10" PORTABLE THICKNESSER

FOX Model F22-561

ASSEMBLY AND OPERATING INSTRUCTIONS

10" Portable Thicknesser
FOX MODEL F22-561

TABLE OF CONTENTS

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.

Check that the blades are correctly fitted in the machine, that they are not damaged nor worn out and that they are clean; this will extend their life expectancy.

The machine is designed for the thicknessing of natural wood. Do not use reconstituted wood with this machine.

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. **Use** a dust extractor. Ensure the dust extractor is properly connected.

11. **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.

12. **Fix** the part being planed in place. Wherever possible use clamps or a vice to hold the part. It is much safer than using your hands.

13. **Do not** bend over the machine. Keep your balance at all times.

14. **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.

15. **Disconnect** the tool when not in use, before the maintenance and while changing accessories such as blades, drills, etc.

16. **Remove** all maintenance tools. Get used to checking that all maintenance tools are removed before using the machine.

17. **Avoid** accidentally starting the machine. Make sure that the switch is in the "OFF" position before connecting the power.

18. When the tool is used outside, use only extension leads designed for outdoor use.

19. **Be observant.** Use common sense when operating machinery. Do not use the tool when tired.

20. **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.

21. **Warning**: the use of any non-recommended accessory can present a health risk.

22. **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.

23. **Keep these instructions.**

ADDITIONAL SAFETY INSTRUCTIONS FOR THICKNESSERS

1. **WARNING**: **do not** use this machine before it is completely assembled according to the instructions.
2. **IF YOU ARE NOT** totally familiar with the use of thicknessers, seek advice from a qualified person.
3. **MAKE SURE** that the power cord is looked after and the instructions on the recommended electrical connection are adhered to and that the machine is earthed correctly.
4. **DISCONNECT** the machine before making any adjustments or repairs.
5. **NEVER** turn the machine on before removing all objects on the table (tools, pieces of wood, etc.).
6. **KEEP** the blades sharp and rust-free.
7. **CHECK** feed rollers occasionally to be sure chips and sawdust are not lodged between any components. If rollers are not seated firmly, the feed rolls will not hold stock firmly against the bed, allowing kickback.
8. **NEVER** use the machine without the guard.
9. **KEEP** fingers and hands away from the cutting zone.
10. **NEVER** put your hands under the chuck when the machine is underway.
11. **KEEP** fingers and hands away from the shavings exit. The pieces can exit at very high speed.
12. **ALWAYS** support the piece being planed adequately**.**
13. **DO NOT** start up the machine with the piece to be worked touching the chuck.
14. **ENSURE** that the piece to be worked is free from nails and other foreign objects which could cause physical wounds or damage blades.
15. **ENSURE** that blades are fixed properly to the chuck, as is explained in the instructions for use, before starting up the machine.
16. **ALWAYS** let the chuck reach its maximum diet before using the machine.
17. **BEFORE** leaving the machine after using it, ensure the working area is clean and tidy.

18. If a part of the machine is missing, damaged or defective, or if an electric part is not working correctly, turn the machine off at the switch and disconnect the machine from the power. Replace any missing, damaged or defective parts before restarting the machine.

19. **KEEP THESE INSTRUCTIONS** for future reference. Use them to teach any other users.

20. This machine is manufactured according to the relevant safety regulations. To avoid dangerous situations, repairs and maintenance must be exclusively made by a qualified or competent person.

21. **Disconnect** the machine from the mains before cleaning it or performing any maintenance.

22. **PLANE** only wood boards.

SPECIFICATIONS

Motor :	1500W – 240V (2hp)
Block speed :	8000rpm
Blade size :	258 x 18.2 x 3.2mm
Max thicknessing width :	254mm
Max thicknessing height :	153mm
Max cutting depth per pass :	2.5mm
Feed rate :	8m/min.
Range of cutting depth :	7 - 153mm
Thicknesser table size :	295 x 254mm
Dust port diameter :	50mm
Dimensions (h x l x d) :	410 x 550 x 585mm
Max. cutting length :	1000mm
Weight :	29kg

NOISE INFORMATION

The noise level of the machine is measured according to the standard DIN IN ISO 3744; 11/95, E DIN IN 31201; 6/93, Annex A ISO 7960; 2/95 because the levels of sound pressure exceed 85 dbA during use. Protective measures against the noise are necessary.

The quoted emission values are calculated according to standards and not related to use in the workplace. Although there is a correlation between these various levels of emission, it is impossible to draw any conclusion on additional necessary precautions. Factors having a potential influence on the level of sound transmission in the workplace include the working time, the size of the room as well as the other sources of noise (e.g. the number of machines being used, other noisy operations at the same time). The thresholds of sound level vary between countries. For these reasons, we recommend users to wear ear defenders when using this machine.

Acoustic power level Lp :	107.3dB (A)
Level of acoustic pressure Lw :	94.3dB (A)

ENVIRONMENTAL PROTECTION

England

Only for EU countries

Do not dispose of electric tools together with household waste material!

In observance of European Directive 2002/96/EC on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

The crossed-out wheeled bin means that within the European Union the product must be taken to separate collection at the product end-of-life. This applies to your device but also to any enhancements marked with this symbol. Do not dispose of these products as unsorted municipal waste.

The European directive DEEE concerning the environment, states that ilt is forbidden to dispose of used electric or electronic devices in household waste.
They must be taken to a compatible recycling facility.

ATTENTION:
The manufacturer reserves the right to change specifications without notice.
Images are supplied for information purposes only. Actual machine and accessories may differ in appearance.

SYMBOLS

Always wear protective goggles when using this machine.

Always wear ear defenders when using the machine.

Read and understand the instruction manual before using the machine

Heavy lift. Transporting the machine requires two people.

Always wear a protective mask if the operation is dusty.

Product meets relevant CE standards.

UNPACKING AND CLEANING

Your new thicknesser is packaged in a cardboard box. Unpack it carefully, taking care with the loose parts. Remove the protective coating from all non-painted parts. This can be removed by means of a soft cloth moistened with WD40. Do not use acetone, petroleum or paint thinner.

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.

Loose Parts Bag

1.	"C" Circlip	4 pieces
2.	Knife setting guide	2 pieces
3.	Knife setting gauge shaft	1 piece
4.	Base lock screw	8mm x 50 (L) 4 pieces
5.	Elevation knob lock screw	6mm x 15 (L) 1 piece
6.	Cutterhead raising hand crank	1 piece
7.	Allen wrenches	4, 5, 6mm
8.	Screwdriver handle	1 piece
9.	Screwdriver shank	1 piece
10.	Open end wrench	8 x 10 1 piece

ELECTRICAL CONNECTIONS

EXTENSION LEADS

Before using any extension cord, make sure that 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.

ELECTRICAL CONNECTION

Your planer thicknesser contains a precision electric engine. It must be connected on an electrical supply of 240V, 50 Hz. If your machine does not work when it is connected please check your electrical supply.

EARTHING INSTRUCTIONS

In case of malfunction or short circuit, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an earthing conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and regulations.

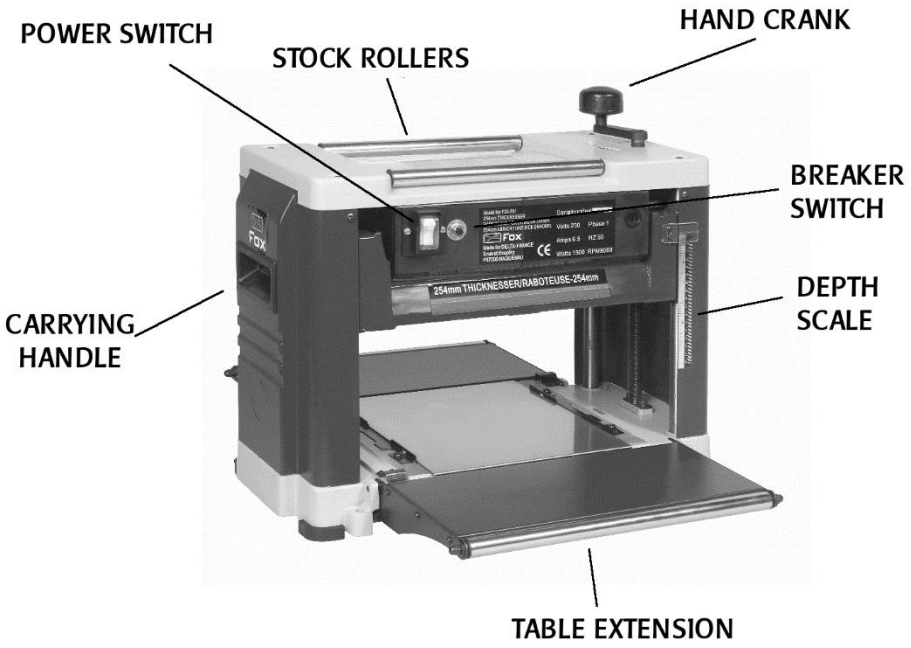
Do not modify the plug provided. If it does not fit into the outlet, have a proper outlet installed by a qualified electrician. Improper connection of the conductor grounded equipment can result in a risk of electric shock. The conductor with insulation is green with or without yellow stripes is the conductor of grounding. If the repair or replacement of the power cord is necessary, do not connect the grounding conductor to a live terminal.

If the earthing instructions are not completely understood, check with a qualified electrician or a person responsible for maintenance, or if there is doubt properly grounding the tool.

If the power cable is damaged, it must be replaced by the manufacturer, after sales service or similarly qualified persons in order to avoid a hazard. Do not operate the tool with a damaged power cable.

This tool is intended for use on an electrical circuit with a wall outlet and earthing pin.

PARTS IDENTIFICATION



INSTALLATION

The machine must be installed in a well-lit environment near a power supply.

Ensure that there is enough space in the room to be able to work. Ensure noone is in the way of the wood while the machine is being used.

ATTENTION !

For the smooth running of this machine, you MUST connect a dust extraction system. Shavings tend to accumulate in the extraction nozzle which will hinder the smooth running if your machine is not connected to an extraction system.

ASSEMBLY

ATTENTION !

Ensure that the machine is switched off and disconnected from the mains before assembling or making any other adjustments.

MOUNTING THE THICKNESSER ONTO A WOOD BASE

If the thicknesser is not mounted on a stand, we recommend that it is mounted on two pieces of lumber to ensure maximum stability.

Choose two suitable pieces of wood.

Use the four M8 x 2" hexagonal socket head screws (supplied) to mount the thicknesser base onto the wood.

STOCK ROLLERS

Two rollers are built on top of the thicknesser, providing convenient handling of stock for consecutive cutting operations.

MOVING THE THICKNESSER

The thicknesser can be moved by carrying it using the handles on the right and left of the frame. Close the table extensions before you move the thicknesser.

WARNING
Ensure the thicknesser is switched off and disconnected from the power supply before you move it.

USING THE MACHINE

ON/OFF SWITCH

Your planer has a rocker style switch with a removable locking key to prevent unauthorised use. If you intend to be away from the machine for a period of time and there is any chance of it being used by others, especially children, remove the locking key with the switch in the OFF position. Store it in a safe, locked place out of reach of children. To turn the thicknesser on, insert the locking key and turn the switch to the ON position. The planer will then be operable. To turn the thicknesser off, turn the switch to the OFF position.

WARNING
Always ensure the switch is in the OFF position before connecting the thicknesser to the power supply.

CIRCUIT BREAKER SWITCH

The machine has a breaker switch for overload protection. If an overload occurs, the switch will pop out. If this happens, wait several minutes and press the breaker switch to reset.

ADJUSTING THE DEPTH OF CUT

The thickness of stock running through the thicknesser is controlled by the distance you set the cutting knife from the table.

Always start your work by making a light planing cut. The depth of cut on subsequent passes may be increased, up to 2.5mm. But bear in mind that a light cut creates a finer finish than a heavier cut.

To adjust the depth of cut, turn the cutterhead-raising hand crank. The depth of cut adjustment can be read from the depth scale. The adjustment gradation is 2mm per revolution of the hand crank.

WARNING
Never plane more than 2.5mm in one pass and never attempt to plan a board less than 6" in length. Always wear a protective face shield.

Do not plane stock which is less than 7mm thick.

Do not plane stock which is thicker than 6" (153mm).

ADJUSTING THE DEPTH OF CUT SCALE

For safe operation of your thicknesser, it is very important that the depth of cut scale is set accurately. To adjust the depth of cut scale, follow the steps outlined below :

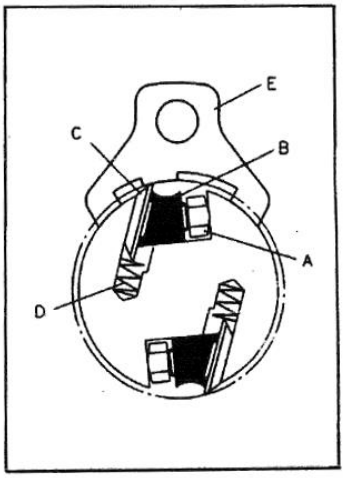
1. Feed a board for planing

2. Compare the measured thickness of the board to the reading on the depth of cut scale

3. If the reading on the depth of cut scale is incorrect, loosen the screw which tightens the plastic pointer and adjust accordingly

4. When you have properly adjusted the depth of cut scale, test your reading by planing a piece of scrap lumber. After planing, measure the planed thickness and double check it against the scale reading. The two measurements should be the same. If the measurements are not the same, re-adjust your depth of cut scale to read the planed thickness

REMOVING THE PLANER KNIVES



WARNING
Unplug the thicknesser from the power supply before removing the planer knives.

Remove the chip guard by removing the screws which hold it in place.

Loosen the lock bar (B) and knife by turning the lock screws (A) clockwise. The knives are spring-loaded and will push out when the assembly is loosened.

Take out the knife (C) and then the knife lock bar (B).

INSTALLING THE PLANER KNIVES

WARNING
Unplug the thicknesser from the power supply before removing the planer knives.

Remove the knives according to the instructions above.

Fit the knife lock bar (B) into the slot on the cutterhead.

Fit the knife into the slot on the cutterhead and tighten the lock bar - knife assembly by turning the screws anticlockwise. Make sure the knife is facing the correct direction.

Set the knife height according to the instructions on the following page. The knife height must be reset every time the knives are taken out for any reason.

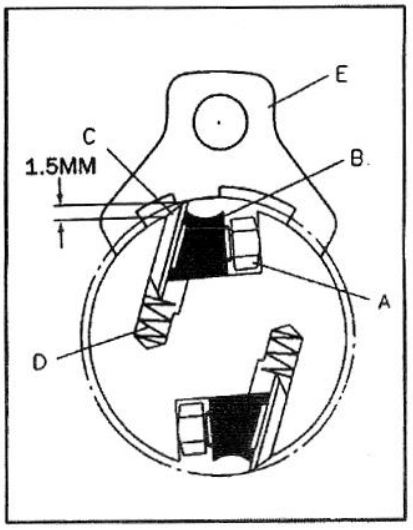
Be sure to replace the chip guard after the knives are installed.

WARNING
The knife edge is very susceptible to chipping. Use caution when handling the gauge near the knives to avoid damaging them.

WARNING
The assembly must be tightened securely to prevent accidents during planing.

SETTING THE KNIFE HEIGHT

To obtain a knife projection of 1.5mm, place the knife setting gauge (E) on the cutterhead with both guides resting firmly against the knife.



Loosen the assembly by turning the seven screws (A) clockwise with an open end wrench.

When the knife is set to the correct height using the guides on the gauge, retighten the assembly by turning the screws anticlockwise. Make sure all seven lock screws are tightened properly.

WARNING
The knife edge is very susceptible to chipping. Use caution when handling the gauge near the knives to avoid damaging them.

WARNING
The assembly must be tightened securely to prevent accidents during planing.

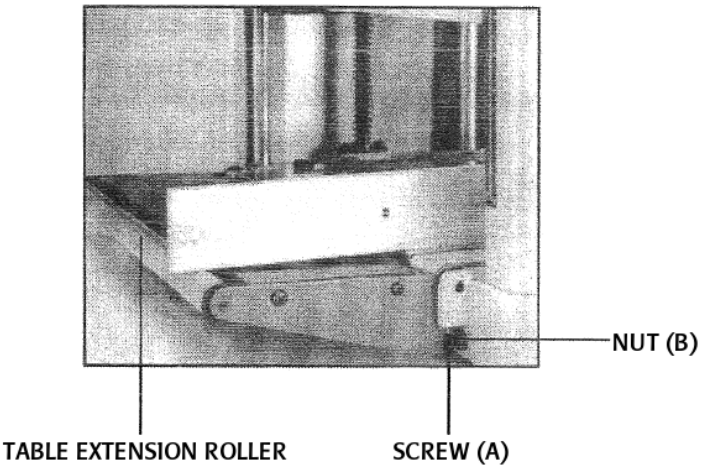
ADJUSTING THE TABLE EXTENSION ROLLER

The table extensions are mounted at the front and rear ends of the main table.

Raise the cutterhead assembly so that you can get a clear view and work comfortably adjusting the extensions.

Place a straight edge across the main table and table extension to be adjusted.

If the main table and table extension roller are not aligned, adjust the table extension by loosening the nut holding it in place and turning the screw until the table extension just touches the straight edge. Adjust the right and left sides of the table extension this way.



The roller has been factory set to align with the table extension and requires no further adjustment.

MAKING THE CUTTERHEAD AND WORKTABLE PARALLEL

Underneath the main table, loosen the "C" circlip.

Disengage the bevel gear next to the circlip

Turn the bevel gear to adjust the height of that side of the cutterhead. One tooth of turn anticlockwise gives 0.12mm raising thickness.

After adjustment, re-engage the bevel gear and replace the "C" circlip.

PLANING FOR FINISH

Planing for a smooth finish as well as thickness is best accomplished by taking light cuts on the board. However, several other things are important beside light cuts to achieve a smooth finish.

Always feed the board in a direction that allows the planer blades to cut with the grain. This aids the knife in severing the wood fibres rather than lifting and tearing the fibres. Torn fibres give a fuzzy appearance to the surface. Feeding against the grain can also cause your knife to lift large chips from the board's surface, causing a very unsightly appearance.

THICKNESS PLANING

Thickness planing is the sizing of material to a desired thickness, whicle creating a smooth surface parallel to the opposite side of the board.

The art of thickness planing consists mainly of using good judgement about the depth of cut in various situations. You must take into account not only the width of the stock, but the hardness of the board, its dampness, straightness, grain direction and grain structure.

The effects of these factors upon the quality of the finished work can only be learned through experience. It is always advisable, whenever working with a new type of wood, or one with unusual problems, to make test cuts on scrap material if possible, prior to working on your finished product.

FOR ADDITIONAL PLANING

If more material needs to be removed, hand crank the cutterhead no more than 3mm and complete another pass. Repeat this process until the desired thickness has been reached.

MAINTENANCE

ATTENTION !

- Before making any repairs or maintenance on the thicknesser, disconnect the power cord from the power socket. The power cord must be disconnected every time you make an adjustment or perform maintenance on the machine.

- To avoid electric shocks and wounds, use only suitable spare parts.

- If the power cord is damaged, replace immediately.

LUBRICATION

The recommended lubrication for roller chains used in medium to slow speed operation is simply to wipe the chain clean. When there is an appreciable build-up of dust, dirt or wood shavings, coat chain with a light film of oil (do not pour the oil directly onto the chain).

The bearings on the cutterhead are factory lubricated and sealed. They require no further attention.

PERIODIC MAINTENANCE

Build-up of sawdust and other debris can cause your machine to plane inaccurately. Periodic cleaning is not only recomended, but mandatory for accurate precision planing.

Close-fitting parts, such as the lock bars and the planer cutterhead slots should be cleaned with a brush and freed from clinging foreign matter and then replaced in their respective positions, slightly dampened with oil.

Remove resin and other accumulations from feed rolls and table with a non-flammable solvent.

TROUBLESHOOTING

As long as your machine is well maintained, it should continue to provide smooth and trouble-free operation.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Fuzzy grain	1. Planing wood with high moisture content 2. Dull knives	1. Dry the wood 2. Sharpen the knives
Torn grain	1. Too heavy a cut 2. Knives cutting against the grain 3. Dull knives	1. Review proper depth of cut 2. Feed wood with the grain, or turn the workpiece around 3. Sharpen knives
Rough/raised grain	1. Dull knives 2. Too heavy a cut 3. Moisture content too high 4. Cutterhead bearings damaged	1. Sharpen knives 2. Review proper depth of cut 3. Dry the wood 4. Replace bearings
Poor feeding of lumber	1. Planer table dirty 2. Feed roller damaged 3. Sprocket damaged 4. Gear box malfunction	1. Clean off pitch and residue and lubricate planer table 2. Replace feed roller 3. Replace sprocket 4. Check gear box
Workpiece jammed	1. Inadequate knife setting height	1. Set the knives to the correct height
Uneven depth of cut side to side	1. Knife projection not uniform 2. Cutterhead not levelled to planer bed	1. Adjust knife projection 2. Level cutterhead to table
Board thickness doesn't match depth of cut scale	1. Depth of cut scale incorrect	1. Adjust depth of cut scale
Chain jumping	1. Sprockets misaligned 2. Sprockets worn	1. Align sprockets 2. Replace sprockets
Machine won't start	1. Not plugged in 2. Circuit breaker/fuse tripped 3. Motor failure 4. Loose wire 5. Overload reset has not been reset 6. Motor starter failure	1. Check power supply 2. Check power supply 3. Have motor checked 4. Have motor checked 5. Allow machine to cool down then reset 6. Have motor starter checked by a qualified electrician
Repeated circuit tripping resulting in motor stoppage	1. Extension cord too long or too thin 2. Knives too dull 3. Low voltage running	1. Use a shorter or thicker extension cord 2. Sharpen or replace knives 3. Check voltage

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
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Declares that the: PORTABLE THICKNESSER (F22-561)
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**

CE

06.05.2011

The Director