

carbatec



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WARRANTY

OWNERS MANUAL

CARBATEC 345mm BANDSAW
BS-345H

General Health & Safety Guidance

Ensure that you carefully read and fully understand the instructions in this manual before assembly, 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 this machine until it is completely assembled and installed according to these instructions.

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

Safe Operation

1. Use Personal Protective Equipment (PPE)

- The operation of any machine can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Protective eyewear or other suitable eye protection or face shield should be used at all times. Everyday spectacles only have impact resistant lenses. They are not protective eyewear and do not give additional lateral protection.
- Use respiratory protective equipment (dust mask etc.) if the machining operation creates dust. Exposure to high levels of dust created by machining hardwoods, softwoods and man made composite boards can result in serious health problems. Some imported hardwoods give off highly irritating dust, which can cause a burning sensation. The use of respiratory protective equipment should not be seen as an alternative to controlling the risk of exposure at source by using adequate dust extraction equipment.
- The use of ear plugs or ear defenders is recommended when the machine is in use, particularly if the noise level exceeds 85 dB.
- Wear suitable protective gloves when handling cutting tools or blades. Gloves should NOT be worn when using the machine as they can be caught in moving parts of the machine.
- Non-slip safety footwear is recommended when using the machine and handling large work pieces.

2. Dress appropriately

- Do not wear loose clothing, neckties or jewellery; they can be caught in moving parts of the machine.
- Roll up long sleeves above the elbow.
- Wear protective hair covering to contain long hair.

3. Safety warnings

- Find and read any warning labels on the machine.
- It is important that any labels bearing health and safety warnings are not removed, defaced or covered. Replacement labels can be obtained by contacting our Customer Service Department.

4. Familiarise yourself with the machine

- If you are not thoroughly familiar with the operation of this machine, obtain advice from your supervisor, instructor, or other qualified person or contact your retailer for information on training courses. Do not use this machine until adequate training has been undertaken.

5. Take care when moving or positioning the machine

- Some machines can be very heavy. Ensure the floor of the area in which the machine is to be used is capable of supporting the machine.
- The machine and its various components can be heavy. Always adopt a safe lifting technique and seek assistance when lifting heavy components. In some cases it may be necessary to use mechanical handling equipment to position the machine within the work area.
- Some machines have optional wheel kits available to allow them to be manoeuvred around the workshop as required. Care should be taken to install these according to the instructions provided.
- Due to the nature of the design of some machines the centre of gravity will be high making them unstable when moved. Extreme care should be taken when moving any machine.
- If transportation of the machine is required then all precautions relating to the installation and handling of the machine apply. In addition, ensure that any vehicles or manual handling equipment used for transportation are of adequate specification.

6. The machine should be level and stable at all times

- When using a leg stand or cabinet base that is designed to be fitted to the machine, always ensure that it is securely fastened to the machine using the fixings provided.
- If the machine is suitable to be used on a workbench, ensure that the workbench is well constructed and capable of withstanding the weight of the machine. The machine should always be securely fastened to the workbench with appropriate fixings.
- Where possible, floor standing machines should always be secured to the floor with fixings appropriate to the structure of the floor.
- The floor surface should be sound and level. All of the feet of the machine should make contact with the floor surface. If they do not, either re-locate the machine to a more suitable position or use packing shims between the feet and the floor surface to ensure the machine is stable.

7. Remove adjusting keys and wrenches

- Ensure that all adjusting wrenches and keys are removed before switching the machine 'ON'. There is a risk of severe personal injury or damage to the machine from airborne objects.

8. Before switching the machine 'ON'

- Clear the machine table of all objects (tools, scrap pieces etc.)
- Make sure there is no debris between the work piece and the table / work support.
- Ensure that the work piece is not pressed against, or touching the saw blade or cutting tool.
- Check all clamps, work holding devices and fences to ensure that they are secure and cannot move during machining operations.
- Plan the way that you will hold and feed the work piece for the entire machining operation.

9. Whilst machining

- Before starting work, watch the machine while it runs. If it makes an unfamiliar noise or vibrates excessively, switch the machine 'OFF' immediately and disconnect it from the power supply. Do not restart until finding and correcting the source of the problem.

10. Keep the work area clear

- Working clearances can be thought of as the distances between machines and obstacles that allow safe operation of every machine without limitation. Consider existing and anticipated machine needs, size of material to be processed through each machine and space for auxiliary stands and/or work tables. Also consider the relative position of each machine to one another for efficient material handling. Be sure to allow yourself sufficient room to safely operate your machines in any foreseeable operation.
- Cluttered work areas and benches create the risk of accidents. Keep benches clear and tidy away tools that are not in use.
- Ensure that the floor area is kept clean and clear of any dust and debris that may create trip or slip hazards.

11. Consider the work area environment

- Do not expose the machine to rain or damp conditions.
- Keep the work area well lit and ensure that there is artificial lighting available when there is insufficient natural light to effectively light the work area. Lighting should be bright enough to eliminate shadow and prevent eye strain.
- Do not use the machine in explosive environments eg. in the presence of flammable liquids, gases or dust.
- The presence of high levels of dust created by machining wood can present a risk of fire or explosion. Always use dust extraction equipment to minimise the risk.

12. Keep other persons away (and pets)

- The machine is designed to be used by one person only.
- Do not let persons, especially children, touch the machine or extension cable (if used) and keep visitors away from the work area.
- Never leave the machine running unattended. Turn the power supply off and do not leave the machine unattended until it comes to a

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complete stop.

- If the work area is to be left unattended, all machinery should be switched 'OFF' and isolated from the mains power supply.

13. Store machines safely when not in use

- When not in use, machines should be stored in a dry place, out of reach of children. Do not allow persons unfamiliar with these instructions or with the machine to operate it.

14. Do not overreach

- Choose a working position that allows your body to remain balanced and feed the work piece in to the machine without overreaching.
- Keep proper footing and balance at all times.

15. Electrical supply

- Electrical circuits should be dedicated to each machine or large enough to handle combined motor amp loads. Power outlets should be located near each machine so that power or extension cables are not obstructing high-traffic areas. Observe local electrical guidelines for proper installation of new lighting, power outlets, or circuits.
- The machine must be connected to an earthed power supply.
- The power supply must be equipped with a circuit breaker that provides short circuit, overload and earth leakage protection.
- The voltage of the machine must correspond to the voltage of the mains power supply.
- The mains plug fitted to the machine should always match the power outlet. Do not modify the plug in any way. If a replacement plug is required it should be fitted by a competent person and of the correct type and rating for the machine.
- If you are unsure about any electrical connections always consult a qualified electrician.

16. Avoid unintentional starting of the machine

- Most machines are fitted with a no-volt release (NVR) switch to prevent unintentional starting. If in doubt always ensure the machine switch is in the 'OFF' position before connecting it to the power supply. This means the machine will not automatically start up after a power cut or switching on of the power supply, unless you first reset the start switch.

17. Outdoor use

- Your machine should not be used outdoors.

18. Extension cables

- Whenever possible, the use of extension cables is not recommended. If the use of an extension cable is unavoidable, then it should have a minimum core cross section of 2.5 mm² and limited to a maximum length of 3 metres.
- Extension cables should be routed away from the direct working area to prevent a trip hazard.

19. Guard against electric shock

- Avoid body contact with earthed or grounded surfaces such as pipes and radiators. There is an increased risk of electric shock if your body is earthed or grounded.

20. Always work within the machine's intended capacities

- Operator safety and machine performance are seriously adversely affected if attempts to make the machine perform beyond its limits are made.

21. Do not abuse the power cable

- Never pull the power cable to disconnect it from the power socket. Always use the plug.
- Keep the power cable away from heat, oil and sharp edges.
- Do not use the power cable for carrying or moving the machine.

22. Secure the work piece

- Ensure that the work piece is securely held before starting to machine it.
- When working within 300 mm of the machining area, always use a push stick to feed the work piece in to the blade or cutting tool. The push stick should have a minimum length of 400 mm. If the push stick becomes

- Use extra supports (roller support stands etc.) for any work pieces large enough to tip when not held down to the table top.
- Do not use another person as a substitute for a table extension, or as additional support for a work piece that is longer or wider than the basic table, or to help feed, support, or pull the work piece.
- Do not attempt to machine more than one work piece at a time.
- When feeding the work piece towards the blade or cutting tool never position your hands in direct line of the cutting path. Avoid awkward operations and hand positions where a sudden slip could cause your hand or fingers to move into the machining area.

23. Stay alert

- Safety is a combination of operator common sense and alertness at all times when the machine is being used.
- Use all machines with extreme care and do not use the machine when you are tired or under the influence of drugs, alcohol or medication.

24. Use the correct tool for the job

- Do not use the machine for any purpose other than which it was designed.
- When selecting replacement cutting tools and blades, always ensure that they are designed to cut the material that you intend to use them for. If in any doubt seek further advice from the manufacturer.

25. Connect dust extraction equipment

- Always use dust extraction equipment. The dust extractor should be of suitable size and capacity for the machine that it is connected to and have a filtration level appropriate to the type of waste being collected. Refer to the relevant section of the manual for details of the specific dust extraction requirements for this machine.
- The dust extractor should be switched 'ON' before starting the machine that it is connected to. The dust extractor should be left running for 30 seconds after the last machining operation is complete in order to clear any residual waste from the machine.

26. Ensure that the machine is correctly guarded

- Never use the machine if any of the standard safety guards and equipment are removed or damaged.
- Some machines incorporate safety interlocks to prevent the machine from being used without the guards in place. Never attempt to bypass or modify the interlocks to allow the machine to be used without the guards in place.

27. Maintain your machine with care

- This manual gives clear instructions on installation, set up and operation of the machine and also details any routine and preventative maintenance that should be performed periodically by the user.
- Remember always to switch off and unplug the machine from the power supply before carrying out any setting up or maintenance operations.
- Follow any instructions for the maintenance of accessories and consumables.
- Do not use compressed air to clean the machine. Always use a brush to dislodge dust in places that are awkward to reach and a dust extractor to collect the waste.
- Inspect electric cables periodically and, if damaged, have them replaced by an authorised service facility or qualified electrician.
- Inspect extension cables (if used) periodically and replace if damaged.

28. Keep cutting tools sharp and clean

- Correctly maintained cutting tools are easier to control and less likely to bind.
- Cutting tools and blades can become hot during use. Take extreme care when handling them and always allow them to cool before changing, adjusting or sharpening them.

29. Disconnect the machine from the power supply

- When not in use, before servicing, changing blades etc. always disconnect the machine from the power supply.

30. Check for damaged parts

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- Before each 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 and any other conditions that may affect the operation of the machine.
- A guard or other part that is damaged should be properly repaired or replaced by a qualified person unless otherwise indicated in this instruction manual.
- Do not use the machine if the switch does not turn the machine 'ON' and 'OFF'.
- Have defective switches replaced by a qualified person.

31. Warning!

- The use of any accessory or attachment, other than those recommended in this instruction manual, or recommended by our Company may present a risk of personal injury or damage to the machine and invalidation of the warranty.

32. Have your machine repaired by a qualified person

- This machine complies with the relevant safety rules and standards appropriate to its type when used in accordance with these instructions and with all of the standard safety guards and equipment in place. Only qualified persons using original spare parts should carry out repairs. Failure to do this may result in considerable danger to the user and invalidation of warranty.

33. Caution! Motor may become hot during use

- It is normal for motors on some machines to become hot to the touch during use. Avoid touching the motor directly when in use.

Additional Health & Safety for Bandsaws

Safe Operation

1. Familiarise yourself with the machine

- Machining operations using bandsaws have a history of serious accidents. Most result from contact with the moving blade while presenting material to the blade or moving it from the table. Other minor accidents can occur whilst setting, cleaning, adjusting or maintaining the machine.
- The machine is designed for cutting wood and composite board (plywood, MDF etc.). Certain plastics can also be cut using a suitable blade.

2. Before switching the machine 'ON'

- Ensure that the blade is correctly tensioned and aligned on the bandwheels and the blade guides are correctly adjusted.
- Ensure that the teeth of the blade are pointing downwards.
- Check the condition of the blade to ensure that no teeth are missing, damaged or deformed and the blade is not cracked or split. If any of these conditions apply, replace the blade immediately.
- Ensure that the saw blade type and width are suitable for the material to be cut.
- Check that the blade width is within the minimum and maximum permitted on the machine and that the thickness of the blade is suitable for the diameter of the wheel.
- Some machines have more than one cutting speed. For most wood cutting applications the faster of the speeds should be used.
- Check the condition of the table insert. Replace it immediately if it is damaged or showing signs of wear.
- Adjust the guard as close as possible to the work piece being cut.
- Check that access doors are fully closed and that the latches are secure.

3. Whilst machining

- Never apply sideways pressure to the blade as this may cause the blade to break.
- Care must be taken when cutting wood with knots, nails or cracks in it and / or dirt on it, as these can cause the blade to get stuck. If this happens, switch the machine 'OFF' immediately and follow the procedure detailed in the manual to remove the blade from the work piece.
- If cutting cylindrical timber use a suitable jig to prevent twisting of the work piece.

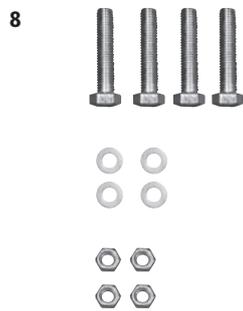
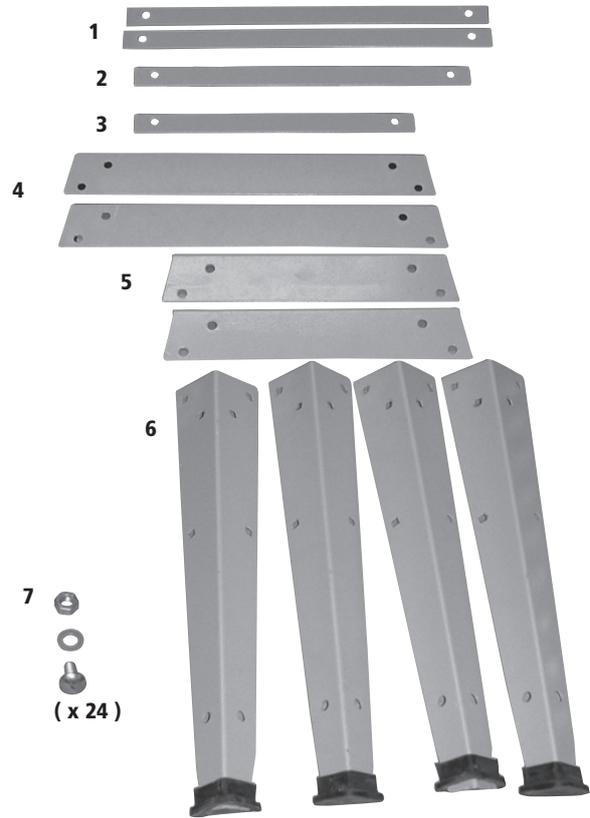


CAUTION! The machine is heavy. Additional help or a suitable lifting device or support will be required for lifting the machine onto the stand.

Stand

- 1. 2 x Long mid brace supports
- 2. Medium mid brace support
- 3. Short mid brace support
- 4. 2 x Long top brace supports
- 5. 2 x Short top brace supports
- 6. 4 x Legs
- 7. 24 x Stand fixing nuts bolts and washers (each)
- 8. 4 x Long fixing bolts, nuts and washers

Fig.3.1

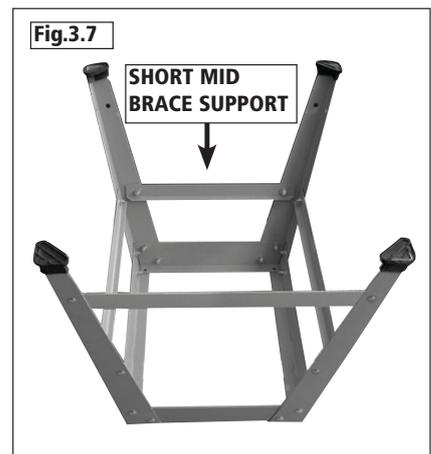
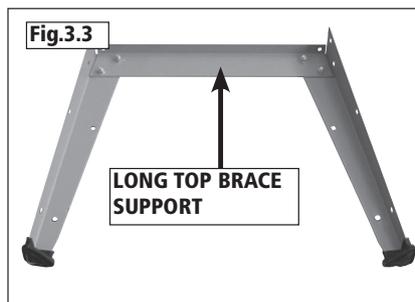
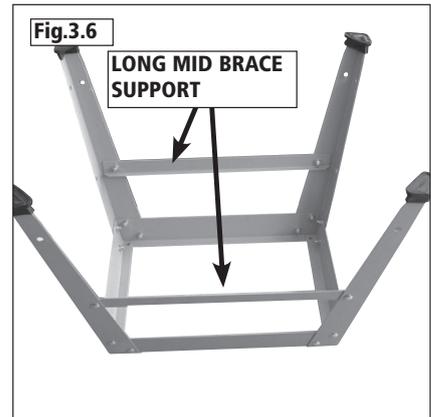
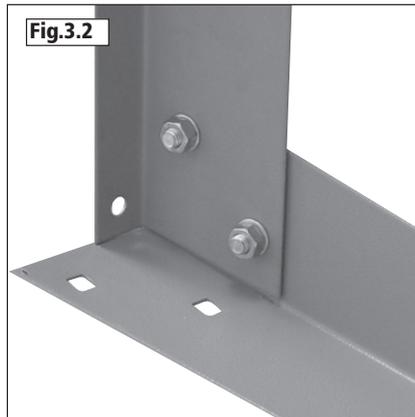




Note: When assembling this legstand do not fully tighten the nuts and bolts until the assembly is complete.

3.2 Stand Assembly

1. Locate the first leg and secure it to one of the long top brace supports using the nuts, bolts and washers supplied **Fig.3.2**.
2. In the same way, attach the second leg to the brace support **Fig.3.3**.
3. Locate the short top brace supports and fix them to the legs as shown **Fig.3.4**.
4. Continue in this way until all of the legs and top brace supports have been fitted **Fig.3.5**.
5. The locating holes a third of the way down each leg are for securing the mid brace supports. Fix the long mid brace supports to the frame using the nuts, bolts and washers **Fig.3.6**.
6. Finally, fit the short and medium mid brace supports to the shorter sides **Fig.3.7**. The short mid brace support is fitted to holes positioned two thirds of the way up each leg. The medium mid brace support is positioned in the lower holes in each leg.



1. Feed the long fixing bolts up through the stand and secure the four corners using the washers and bolts provided **Fig.3.10**. Once this is achieved the whole stand can be fully tightened ready for the bandsaw to be fitted.

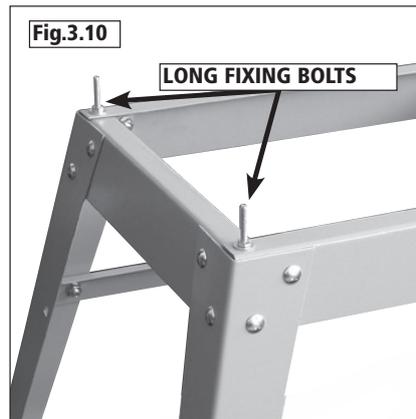
3.4 Fitting the bandsaw to the stand



CAUTION! The machine is heavy. Additional help or a suitable lifting device or support will be required for lifting the machine onto the stand.

1. Lift the bandsaw over the stand, and place the long fixing bolts through the four location holes in the bandsaw base **Fig.3.11**.

2. Secure the bandsaw to the stand with the remaining washers and nuts **Fig.3.12**.



3. ASSEMBLY

3.1 Initial Assembly

The machine is supplied partly assembled. Prior to use, the following items have to be fitted. Bandsaw table, Rip fence guide and Crank handle.

3.2 Fitting the table

Tools Required: - 13mm Wrench

Insert the M8 x 50 coach bolt and square plastic insert (A) through the slot on the upper trunion casting (B) and, temporarily, screw on the winged nut (C) to prevent it falling out. *Fig. 1*

Fit the upper table trunion casting (B) to the underside of the bandsaw table (D) using the 4 - M8 x 16 hex head set screws (E) and washers, Ensuring that the angle tilt scale is closest to the edge of the table. *Fig. 2*

Whilst the table is in the upside down position fit the table stop screw and nut (F) as shown, this will be adjusted later. *Fig. 1*

Turn the table over and remove the winged nut (C) from the trunion coach bolt (A) making sure the end of the bolt projects down through the casting. *Fig. 3*

(Some assistance may be needed for this)

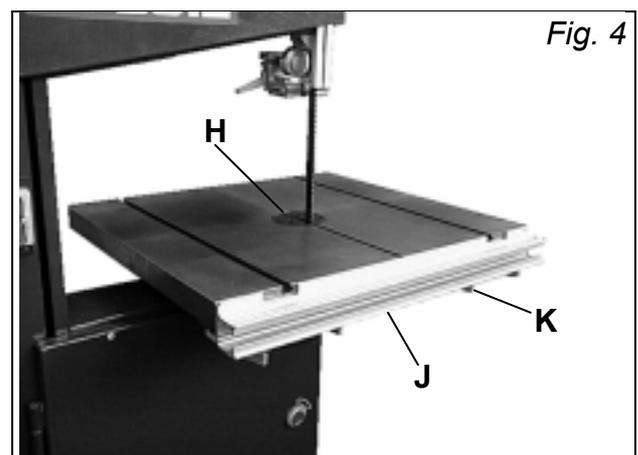
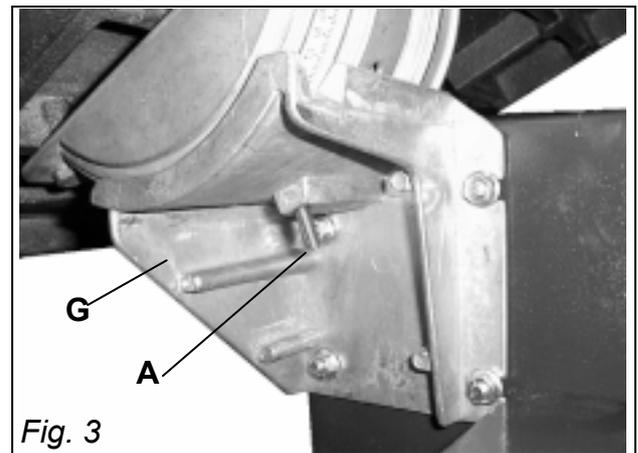
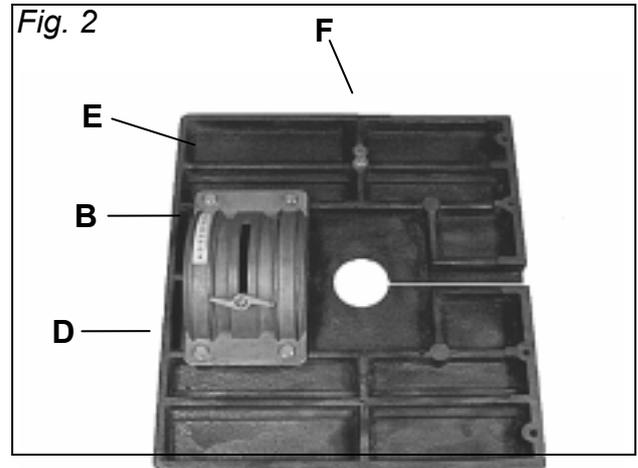
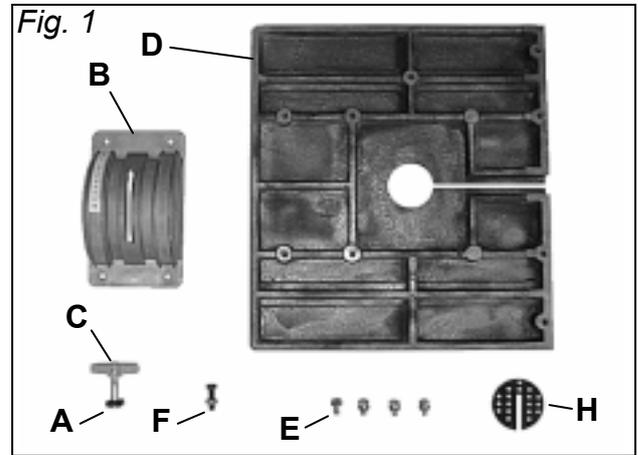
Guide the table and upper trunion on to the bandsaw lower trunion (G) and ensure the bolt (A) projecting from the upper trunion is inserted through its corresponding hole in the lower trunion *Fig. 3*. When in position re-fit and tighten the winged nut.

Fit the plastic table insert (H) to the centre of the table with the angled bevel facing downwards. *Fig. 4*

3.3 Fitting the Rip Fence Guide

This instruction assumes that the blade is already fitted, if not, go to the section headed "Replacing the bandsaw blade".

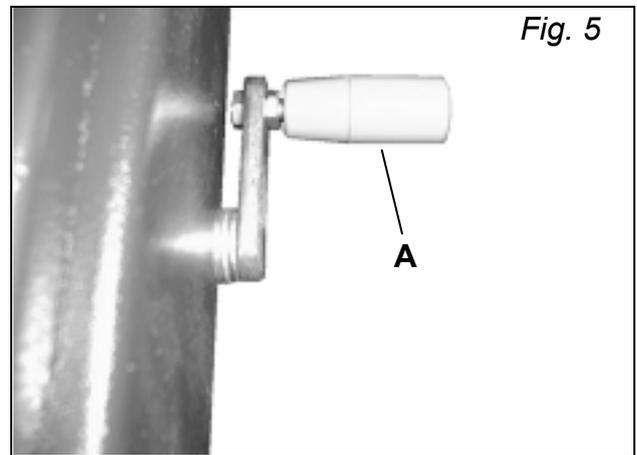
To fit the Rip Fence Guide (J) attach it to the front edge of the table with the four winged screws and washers supplied (K). This will be adjusted later. *Fig 4*



3.4 Fitting the Crank Handle

Tools Required :- Flat bladed screwdriver
10mm wrench

Attach the crank handle (A) to the belt tension crank arm with the M6 x 55 slotted cheese head screw and two M6 nuts. *Fig. 5*

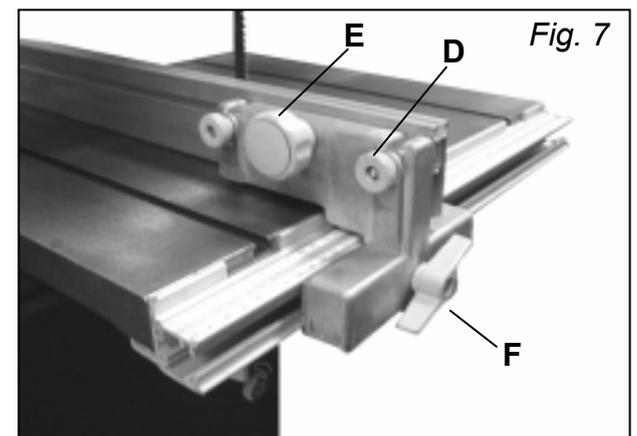
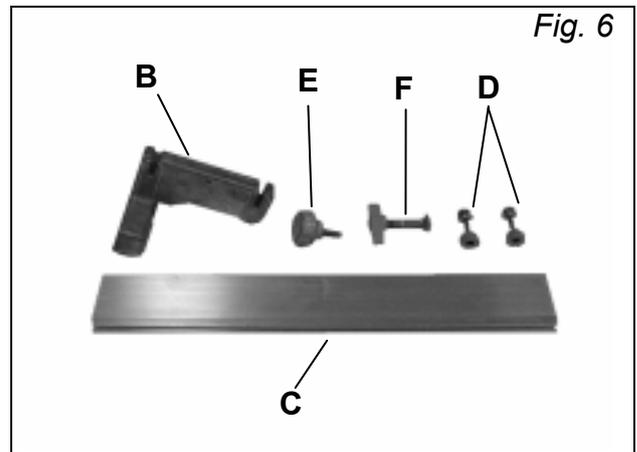


3.5 Assembling the Rip Fence

The rip fence on this bandsaw can be used on either side of the blade by fixing the rip fence extrusion (C) to the appropriate side of the rip fence casting (B). *Fig. 6*

To assemble the rip fence take the rip fence casting (B) *Fig. 6* and attach it to the bandsaw table using the M8 x 50 coach bolt and plastic winged nut. (F) *Fig. 6*

Fit the rip fence extrusion (C) to the rip fence casting (B) with the two small knurled knobs and M6 x 40 coach bolts (D) and use the large knob (E) for adjustment and to lock in position as shown in *Fig. 7*



3.6 Fence Adjustment

Vertical and horizontal alignment of the rip fence is made by adjusting the two small knurled knobs (D) and the large centre knob (E). *Fig. 7*

The fence should be aligned with the table slots along its length and adjusted vertically with a suitable square placed on the table surface.

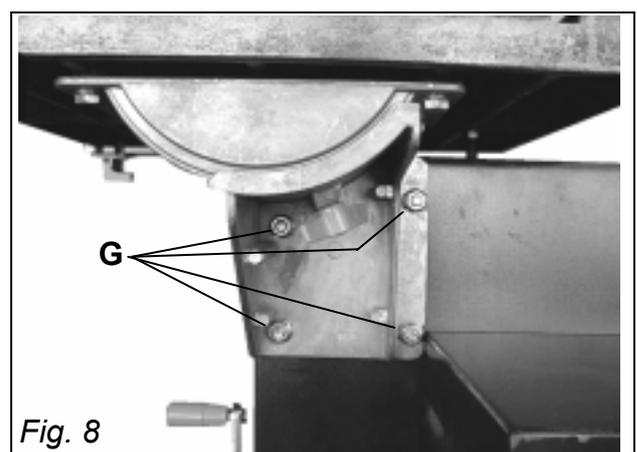
3.7 Centering the table to the blade

Tools Required:- 13mm wrench

To centre the table to the blade loosen the 4 M8 nuts (G) *Fig. 8* which hold the lower trunion to the machine frame.

Slide the table sideways until the blade is at the centre of the slot in the table insert.

Re-tighten the 4 nuts making sure the table remains in its set position.



3.8 Setting the table square to sawblade

Tools Required :- Small 90 ° square
(not supplied)

The table can be set at 90° to the sawblade *Fig. 9* by adjusting the table stop screw underneath the table.

The table stop screw rests on the top of the lower wheel bandwheel housing. By, first slackening the locking nut (A) and then adjusting the screw (B) the table can be set correctly. Re-tighten the locking nut (A) making sure that the setting is maintained. *Fig. 10*

3.9 Adjusting the rip fence guide scale

Tools Required:- 10mm Wrench
Straight edge

To adjust the rip fence scale loosen the four winged screws (see *K Fig. 4*) below the table and move the scale and rip fence guide (C) *Fig. 11* sideways to adjust. Re-tighten the winged screws when the adjustment is correct.

The adjustment can be checked by setting the rip fence to a thickness and cutting a test piece. When the adjustment is correct the thickness of the test piece will correspond with the rip fence scale setting.

3.10 Checking the table for flatness

Once the scale is set to the desired position the table should be checked for flatness. This can be done by using a steel rule as a straight edge. The steel rule should be held on the table across the table slot close to the front edge of the table. (See *Fig. 12*)

If the straight edge shows there is a step across the table slot then the table needs to be adjusted using the two screws and locking nuts provided for this purpose, located on the underside of the rip fence guide, at (D) *Fig. 12*

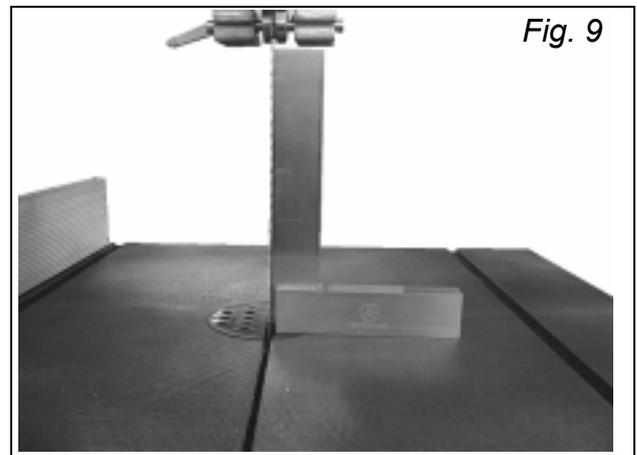


Fig. 9

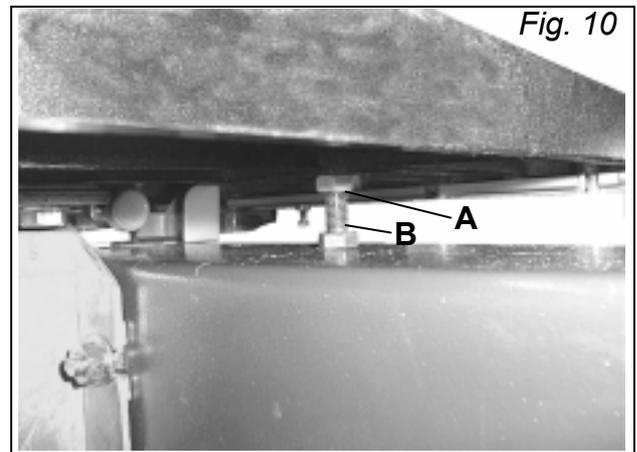


Fig. 10

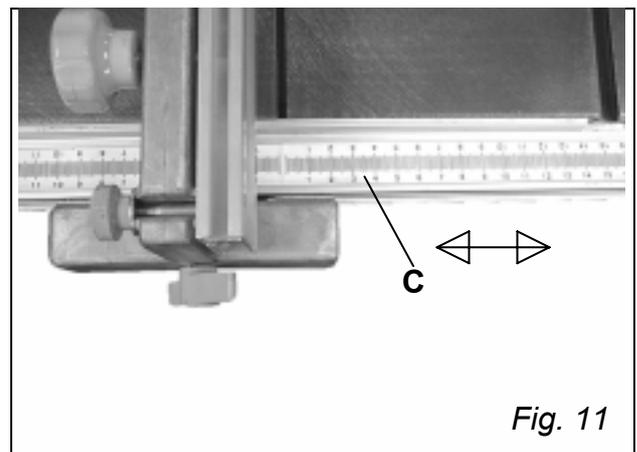


Fig. 11

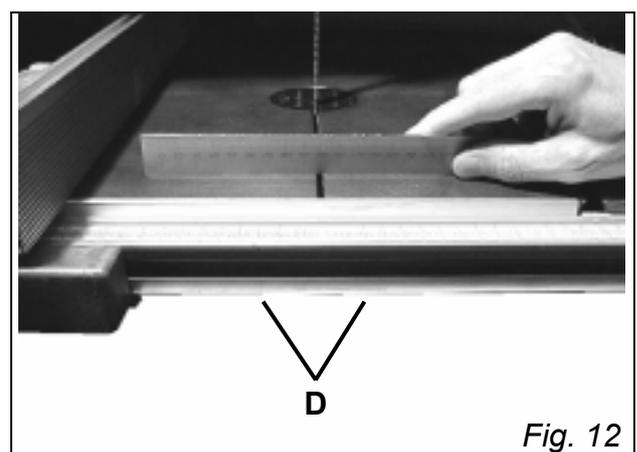
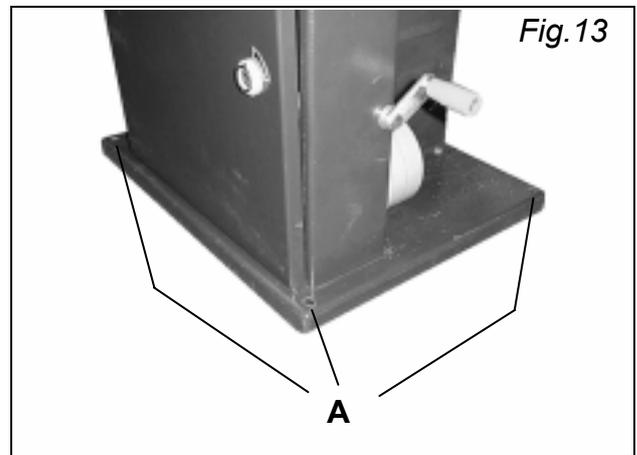


Fig. 12

3.11 Stability of the bandsaw

Before using the bandsaw, ensure the machines upright stability is satisfactory.

The bandsaw has four Ø8mm holes (A) *Fig. 13* in it's base to allow it to be bolted to the floor or a bench or alternatively to the optional workstand.

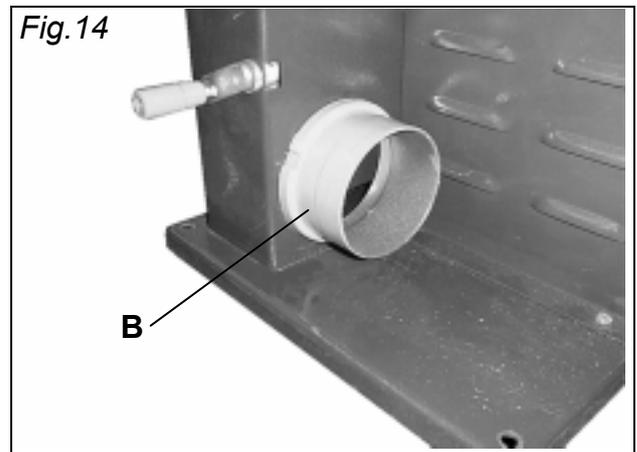


3.12 Dust extraction

The machine is fitted with a dust extraction port of Ø100mm (B) *Fig. 14*

It is recommended that when in use, the machine is connected to a suitable dust extractor.

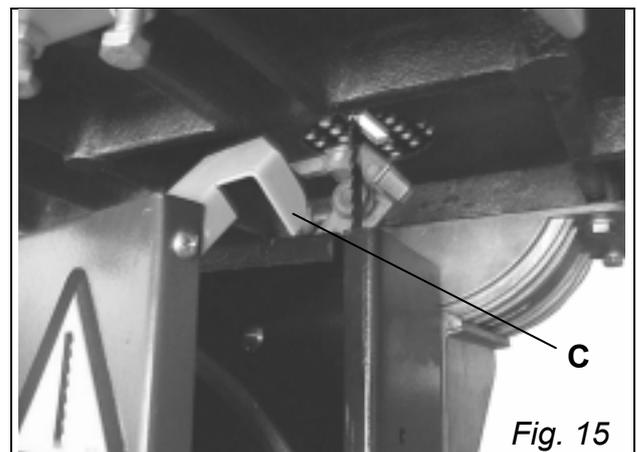
The dust extractor used should be able produce an air speed of approx. 20 m / sec across the extraction port area.



3.13 Lower blade guard

When open the lower bandwheel door on this machine the lower blade guard (C) *Fig. 15* swings down.

When the lower door is closed the guard MUST be raised back to its operating position. The bandwheel doors MUST be closed at all times when the machine is being operated.

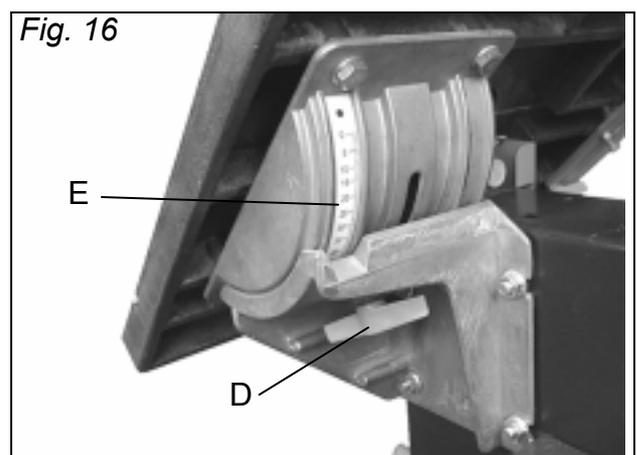


3.14 Tilting the bandsaw table

To tilt the table to a specific angle.

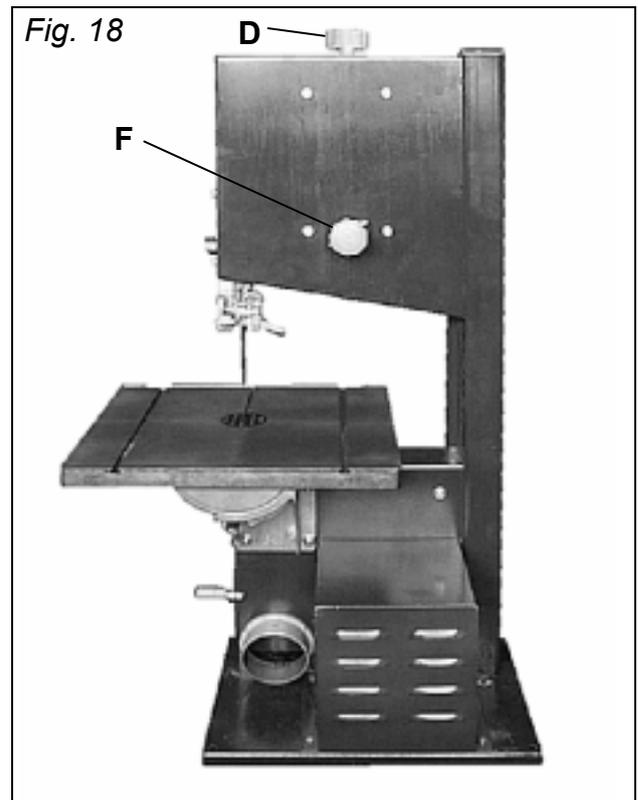
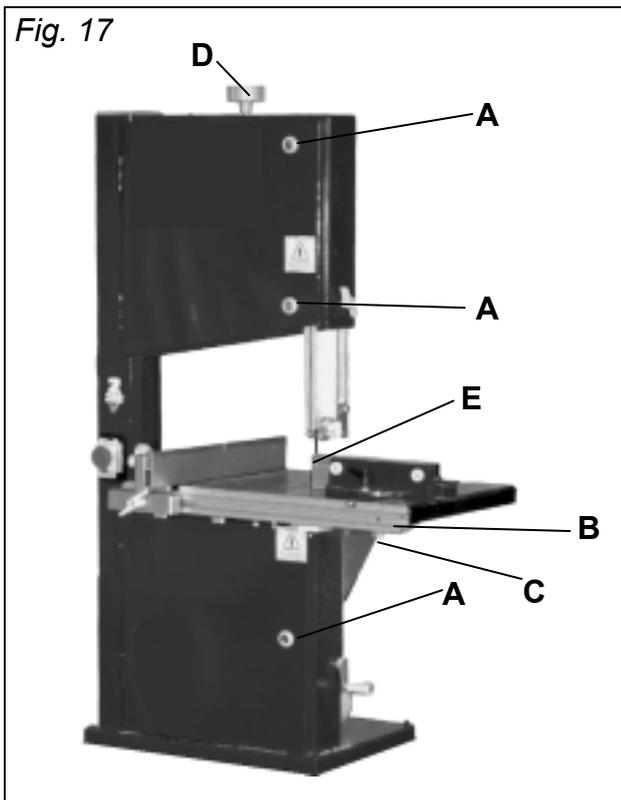
Ensure the table is clear of loose objects. Loosen the winged nut (D) *Fig. 16* on the lower trunion, then tilt the table to the angle required using the scale (E) *Fig. 16*. When the required setting is reached re-tighten the winged nut to lock the table in position.

Note:- When using the table at an angle always have the rip fence on the lower side of the table to support the workpiece.



3.15 Replacing the bandsaw blade

1. Isolate the machine from the supply by unplugging the 3 pin plug.
2. Open the top and bottom bandwheel doors by turning the door locks (A) with a flat bladed screwdriver.
3. Remove the Rip fence guide (B) from the front of the table by releasing the 4 winged screws (C).
4. Release the blade tension by turning the large knob (D).
5. Remove the sawblade (E) by feeding it through the slot in the table, upper blade guides and guard and the slot in the spine of the machine taking care not to cut yourself, wear gloves if necessary.
6. When fitting the new blade ensure the blade teeth are pointing downwards and towards you at the position where the blade passes through the table.
7. Re-tension the new blade and check the blade tracking by turning the upper wheel by hand. The blade should run in the centre of the bandwheel. (See Fig. 19)
8. If required adjust the tracking using tracking knob and lock knob (F) Fig. 18 to the rear of the upper bandwheel housing. When the tracking is correct lock the setting.
9. Re-set the blade guides as described in the section headed "Adjusting the blade guides"
10. Replace the rip fence guide.
11. Close and lock both the bandwheel doors before re connecting the power supply.



3.16 Tracking the Bandsaw blade

Isolate the machine from the supply by unplugging the mains plug.

Set the tracking of the blade before setting the blade guides.

Once the blade is fitted and tensioned, track the blade by turning the upper bandwheel by hand and adjusting the tracking knob (F) *Fig. 18*.

The blade should run in the centre of the bandwheel as shown in *Fig. 19*.

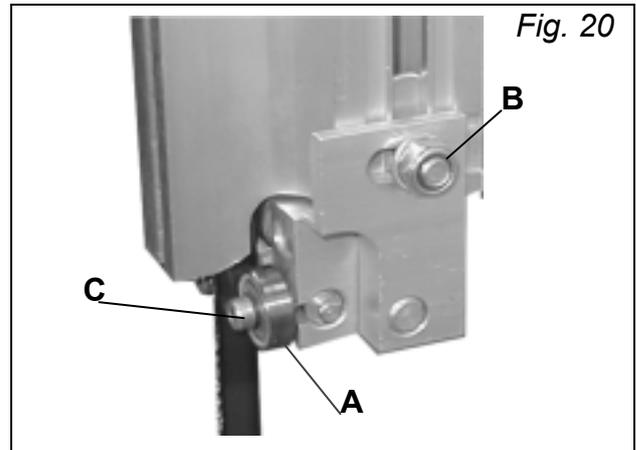


When the correct adjustment is achieved lock the tracking knob with the winged nut.

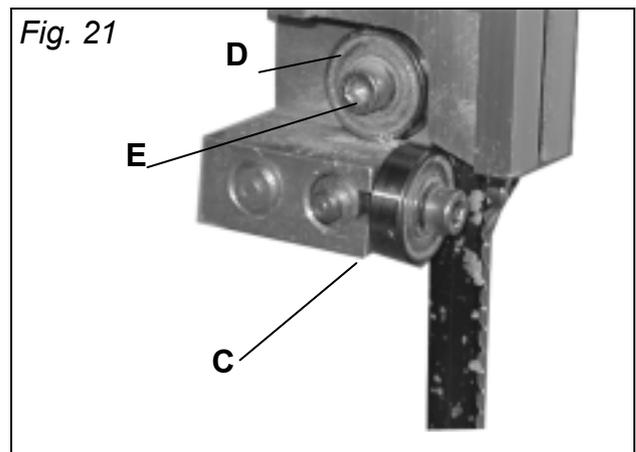
3.17 Adjusting the Blade Guides

Upper Guides

To adjust the upper blade guides, first position the roller guides (A) *Fig.20* relative to the blade by slackening off the hex. nut (B) *Fig. 20* and moving the guide carrier until the roller guides (A) are approx. 2mm behind the gullets of the blade.



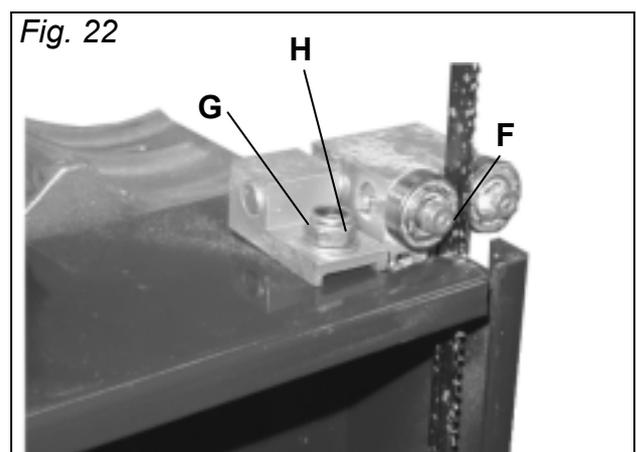
Next set the roller guides (A) to within 0.5mm of the blade by releasing the screw (C) on each side of the blade. Do not set the guides too close as this will adversely affect the life of the blade.



Finally adjust the large thrust bearing (D) *Fig. 21* to be just clear of the back of the blade by unlocking the socket cap screw (E) *Fig. 21* . When the correct adjustment is reached lock in position with socket cap screw (E).

Lower Guides

To adjust the lower blade guides (F) *Fig. 22* first position the guides so that they are approx. 2mm behind the gullets of the bandsaw blade by slackening off the nut (G) *Fig.22* then moving the guide carrier casting to the desired position. Re-tighten the nut (G) to lock in position.



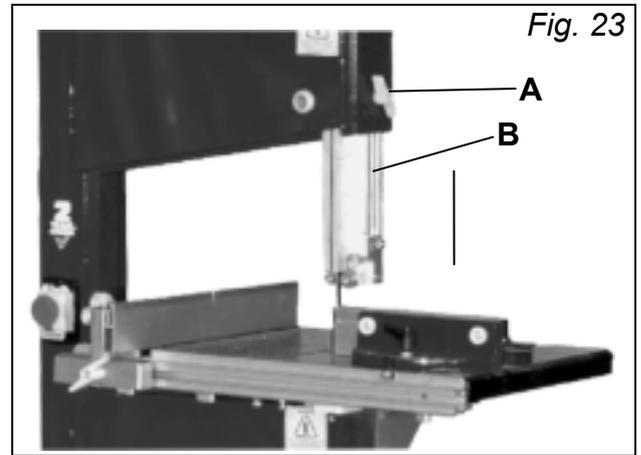
Adjust the guides (F) to within 0.5mm of be blade by releasing the socket cap (H).

3.18 Adjusting the Cutting Height

To adjust the cutting height release the winged nut (A) *Fig.23* and move the upper blade guide and guard assembly (B) *Fig. 23* so that it provides approx 2 - 3mm clearance above the workpiece.

When set correctly re-tighten winged nut (A).

Note: The maximum cutting height is 6" (150mm).

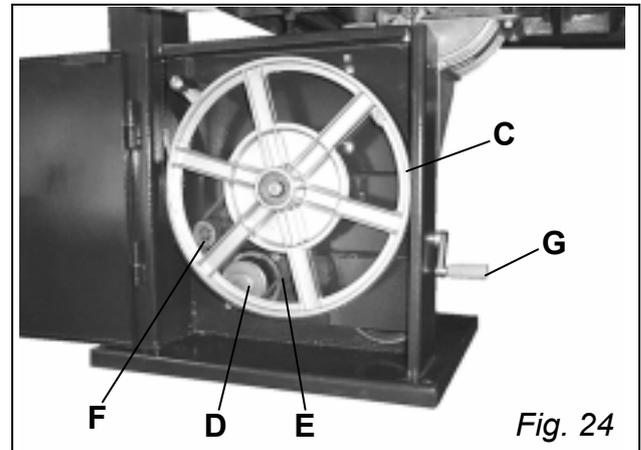


3.19 Changing the Blade Speed

The RSBS14 has two blade speeds 440 m/min (1445 feet/min) for hardwoods, some plastics and certain non ferrous metals and 900 m/min (2950 feet/min) for all other timber.

The lower bandwheel (C) *Fig. 24* has two, integral, multi vee form pulleys and the motor shaft has a twin multi vee form pulley (D) *Fig. 24*.

The multi vee belt (E) *Fig. 24* passes around the bandwheel pulley, the motor pulley and the plain tension roller (F) *Fig. 24*. The belt tension is released and applied by using the cranked handle (G) *Fig. 24*, this moves the tension roller and allows the speed to be changed.

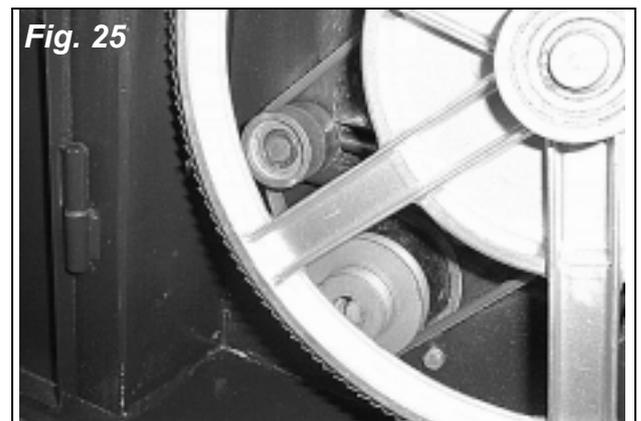


To change the belt the lower bandwheel must be removed.

High Speed 900 m/min

Before changing the speed always make sure the machine has been isolated from the mains supply .

For the high speed the belt should be fitted to the rear pulley on both the motor and bandwheel. As shown in *Fig. 25*.



Low Speed 440 m/min

Before changing the speed always make sure the machine has been isolated from the mains supply .

For the low speed the belt should be fitted to the front pulley on both the motor and bandwheel. As shown in *Fig. 26*.



4. OPERATION

1. The blade cuts on a continuous downstroke.
2. Slowly feed the workpiece towards the blade, putting only light pressure on it.
3. With both hands, firmly hold the workpiece down on the table, and feed it towards the blade slowly, using the push stick supplied, keeping your hands away from the blade.
4. For best results the blade must be sharp.
5. Select the right blade for the job, depending on the thickness of the wood and the cut to be made. The thinner and harder the wood, the finer the teeth of the blade. Use a fine tooth blade for cutting sharp curves.
6. Use the fence provided to feed the workpiece along the blade slowly and in a straight line.
7. The machine is especially suited for cutting curves, but will also make straight cuts.
8. When cutting, follow the design marked out by pushing and turning the workpiece evenly.
9. Do not attempt to turn the workpiece without pushing it, as this may cause the workpiece to get stuck, or the blade to bend.

5. MAINTENANCE

CAUTION! BEFORE CLEANING OR CARRYING OUT MAINTENANCE WORK, DISCONNECT THE MACHINE FROM THE POWER SOURCE (WALL SOCKET). NEVER USE WATER OR OTHER LIQUIDS TO CLEAN THE MACHINE. USE A BRUSH.

REGULAR MAINTENANCE OF THE MACHINE WILL PREVENT UNNECESSARY PROBLEMS.

1. Keep the table clean to ensure accurate cutting.
2. Keep the outside of the machine clean to ensure accurate operation of all moving parts and prevent excessive wear.
3. Keep the ventilation slots of the motor clean to prevent it from overheating.
4. Keep the inside (near the saw blade, etc.) clean to prevent accumulation of dust.

6. TROUBLESHOOTING

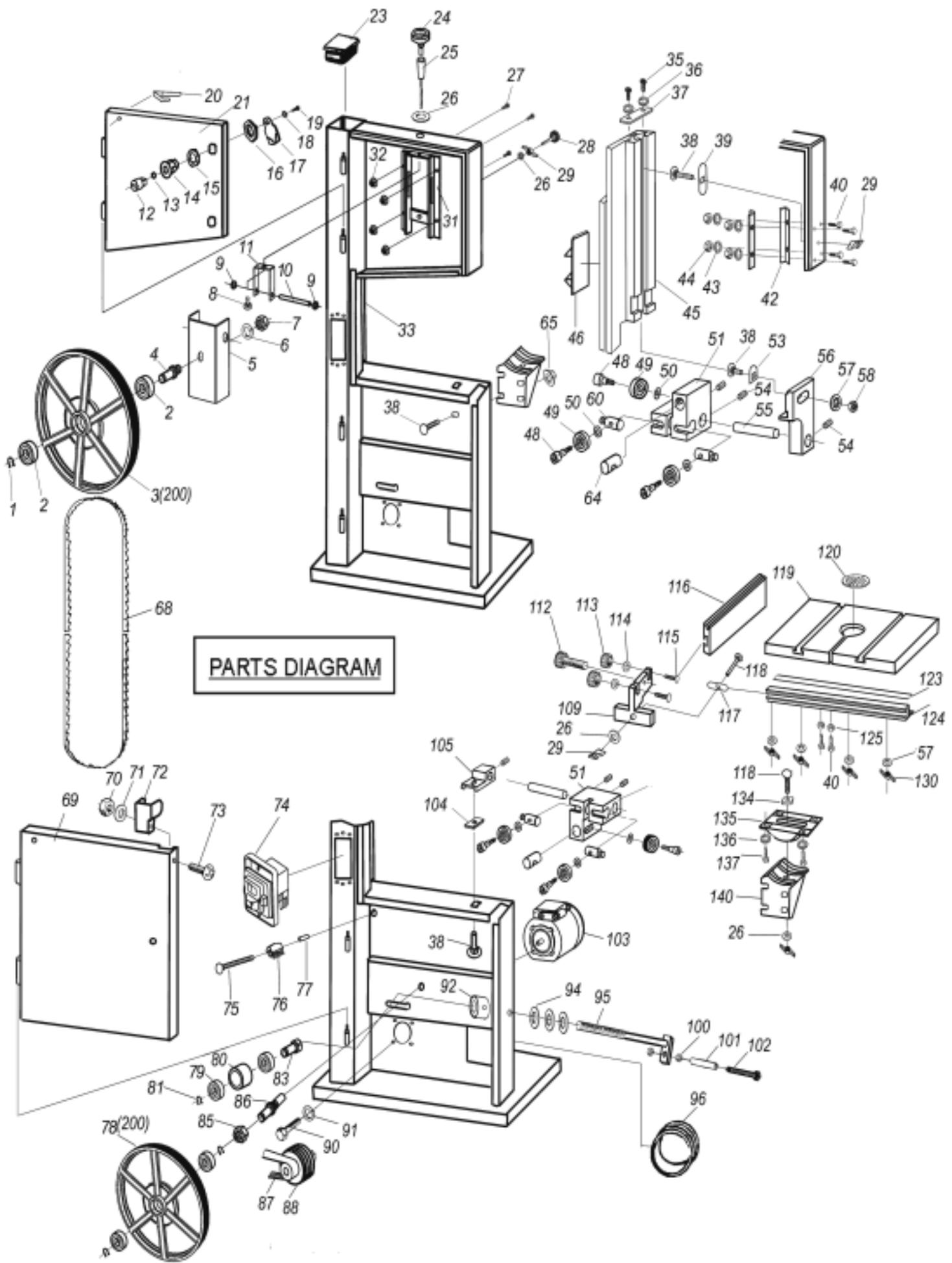


WARNING: FOR YOUR OWN SAFETY, ALWAYS TURN OFF THE MACHINE AND UNPLUG BEFORE CARRYING OUT ANY TROUBLESHOOTING.

| TROUBLE | PROBABLE CAUSE | REMEDY |
|--|---|--|
| The machine does not work when switched on. | 1. No power supply. | - Check the cable for breakage. - Check the fuse. |
| | 2. Defective switch. | - Return machine to your local dealer for repair. |
| The blade does not move with the motor running. | 1. The blade tension knob has not been tightened. | - Switch off the motor, tighten the blade tension knob. |
| | 2. The blade has come off one of the wheels. | - Open the hinged door and check. |
| | 3. The saw blade has broken. | - Replace the blade. |
| | 4. The drive belt has snapped. | - Replace the belt. |
| The blade does not cut in a straight line. | 1. Fence for cutting not used. | - Use a fence. |
| | 2. Too fast feed rate. | - Put light pressure on the workpiece. Make sure the blade does not bend. |
| | 3. The blade teeth are dull or damaged. | - Try a new blade. |
| | 4. Blade guides not suitably adjusted. | - Adjust the blade guides (see assembly instructions). |
| The blade does not cut, or cuts very slowly. | 1. The teeth are dull, caused by cutting hard material or long use. | - Replace the blade, use a 6 T.P.I. blade for wood and soft materials. Use a 14 T.P.I. blade for harder materials. A 14 T.P.I. blade always cuts slower due to the finer teeth and the slower cutting performance. |
| | 2. The blade was fitted the wrong way round. | - Fit the blade correctly. |
| Sawdust builds up inside the machine. | This is normal | - Clean the machine regularly. Open the hinged door and remove the sawdust with a vacuum cleaner. |
| Sawdust inside the motor housing. | | - Clean the ventilating slots of the motor with a vacuum cleaner. From time to time remove the sawdust to prevent it from being sucked into the housing |
| The machine does not cut at 45° or 90° angles. | 1. The table is not at right angles to the blade. | - Adjust the table. |
| | 2. The blade is dull or too much pressure was put on the workpiece. | - Replace the blade or put less pressure on the workpiece. |
| The blade cannot be properly positioned on the pulley. | 1. The wheels are not in alignment. Defective bearing. | - Return the machine to your local dealer for repair. |
| | 2. The wheel alignment knob hasn't been properly adjusted. | - Adjust the knob (see instructions). |
| | 3. Inferior blade. | - Replace the blade. |

8. PART LIST

| REF. No. | DESCRIPTION | REF. No. | DESCRIPTION |
|----------|--------------------------------|----------|--------------------------------------|
| 1 | Circlip ring 17x1 | 65 | Flange nut M8 galvanised |
| 3 | Upper band saw wheel assembly | 69 | Door-lower assembly |
| 4 | Upper bearing shaft | 70 | Hexagonal nut M4, self-locking |
| 5 | Wheel carrier bracket | 71 | Flat washer 4 mm |
| 6 | Spring washer M16 | 72 | Saw blade guard |
| 7 | Hexagonal nut -M16x1.5 | 73 | Hexagonal screw -M4x12 |
| 8 | Special Screw for tension | 74 | No-volt switch |
| 9 | Starlock w/o cap Rd10 | 75 | Carriage bolt M8x100 |
| 10 | Cylindrical pin 11x100 | 76 | Brush |
| 11 | Tension bracket | 77 | Spacer bush 8x50 |
| 12 | Sloted inset | 78 | Lower band saw wheel assembly |
| 13 | Saddle washer | 79 | Grooved ball bearing 80101 |
| 14 | Lock housing | 80 | Tension wheel |
| 15 | Nylon washer | 81 | Circlip ring 12x1 |
| 16 | Hexagonal nut M22x1.5 | 83 | Sliding shaft |
| 17 | Tongue lock | 85 | Hexagonal nut -M20x1.5 |
| 18 | Serrated lock washer 6mm | 86 | Lower bearing shaft |
| 19 | Hexagonal bolt -M6x10 | 87 | Poly-v-belt |
| 20 | Leaf spring | 88 | Motor belt pulley |
| 21 | Door-upper assembly | 90 | Hexagonal screw -M6x16 galvanised |
| 23 | Lamello plug | 91 | Spring washer 6 mm |
| 24 | Blade tension knob | 92 | Set collar 10 mm |
| 25 | Blade tensioner | 94 | Disk washer 20x10.2x0.8 |
| 26 | Flat washer 8 mm | 95 | Crank |
| 27 | Hexagonal head screw M8x16 | 96 | Suction connector Rd 100 |
| 28 | Blade tracking knob | 100 | Hexagonal flat nut-M6 galvanised |
| 29 | Wing nut M8 | 101 | Crank handle |
| 31 | Tension bracket frame | 102 | Cap screw M6x55 |
| 32 | Flange nut M8 galvanised | 103 | Motor 1 Kw 220/240V1~ |
| 33 | Frame-Bandsaw | 104 | Pin guide set |
| 35 | Pan head tapping screw 4.2x16 | 105 | Lower guide support |
| 36 | Serrated lock washer 5 mm | 109 | Rip fence carrier |
| 37 | Plate | 112 | Knurled thumb screw M6x25 galvanised |
| 38 | Carriage bolt M8x20 | 113 | Knurled nut M6 |
| 39 | Bolt guide | 114 | Washer flat 6 mm |
| 40 | Hexagonal bolt -M6x20 | 115 | Carriage bolt M6x40 |
| 42 | Guide bracket | 116 | Fence extrusion |
| 43 | Serrated lock washer 6 mm | 117 | Bolt guide |
| 44 | Hexagonal nut M6 | 118 | Carriage bolt M8x50 |
| 45 | Saw blade guide assembly | 119 | Table |
| 46 | Slide | 120 | Table insert |
| 48 | Guide adjust screw | 123 | Scale-metric |
| 49 | Grooved ball bearing 80018 | 124 | Rip fence carrier extrusion |
| 50 | Flat washer 6 mm | 125 | Hexagonal nut M6 |
| 51 | Roller Guide Bracket | 130 | Wing nut M8 |
| 53 | Bolt guide, small | 134 | Glide piece |
| 54 | Screw socket set M6x12 | 135 | Table trunion upper |
| 55 | Guide shaft | 136 | Serrated lock washer 8 mm |
| 56 | Upper guide mount | 137 | Hexagonal screw M8x20 |
| 57 | Flat washer 8 mm | 140 | Table trunion lower |
| 58 | Hexagonal nut M8, self locking | 200 | Band saw tyre 350x2.5x20 |
| 60 | Bearing mount cylinder w/cap | | |
| 64 | Bearing mount cylinder | | |



1

YEAR

WARRANTY

WARRANTY

1. WARRANTY

- (a) We warrant that this **carbatec** product will be free from defects caused by faulty workmanship or faulty materials for a period of **1 year from date of sale.**
- (b) This warranty is in addition to other rights and remedies you may have under a law in relation to the goods.
- (c) This warranty does not apply in any of the following cases:
 - (i) defects arising from:
 - (1) fair wear and tear;
 - (2) corrosive atmosphere;
 - (3) damage or injury caused by deliberate act, lack of care or failure to comply with the recommended care and maintenance for the goods;
 - (4) improper use of the goods;
 - (5) alterations or repairs (not made by us) to the goods;
 - (ii) defects arising from an event outside of our control such as fire, flood, earthquake or other natural calamity, motor vehicle or other accident, strike, civil unrest, terrorism or war;
 - (iii) to accessory items such as after-market jigs, accessories or other items which are not sold or serviced by us and which are not sold with or were not included with the main unit purchased; or
 - (iv) to wearable parts such as drive belts/shafts, bearings, bandsaw tyres, motor brushes, blades or abrasive belts/discs or other cutting or machining implements.
 - (v) damage caused to any electrical component, where connected to a power supply outside the country for which it was designed (namely Australia or New Zealand).
- (d) If this warranty applies and you have complied with the procedure below for making a claim, we will, at our election, either repair the goods (or those parts of the goods recognised as defective) or will provide a replacement within a reasonable time at our expense.
- (e) If this warranty applies, the procedure for making a claim is:
 - (i) you must contact us by email;
 - (ii) you must include in the email the following information:
 - (1) a copy of the order or receipt for the goods;
 - (2) the serial or batch number printed on the machinery manufacturing plate; and
 - (3) a detailed description of the fault and how and when it arose; and
 - (iii) if the fault is a type covered by this warranty, we will then make arrangements with you for the return of the goods to us (for repair or replacement) at our cost using our transport providers or we may decide to attend at your premises to repair or replace the goods.
- (f) Our liability (and that of our resellers) under this warranty is wholly limited to repair or replacement of the goods (or those parts of the goods recognised as defective) in accordance with the procedure above and you have no right to other compensation, costs or damages under this warranty. But this does not mean that you may not have other rights under a law in relation to the goods.
- (g) If following our inspection of goods returned by you under this warranty it is found that this warranty does not apply and you are not otherwise entitled to repair or replacement by us, you must, if requested by us, reimburse our costs including parts, labour and freight.
- (h) This warranty is not transferable and only the person who purchased the goods may make a claim.
- (i) Where the goods have been exported outside Australia or New Zealand, the Company may not require the Purchaser to return any allegedly faulty or defective Product for evaluation. However, the Company has the right to request the return for evaluation at purchasers cost.

2. STATUTORY NOTICE

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

3. CONTACT DETAILS

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