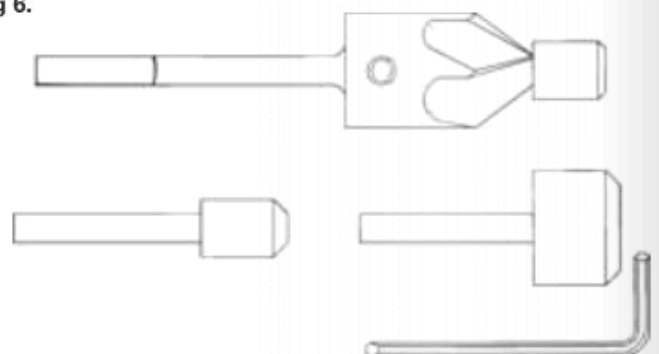
To sharpen the chisel a special countersinking tool is required (see Fig. 6), also listed under 'Accessories' within the Parts List at the back of this manual. This has interchangeable pilots to suit each size, these fit exactly into the chisel bore and are held in place by a socket screw and locked with a socket wrench.

The use of this tool ensures that all four cutting edges will be evenly sharpened and maintained in the correct shape and bevel. Place the chisel carefully in a vice, fit the tool into a hand operated drill, several turns on the tool will produce a fine cutting edge.

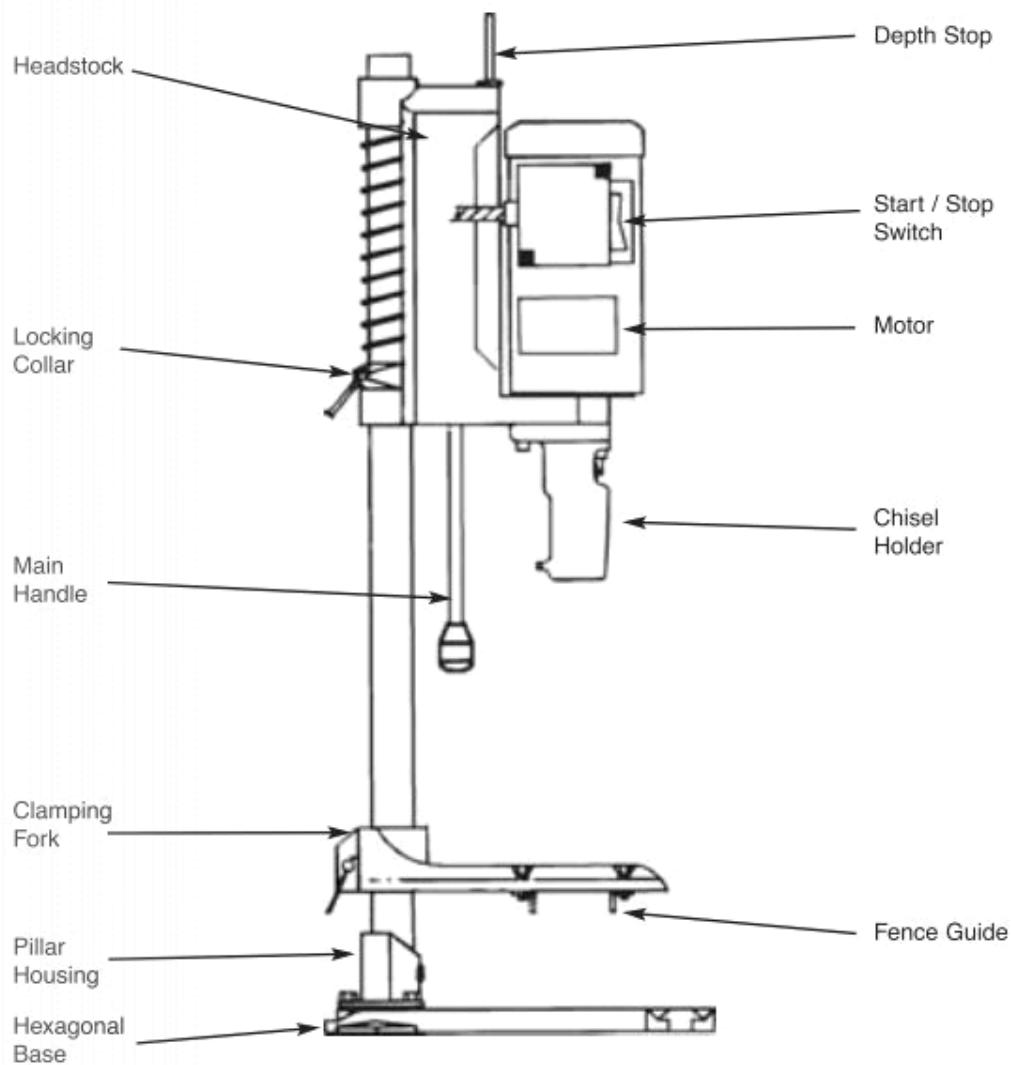
NOTE:

The inside corners of the chisel must be finished with a fine file. Never grind a chisel. Never sharpen it on the outside. Always protect it from possible damage.

Fig 6.

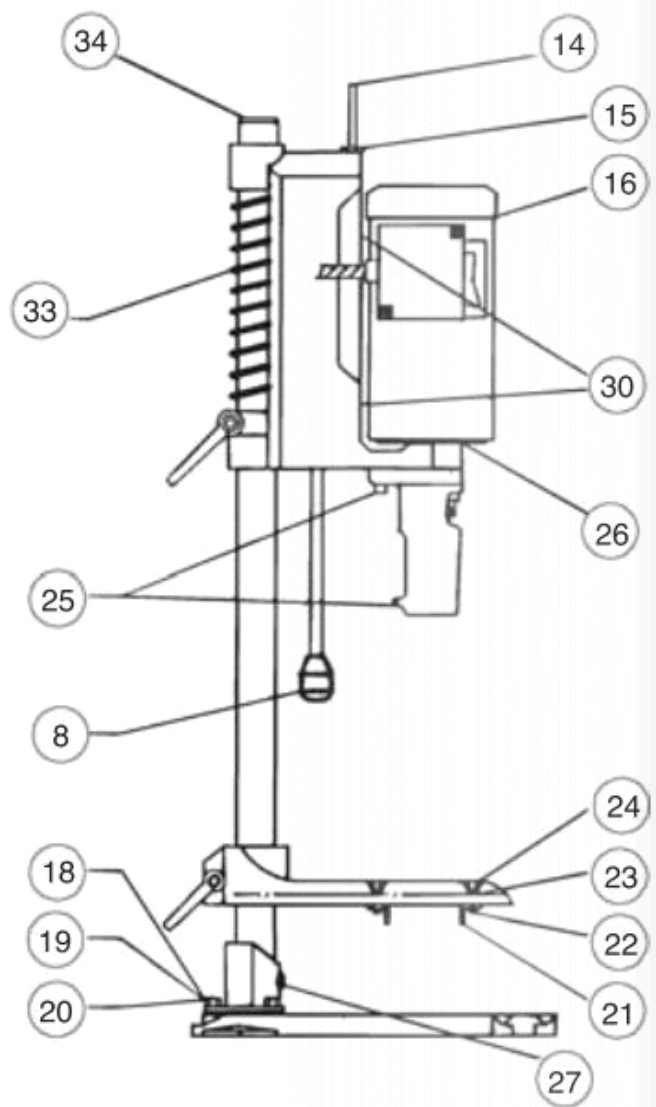
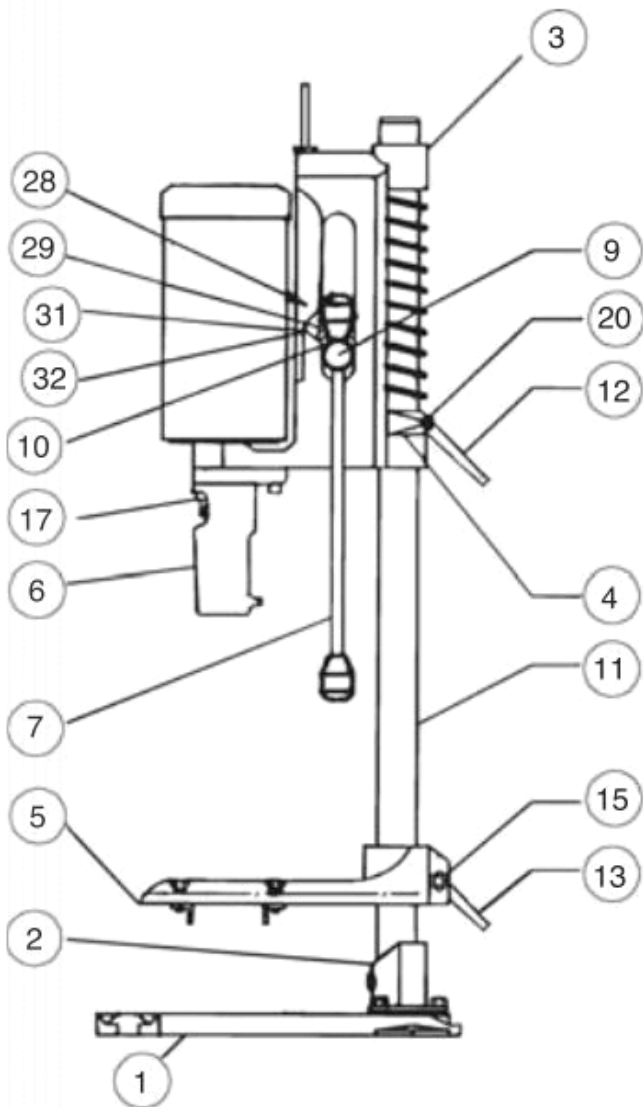


9. Control Identification & Function



CONTROL	FUNCTION	OPERATION / COMMENT
ON / OFF Switch	Starts and Stops Motor.	STOP marked '0' – START marked '1'. Ensure switch is in '0' when connecting to power source.
Depth Stop	Limits travel of headstock to distance set by operator.	Release lock-nut to set depth stop.
Motor	Drives 'Bit' during cutting operation.	Will run hot during extended use.
Chisel Holder	Secures chisel during cutting operation.	Secured in position by 6mm x 18mm cap screw.
Fence Guide	Positions workpiece for location of mortice to be cut.	Adjust by slackening 'Wing Nuts', then reposition to suit.
Hexagonal Base	Base on which workpiece sits	Ensure base is bolted down to a solid base.
Pillar Housing	Locates Column to Base.	Occasional light lubrication to aid movement of Headstock and
Clamping Fork .		
Clamping Fork	Prevents workpiece 'lifting' during operation.	Release 'Ratchet' type handle to adjust.
Main Handle	Feeds headstock to workpiece.	Firm pressure required to operate.
Locking Collar	Locks headstock assembly in position on column.	Release 'Ratchet' type handle to adjust.
Headstock	Carries motor assembly.	Occasional light lubrication of rack and pinion.

10. Spare Part Identification



Item No.	Part No.	Description	Qty
1	ZZNB	Hexagonal base	1
2	ZSS	Column housing	1
3	AKHS	Headstock	1
4	ZLC	Collar	1
5	ZLO	Clamping fork	1
6	ZLP	Chisel holder	1
7	ZLE	Main handle	1
8	CLKK	Handle knob	1
9	ZLF	Pinion spindle	1
10	ZLG	Pinion	1
11	ZSL	Column	1
12	CLRB	Collar locking handle	1
13	CLRD	Fork locking handle	1
14	ZLK	Depth stop	1
15	ZACB	8mm hexagonal nut	2
16	AKCM	Motor, switch, cable and plug	1
17	AKMC	Chuck	1
18	ZADF	Column housing screw	3
19	ZABP	Column housing washer	3
20	ZABN	10mm hexagonal nut	4

Item No.	Part No.	Description	Qty
21	ZLR	Guide fence	2
22	ZADB	Guide fence set screws	4
23	ZADD	Guide fence washers	4
24	ZADC	Guide fence wingnuts	4
25	ZABK	Chisel holder lock screw	2
26	ZACN	Motor clamping screw	4
27	ZAJI	10mm dia. x 16mm hexagonal socket screw	1
28	ZACS	5/32" x 1" Seloc pin	1
29	ZLM	Rack	1
30	ZACV	Rack fastening screws	2
31	ZACW	Alignment screw	1
32	ZACZ	Alignment nut	1
33	ZLN	Spring	1
34	ZDH	Plastic plug	1
35	ZADA	5mm hexagonal socket wrench	1
36	ZAGT	4mm hexagonal socket wrench	1

ACCESSORIES

PART REF.	DESCRIPTION
R539-1	Chisel Sharpening Tool (1/4" - 9/16")

EU Declaration of Conformity

Cert No: EU / MORTICE / 3

RECORD POWER LIMITED, at Unit B, Adelphi Way, Ireland Industrial Estate, Staveley S43 3LS declares that the machinery described:-

1. Type: **Bench top morticing machine**
2. Model No: **RPM75**
3. Serial No

Conforms with the following directives:-

MACHINERY DIRECTIVE (repealing / replacing Directives	98/37/EC 89/392/EEC 91/368/EEC 93/44/EEC 93/68/EEC)
LOW VOLTAGE DIRECTIVE and its subsequent amendment	73/23/EEC 93/68/EEC
ELECTRO-MAGNETIC COMPATIBILITY DIRECTIVE and its subsequent amendments	89/336EEC 89/336EEC 89/336EEC



and complies with the relevant essential health and safety requirements.

Signed.....*Andrew Greensted*.....Dated: **20/10/03**

Andrew Greensted
Managing Director