

RECORD POWER
ESTABLISHED 1909®

Original Instruction Manual

BS350S Premium 14" Bandsaw

Version 3.0
January 2013



To register this product please visit
www.recordpower.info

It is important to register your product as soon as possible in order to receive efficient after sales support and be entitled to the full **5 year guarantee**. Your statutory rights are not affected.
Please see back cover for contact details.



Always wear safety glasses when using woodworking equipment.



Always read the instructions provided before using woodworking equipment.



Important

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

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Consumable Spare Parts Quick Find

Part Description	Part Number	Description	Part Number
Blades		SBS300-153	Upper guide support block
BB103121406	1/4" x 6 TPI Skip tooth pattern	SBS300-146	Blade support shaft
BB103123806	3/8" x 6 TPI Skip tooth pattern		
BB103121204	1/2" x 4 TPI Skip tooth pattern	Lower Blade Guides	
BB103121206	1/2" x 6 TPI Skip tooth pattern	SBS3505-113	Washer
BB103123403	3/4" x 3 TPI Skip tooth pattern	SBS300-130	Left cover
BB10312-3PACK	1/4", 3/8" & 5/8" Skip tooth pattern	SBS3505-131	Hex socket screw
SBS300-127	Table Insert	SBS300-132	Lower blade guide support
Bandwheels		SBS300-135	Right cover
SRPBS12-101	Drive belt	SBS3505-136	Hex bolt M5-0.8 x 10
SBS350-26	Bandwheel tyre	SBS3505-137	Flat washer M5
SBS350-18	Wheel bearing		
SBS300-58	Brush		
Upper Blade Guides			
SBS3505-149	Hex bolt M6-1.0 x 15		

Explanation of Symbols

The symbols and their meanings shown below may be used throughout this manual. Please ensure that you take the appropriate action wherever the warnings are used.

Mandatory Instructions



Read and fully understand the instruction manual before attempting to use the machine.



Indicates an instruction that requires particular attention



Wear protective eyewear



Use respiratory protective equipment



Use hearing protection



Use suitable protective footwear



Use protective work gloves

Warnings



Indicates a risk of severe personal injury or damage to the machine



Indicates a risk of severe personal injury from electrical shock



Risk of personal injury from lifting of heavy items



Indicates a risk of severe personal injury from airborne objects



Risk of fire

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

General Health & Safety Guidance - cont.

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 damaged, replace it immediately.

- 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

General Health & Safety Guidance - cont.

- 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.

4. This machine falls under the scope of the 'Health & Safety at Work etc. Act 1974', and the 'Provision & Use of Work Equipment Regulations 1998'. In addition the elimination or control of risks from wood dust is included in the above regulations and the 'Control of Substances Hazardous to Health (COSHH) Regulations 2002'. We recommend that you study and follow these regulations.

Further guidance can be found in the 'Safety in the use of narrow bandsaws – Woodworking sheet No.31' and the 'Safe use of woodworking machinery' code of practice booklet (L114) published by Health & Safety Executive and available from their website www.hse.gov.uk.

Record Power Guarantee

“**Products**” means the Products sold by Record Power subject to these terms and conditions;

“**Record Power**” is Record Power Limited, whose company registration number is 4804158 and registered office address is Centenary House, 11 Midland Way, Barlborough Links, Chesterfield, Derbyshire S43 4XA and sells through a network of Authorised Dealers;

“**Authorised Distributor**” is the nominated importer for your region who will generally sell through a network of Authorised Dealers. Details of Authorised Distributors for specific countries can be found in the Product manual or at www.recordpower.info;

“**Authorised Dealer**” is a retailer or business authorised to sell Record Power Products to end users.

1 Guarantee

- 1.1 Record Power guarantees that for a period of 5 years from the date of purchase the components of qualifying Products (see clauses 1.2.1 to 1.2.9) will be free from defects caused by faulty construction or manufacture.
- 1.2 During this period Record Power, its Authorised Distributor or Authorised Dealer will repair or replace free of charge any parts which are proved to be faulty in accordance with paragraphs 1.1 above provided that:
 - 1.2.1 you follow the claims procedure set out in clause 2 below;
 - 1.2.2 Record Power, our Authorised Distributor or Authorised Dealer are given a reasonable opportunity after receiving notice of the claim to examine the Product;
 - 1.2.3 if asked to do so by Record Power, its Authorised Distributor or Authorised Dealer, you return the Product, at your own cost, to Record Power’s premises or other approved premises such as those of the Authorised Distributor or supplying Authorised Dealer, for the examination to take place;
 - 1.2.4 the fault in question is not caused by industrial use, accidental damage, fair wear and tear, wilful damage, neglect, incorrect electrical connection, abnormal working conditions, failure to follow our instructions, misuse, or alteration or repair of the Product without our approval;
 - 1.2.5 the Product has been used in a domestic environment only;
 - 1.2.6 the fault does not relate to consumable Products such as blades, bearings, drive belts or other wearing parts which can reasonably be expected to wear at different rates depending on usage (for full details contact Record Power or your local Authorised Distributor);
 - 1.2.7 the Product has not been used for hire purposes, by you or by a previous owner;
 - 1.2.8 the Product has been purchased by you as the guarantee is not transferable from a private sale.
 - 1.2.9 where the Product has been purchased from a retailer, the 5 year guarantee is transferable and begins on the date of the first purchase of the Product and in the event of a claim under this guarantee proof of the original purchase date will be required to validate the warranty period.

2 Claims Procedure

- 2.1 In the first instance please contact the Authorised Dealer who supplied the Product to you. In our experience many initial problems with machines that are thought to be due to faulty parts are actually solved by correct setting up or adjustment of the machines. A good Authorised Dealer should be able to resolve the majority of these issues much more quickly than processing a claim under the guarantee.
- 2.2 Any damage to the Product resulting in a potential claim under the guarantee must be reported to the Authorised Dealer from which it was purchased within 48 hours of receipt.
- 2.3 If the Authorised Dealer who supplied the Product to you has been unable to satisfy your query, any claim made under this Guarantee should be made directly to Record Power or its Authorised Distributor (for details of the Authorised Distributor in your country please see your Product manual or check www.recordpower.info for details). The claim itself should be made in a letter setting out the date and place of purchase, and giving a brief explanation of the problem which has led to the claim. This letter should then be sent with proof of the purchase date (preferably a receipt) to Record Power or its Authorised Distributor. If you include a phone number or email address this will help to speed up your claim.
- 2.4 Please note that it is essential that the letter of claim reaches Record Power or its Authorised Distributor on the last day of this Guarantee at the latest. Late claims will not be considered.

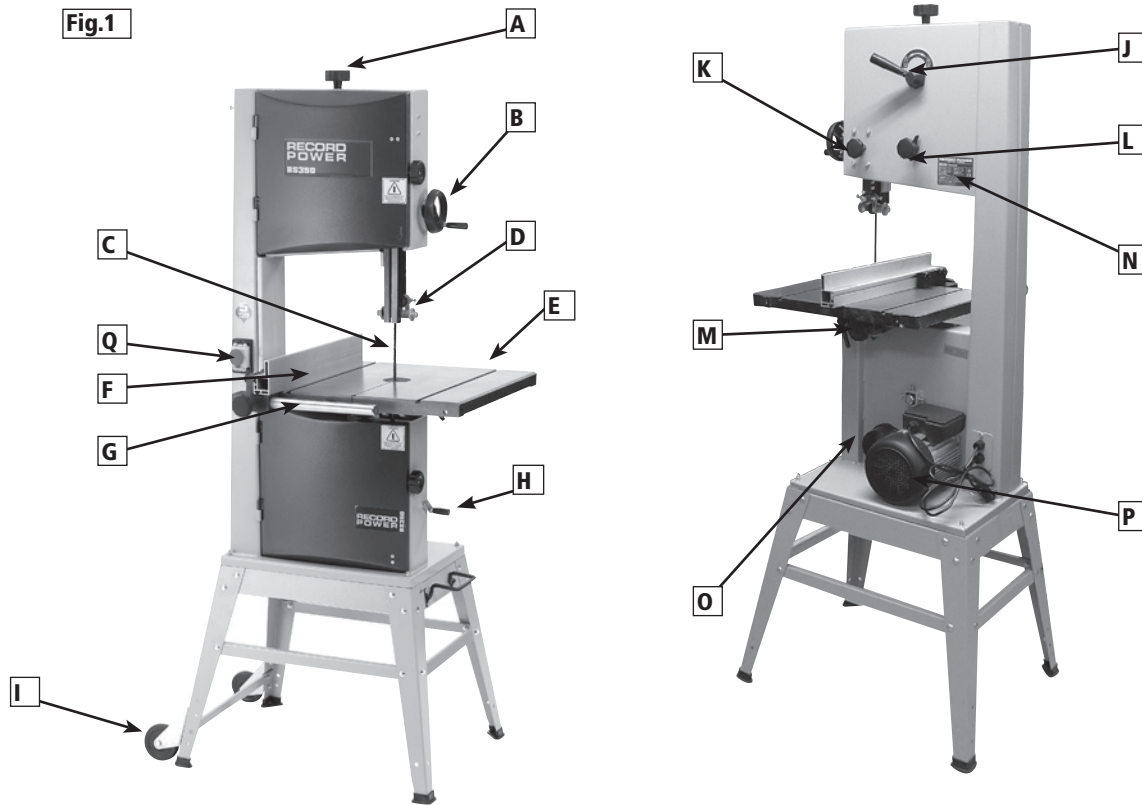
3 Limitation of Liability

- 3.1 We only supply Products for domestic and private use. You agree not to use the Product for any commercial, business or re-sale purposes and we have no liability to you for any loss of profit, loss of business, business interruption or loss of business opportunity.
- 3.2 This Guarantee does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This Guarantee is offered as an extra benefit and does not affect your statutory rights as a consumer.

4 Notice

This Guarantee applies to all Products purchased from an Authorised Dealer of Record Power within the United Kingdom of Great Britain and Northern Ireland. Terms of Guarantee may vary in other countries – please check with the Authorised Distributor in your country (details of the Authorised Distributor for your country can be found in the manual or at www.recordpower.info).

1. Getting To Know Your Bandsaw



- | | | | |
|---|------------------------------------|---|----------------------------------|
| A | Blade Tensioning Knob | J | Blade Tension Release Cam Handle |
| B | Rise & Fall Hand Wheel | K | Rise & Fall Lock Knob |
| C | Blade | L | Blade Tracking Knob |
| D | Upper Blade Guides | M | Table Tilting Knob |
| E | Table | N | Motor Rating Plate |
| F | Rip Fence | O | 100 mm Dust Extraction Port |
| G | Rip Fence Rail | P | Motor |
| H | Belt Tension & Speed Change Handle | Q | On/Off Switch and Emergency Stop |
| I | Wheel Kit | | |

2. Machine Specification

Blade length:	2630 mm (103 ¹ / ₂ "
Blade width:	6 - 19 mm (1/4" - 3/4")
Max depth of cut:	230 mm
Throat depth:	340 mm
Table size:	545 x 400 mm
Max width blade to rip fence:	280 mm
Table height:	998 mm
Extraction port:	100 mm
Motor:	230 V / 50 Hz / 1 ¹ / ₂ hp / 1120 W
Full load current:	6.7 A
Weight:	100 kg
Footprint:	610 x 440 mm
Dimensions:	Height 1760 mm x width 770 mm x depth 690 mm
Sound power level:	82 dB (no load), 100 dB (load)
Sound pressure level:	75 dB (no load), 90 dB (load)

3. Stand & Wheel Kit Assembly

3.1 Stand & Wheel Kit Assembly



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

The stand and wheel kit comes as a self assembly unit, **Fig.3.1**.

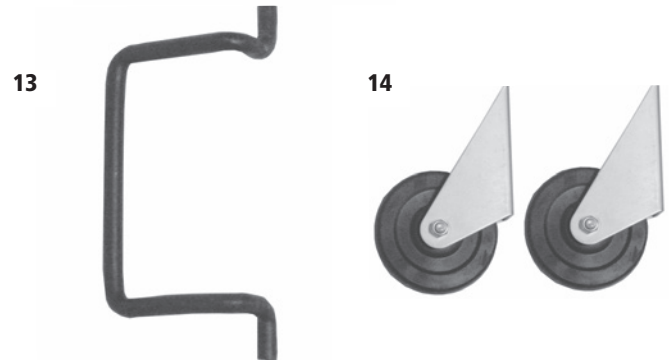
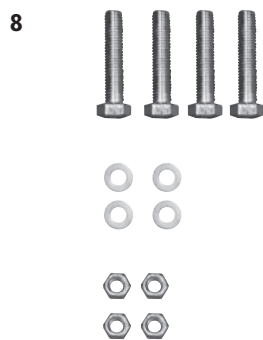
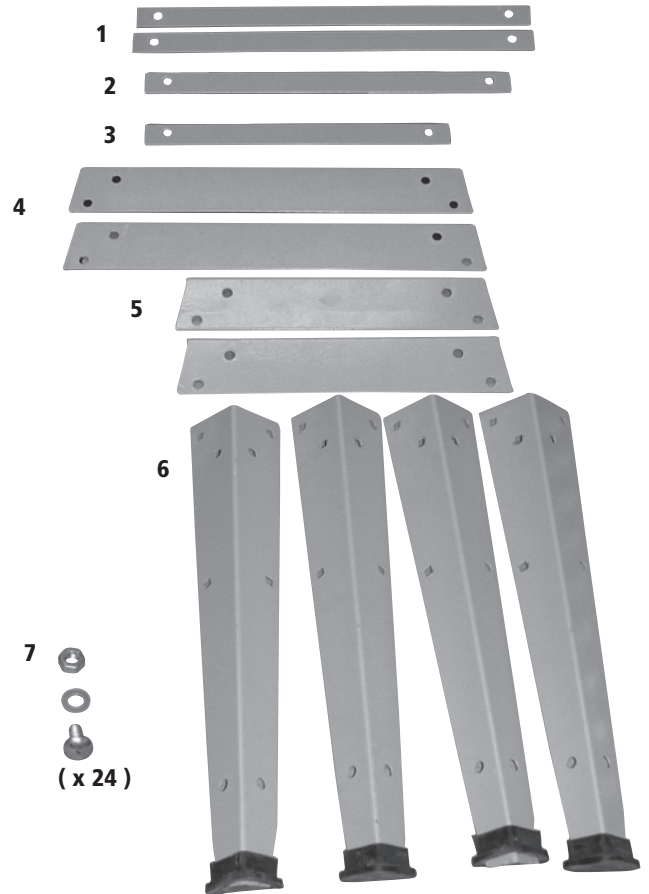
Stand

- 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

Wheel Kit

- 9. 8 x Hex bolts
- 10. 2 x D-Handle brackets
- 11. 8 x Nylon nuts
- 12. 8 x Washers
- 13. D-handle
- 14. 2 x Fixed wheels

Fig.3.1



3. Stand & Wheel Kit Assembly - cont.



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

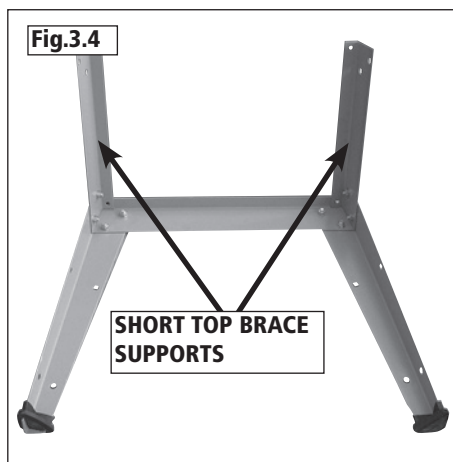
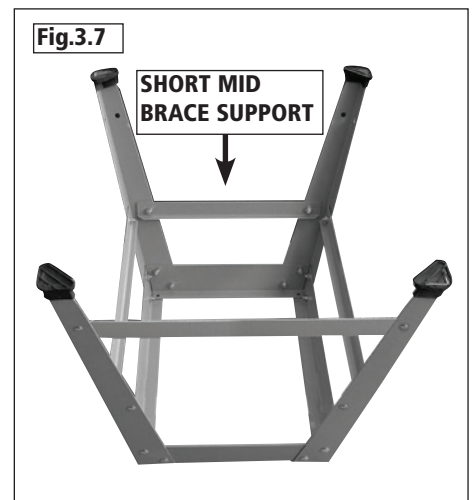
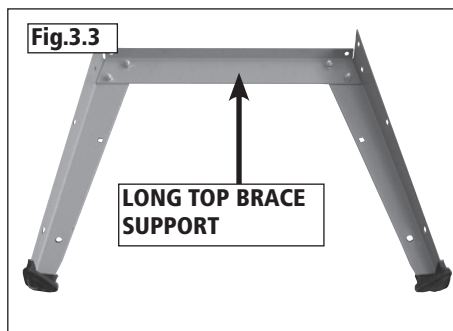
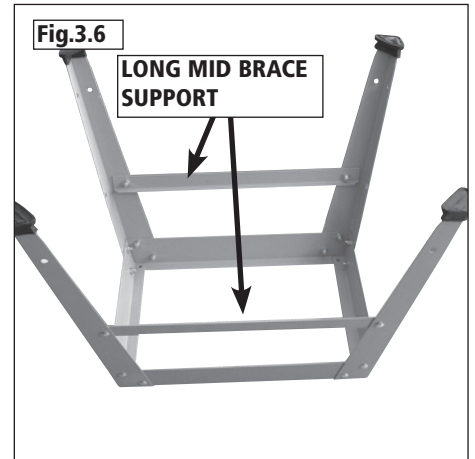
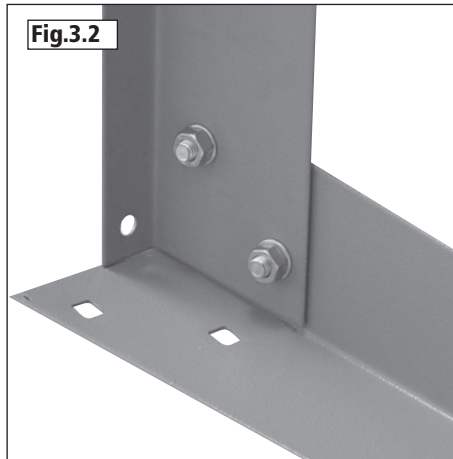
When fitting the optional pedal wheelkit during initial assembly of the bandsaw, please do so before attaching the bandsaw to the leg stand to ensure greater safety and ease of fitment.

When fitting the optional pedal wheelkit, the short mid brace support (Fig. 3.7) at the front of the bandsaw should be removed.

Please see section 15 for assembly instructions of the BS350S-W Pedal Wheel Kit.

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.



3. Stand & Wheel Kit Assembly - cont.

3.3 Wheel Kit Assembly

1. Attach the fixed wheels to the rear legs of the machine stand using the M6 x 16 hex bolts, Washers, and M6 nuts provided. **Fig 3.8.** The rear of the stand is the side which features the medium mid brace support.

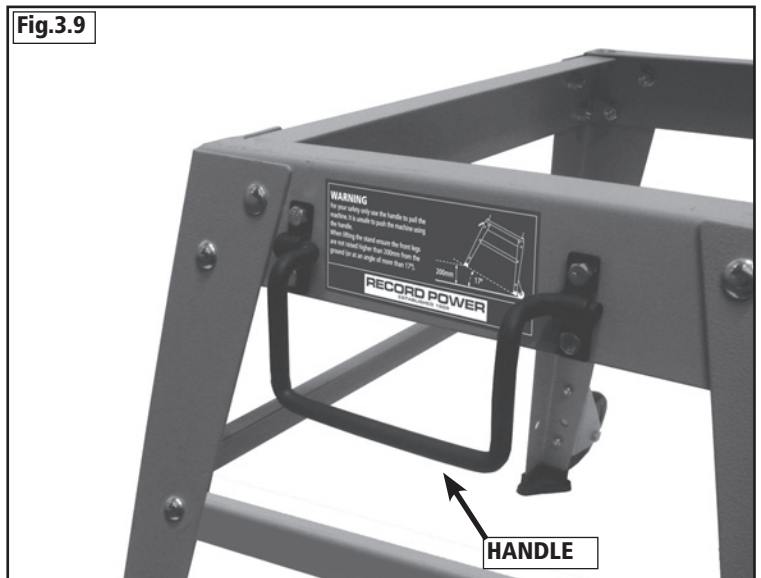
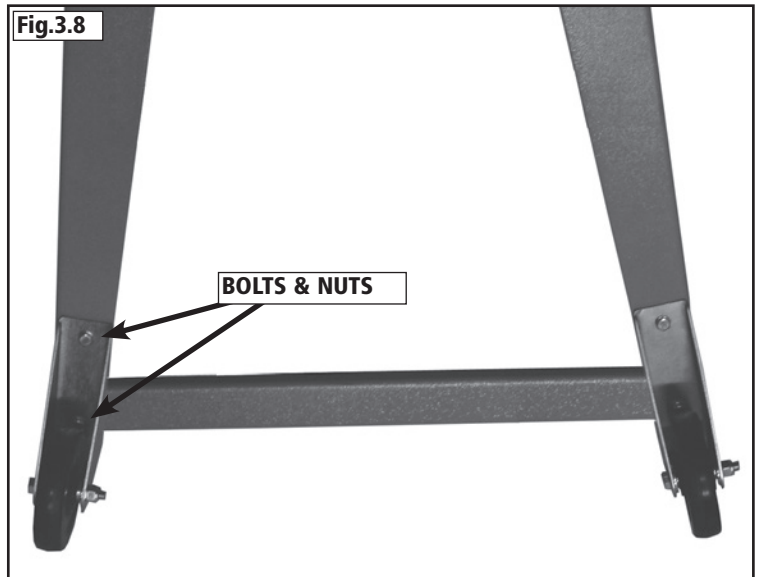
2. Assemble the D-handle to the front short top brace of the stand, using the D-handle brackets, M6 x 16 Hex bolts, Washers and M6 Nuts provided. **Fig 3.9.**

3. Fully tighten all of the fixings to secure the wheels and handle assembly (take care not to over tighten the fixings as damage to the threads may occur).



PLEASE NOTE: For your safety only use the handle to pull the machine. It is unsafe to push the machine using the handle.

When lifting the stand ensure the front legs are not raised higher than 200 mm from the ground (or at an angle of more than 17°).



3. Stand & Wheel Kit Assembly - cont.

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



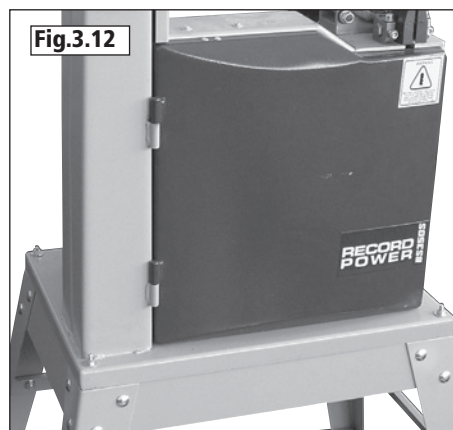
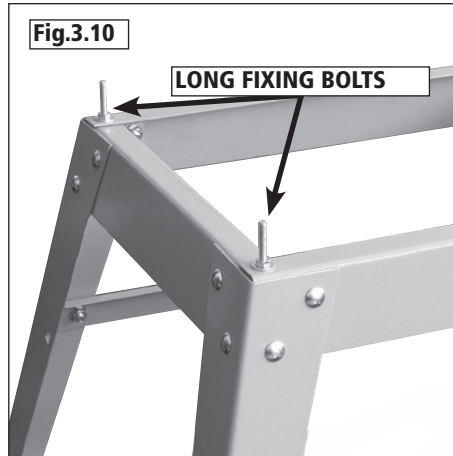
CAUTION! The machine is heavy. Additional help or a suitable lifting device or support will be required for lifting the machine onto the stand.

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**.

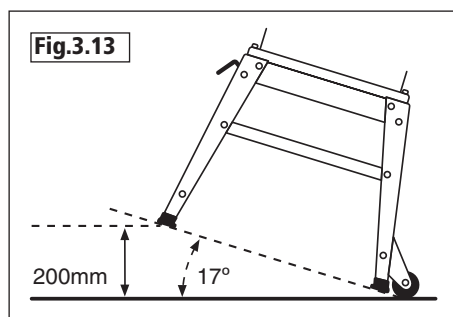


Ensure the bandsaw is fitted to the stand so that the wheels are at the rear (spine end) of the machine.



WARNING! For your safety only use the handle to pull the machine. It is unsafe to push the machine using the handle.

When lifting the stand ensure the front legs are not raised higher than 200 mm from the ground (or at an angle of more than 17°). **Fig.3.13**.



4. Machine Assembly

4.1 Unpacking and components included

The machine is supplied partly assembled. Prior to use, further assembly is required.

When unpacking the machine, in addition to the bandsaw itself, the following components are included for the initial assembly **Fig.4.1**:

1. 2 x Nuts and small crank handle
2. Rise & fall hand wheel and crank handle
3. Blade tensioning knob

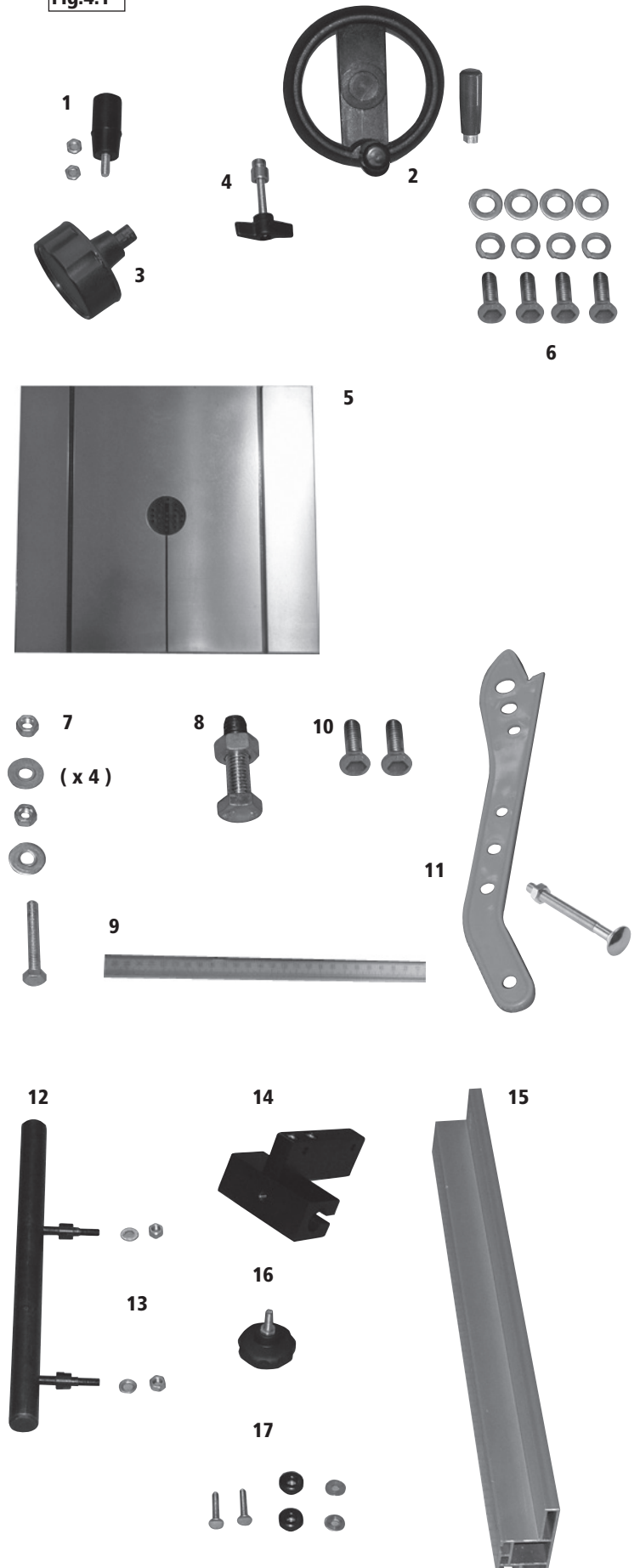
Table Assembly

4. Table stop safety bolt
5. Table
6. 4 x Table fixing bolts, washers and spring washers
7. 4 x Long fixing bolts, nuts and washers
8. Table levelling nut and bolt
9. Scale Bracket
10. 2 x hex head bolts
11. Push stick, holder and nut.

Fence Assembly

12. Fence bar
13. Fence fixing bar nuts and washers
14. Fence carrier
15. Fence
16. Fence lock knob
17. 2 x Nuts, bolts and washers

Fig.4.1



4. Machine Assembly - cont.

4.2 Rise & fall hand wheel

Attach the rise and fall hand wheel to the rise and fall shaft and tighten the socket head bolt with a 6 mm hex wrench, then attach the handle and tighten with a 10 mm spanner (See Fig.4.2).

4.3 Belt tension handle

Attach small crank handle to belt tension and speed mechanism with 10 mm spanner (not supplied) (See Fig.4.3).

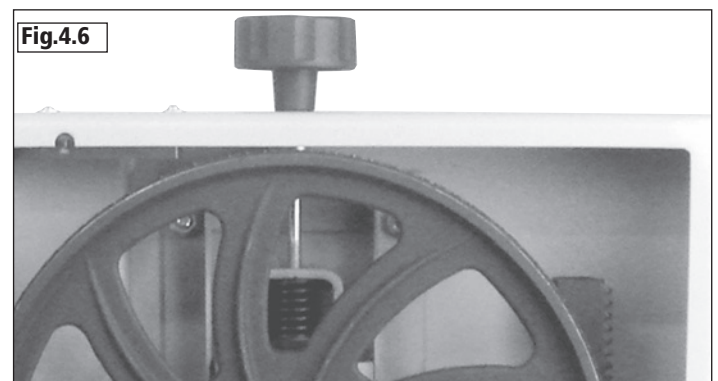
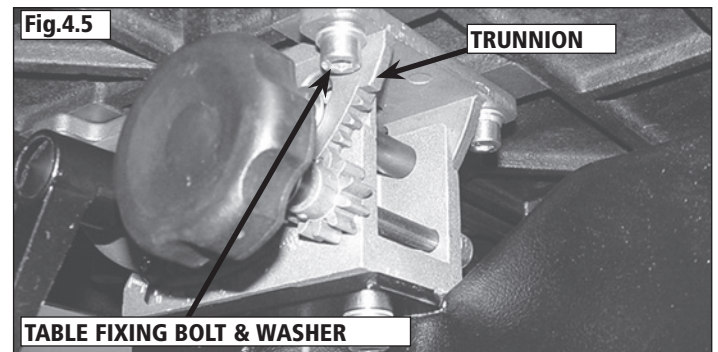
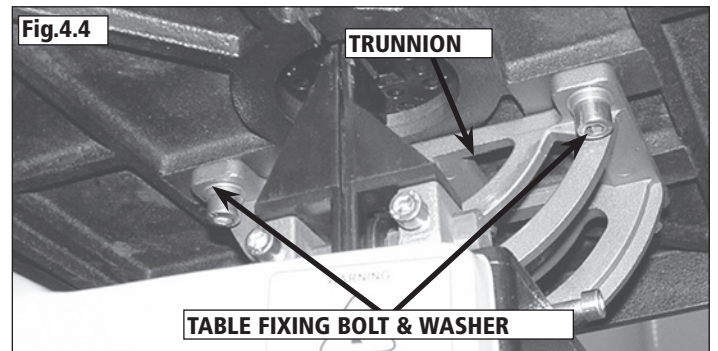
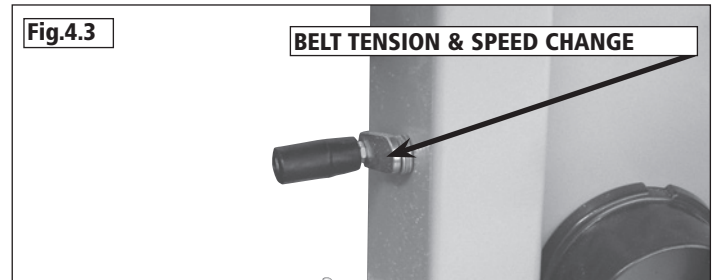
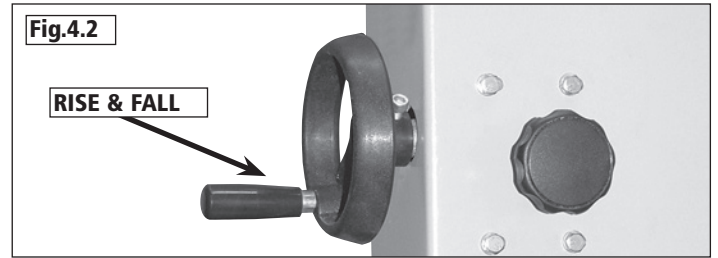
4.4 Fitting the table

Tools Required: - 13 mm spanner (not supplied)

With the help of another person, lift the working table onto the trunnion. Mount the working table on the trunnion using the supplied 4 x table fixing bolts and 4 x washers (See Fig.4.4 front view & 4.5 rear view).

4.5 Fitting the tension knob

To fit the tension knob, slot it into the keyway on the top of the bandsaw. Fig.4.6.



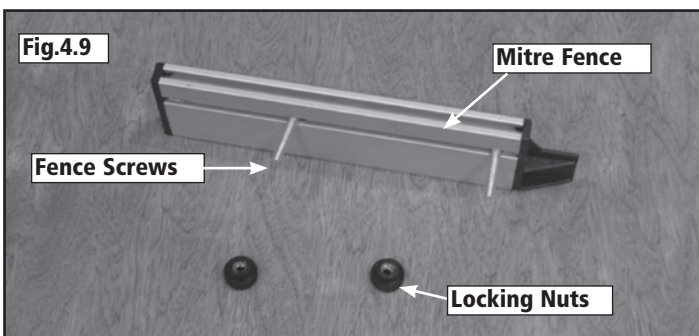
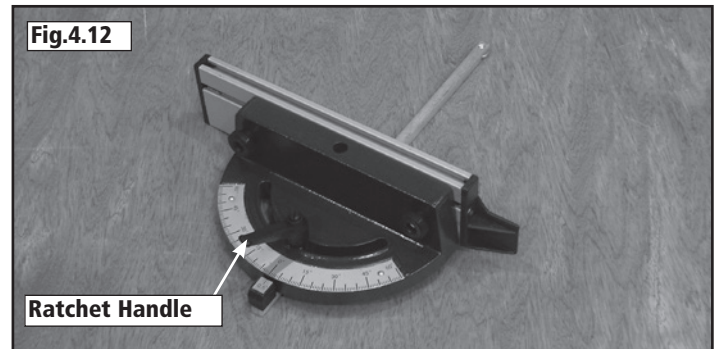
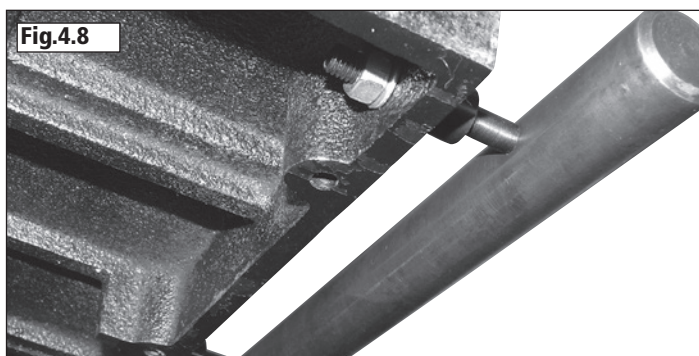
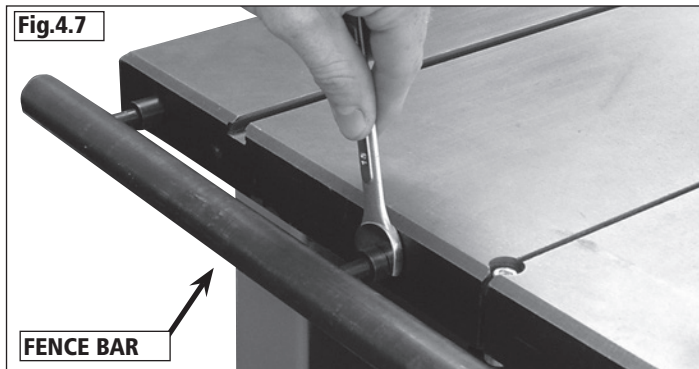
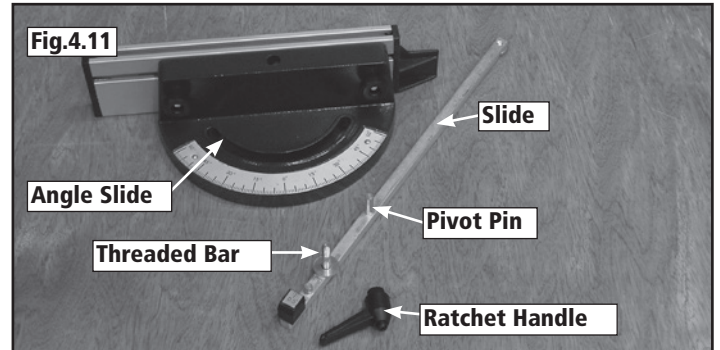
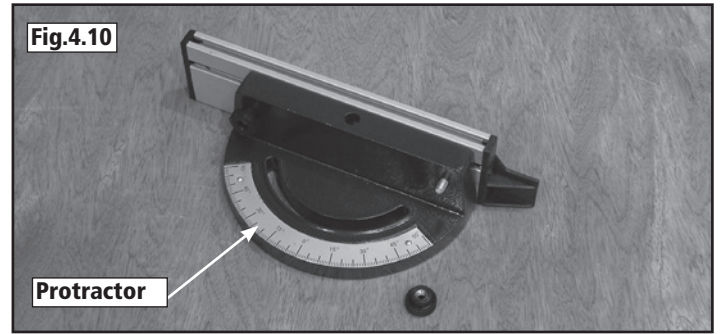
4. Machine Assembly - cont.

4.6 Fitting the fence bar

Attach the fence bar to the table as shown in **Fig. 4.7**, ensuring the washers are placed next to the fixing nuts. Use the remaining 2 nuts and washers to secure the fence bar from the underside of the table, **Fig. 4.8**. Do not fully tighten yet as adjustment may be necessary.

4.7 Assembling the mitre fence

1. Unscrew the locking nuts from the mitre fence **Fig.4.9**.
2. Place the protractor with the flat edge running parallel to the mitre fence.
3. Position it in such a way that the fence screws slot into the holes on the protractor **Fig.4.10**.
4. Replace and re-tighten the locking nuts.
5. Position the slide underneath the protractor so that the threaded bar sits in the angle slide and the pivot pin inserts into the pivot hole **Fig.4.11** and **Fig.4.12**.
6. Tighten the ratchet handle onto the threaded bar **Fig.4.12**.



4. Machine Assembly - cont.

4.8 Fitting the fence carrier

Locate fence carrier onto the fence bar **Fig.4.13**.

4.9 Fitting the rip fence

Slide the rip fence onto the carrier as shown in **Fig. 4.14** and tighten the two securing knobs. The fence can be used in the upright position as shown, or the other T slot can be used to give a lower position. This is ideal for when working with small items, to allow the guides to be located closer to the workpiece.

4.10 Fence alignment 1

Align the fence assembly in or out until parallel with the mitre fence slot (**See Fig.4.15**) by turning the adjustment collars and the fence bolts accordingly. If the fixing nuts have been tightened, these will need slackening off before this adjustment can be made.

4.11 Fence alignment 2

Check that the fence is 90° to the table using a suitable square. If no adjustment is needed, fully tighten the fence bar nuts. If adjustment is required this is achieved by raising or lowering either side of the fence rail until the fence itself is 90° to the table, (**See Fig.4.16**). Once set at 90° fully tighten the fence bar nuts.

PLEASE NOTE: The fence bar can be located to either the left or right hand side of the table, allowing the fence to be used either side of the blade.

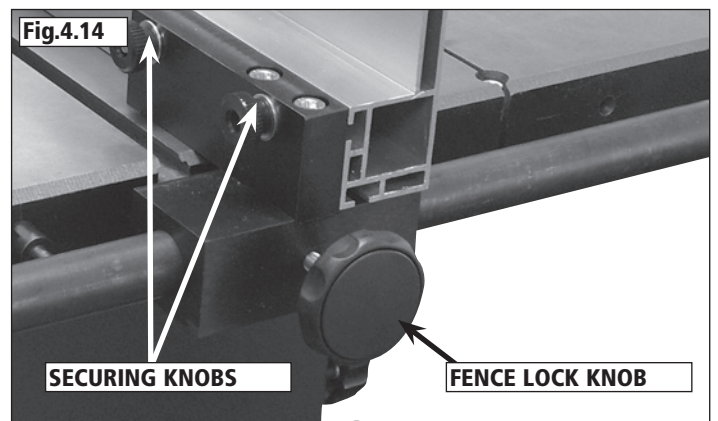
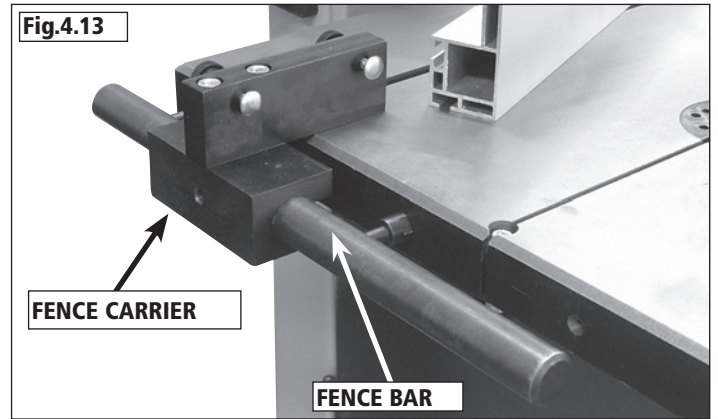


Fig.4.15

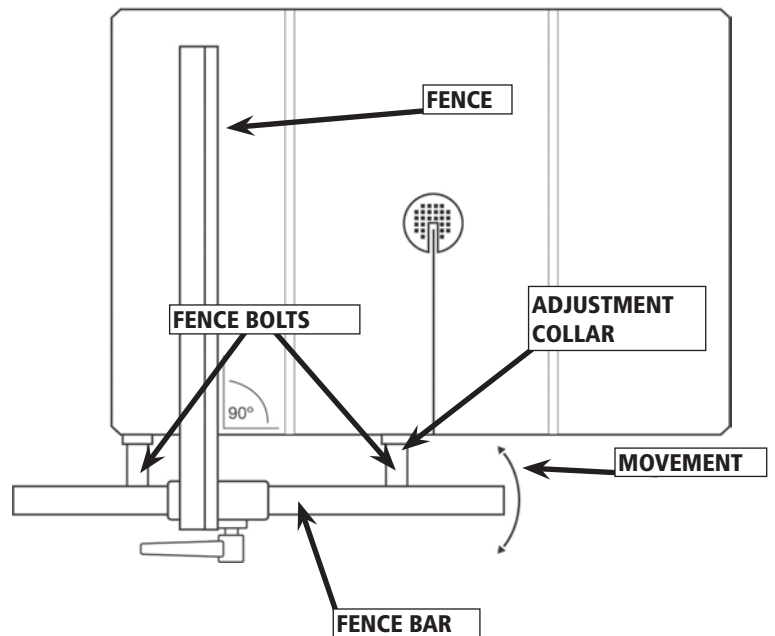
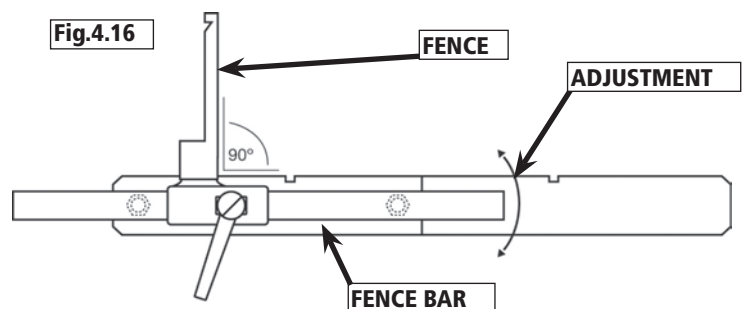


Fig.4.16



5. Setting Table Square to the Saw Blade



CAUTION!

Before carrying out any adjustments or maintenance ensure that the machine is isolated and disconnected from the electricity supply.

5.1 Setting the table stop at 90° to saw blade

Tools Required:- Small 90° square (Not supplied) The table can be set at 90° to the Bandsaw Blade (See Fig.5.1) by adjusting the table stop screw (See Fig.5.2) underneath the table.

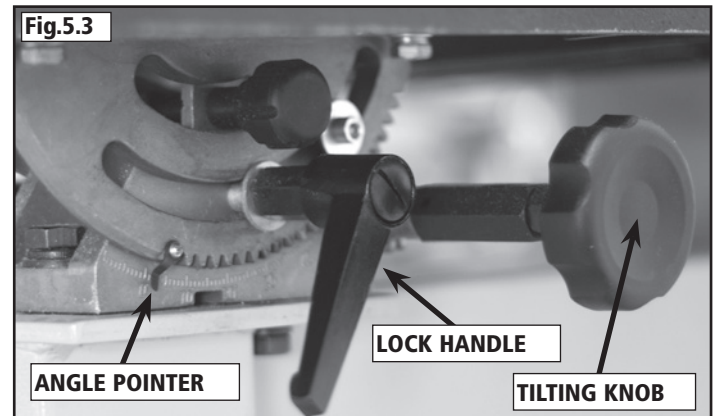
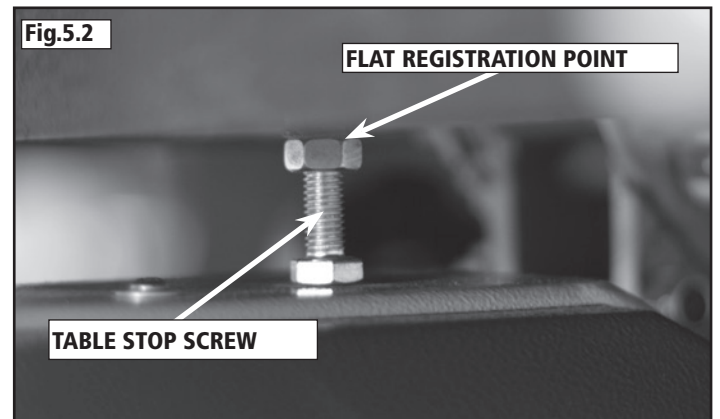
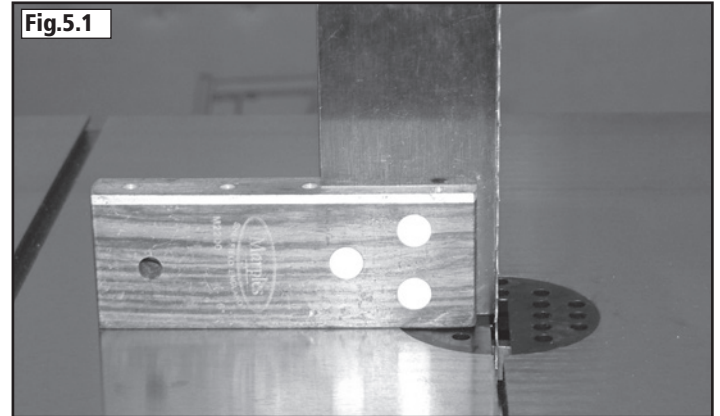
- First offer the square up to the blade to give an indication of adjustment required.
- If the table is not at 90° to the blade use table tilting mechanism (See 5.3) to adjust the table until it is 90° to the blade. If the table stop screw position is too high it may be necessary to wind this down out of the way so 90° can be achieved (See Fig.5.2).
- Once the table is at 90° to the blade lock off the lock handle on the table tilt mechanism to secure the table position (See Fig.5.3).
- Now set the table stop screw (See Fig.5.2), the table stop screw should be adjusted so that the head of the screw makes contact with the top surface of the lower band wheel housing. Once the screw is set to the correct length, it is secured by tightening the lock nut up to the flat registration point on the underside of the table.

5.2 Adjusting the table tilt scale

Once the table is set at 90° to the bandsaw blade it may be necessary to adjust the angle pointer on the angle scale so any further angles are accurate. To do this use a Phillips screwdriver to loosen the pan head screw and adjust the pointer to 0° (See Fig.5.3).

5.3 Tilting the table

To tilt the table, loosen the lock handle on the table trunnion. Turn the table tilting knob to adjust the table angle (See Fig.5.3). Use the angle indicator scale on the trunnion bracket to find the desired angle. Re-tighten the lock handle to secure the table.



6. Bandsaw Blade Set Up



CAUTION!

Before carrying out any adjustments or maintenance ensure that the machine is isolated and disconnected from the electricity supply.

6.1 Tensioning the blade

The blade tensioning knob should be used to increase or decrease tension (See Fig. 6.1). The only truly accurate way to check a blade is with a tension meter. These are very expensive so most users may need another method. The blade tension indicator which is located inside the main top housing of the bandsaw, should be used first, as a guide to the correct tension. We then suggest testing the tension by the amount the blade will deflect sideways. First set the guides to 150 mm above the table, making sure the saw is turned off. Push the blade sideways with a reasonable amount of pressure using the push stick. A correctly tensioned blade should not move more than 4 mm sideways, Fig. 6.1 A. If the blade is overtightened, as in Fig 6.1 B, the blade could be damaged.

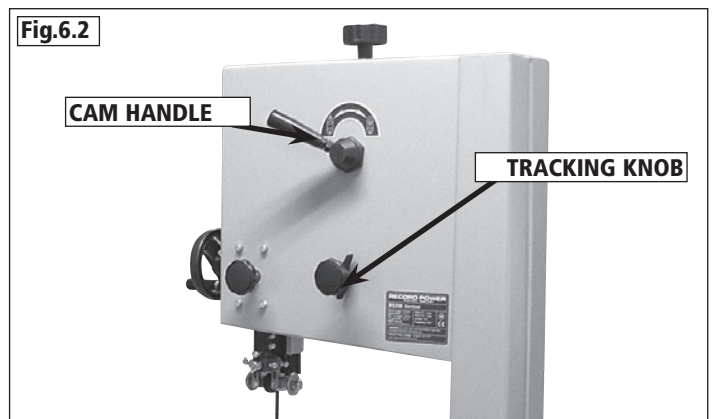
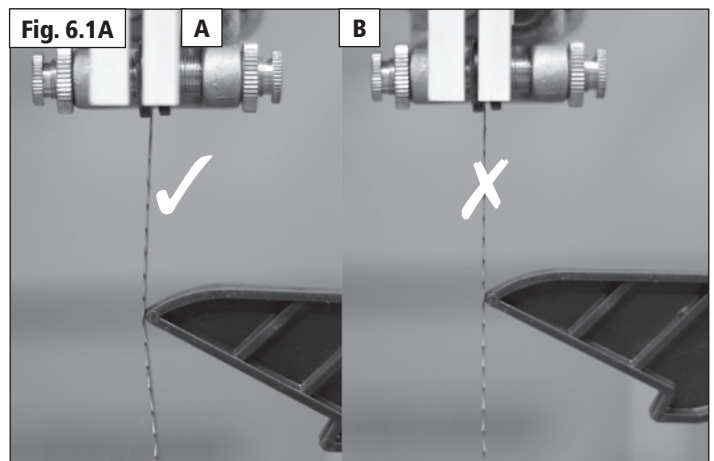
However perhaps the most tried and tested way of blade tensioning is simply: If the bandsaw is cutting accurately then the blade is tensioned correctly, if the blade tends to wander and an accurate cut cannot be achieved then the blade tension needs adjusting.

If the machine is to stand idle for a period it is good practice to slacken tension and re-tension when next using. On the BS350 the simplest way to release and re-tension the blade is to use the blade tension release cam handle located on the back on the machine.

6.2 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 tensioned, track the blade by turning the upper bandwheel by hand and adjusting the tracking knob (See Fig.6.2). When viewed from the back of the machine turning the tracking knob clockwise the blade will move towards the back of the bandwheel, by turning the tracking knob anti-clockwise the blade will move to the front of the bandwheel. The blade should run as close to the centre of the bandwheel as possible, as shown (See Fig.6.3). On narrow blades (eg. 1/4" and 3/8") it may be necessary to run the blade to rear of the bandwheel. After the blade is tracked in the desired position on the bandwheel, rotate the band wheel several more times by hand without any further adjustment ensuring that the blade remains in the same position. Once this has been achieved lock the tracking knob with the winged nut (See Fig.6.2).

It takes a few revolutions of the bandwheel for the effect of adjustment on the tracking knob to become apparent. To avoid over-adjusting, make small gradual adjustments on the tracking knob and revolve the bandwheel on a few times to check the effect before making further adjustments. The machine should then be run for a few seconds before any adjustment of guides is carried out.



6. Bandsaw Blade Set Up - cont.

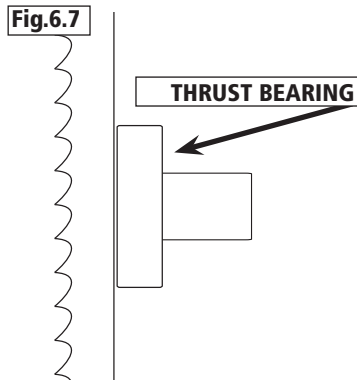
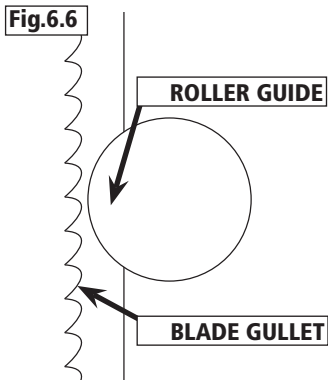


CAUTION!

Before carrying out any adjustments or maintenance ensure that the machine is isolated and disconnected from the electricity supply.

6.3 Adjusting the Upper Guides

First check that all of the roller guides are moving freely. To adjust the upper blade guides, first position the guide assembly relative to the blade, by slacking off the hex screw (Fig.6.4A) and moving the guide carrier until the roller guides are just behind the gullets of the blade (See Fig.6.6). Next set the roller guides as near as possible to the blade without actually touching. This is done by unlocking the knurled nut on each side of the guide adjustment (See Fig.6.4). Do not let the roller guides actually touch the blade as this will adversely affect the life of the blade. Finally adjust the thrust bearing to be just clear of the back of the blade (See Fig.6.7). Do this by unlocking the hex socket screw (Fig.6.5B). When the correct adjustment is reached, lock the thrust bearing in position with a hex wrench (Fig.6.5B).



6.4 Adjusting Lower Guides

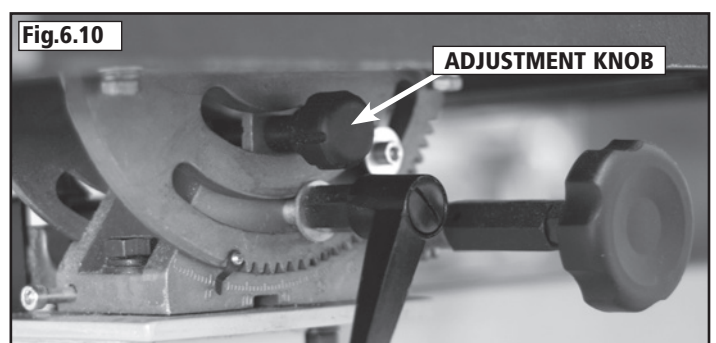
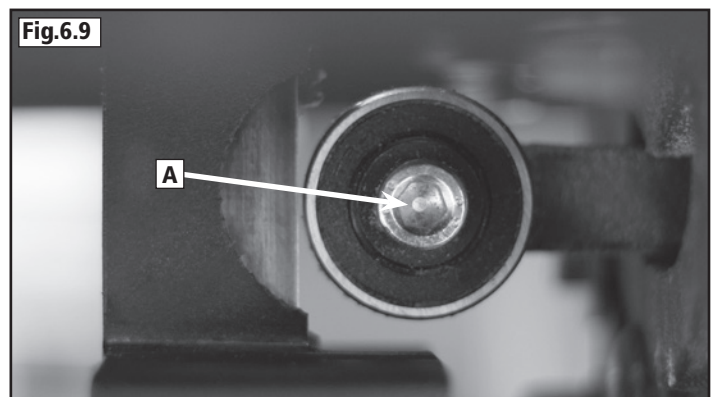
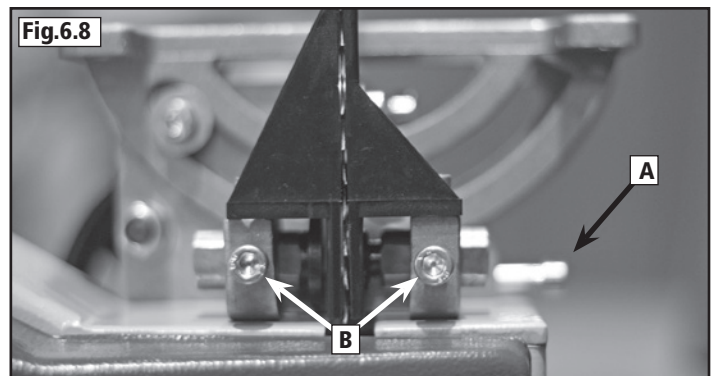
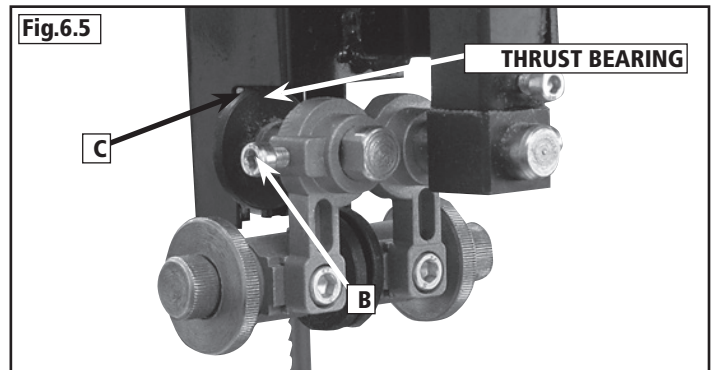
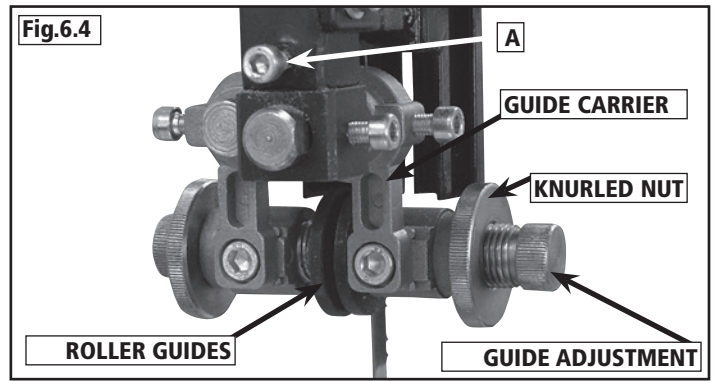
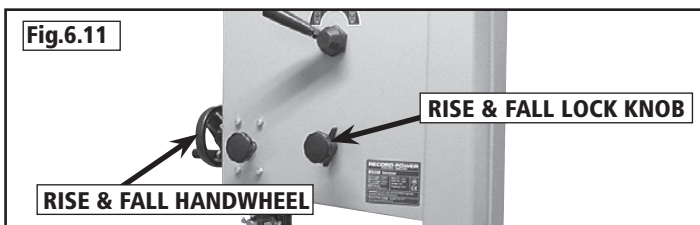
To adjust the lower blade guides, first slacken off the hex socket screw (See Fig.6.8A), move the guide carrier casting so the guides are just behind the gullets of the blade. Next set the roller guides as near as possible to the blade without actually touching. This is done by releasing the hex head socket screw (See Fig.6.8B) on each side of the blade. Finally adjust the rear thrust bearing to be just clear of the back of the blade (See Fig.6.9). To do this first unlock the Hex socket screw (See Fig.6.9A) then using the adjustment knob at the rear, position the thrust bearing Fig.6.10.

6.5 Adjusting the cutting height

Once the blade is set, the cutting height must be adjusted so there is maximum guarding for the blade and so that blade guides are providing optimum support to the blade. To adjust the cutting height loosen the rise and fall lock knob and turn the rise and fall handwheel to raise or lower the guide post/upper blade guide assembly to the desired height Fig.6.11. Note: The upper blade guide should provide approximately 5 mm clearance above the workpiece. After the desired position has been set tighten the rise and fall lock knob.



Note: Because this machine is able to take a range of different width blades, the blades may track at different positions. After each alteration of the cutting height never assume the guides are in the correct position. If necessary, re-adjust the guides as shown above.



7. Drive Belt Adjustment & Speed Change



CAUTION!

Before carrying out any adjustments or maintenance ensure that the machine is isolated and disconnected from the electricity supply.

7.1 Adjusting the drive belt tension

Use the crank handle (See Fig.7.1) to adjust the tension of the drive belt. Rotate the handle anti-clockwise to increase the tension and clockwise to decrease tension. As a guide the belt is adequately tensioned when using the index finger to impart reasonable pressure on the belt - the belt should not deflect more than 1/4". But like tensioning a bandsaw blade this is very subjective and the best test is in operation, if the belt isn't slipping or wearing excessively and there is adequate power being applied to the bandwheels then the drive belt is tensioned correctly.

7.2 Changing the Blade Speed

The BS350 has two blade speeds 820 m/min for wood and 380 m/min for some plastics and acrylics. This machine is not suitable for cutting metals.

The lower bandwheel has two, integral, multi-vee form pulleys and the motor shaft has a twin multi-vee form pulley.

The vee belt passes around the bandwheel pulley, the motor pulley and the plain tension roller. The belt tension is released and applied by using the crank handle, this moves the tension roller and allows the speed to be changed (See Fig.7.1).

High Speed 820 m/min

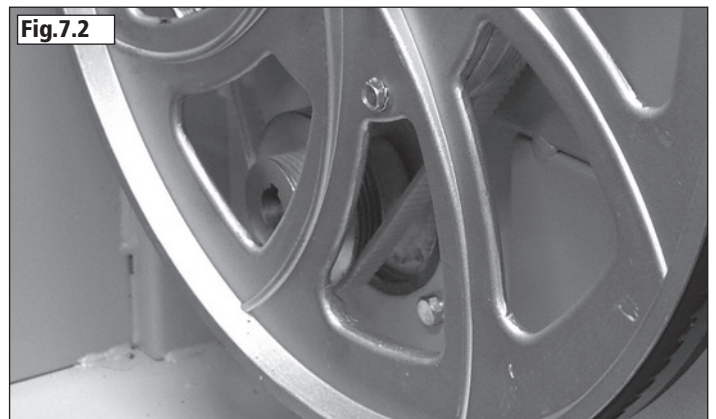
Before changing the speed always make sure the machine has been isolated from the mains supply. For the high speed the belt should be fitted to the rear pulley on both the motor and bandwheel. (See Fig.7.2).

Lower Speed 380 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 (See Fig.7.3).



Note: After any adjustment of the belt, ensure the poly vees are correctly located in the vee slots, as failure to do so could damage the belt in use.



8. Electrical Connection & Wiring Diagram

Machines supplied for use in the UK are fitted with a 3 pin plug conforming to BS1363, fitted with a fuse conforming to BS1362 and appropriate to the current rating of the machine.

Machines supplied for use in other countries within the European Union are fitted with a 2 pin Schuko plug conforming to CEE 7/7.

Machines supplied for use in Australia & New Zealand are fitted with a 3 pin plug conforming to AS/NZS3112.

In all cases, if the original plug or connector has to be replaced for any reason, the wires within the mains power cable are colour coded as follows:

230 V (Single Phase)

Brown: Live (L)
 Blue: Neutral (N)
 Green and Yellow: Earth (E)

The wire coloured brown must always be connected to the terminal marked 'L' or coloured red.

The wire coloured blue must always be connected to the terminal marked 'N' or coloured black.

The wire coloured green and yellow must always be connected to the terminal marked 'E' or with the earth symbol:



or coloured green / green and yellow.

It is important that the machine is effectively earthed. Some machines will be clearly marked with the double insulated logo:



In this case there will not be an earth wire within the circuit.

In the case of the BS1363 plug for use in the UK, always ensure that it is fitted with a fuse conforming to BS1362 appropriate to the rating of the

machine. If replacing the original fuse, always fit a fuse of equivalent rating to the original. Never fit a fuse of a higher rating than the original. Never modify the fuse or fuse holder to accept fuses of a different type or size.

Where the current rating of the machine exceeds 13 A at 230 V, or if the machine is designated for use on a 400 V 3 phase supply a connector conforming to BS4343 (CEE17 / IEC60309) will be used.

230 V machines will be fitted with a blue 3 pin connector. The wiring for this type of this connector will be the same as shown above.

400 V, 3 phase machines will be fitted with a red 4 or 5 pin connector. The wiring for this type of connector is as shown below:

400 V (3 phase)

Brown: Live (L1)
 Black: Live (L2)
 Grey: Live (L3)
 Blue: Neutral (N)
 Green and Yellow: Earth (E)

The wire coloured brown must always be connected to the terminal marked 'L1'.

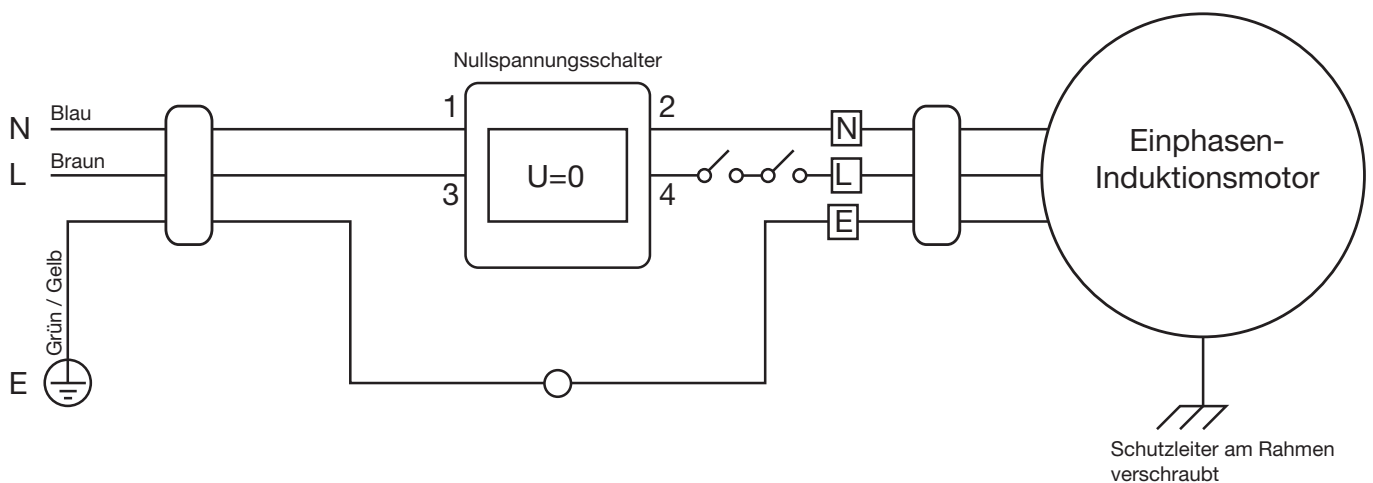
The wire coloured black must always be fitted to the terminal marked 'L2'.

The wire coloured grey must always be connected to the terminal marked 'L3'.

The wire coloured blue must always be connected to the terminal marked 'N' or coloured black.

The wire coloured green and yellow must always be connected to the terminal marked 'E' or with the earth symbol

If in doubt about the connection of the electrical supply, always consult a qualified electrician.



9. Operation & Bandsawing Practice

Basic Bandsawing Principles

- The blade cuts on a continuous down stroke.
- Slowly feed the workpiece towards the blade, using only light pressure whilst letting the blade do the cutting. Always use a push stick and take care.
- Firmly hold the workpiece and feed it towards the blade slowly, using the push stick and keeping your hands well away from the blade.
- For best results the blade must be sharp. Damaged or worn blades should always be replaced.
- Select the correct blade for the job, depending on the thickness of the wood and the cut to be made (see blade selection).
- For straight cutting use the rip fence supplied.
- When cutting shapes, follow the design marked out by pushing and turning the workpiece evenly. Do not attempt to turn the workpiece without pushing it, as this may cause the workpiece to get stuck, or the blade to bend.



CAUTION! Particular care should be taken towards the end of the cut as there will be a sudden decrease in resistance and care must be taken to stop hands from being thrown towards the blade. Always use a push stick.

Always ensure that your machine is properly maintained and clean. Before commencing work on an important project, it is advisable to familiarise yourself with the operation of the equipment by practising on low value or scrap materials.

Complicated Cutting

Very complicated cuts and small radius curves are the best accomplished with the aid of pre-drilled holes combined with a few tangential or radial cuts. This technique will achieve excellent results without putting undue tension on the blade and blade guide assembly.



WARNING! In circumstances such as cutting deep or wet timber, the work piece may close up behind the blade causing it to stall. In the event that the blade stalls whilst cutting, ease the work piece backwards slightly, to release feed pressure from the blade. Allow the blade to reach full speed before continuing to feed the work piece in to the blade. If the blade fails to move when feed pressure is released, immediately switch off the machine and disconnect the power supply before attempting to free the blade from the work piece.



WARNING! If any component of the machine fails whilst in use or if the blade should break whilst the machine is running, immediately switch off the machine and disconnect from the power supply. Remove the faulty component and replace only with genuine Record Power replacement parts. Any electrical components should only be replaced by a suitably qualified person. To replace a broken blade, please refer to the section of this manual entitled "Band saw Blade Set Up". Always remember to fully release the blade tension mechanism before attempting to fit a new blade. If you are in any doubt about using the machine following a failure or if you need to order replacement spare parts or blades, please contact customer services in your country.

Restarting

In the Event of a Blockage or if the Machine Stalls

If the bandsaw stalls due to the blade becoming trapped in the work piece, switch it off immediately by pressing the emergency stop button and wait for the machine to come to a complete stop before proceeding further. If the blade is trapped within the work piece, it may be necessary to prize the work piece apart slightly using a suitable lever in order to free the blade. If it is not possible to free the blade using this method, then it may be necessary to cut the blade using suitable side cutters or tin snips. Replace the blade if necessary and ensure that it is correctly tracked and tensioned and that both doors of the bandsaw are fully closed and secured before attempting to re-start the machine. To re-start the machine, press the green button marked 'I' on the switch.

In the Event of a Power Failure

The bandsaw is fitted with a no volt release (NVR) switch to protect the user against automatic starting of the machine when power is restored after a power failure.

In the event of a power failure, first locate and rectify the source of the failure. If the fault is within the power circuit of the workshop, there may be an underlying cause (circuit overload etc.) that should be investigated by a qualified electrician, before attempting to restore the power source. If a cutting operation was taking place when the power supply was interrupted, then it may be necessary to free the blade from the work piece before attempting to re-start the machine. Once the power is restored, the machine can be re-started by pressing the green button marked 'I' on the switch.

Blade Selection (TPI)

The selection of the best blade configuration (see the table below) is necessary for optimum cutting performance.

- Correct blade choice is primarily dependant on two factors: material thickness and material type.
- Greater TPI should be selected as material thickness decreases.
- However, if the TPI is too great, the tooth loading will be insufficient to enable penetration; and cutting. The teeth will also rapidly lose their sharpness.
- For thicker material a lower TPI should be used otherwise the gullet will not be sufficient to clear the waste and the blade will stall or burn the wood.
- In general a minimum of 3 teeth should be in contact with the wood at all times during cutting.

The accompanying blade selection chart (see the table below) gives guidance on the TPI that should give the best results when cutting a variety of material types and thickness. The table below provides recommendations on selecting the correct blade for a variety of commonly used materials. If in doubt about any aspects of blade selection contact Customer Services in your country.

The table provides a guide to selection only. Exact tooth configurations are not always available, nor are all blade configurations covered, but the principles remain the same.

For special applications, custom blades can be supplied please call Customer Services in your country and we can advise you accordingly on your specific needs.

9. Operation & Bandsawing Practice - cont.

Material	Material Thickness			
	<6 mm	6-12 mm	12-25 mm	>25mm
Perspex	16 TPI	14 TPI	-	-
Chipboard	-	6 TPI	3-6 TPI	3-4 TPI
Fibre board	16 TPI	14 TPI	-	-
Hardboard	10 TPI	-	-	-
Plywood	10 TPI	8 TPI	6 TPI	3-4 TPI
Strawboard	14 TPI	10 TPI	-	-
Cork	14 TPI	6 TPI	3 TPI	3-4 TPI
Leather	14 TPI	-	-	-
Rubber	10 TPI	8 TPI	-	-
Wood -log	-	-	-	3-4 TPI
Wood -soft	6 TPI	3-6 TPI	3-4 TPI	3-4 TPI
Wood -hard	6 TPI	3-6 TPI	3-4 TPI	3-4 TPI
Wood -wet	-	-	-	3-4 TPI

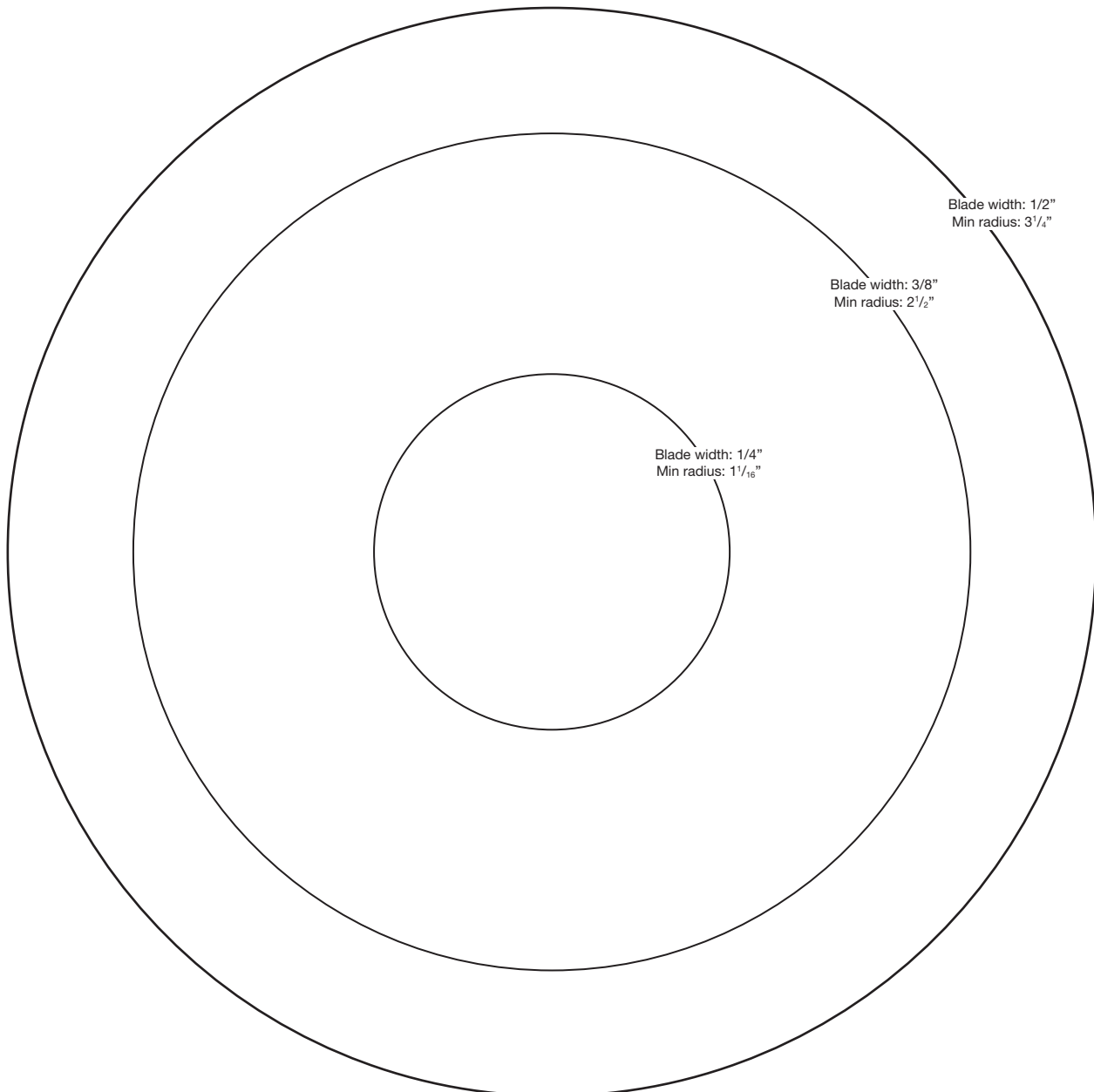
Blade Selection (TPI) - Cont.

Having selected an appropriate blade for the particular thickness and type of material to be sawn, it is essential that the saw blade is allowed to cut freely by not applying too much pressure.

- The need for excessive pressure is likely to be a result of the incorrect blade selection or a worn blade and will result in inaccurate cutting and possibly blade breakage.

Blade Selection (Width)

- When cutting shapes, the width of the blade limits the minimum radius that can be cut.
- If the blade is too wide for the cutting radius the blade will twist and possibly jam or break.
- The smaller the radius the narrower the blade has to be. The diagram below provides guidance on the minimum radius to be cut with the most commonly used blade widths.



9. Operation & Bandsawing Practice - cont.

Blade Selection Summary

To see how TPI and width of the blade come together, use the table opposite for reference.

- Regularly examine the blade for excessive damage or cracking as a result of fatigue. If such damage is present replace the blade.
- It is important to use a sharp blade. Dull teeth result in increased feed pressure producing a poor quality finish and an inaccurate cut.



Note: As well as the blades listed, we can also supply bandsaw blades to almost any specification please call Record Power Customer Services in your country.

- BB103121406** 1/4" x 6 TPI Skip tooth pattern
- BB103123806** 3/8" x 6 TPI Skip tooth pattern
- BB103121204** 1/2" x 4 TPI Skip tooth pattern
- BB103121206** 1/2" x 6 TPI Skip tooth pattern
- BB103123403** 3/4" x 3 TPI Skip tooth pattern
- BB10312-3PACK** 1/4", 3/8" & 5/8" Skip tooth pattern

9.9 Record Power BS350S Blade Range

Record Power's high performance bandsaw blades are manufactured to the highest quality tolerances using a specialist premium high carbon steel strip.

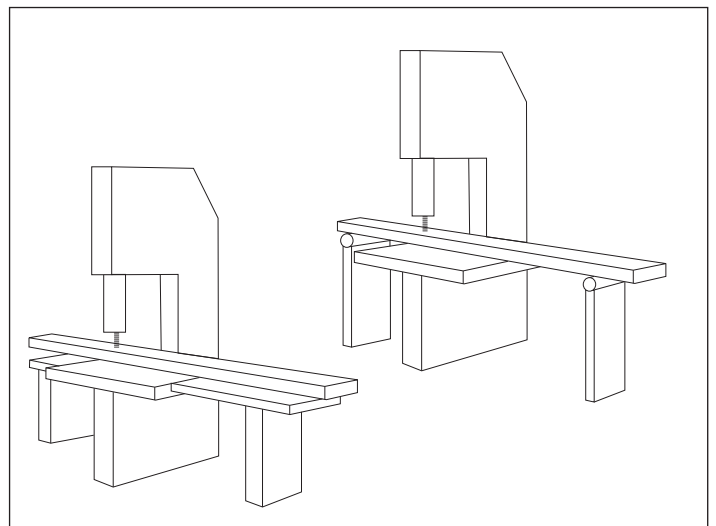
The extensive quality control program which involves digital tooth profile checks, set analysis, straightness testing, hardness testing and micro structural analysis results in a blade that cuts straighter and has harder, longer lasting teeth. A premium British blade that can last up to ten times longer than other blades on the market. To order any of these blades please contact Record Power Customer Services in your country who will advise you of your nearest retailer or alternatively a mail order supplier.

		Narrow Blade		Wide Blade	
		Application TIGHT CONTOUR	Application MEDIUM CONTOUR	Application STRAIGHT CUT / LARGE CONTOUR	
Coarse Blade ↑ ↓ Fine Blade	Material Thick / Soft Timber	Blade Spec width 1/4" teeth 4 TPI	Blade Spec widths 3/8" teeth 4 TPI	Blade Spec widths 1/2" teeth 4 TPI	
	Material General Timber	Blade Spec width 1/4" teeth 4 - 6 TPI	Blade Spec widths 3/8" teeth 4 - 6 TPI	Blade Spec widths 1/2" teeth 4 - 6 TPI	
	Material Thin / Hard Timber	Blade Spec width 1/4" teeth 6 TPI	Blade Spec widths 3/8" teeth 6 TPI	Blade Spec widths 1/2" teeth 6 TPI	

Custom Jigs & Work Support

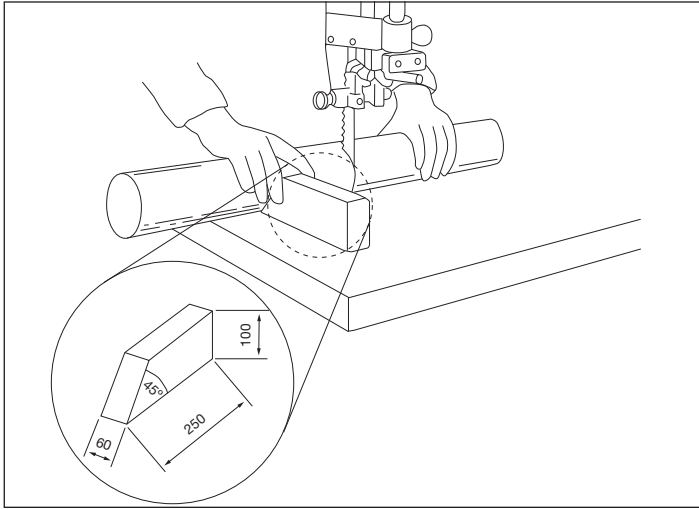
A bandsaw is one of the most versatile machines in the workshop and with careful preparation many problems encountered on a job can be overcome. By making and using custom jigs repetitive and accurate work can easily be achieved, the following illustrations are some examples of typical jigs and supports used on a bandsaw.

Ex. 1. Supporting large workpieces with roller stands or take off tables.

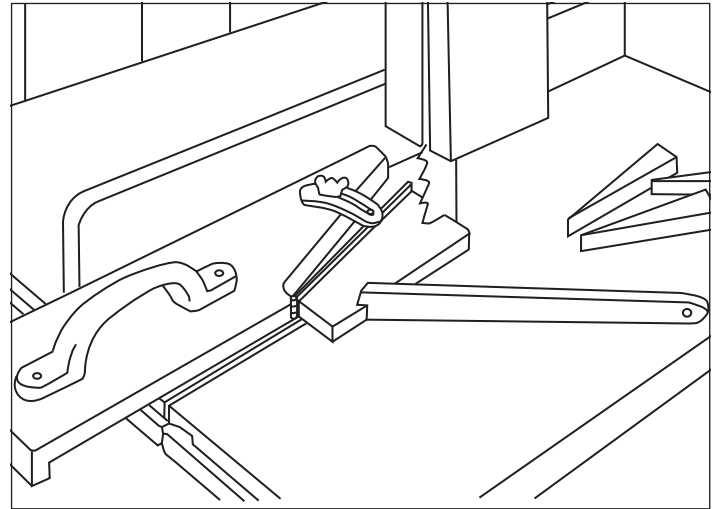


9. Operation & Bandsawing Practice - cont.

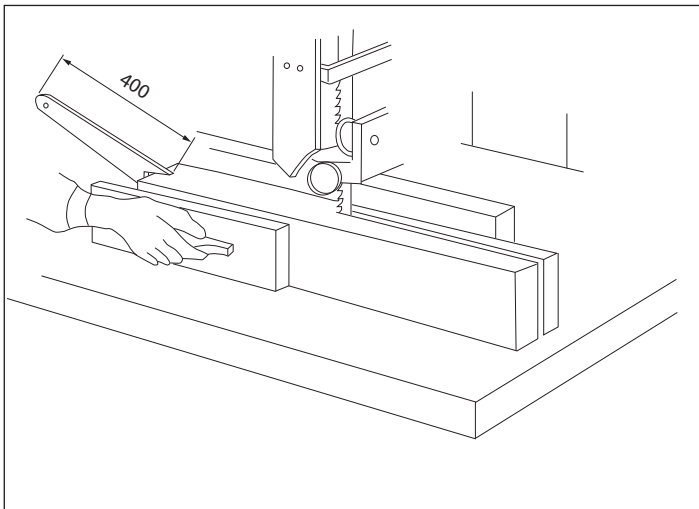
Ex. 2. Always support round pieces with a wedge or vee block. Take extreme care as there is a danger that if the work is not secured properly the blade will snatch the work piece, potentially causing it to spin or bounce back at you.



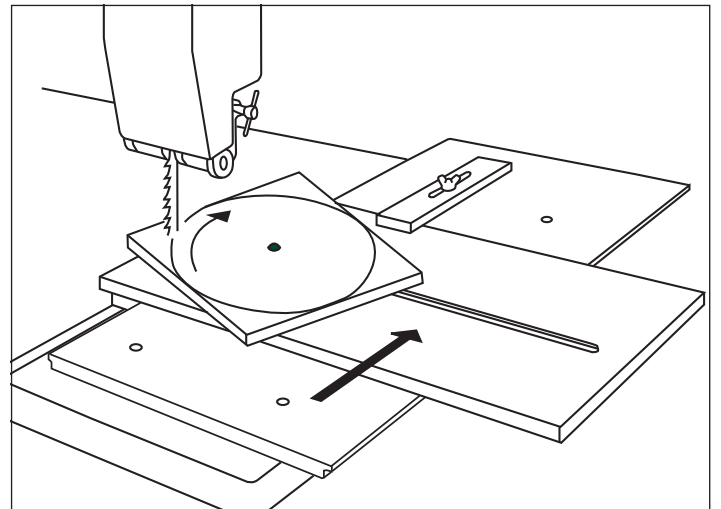
Ex. 5. Jig for accurate repetitive wedges.



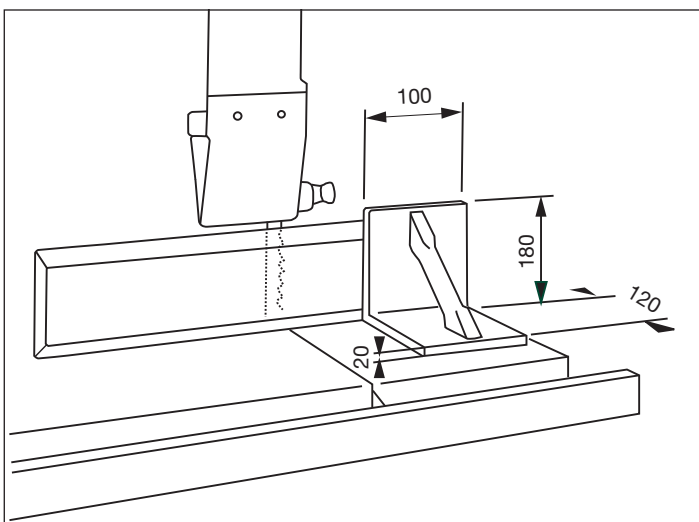
Ex. 3. Use a side pressure pad for accurate cutting of taller material.



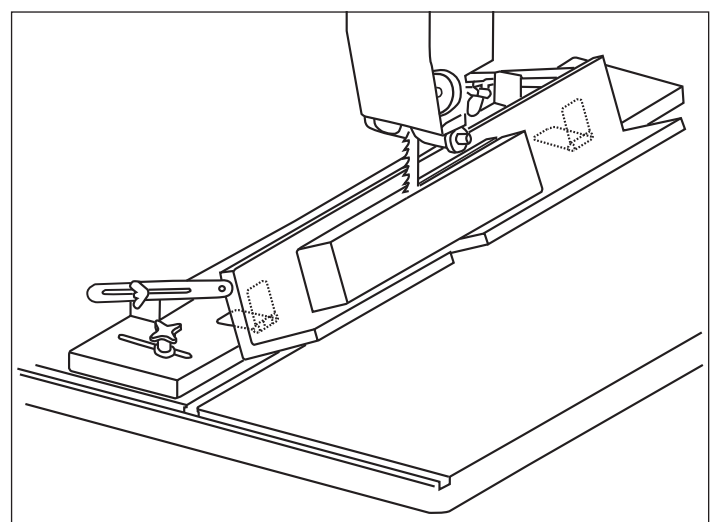
Ex. 6. By mounting a registration pin on a slide repetitive circles can easily be achieved.



Ex. 4. Chamfered pieces can be cut squarely using an additional support jig on the opposite side of the work piece to the fence.



Ex. 7. Angle cutting jig for accurate repetitive compound angles.



10. Dust Extraction

The Importance Of Dust Extraction

Before the machine is started, ensure that adequate dust extraction provisions have been installed. Dust extraction is extremely important not only for health and safety but also for the correct upkeep of the machine. Saw dust can cause the machine not to operate properly or even fail completely. By keeping the machine free of large amounts of waste the performance will be optimised.

If a large amounts of MDF or toxic woods are to be cut we recommend that there is a good ventilation system in place and that in addition to proper extraction a mask or respirator be worn as minimum protection.

Record Power Extractors

Record Power offer a range of high quality dust extractors, we offer both drum and bag type extractors which filter down 0.5 micron providing protection from harmful fine dusts. All Record Power dust extractors & chip collectors have 100 mm inlets and hoses.

DX1000 High Filtration Dust Extractor

Drum type extractor, 45 litre capacity, single 1 kW motor, suitable for intermittent use ie must be switched off for 20 minutes every hour.
0.5 micron filtration

RSDE1 High Filtration Dust Extractor

Drum type extractor, 45 litre capacity, single 1 kW motor, suitable for intermittent use ie must be switched off for 20 minutes every hour.
0.5 micron filtration

RSDE2 High Filtration Dust Extractor

Drum type extractor, 50 litre capacity, single 1 kW motor, suitable for intermittent use ie must be switched off for 20 minutes every hour.
0.5 micron filtration

RSDE/2A High Filtration Dust Extractor with Auto Switching

Drum type extractor, 50 litre capacity, single 1 kW motor, auto switching allows the machine to be turned on and off as machines and power tools are operated. Suitable for intermittent use ie must be switched off for 20 minutes every hour. Maximum auto switch capacity tools up to 1.1 kW.
0.5 micron filtration

DX4000 High Filtration Dust Extractor

Drum type extractor, 80 litre capacity, Twin 1 kW motor, suitable for heavy usage ie if one motor is switched off for 20 minutes then the other can be used thus enabling continuous usage. Or both motors can be used simultaneously giving maximum suction but in this mode the extractor must be switched off for 20 minutes every hour. **0.5 micron filtration**

DX5000 High Filtration Dust Extractor

Bag type extractor, 200 litre capacity, Twin 1 kW motor, suitable for heavy usage ie if one motor is switched off for 20 minutes then the other can be used thus enabling continuous usage. Or both motors can be used simultaneously giving maximum suction but in this mode the extractor must be switched off for 20 minutes every hour. **0.5 micron filtration**

CX2600 Chip Collector

Large capacity chip collector, with a powerful 0.37 kW induction motor. An extremely smooth running unit suitable for continuous usage. Very quiet impeller system extracts dust and chippings.

Suitable for chip collection or finer dust using the optional filter cartridge

CX3000 Chip Collector

Larger capacity chip collector, with a more powerful 0.75 kW induction motor and heavy duty construction. An extremely smooth running unit suitable for continuous usage. Very quiet impeller system extracts dust and chippings.

Suitable for chip collection or finer dust using the optional filter cartridge

Air Cleaners

It is strongly advised to also use an air cleaner to remove the fine airborne dust present in the workshop which cannot be removed using machine extraction. Record Power offer a range of air cleaners suitable for all home workshops. Please contact your preferred stockist or visit www.recordpower.info.

	DX1000	RSDE1	RSDE2	RSDE/2A	DX4000	DX5000	CX2600	CX3000
Bandsaws Circular saws Sanders Intermittent usage	✓ Recommended	✓ Recommended	✓ Recommended	✓ Recommended	✓ Recommended	✓ Recommended		
Bandsaws Circular saws Sanders Heavy usage					✓ Recommended	✓ Recommended		
Planer Thicknessers Spindle Moulders Universals Intermittent usage	✓ Recommended	✓ Recommended			✓ Can be used	✓ Recommended	✓ Recommended	✓ Recommended
Planer Thicknessers Spindle Moulders Universals Heavy usage					✓ Can be used	✓ Recommended	✓ Recommended	✓ Recommended
Dust Extraction System Intermittent usage					✓ Can be used	✓ Recommended		

11. Maintenance



CAUTION!

Before carrying out any adjustments or maintenance ensure that the machine is isolated and disconnected from the electricity supply.

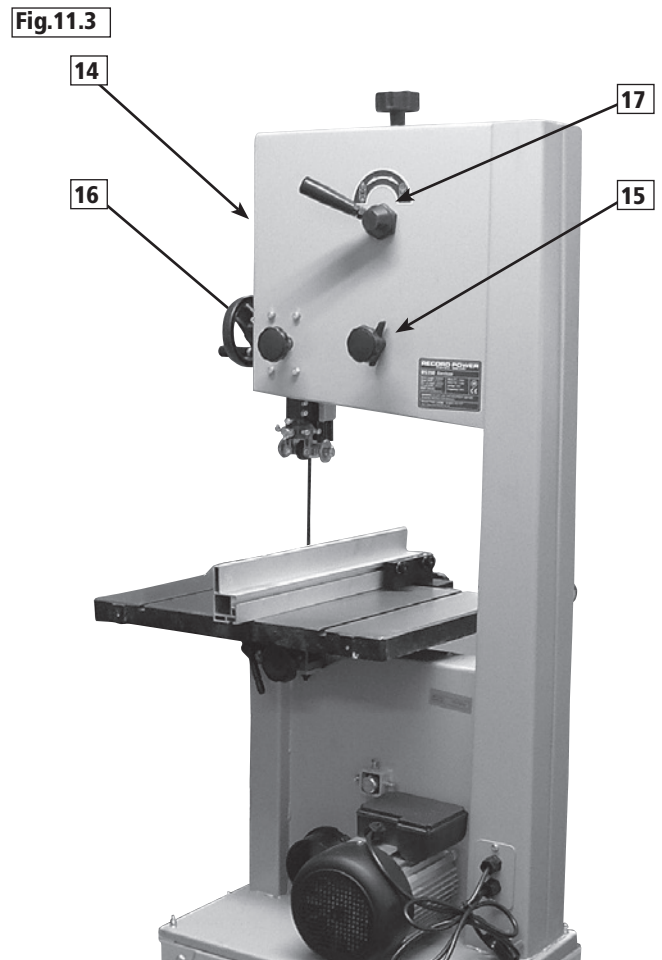
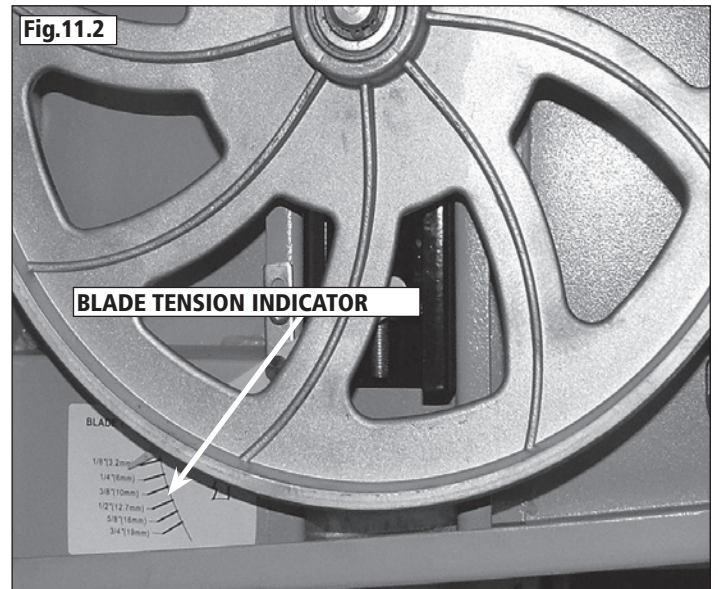
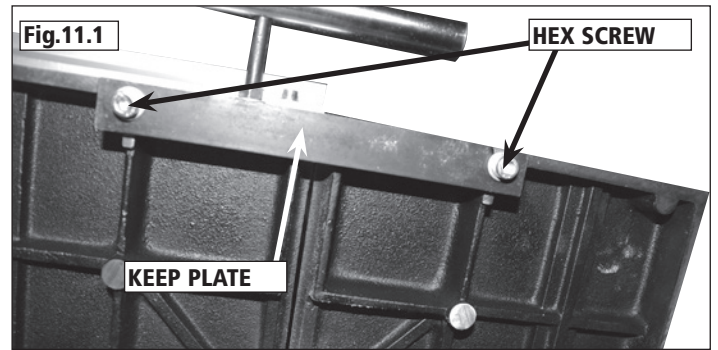
11.1 Replacing the bandsaw blade



HAZARD! Take great care when unpacking the bandsaw blade as they are usually folded and can spring out very suddenly with great force.

TIP: If the new blade being fitted is a different width to the one being removed, it is advisable to move back and slacken off all blade guides before fitting the new blade as this will make fitting easier. Whenever a different size blade is fitted the blade guides will always need re-setting.

1. Isolate the machine from the power supply.
2. Open the top and bottom bandwheel doors by turning the star handle **Fig 11.3 (14)**.
3. Remove the Hex socket screw and keep plate from the underside of the table, **Fig 11.1**.
4. Move the blade tension cam handle clockwise to release the blade tension. **Fig 11.3 (17)**.
5. Remove the bandsaw blade by feeding it through the slot in the table, upper blade guides and guard and slot in the spine of the machine taking care not to cut yourself, wear gloves if necessary.
 - Fit the new blade ensuring the blade teeth are pointing downwards and towards you at the position where the blade passes through the table.
 - Ensuring that the blade is fully in place on bandwheel. Simply re-apply tension using the cam handle lever.
 - Fine adjust the blade tension further if required using the blade tension wheel.
6. Check the blade tracking on the newly fitted blade by turning the upper wheel by hand. The blade should run as close to the centre of the bandwheel as possible. On 1/4", 3/8" and 1/2" blades it may be necessary to run the blade to rear of the bandwheel (**see section 6.2.**)
7. If required adjust the tracking using tracking knob **(15)** and lock knob to the rear of the upper bandwheel housing. When the tracking is correct lock the setting.
8. Re-set the blade guides.
9. Close and lock both the bandwheel doors before re-connecting the power supply.



11. Maintenance - cont.



CAUTION!

Before carrying out any adjustments or maintenance ensure that the machine is isolated and disconnected from the electricity supply.

11.2 Replacing the drive belt

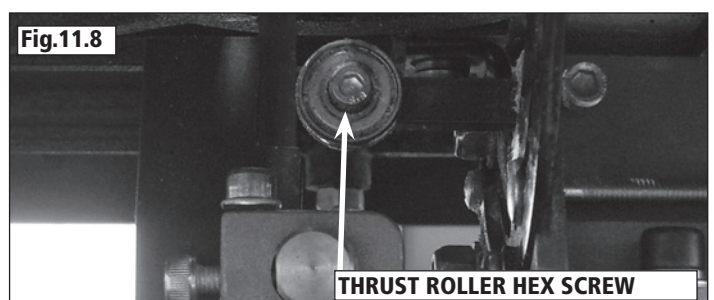
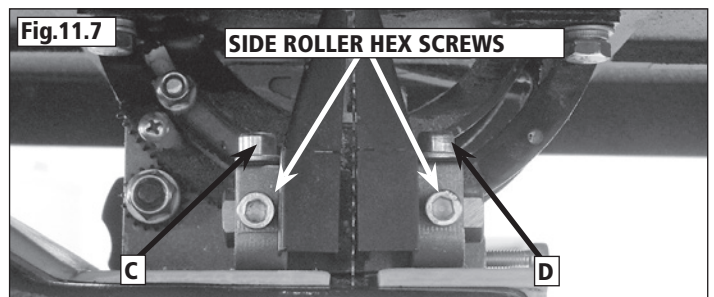
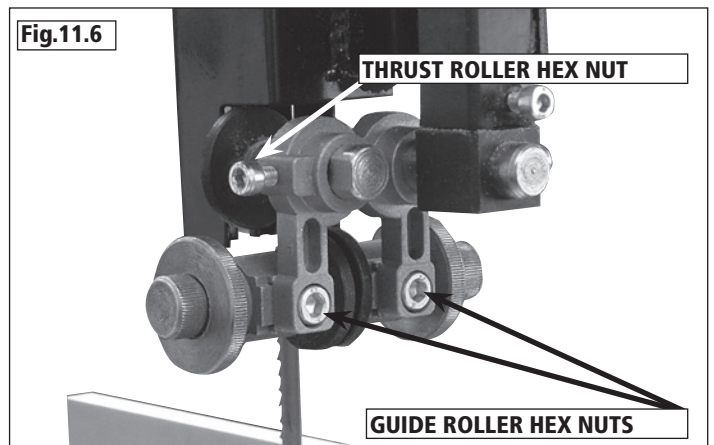
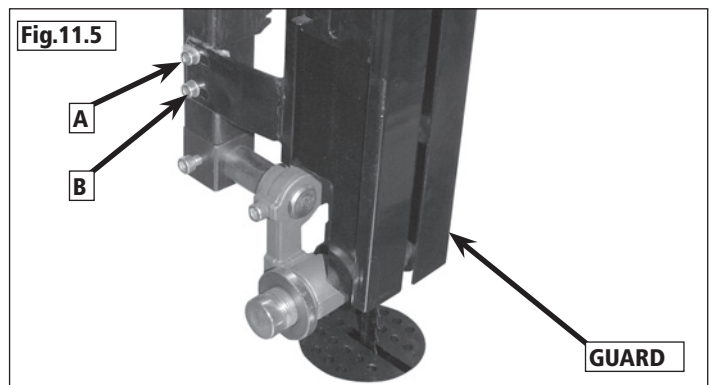
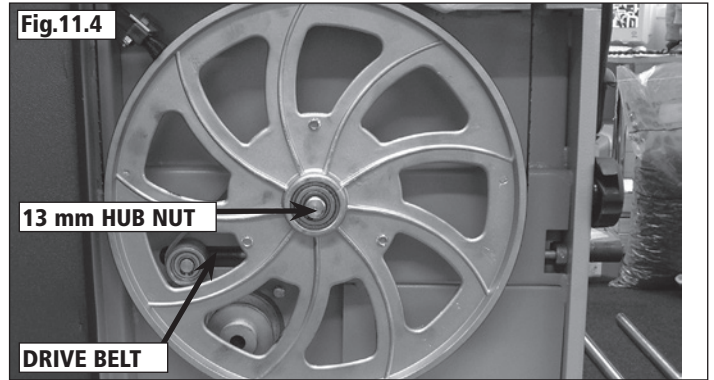
To replace the drive belt simply loosen the tension on the belt using the belt tension handle. Remove the lower bandwheel by undoing the 13 mm nut on the hub. Remove the old belt and fit the new one **Fig.11.4**. Once the drive belt is in place re-fit the lower bandwheel and re-fit the circlip. Now tension the drive belt using the belt tension handle. For further information on tensioning the drive belt please see **section 7.1**.

11.3 The blade guide system

In general usage it is advisable to carefully apply silicone spray to the blade guides to ensure free movement of the rollers, do not use oil or grease for lubrication as this will attract dust and cause the rollers to jam. The blade guide system is a consumable item and depending on usage will wear and may need replacing.

When replacing components on the upper guide assembly first ensure that the blade is removed. Undo hex nuts **A & B** then remove the guard, **Fig.11.5**. Once the guard is removed then the various components can be accessed and replaced. Undo the relevant hex nuts for either the guide rollers or rear thrust roller **Fig.11.6** and fit the new parts. Once the new components are fitted. The blade should be re-fitted **Section 11.1** and the guides adjusted as shown in **Section 6.3**.

When replacing components on the lower guide assembly first ensure that the blade is removed. Undo hex nuts **C & D** and remove the guards. **Fig.11.7**. Once the guard is removed then the various components can be accessed and replaced. The roller bearings are shown in **Fig. 11.7** and the thrust roller bearing at the rear **Fig.11.8**. This is done by simply undoing the relevant hex head screw and replacing the part. Once the new components are fitted. The blade should be re-fitted **Section 11.1** and the guides adjusted as shown in **Section 6.3**.



11. Maintenance - cont.

11.4 The table insert

The table insert on a bandsaw is a consumable item **Fig.11.9** and will therefore need replacing periodically. This procedure should be carried out with the bandsaw blade removed. To replace the table insert simply push the old insert out from underneath the table and fit the new one into position.

11.5 The bandwheel tyres

The bandwheels on this machine have rubber tyres fitted to the outer rim of the wheel **Fig.11.10** to protect the set of the blade when in use, also to provide drive and to stop the blade slipping. As part of your regular service schedule inspect the tyres for wear and damage and replace if necessary. Again this is a consumable part of the bandsaw and will need replacing periodically depending on usage.

First remove the blade from the bandsaw, then remove the bandwheel. Gently ease the existing tyre from the rim taking care not to damage the bandwheel. To fit the new tyre it is a good idea to heat the tyre first in hot water, this softens the rubber up and makes it easier to stretch it over the bandwheel. The tyres before stretching are much smaller than the bandwheel and a good deal of stretching is required to make them fit. It is advisable to get help from a second person who can insert the wheel into the tyre while it is fully stretched. It is easier to replace the tyre with the wheels removed.

11.6 The bandwheel bearings

The bandwheel bearings are sealed for life units which will need replacing periodically depending on usage.

To replace the bearings; first ensure that there is no blade fitted. Remove the circlip from the hub and remove the bandwheel, you will notice that there are two separate bearings fitted in the hub pressed up against each other. Take a brass drift (or similar) and tap one of the bearings out, the second bearing should now be able to be pushed out.

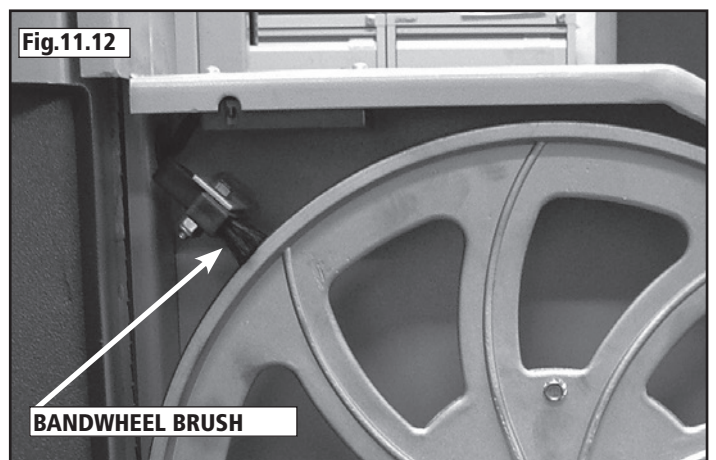
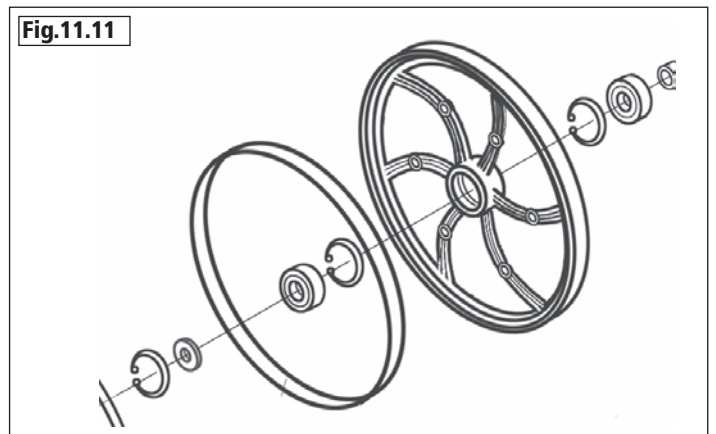
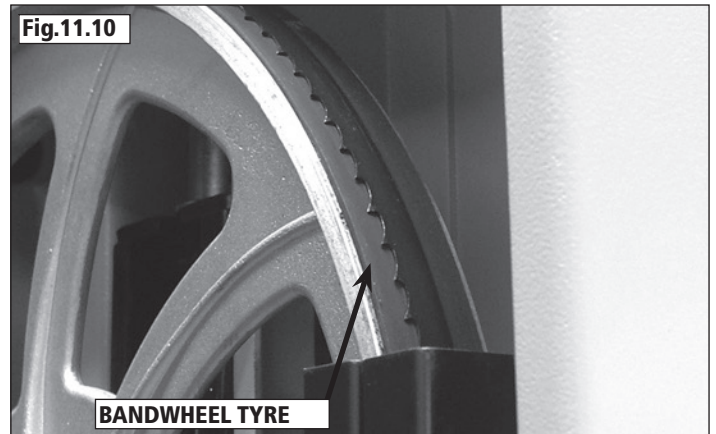
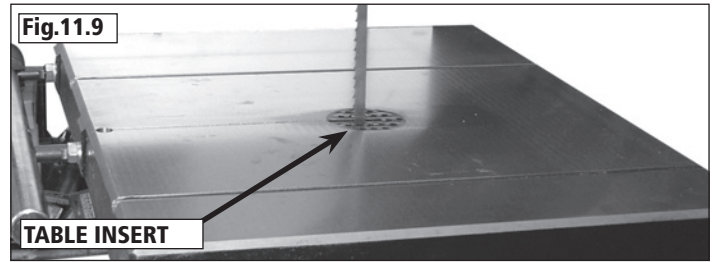
When fitting the new bearings; position by hand in the wheel hub and tap in until the bearing seats against the ridge in the casting. **Fig.11.11**.

11.7 Cleaning the table

The table is ground from cast iron and if cared for properly will provide smooth accurate performance. Obviously when machining wood a certain amount of resin will be deposited on the surface, to ensure optimum performance the table needs to be properly cleaned at regular intervals. Firstly brush off all loose particles, then wipe clean with white spirit ensuring that any resin build up is dispersed and removed. Once the table has been thoroughly cleaned it can now be treated with CWA195 silicone spray or wax. If these guidelines are followed the timber will glide smoothly and accurately across the table.

11.8 The bandwheel brush

The purpose of this brush is to remove any excess sawdust and resin from the bandwheel and tyre **Fig.11.12**. This brush will need adjusting periodically depending on usage. Before each use inspect the brush and make sure it is making sufficient contact with the bandwheel to remove sawdust from the tyre. The brush should be touching but not applying pressure to the wheel. If it isn't, loosen the fixing and adjust accordingly so it makes contact with the wheel. When the brush cannot be adjusted any nearer the wheel due to the bristles being worn, then it must be replaced. Periodically the brush may also become clogged up with resin (this is especially common when cutting a long run of soft wood) if this occurs this resin must be scraped off, as performance of the brush will be reduced.



12. Trouble Shooting



WARNING!

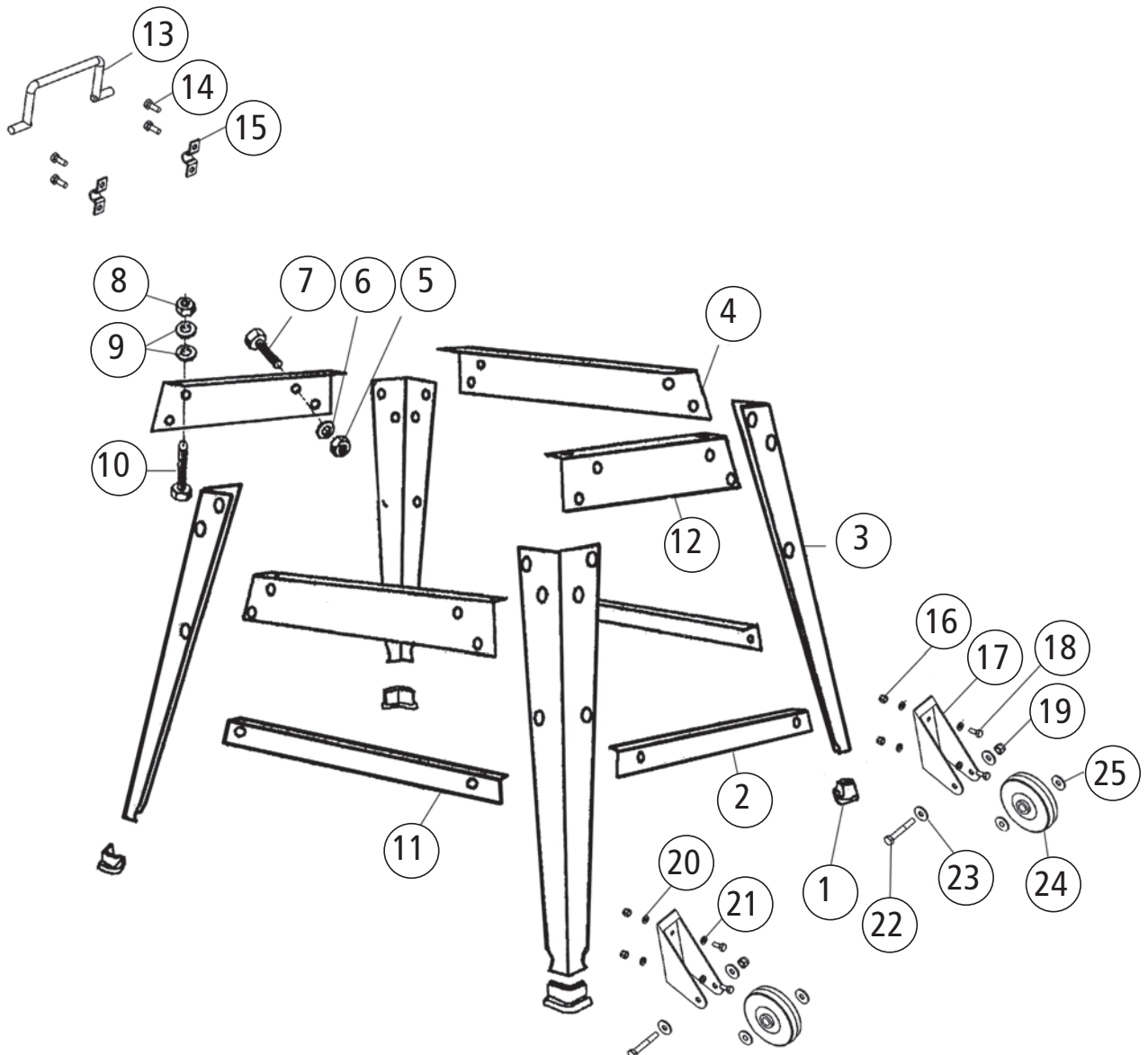
For your own safety, always turn off and unplug the machine before carrying out any troubleshooting

Symptom	Possible Causes	Solutions
Will not cut in a straight line.	<ol style="list-style-type: none"> 1. Blade is worn. 2. Guide carrier set too high. 3. Blade tension not correct. 4. Fence not aligned correctly. 5., Table not aligned correctly. 	<ol style="list-style-type: none"> 1. Change blade. 2. Adjust guide carrier. 3. Check and adjust as required. 4. Check and adjust as required. 5. Undo the four bolts holding the table to the trunnion and align table.
Fence is not square.	Fence not aligned correctly.	Check and adjust as required.
Motor slows down when wood is put through.	<ol style="list-style-type: none"> 1. Too much pressure being applied to the work piece. 2. Drive belt slipping. 3. Fence not aligned. 4. Table not aligned correctly. 5. Wrong type of blade . 	<ol style="list-style-type: none"> 1. Adjust feed rate to suit material. 2. Check and adjust as required. 3. Check and adjust as required. 4. Undo the four bolts holding the table to the trunnion and align table. 5. Change blade if necessary.
Machine stops when I let go of the on/off button.	Faulty switch.	Change switch.
Machine buzzes but will not run.	Capacitor on motor is faulty.	Change capacitor.
Tension indicator at the correct mark for the blade tension is incorrect.	Tension indicator is not accurate.	The blade tension indicator is only a guide, but fine adjustment may be required for each blade.
Unsure of which type of blade to use.		Refer to section 9 in the manual.
How much tension should be put on the blade?		Refer to section 9 in the manual.
Cannot get the blade on.	Blade tension not released.	Ensure the blade tension cam lock lever is released. The blade tension knob may also need to be turned to reduce tension further.
Cannot sufficiently tension the blade.	<ol style="list-style-type: none"> 1. Incorrect blade length. 2. Blade tensioner incorrectly set up. 	<ol style="list-style-type: none"> 1. Check you have the correct blade length. 2. Adjust the nut on the tensioning rod, upwards for smaller blade length and downwards for longer blade lengths.
Blade will not cut the wood.	<ol style="list-style-type: none"> 1. Blade upside down. 2. Blade back to front. 	<ol style="list-style-type: none"> 1. Re-fit blade with teeth pointing downwards 2. Turn the blade inside out then re-fit.
Machine will not start.	<ol style="list-style-type: none"> 1. No power supply. 2. Defective switch. 3. Doors not closed fully. 4. Fuse blown. 5. Defective motor. 	<ol style="list-style-type: none"> 1. Check the power cable and fuse. 2. Replace the switch. 3. Ensure both doors are closed fully. 4. Check and replace the fuse. 5. Replace with genuine Record Power motor.

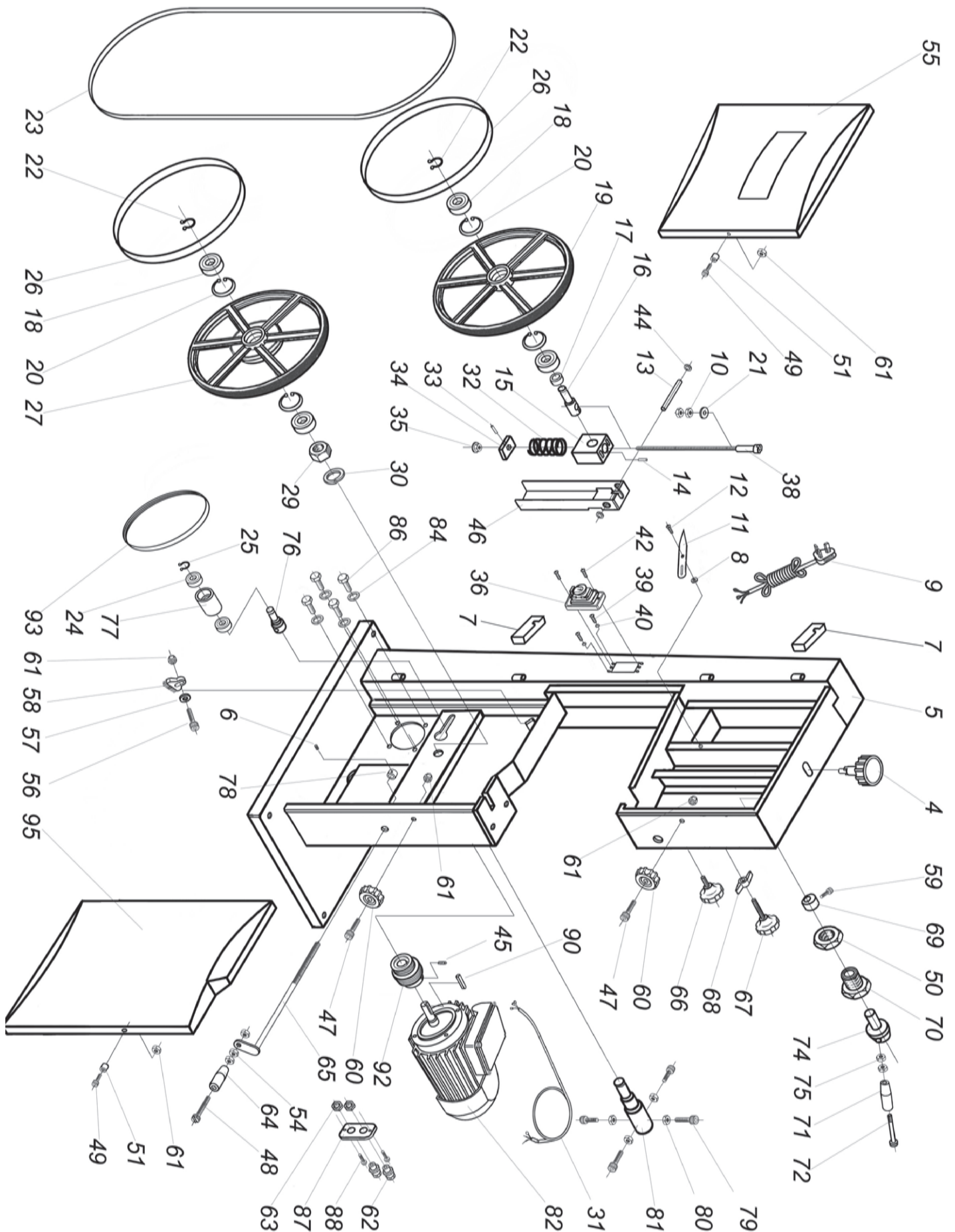
13. Parts Diagrams

Stand with wheel kit

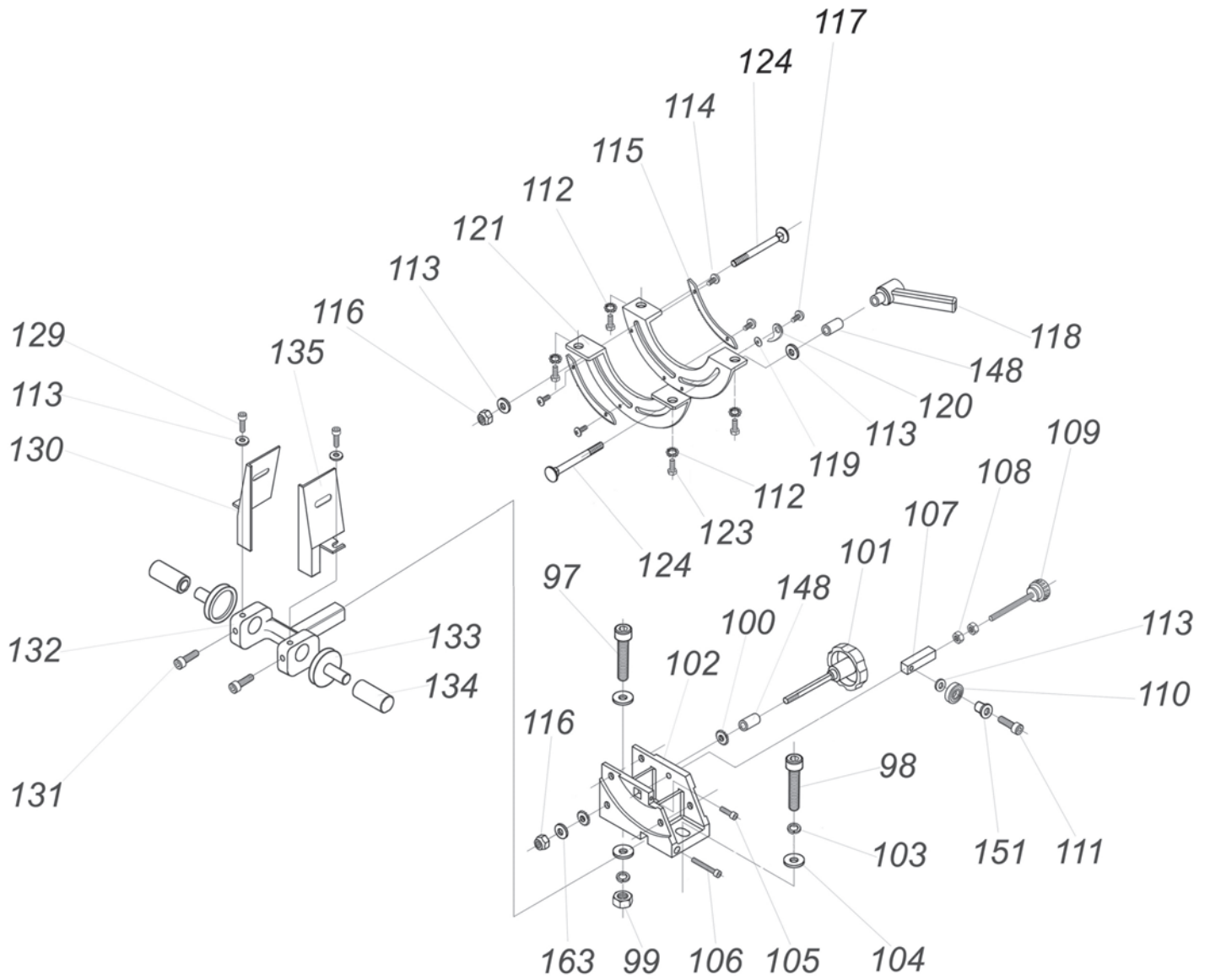
Ref No.	Description	Ref No.	Description
1	Rubber shoe	15	D-handle clamp
2	Short mid brace support	16	Hex nut
3	Leg	17	Wheel bracket
4	Long top brace support	18	Hex bolt
5	Hex nut	19	Hex nut
6	Washer	20	Flat washer
7	Hex bolt	21	Washer
8	Hex nut	22	Carriage bolt
9	Washer	23	Flat washer
10	Hex bolt	24	Wheel
11	Long mid brace support	25	Washer
12	Short top brace support		
13	D-handle		
14	Pan head screw		



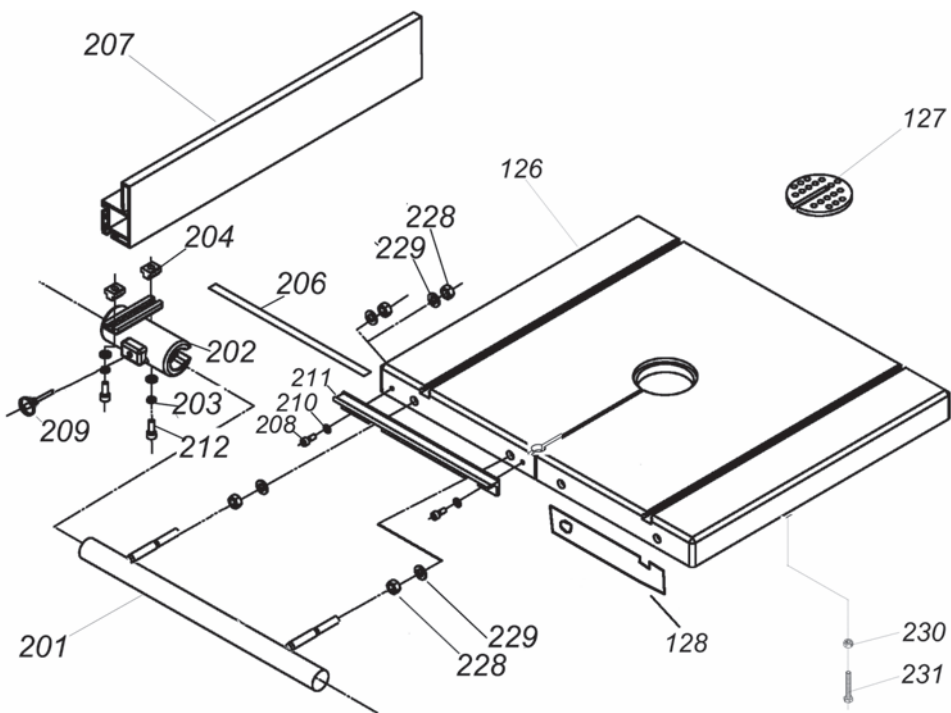
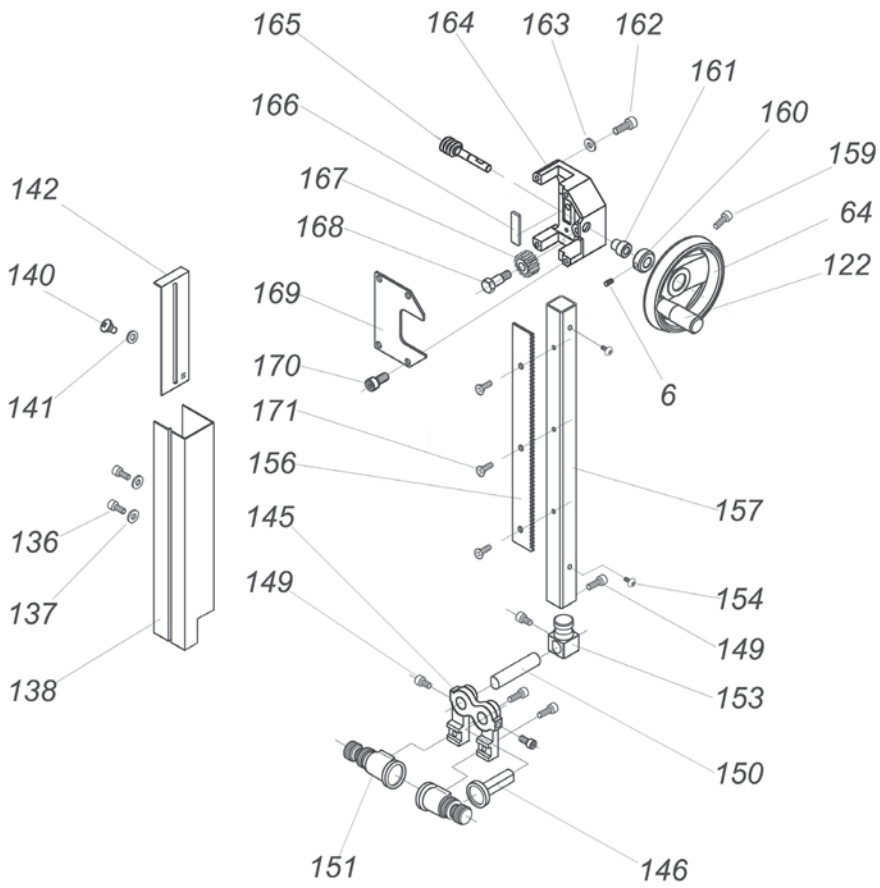
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13. Parts Diagrams - cont.



13. Parts Diagrams - cont.



14. Parts List

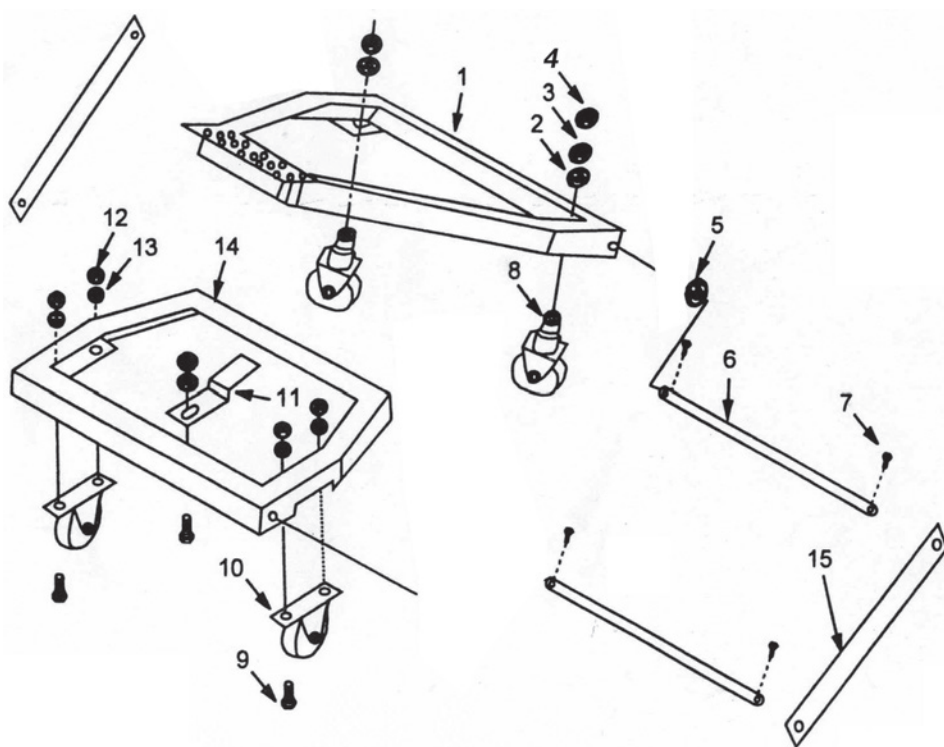
Ref No.	Description	Ref No.	Description
4	Blade tension knob	61	Nylon nut M6-1.0
5	Frame	62	Strain relief
6	Set screw M5-0.8 x 10	63	Strain relief nut
7	Safety switch	64	Crank handle
8	Flat washer M5	65	Tension rod
9	Power cord	66	Guide post lock knob
10	Hex nut M8-1.25	67	Blade tracking knob
11	Pointer	68	Wing nut M8
12	Step screw	69	Cam
13	Upper shaft	70	Pillow block
14	Roll Pin 5 x 36	71	Quick release handle
15	Tracking box	72	Cap screw
16	Upper wheel shaft	74	Quick release lever seat
17	Bushing	75	Hex nut
18	Wheel Bearing	76	Sliding shaft
19	Upper wheel	77	Tension wheel
20	Int retaining ring M40	78	Set collar 10 mm
21	Flat washer M8	79	Hex screw
22	Circlip ring	80	Hex nut
23	Saw blade	81	Lower wheel shaft
24	Grooved ball bearing 80101	82	Motor
25	Circlip ring 12 x 1	84	Lock washer M8
26	Bandwheel tyre	86	Hex screw
27	Lower wheel	87	Strain relief plate
29	Hex nut M27 x 2	88	Pan head screw
30	Lock washer 27	90	Key 5 x 5 x 35
31	Motor cord	92	Motor pulley
32	Spring	93	V-belt
33	Roll pin 3 x 16	95	Lower wheel cover
34	Block	97	Hex socket screw M8-1.25 x 35
35	Bearing 51201	98	Hex socket screw M8-1.25 x 25
36	Switch	99	Hex nut M8
38	Adjusting rod	100	Small gear
39	Pan head screw	101	Table tilt knob
40	Star washer M5	102	Trunnion support bracket
42	Pan head screw	103	Lock washer M8
44	Hex bolt M8-1.25 x 16	104	Flat washer M8
45	Set screw	105	Hex socket screw M6-1.0 x 20
46	Slide	106	Hex socket screw M6-1.0 x 50
47	Hex bolt M6-1.0 x 25	107	Hollow block
48	Cap screw M6 x 55	108	Hex nut M6-1.0
49	Hex socket screw M6-1.0 x 20	109	Adjustment bolt M6-1.0
50	Hex nut	110	Bearing 6201
51	Bushing	111	Hex socket screw M8-1.25 x 25
54	Hex nut	112	Flat washer M8
55	Upper wheel cover	113	Flat washer M6
56	Hex bolt M6-1.0 x 25	114	Pan head screw
57	Flat washer M6	115	Gear plate
58	Brush	116	Nylon nut
59	Hex bolt M6-1.0 x 25	117	Pan head screw
60	Star knob	118	Lock handle

14. Parts List - cont.

Ref No.	Description	Ref No.	Description
119	Flat washer M5	160	Spacer bushing
120	Pointer	161	Bushing
121	Trunnion plate	162	Cap screw M6-1.0 x 16
122	Rise and fall crank handle	163	Spring washer 6
123	Hex bolt M8-1.25 x 16	164	Guide bracket
124	Carriage bolt M6-1.0 x 65	165	Worm cylinder
126	Table	166	Fixed plate
127	Table insert	167	Gear
128	Keep plate	168	Fixed bolt
129	Hex socket screw	169	Cover
130	Left cover	170	Hex bolt M8-1.25 x 16
131	Hex socket screw	171	Pan head screw
132	Lower blade guide support	201	Fence rail
133	Lock washer	202	Fence seat
134	Shaft	203	Washer
135	Right cover	204	T-nut
136	Hex bolt	206	Fence scale
137	Flat washer	207	Rip fence
138	Protective cover	208	Hex socket screw
140	Step screw	209	Lock knob
141	Flat washer	210	Washer
142	Sliding plate	211	Scale carrier
145	Upper blade guide bracket	212	Hex socket screw
146	Blade support shaft	223	Wing nut
149	Hex socket screw	228	Hex nut M8
150	Adjust bar	229	Washer
151	Roller guide	230	Hex nut M8
153	Upper guide support block	231	Hex bolt M8-1.25 x 30
154	Pan head screw		
156	Rack		
157	Upper guide hose		
159	Hex socket screw		

15. Assembly of the Optional BS350S-W Pedal Wheel Kit

Fig.15.1



1	Pedal	1
2	Flat washer	2
3	Hex nut	2
4	Spring washer	7
5	Washer	4
6	Axle	2
7	Split pin	4
8	Rotating casters	2
9	Hex bolt	5
10	Casters	2
11	Release catch	1
12	Hex nut	5
13	Flat washer	5
14	Operating frame	1
15	Brace support bar	2



When fitting the optional pedal wheelkit during initial assembly of the bandsaw, please do so before attaching the bandsaw to the leg stand to ensure greater safety and ease of fitment.

When fitting the optional pedal wheelkit, the short mid brace support (Fig. 3.7) at the front of the bandsaw should be removed.

Assembly

1. Mount the two casters to the flattened areas on the underside of the operating frame, **Fig. 15.2**. Secure in place using the nuts bolts, washers and spring washers provided, ensuring the spring washers are placed next to the nuts.

2. Fit the release catch to the operating frame with the nuts and bolts provided, **Fig. 15.3**.

3. Fit the two rotating casters to the pedal as shown in **Fig. 15.4**. Secure in place using the nuts bolts, washers and spring washers provided, ensuring the spring washers are placed next to the nuts.

4. Feed one of the axles through the hole on one of the brace support bars, **Fig. 15.5**, and secure using one of the pins and washers provided, **Fig. 15.6**.

5. Feed the axle through the fixing holes on both of the rear legs of the stand and pedal, **Fig. 15.7**. The rear side of the machine is that which is closest to the spine, see **Fig. 15.8**.

6. Repeat this process at the opposite side ensuring that both sides of the axle have been secured with the fixing pins and washers and that both sides of the pedal are fixed. It should now be secure between the legs.

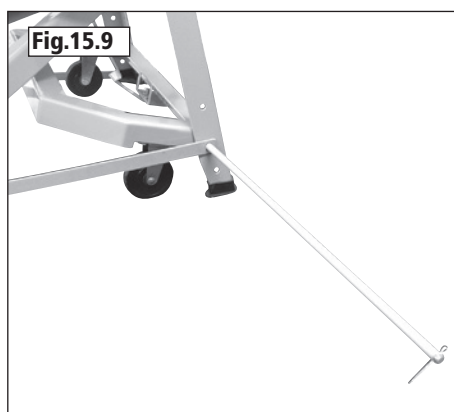
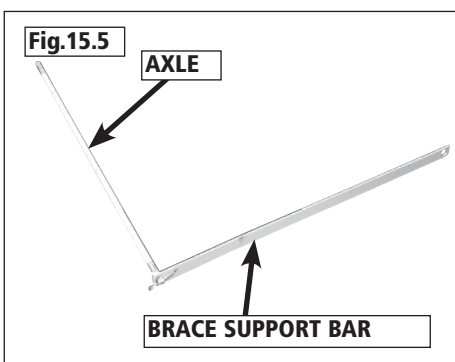
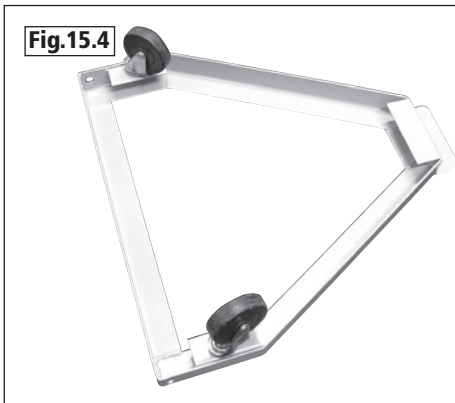
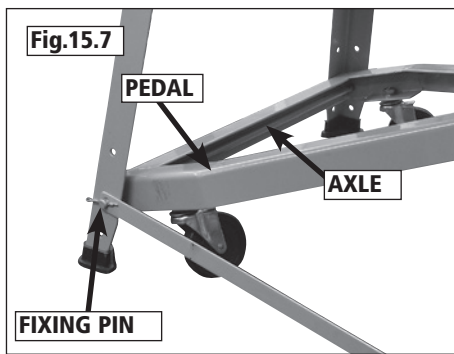
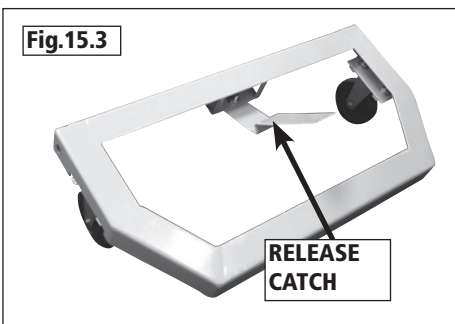
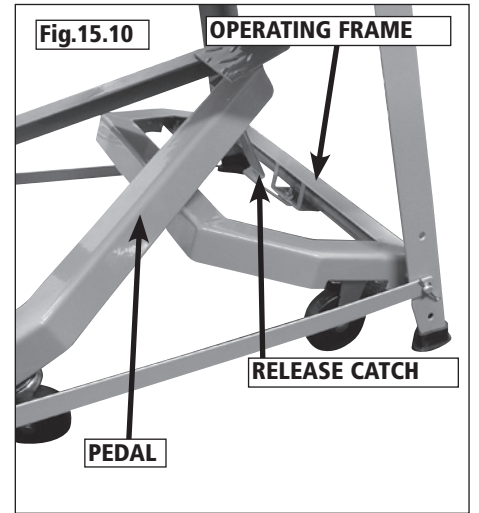
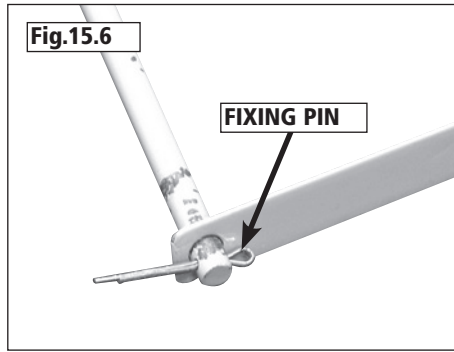
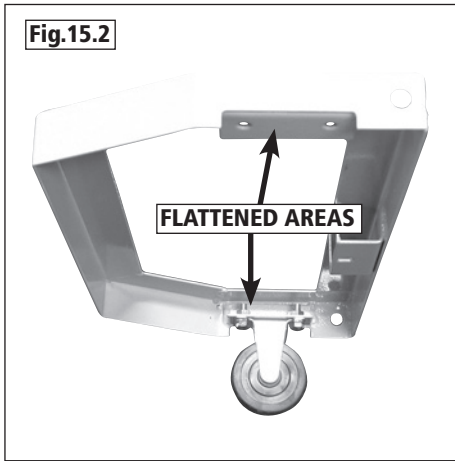
7. Feed the second axle through the holes in the brace support bars, front legs of the stand and operating frame. Secure using fixing pins and washers, **Fig. 15.9**.

8. Repeat this process at the opposite side ensuring that both sides of the axle have been secured with the fixing pins and washers and that both sides of the operating frame are fixed. It should now be secure between the legs.

9. At this point it is important to ensure that the operating frame sits below the pedal and that the release catch hooks under the pedal as in **Fig. 15.10**. If necessary, adjust the operating frame to enable the release catch to hook onto the pedal.

Operation

To operate the wheel kit press down on the pedal, **Fig. 15.11**. This motion raises the bandsaw and stand. The release catch hooks onto the pedal allowing the machine to be wheeled freely around the workshop. To set the machine in position, press down on the release catch. This motion releases the wheels and lowers the leg stand to the floor.



EU Declaration of Conformity

Cert No: EU / BS350S / 1

RECORD POWER LIMITED,

Centenary House, 11 Midland Way, Barlborough Links,
Chesterfield, Derbyshire S43 4XA

declares that the machinery described:-

1. Type: **Bandsaw**
2. Model No: **BS350S**
3. Serial No

Conforms with the following directives:-


MACHINERY DIRECTIVE 2006/42/EC
(repealing / replacing Directives)

LOW VOLTAGE DIRECTIVE 2006/95/EC
and its subsequent amendment

ELECTROMAGNETIC 2004/108/EC
COMPATIBILITY DIRECTIVE EN 55014-1:2006, EN 61000-3-2:2006, EN 61000-3-3:1995+A1+A2, EN 55014-2:1997+A1
and its subsequent amendments

and conforms to the machinery example for which the
EC Type-Examination Certificate No BM50169546, AN50169545, AE 50172130
has been issued by **TÜV Rheinland Product Safety GmbH**,
at: Am Grauen Stein, D-51105. Cologne, Germany

and complies with the relevant essential health and safety requirements.



Signed.....Dated: **01/01/2013**

Andrew Greensted
Managing Director



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