



**120 W**  
**SCROLL SAW**



**INSTRUCTION MANUAL**  
**MODEL NUMBER BT-SS 405E**

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**AFTER SALES SUPPORT**  
**TEL: 1300 922 271**  
**EMAIL: [service.australia@einhell.com](mailto:service.australia@einhell.com)**

 **N26704**

## What your 1 year warranty means

Great care has gone into the manufacture of this product and it should therefore provide you with years of good service when used properly. In the event of product failure within its intended use over the course of the first 1 year after the date of purchase we will remedy the problem as quickly as possible once it has been brought to our attention. In the unlikely event of such an occurrence, or if you require any information about the product, please contact us via our after sales support services, details of which can be found in this manual and on the product itself.

## Welcome Section

Congratulations on choosing to buy a TAURUS® product.

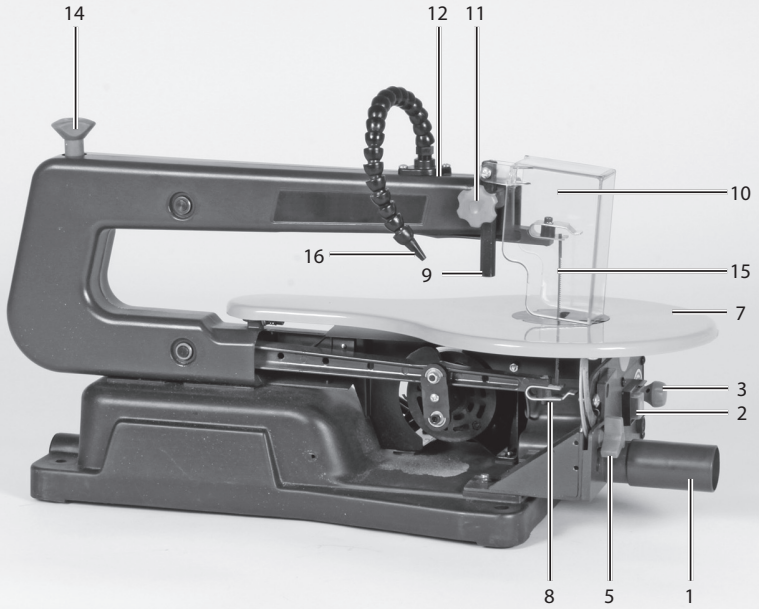
All products brought to you by TAURUS® are manufactured to the highest standards of performance and safety, and, as part of our philosophy of customer service and satisfaction, are backed by our comprehensive 1 Year Warranty.

We hope you will enjoy using your purchase for many years to come.

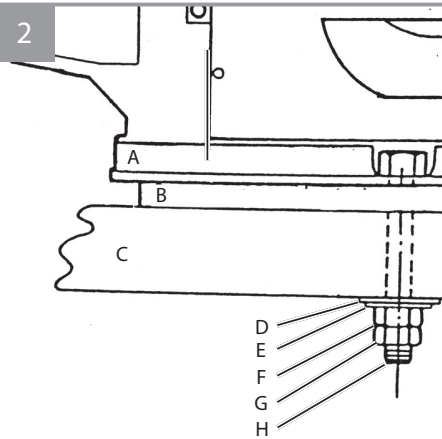
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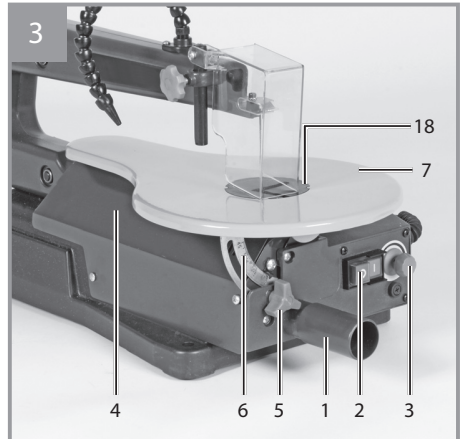
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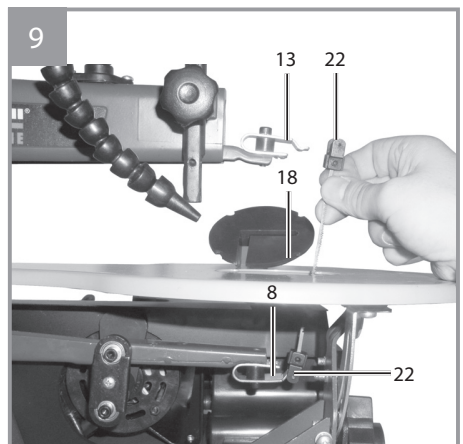
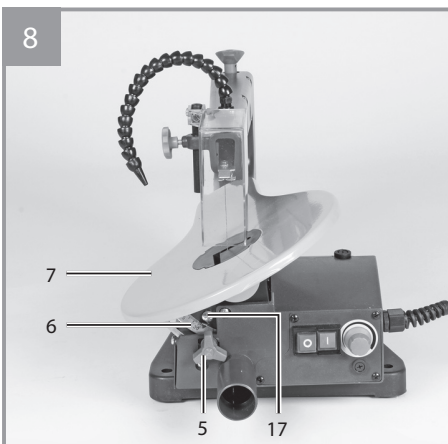
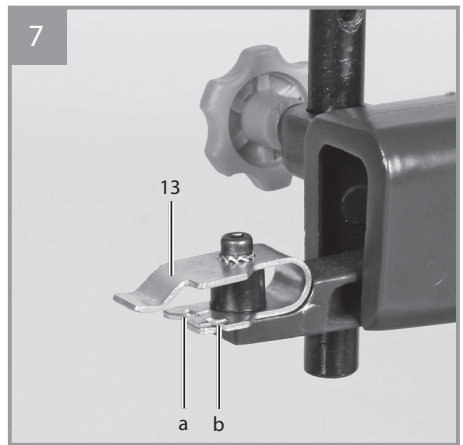
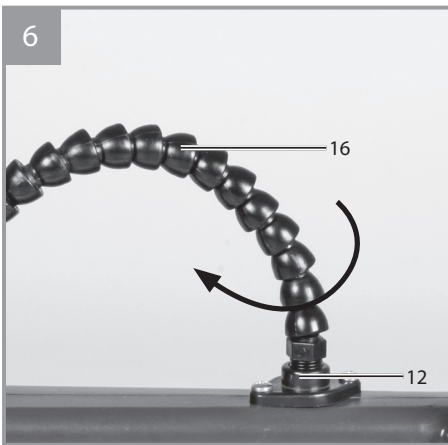
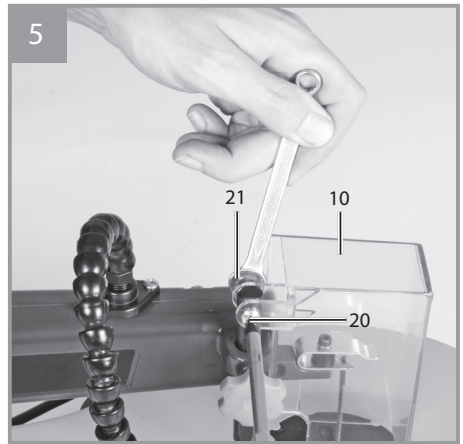
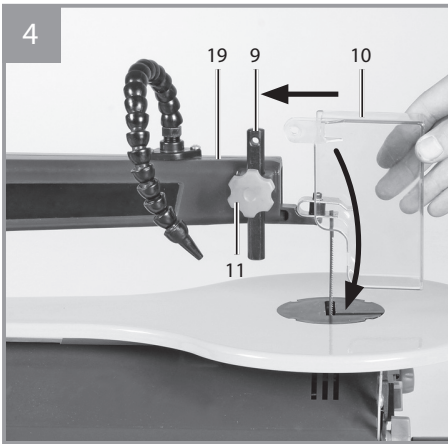


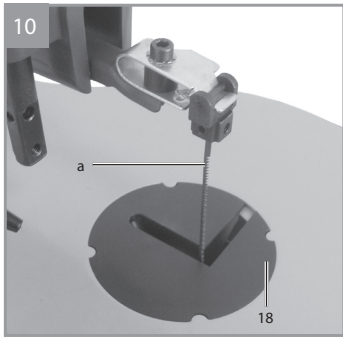
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# 1. General Safety Rules

**WARNING!** Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

## SAVE THESE INSTRUCTIONS

### 1. Work area

- a. **Keep work area clean and well lit.** *Cluttered and dark areas invite accidents.*
- b. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Power tools create sparks which may ignite the dust or fumes.*
- c. **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

### 2. Electrical safety

- a. **Power tools plugs must match the outlet. Never modify the plug in any way.** *Do not use any adapter plugs with earthed (grounded) power tool. Unmodified plugs and matching outlets will reduce risk of electric shock.*
- b. **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
- c. **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- d. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
- e. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*

### 3. Personal safety

- a. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*
- b. **Use safety equipment. Always wear eye protection.** *Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- c. **Avoid accidental starting. Ensure the switch is in the off-position before plugging in.** *Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.*
- d. **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to rotating part of the power tool may result in personal injury.*

- e. **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
- f. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewellery or long hair can be caught in moving parts.*
- g. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of these devices can reduce dust-related hazards.*

### 4. Power tool use and care

- a. **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*
- b. **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- c. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*
- d. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*
- e. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** *Many accidents are caused by poorly maintained power tools.*
- f. **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g. **Use the power tool, accessories and tool bits etc. in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*

### 5. Service

- a. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the power tool is maintained.*

### 6. Recommendation

- a. *We recommend that the tool always be supplied via a residual current device with a rated residual current of 30 mA or less.*

## 7 2. Special Safety Rules

1. Important: Whenever you use electric tools it is imperative to take basic safety precautions in order to reduce the risk of fire, electric shock and personal injury. Essential safety precautions include:
2. In an emergency, switch off the machine directly and pull out the power plug.
3. Follow all these instructions before and while you are working with the saw.
4. Keep these instructions in a safe place.
5. Always pull out the power plug before adjusting or servicing the machine.
6. Give these safety regulations to all persons who work on the machine.
7. Do not use this saw to cut fire wood.
8. Never use the saw to cross-cut round timber unless it is equipped with a suitable holding device.
9. The machine is equipped with a safety switch to prevent it being switched on again accidentally after a power failure.
10. Before you use the machine for the first time, check that the voltage marked on the rating plate is the same as your mains voltage.
11. If you need to use an extension cable, make sure its conductor cross-section is big enough for the saw's power consumption. Minimum cross section: 1mm<sup>2</sup>.
12. If you use a cable reel, the complete cable has to be pulled off the reel.
13. Never carry the saw by its cable.
14. Check the power cable. Never use a faulty or damaged power cable.
15. Do not use the cable to pull the plug out of the socket-outlet. Protect the cable from heat, oil and sharp edges.
16. Do not leave the saw in the rain and never use it in damp or wet conditions.
17. Provide good lighting.
18. Never saw near combustible liquids or gases.
19. Wear suitable work clothes! Never wear loose garments or jewellery.
20. Keep long hair in a hair net.
21. Avoid abnormal working postures.
22. Keep children away from the machine when it is connected to the power supply.
23. Keep your workplace clean of wood scrap and any unnecessary objects.
24. Do not allow other persons, particularly children, to touch the tool or the power cable. Keep them away from your workplace.
25. Persons working on the machine should not be distracted.
26. After you have switched off the motor, never slow down the saw blade by applying pressure to its side.
27. Fit only blades which are well sharpened and have no cracks or deformations.
28. Faulty saw blades have to be replaced immediately.
29. Never use saw blades which do not comply with the data specified in this manual.
30. It is imperative to make sure that all the devices used to cover the saw blade are in good working order.
31. Never dismantle the machine's safety devices or put them out of operation.
32. Damaged or faulty safety devices have to be replaced immediately.
33. Never cut work pieces which are too small to hold securely in your hand.
34. Never load the machine so much that it cuts out.
35. Always press the work piece firmly against the worktop.
36. Never remove loose splinters, chips or jammed pieces of wood when the saw blade is running.
37. To rectify faults or remove jammed pieces of wood, always switch off the machine first. Pull out the power plug!
38. Conversions, adjustments, measurements and cleaning jobs are to be performed only when the motor is switched off. Pull out the power plug!
39. Before you switch on the machine, check that all wrenches and adjustment tools have been removed.
40. When you leave your workplace, switch off the motor and pull out the power plug.
41. Electric installation work, repairs and maintenance are to be carried out only by specialists.
42. All guards and safety devices have to be refitted immediately after completion of any repairs or maintenance.
43. It is imperative to observe the manufacturer's safety, operating and maintenance instructions as well as the dimensions quoted in the technical data.

44. It is imperative to observe the accident prevention regulations in force in your area as well as all other generally recognized rules of safety.
45. The machine is designed for indoor installation only.
46. Workpieces smaller than the blade guard may lead to injuries to your hands and suitable aids!
47. When guiding the workpiece do not place your hands in cramped or awkward positions where they may slip directly against the blade.
48. Always insert the blade so that the teeth point down toward the table.
49. To avoid broken blades, always set the correct blade tension.
50. Be particularly careful when sawing material with irregular cutting profiles.
51. Take special care when cutting round workpieces such as rods or tubes as they may roll away from the blade and cause the teeth to jam. Secure such workpieces with a wedge.
52. When you withdraw the workpiece the teeth may get caught in the kerf, particularly if the gap is blocked by sawdust. If this happens you should disconnect from power source and open the kerf with a wedge and pull the workpiece free.
53. Never leave your workplace without switching off the saw first. Wait until the saw stops.
54. Never arrange, glue or assemble any parts on the work table while the saw is running.
55. Do not switch on the saw until you have cleared all material remnants and tools from the work table. Only the workpiece and any essential aids (wedge) are to be left on the workpiece.
56. Always wear safety goggles.
57. Keep your fingers a safe distance from the blade.
58. Guide the workpiece securely and do not loosen your grip at any time.
59. Never leave your workplace without switching off the saw first.
60. DO NOT ALLOW YOUR FAMILIARITY WITH THE SAW TO TURN INTO CARELESSNESS. IT TAKES ONLY FRACTIONS OF A SECOND FOR CARELESSNESS TO RESULT IN SERIOUS INJURIES.



#### Caution

Read the operating instructions to reduce the risk of injury.



#### Wear ear-muffs.

The impact of noise can cause damage to hearing.



#### Wear a breathing mask.

Dust which is injurious to health can be generated when working on wood and other materials. Never use the device to work on any materials containing asbestos!



#### Wear safety goggles.

Sparks generated during working or splinters, chips and dust emitted by the de-vice can cause loss of sight.

#### Important!

When using the equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating instructions and safety regulations with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, hand over these operating instructions and safety regulations as well. We cannot accept any liability for damage or accidents which arise due to a failure to follow these instructions and the safety instructions.

## 3. Layout and items supplied

### 3.1 Layout (Fig. 1/3)

- 1 Dust extraction adapter
- 2 On/Off switch
- 3 Blade speed regulator
- 4 Cover, left
- 5 Locking screw
- 6 Dial scale
- 7 Saw table
- 8 Blade holder, bottom
- 9 Retention bolt
- 10 Blade guard
- 11 Clamping screw
- 12 Holder
- 13 Blade holder, top
- 14 Clamping screw
- 15 Blade
- 16 Blow-off device



### 9 3.2 Items supplied

- Open the packaging and take out the equipment with care.
- Remove the packaging material and any packaging and/or transportation braces (if available).
- Check to see if all items are supplied.
- Inspect the equipment and accessories for the transport damage.
- If possible, please keep the packaging until the end of the guarantee period.

#### Important!

**The equipment and packaging material are not toys. Do not let children play with plastic bags, foils or small parts. There is a danger of swallowing or suffocating! Do not let children play with plastic bags, foils or small parts. There is a danger of swallowing or suffocating.**

- Scroll saw
- Blade guard
- Sawdust blower facility

## 4. Proper use

The Scroll saw is intended for cutting square edged timber or wood-like workpieces. Round materials may only be cut with suitable holding devices.

The machine is to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user / operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this.

Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

The equipment is to be operated only with suitable saw blades. It is prohibited to use any type of cutting-off wheel. To use the equipment properly you must also observe the safety regulations, the assembly instructions and the operating instructions to be found in this manual.

All persons who use and service the equipment have to be acquainted with this manual and must be informed about the machine's potential hazards.

It is also imperative to observe the accident prevention regulations in force in your area. The same applies for the general rules of health and safety at work.

The manufacturer will not be liable for any changes made to the machine nor for any damage resulting from such changes. Even when the equipment is used as prescribed it is still impossible to eliminate certain residual risk factors. The following hazards may arise in connection with the machine's construction and design:

- Harmful emissions of wood dust when used in closed rooms.
- Contact with the blade in the uncovered cutting zone.

- Injuries (cuts) when changing the blade.
- Crushed fingers.
- Kickback.
- Tilting of the workpiece due to inadequate support.
- Touching the blade.

## 5. Technical data

Mains voltage: \_\_\_\_\_ 230 V ~ 50Hz  
Power: \_\_\_\_\_ 80 W S2 20 min/120 W S6 30%  
Idle speed  $n_0$ : \_\_\_\_\_ 400-1600 rpm  
Protection type: \_\_\_\_\_ IP 20  
Stroke: \_\_\_\_\_ 21 mm  
Base area: \_\_\_\_\_ 440 x 280 mm  
Tilting range of table: \_\_\_\_\_ 0° to 45° to the left  
Table size: \_\_\_\_\_ 413.5 x 253 mm  
Saw blade length: \_\_\_\_\_ 127 mm  
Throat: \_\_\_\_\_ 406 mm  
Max. cutting height at 90°: \_\_\_\_\_ 57 mm  
Max. cutting height at 45°: \_\_\_\_\_ 27 mm  
Weight: \_\_\_\_\_ 13 kg

#### Load factor:

A load factor of S2 20 min (intermittent periodic duty) means that you may operate the motor continuously at its nominal power level (80 W) for no longer than the time stipulated on the specifications label (20 min). If you fail to observe this time limit the motor will overheat. During the OFF period the motor will cool again to its starting temperature.

Operating mode S6 30%: Continuous operation with idling (cycle time 10 minutes). To ensure that the motor does not become excessively hot, it may only be operated for 30% of the cycle at the specified rating and must then be allowed to idle for 70% of the cycle.

#### Sound and vibration

Sound and vibration values were measured in accordance with EN 61029.

	Operation	Idle speed
LpA sound pressure level:	80.2 dB	65.1 dB
LWA sound power level:	88.4 dB	74.8 dB

#### Wear ear-muffs.

The impact of noise can cause damage to hearing. Keep the noise emissions and vibrations to a minimum.

- Only use appliances which are in perfect working order.
- Service and clean the appliance regularly.
- Adapt your working style to suit the appliance.
- Do not overload the appliance.
- Have the appliance serviced whenever necessary.
- Switch the appliance off when it is not in use.
- Wear protective gloves.

## Residual risks

**Even if you use this electric power tool in accordance with instructions, certain residual risks cannot be ruled out.**

**The following hazards may arise in connection with the equipment's construction and layout:**

1. Lung damage if no suitable protective dust mask is used.
2. Damage to hearing if no suitable ear protection is used.

## 6. Before starting the equipment

### 6.1 General information

- All covers and safety devices have to be properly fitted before the machine is switched on.
- It must be possible for the blade to run freely.
- When working with wood that has been processed before, watch out for foreign bodies such as nails or screws etc.
- Before you actuate the On/Off switch, make sure that the saw blade is correctly fitted and that the machine's moving parts run smoothly.
- Before you connect the machine to the power supply, make sure the data on the rating plate is the same as that for your mains.

### 6.2 Mounting the saw on a workbench (Fig. 2)

1. It is better to mount the saw on a solid wood workbench rather than on a weak plywood stand where vibrations and noise are certain to be a nuisance.
2. The tools and hardware needed to mount the saw on a work bench are not supplied with the saw. Be sure to use equipment of at least the following size:

#### Item Quantity

Hex screws M8	4
Gaskets Ø 8 mm	4
Washers Ø 8 mm	4
Hex nuts M8	8

3. A sound-absorbing foam rubber mat is not supplied with the saw. It is strongly recommended to use such a mat, however, in order to minimize vibrations and noise.

Do not overtighten the screws. Leave enough scope for the foam rubber mat to develop a good absorbing effect.

Mounting the saw on a workbench, see Figure (2).

List of components in the illustration:

- A: Saw body
- B: Foam rubber support
- C: Worktable
- D: Flat gasket
- E: Washer
- F: Hex nut
- G: Blocking nut
- H: Hex screw

## 6.3 Assembly

**Caution!** Pull out the power plug before carrying out any maintenance and conversion work on your fretsaw.

### 6.3.1 Mounting the saw blade guard and the sawdust blower facility (Fig. 4/5/6)

- Put the retention bolt (9) on the radial arm (19).
- Slide the saw blade guard (10) onto the retention bolt (9).
- Insert the screw (20) through the bore hole of the retention bolt (9) and the saw blade guard (10).
- Use the nut (21) to secure the screw from falling out.
- The saw blade guard can be fixed at various heights with the clamping screw (11).
- Mount the blow-off device (16) as shown in Fig. 6.

### 6.3.2 Changing the blade (Fig. 1/3/7)

- Turn the clamping screw (14) clockwise in order to take the tension off the blade (15).
- Unscrew the left cover (4).
- First take the blade out of the top blade holder (13), pressing down the upper pendulum arm as you do so.
- Then take the blade out of the bottom blade holder (8).
- Pull the blade up and out through the table insert (18).
- Install the new blade in reverse order.

**Caution: Always insert the blade so that the teeth point toward the saw table.**

The blade can be inserted in slot a or b;  
Slot a: For cuts along the axis of the radial arm.  
Slot b: For cuts across the axis of the radial arm.

Tension the blade by turning the clamping screw (14) anticlockwise (right-hand thread).

### 6.3.3 Tilting the saw table (Fig. 8)

- Undo the locking screw (5).
- Tilt the table (7) to the left until the indicator (17) points to the required angle value on the scale (6).

**Important: For precision work you should first carry out a trial cut and then re-adjust the tilt angle as required.**

## 7. Operation

### 7.1 Please note:

- Your saw does not cut wood automatically. For cutting to occur, you have to guide the wood against the blade.
- The teeth cut only on the down stroke of the blade.
- You have to guide the wood slowly against the blade because the teeth are very small.
- Every new user needs a certain training period. You are certain to break a number of blades at the beginning.
- When cutting thick timber, be particularly careful not to bend or twist the blade. This will help to prolong blade life.

## 11 7.2 On/Off switch (Fig. 3 / Item 2)

- Press the green button to switch the saw on.
- Press the red button to switch the machine off.
- Please note: The machine is equipped with a safety switch to prevent it being switched on again accidentally after a power failure.

## 7.3 Blade speed regulator (Fig. 1 / Item 3)

The blade speed regulator allows you to set the blade speed appropriate to the material to be cut.

## 7.4 Carrying out internal cuts

1. A feature of this scroll saw is that it allows you to carry out internal cuts in a panel without damaging it on the outside or circumference.

**Warning! To avoid injury from accidental starting: Before you remove or change the blade, always set the switch to „0“ position and pull the power plug out of the socket.**

2. To carry out internal cuts in a panel: Remove the blade as described in Section 6.3.2
3. Drill a hole in the panel in question.
4. Place the panel on the saw table with the drilled hole above the access hole.
5. Install the blade through the hole in the panel and adjust the blade tension.
6. When you have completed the internal cuts, remove the blade from the blade holders (as described in Section 6.3.2) and take the panel off the table.

## 7.5 Adapter for jigsaw blades (Fig. 8/9)

- Remove the saw blade as described in 6.3.2.
- Now insert the scroll saw blade (a) in the adapter.
- First remove the table insert (18).
- Then hook both adapters (22) on the two saw blade holders (8/13).
- Insert the saw blade as described in 6.3.2.

# 8. Cleaning, maintenance and ordering of spare parts

Always pull out the mains power plug before starting any cleaning work.

## 8.1 Cleaning

- Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible. Wipe the equipment with a clean cloth or blow it with compressed air at low pressure.
- We recommend that you clean the device immediately each time you have finished using it.
- Clean the equipment regularly with a moist cloth and some soft soap. Do not use cleaning agents or solvents;

these could attack the plastic parts of the equipment. Ensure that no water can seep into the device.

## 8.2 Bearings

Lubricate the bearings of the guide rollers periodically with high-grade machine grease, but at least after every 25-30 hours in operation.

## 8.3 Carbon brushes

In case of excessive sparking, have the carbon brushes checked only by a qualified electrician. Important! The carbon brushes should not be replaced by anyone but a qualified electrician.

## 8.4 Maintenance

There are no parts inside the equipment which require additional maintenance.

## 8.5 Ordering spare parts:

Contact our After Sales Support on 1300 922 271 and quote the following data when ordering spare parts:

- Type of machine
- Article number of the machine
- Identification number of the machine
- Replacement part number of the part required

## 8. Disposal and recycling

The unit is supplied in packaging to prevent its being damaged in transit. This packaging is raw material and can therefore be reused or can be returned to the raw material system.

The unit and its accessories are made of various types of material, such as metal and plastic. Defective components must be disposed of as special waste. Ask your local council.

## 9. Storage

Store the equipment and accessories out of children's reach in a dark and dry place at above freezing temperature. The ideal storage temperature is between 5 and 30 °C. Store the electric tool in its original packaging.

