# 1/2" BENCH TOP MORTICER Model F14-650





## 1/2" Bench Top Morticer

## **FOX MODEL F14-650**

## **TABLE OF CONTENTS**

Safety instructions	Page 3
Specifications	Page 6
Electrical connections	Page 6
Environmental protection	Page 7
• Symbols	Page 7
Unpacking and cleaning	Page 8
Know your morticer	Page 8
Assembly	Page 9
Operating controls and adjustments	Page 11
Maintenance	Page 13
Parts diagram	Page 15
Parts list	Page 16
DART Tool Group Guarantee	Page 17
Declaration of Conformity	Page 18



#### ATTENTION:

- Read the instructions for use carefully before using the machine
- This device meets current safety standards for electrical machines.
- Incorrect use may result in injury. Anyone not familiar with the instructions for use should not use the machine. Keep these instructions for use safe.

#### **SAFETY INSTRUCTIONS**

ALWAYS DISCONNECT THE MACHINE FROM THE POWER SOCKET BEFORE ATTEMPTING ANY MAINTENANCE.

Keep a safe working zone for both staff and equipment. NO CHILDREN must be allowed in the working zone under any circumstance.

The machine must be always disconnected when not in use. Use the on/off switches on the machine. Always disconnect the machine by pulling the plug, do not pull the power cord.

Before using the machine, remove all tools used for setup and keep them away from your working zone. Reconnect the machine. Check that the working zone is clear and that there is plenty room to work with the wood.

Ensure you are in good working position. If the work will produce dust or small pieces, wear safety gear, protective glasses, gloves, a mask and ear defenders. If you have long hair, tie it up. Do not wear watches or bracelets. Wear shoes with good grip and remember to never place your fingers too near the blade.



Do not use the machine if you are tired or distracted because you risk injury.



Do not use this machine anywhere containing flammable liquids and/or volatile gases.

- 1. Keep your working area clean. Untidy working zones and busy workbenches invite injuries.
- 2. **Avoid** a dangerous environment. Do not expose machines to rain and not use them in wet places. Ensure your working zone is well lit. Do not use the machine where there is gas or flammable liquids.
- 3. **Protect yourself** from electric shocks. Avoid touching earthed surfaces.
- 4. **Keep** children and visitors well away from the working area.
- 5. **Tidy** up any tools not in use. When tools are not used, they should be kept in a dry, locked place, out of reach of children.
- 6. **Do not force** the machine. It will work better when used with the pressure it was designed for.
- 7. **Use** the correct tools. Do not force a small tool to do the work of a bigger tool. For example, do not use a circular saw to cut branches or logs.
- 8. **Wear** appropriate clothing. Avoid loose clothing, and remove jewellery which could become caught in moving parts. Non-slip shoes are particularly recommended when working outside. Keep long hair tied up.

- 9. Always wear safety glasses. Also wear a mask if operating the machine creates dust.
- 10. **Do not** mistreat the power cord. Never use the power cord to pull out the plug. Keep the power cord away from heat, oil and sharp edges.
- 11. **Do not** bend over the machine. Keep your balance at all times.
- 12. Keep tools in good condition. Clean tools to obtain the best results with them. Follow instructions to grease and change accessories. Regularly check the power cord and replace it if damaged. Keep handles dry, clean and free from oil and grease.
- 13. **Disconnect** the tool when not in use, before the maintenance and while changing accessories such as blades, drills, etc.
- 14. **Remove** all maintenance tools. Get used to checking that all maintenance tools are removed before using the machine.
- 15. **Avoid** accidentally starting the machine. Make sure that the switch is in the "OFF" position before connecting the power.
- 16. If the machine is used outside, use only extension leads designed for outdoor use.
- 17. **Be observant.** Use common sense when operating machinery. Do not use the tool when tired.
- 18. **Inspect** parts before use. Before continuing to use the tool, inspect any protective parts) which could be damaged to make sure that they work well. Verify that the moving parts are properly aligned, and are not jammed or broken. Check the assembly and any other conditions which may affect the correct functioning of the machine. Any damaged part or guard must be repaired or replaced by an approved after-sales service centre. Do not use the tool if the switch does not work correctly.
- 19. **Warning**: the use of any non-recommended accessory can present a health risk.
- 20. **Have the machine repaired** by a qualified person. This machine is built according to relevant safety requirements. Repairs must only be made by a qualified person using original spare parts, otherwise it may be very dangerous for the user.
- 21. Keep these instructions safe.

#### SPECIFIC SAFETY INSTRUCTIONS FOR MORTICERS

- 1. **Do not operate this machine** until it is assembled and installed according to the instructions.
- 2. **Obtain advice** from a qualified person if you are not familiar with the operation of this machine.
- 3. **Follow** all wiring codes and recommended electrical connections.
- 4. **Make certain** the machine is fastened to a supporting surface to prevent it from tipping over during operation.
- 5. **Never** turn the morticer on before clearing the table of all objects (tools, scrap pieces, etc.).
- 6. Always keep hands, fingers and hair away from the rotating bit.
- 7. **Do not** attempt to mortise material that does not have a flat surface, unless a suitable support is used.
- 8. **Always** position the clamp directly over the workpiece to prevent the workpiece from lifting during operation.
- 9. **Always** support the workpiece securely against the fence to prevent rotation.
- 10. **Be sure** the drill bit is sharp, not damaged and properly secured in the chuck before operation.
- 11. **Make sure** the chuck key is removed before starting the machine.
- 12. **Never** turn on the power with the drill bit or chisel in contact with the workpiece.
- 13. **Never** perform layout, assembly or set-up work on the table while the morticer is operating.
- 14. Adjust the depth stop to avoid drilling into the table.
- 15. **Always** turn off the power before removing scrap pieces from the table.
- 16. **Shut off** the power, remove the drill bit and chisel and clean the table before leaving the machine.
- 17. **For your own safety**, do not wear gloves when operating the machine.
- 18. **Should** any part of your tool be missing, damaged or fail in any way, or any electrical component fail to perform properly, shut off the machine and remove the plug from the power supply outlet. Replace missing, damaged or failed parts before resuming operation.
- 19. **The use** of attachments and accessories not recommended by ourselves may result in the risk of injuries.
- 20. **Turn** the machine off and disconnect it from the power supply before installing or removing accessories, before adjusting or changing set-ups or when making repairs.
- 21. **Turn** the machine off, disconnect it from the power supply and clean the table and work area before leaving the machine. Lock the switch in the "Off" position to prevent unauthorised use.
- 22. Keep these instructions safe.

#### **SPECIFICATIONS**

Motor: 370W – 240V
Spindle speed: 1400rpm
Max mortising depth: 76mm
Chisel capacity: 6-12mm
Drill chuck capacity: 1-13mm
Table size: 340x150mm

Spindle to fence (max): 90mm
Chisel to table (max): 127mm

Dimensions (h x l x d): 760x340x350mm

Weight: 25kg

#### **ELECTRICAL CONNECTIONS**

#### **EXTENSION CORDS**

Before using an extension cord, ensure the insulation is not cut or worn. Immediately repair or replace a damaged or frayed cord.



#### ATTENTION:

Extension cords must be removed from the work area or located so that they will not get caught in parts, tools or other objects while using the tool.

This appliance must be grounded. If it should malfunction or break down while in use, grounding provides a path of least resistance for the electrical current and reduces the risk of electrical shock to the operator. This appliance has a power cord with equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded.

Do not modify the plug provided with the machine. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

#### **ENVIRONMENTAL PROTECTION**

#### **INFORMATION FOR USERS**

In accordance with art. 13 of Legislative Decree 25th July 2005, no. 151 "Implementation of Directives 2002/95/EEC, 2002/96/EEC and 2003/108/EEC, relative to reducing the use of hazardous substances in electric and electronic appliances and the disposal of waste", please take note of the following:

- The crossed out wheelie bin symbol found on the appliance or the packaging indicates that the product must be disposed separately from ordinary household waste when it reaches the end of its working life.
- The user must consign the unwanted appliance to an authorised waste disposal centre for electric and electronic goods, or alternatively, hand it over to the relative dealer at the moment of purchasing a new appliance of the same type on a basis of a one to one ratio.
- Differentiated disposal to enable possible recycling or environmentally compatible elimination of the appliance, helps to limit undesirable effects on health and environment and promotes the reuse and/or recycling of the materials that compose the appliance.

#### WARNING!

In accordance with the relative legislation in force in the country of use, sanctions will be imposed on the user if the appliance is disposed of illegally.



#### **SYMBOLS**



Read the instruction manual carefully



Use personal protection devices (goggles, dust mask, earphones)



Serial number / year of production

#### **UNPACKING AND CLEANING**

Unpack your vacuum extractor carefully, taking care with the loose parts.

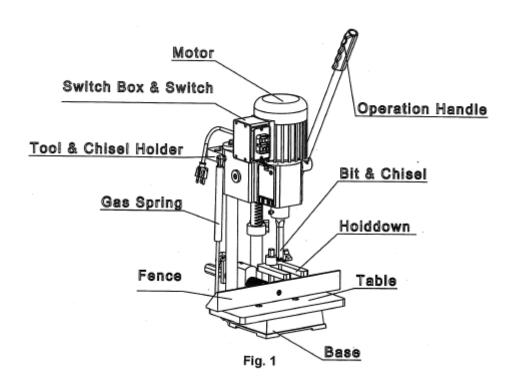
Note: if any parts are damaged or missing, do not connect the machine to the power and do not switch it on until the missing/damaged parts are replaced.

Do not throw away the cardboard box until you are sure the machine is working correctly.

Remove the protective coating from all unpainted surfaces. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

Note: all illustrations are representative only and may not depict the actual labelling or accessories and may be intended to illustrate technique only.

#### **KNOW YOUR MORTICER**



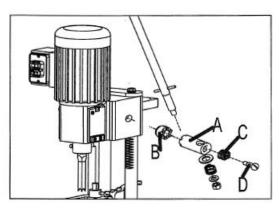
#### **ASSEMBLY**

Warning! For your own safety, do not connect the machine to the power source until the machine is completely assembled and you have read and understood the entire instruction manual.

#### **Raising and Lowering Handle**

See Fig. 2. Assemble hub of handle assembly (A) to end of pinion shaft (B) and fasten the handle to the pinion shaft using special screw (C) and spring (D).

See Fig. 3. Raise the morticing machine head (E) to the up position by turning handle (A) clockwise. Note: handle (A) is spring-loaded and can be repositioned by pulling out the handle and repositioning it on pinion shaft (B).



E B

Fig. 2

Fig. 3

#### **Gas Spring**

See Fig. 4. Make sure head (A) is held in the up position and assemble the gas spring (B) to the two fittings (C), one located on the column and the other on the back of the head.

Fig. 5 illustrates the gas spring (B) assembled to the machine. The gas spring (B) keeps the head in the up position.

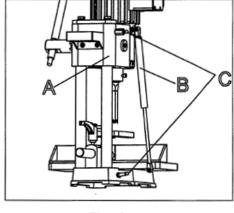


Fig. 4

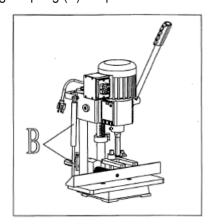
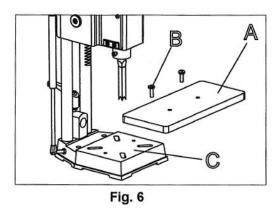


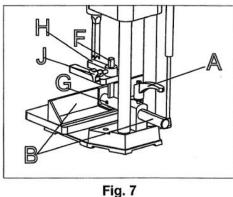
Fig. 5

#### **Table**

See Fig. 6. Fix the table (A) to the base using the two M6x1x35mm flat head screws (B). Insert the two screws (B) into the two holes (D) in table (A). Place the two T-nuts (C) into the slots € provided in the bottom of the base and tighten the two screws (B) into the two T-nuts (C) securely.

The table (A) can be moved in or out by loosening the two screws (B), and repositioning the table, then tightening the screws (B).





#### Fence and Holddown

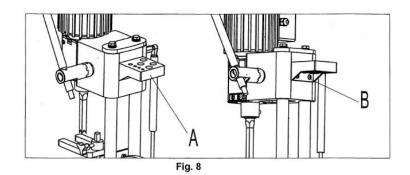
See Fig. 7. Locate the handle assembly and remove screw (A) and spring (B) from handle (C). Separate handle (C) from stud (D).

Insert the fence assembly bar (E) through the hole in the column as shown. Tighten handle (C) against the fence bar to hold the fence in position. Note: handle (C) is spring-loaded and can be repositioned on the stud located underneath the handle by pulling out the handle and repositioning it on the stud.

Insert bar (F) into the hole on top of the fence as shown, and tighten set screw (J) against the bar.

#### **Tool and Chisel Holder**

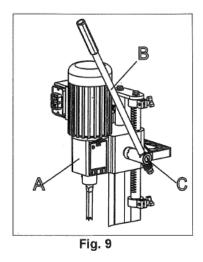
See Fig. 8. Assemble the tool and chisel holder (A) to the side of the column using the two M6x1x25mm screws (B) and M6 flat washers as shown.

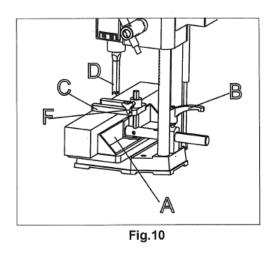


#### **OPERATING CONTROLS AND ADJUSTMENTS**

#### Raising and Lowering the Head

See Fig. 9. The head (A) is raised and lowered by means of the lever (B). For maximum leverage during the mortising operation, the lever (B) can be repositioned by pulling the hub (C) out of the lever assembly and repositioning the hub on the pinion shaft.



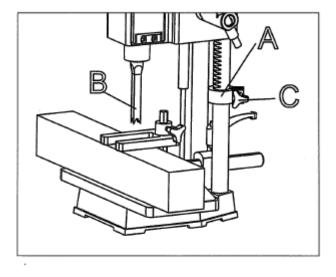


#### **Fence**

See Fig. 10. The fence (A) can be moved in or out by loosening the lever (B), sliding the fence to the desired position and tightening lever (B). Note: lever (B) is spring-loaded and can be repositioned by pulling out on the lever and repositioning it on the serrated nut located underneath the lever.

#### **Depth Stop**

See Fig. 11. A depth stop guide (A) is provided to limit the depth of the chisel (B). To adjust the depth stop guide (A), loosen screw (C) and lower the head until the chisel (B) is at the desired depth. Lower the depth stop guide (A) until it is at the desired depth, then tighten screw (C).



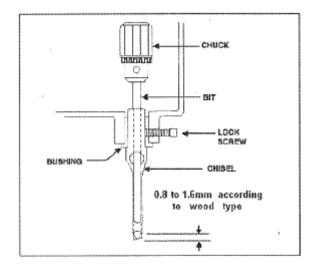


Fig. 11

Fig. 12

#### **Installing Chisel & Bit**

Loosen the lock screw, as shown in Fig. 12.

Insert the chisel bushing (with the hole facing forward) into the head. Tighten the screw just enough to hold the chisel in place.

Note: set the slot in the side of the chisel to the left or right, NOT to the front or back. This will allow chips to escape when cutting mortices.

Push the chisel up as far as possible into the head. Then lower the chisel approximately 0.8mm to 1.6mm, 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, then tighten the screw. This should provide the proper distance between the points of the chisel and bit.

#### **MAINTENANCE**

The morticer requires only minor maintenance, such as cleaning and lubrication and routing adjustment and sharpening of the chisel bit.

Dust the machine down after each use and, as necessary, use light applications of oil or grease to lubricate linkages, moving parts, etc.

#### **Sharpening the Chisel & Bit**

The chisel and bit should be kept sharp for best performance. Blunt edges will give inaccurate mortices and can lead to overheating and breakage to the chisel or bit. If the chisel and bit are badly work and become difficult to sharpen, they should be replaced.

Sharpen the bit 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 flute of the bit. See Fig. 13. Do not file the outside edge of the spur as this will affect the diameter of the bit.

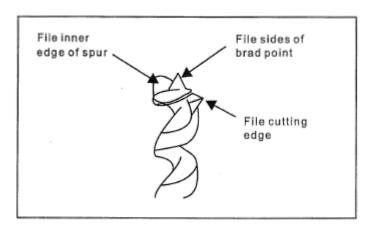
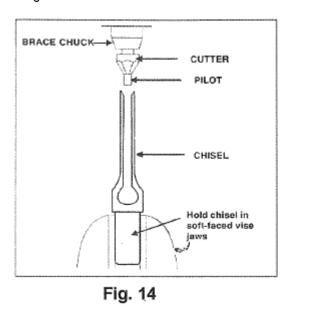


Fig. 13

Sharpen the chisel with a mortice chisel cutter with the correct size pilot. (Pilot size will differ depending on the size of your chisel.) Two or three turns of the cutter in a carpenter's brace chuck should enough to sharpen the chisel as shown in Fig. 14.



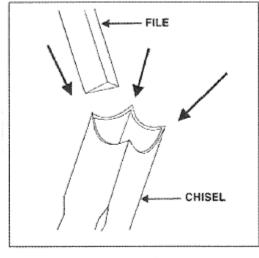
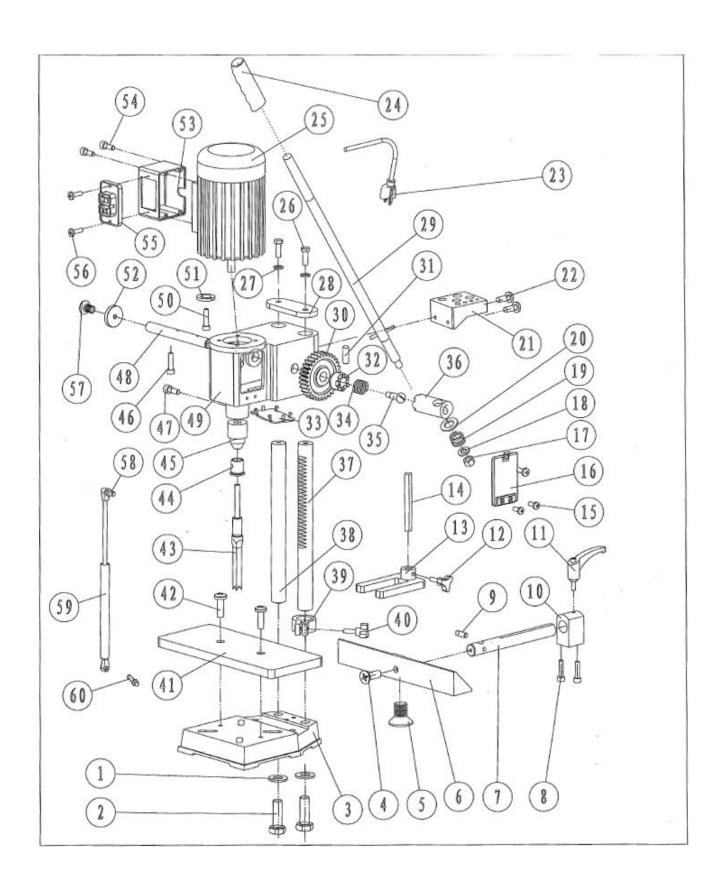


Fig. 15

See Fig. 15. Use a small, triangular, smooth file to relieve the inner corners of the chisel. Remove any burrs from the outside of the chisel with a fine oilstone.

#### **PARTS DIAGRAM**



### **PARTS LIST**

Part No.	Description	Q'TY	Part No.	Description	Q'TY
1	Lock washer	2	31	Pin	1
2	Bolt	2	32	Connecting bend A	1
3	Base	1	33	Cover	1
4	Screw	1	34	Spring	1
5	Screw	1	35	Screw	1
6	Fence	1	36	Connecting bend B	1
7	Guide column	1	37	Gear column	1
8 -	Screw	2	38	Guide column	1
9	Screw	1	39	Depth set guide	1
10	Guide bracket	1	40	Lock handle	1
11	Lock handle	1	41	Wood table	1
12	Knob	1	42	Screw	2
13	Hold-down clamp	1	43	Chisel	1
14	Guide column	1	44	Chisel bushing	1
15	Screw	6	45	Chuck	1
16	Cover	2	46	Screw	1
17	Nut	1	47	Screw	1
18	Washer	1	48	Gear shaft	1
19	Spring	1	49	Gear casing	1
20	Washer	1	50	Screw	4
21	Tool rack	1	51	Lock washer	4
22	Screw	2	52	Cover	1
23	Power cord	1	53	Switch box	, 1
24	Handle gloves	1	54	Screw	4
25	Motor	1	55	Switch	1
26	Bolt	2	56	Screw	2
27	Lock washer	2	57	Screw	1
28	Step plate	1	58	Screw	1
29	Handle	1	59	Gas spring	1
30	Gear	1	60	Screw	1.

#### **DART TOOL GROUP GUARANTEE**

DART TOOL GROUP takes pride in the quality of the power tools it supplies. The component parts of our tools are inspected at various stages of production and each finished tool is subjected to a final check before being packaged for shipment. Because of our confidence in our engineering quality, DART TOOL GROUP agrees to repair or replace any part or parts of FOX Power Tools and accessories which, upon examination, prove to be defective in workmanship or material. The warranty period for the FOX branded products is one year for parts and labour and three years for parts only. The guarantee does not include repair, labour or parts requiring replacement because of misuse, abuse, or normal wear and tear. Repairs made by other than the factory, DART TOOL GROUP service centre or authorised FOX service dealers relieves DART TOOL GROUP of further liability under this guarantee. THIS GUARANTEE IS MADE EXPRESSLY IN PLACE OF ALL OTHER GUARANTEES OR WARRANTIES, EXPRESSED OR IMPLIED, WITH RESPECT TO QUALITY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.



CE DECLARATION OF CONFORMITY OF THE MANUFACTURER SERRACON WHEATFIELD ROAD DUNNIKIER BUINESS PARK KIRKCALDY, UK, KY1 3PD

Tel. +44 (0) 1592 652946 Fax: +44 (0) 1592 654854 Declares that the: 1/2" BENCH TOP MORTICER (F14-650)

is in compliance with the regulations included in the Directives: CEE 2006/42-2004/108-2006/95

Person authorized to create the technical file: Robert Paterson

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06.05.2011

**The Director** 

Robert Paterna