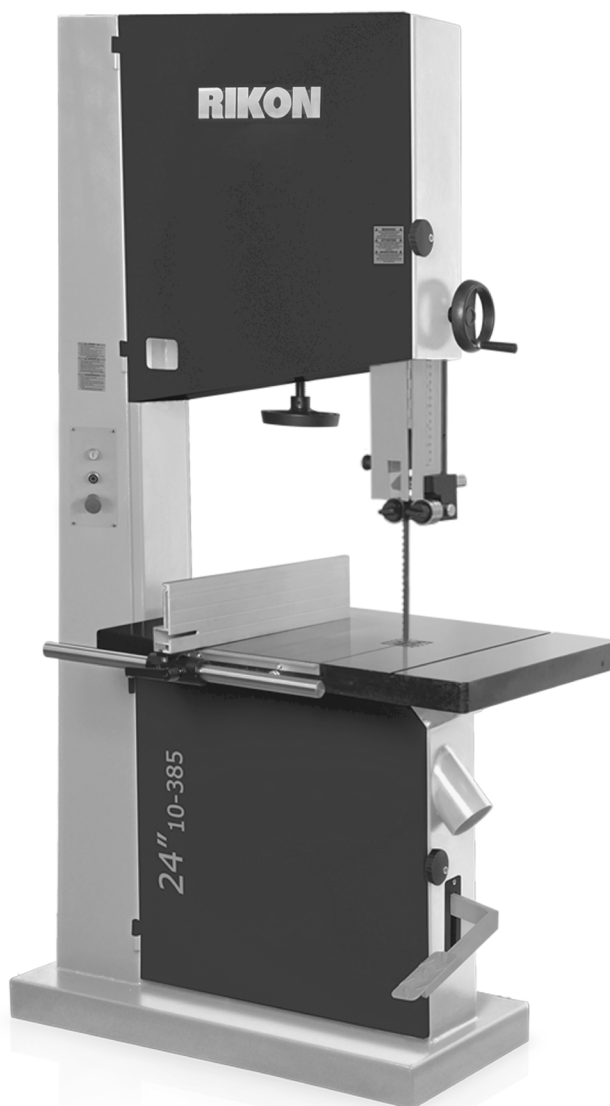


24" Bandsaw



Operator's Manual

Record the serial number and date of purchase in your manual for future reference.

Serial Number: _____ Date of purchase: _____

For technical support or parts questions, email techsupport@rikontools.com or call toll free at (877)884-5167

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1. 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

Warning



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

2. General Health and 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

2. General Health and Safety Guidance

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

- 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

2. General Health and Safety Guidance

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.

3. Additional Health and Safety Guidance 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.

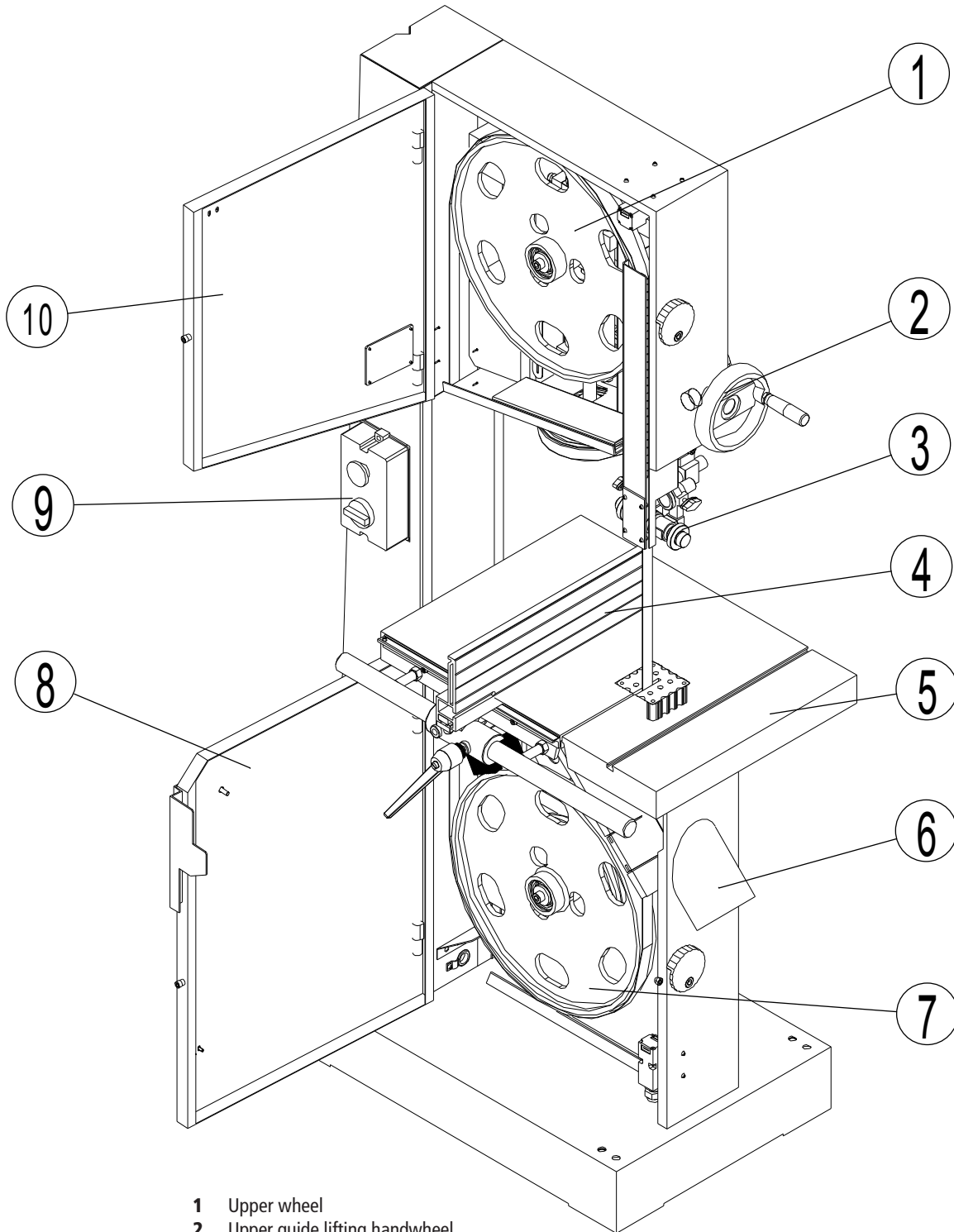
3. Whilst machining

- 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 and Safety at Work etc. Act 1974', and the 'Provision and 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 and Safety Executive and available from their website www.hse.gov.uk.

4. Features of the 403, 503 and 603 Bandsaws



- 1 Upper wheel
- 2 Upper guide lifting handwheel
- 3 Upper guide
- 4 Rip fence assembly
- 5 Table
- 6 Dust port
- 7 Lower wheel
- 8 Lower door
- 9 Switch with electric brake
- 10 Upper door

5. Specifications

Model	403/UK1	403/UK3	503/UK3	603/UK3
Motor voltage	230 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz
Current	9 A	4.8 A	7 A	8.2 A
Motor power output	1.5 kW	2.2 kW	3 kW	4 kW
Blade length	3531 mm	3531 mm	3962mm	4470 mm
Blade width	6 - 30 mm	6 - 30 mm	6 - 30 mm	10 - 35 mm
Max. cut depth	280 mm	280 mm	335 mm	370 mm
Throat width	390 mm	390 mm	480 mm	580 mm
Blade speed	1100 m/min	1100 m/min	1500 m/min	1500 m/min
Table size	578 x 420 mm	578 x 420 mm	633 x 485 mm	700 x 608 mm
Table tilt	0 - 45°	0 - 45°	0 - 45°	0 - 22.5°
Dust port diameter	100 mm	100 mm	100 mm	100 mm
Weight	166 kg	166 kg	227 kg	342 kg

	No Load	Load
Sound Pressure Level	< 80 dB(A)	< 90 dB(A)
Sound Power Level	< 90 dB(A)	< 100 dB(A)

6. Dust Extraction

All bandsaws should be used only with suitable dust extraction equipment connected.

The minimum advisable air speed is 20 m/s for wood with a humidity of less than 12%. For wood with greater humidity it is advisable to increase the air speed to 25-28 m/s.

Capacity: Approximately 600 m³/h.

Pressure drop at each dust extraction connection outlet at the conveying air velocity: 530 Pa.

7. Installation and Operation

Installation Zone Characteristics



WARNING

It is prohibited to install the machine in explosive environments.

The installation zone must be selected evaluating the work space required depending on the dimension of the pieces to be machined, and taking into account that a free space of at least 800 mm must be left around the machine. It is also necessary to check the floor capacity and its surface, so that the machine base is evenly resting on its four supports. A power outlet and a chip-suction system connection shall be close to the selected machine setting and it must be conveniently lighted.

Lifting

The machine can be lifted using a fork-lift truck, placing the forks under the feet or by using a "SLING", as shown in **Fig 7.1**, with a lifting capability of 2000 Kg.

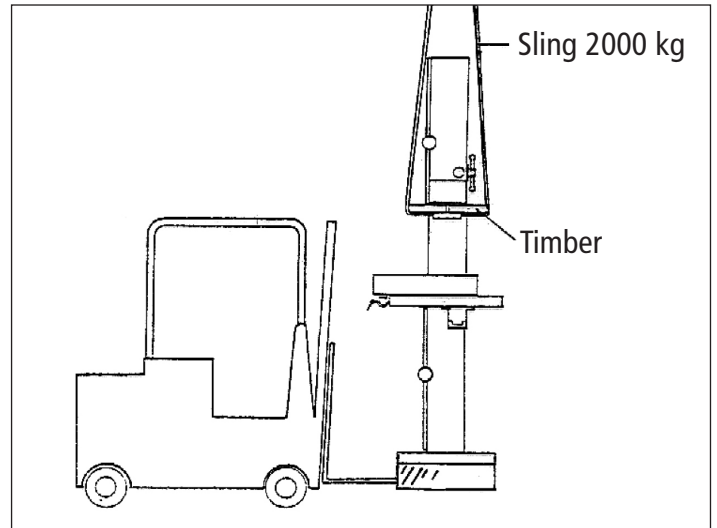


Fig 7.1

Positioning The Machine

For correct and rational organisation of the work area:

- Install the machine in an area that will not amplify vibration or noise
- Verify that the work area is adequately illuminated.
- When placed between other machinery there should be a space of at least 80 cm. It is necessary to anticipate sufficient space for cutting long work pieces transversely and for the fitting of rollers or other types of support, in front and at the rear of the table.

There are four holes for fixing the machine to the floor. When fixing to the floor it is recommended not to over tighten the fixtures to avoid increasing vibration. It is also advisable to place anti-vibration materials between the floor and the feet of the machine.

7. Installation and Operation

Blade Mounting and Adjustment

To mount the blade first remove the table insert (**Fig 7.2, A**) Place the blade onto the bandwheel checking the teeth are in a correct position, and then tighten the tension using the handwheel (**Fig 7.3, A**). The correct tension value is indicated on the tension scale inside the upper door, the indicated value corresponds to the width of the blade.

Turn the bandwheels manually, checking that the blade does not interfere with any fixed parts and that the blade is placed correctly on the bandwheels. The points of the teeth should slightly protrude over the edge of the bandwheels. To adjust the blade position on the bandwheels slacken the locking lever (**Fig 7.3, B**), and then turn the knob (**Fig 7.3, C**): the blade will move inwards when turn the knob clockwise and the blade will move further out when turn the knob anticlockwise; A quarter of one circle is sufficient to make a noticeable displacement. Tighten the locking lever after the blade is positioned correctly.

Reinstall the table insert, close the band wheels accessing doors.



CAUTION

After use we recommend slackening the blade tension, and to display a visible sign on the machine advising of this procedure. Remember to check and re-tension before use. This operation prevents damage to the bandwheel tyres.

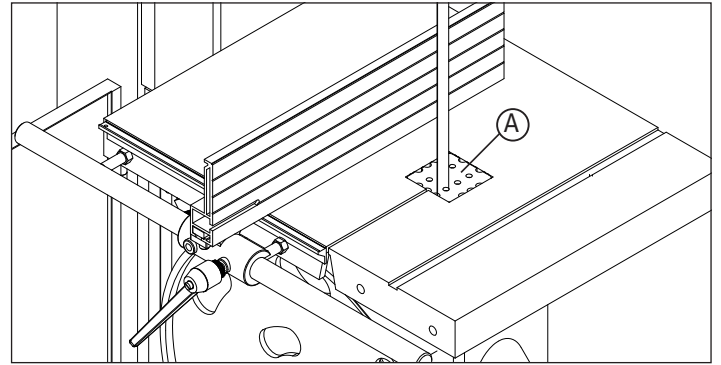


Fig 7.2

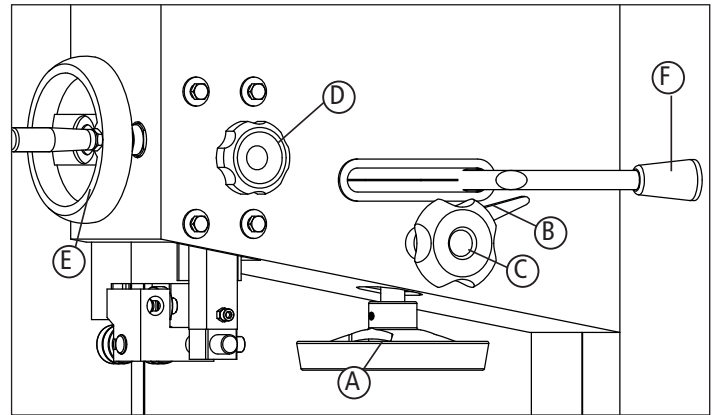


Fig 7.3

Setting the Blade Guard and Guides

Adjusting the Saw Blade Guard

The adjustable saw band guard should be positioned as close as possible to the work piece. To adjust the height, release the locking knob (**Fig 7.3, D**) and turn the hand wheel (**Fig 7.3, E**) to move the guard up or down. Lock the knob once the correct guard position is obtained. This operation must always be carried out when the machine has stopped.

Roller Bearings Blade Guide

The roller bearings should lightly touch the blade, to prevent vibration during operation and ensure the correct cutting direction. The positioning of these bearings is controlled by screw **A** of **Fig 7.4**. Once they have been adjusted, tighten screw **A**. They should be 2 mm behind the teeth of the blade. The rear bearing prevents excessive backward movement of the blade during operation and should be 1 - 2 mm from the back of the blade. This can be adjusted using screw **B** of **Fig 7.4**.

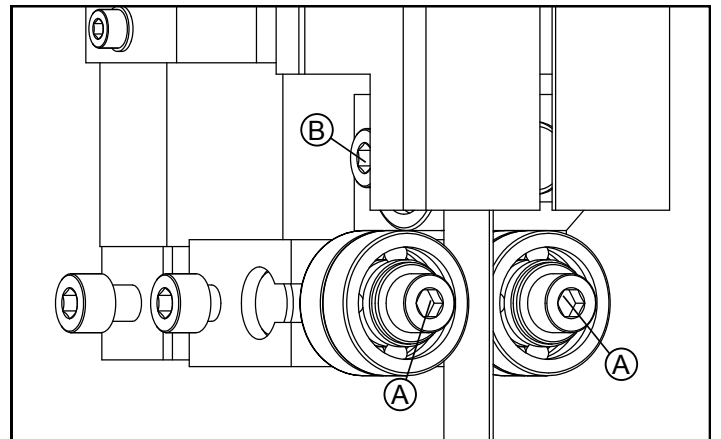


Fig 7.4

Lower Saw Blade Guide

The roller bearings should lightly touch the blade to prevent vibration during operation and ensure the correct cutting direction. The positioning of these rollers is controlled by screw **A** of **Fig 7.5**. Once adjusted, tighten screw **A**. They should be 2 mm behind the teeth of the blade. The thrust shaft prevents excessive backwards movement of the blade during operation and should be 1 - 2 mm from the back of the blade. This can be adjusted using screw **B** of **Fig 7.5**.

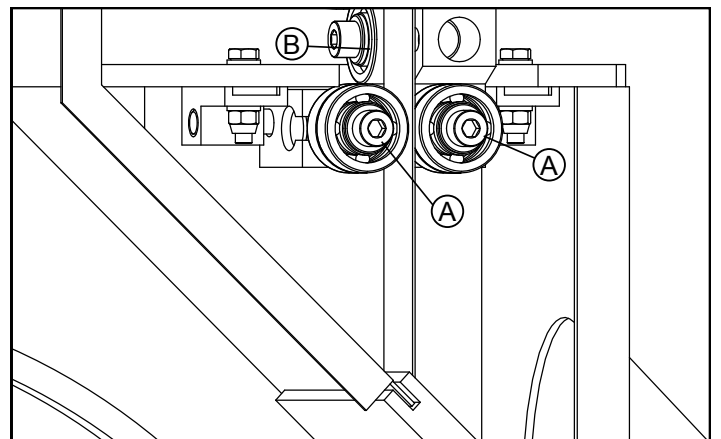


Fig 7.5

7. Installation and Operation

Tilting The Work Table of the 403 and 503

The table may be set at 90° to the blade by adjusting the table stop screw beneath the table. The table stop screw rests on the top of the lower wheel bandwheel housing. By first slackening the locking nut **A** of **Fig 7.6** and then adjusting the screw **B** of **Fig 7.6**, the table can be set correctly. Retighten the locking nut **A** making sure that the setting is maintained.

To make adjustments of table tilting, slackening the locking handle **D** of **Fig 7.6** and rotate the shaft **C** of **Fig 7.6** with the special handle found in the loose parts bag supplied with the machine. When adjustment is complete, tighten the handle **D** of **Fig 7.6** to lock it.

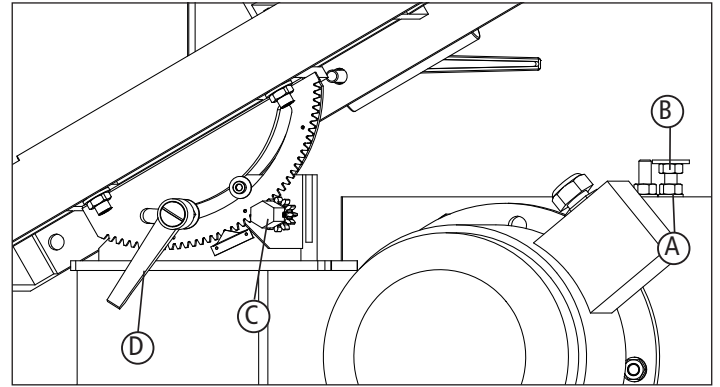


Fig 7.6

Tilting the Work Table of the 603

The table may be set at 90° to the blade by adjusting the table stop screw beneath the table. The table stop screw rests on the top of the lower wheel bandwheel housing. By first slackening the locking nut **A** of **Fig 7.7** and then adjusting the screw **B** of **Fig 7.7**, the table can be set correctly. Retighten the locking nut **A** making sure that the setting is maintained.

To make adjustments of table tilting, slackening bolt **C** of **Fig 7.7**. When adjustment is correctly finished, tighten the handle **D** of **Fig 7.7** to lock it.

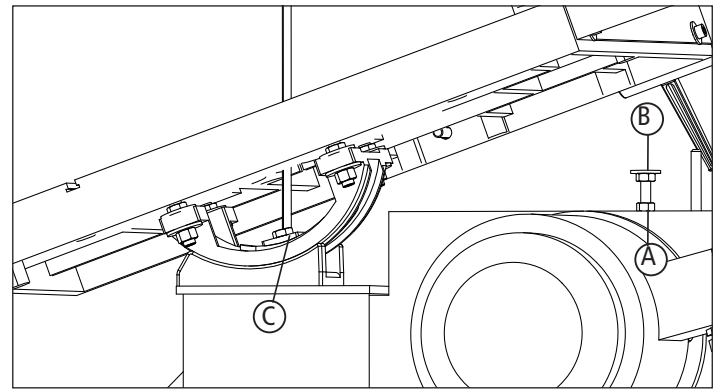


Fig 7.7

8. Operation and 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.

8. Operation and Bandsawing Practice

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

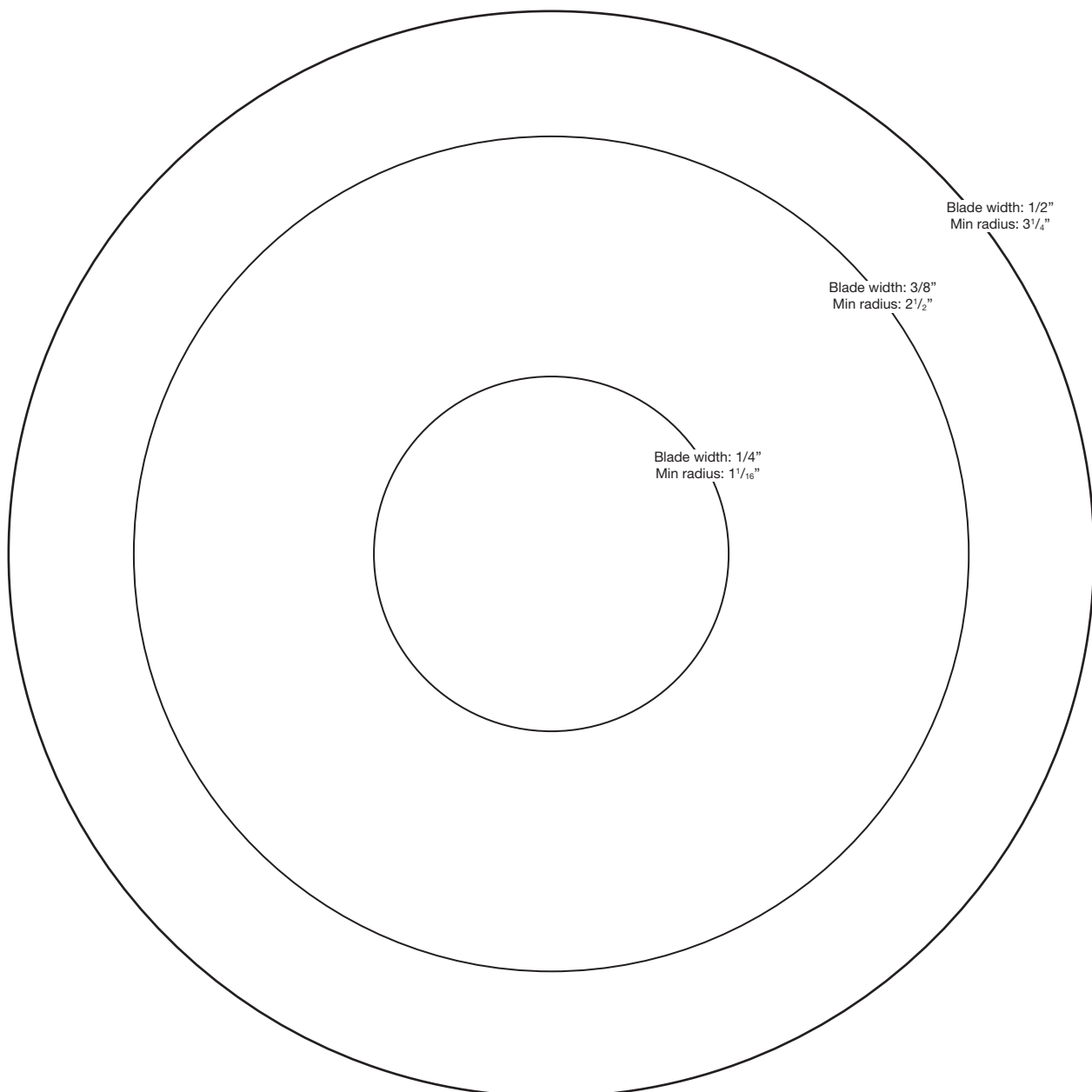
Blade Selection (TPI) - Cont.

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.



8. Operation and Bandsawing Practice

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 Startrite Customer Services in your country.

Startrite Blade Range

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

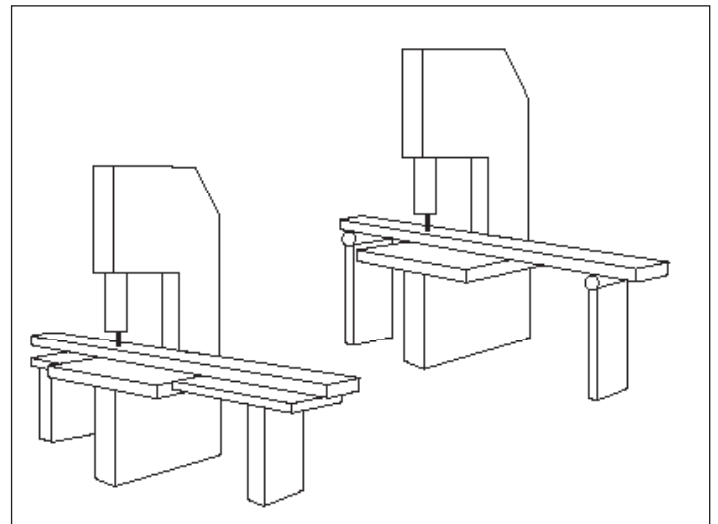
The extensive quality control program which involves digital tooth profile checks, set analysis, straightness testing, hardness testing and micro structural analysis results in a blade that cuts straighter and has harder, longer lasting teeth. A premium British blade that can last up to ten times longer than other blades on the market. To order any of these blades please contact Startrite 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		
	Material Thick / Soft Timber	Blade Spec width 1/4"	Blade Spec width 3/8"	Blade Spec width 1/2"		
	Material General Timber	Blade Spec width 1/4" teeth 4 - 6 TPI	Blade Spec width 3/8" teeth 4 - 6 TPI	Blade Spec width 1/2" teeth 4 - 6 TPI		
	Material Thin / Hard Timber	Blade Spec width 1/4" teeth 6 TPI	Blade Spec width 3/8" teeth 6 TPI	Blade Spec width 1/2" teeth 6 TPI		

Custom Jigs and Work Support

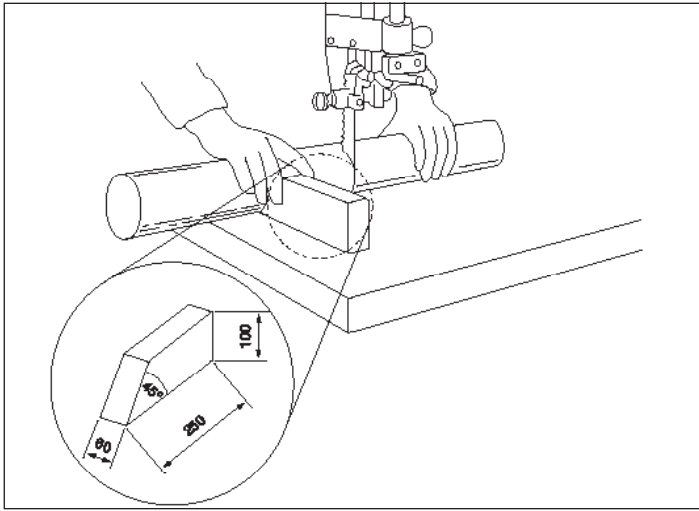
A bandsaw is one of the most versatile machines in the workshop and with careful preparation many problems encountered on a job can be overcome. By making and using custom jigs repetitive and accurate work can easily be achieved, the following illustrations are some examples of typical jigs and supports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

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

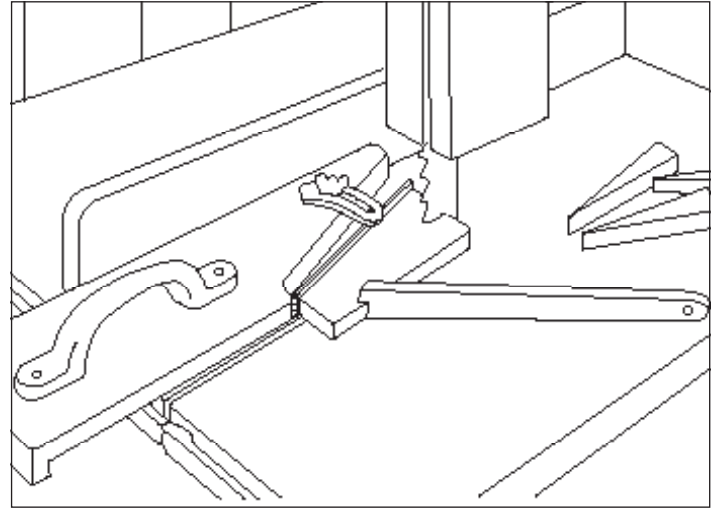


8. Operation and Bandsawing Practice

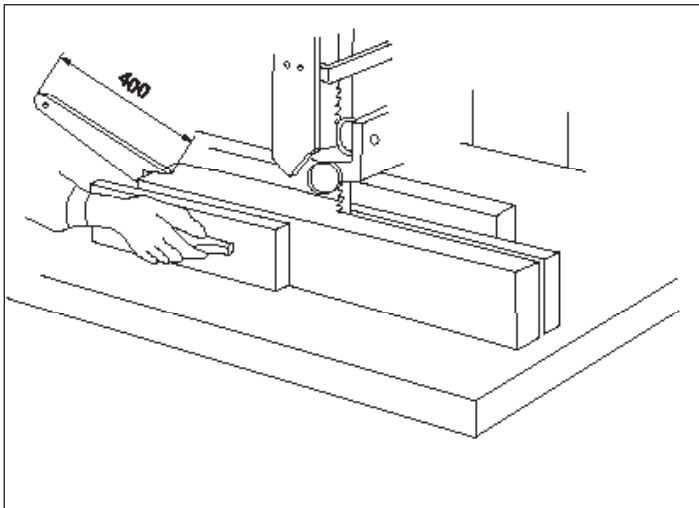
Ex. 2. Always support round pieces with a wedge or vee block. Take extreme care as there is a danger that if the work is not secured properly the blade will snatch the work piece, potentially causing it to spin or bounce back at you.



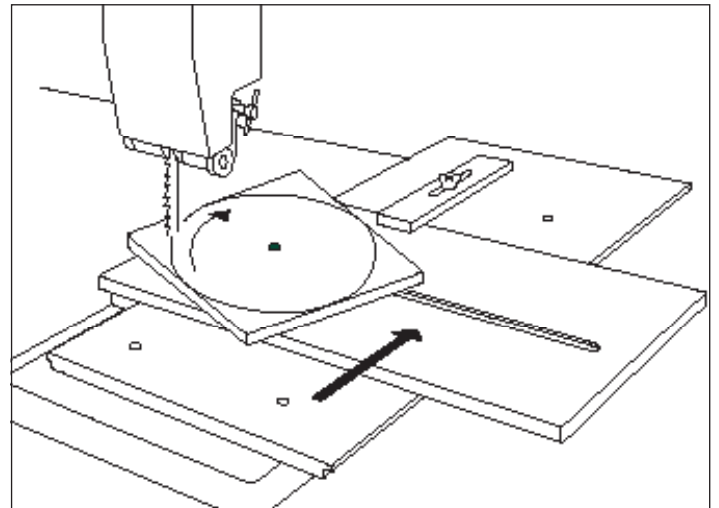
Ex. 5. Jig for accurate repetitive wedges.



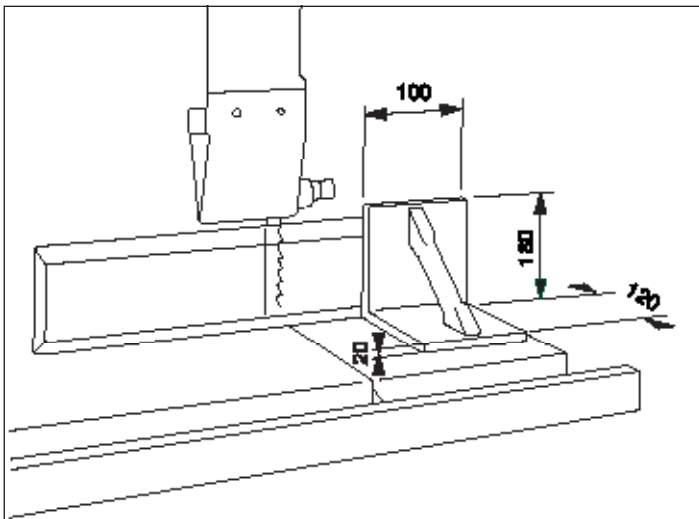
Ex. 3. Use a side pressure pad for accurate cutting of taller material.



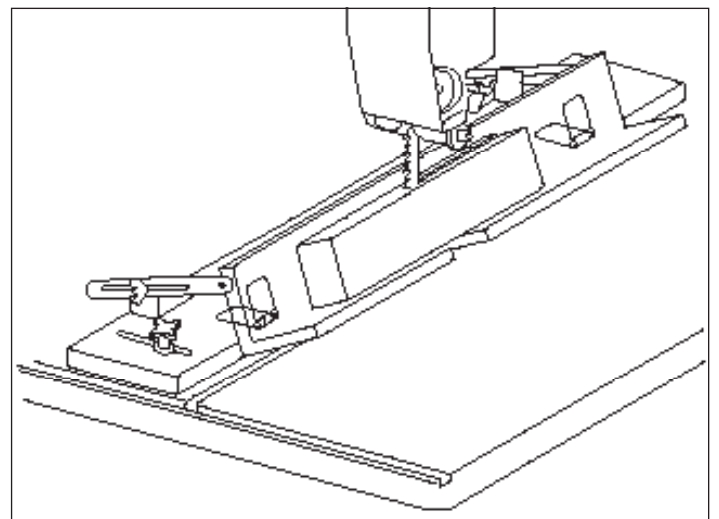
Ex. 6. By mounting a registration pin on a slide repetitive circles can easily be achieved.



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.



9. Maintenance



WARNING

**BEFORE ANY INTERVENTION ALWAYS DISCONNECT THE MACHINE FROM THE ELECTRICAL SUPPLY.
Periodically check that all screws are tightly fastened and the condition of the guards are acceptable.**

V Belts

After the first few hours of operation it is necessary to check that the tension of the belts is correct as they may have stretched. To control the tension of the belts, push the mid-point of the belt, applying 3-4 kg of pressure. The displacement should not exceed 5-6 mm. It is recommended that the correct blade tension is maintained, as loose belts reduce the motor power and can increase the braking time. Belts that are too tight can become hot.

To Change the Belts

Slacken the blade tension, remove the screw at the centre of lower bandwheel, pull out the bandwheel from the shaft. Repeat these operations in reverse to re-assemble.

Dismantling the Upper Bandwheel

Removal of the upper bandwheel requires the same procedure as on the lower bandwheel.

Replacement of the Rubber Covering of the Fly-Wheels

It is recommended that this be carried out by a competent specialist or the manufacturer due to the rubber covering being glued onto the bandwheel and also ground in a crown form. It is strongly advised not to grind and shape the rubber directly on the machine using gouges, files or abrasives.

Cleaning and Lubricating

Periodically clean the inside of the machine of sawdust with the aid of a dust extractor. Remove any resin deposits from the bandwheels' surfaces. The bandwheel bearings do not require any greasing. It is not necessary to lubricate any part or component of the machine as the sawdust circulating within will adhere to any oiled or greased surface, jeopardizing the sliding of moving parts such as the shaft of the blade guide adjustment and the slide of the tensioning assembly.

Frequently control the cleanliness of the rubber surfaces on the bandwheels, particularly in cases of cutting resinous materials or chipboard. Clean the surfaces, while machine is not in motion, of any resin deposits and take care do not damage the surface.

10. Troubleshooting



WARNING

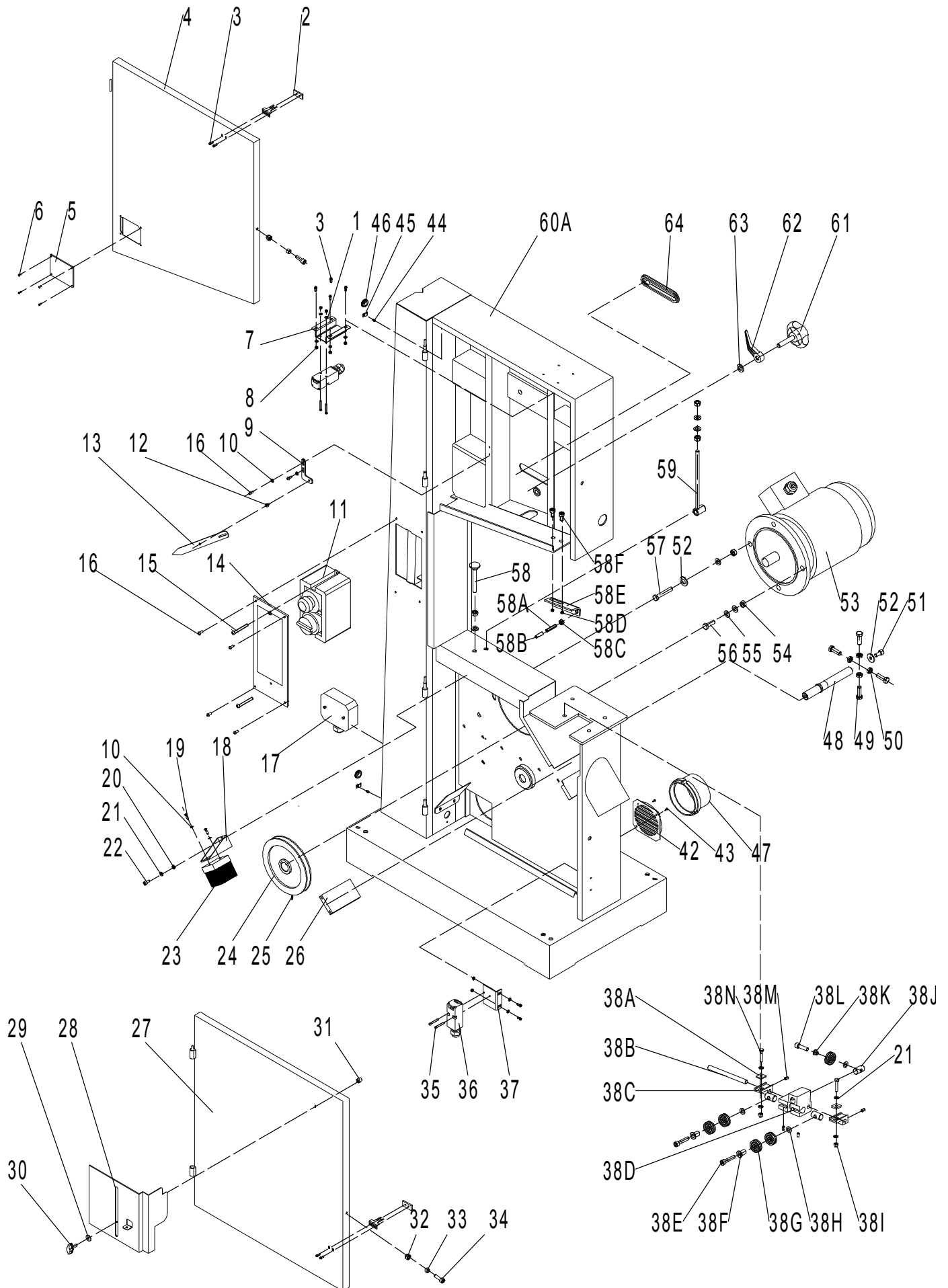
For any information or problem contact your local stockist or customer services in your country. The necessary interventions must be carried out by specialised technical personnel.

Before carrying out any fault service or maintenance work, always turn off the machine, unplug the power cable and wait for the machine to come to a standstill.

Problem	Possible Cause	Solution
Bandsaw stops unexpectedly or will not start.	<ol style="list-style-type: none">1. Bandsaw unplugged.2. Fuse blown or circuit breaker tripped.3. Power cord is damaged.	<ol style="list-style-type: none">1. Check plug connection.2. Replace fuse or reset circuit breaker.3. Replace power cord.
Accurate 90° or 45° cuts cannot be made.	<ol style="list-style-type: none">1. Table stop not set correctly.2. Angle pointer not set accurately.3. Mitre gauge not in the correct position.	<ol style="list-style-type: none">1. Check the blade is at 90° to the table with a try square and adjust stop if necessary.2. Check the blade as above point 1 and set the pointer correctly.3. Set the mitre gauge to the correct angle.
Blade wanders during cutting.	<ol style="list-style-type: none">1. Fence is not aligned with the table.2. Timber is warped.3. Excessive feed rate.4. Incorrect blade being used.5. Blade tension incorrectly set.6. Blade guides not set correctly.	<ol style="list-style-type: none">1. Check fence and align if necessary.2. Use alternative timber.3. Reduce the feed rate.4. Use the correct type of blade.5. Set the blade tension according to the type of blade being used.6. Adjust blade guides as shown in this manual.
Bandsaw gives unsatisfactory quality of cut.	<ol style="list-style-type: none">1. Dull blade.2. Blade mounted incorrectly.3. Gum or pitch is on the blade.4. Incorrect blade for cut being used.5. Gum or pitch is on the table.	<ol style="list-style-type: none">1. Replace the blade.2. Ensure the teeth are pointing downwards.3. Remove and clean the blade.4. Use the correct type of blade.5. Clean the table.
Blade does not come up to speed.	<ol style="list-style-type: none">1. Extension cord too long or lightweight.2. Low workshop voltage.	<ol style="list-style-type: none">1. Replace with adequate size and length of cord.2. Consult a qualified electrician.
Bandsaw vibrates excessively.	<ol style="list-style-type: none">1. Bandsaw stood on uneven floor.2. Worn out V-belt.3. Motor mount is loose.4. Loose hardware.	<ol style="list-style-type: none">1. Place the bandsaw on a level surface.2. Replace the V-belt.3. Tighten the motor mounting hardware.4. Tighten hardware.

11. Parts Lists and Diagrams - 403/UK1 and 403/UK3

Frame Assembly



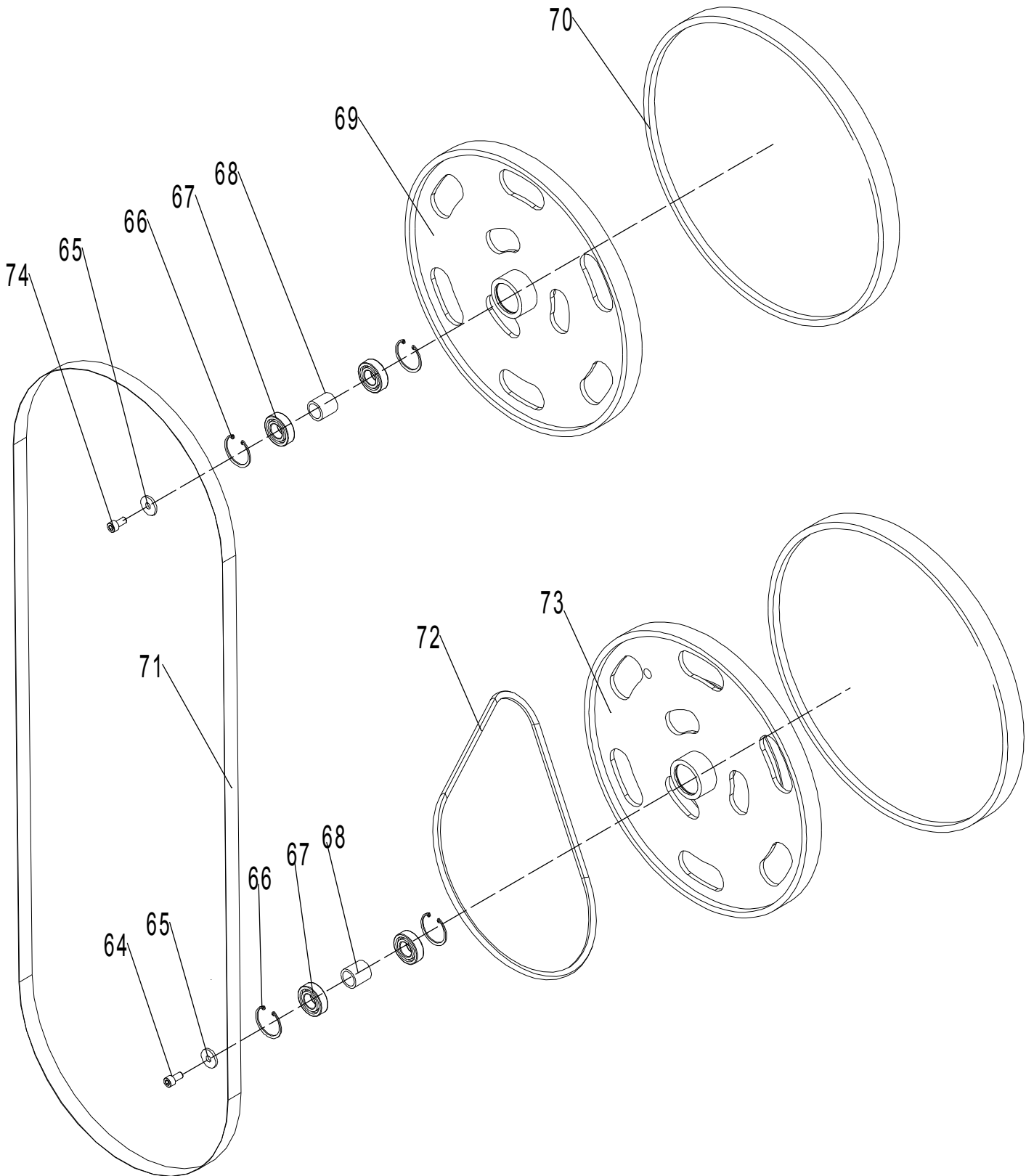
11. Parts Lists and Diagrams - 403/UK1 and 403/UK3

Frame Assembly

No.	Description	Part No	Quantity	No.	Description	Part No	Quantity
1	Flat washer	WSH4GB97D1Z	8	38D	Conductor	BS5001032002	1
2	Plate	JL27010017	2	38E	Screw	M8X40GB70Z	2
3	Pan head screw	M4X10GB818Z	10	38F	Tube	JL26041002	2
4	Upper door	BS4001012001A-060U	1	38G	Bearing	BRG6201-2RSGB276	5
5	Glass of window	JL26010001	1	38H	Flat washer	WSH8GB97D1Z	3
6	Self-plugging rivet	RVT3X7GB12618A	4	38I	Lock nut	M6GB889Z	2
7	Microswitch base	JL26010012-124U	1	38J	Guide shaft	JL26041003	3
8	Hex bolt	M4GB6170Z	8	38K	Bearing tube	JL26041006	1
9	Bracket	JXBS2201010007	1	38L	Screw	M8X30GB70Z	1
10	Flat washer	WSH5GB97D1Z	4	38M	Set screw	M6X10GB80B	4
11	403/UK1 only - Brake switch	RB7-16	1	38N	Hex bolt	M6X30GB5783Z	2
11	403/UK3 only - Brake switch	RB7-17	1	42	Suction grille	JL20010019-001S	1
12	Pointer screw	JL26010010	1	43	Self tapping screw	ST3D5X9D5GB845Z	2
13	Indicator	BS4001010001-105U	1	44	Pan head screw	M4X10GB818Z	2
14	Switch plate	BS4001010004-124U	1	45	Cable board	1502014-02	2
15	Self tapping screw	ST3D5X28GB845B	2	46	Rubber bushing	1905010	2
16	Pan head screw	M5X10GB818Z	6	47	Dust port	JL20010007-001S	1
17	403/UK1 only - Single phase seat type plug	1-HT-513	1	48	Lower shaft	JXBS1601020002	1
17	403/UK3 only - Three phase seat type plug	P226E-03A	1	49	Hex bolt	M12X35GB5783Z	4
18	Brush base	JL29000009-124U	1	50	Nut	M12GB6172Z	4
19	Self tapping screw	ST4D8X16GB845Z	2	51	Screw	M10X20GB70Z	1
20	Hex nut	M6GB6172Z	1	52	Large washer	WSH10GB96Z	2
21	Flat washer	WSH6GB97D1Z	7	53	403/UK1 only - Motor	YYH800152B	1
22	Screw	M6X12GB70Z	1	53	403/UK3 only - Motor	YSH905222D	1
23	Brush	JL29000004	1	54	Hex bolt	M10GB6170Z	5
24	Motor pulley	JXBS1601020003	1	55	Flat washer	WSH10GB97D1Z	6
25	Set screw	M6X10GB80B	1	56	Hex bolt	M10X30GB5783Z	1
26	Blocking chip plate	JXBS2002010014	1	57	Hex bolt	M10X70GB5783Z	1
27	Lower door	BS4001012002A-060U	1	58	support screw	JXBS2001010003	1
28	Protection cover	BS4001012003-146T	1	58A	Lock screw	M6X30GB77B	1
29	Large washer	WSH6GB96Z	1	58B	Plastic tube	JXBS2401010018	1
30	Wing knob	JXBS2401054001-001S	1	58C	Nut	M6GB6170Z	1
31	Nut	M6X15GB/T17880D3Z	1	58D	Nut	M5GB6170Z	2
32	Lock nut	M6GB889Z	2	58E	Connecting angle	BS5001010002	1
33	Tube	JL26010007	2	58F	Screw	M5X16GB70Z	2
34	Screw	M6X20GB70D1Z	2	59	Shaft	JXBS2001015001	1
35	Pan head screw	M4X30GB818Z	4	60A	Frame	BS4001011000B-124U	1
36	Microswitch	QKS8	2	61	Adjustment handle	JXBS1602010006-001S	1
37	Microswitch base	JL27010016-124U	1	62	Locker	JXBS1602010007-001S	1
38A	Plate	JL22040004	2	63	Flat washer	WSH12GB97D1Z	1
38B	Connection shaft	BS5001032003	1	64	Dust blocking plate	JL26030019	1
38C	Bracket	JL20043001	2				

11. Parts Lists and Diagrams - 403/UK1 and 403/UK3

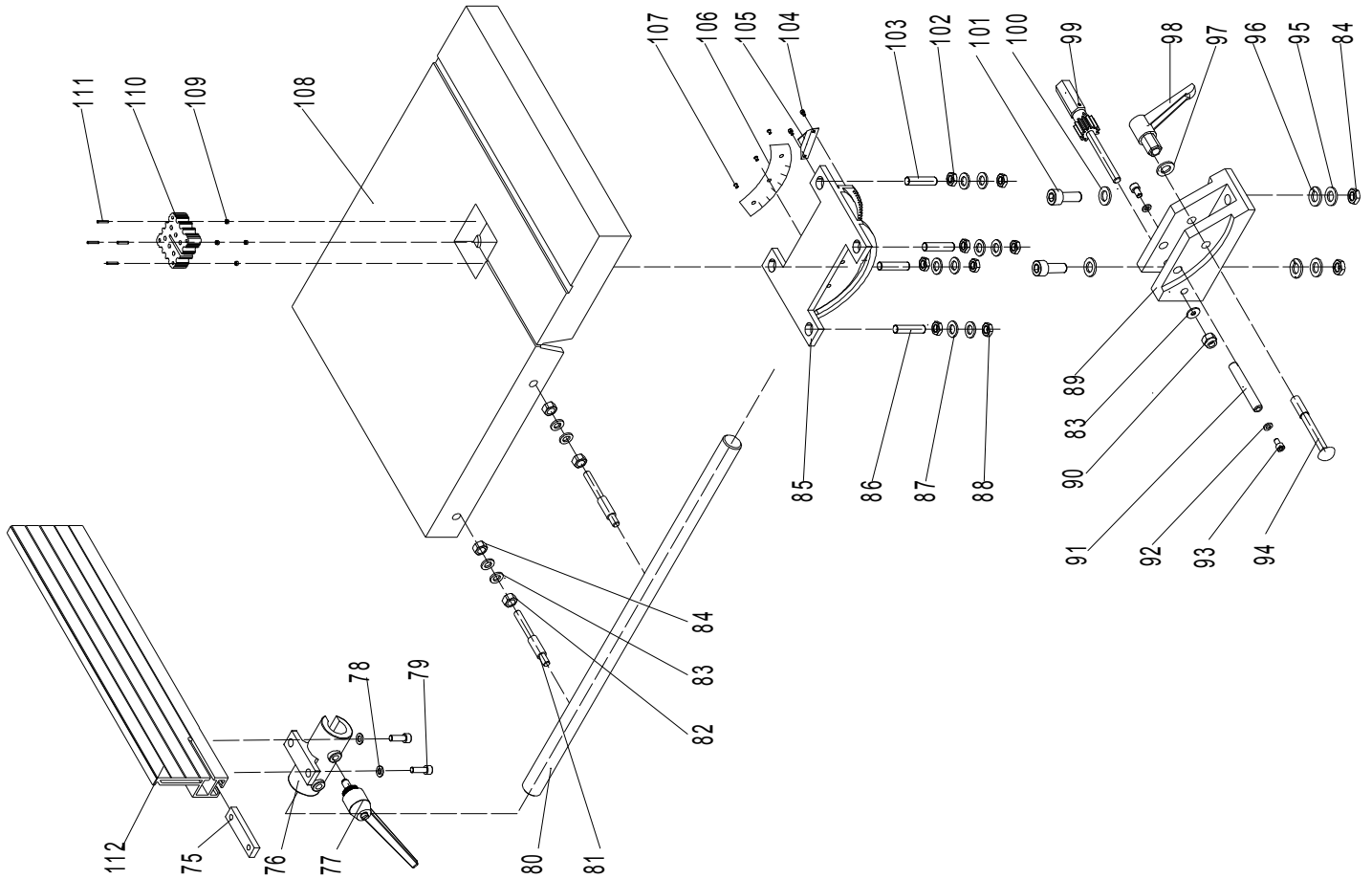
Driving System Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
65	Washer	JXBS2201020004	2	70	Tyre	BS4001021002	2
66	Retaining ring	CLP52GB893D1B	4	71	Blade	BS4001020001	1
67	Bearing	BRG6205-2RSGB276	4	72	Belt	BS4001020003	1
68	Tube	BS4001020004	2	73	Lower wheel	BS4001022001-001G	1
69	Upper wheel	BS4001021001-001G	1	74	Screw	M10X20GB70Z	2

11. Parts Lists and Diagrams - 403/UK1 and 403/UK3

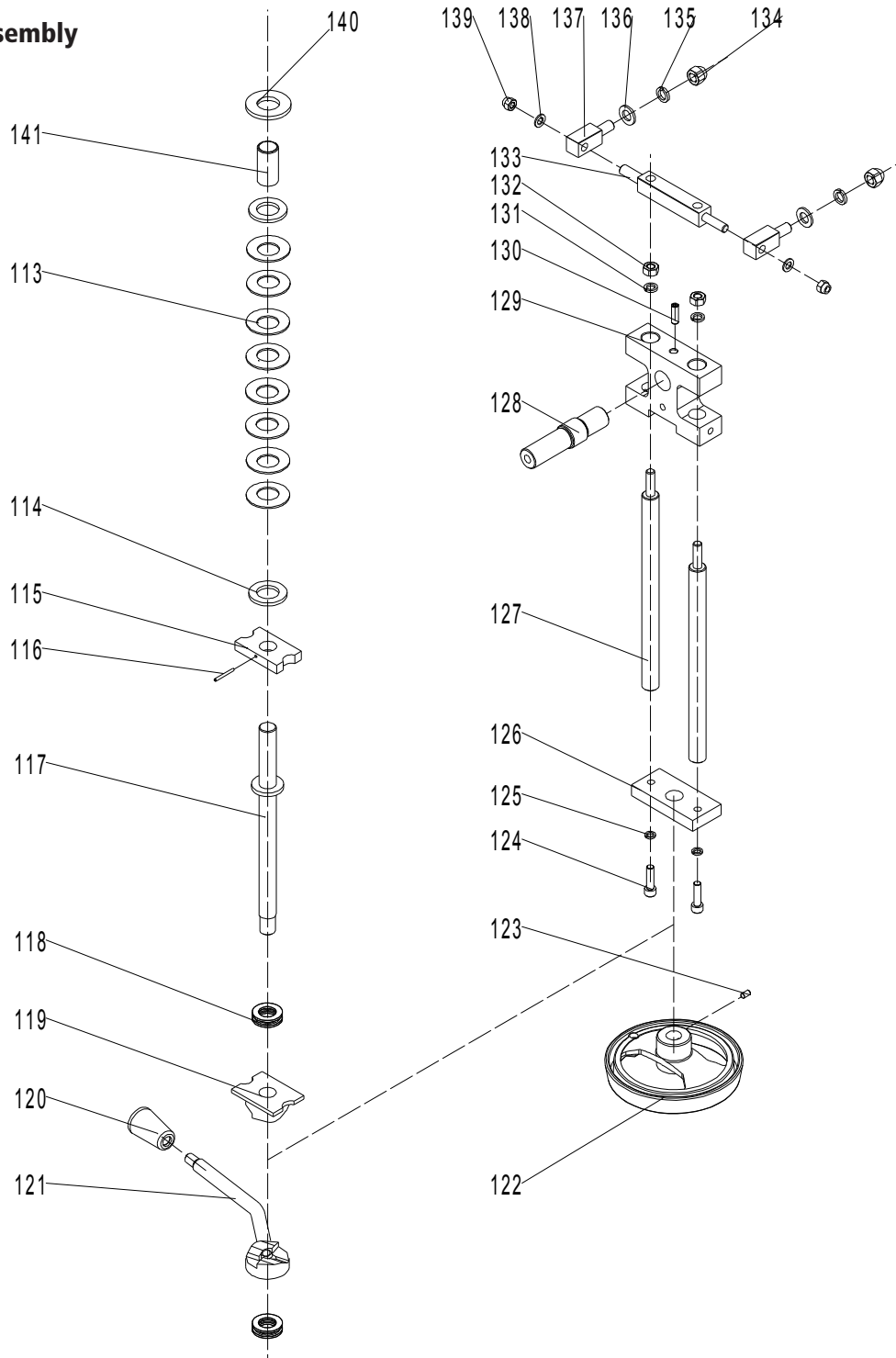
Table Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
75	Lock plate	JXBS2001060001	1	94	Bolt	M12X100GB14Z	1
76	Fence bracket	JXBS2001060002-001G	1	95	Washer	WSH10GB97D1Z	2
77	Handle	JXBS2201061000-001S	1	96	Spring washer	WSH10GB93Z	2
78	Screw	M8X25GB70Z	2	97	Washer	WSH12GB97D1Z	1
79	Washer	WSH8GB97D1Z	2	98	Locking handle	KTSB-1-A-M12X95	1
80	Fence guide	BS5001060001	1	99	Gear shaft	JMBS2201032200	1
81	Rod	JXBS2001060003	2	100	Large washer	WSH10GB96Z	2
82	Hex nut	JXBS2001060004	2	101	Bolt	M10X40GB5783Z	2
83	Washer	WSH10GB97D1Z	5	102	Hex nut	M12GB6172Z	4
84	Hex nut	M10GB6170Z	4	103	Nut	M12X50GB77B	1
85	Trunnion Assembly	JXBS2001031100	1	104	Rivet	RVT2D5X5GB827C	2
86	Nut	M12X60GB77B	3	105	Indicator	JXBS2401031008	1
87	Large washer	WSH12GB96Z	8	106	Scale	JXBS2001031004A	1
88	Hex nut	M12GB6170Z	4	107	Rivet	RVT2D5X5GB827C	3
89	Trunnion	JXBS2001031001	1	108	Table	BS4001030001-001G	1
90	Lock nut	JL29042004	1	109	Nut	M5X30GB77B	4
91	Guide shaft	JXBS2001031002	1	110	Table insert	BS5001030001-001S	1
92	Large washer	WSH6GB5287Z	2	111	Lock nut	M5GB889Z	4
93	Nut	M6X10GB70Z	2	112	Rip fence	JXBS1601060002	1

11. Parts Lists and Diagrams - 403/UK1 and 403/UK3

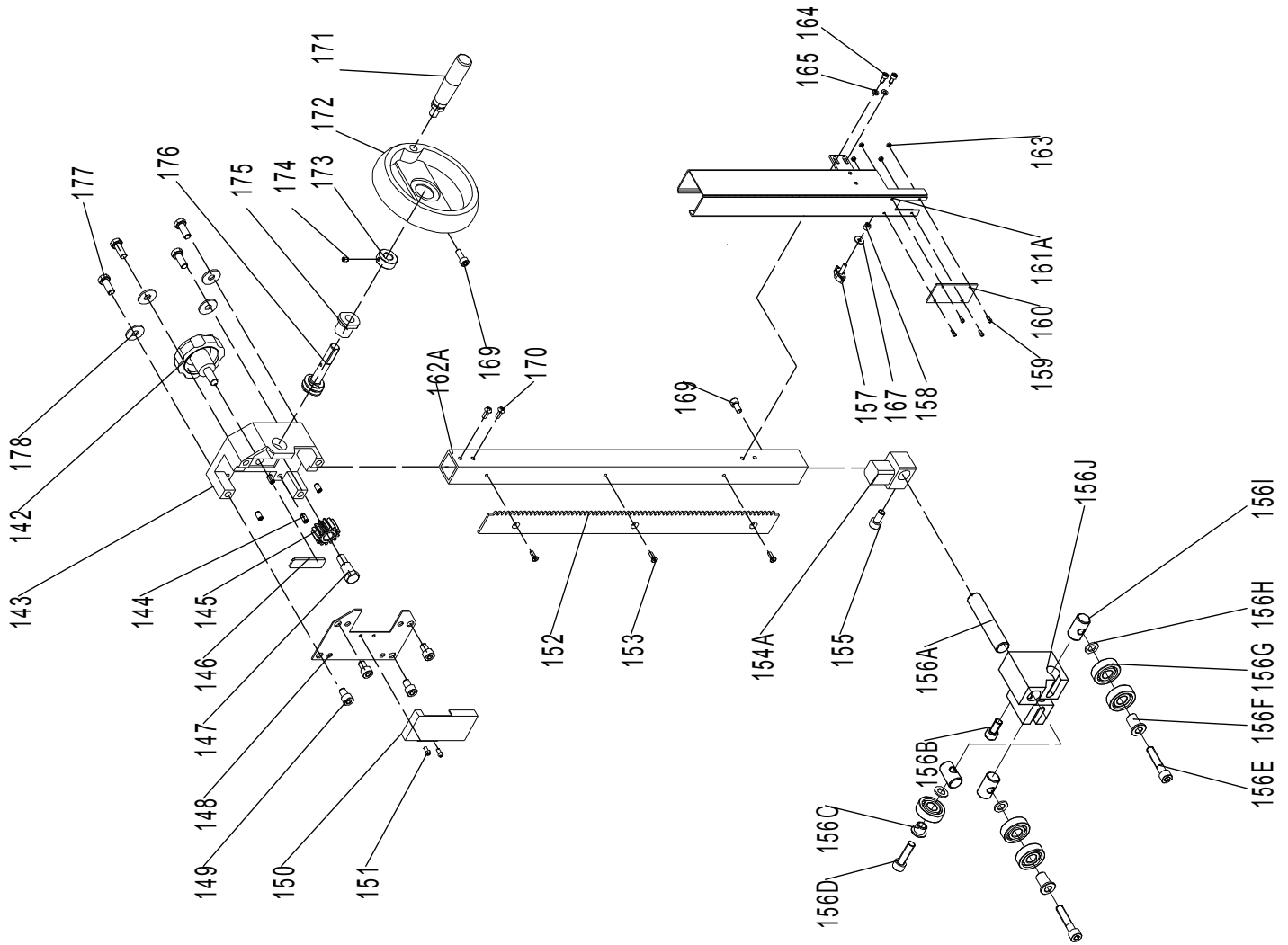
Blade Tension Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
113	Spring washer	WSH50GB1972B	8	128	Upper shaft	BS4001040001	1
114	Flat washer	WSH24GB97D1Z	2	129	Bracket	JXBS1401030001-001G	1
115	Plate	BS5001040009	1	130	Set screw	M8X20GB80B	1
116	Roll pin	PIN3X30GB879D1B	1	131	Spring washer	WSH10GB93B	2
117	Thread rod	BS4001040002	1	132	Hex nut	M10GB6170Z	2
118	Bearing	BRG51104GB301	2	133	Thread rod	JXBS1801030007	1
119	Bracket	BS5001040002	1	134	Hex nut	M12GB923Z	2
120	Knob	1904011	1	135	Spring washer	WSH12GB93Z	2
121	Bracket	BS5001040005	1	136	Flat washer	WSH12GB97D1Z	2
122	Hand wheel	JXBS2001040005-001S	1	137	Bolt	JXBS1801030006	2
123	Set screw	M6X12GB80B	1	138	Flat washer	WSH10GB97D1Z	2
124	Pan head screw	M10X30GB70Z	2	139	Lock nut	M10GB889Z	2
125	Spring washer	WSH10GB93Z	2	140	Washer	BS5001040007	1
126	Bracket	BS5001040003	1	141	Tube	BS5001040006	1
127	Sliding rod	BS5001040001	2				

11. Parts Lists and Diagrams - 403/UK1 and 403/UK3

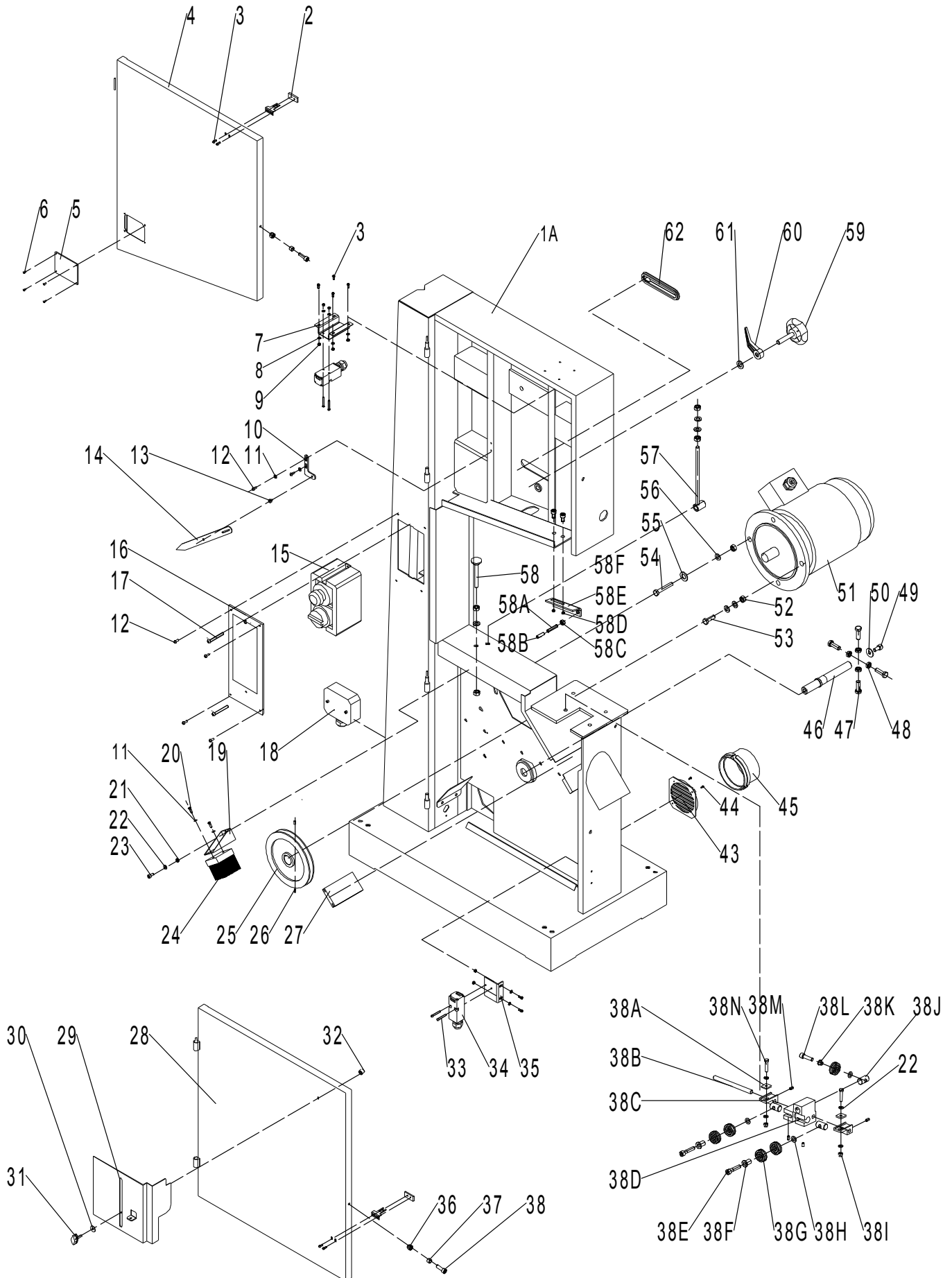
Upper Guide Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
142	Lock handle	JL26040015-001S	1	156I	Guide shaft	JL26041003	3
143	Bracket	JL26040008	1	156J	Upper guide	JL26041001	1
144	Set screw	M6X12GB77Z	4	157	Composite	JL20061003A-001S	1
145	Gear	1501006	1	158	Small countersunk head riveted nut	M6X15GB/T17880D3Z	1
146	Plate	JL26040007	1	159	Pan head screw	M4X10GB818Z	4
147	screw	JL26040006	1	160	Glass window	JL29043001	1
148	cover	BS5001050001	1	161A	Blade guard	BS4001051000-126T	1
149	screw	M8X16GB70Z	4	162A	Guide post	BS4001050001	1
150	cover	BS5001050002	1	163	Nut	M4GB6170Z	4
151	Pan head screw	M4X4GB823B	2	164	Screw	M5X10GB70Z	2
152	Rack	JL26040001	1	165	Large washer	WSH5GB96Z	2
153	screw	M4X10GB819Z	3	167	Large washer	WSH6GB96Z	2
154A	Bracket	BS5001052001	1	169	Screw	M6X16GB70Z	2
155	Screw	M8X20GB70Z	1	170	Pan head screw	M5X10GB818B	3
156A	Guide post	JL26041004	1	171	Handle	1501009-20001S	1
156B	Screw	M8X16GB70Z	1	172	Large hand wheel	JL26030012-001S	1
156C	Tube	JL26041006	1	173	Retaining ring	CLP12GB884	1
156D	Screw	M8X30GB70Z	1	174	Set screw	M5X8GB78Z	1
156E	Screw	M8X40GB70Z	2	175	Tube	JL26040003	1
156F	Tube	JL26041002	2	176	Worm	JL26040004	1
156G	Bearing	BRG6201-2RSGB276	5	177	Hex bolt	M8X20GB5783Z	4
156H	Flat washer	WSH8GB97D1Z	3	178	Large washer	WSH8GB96Z	4

12. Parts Lists and Diagrams - 503/UK3

Frame Assembly



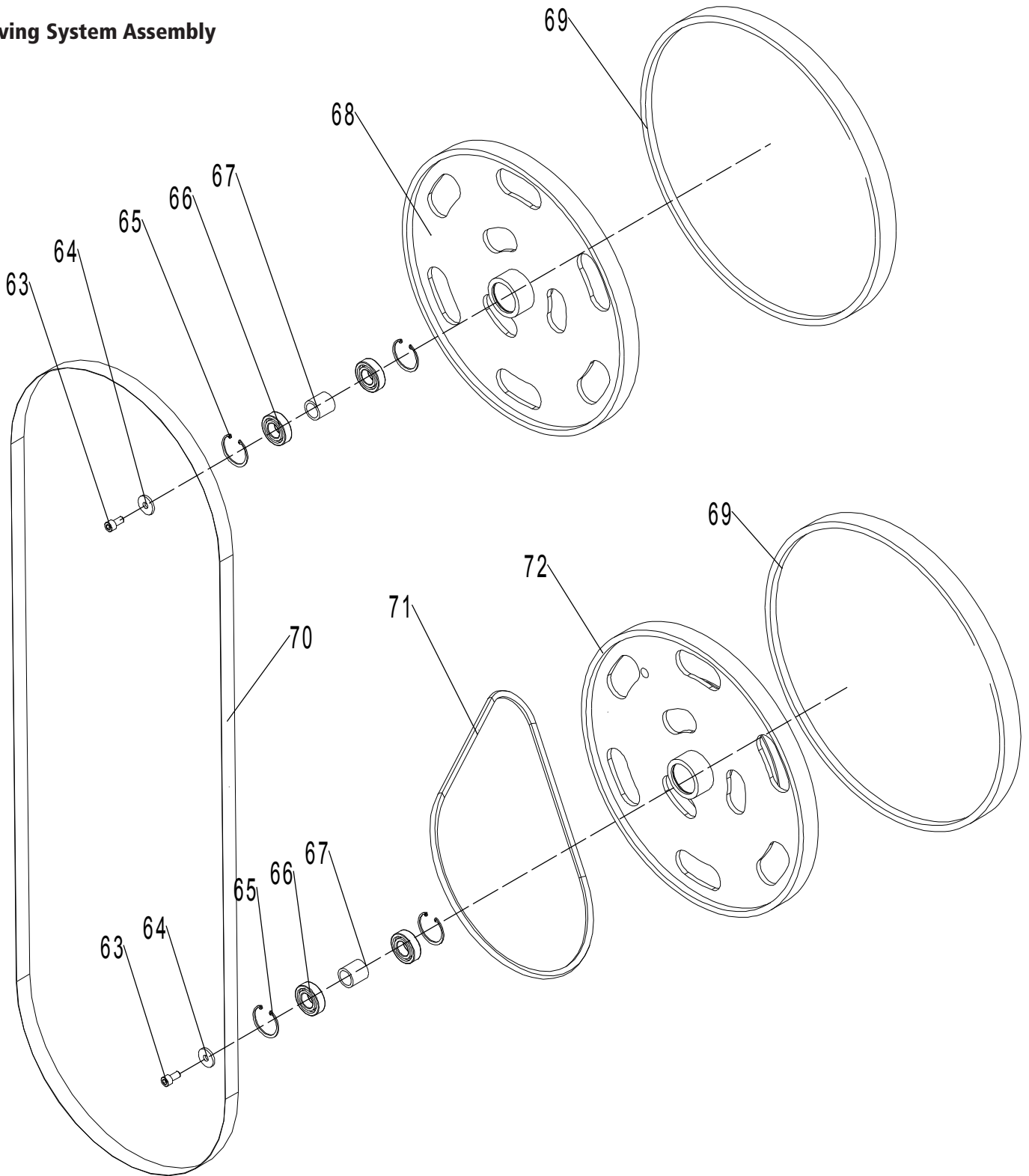
12. Parts Lists and Diagrams - 503/UK3

Frame Assembly

No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
1	Frame	BS5001011000B-124U	1	38B	Connection shaft	BS5001032003	1
2	Plate JL27010017 2			38C	Bracket	JL20043001	2
3	Pan head screw	M4X10GB818Z	10	38D	Bracket	BS5001032002	1
4	Upper door	BS5001012001A-060U	1	38E	Screw	M8X40GB70Z	2
5	Inspection window	JL26010001	1	38F	Tube	JL26041002	2
6	Self-plugging rivet	RVT3X7GB12618A	4	38G	Bearing	BRG6201-2RSGB276	5
7	Microswitch base	JL26010012-124U	1	38H	Large washer	WSH8GB97D1Z	3
8	Flat washer	WSH4GB97D1Z	8	38I	Lock nut	M6GB889Z	2
9	Hex bolt	M4GB6170Z	8	38J	Guide shaft	JL26041003	3
10	Bracket	JXBS2201010007	1	38K	Bearing tube	JL26041006	1
11	Flat washer	WSH5GB97D1Z	4	38L	Screw	M8X30GB70Z	1
12	Pan head screw	M5X10GB818Z	6	38M	Set screw	M6X10GB80B	4
13	Pointer screw	JL26010010	1	38N	Hex bolt	M6X30GB5783Z	2
14	Indicator	JXBS2401010002-105U	1	43	Suction grille	JL20010019-001S	1
15	Brake switch	RB7-11	1	44	Self tapping screw	ST3D5X9D5GB845Z	2
16	Switch plate	BS4001010004-124U	1	45	Suction	JL20010007-001S	1
17	Self tapping screw	ST3D5X28GB845B	2	46	Lower shaft	JXBS2001020002	1
18	Three-phase seat type plug	P226E-03A	1	47	Hex bolt	M12X35GB5783Z	4
19	Brush base	JL29000009-124U	1	48	Hex nut	M12GB6172Z	4
20	Self tapping screw	ST4D8X16GB845Z	2	49	Screw	M10X20GB70Z	1
21	Hex nut	M6GB6172Z	1	50	Large washer	WSH10GB96Z	1
22	Flat washer	WSH6GB97D1Z	7	51	Motor	YSH105304	1
23	Screw	M6X12GB70Z	1	52	Hex bolt	M10GB6170Z	5
24	Brush	JL29000004	1	53	Hex bolt	M10X40GB5783Z	1
25	Motor pulley	BS5001020003-001G	1	54	Hex bolt	M10X70GB5783Z	1
26	Screw	M8X10GB80B	2	55	Large washer	WSH10GB96Z	1
27	Plate	JXBS2401010014	1	56	Flat washer	WSH10GB97D1Z	6
28	lower door	BS5001012002A-060U	1	57	Shaft	BS5001015001	1
29	Protection cover	BS4001012003-146T	1	58	Support screw	JXBS2001010003	1
30	big washer	WSH6GB96Z	1	58A	Set screw	M6X30GB77B	1
31	Wing knob	JXBS2401054001-001S	1	58B	Plastic tube	JXBS2401010018	1
32	Nut	M6X15GB/T17880D3Z	1	58C	Screw	M6GB6170Z	1
33	Pan head screw	M4X30GB818Z	4	58D	Screw	M5GB6170Z	2
34	Microswitch	QKS8	2	58E	Connecting angle	BS5001010002	1
35	Microswitch base	JL27010016-124U	1	58F	Screw	M5X16GB70Z	2
36	Lock nut	M6GB889Z	2	59	Adjustment handle	JXBS2401010006-001S	1
37	Tube	JL26010007	2	60	Locker	JXBS2401010007-001S	1
38	Screw	M6X20GB70Z	2	61	Flat washer	WSH12GB97D1Z	1
38A	Plate	JL22040004	2	62	Dust blocking plate	JL26030019	1

12. Parts Lists and Diagrams - 503/UK3

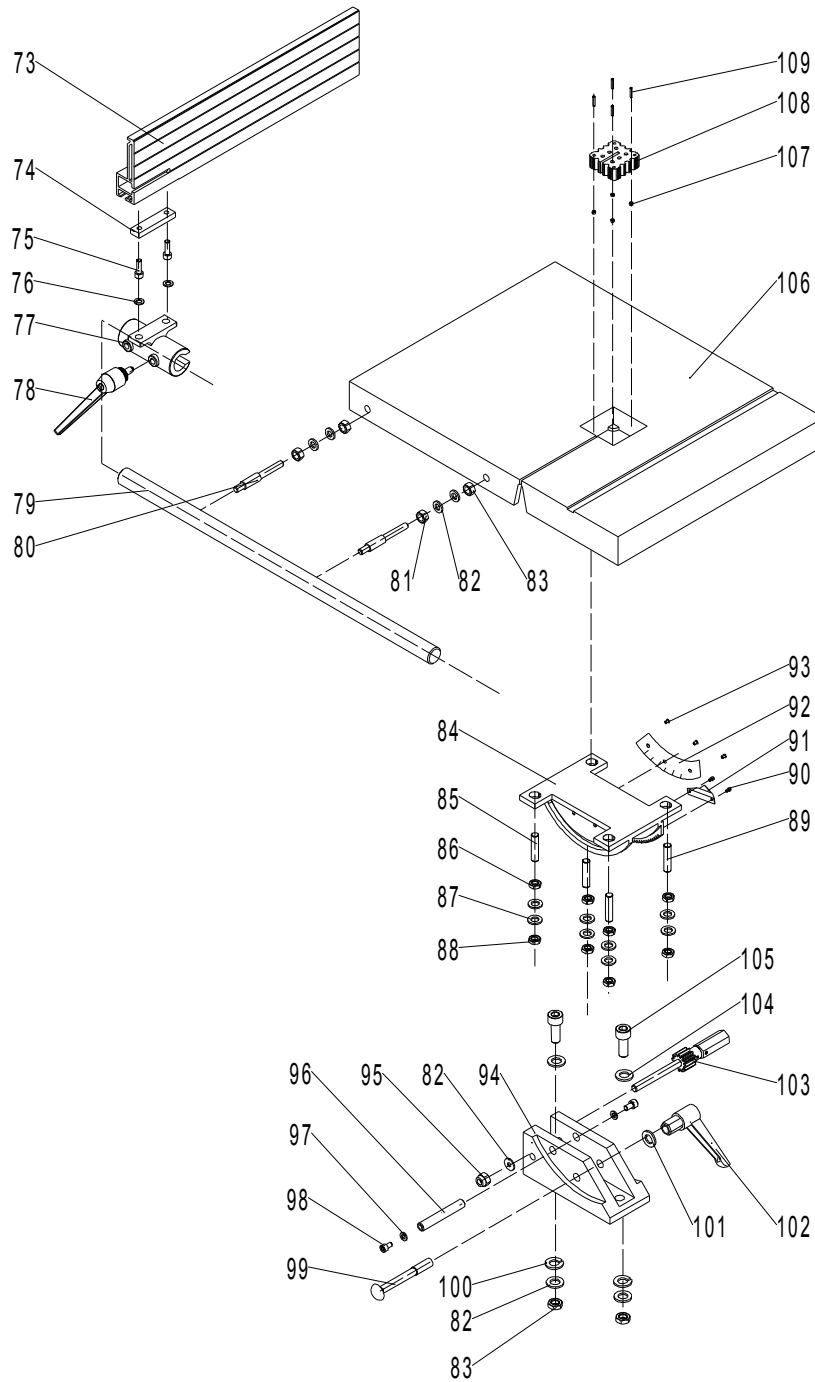
Driving System Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
63	Screw	M10X20GB70Z	2	68	Upper wheel	BS5001021001A-001G	1
64	Washer	JXB52201020004	2	69	Tyre	BS5001021002A	2
65	Retaining ring	CLP52GB893D1B	4	70	Blade	BS5001020001	1
66	Bearing	BRG6205-2RSGB276	4	71	Belt	BS5001020002	1
67	Tube	BS5001022002	2	72	Lower wheel	BS5001022001A-001G	1

12. Parts Lists and Diagrams - 503/UK3

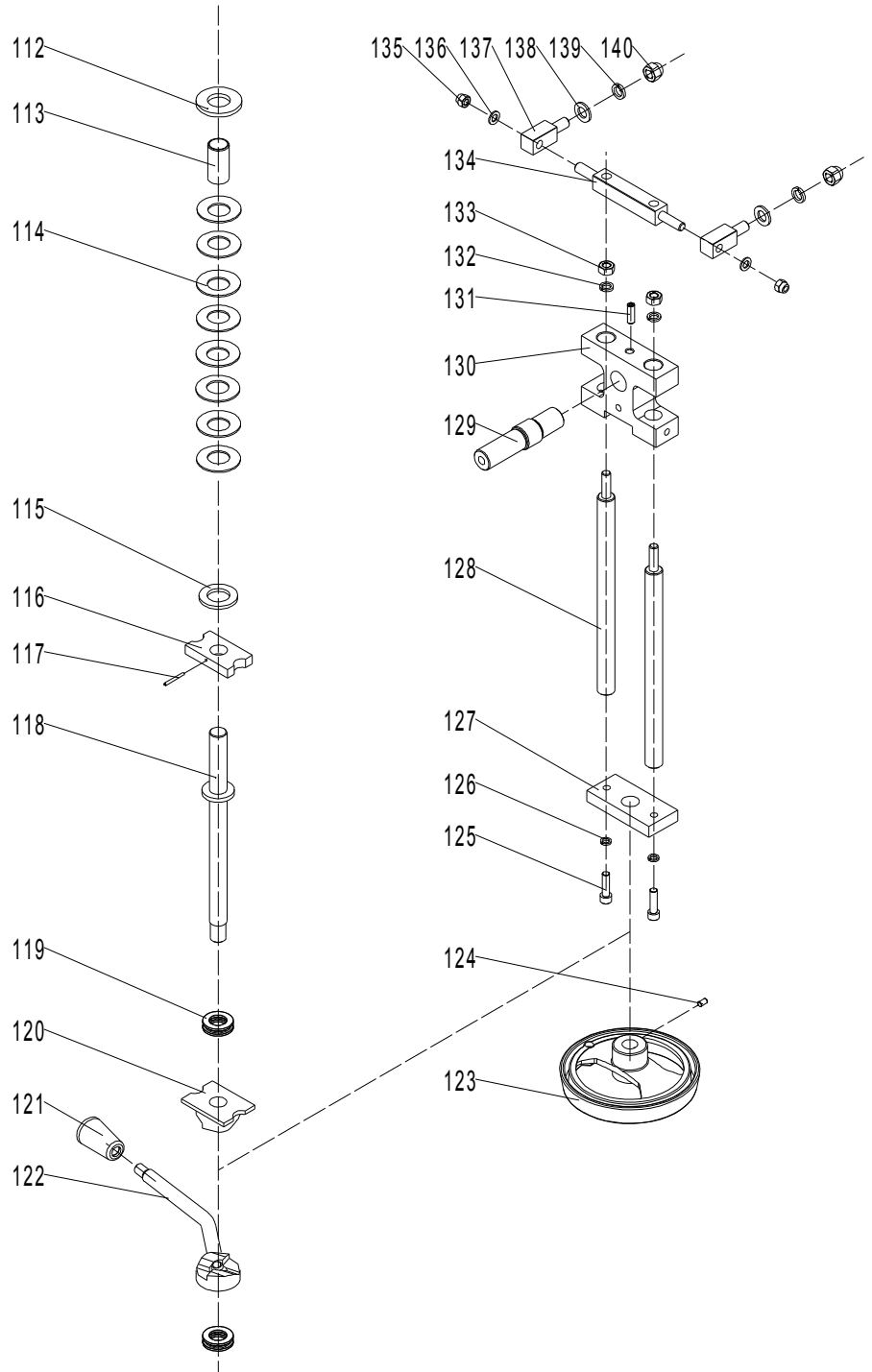
Table Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
73	Rip fence	JL26060002C	1	92	Scale	JXBS2001031004A	1
74	Lock plate	JXBS2001060001	1	93	Rivet	RVT2D5X5GB827C	3
75	Screw	M8X25GB70Z	2	94	Trunnion	JXBS2001031001	1
76	Washer	WSH8GB97D1Z	2	95	Lock nut	JL29042004	1
77	Fence bracket	JXBS2001060002-001G	1	96	Guide shaft	JXBS2001031002	1
78	Handle	JXBS2201061000-001S	1	97	Nut	M6X10GB70Z	2
79	Fence guide	JXBS2001060005	1	98	Large washer	WSH6GB5287Z	2
80	Rod	JXBS2001060003	2	99	Bolt	M12X100GB14Z	1
81	Hex nut	JXBS2001060004	2	100	Spring washer	WSH10GB93Z	2
82	Washer	WSH10GB97D1Z	7	101	Washer	WSH12GB97D1Z	1
83	Hex nut	M10GB6170Z	4	102	Locking handle	KTSB-1-A-M12X95	1
84	Trunnion Assembly	JXBS2001031100	1	103	Gear shaft	JMBS2201032200	1
85	Nut	M12X60GB77B	3	104	Large washer	WSH10GB96Z	2
86	Hex nut	M12GB6172Z	4	105	Bolt	M10X40GB5783Z	2
87	Large washer	WSH12GB96Z	8	106	Table	BS5001030002-001G	1
88	Hex nut	M12GB6170Z	4	107	Lock nut	M5GB889Z	4
89	Nut	M12X50GB77B	1	108	Table insert	BS5001030001-001S	1
90	Nut	M3X5GB818Z	2	109	Nut	M5X30GB77B	4
91	Indicator	JXBS2401031008	1				

12. Parts Lists and Diagrams - 503/UK3

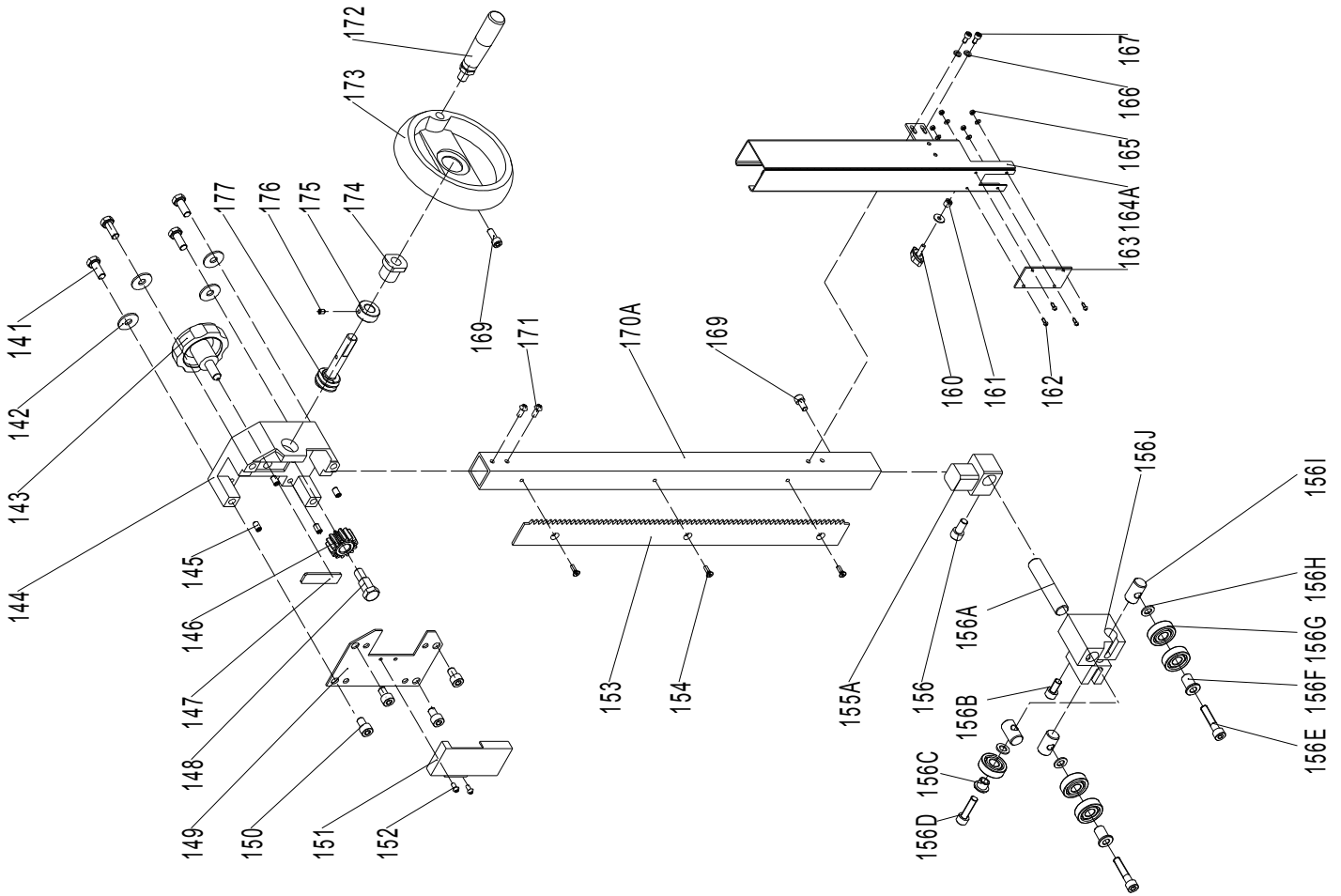
Blade Tension Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
112	Washer	BS5001040007	1	127	Bracket	BS5001040003	1
113	Tube	BS5001040006	1	128	Sliding rod	BS5001040001	2
114	Spring washer	WSH50GB1972B	8	129	Upper shaft	BS5001040008	1
115	Flat washer	WSH24GB97D1Z	1	130	Bracket	JXBS1401030001	1
116	Plate	BS5001040009	1	131	Set screw	M8X20GB80B	1
117	Roll pin	PIN3X30GB879D1B	1	132	Spring washer	WSH10GB93B	2
118	Thread rod	BS5001040004	1	133	Hex nut	M10GB6170Z	2
119	Bearing	BRG51104GB301	2	134	Thread rod	JXBS1801030007	1
120	Bracket	BS5001040002	1	135	Lock nut	M10GB889Z	2
121	Knob	1904011	1	136	Spring washer	WSH10GB97D1Z	2
122	Bracket	BS5001040005	1	137	Bolt	JXBS1801030006	2
123	Hand wheel	JXBS2001040005	1	138	Flat washer	WSH12GB97D1Z	2
124	Set screw	M6X12GB78B	1	139	Spring washer	WSH12GB93Z	2
125	Pan head screw	M10X30GB70Z	2	140	Hex nut	M12GB923Z	2
126	Spring washer	WSH10GB93Z	2				

12. Parts Lists and Diagrams - 503/UK3

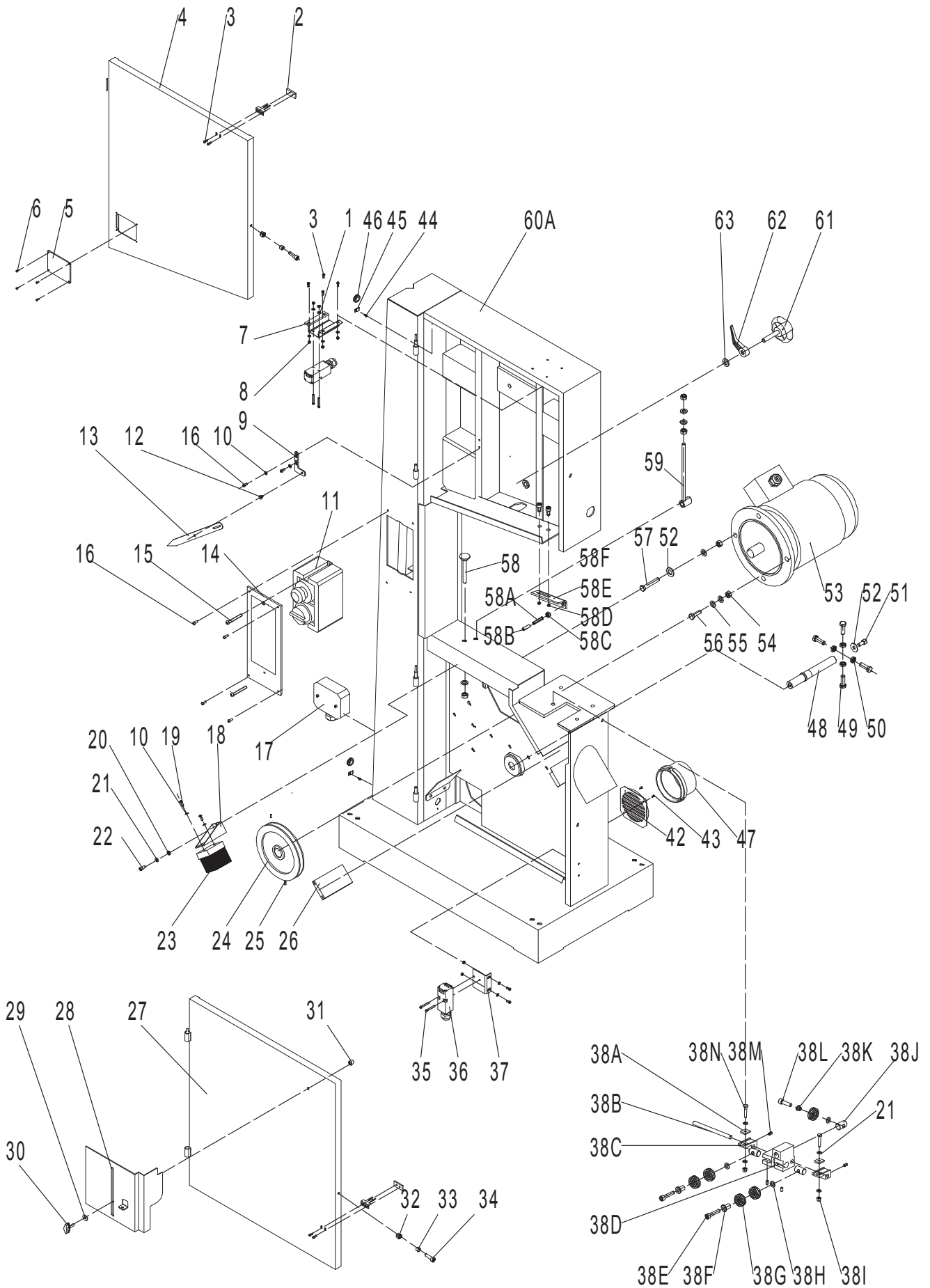
Upper Guide Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
141	Hex bolt	M8X20GB5783Z	4	156G	Bearing	BRG6201-2RSGB276	5
142	Large washer	WSH8GB96Z	4	156H	Flat washer	WSH8GB97D1Z	3
143	Lock handle	JL26040015-001S	1	156I	Guide shaft	JL26041003	3
144	Bracket	JL26040008	1	156J	Upper guide	JL26041001	1
145	Set screw	M6X12GB77Z	4	159	Large washer	WSH6GB96Z	1
146	Gear	1501006	1	160	Composite bolt	JL20061003A-001S	1
147	Plate	JL26040007	1	161	Nut	M6X15GB/T17880D3Z	1
148	Screw	JL26040006	1	162	Nut	M4X10GB818Z	4
149	Cover	BS5001050001	1	163	Observing window	JL29043001	1
150	Screw	M8X16GB70Z	4	164A	Blade guard	BS5001051000-126T	1
151	Cover	BS5001050002	1	165	Screw	M4GB6170Z	4
152	Pan head screw	M4X4GB823B	2	166	Large washer	WSH5GB96Z	2
153	Rack	BS6001050001	1	167	Screw	M5X10GB70Z	2
154	Screw	M4X10GB819Z	3	169	Screw	M6X16GB70Z	2
155A	Bracket	BS5001052001	1	170A	Guide post	BS5001050003	1
156	Screw	M8X20GB70Z	1	171	Pan head screw	M5X10GB818B	2
156A	Guide post	JL26041004	1	172	Handle	1501009-20001S	1
156B	Screw	M8X16GB70Z	1	173	Large hand wheel	JL26030012-001S	1
156C	Tube	JL26041006	1	174	Tube	JL26040003	1
156D	Screw	M8X30GB70Z	1	175	Screw-locked ring	CLP12GB884B	1
156E	Screw	M8X40GB70Z	2	176	Set screw	M5X8GB78Z	1
156F	Tube	JL26041002	2	177	Worm	JL26040004	1

13. Parts Lists and Diagrams - 603/UK3

Frame Assembly



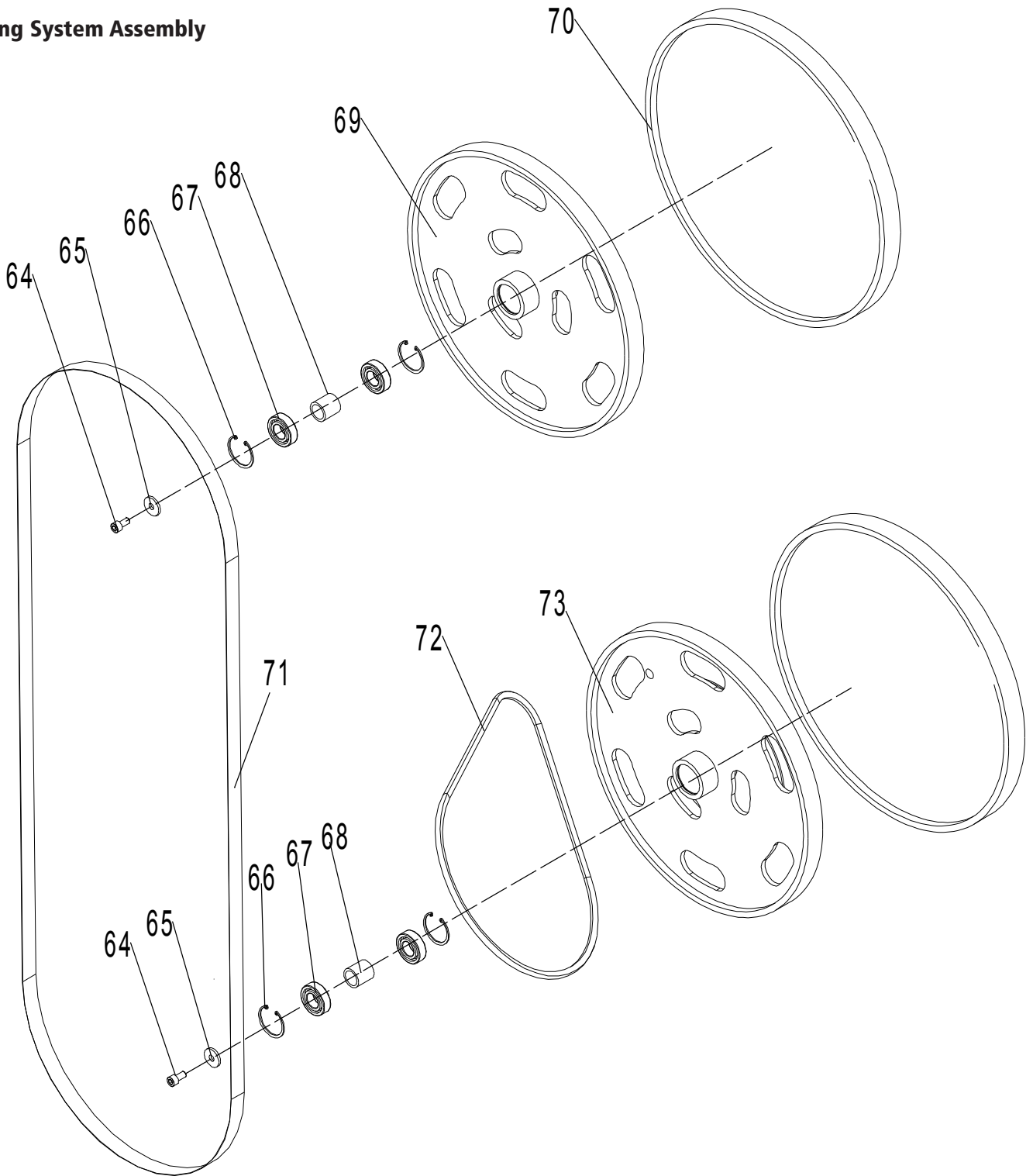
13. Parts Lists and Diagrams - 603/UK3

Frame Assembly

No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
1	Flat washer	WSH4GB97D1Z	8	38D	Conductor	BS5001032002	1
2	Plate	JL27010017	2	38E	Screw	M8X40GB70Z	2
3	Pan head screw	M4X10GB818Z	10	38F	Tube	JL26041002	2
4	Upper door	BS6001012001A-060U	1	38G	Bearing	BRG6201-2RSGB276	5
5	Inspection window	JL26010001	1	38H	Flat washer	WSH8GB97D1Z	3
6	Self-plugging rivet	RVT3X7GB12618A	4	38I	Lock nut	M6GB889Z	2
7	Microswitch base	JL26010012-124U	1	38J	Guide shaft	JL26041003	3
8	Hex bolt	M4GB6170Z	8	38K	Bearing tube	JL26041006	1
9	Bracket	JXBS2201010007	1	38L	Screw	M8X30GB70Z	1
10	Flat washer	WSH5GB97D1Z	4	38M	Set screw	M6X10GB80B	4
11	Brake switch	RB7-11	1	38N	Hex bolt	M6X30GB5783Z	2
12	Pointer screw	JL26010010	1	42	Suction grille	JL20010019-001S	1
13	Indicator	JXBS2401010002-114X	1	43	Self tapping screw	ST3D5X9D5GB845Z	2
14	Switch plate	BS4001010004-124U	1	44	Pan head screw	M4X10GB818Z	2
15	Self tapping screw	ST3D5X28GB845B	2	45	Cable board	1502014-02	2
16	Pan head screw	M5X10GB818Z	6	46	Rubber bushing	1905010	2
17	Three-phase seat type plug	P226E-03A	1	47	Dust port	JL20010007-001S	1
18	Brush base	JL29000009-124U	1	48	Lower shaft	BS6001020001	1
19	Self tapping screw	ST4D8X16GB845Z	2	49	Hex bolt	M12X35GB5783Z	4
20	Hex nut	M6GB6172Z	1	50	Nut	M12GB6172Z	4
21	Flat washer	WSH6GB97D1Z	7	51	Screw	M10X20GB70Z	1
22	Screw	M6X12GB70D1Z	1	52	Large washer	WSH10GB96Z	2
23	Brush	JXBS2401010017	1	53	Motor	H11240594	1
24	Motor pulley	BS6001020002	1	54	Hex bolt	M10GB6170Z	5
25	Set screw	M8X10GB80B	2	55	Flat washer	WSH10GB97D1Z	6
26	Blocking chip plate	JXBS2401010014	1	56	Hex bolt	M10X40GB5783Z	1
27	Lower door	BS6001012002A-060U	1	57	Hex bolt	M10X70GB5783Z	1
28	Protection cover	BS4001012003-146T	1	58	Support screw	BS6001010001	1
29	Large washer	WSH6GB96Z	1	58A	Lock screw	M6X30GB77B	1
30	Wing knob	JXBS2401054001-001S	1	58B	Plastic tube	JXBS2401010018	1
31	Nut	M6X15GB/T17880D3Z	1	58C	Nut	M6GB6170Z	1
32	Lock nut	M6GB889Z	2	58D	Nut	M5GB6170Z	2
33	Tube	JL26010007	2	58E	Connecting angle	BS5001010002	1
34	Screw	M6X20GB70D1Z	2	58F	Screw	M5X16GB70Z	2
35	Pan head screw	M4X30GB818Z	4	59	Shaft	BS6001014001	1
36	Microswitch	QKS8	2	60	Frame	BS6001011000B-124U	1
37	Microswitch base	JL27010016-124U	1	61	Adjustment handle	JXBS2401010006-001S	1
38A	Plate	JL22040004	2	62	Locker	JXBS2401010007-001S	1
38B	Connection shaft	BS5001032003	1	63	Flat washer	WSH12GB97D1Z	1
38C	Bracket	JL20043001	2				

13. Parts Lists and Diagrams - 603/UK3

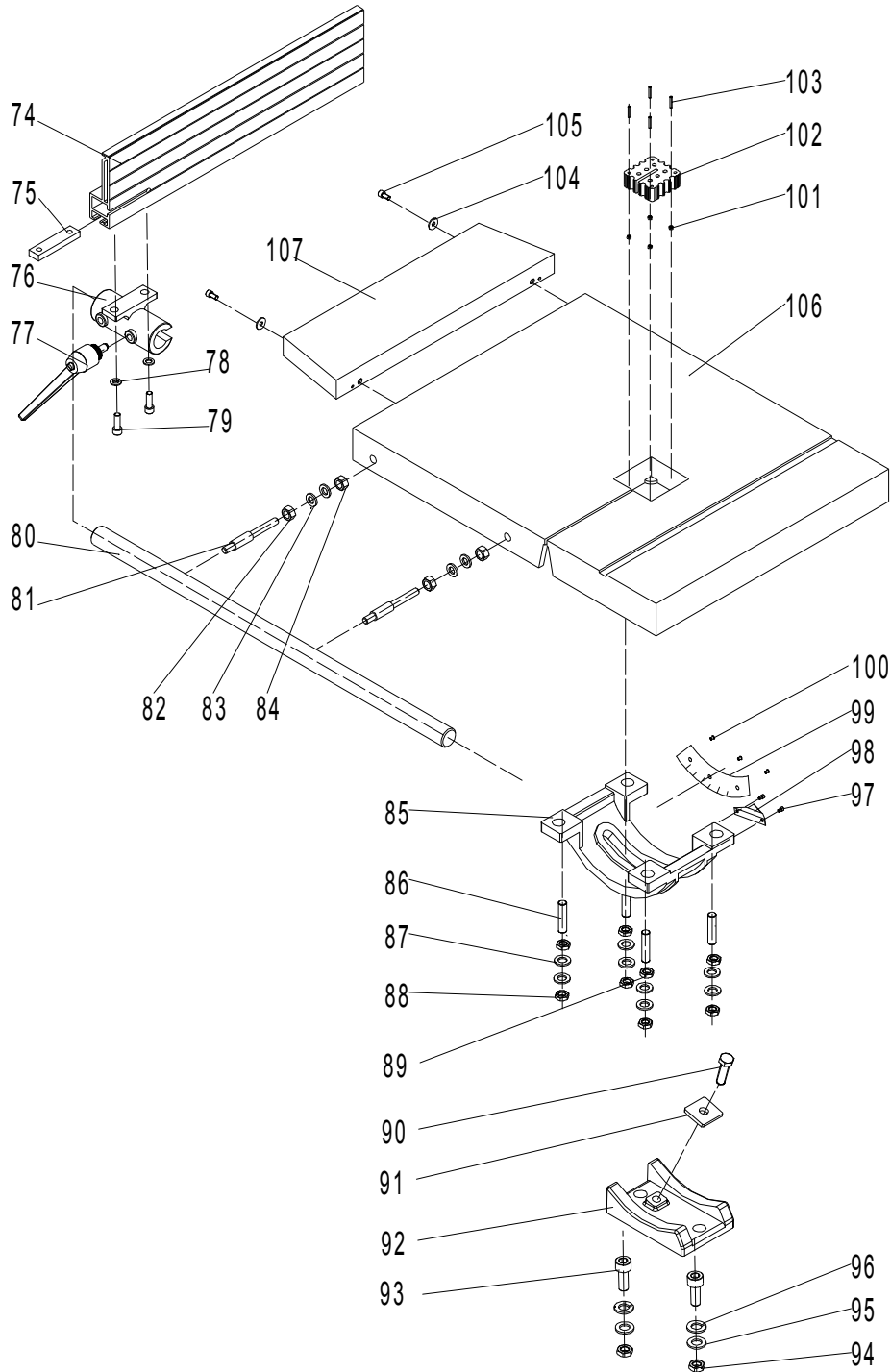
Driving System Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
64	Screw	M10X20GB70Z	2	69	Upper wheel	BS6001021001-001G	1
65	Washer	JXB52201020004	2	70	Tyre	BS6001021002	2
66	Retaining ring	CLP62GB893D1B	4	71	Blade	BS6001020003	1
67	Bearing	BRG6206GB276LLU	4	72	Belt	BS6001020004	1
68	Tube	BS6001022002	2	73	Lower wheel	BS6001022001A-001G	1

13. Parts Lists and Diagrams - 603/UK3

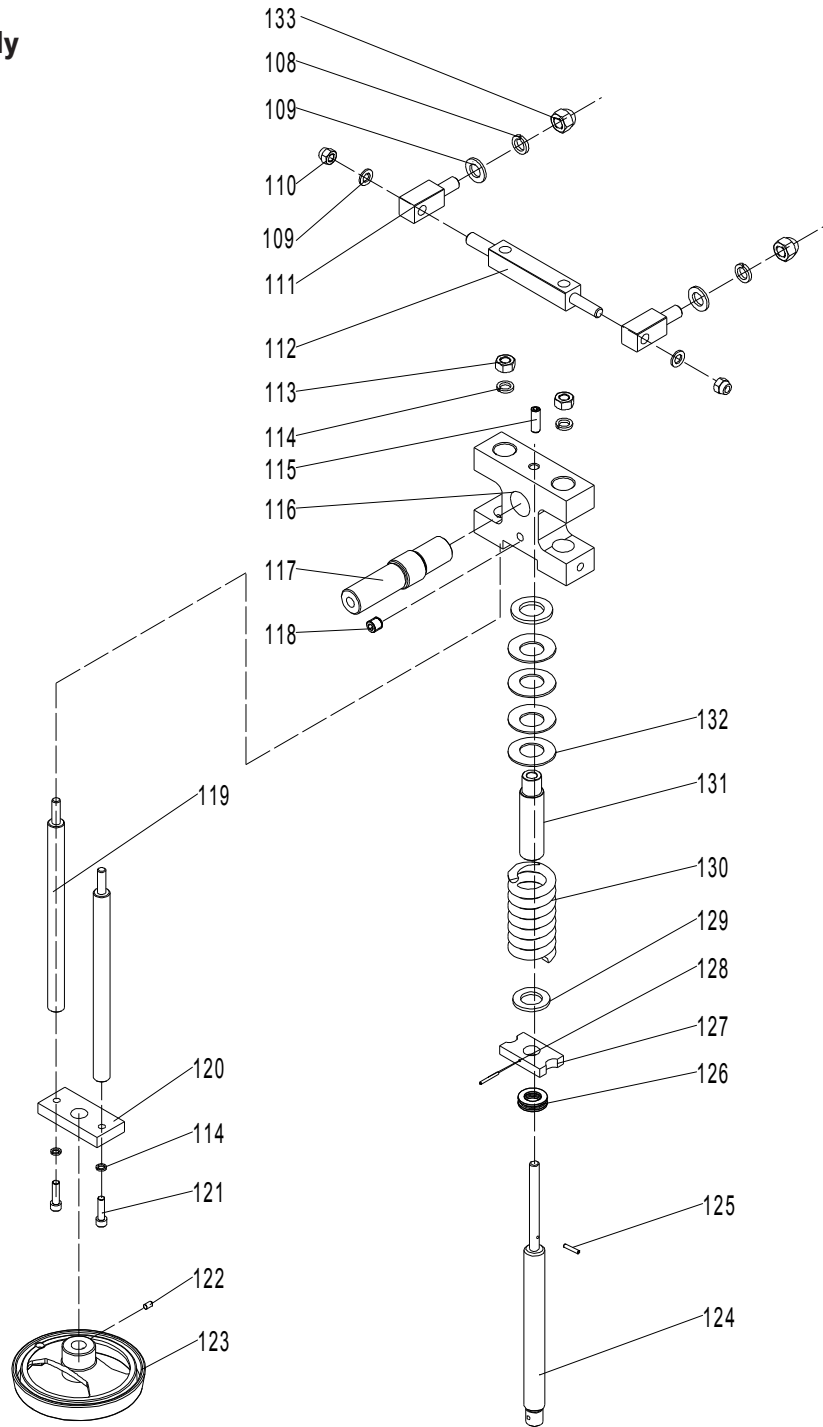
Table Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
74	Rip fence	JXBS1803060001	1	91	Large pad	JXBS2401031007	1
75	Lock plate	JXBS2001060001	1	92	Support	JXBS2402031001-124L	1
76	Fence bracket	JXBS2001060002-001G	1	93	Hex Bolt	M10X45GB5783Z	2
77	Handle	JXBS2201061000-001S	1	94	Hex nut	M10GB6170Z	2
78	Screw	M8X25GB70Z	2	95	Large washer	WSH10GB96Z	2
79	Washer	WSH8GB97D1Z	2	96	Spring washer	WSH10GB93Z	2
80	Fence guide	BS6001060001	1	97	Nut	M3X5GB818Z	2
81	Rod	JXBS2001060003	2	98	Angle pointer	JXBS2402031004	1
82	Hex nut	JXBS2001060004	2	99	Angle Signs	JXBS2402031005	1
83	Washer	WSH10GB97D1Z	4	100	Rivet	RVT2D5X5GB827C	3
84	Hex nut	M10GB6170Z	2	101	Lock nut	M5GB889Z	4
85	Slider	JXBS2402031002-124L	1	102	Table insert	BS5001030001-001S	1
86	Nut	M12X60GB77B	4	103	Nut	M5X30GB77B	4
87	Large washer	WSH12GB96Z	8	104	Large washer	WSH8GB96Z	2
88	Hex nut	M12GB6170Z	4	105	Nut	M8X16GB70Z	2
89	Support	JXBS2402031001-124L	1	106	Table	BS6001030001-001G	1
90	Hex Bolt	M12X45GB30Z	1	107	Extension table	JXBS2402030002-001U	1

13. Parts Lists and Diagrams - 603/UK3

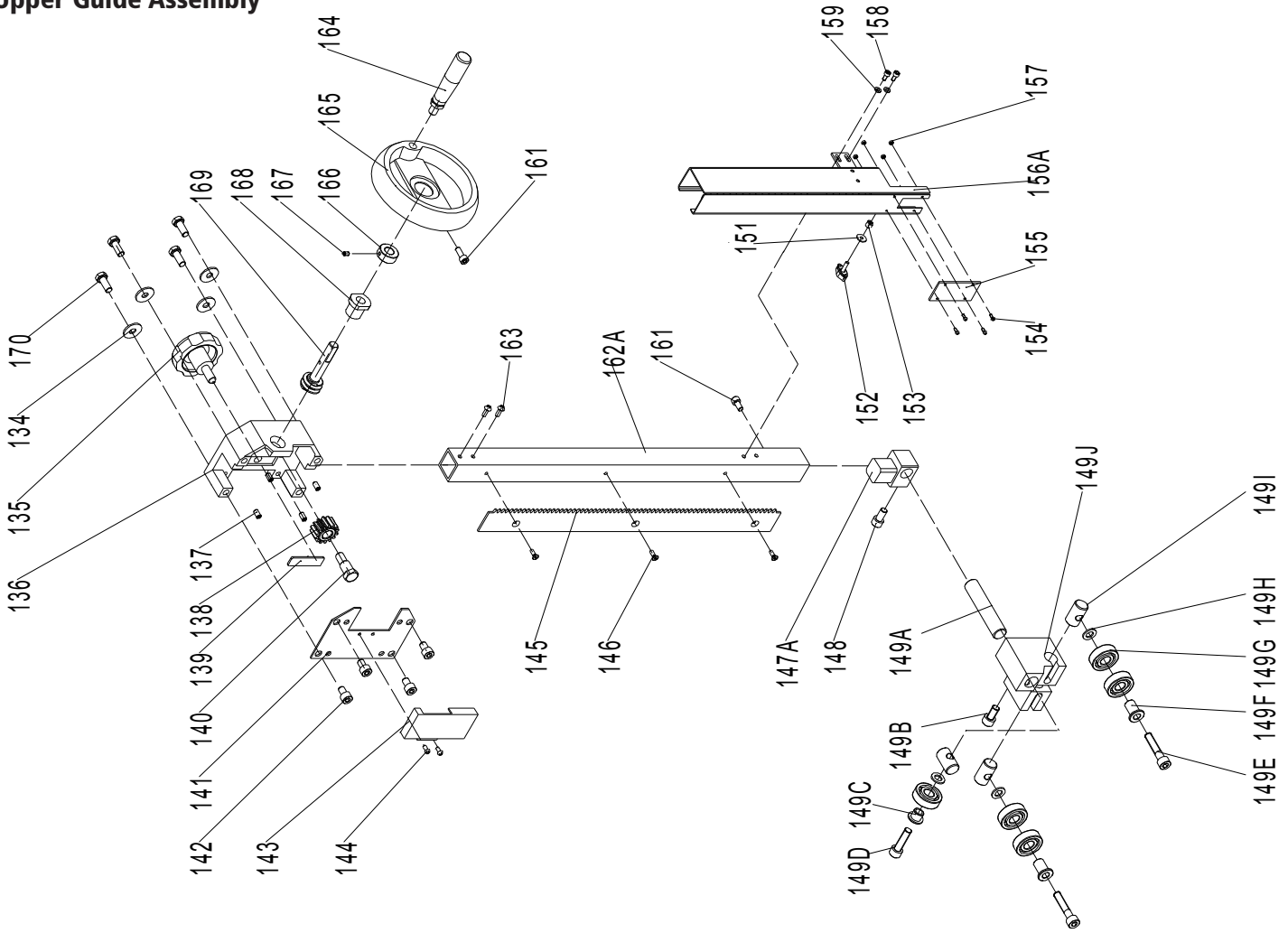
Blade Tension Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
108	Spring washer	WSH12GB93Z	2	121	Set screw	M10X30GB70Z	2
109	Flat washer	WSH12GB97D1Z	4	122	Set screw	M6X12GB80B	1
110	Lock nut	M12GB889Z	2	123	Hand wheel	JXBS2001040005-001S	1
111	Bolt	JXBS2201030001	2	124	Thread rod	JXBS2401040002	1
112	Thread rod	JXBS2201030002	1	125	Roll pin	PIN3X18GB879B	1
113	Hex nut	M10GB6170Z	2	126	Bearing	JXBS2201030011	1
114	Spring washer	WSH10GB93Z	4	127	Flat washer	JXBS2201030007	1
115	Set screw	M8X20GB80B	1	128	Roll pin	PIN3X30GB879D1B	1
116	Bracket	JXBS2201030003-001G	1	129	Flat washer	WSH24GB97D1Z	2
117	Upper shaft	BS6001040001	1	130	Sliding rod	JXBS2201030010	1
118	Set screw	M8X8GB80B	1	131	Tube	JXBS2201030011	1
119	Sliding rod	JXBS2201030004	2	132	Spring washer	WSH50GB1972B	4
120	Upper shaft	JXBS2201030008	1	133	Hex nut	M12GB923Z	2

13. Parts Lists and Diagrams - 603/UK3

Upper Guide Assembly



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
134	Large washer	WSH8GB96Z	4	149H	Flat washer	WSH8GB97D1Z	3
135	Lock handle	JL26040015-001S	1	149I	Guide shaft	JL26041003	3
136	Bracket	JL26040008	1	149J	Upper guide	JL26041001	1
137	Set screw	M6X10GB77B	4	151	Large washer	WSH6GB96Z	1
138	Gear	1501006	1	152	Composite bolt	JL20061003A-001S	1
139	Plate	JL26040007	1	153	Nut	M6X15GB/T17880D3Z	1
140	Screw	JL26040006	1	154	Nut	M4X10GB818Z	4
141	Cover	BS5001050001	1	155	Glass window	JL29043001	1
142	Screw	M8X16GB70Z	4	156A	Blade guard	BS6001051000-126T	1
143	Cover	BS5001050002	1	157	Screw	M4GB6170Z	4
144	Pan head screw	M4X4GB823B	2	158	Screw	M5X10GB70Z	2
145	Rack	BS6001050001	1	159	Large washer	WSH5GB96Z	2
146	Screw	M4X10GB819Z	3	161	Screw	M6X16GB70Z	2
147A	Bracket	BS5001052001	1	162A	Guide post	BS6001050002	1
148	Screw	M8X20GB70Z	1	163	Pan head screw	M5X10GB818B	3
149A	Guide post	JL26041004	1	164	Handle	1501009-20001S	1
149B	Screw	M8X16GB70Z	1	165	Hand wheel	JL26030012-001S	1
149C	Tube	JL26041006	1	166	Ring	CLP12GB884	1
149D	Screw	M8X30GB70Z	1	167	Set screw	M5X8GB78B	1
149E	Screw	M8X40GB70Z	2	168	Tube	JL26040003	1
149F	Tube	JL26041002	2	169	Worm	JL26040004	1
149G	Bearing	BRG6201-2R5GB276	5	170	Hex bolt	M8X20GB5783Z	4

14. Electrical Connection and Wiring Diagrams

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 and 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'.

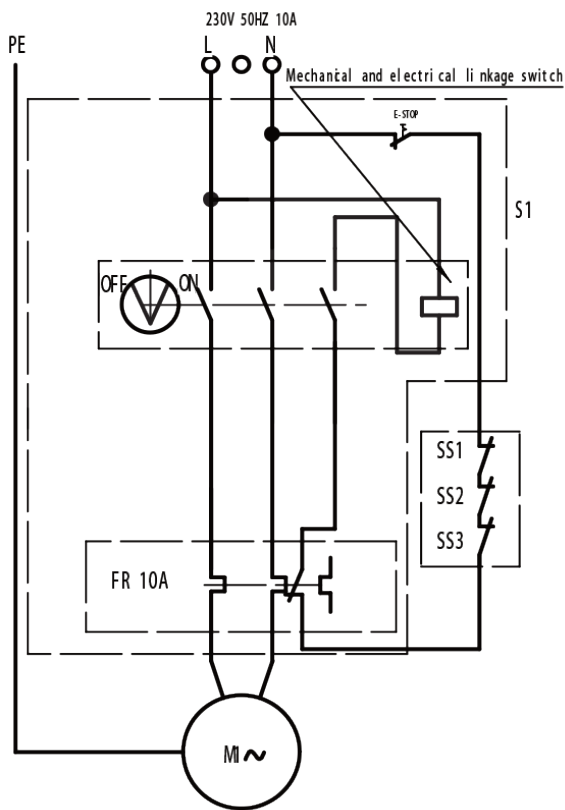
The wire coloured grey must always be connected to the terminal marked 'L3'.

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

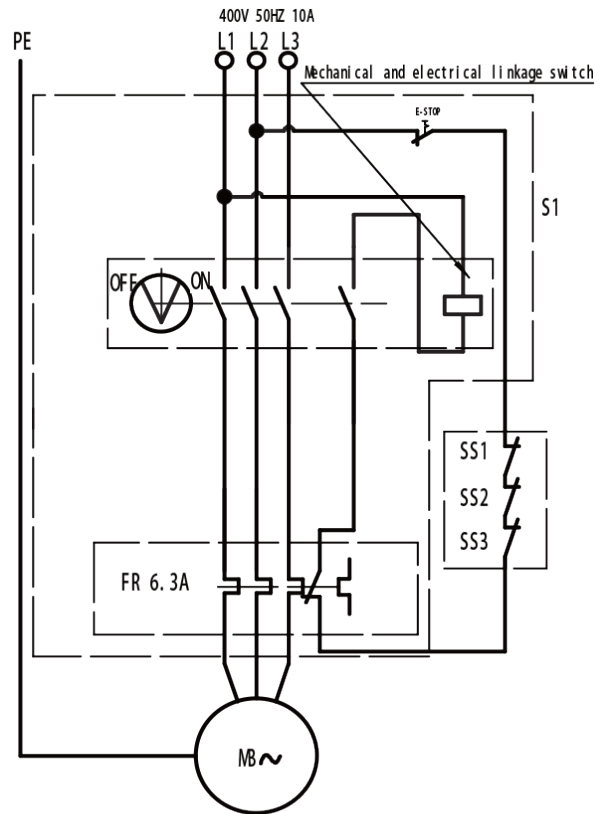
The wire coloured green and yellow must always be connected to the terminal marked 'E' or with the earth symbol

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

14. Electrical Connection and Wiring Diagrams

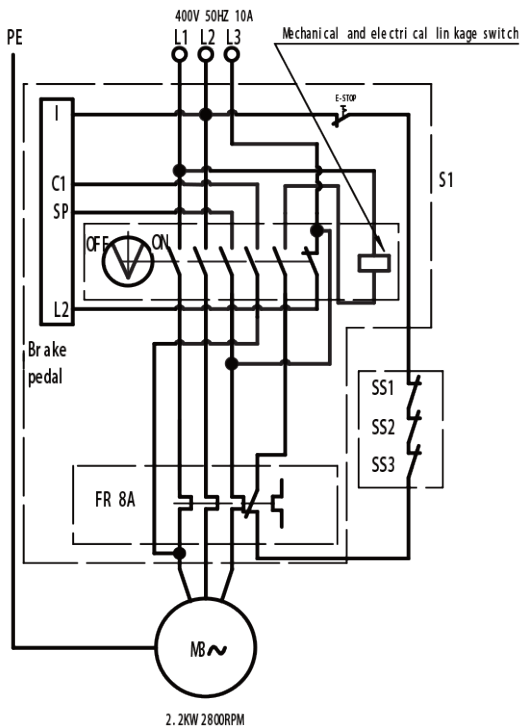


403/UK1

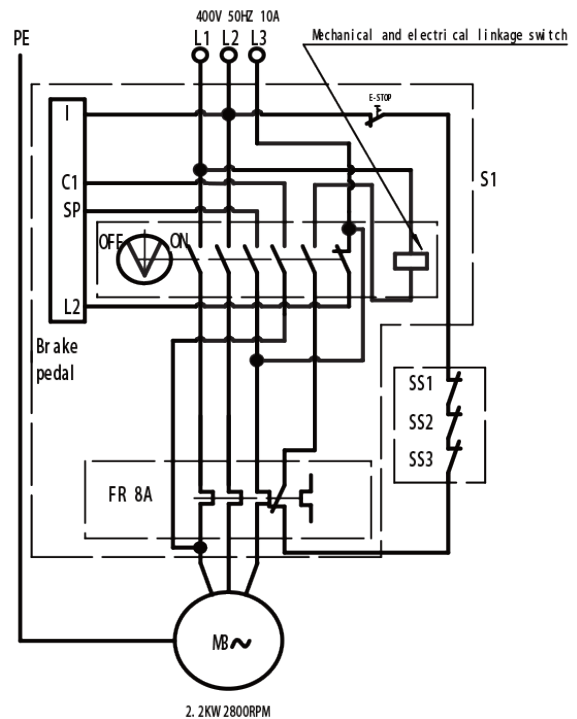


403/UK3

2.2KW 2800RPM



503/UK3



603/UK3

2.2KW 2800RPM

WARRANTY

RIKON

POWER TOOLS

5-Year Limited Warranty

RIKON Power Tools Inc. ("Seller") warrants to only the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship for a period of five (5) years from the date the product was purchased at retail. This warranty may not be transferred.

This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs, alterations, lack of maintenance or normal wear and tear. Under no circumstances will Seller be liable for incidental or consequential damages resulting from defective products. All other warranties, expressed or implied, whether of merchantability, fitness for purpose, or otherwise are expressly disclaimed by Seller. This warranty does not cover products used for commercial, industrial or educational purposes.

This limited warranty does not apply to accessory items such as blades, drill bits, sanding discs, grinding wheels, belts, ball bearings and other related items.

Seller shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, proof of purchase documentation must be provided which has the date of purchase and an explanation of the complaint.

The Seller reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

To take advantage of this warranty, please fill out the enclosed warranty card and send it to:
RIKON Warranty
16 Progress Rd.
Billerica, MA 01821

The card must be entirely completed in order for it to be valid. If you have any questions please contact us at 877-884-5167 or warranty@rikontools.com.



For more information:
16 Progress Road
Billerica, MA 01821

877-884-5167 / 978-528-5380
techsupport@rikontools.com