

HAFCO

WOODMASTER



Edition : 2.0
Date: (10/25)

Instruction Manual

WOOD BAND SAW

BP-480A

Order Code: (W4340)

MACHINE DETAILS

MACHINE.	WOOD BAND SAW
MODEL NO.	BP-480A
SERIAL NO.	
DATE OF MANF.	

Imported by

Australia



www.machineryhouse.com.au

New Zealand



www.machineryhouse.co.nz

NOTE:

This manual is only for your reference. At the time of the compiling of this manual every effort to be exact with the instructions, specifications, drawings, and photographs of the machine was taken. Owing to the continuous improvement of the HAFCO METALMASTER machine, changes may be made at any time without obligation or notice. Please ensure the local voltage is the same as listed on the specification plate before operating any electric machine.

SAFETY SYMBOLS:

The purpose of safety symbols is to attract your attention to possible hazardous conditions

 **WARNING** Indicates a potentially hazardous situation causing injury or death.

 **CAUTION** Indicates an alert against unsafe practices.

Note: Used to alert the user to useful information

NOTE:

In order to see the type and model of the machine, please see the specification plate. Usually found on the back of the machine. See example (Fig.1)

HAFCO
WOODMASTER

PRODUCT SPECIFICATIONS

Model: BP-480A	Voltage: 240V, 50Hz
Capacity: 465mm	Motor: 1.5 KW
Nett Weight: 185kg	FLC: 10.0Amps
MFG Date:	

Serial No:

www.machineryhouse.com.au www.machineryhouse.co.nz
Made in China

Fig.1

CONTENTS:

1. GENERAL MACHINE INFORMATION

- 1.1 Specifications..... 4
- 1.2 Identification..... 5

2. SAFETY

- 2.1 General Wood Working Machine Safety 6
- 2.2 Specific Safety For Band Saws 9

3. POWER SUPPLY

- 3.1 Electrical Installation 10
- 3.2 Full Load Current 10

4. SETUP

- 4.1 Unpacking..... 11
- 4.2 Clean Up 11
- 4.3 Site Preparation 11
- 4.4 Lifting Instructions..... 11
- 4.5 Anchoring To The Floor 12
- 4.6 Machine Levelling 12
- 4.7 Assembly..... 13
- 4.8 Tensioning The Blade..... 15
- 4.9 Blade Tracking 16
- 4.10 Table Stop Calibration..... 17
- 4.11 Test Run 17

5. OPERATION

- 5.1 Basic Controls..... 18
- 5.2 Blade Information..... 19
- 5.3 Changing The Blade 20
- 5.4 Adjusting The Speed..... 21
- 5.5 Tilting The Table 21
- 5.6 Adjusting Support Bearings 22
- 5.7 Blade Guide Adjustments 22

6. MAINTENANCE

- 6.1 Troubleshooting 23
- 6.2 Wheel Alignment 24

Spare Parts..... 25

1.1 SPECIFICATIONS

Order Code	W4340
MODEL	BP-480A
Wheel Diameter (Ø) (mm)	480
Throat Capacity (mm)	462
Height Capacity (mm)	300
Max. Cutting with Rip Fence (mm)	422
Table Size (mm)	680 x 480
Table Tilt Left (deg)	10
Table Tilt Right (deg)	45
Saw Blade Speed (m/m)	488 / 1010
Motor Power (kW / hp)	1.5 / 2
Voltage / Amperage (V / amp)	240 / 10
Blade Code (Suits)	W434A, W434B
Blade Size (L x W x T) (mm)	3630 x 19 x 0.80
Blade Width Range (mm)	6 - 25
Dust Chute Diameter (Ø) (mm)	100
Floor Space (W x D x H) (mm)	915 x 762 x 1980
Shipping Dimensions (L x W x H) (mm)	850 x 540 x 2170
Nett Weight (kg)	185

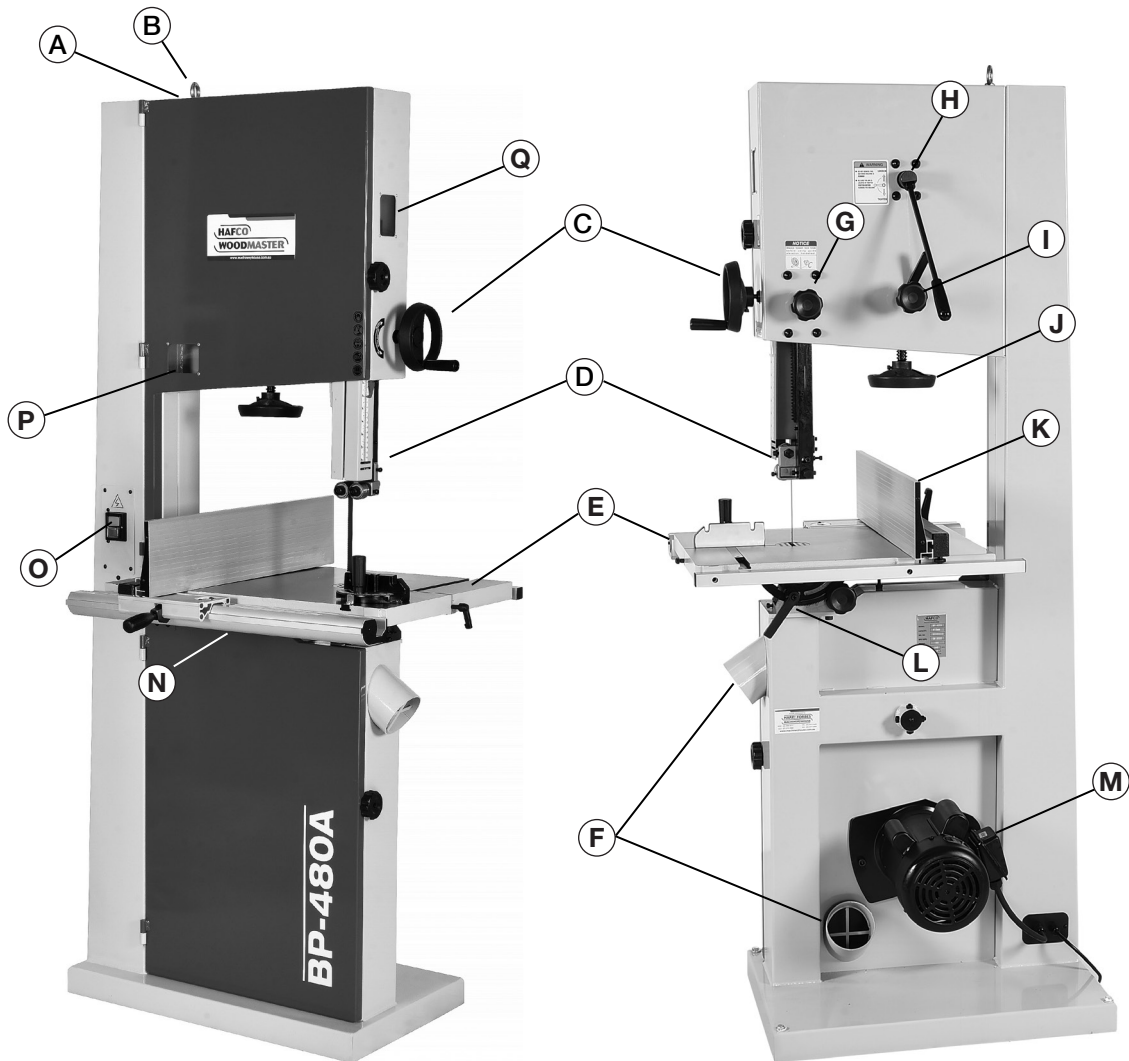


WARNING!

Always check the capacity of the machine. Exceeding the capacity of the machine may result in sudden breakage that ejects dangerous metal debris at the operator or bystanders.

1.2 IDENTIFICATION

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.



A	Upper Wheel Cover	I	Top Wheel Adjuster
B	Lifting Point	J	Blade Tension Adjuster
C	Guide Post Hand Wheel	K	Fence
D	Upper Ball Bearing Guide	L	Table Tilt Adjuster
E	Table	M	Motor
F	Dust Ports	N	Fence Position Lock
G	Upper Bearing Support Lock	O	ON/OFF Buttons
H	Quick Change Blade Lever	P	Blade Tension Window
		Q	Tracking Window

2.1 GENERAL WOODWORKING MACHINE SAFE PRACTICES

DO NOT use this machine unless you have read this manual and have been instructed in the use of this machine in its safe use and operation.



This manual provides safety instructions on the proper setup, operation, maintenance, and service of this machine. Save this manual, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine is solely responsible for its safe use. This responsibility includes, but is not limited to proper installation in a safe environment, personnel training and authorization to use, proper inspection and maintenance, manual availability and comprehension of the application of the safety devices, integrity, and the use of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



Exposure to the dust created by power sanding, sawing, grinding, drilling and other construction activities may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with dust. Some examples of these chemicals are:



- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated timber.

Always operate tool in well ventilated area and provide for proper dust removal. Use a dust collection system along with an air filtration system whenever possible. Always use properly fitting approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

- ✓ Always wear safety glasses or goggles and protective footwear.
- ✓ Wear dust masks when required.
- ✓ Wear hearing protection that is suitable for the level and frequency of the noise you are exposed to in the woodworking area. If you have trouble hearing someone speak from three feet away, the noise level from the machine may be hazardous.
- ✓ Use gloves to protect hands from splinters when handling wood but do not wear them near rotating blades and other machinery parts where the gloves can catch.

2.1 GENERAL WOODWORKING MACHINE SAFE PRACTICES

- ✓ Make sure the guard that is in position is in good working condition, and guards the machine adequately before operating any equipment or machine. Check and adjust all other safety devices.
- ✓ Make sure the equipment is properly grounded before use.
- ✓ Check that keys and adjusting wrenches are removed from the machine before turning on the power.
- ✓ Inspect stock for nails or other materials before cutting, planing, routing or carrying out similar activities.
- ✓ Make sure that all machines have start and stop buttons within easy and convenient reach of an operator. Start buttons should be protected so that accidental contact will not start machine.
- ✓ Ensure that all cutting tools and blades are clean, sharp, and in good working order so that they will cut freely, not forced.
- ✓ Turn the power off and unplug the power cord (or lock out the power source) before inspecting, changing, cleaning, adjusting or repairing a blade or a machine. Also turn the power off when discussing the work.
- ✓ Use a “push stick” to push material into the cutting area. Jigs are also useful in keeping hands safe during cutting procedures. Keep hands out of the line of the cutting blade.
- ✓ Always use a push stick for pieces less than 30 cm in length, or for the last 30 cm of a longer cut. Use a push stick to remove the cut piece from between the fence and the blade.
- ✓ Clamp down and secure all work pieces when drilling or milling.
- ✓ Use good lighting so that the work piece, cutting blades, and machine controls can be seen clearly. Position or shade lighting sources so that they do not shine in the operator’s eyes or cause any glare and reflections.
- ✓ Ensure that the floor space around the equipment is sufficient to enable you to machine the size of work piece being processed safely without bumping into other workers or equipment.
- ✓ Woodworking machines should be fitted with efficient and well-maintained local exhaust ventilation systems to remove sawdust or chips that are produced.
- ✓ Electric power cords should be above head level or in the floor in such a way that they are not tripping hazards.
- ✓ Keep work area free of clutter, clean, well swept, and well lit. Spills should be cleaned up immediately. Floor areas should be level and non-slip. Good housekeeping practices and workplace design will reduce the number of injuries and accidents from slips, trips, and falls.
- ✓ Do not wear loose clothing, work gloves, neckties, rings, bracelets or other jewellery that can become entangled with moving parts. Confine long hair.
- ✓ Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the cutting tool or blade.
- ✓ Do not remove sawdust or cuttings from the cutting head by hand while a machine is running. Use a stick or brush when the machine has stopped moving.
- ✓ Do not use compressed air to remove sawdust, turnings, etc. from machines or clothing.
- ✓ Do not leave machines running unattended (unless they are designed and intended to be operated while unattended). Do not leave a machine running until the power is turned off and the machine comes to a complete stop.

2.1 GENERAL WOODWORKING MACHINE SAFE PRACTICES.

- ✓ Do not try to free a stalled blade before turning the power off.
- ✓ Do not distract or startle an operator while he or she is using woodworking equipment.
- ✓ Horseplay should be prohibited. It can lead to injuries.

HAZARDS ASSOCIATED WITH MACHINES INCLUDE, BUT ARE NOT LIMITED TO:

- Being struck by ejected parts of the machinery
- Being struck by material ejected from the machinery
- Contact or entanglement with the machinery
- Contact or entanglement with any material in motion

HEALTH HAZARDS (other than physical injury caused by moving parts)

- Chemicals hazards that can irritate, burn, or pass through the skin
- Airborne substances that can be inhaled, such as oil mist, metal fumes, solvents, and dust
- Heat, noise, and vibration
- Ionizing or non-ionizing radiation (X-ray, lasers, etc.)
- Biological contamination and waste
- Soft tissue injuries (for example, to the hands, arms, shoulders, back or neck) resulting from repetitive motion, awkward posture, extended lifting and pressure grip.

OTHER HAZARDS

- Slips and falls from and around machinery during maintenance
- Unstable equipment that is not secured against falling over
- Safe access to/from machines (access, egress)
- Fire or explosion
- Pressure injection injuries from the release of fluids and gases under high pressure
- Electrical Hazards, such as electrocution from faulty or ungrounded electrical components
- Environment in which the machine is used (in a machine shop, or on a work site)



Machines are safeguarded to protect the operator from injury or death with the placement of guards. Machines must not be operated with the guards removed or damaged.

2.2 SPECIFIC SAFETY FOR BAND SAWS

DO NOT use this machine unless you have been instructed in its safe use and operation and have read and understood this manual



Safety glasses must be worn at all times in work areas



Long and loose hair must be contained.



Gloves must not be worn when using this machine.



Sturdy footwear must be worn at all times in work areas



Close fitting protective clothing must be worn



Rings and jewellery must not be worn.

PRE-OPERATIONAL SAFETY CHECKS

1. Ensure no slip/trip hazards are present in workspaces and walkways.
2. Locate and ensure you are familiar with the operation of the ON/OFF starter and E-Stop.
3. Check that all guards are in position.
4. Ensure push stick is available.
5. Lower the blade guide and guard to full effect.
6. Start the dust extraction unit before using the saw.
7. Faulty equipment must not be used. Immediately report suspect machinery.

OPERATIONAL SAFETY CHECKS

NOTE : Keep your fingers off the line of the cut at all times.

1. Never leave the machine running unattended.
2. The work piece should be fed forward evenly and held firmly on the table to ensure effective control during cutting whilst keeping hands in a safe position.
3. Use a push stick when feeding material past the blade.
4. Do not force a wide blade on a cut of small radius. Use relief cuts when cutting sharp curves.
5. Before making adjustments switch off the saw and bring the machine to a complete stand still.
6. Stop the machine before attempting to back the work away from the blade.
7. Stop the saw immediately if the blade develops a 'click'. Report it to your supervisor.

AFTER OPERATION

1. Switch off the saw and reset all guards to a fully closed position.
2. Leave the machine in a safe, clean and tidy state.

DO NOT

- Attempt to cut very small item
- Cut cylindrical or irregular stock
- Leave the machine running unattended

3. POWER SUPPLY

3.1 ELECTRICAL INSTALLATION

Place the machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure there is access to a means of disconnecting the power source. The electrical circuit must meet the requirements for 240V.

NOTE : *The use of an extension cord is not recommended as it may decrease the life of electrical components on your machine.*

ELECTRICAL REQUIREMENTS

Nominal Voltage.....	240V
Cycle.....	50Hz
Phase.....	Single Phase
Power Supply Circuit.....	10 Amps
Full Load Current.....	5 Amps

(Full load current rating is also on the specification plate on the motor.)

3.2 FULL-LOAD CURRENT RATING

The full-load current rating is the amperage a machine draws when running at 100% of the output power. Where machines have more than one motor, the full load current is the amperage drawn by the largest motor or a total of all the motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating for these machine at 240V is 5 Amps

It should be noted that the full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating and if the machine is overloaded for a long period of time, damage, overheating, or fire may be caused to the motor and circuitry.

This is especially true if connected to an undersized circuit or a long extension lead. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the requirements.



4 SETUP

4.1 UNPACKING

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. If items are damaged, please contact your distributor.

NOTE: Save all the packaging materials until you are completely satisfied with the machine and have resolved any issues with the distributor, or the shipping agent.

When unpacking, check the packing list to make sure that all parts shown are included. If any parts are missing or broken, please contact your distributor.

4.2 CLEAN - UP

The unpainted surfaces of the machine have been coated with a waxy oil to protect them from corrosion during shipment. Remove the protective coating with a solvent cleaner or a citrus based degreaser.

Optimum performance from your machine will be achieved when you clean all moving parts or sliding contact surfaces that are coated with rust prevented products.

It is advised to avoid chlorine based solvents, such as acetone or brake parts cleaner, as they will damage painted surfaces and strip metal should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

4.3 SITE PREPARATION

When selecting the site for the machine, consider the largest size of workpiece that will be processed through the machine and provide enough space around the machine for operating the machine safely. Consideration should be given to the installation of auxiliary equipment. Leave enough space around the machine to open or remove doors/covers as required for the maintenance and service as described in this manual.

It is recommended that the machine is anchored to the floor to prevent tipping or shifting. It also reduces vibration that may occur during operation.

4.4 LIFTING INSTRUCTIONS



WARNING

This machine is extremely heavy. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate.



WARNING!

Always check the capacity of the machine. Exceeding the capacity of the machine may result in sudden breakage that ejects dangerous metal debris at the operator or bystanders.

4.4 LIFTING INSTRUCTIONS CONT.

LIFTING POINT

An eye bolt lifting point has been provided on the top of the machine. (Fig.4.1)

When lifting the machine only certified lifting slings should be used.

Ensure that when lifting, the machine does not tip over.

Check that the lifting slings do not interfere with the parts of the machine that may be damaged.

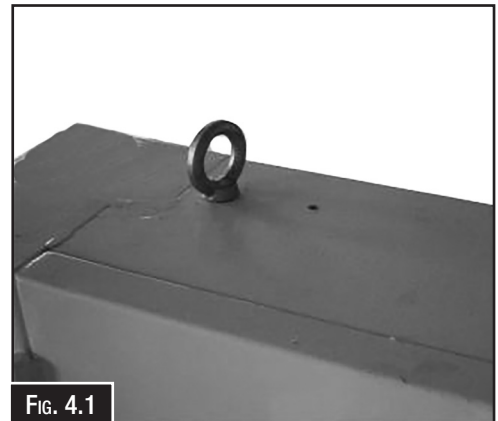


FIG. 4.1

4.5 ANCHORING TO THE FLOOR

OPTIONS FOR MOUNTING

The machine is best mounted on a concrete slab.

Masonry anchors with bolts are the best way to anchor machinery, because the anchors sit flush with the floor surface, making it easy to unbolt and move the machine later, if needed. (Fig. 4.2)

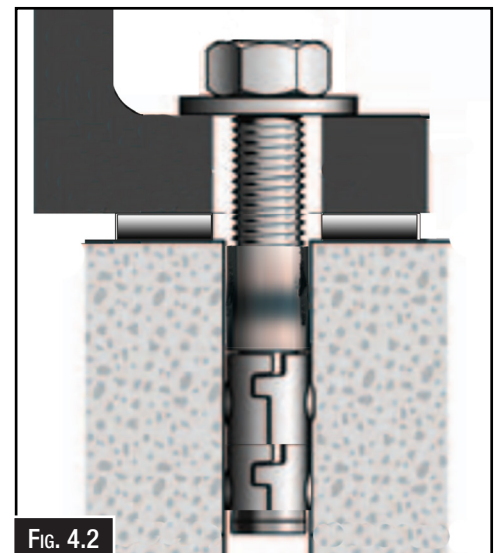


FIG. 4.2

4.6 MACHINE LEVELLING

To set your machine up so that it operates to optimum performance, apply the following procedure

After your machine has been anchored to a concrete slab floor, it then needs to be levelled. Loosen the hold down bolts and place a level on the surface of the working table. Metal shims need to be placed under the corner of the base of the machine until level. Once level then tighten the hold down bolts. (Fig. 4.3).

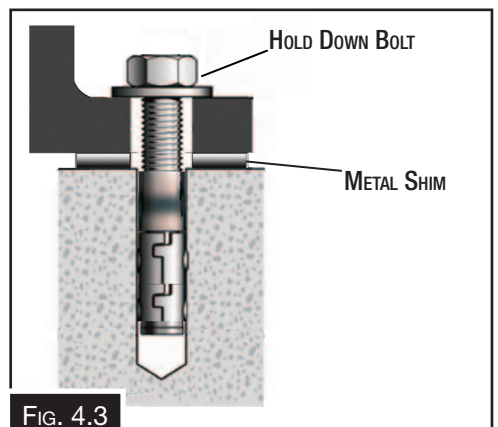


FIG. 4.3



CAUTION!

The machine must not rest on supports other than those defined in Fig. 4.3.

4.7 ASSEMBLY

The machine must be fully assembled before it can be operated. First clean any parts that are coated in rust preventative to ensure the assembly process can proceed smoothly.

INSTALLING THE GUIDE POST HAND WHEEL

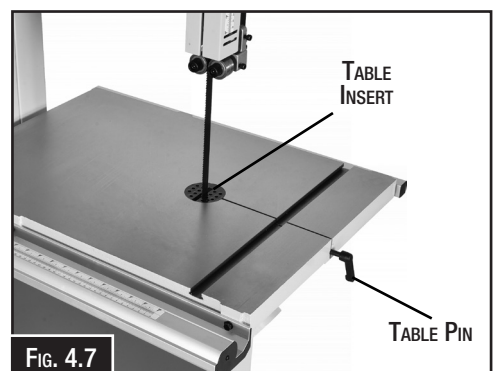
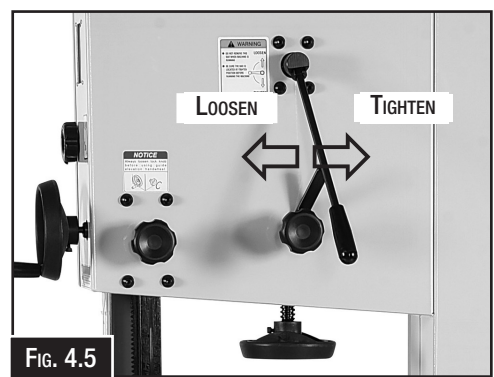
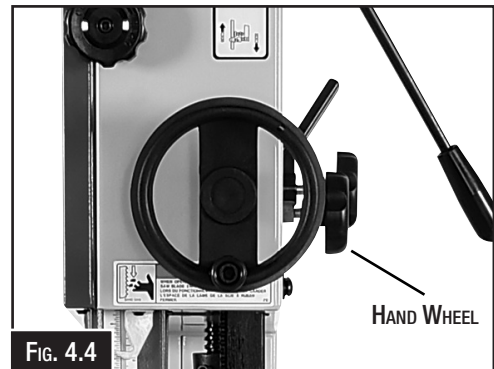
1. Attach the guide post hand wheel onto the shaft making sure that the grub screw will locate on the flat on the shaft. (Fig. 4.4)

INSTALLING THE TABLE

The table is heavy and will require the assistance of another person. To make the installation easier, first remove the saw blade

To install the table

1. Release the blade tension on the saw blade, move the blade tension lever to the left. (Fig. 4.5)
2. Adjust the upper and lower blade guides so that the blade is free to move.
3. Once the blade is removed with the help of another person, lift the table on to the trunnion support bracket and secure it with the four M8 x 16mm bolts, and M8 flat and spring washers. (Fig. 4.6)
4. Remove the table insert and the table pin and slide the blade through the table slot, making sure that the teeth are facing down. (Fig. 4.7)
5. Place the blade between the upper and lower guides and place the blade over the upper and lower wheels.
6. Tighten the quick release tension lever, then install the table insert and table pin.
7. Don't adjust the upper and lower blade guides until the the blade tracking and tension have been adjusted.

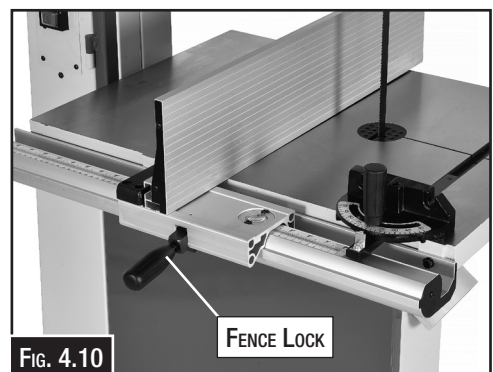
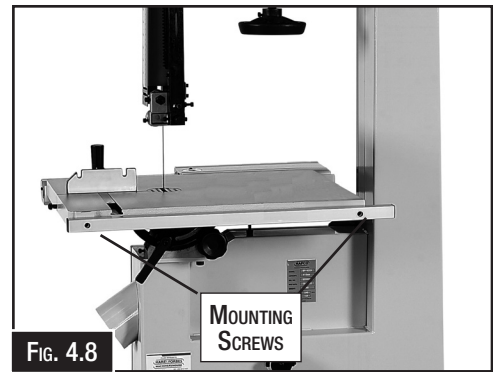


! WARNING!	
SAFETY FIRST	<i>The safety instructions given in this manual cannot be complete. The environment in every shop is different. Always consider your safety first as it applies to your individual working conditions.</i>
	

INSTALLING THE FENCE

1. Attach the back support square tube to the back of the table with the two M6 x 16 socket head cap screws, making sure that the rail is parallel to the table. (Fig. 4.8)
2. Attach the front rail to the table with the two M6 x 20 hex head bolts, 6mm lock washers, and 6mm flat washers. (Fig. 4.9)
3. Install an M8 hex nut on the fence handle, then thread the handle into the fence assembly, and tighten the hex nut against the fence pivot block to secure the handle. (Fig. 4.10)
4. Adjust the rail pad screw on the back end of the fence to and check that the fence locks at both ends. (Fig. 4.11)

NOTE: *The fence upright can be fitted in the low or in the high position depending on the workpiece being worked.*



CONNECTING THE DUST HOSE:

Fit the 4" dust hose over the dust port and secure it in place with a hose clamp making sure it will not come off. (Fig 4.12)

⚠ WARNING *These band saws create substantial amounts of wood dust when operating, and should not be used without an adequate dust collection system. Failure to use a dust collector may result in short and longterm respiratory illness.*



4.8 TENSIONING THE BLADE

A properly tensioned blade is essential for making accurate cuts and is necessary before making other band saw adjustments. (For blade change instructions see Page 20)

To tension the blade:

1. DISCONNECT THE MACHINE FROM THE POWER SUPPLY
2. Raise the upper blade guide assembly as high as it will go, (Fig.4.13) and adjust the upper and lower guide blocks approximately 0.5mm away from the blade. (Fig. 4.14)
3. Ensure the blade tension quick-release lever is in the tighten position
4. Adjust the blade tension hand wheel. Turning the tension hand wheel clockwise will increase the blade tension and tuning the tension hand wheel counter-clockwise reduces the blade tension.

NOTE: This procedure will not work if the guide blocks have any contact with the blade.

5. Check the tension by pushing with a finger against the side of the blade, halfway between table and upper guide, (the blade should flex approximately 6mm)
6. Turn the band saw ON, and very slowly release the tension one quarter of a turn at a time. When you see the band saw blade start to flutter, stop decreasing the tension.
7. Now, slowly increase the tension until the blade stops fluttering, then tighten the tension another quarter of a turn.
8. Note what the tension gauge reads. Use that as a guide for tensioning that specific blade in the future. (Fig. 4.15)

WARNING: Too much tension can cause the band saw blade to break. Too little tension can cause the driven band saw wheel to slip and the saw blade to stop.

9. Re-adjust the blade guides as described in Blade Guide Adjustment beginning on Page 22

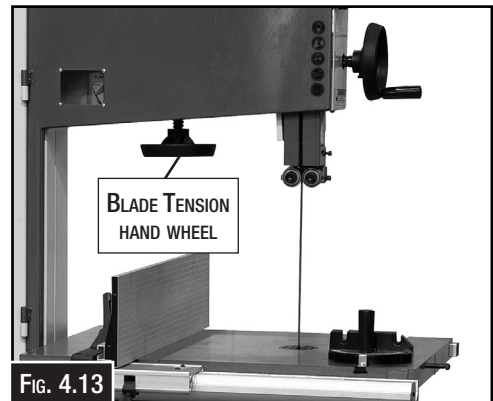


FIG. 4.13

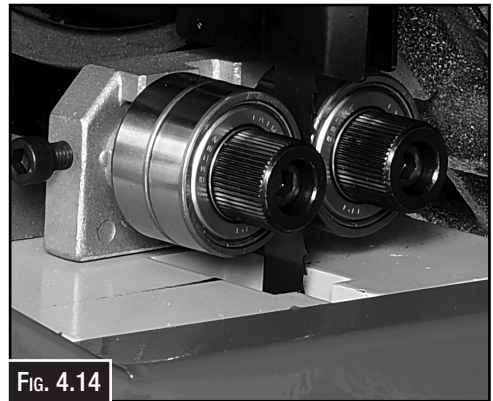


FIG. 4.14

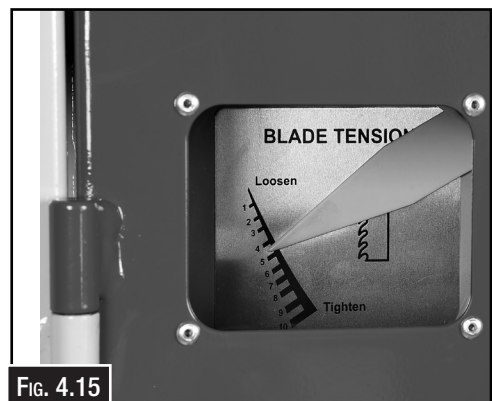


FIG. 4.15



WARNING!

Machines are safeguarded to protect the operator from injury or death with the placement of guards. Machines must not be operated with the guards removed or damaged.

4.9 BLADE TRACKING

To operate correctly, the saw blade needs to run in the centre of the rubber tyre. If the blade rides in the centre of the upper wheel and is centred on the peak of the wheel crown, then the band saw is tracking correctly and no adjustment is needed. If the blade does not ride in the centre of the upper wheel and is not centred on the peak of the wheel crown, then adjustment is required.

To check or adjust the tracking:

1. DISCONNECT THE MACHINE FROM THE POWER
2. Open the upper and lower covers. (Fig. 4.16)
3. Adjust the top and bottom guides so they are not touching the blade.
4. Make sure that the blade has been tensioned as per the instructions on Page 15.

CAUTION *The cast iron spokes of the upper wheel may have sharp burrs and the blade teeth may extend beyond the edge of the wheel, creating a laceration hazard. Be careful when turning the wheels by hand.*

5. Turn the upper wheel by hand around two to three times to see how the blade is tracking.
6. Loosen the lock lever (Fig. 4.17) so that the blade tracking knob can rotate.
7. Manually rotate the upper wheel, taking care not to touch the blade. At the same time turn the adjusting knob (Fig. 4.17) clockwise or anticlockwise until the saw blade tracks centre on the rubber tyre.
8. After adjustment, re-tighten the tracking lock lever and close the cover.

Fine Tracking Adjustment

During setup, the blade was tracked without the machine connected to power. In this procedure, the band saw is turned ON to perform fine blade tracking. Make small changes with the blade tracking knob as you monitor the effect on the blade tracking.

Close the wheel covers and turn the band saw ON.

Observe the blade tracking path through the clear window on the right edge of the band saw, (Fig. 4.18) Using the tracking controls, adjust the blade so that it tracks on the center of the wheel. Tighten the tracking lock to secure the setting.

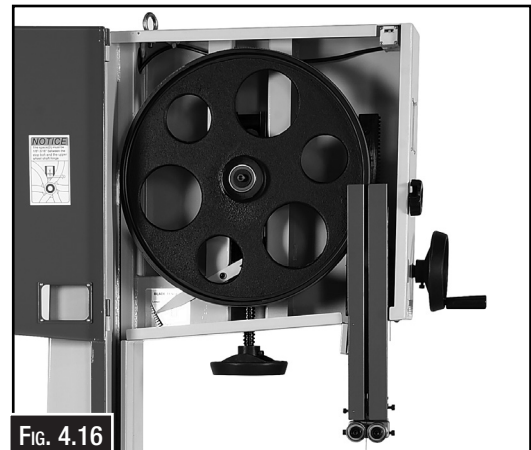


FIG. 4.16

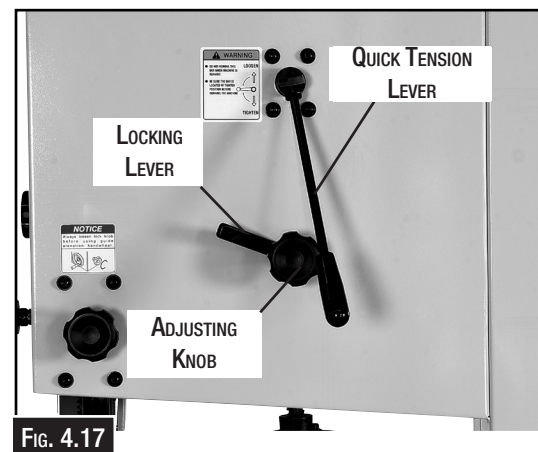


FIG. 4.17

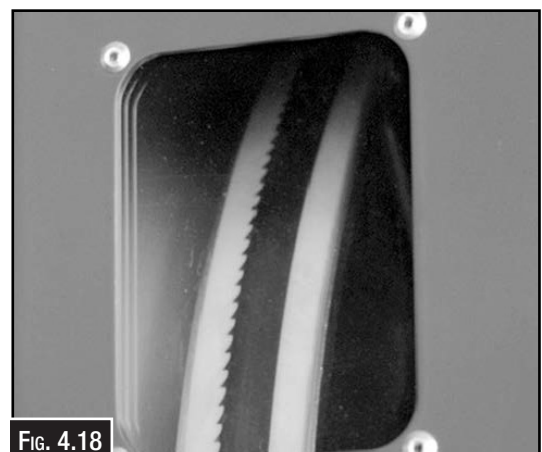


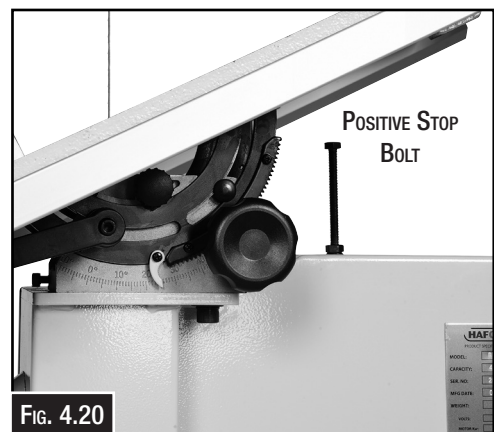
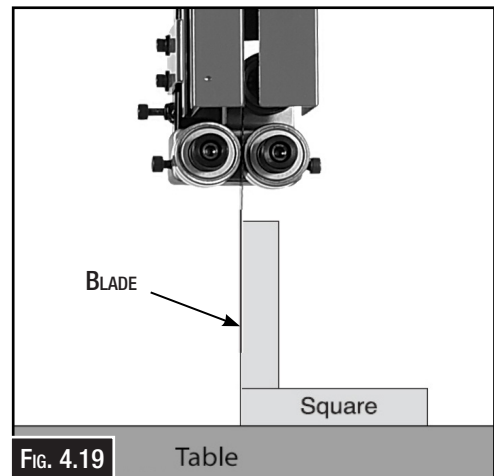
FIG. 4.18

4.10 TABLE STOP CALIBRATION

After tilting the table the adjustable positive stop allows the table to be reset 90° to the blade.

To set the positive stop:

1. DISCONNECT BAND SAW FROM POWER!
2. Adjust the blade tension see Page 15 until the blade tension is correct or matches the predetermined setting on the tension scale.
3. Loosen the hex nut that locks the positive stop bolt in place and loosen the table tilt hand knobs.
4. Raise the guide post and place a machinist's square on the table next to the side of the blade, as illustrated in Fig. 4.19. Adjust the table square with the blade, then secure with the table tilt knobs.
5. Adjust the positive stop bolt to the table. (Fig. 4.20)
6. Secure the positive stop bolt by tightening the hex nut against the trunnion bracket.
7. Check the adjustment for accuracy once you have tightened the hex nut.



! WARNING!	
<p>SAFETY FIRST</p>	<p><i>Make sure that the machine is fully assembled before operating. Failure to do so could cause injury and damage to the machine</i></p>

4.11 TEST RUN

Once the assembly is complete, test run your machine to make sure it runs properly. If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop the machine immediately, then review the Troubleshooting section on Page 23.

If you still cannot remedy a problem, contact your distributor. The test procedure is as follows.

1. Make sure you have read the safety instructions at the beginning of the manual and that the machine is set up properly, including Blade Tracking above.
2. Make sure all tools and objects used during setup have been cleared away from the machine.
3. Connect the machine to the power source.
4. Turn the machine ON.
5. Listen and watch for abnormal noises or actions. The machine should run smoothly with little or no vibration or rubbing noises. — Strange or unusual noises must be investigated and corrected before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.
6. Turn the machine OFF

5. OPERATION

5.1 BASIC CONTROLS

Use the descriptions below to become familiar with the basic controls of your machine.

Blade Tension Hand Wheel: Adjusts the tension on the blade. (Fig. 5.1)

Blade Tracking Adjustment Knob: Adjusts the blade tracking. (Fig. 5.2)

Blade Tension Quick Release: Quickly tensions or releases the blade without losing its setting.

(Fig.5.2)

Guide Post Adjustment Knob: Raises and lowers the blade guide post. (Fig. 5.3)

Guide Post Locking Knob: Locks the blade guide post. (Fig. 5.3)

ON/OFF Switch: Starts and stops the blade motor.

(Fig. 5.4)

Mitre Gauge Lock Handle: Locks the mitre gauge at the current setting. (Fig. 5.5)

Fence Lock Lever: Locks the fence at its current position. (Fig. 5.5)

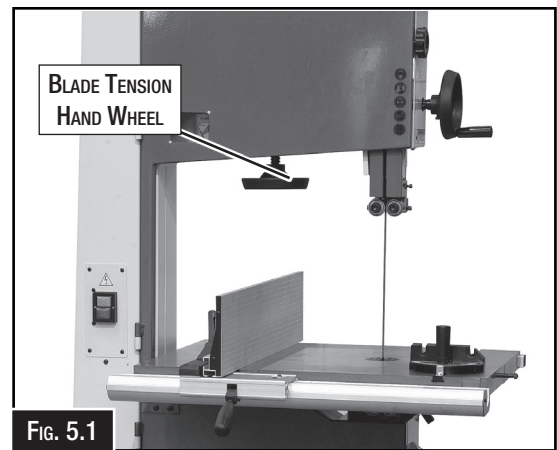


FIG. 5.1

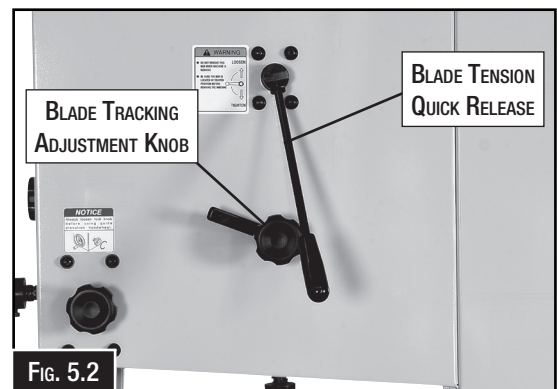


FIG. 5.2

 WARNING!	
SAFETY FIRST	<i>Avoid breathing the dust from this machine by always wearing a dust mask when operating the machine. Breathing protection helps to protect the chest from problems that could occur.</i>
	

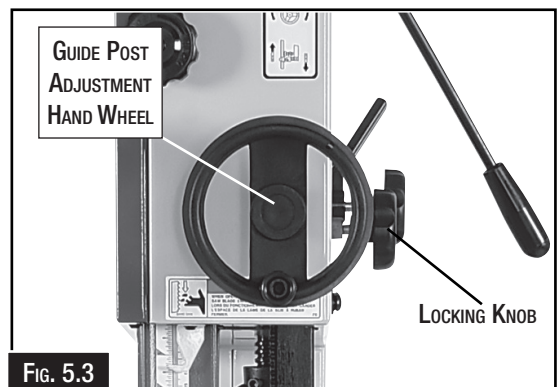


FIG. 5.3

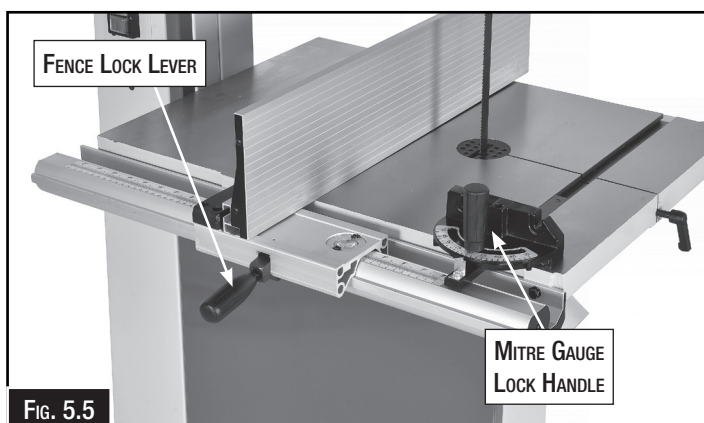


FIG. 5.5

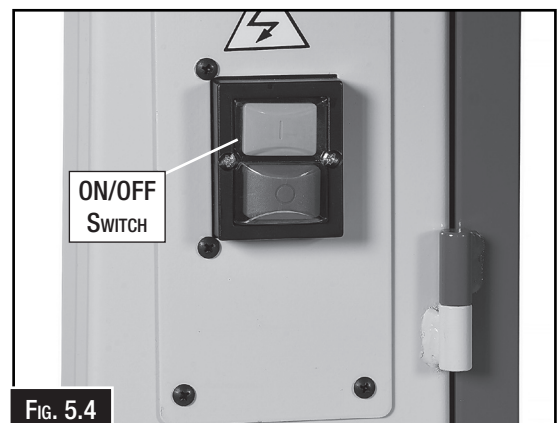


FIG. 5.4

5.2 BLADE INFORMATION

Selecting the right blade requires a knowledge of the various blade characteristics mentioned below, the type of material you plan to cut, and the type of cut you are going to perform.

Blade Length

The blade length is measured by the circumference. Blade lengths are usually unique to the brand of your band saw and the distance between wheels. The chart below displays the blade length for the model and available blades.

NOTE: “Available Blades” lists the stocked blades but other sizes and blade teeth are available from most local saw blade manufacturers

MODEL	BLADE LENGTH	AVAILABLE BLADES.
BP-480A	3630MM	6 TPI SKU: W434A 3 TPI SKU: W434B

Blade Width

Measured from the back of the blade to the tip of the blade tooth (the widest point). Blade width is often the first consideration given to blade selection.

Blade width dictates the largest and smallest curve that can be cut, as well as how accurately it can cut a straight line.

Curve Cutting:

View the chart in Fig. 5.6 to determine the correct blade width for curve cutting. Determine the smallest radius curve that will be cut on the work piece and use the corresponding blade width. (Fig. 5.6)

Straight Cutting:

Use the largest width blade available. (See specifications on Page 4 for the maximum width for the model)

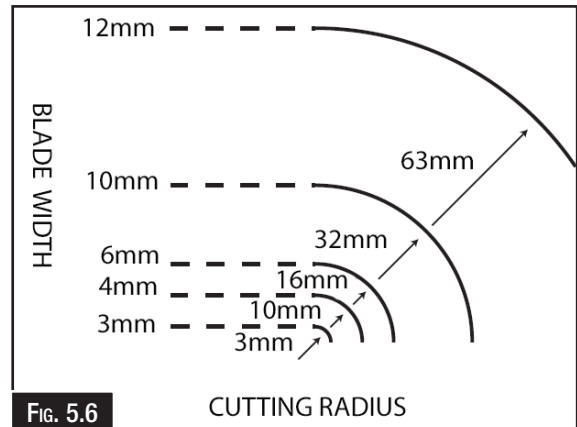


FIG. 5.6

Tooth Style

When selecting blades, another option to consider is the shape, gullet size, teeth set and teeth angle—otherwise known as “Tooth Style.” As shown Fig.5.7

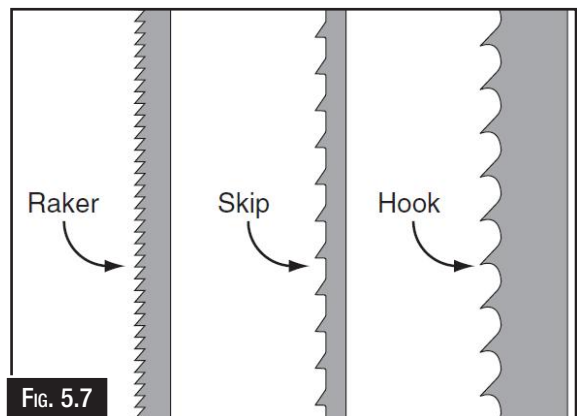


FIG. 5.7

Raker: Considered to be the standard because the tooth size and shape are the same as the tooth gullet.

Skip: This style is similar to a raker blade but is missing every other tooth. Skip toothed blades have a larger gullet, and cut faster.

Hook: This teeth type have a positive angle (downward) that allows them to dig into the material. The gullets are usually rounded for easier waste removal. Excellent for the tough demands and ripping thick material.



WARNING

Blades are sharp. Protect hands by wearing leather gloves to prevent injury.

5.3 CHANGING THE BLADE

To remove the blade:

1. DISCONNECT POWER FROM THE BAND SAW
2. Release the blade tension by turning the blade tension hand wheel (Fig. 5.8) or turn the quick release lever to the left.(Fig. 5.9)
3. Remove the table insert and the table pin. Adjust the upper and lower guide bearings as far away as possible from the blade.
4. Open the upper and lower wheel covers. (Fig. 5.10)
5. Put on leather gloves and slide the blade off both wheels.
6. Rotate the blade 90° and slide it through the slot in the table.
7. Take the new blade and slide it through the table slot, ensuring that the teeth are pointing down toward the table.

NOTE: If the teeth will not point downward in any orientation, the blade is inside-out. Put on leather gloves, and remove the blade, and twist it right side-out.

8. Slip the blade through the guides, and mount it on the upper and lower wheels.
9. Tighten the blade tension quick release.
10. Apply tension to the blade by turning the tension control knob. Rotate the upper wheel slowly by hand as tension is applied to allow the blade to centre itself on the wheel. Adjust tracking if needed.
11. Adjust tension as described Page 15.
12. Adjust the upper/lower guide bearings and the support bearings.
13. Close the wheel covers.
14. Replace the table insert and table pin, being sure not to use excessive force when inserting the table pin.

CAUTION *All saw blades are dangerous and may cause personal injury. To reduce the risk of being injured, wear leather gloves when handling saw blades.*

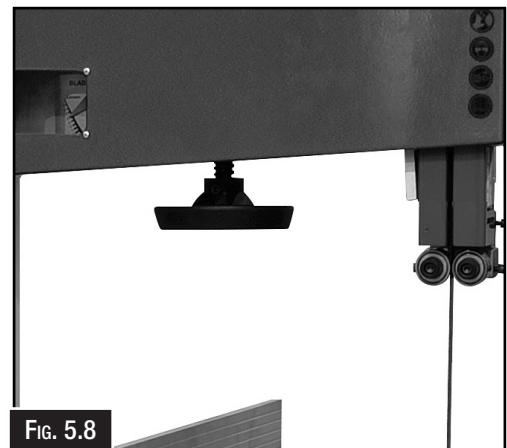


FIG. 5.8

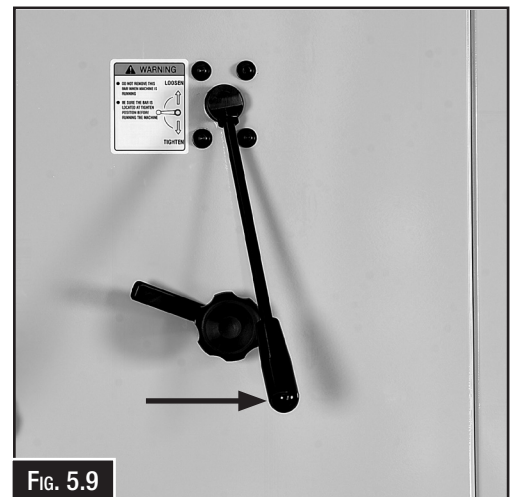


FIG. 5.9

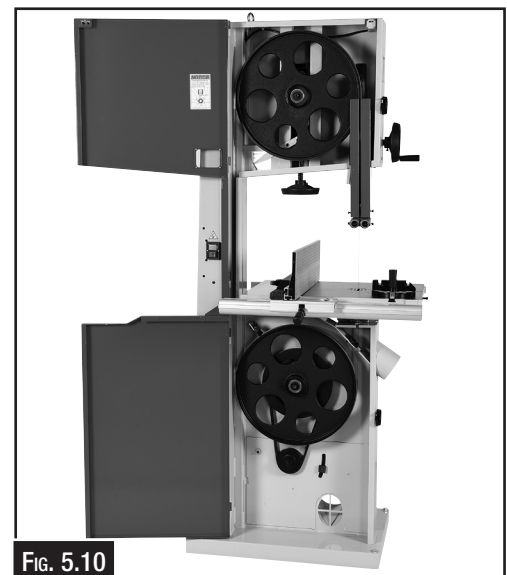


FIG. 5.10

5.4 ADJUSTING THE SPEED

The band saws listed in this manual are fitted with a pulley system that allows for two speeds to be available for the operation. Below are the details for adjusting the speeds.

To change the speed

1. DISCONNECT THE MACHINE FROM THE POWER SUPPLY
2. With a hex key, loosen the motor positioning clamp on the back of the machine. (Fig. 5.11)
3. Open the bottom door on the machine to gain access to the belt drive. (Fig. 5.12)
4. Move the V-belt from one set of pulleys to the other set.
5. Re-Clamp the motor, making sure that the V-belt has been tensioned correctly.

NOTE: A common speed for the band saw is about one 300 meters per minute. Wood can effectively be cut at much higher speeds, but you should keep it slower because it's safer.



FIG. 5.11



FIG. 5.12

5.5 TILTING THE TABLE

WARNING: Always be sure that the machine is switched off and unplugged before any adjustment is commenced.

Loosen the locking handle and adjust the table to the desired angle using the adjuster knob.

Use the angle indicator scale to find the desired angle. The scale is only used as a guide. For very accurate angle use a protractor against the blade.

Re-tighten the locking handle to secure the table.

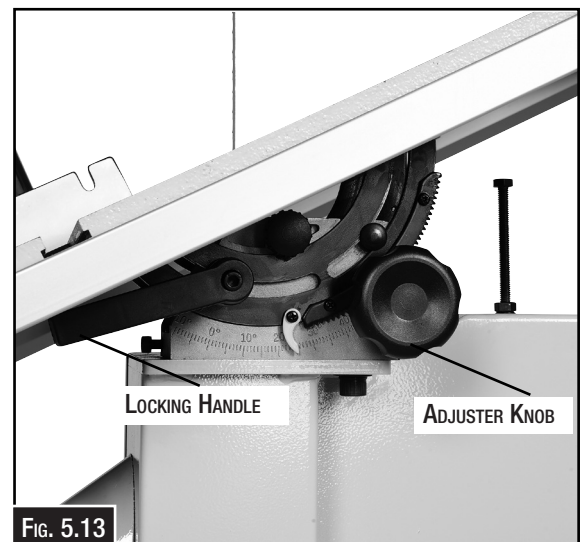


FIG. 5.13



WARNING!

Blades are very sharp. If not careful serious injury can result from touching the blades with bare hands. Leather work gloves should be worn when handling these blades.

5.6 ADJUSTING SUPPORT BEARINGS

The support bearings are positioned behind the blade for support during cutting operations. Proper adjustment of the support bearings is an important part of making accurate cuts. The procedure is as follows.

1. Make sure that the blade is tracking properly and that it is correctly tensioned.
2. **DISCONNECT BAND SAW FROM POWER!**
3. Familiarize yourself with the support bearing controls shown in Fig. 5.14
- A. Locks the bearing support roller in place after it has been moved back or forward.
- B. Locks the complete Blade Guide assembly. When unlocked the whole assembly can be moved forward or back when out of adjustment.
4. Loosen the socket head cap screw on the support bearing adjustment shaft. (A in Fig.5.14)
5. Adjust the support bearing 0.5mm away from the back of the blade, as illustrated in Fig. 5.15
6. Repeat Steps 4–6 for the lower support bearings.

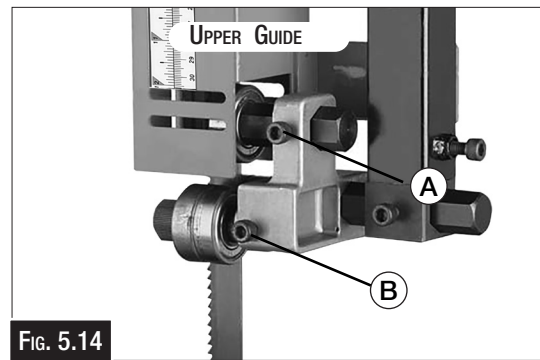


Fig. 5.14

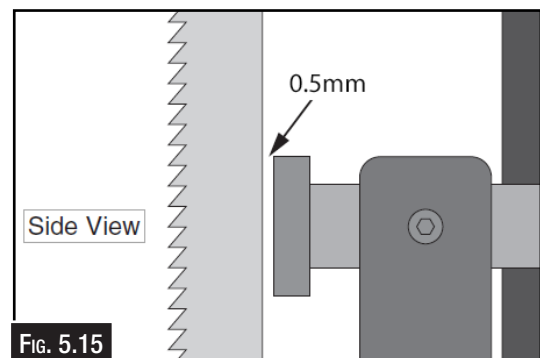


Fig. 5.15

5.7 BLADE GUIDE ADJUSTMENTS

The blade guides consist of an upper and lower set of ball bearings that provide side-to-side support to help keep the blade straight while cutting. The blade guides are designed to be adjusted side-to-side.

1. Make sure that the blade is tracking properly and that it is correctly tensioned.
2. **DISCONNECT BAND SAW FROM POWER!**
3. Familiarize yourself with the blade guide controls shown in Fig. 5.16.
- C. The Socket head cap screws lock the side rollers in place after they have been moved towards or away from the side of the blade.
- D. Rotate the cam that moves the roller in or out.
4. Undo the socket head cap screw of the blade guide bearings. (C in Fig. 5.16)
5. Using a feeler gauge rotate the bearings until 0.1mm away from the blade. (D in Fig. 5.16)
6. Tighten the cap screw to lock the blade guide bearings in position.
7. Repeat Step 4-6 for the lower guides.

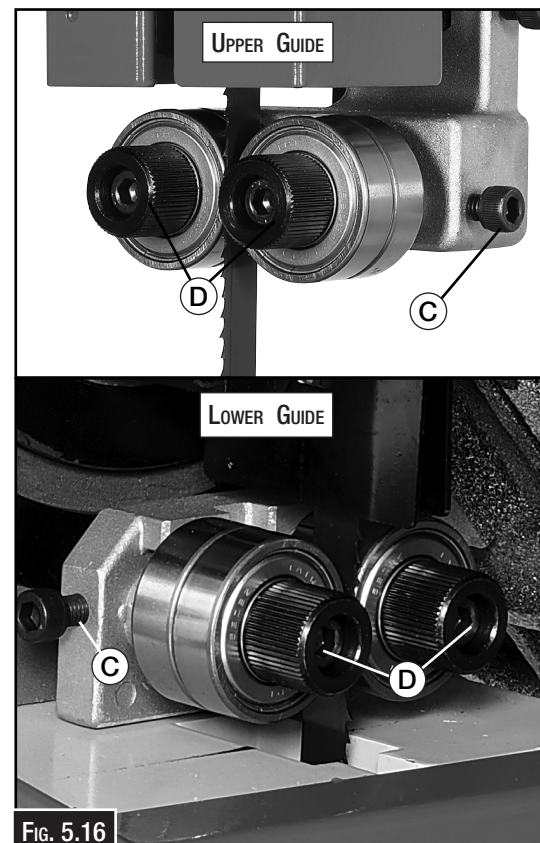


Fig. 5.16

6. MAINTENANCE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then contact your local distributor or service provider.

NOTE: HAFCO Woodmaster advise that extension leads should not be used permanently, but recommend that the plug be placed directly in to a wall socket.

6.1 TROUBLESHOOTING

Symptoms	Possible Cause	Possible Solution
Motor stalls	<ol style="list-style-type: none"> Excessive belt tension Excessive head pressure. Excessive blade speed. Improper blade selection 	<ol style="list-style-type: none"> Adjust belt tension so that belt does not slip on drive belt under moderate pressure. Reduce head pressure. Refer to "Selecting The Speed" on page 16. Refer to "Blade Selection Chart" page 16.
Cannot make square cut.	<ol style="list-style-type: none"> Dull Blade. Guide rollers not adjusted properly. Vise jaw not adjusted properly. Excessive head pressure. 	<ol style="list-style-type: none"> Replace The Blade. Refer to "Adjusting The Blade Guides" page 21. Check the vise jaws. Reduce the feed rate..
Increased cutting time	<ol style="list-style-type: none"> Dull Blade. Insufficient head pressure. Reduced Blade speed. 	<ol style="list-style-type: none"> Replace the blade. Increase the feed rate.. Refer to "Selecting The Speed" on page 16.
Will not cut	<ol style="list-style-type: none"> Motor running in wrong direction. Blade teeth pointing in wrong direction. Hardened material 	<ol style="list-style-type: none"> Reverse rotation of motor. Remove blade, turn blade inside out and Re-install blade. Use special alloy blades. (Consult your industrial distributor for recommendation on type of blade required)
Motor will not start	<ol style="list-style-type: none"> Overload relay activated. Magnetic switch open, or protector open. Low voltage. Open circuit in motor or loose connections. 	<ol style="list-style-type: none"> Reset the relay Reset protector by pushing red button (inside electric box.) Check power line for proper voltage. Inspect all lead terminations on motor for loose or open connections
Motor will not start, fuse or circuit breakers "blow".	<ol style="list-style-type: none"> Short circuit in line, cord or plug. Short circuit in motor or loose connections. Incorrect fuses or circuit breakers in power line. 	<ol style="list-style-type: none"> Inspect line, cord and plug for damaged insulation and shorted wire. Inspect all lead terminations on motor for loose or shorted terminals or worn insulation on wires. Install correct fuses or circuit breakers.
Motor fail to develop full power.	<ol style="list-style-type: none"> Power line overloaded with lights, appliances and other motors. Under size wires or circuit too long. General overloading of local power facilities. 	<ol style="list-style-type: none"> Reduce the load on the power line. Increase wire sizes, or reduce length of wiring. Request a voltage check from the power company
Motor overheat	<ol style="list-style-type: none"> Motor overloaded. Air circulation through the motor restricted 	<ol style="list-style-type: none"> Reduce load on motor. Clean out motor to provide normal air circulation through motor
Motor stalls	<ol style="list-style-type: none"> Short circuit in motor or loose connections. Low voltage. Incorrect fuses or circuit breakers in power line. Motor overloaded. 	<ol style="list-style-type: none"> Inspect terminals in motor for loose or shorted terminals or worn insulation on lead wires. Correct the low line voltage conditions. Install correct fuses circuit breakers. Reduce motor load.
Frequent opening of fuses or circuit breakers.	<ol style="list-style-type: none"> Motor overloaded Incorrect fuses or circuit breakers. 	<ol style="list-style-type: none"> Reduce motor load. Install correct fuses or circuit breakers.
Teeth stripping	<ol style="list-style-type: none"> Too few teeth per inch. Loading of gullets. Excessive feed. Work not secured in vise. 	<ol style="list-style-type: none"> Use finer tooth blade. Use coarse tooth blade or cutting lubricant. Decrease feed. Clamp material securely
Blade breakage	<ol style="list-style-type: none"> Teeth too coarse. Misalignment of guides. Dry cutting Excessive speed 	<ol style="list-style-type: none"> Use a finer tooth blade. Adjust saw guides. Use cutting lubricant. Lower speed. See Operating Instructions "Speed selection."

6.4 TROUBLESHOOTING Cont.

Symptoms	Possible Cause	Possible Solution
Blade breakage	1. Excessive tension. 2. Wheels out of line	1. Tension blade to prevent slippage on drive wheel while cutting. 2. Adjust wheels
Blade cut Run-out or Run-in	1. Guides out of line. 2. Excessive pressure. 3. Support of blade insufficient. 4. Material not properly secured in vise. 5. Blade tension incorrect.	1. For a straight and true cut, realign guides, check bearings for wear. 2. Conservative pressure assures long blade life and clean straight cuts. 3. Move saw guides as close to work as possible. 4. Clamp material in vise, securely and level. 5. Loosen or tighten tension on blade.
Blade twisting	1. Blade not in line with guide bearings. 2. Excessive blade pressure. 3. Blade binding in cut.	1. Check bearings for wear and alignment. 2. Decrease pressure and blade tension. 3. Decrease feed pressure.
Premature tooth wear	1. Dry cutting. 2. Blade too coarse. 3. Not enough feed. 4. Excessive speed	1. Use lubricant on all materials, except cast iron. 2. Use finer tooth blade. 3. Increase feed so that blade does not ride in cut. 4. Decrease speed.

6.2 WHEEL ALIGNMENT

Wheel alignment is one of the most important issues to ensure the best performance from your band saw. Over time vibration, and wandering blades cause tyre wear. This can be considerably reduced when the wheels are properly aligned. The procedure is as follows.

1. Remove the fence and table, then open both the wheel covers.
2. Make sure the guide blocks and rear support bearings have been moved away from the blade, then tighten your blade to the tension that it will be used during operation.
3. Place the straight edges against both wheels in the positions shown in Fig. 6.1
4. The hub on the bottom wheel allows you to adjust the lower wheel in the desired direction.
By loosening the lock nuts and turning all the grub screws clockwise in equal amounts, pushes the wheel forward.

Turning all the grub screws counter clockwise moves the wheel towards the back of the machine. When the grub screws are adjusted individually, each grub screw controls the direction that the wheel tilts. (Fig. 6.2)

5. When finished with the adjustment the locked nuts must be tightened.

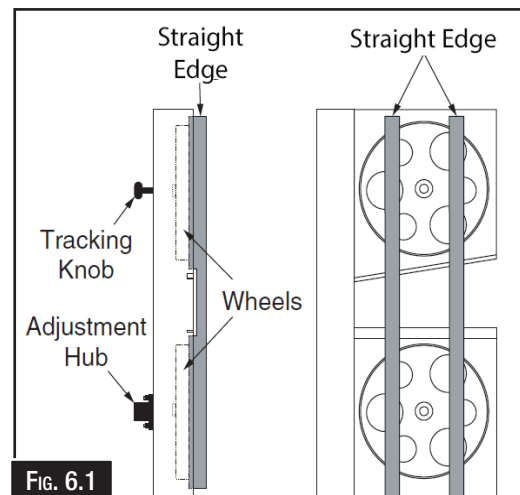


FIG. 6.1

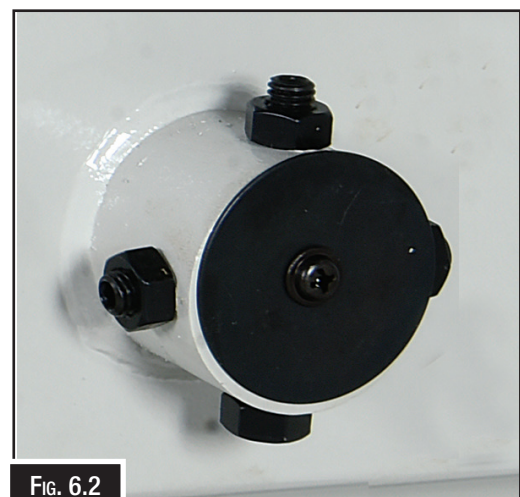


FIG. 6.2

WOOD BAND SAW BP-480A

Order Code: (W4340)

Edition : 2.0
Date: (10/25)

The following section covers the spare parts diagrams and lists that were current at the time this manual was originally printed. Due to continuous improvements of the machine, changes may be made at anytime without notification.

HOW TO ORDER SPARE PARTS

1. Have your machines model number, serial number & date of manufacture on hand, these can be found on the specification plate mounted on the machine.
2. A scanned copy of your parts list/diagram with required spare part/s identified.

NOTE: SOME PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

3. Go to www.machineryhouse.com.au/contactus and fill out the inquiry form attaching a copy of scanned parts list.



WARNING!

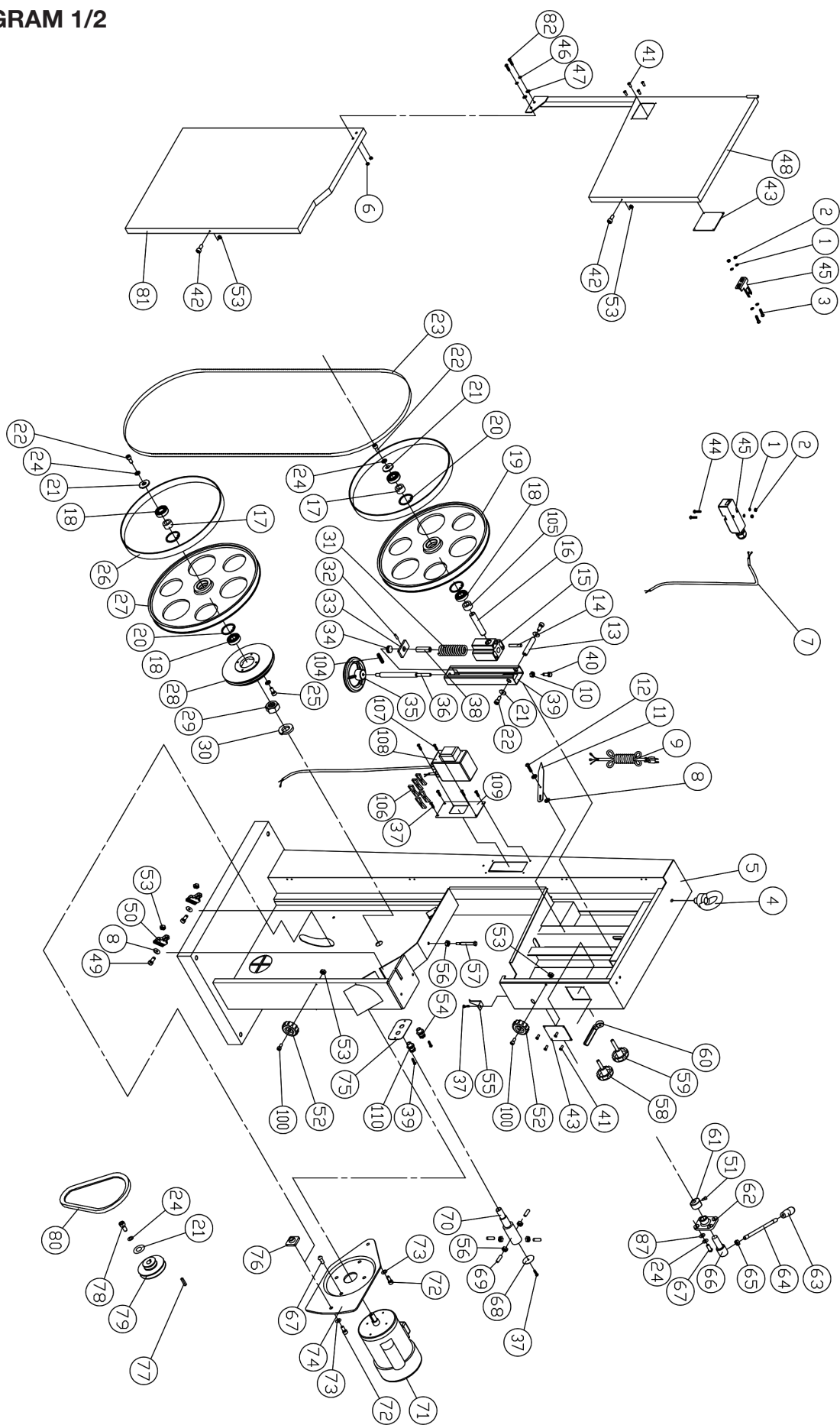
*Electricity is dangerous and could cause death
All electrical work must be carried out by a qualified electrician.*



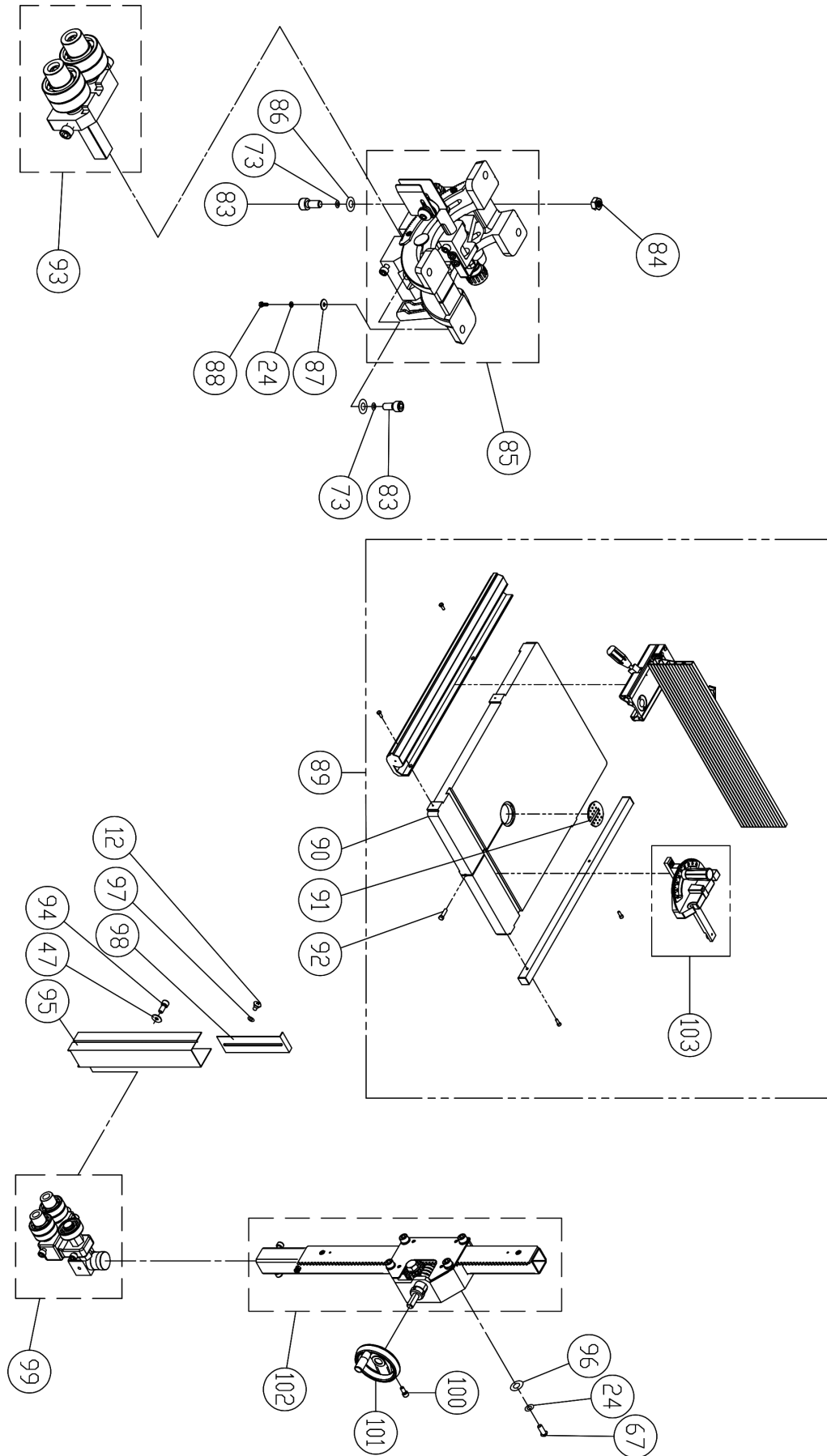
CAUTION!

It is impossible to cover all possible hazards Every workshop environment is different. These are designed as a guide to be used to compliment training and as a reminder to users prior to equipment use. Always consider safety first, as it applies to the individual working conditions.

PARTS DIAGRAM 1/2



PARTS DIAGRAM 2/2



PARTS LIST

No.	PART No.	DESCRIPTION	SPECIFICATION	QTY
0010	WF040808	Flat Washer	M4* Ø8	6
0020	NH040700	Nut	M4*0.7	4
0030	SP040200	Pan Head Screw	M4*0.7*10	2
0040	995101	Eye bolt	M10	1
0050	136208RR02		4800CE RAL7044	1
0060	NF050800	Hex. Flange Nut	M5*0.8	2
0070	VA07522002Y00E20	Cord (VDE)	0.75x2Cx2Mx2Y2.E	1
0080	WF061310	Flat Washer	M6*Ø13*1t	4
0090	SP10032703P00E30	Power Cord	1.0x3Cx2.7Mx3.3	1
0100	NH061000	Nut	M6	1
0110	135040	Tension Pointer		1
0120	135073	Step Screw	M4*5	2
0130	135012	Rod (Upper)		1
0140	PS053600	Spring Pin	Ø5*36	1
0150	135017	Upper Wheel Moving Bracket	130006,135017	1
0160	135066	Upper Wheel Shaft		1
0170	135039	Ring		2
0180	BB620403	Ball Bearing	6204LLU	4
0190	136024	Upper Wheel	SBW-4800	1
0200	RR470000	Retaining Ring (R-type)	R47	4
0210	WF083030	Flat Washer	M8*Ø30	5
0220	SR089400	Hex. Socket Screw	M8*1.25*16	4
0230	136010	Saw Blade	3632x19x0.65(mm)x6T	1
0240	WS080000	Spring Washer	M8	19
0250	SR080600	Hex. Socket Screw	M8*1.25*30	4
0260	136067	Wheel Tire	GRI 19"90	2
0270	136023	Lower Wheel	SBW-4800	1
0280	135098	Idle Pulley		1
0290	NH633801	Nut	1"x14UNF	1
0300	WS630000	Spring Washer	1"	1
0310	135032	Upper Wheel Press Spring	Ø7x8-3/4(Ø34)	1
0320	PS031600	Spring Pin	Ø3*16	1
0330	135042	Fixed Block	3*20	1
0340	994301	Thrust Bearing	51201	1
0350	135002	5.5 " Hand wheels	V1.1 Ø6.5"	1
0360	136007	Adjust Bolt	V1.4 135016-3'	1
0370	SF050200	Pan Head Screw	M5*0.8*10	12
0380	135067	Bushing		1
0390	135016	Upper Wheel Slide Bracket		1
0400	SR061000	Hex. Socket Screw	M6*1*50	1
0410	BR000041	Rivet	3.2x6/6.4	8
0420	SR060200	Hex. Socket Screw	M6*1*10	2
0430	135004	Transparent Sheet	3000	2
0440	SF040700	Pan Head Screw	M4x0.4x35	2
0450	136457	Door Safety Switch	AZD-S11	1
0460	WS050000	Spring Washer	M5	2
0470	WF051210	Flat Washer	M5* 12	4
0480	136166	Upper Outer Guard	4800 CE	1
0490	SH060500	Hex. Head Screw	M6*1*25	2
0500	135051	Brush		2
0510	SR060500	Hex. Socket Screw	M6*1*25	1
0520	135041	Knob		2
0530	NL061000	Nylon Nut	M6	6
0540	709409A	Strain Relief	PG-9	2
0550	135011	Height Pointer		1

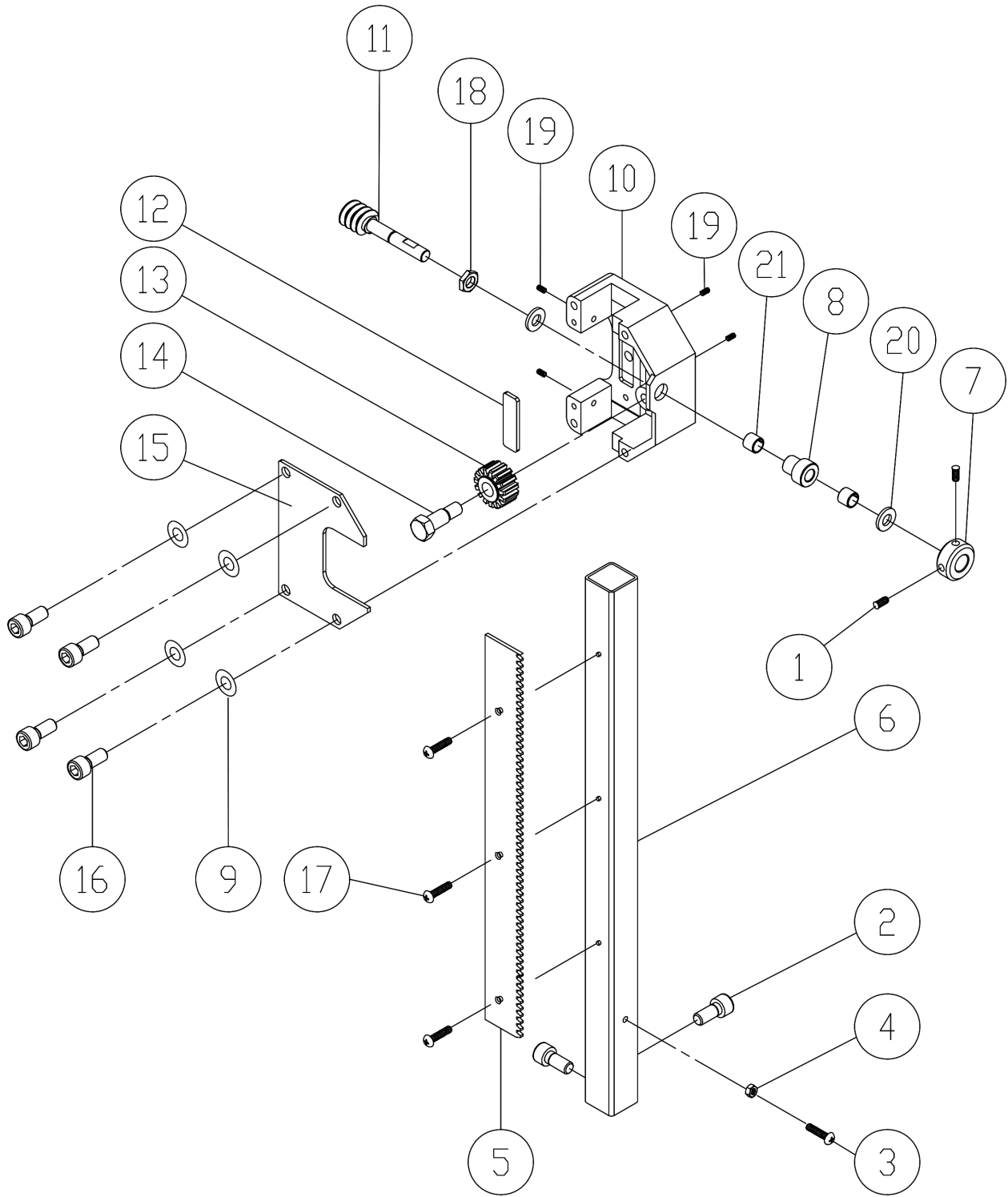
NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

PARTS LIST - CONT.

No.	PART No.	DESCRIPTION	SPECIFICATION	QTY
0560	NH081300	Nut	M8*13	5
0570	SH081800	Hex. Head Screw	M8*1.25*90	1
0580	135022	Knob Screw	M10*25	1
0590	135020	Knob Screw	M10*53	1
0600	135028	Fixed Handle		1
0610	135030	Cam		1
0620	135038	Shaft Fixed Block	C	1
0630	620021	Horn Handle		1
0640	620020	Adjustment Rod		1
0650	NH121900	Nut	M12*1.75*10t	1
0660	135036	Rotate Shaft	C	1
0670	SJ080400	Pan Head Socket Screw	M8*1.25*20	12
0680	135013	Round Cover		1
0690	SS080400	Set Screw	M8*1.25*20	4
0700	135005	Lower Wheel Shaft	C	1
0710	M13544151FGZ11	Motor	1.5KW* 10A 1PH 50HZ 240V	1
0720	SR100500	Hex. Socket Screw	M10*1.5*25	2
0730	WS100000	Spring Washer	M10	4
0740	135064	Motor Fixed Plate		1
0750	135081	Strain Relief Fixed Plate	M20-14AWG	1
0760	135065	Fixed Block		1
0770	KS050535	Parallel Key	5*5*35	1
0780	SH080402	Hex. Head Screw	M8*1.25*20(L/H)	1
0790	135008	Motor Pulley	C)	1
0800	LA420000	V-belt (A)	A42	1
0810	136167	Lower Wheel Guard	4800 CE	1
0820	SJ059400	Pan Head Socket Screw	M5*0.8*16	2
0830	SR100700	Hex. Socket Screw	M10*1.5*35	2
0840	NH101700	Nut	M10x1.5	1
0850	AB135250	Trunnion Support Bracket Assembly.)	1
0860	WF102325	Flat Washer	M10x Ø23	2
0870	WF081820	Flat Washer	M8*Ø18	8
0880	SH089400	Hex. Head Screw	M8*16	4
0890	AB198022	19" Rip Fence	LM001035) SBW-4800	1
0900	136027	Table	19"x26-7/8"	1
0910	135010	TABLE INSERT	SBW-4300	1
0920	130045	Table Fixed Pin		1
0930	AB135095A	Lower Guide Bracket Seat (Bearing)	AB135021-CD,AB135250	1
0940	SR050200	Hex. Socket Screw	M5*0.8*10	2
0950	135034	Protect Cover Assembly		1
0960	WF081818	Flat Washer	M8* Ø18*t1.8	4
0970	135054	Plastic Washer	Ø6xØ13 t=1.5	1
0980	135037	Moving Plate		1
0990	AB135092	Upper Guide Bracket Seat (Bearing)	SBW-4300AB	1
1000	SR060400	Hex. Socket Screw	M6*1*20	3
1010	135006	5.5 " Hand wheels	V1.1	1
1020	AB135050	Guide Post Fixed Seat Assembly.	V1.3 SBW-4300,4800,5300	1
1030	AB198101	Miter Gauge (Assembly.)	(100)	1
1040	SS060400	Set Screw	M6*1*20	1
1050	612112	Casing		1
1060	136019	Cord Connector	224-201	5
1070	ST039304	Tapping Screw	M3.5*12(AB)	2
1080	136017D	Transparent Cover	12A	1
1090	135099	Switch Plate		1
1100	709431	Strain Relief	PG13.5	1

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

PART NO. AB135050 - GUIDE POST FIXED SEAT ASM

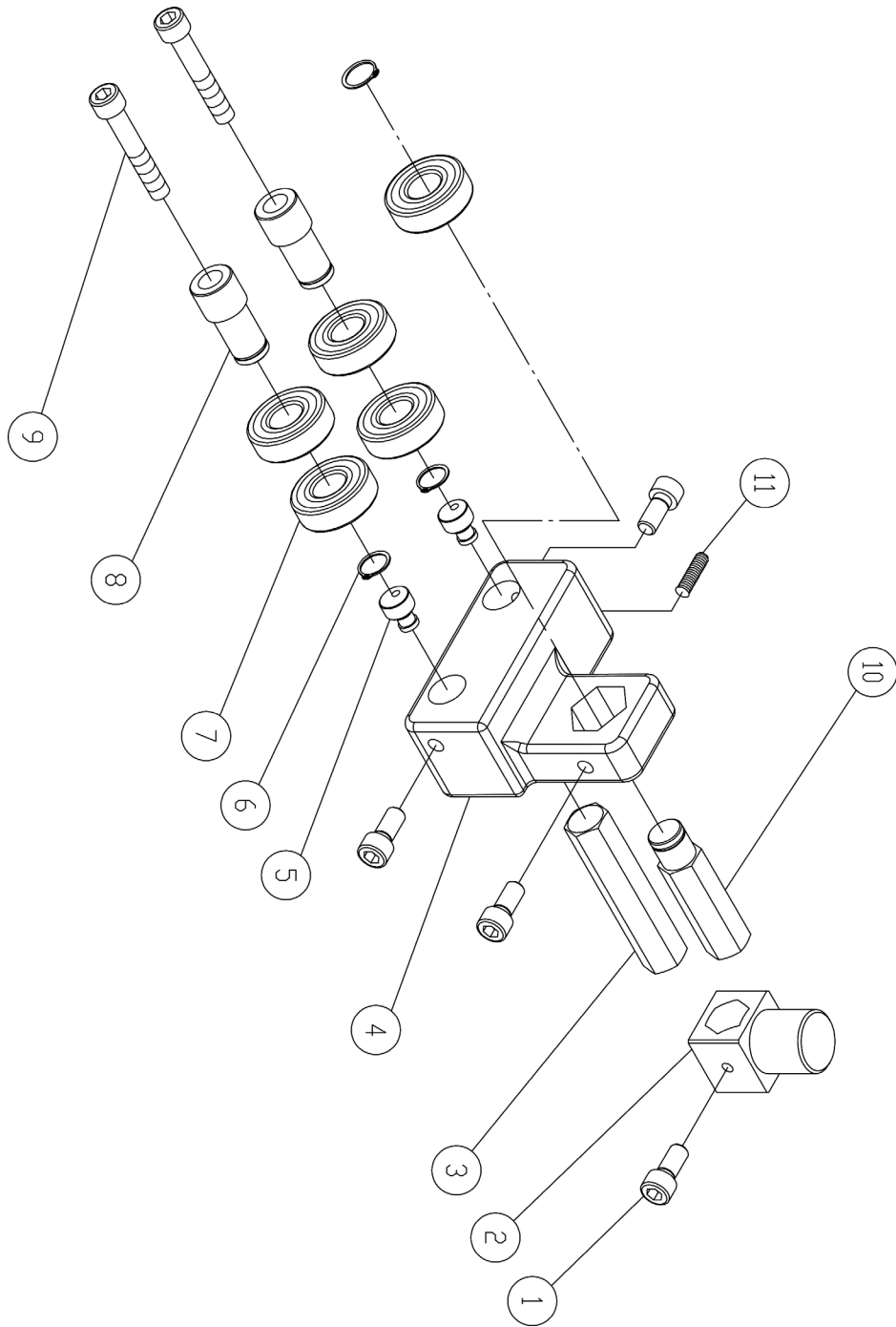


GUIDE POST - PARTS LIST

No.	PART No.	DESCRIPTION	SPECIFICATION	QTY
1	SS050100	Set Bolt	M5 x 5	2
2	SR069400	Hex Head Socket Screw	M6 x 16	2
3	SP040200	Pan Head Bolt	M4 x 10	1
4	NH040700	Nut	M4	1
5	135029	Rack		1
6	13504 7	Upper Guide Hose		1
7	135015	Locate Bushing		1
8	136453	Bushing		1
9	WS0B0000	Spring Washer	M8	4
10	135050	Guide Bracket		1
11	135033	Worm Cylinder		1
12	135062	Fixed Plate		1
13	135049	Gear		1
14	016320	Fixed Bolt		1
15	135046	Cover		1
16	SR089400	Hex Head Socket Bolt	M8 x 16	4
17	SN049200	Counter Sunk Bolt	M4 x 8	3
18	1364 73	Nut	M16 x P1.5	1
19	990306	Set Bolt	M7 x 10	4
20	200069	Fibre Washer		2
21	BD101201	Bushing Bearing	DU 10 x 12	2

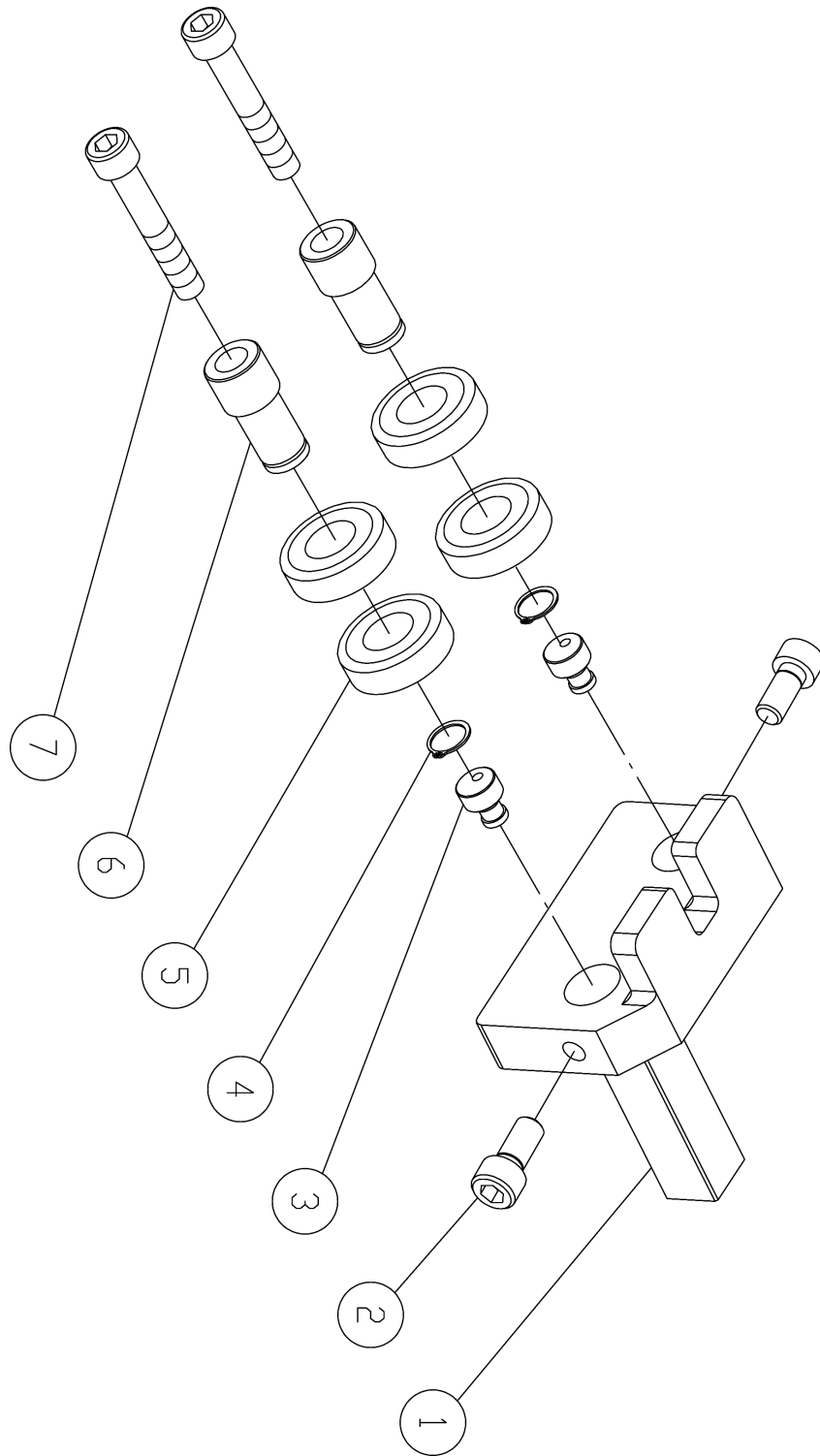
NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

PART NO. AB135092 - UPPER GUIDE BRACKET SEAT BEARING



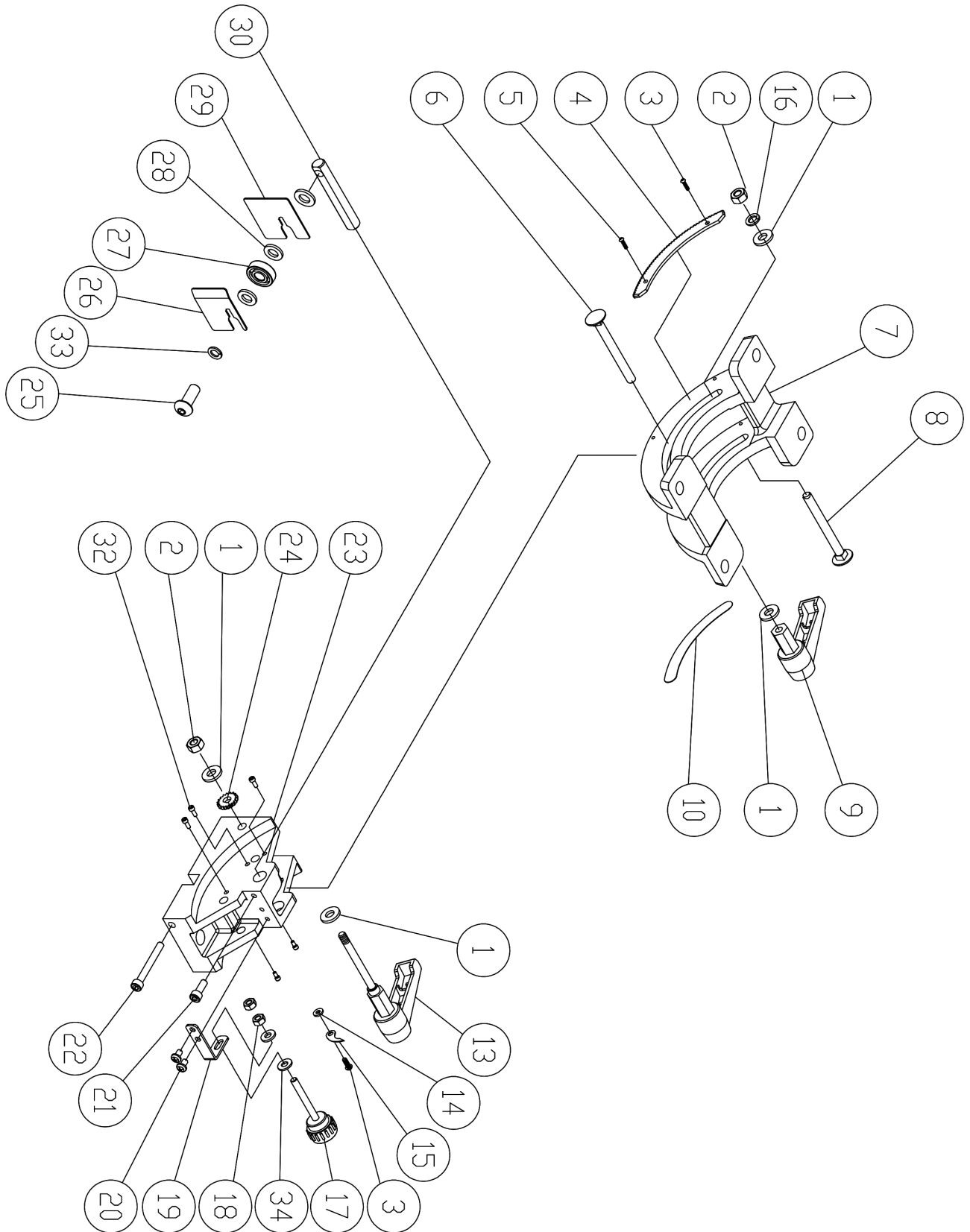
No.	PART No.	DESCRIPTION	SPECIFICATION	QTY
1	SR069400	Hex Socket Bolt	M6x16	4
2	135057	Upper Guide Support Block		1
3	135053	Adjust Bar		1
4	135091	Upper Blade Guide Support		1
5	135090	Bias Shaft		2
6	RS150000	Ring	S15	3
7	BB620202A	Ball Bearing	6202ZZ	5
8	136445	Handle Bushing		2
9	SR060703	Hex Socket Bolt	M6x35	2
10	135060	Upper Spacing Sleeve		1
11	SS060200	Set Bolt	M6x10	1

PART NO. AB135095A - LOWER GUIDE BRACKET SEAT BEARING



No.	PART No.	DESCRIPTION	SPECIFICATION	QTY
1	135125	Lower Blade Guide Support		1
2	SR069400	Hex Socket Bolt	M6x16	2
3	135124	Bias Shaft		2
4	RS150000	Retaining Ring	S15	2
5	BB620202A	Ball Bearing	6202ZZ	4
6	136445	Handle Bushing		2
7	SR060700	Hex Socket Bolt	M6x35	2

PART NO. AB135250 - TRUNNION SUPPORT BRACKET ASM

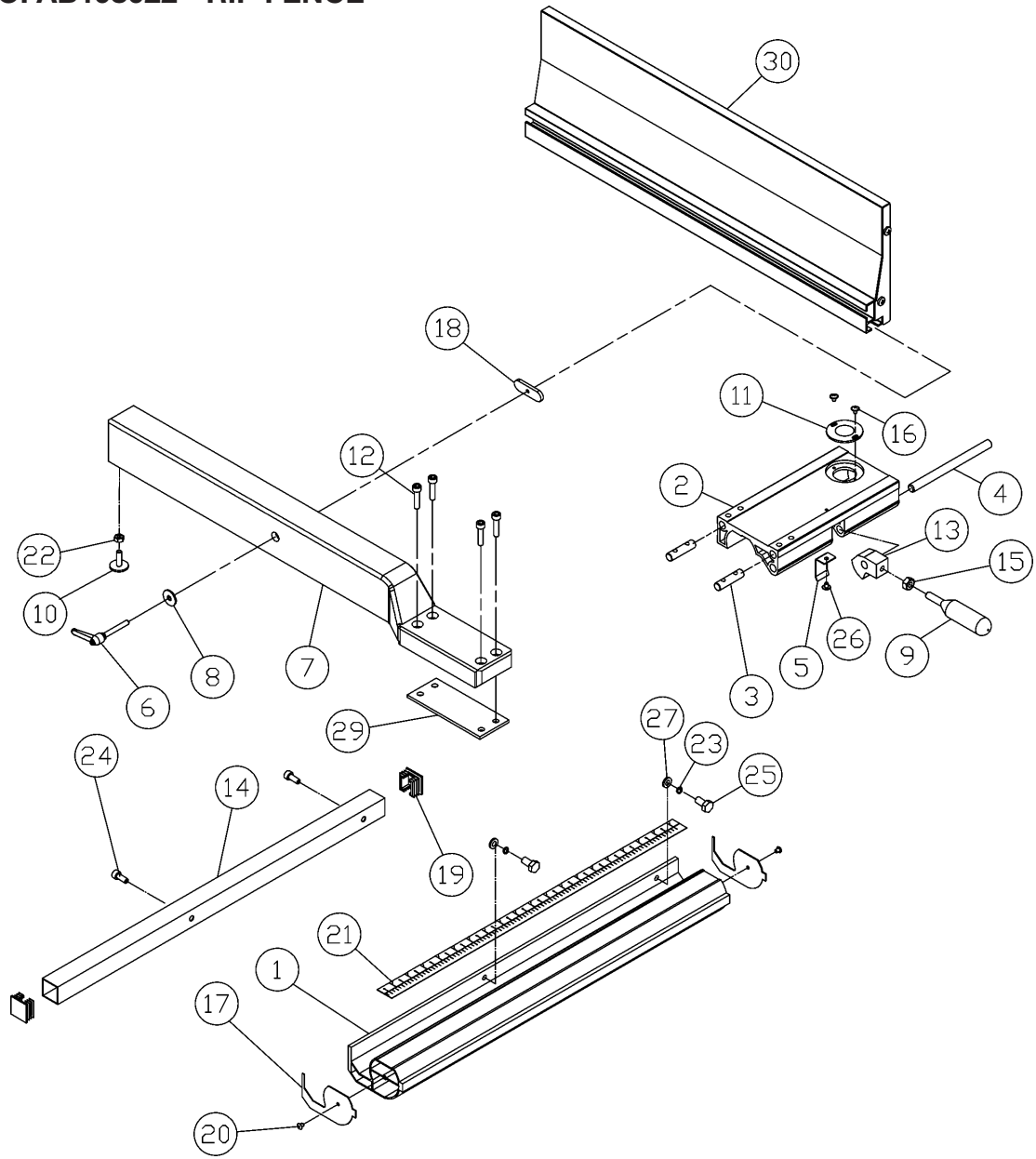


TRUNNION SPARE PARTS LIST

No.	PART No.	DESCRIPTION	SPECIFICATION	QTY
1	WF081820	FLAT WASHER	M8xØ18	4
2	NL081300	NYLON NUT	M8	2
3	SP049100	PAN HEAD BOLT	M4x6	2
4	135052	GEAR PLATE		1
5	SN049100	COUNTER SUNK BOLT	M4x6	1
6	SC081700	CARRIAGE BOLT	M8x85	1
7	135251	TRUNNION BLOCK		1
8	SC081600	CARRIAGE BOLT	M8x80	1
9	135044	HANDLE		1
10	LM001182	ANGLE LABEL		1
11				
12				
13	135069	DISAFFILIATE RAPIDLY		1
14	WF040808	FLAT WASHER	M4xØ8	1
15	135078	POINTER		1
16	WS080000	SPRING WASHER	M8	1
17	135254	ADJUST BOLT	M6	1
18	NH061000	NUT	M6	2
19	135253	ADJUST PLATE		1
20	SP059200	PAN HEAD BOLT W/FLANGE	M5x8	2
21	SR069400	HEX SOCKET BOLT	M6x16	1
22	SR061000	HEX SOCKET BOLT	M6x50	1
23	135250	TRUNNION SUPPORT BRACKET		1
24	135061	SMALL GEAR		1
25	SJ100600	HEX SOCKET BUTTON HEAD SCREW	M10x30	1
26	135123	RIGHT COVER		1
27	BB600002	BALL BEARING	6000ZZ	1
28	WF102020	FLAT WASHER	M10xØ20	3
29	135122	LEFT COVER		1
30	135252	ADJUST BLOCK		1
31				
32	SR059130	HEX SOCKET BOLT	M5x6	6
33	WS100000	SPRING WASHER	M10	1
34	WF061310	FLAT WASHER	M6xØ13	2

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

PART NO. AB198022 - RIP FENCE

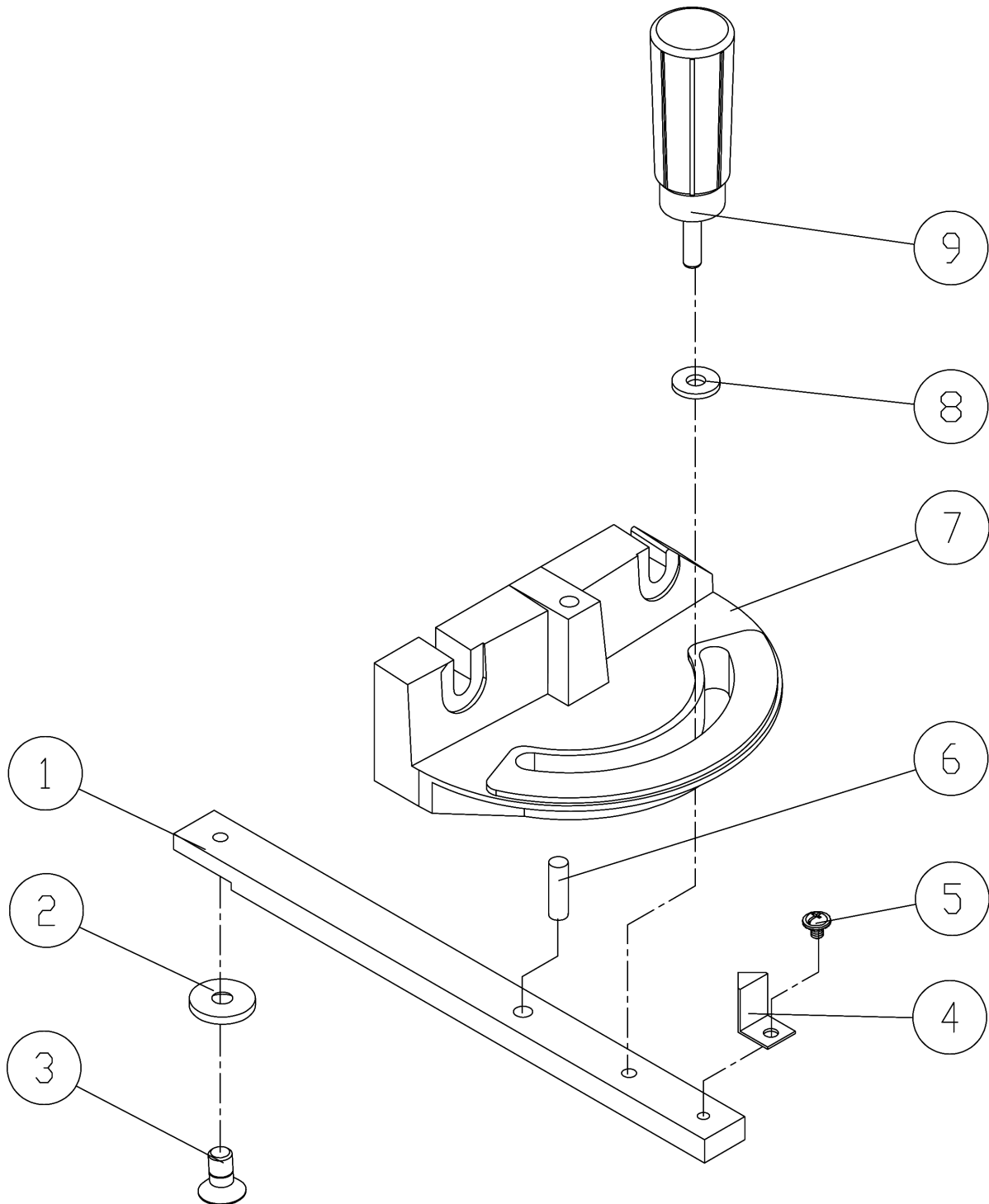


RIP FENCE - PARTS LIST

No.	PART No.	DESCRIPTION	SPECIFICATION	QTY
1	198022	Fixed Base	710	1
2	198002	Adjust Base		1
3	198003	Fixed Shaft		2
4	198005	Shaft		1
5	198006	Spring Washer		1
6	198074	Lock Knob	M8 x 44	1
7	198078	Support Tube	640	1
8	WF082320	Flat Washer	M8 x Ø23	1
9	198013	Handle		1
10	198012	Adjust Screw		1
11	198007	Convex		1
12	SR060500	Hex Socket Bolt	M6 x 25	4
13	198004	Fixed Lump		1
14	198023	Square Tube	710	2
15	NH081300	Nut	M8	2
16	SF049100	Pan Head Bolt W/ Flange	M4 x 6	1
17	198014	Guard Piece		1
18	200527	Moving Plate		1
19	198016	Plugged		2
20	ST039300	Tapping Screw	M3.5 x 12	2
21	LM001035	Scale		1
22	NH061000	Nut	M6	1
23	WS060000	Spring Washer	M6	2
24	SR069400	Hex Socket Bolt	M6 x 16	2
25	SH060400	Hex Head Bolt	M6 x 20	2
26	SF049200	Pan Head Bolt W/Flange	M4 x 8	2
27	WF061310	Flat Washer	M6 x 13	2
29	198008	Bracket	T=3	1
30	AC198083	Fence Assembly	640	1

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

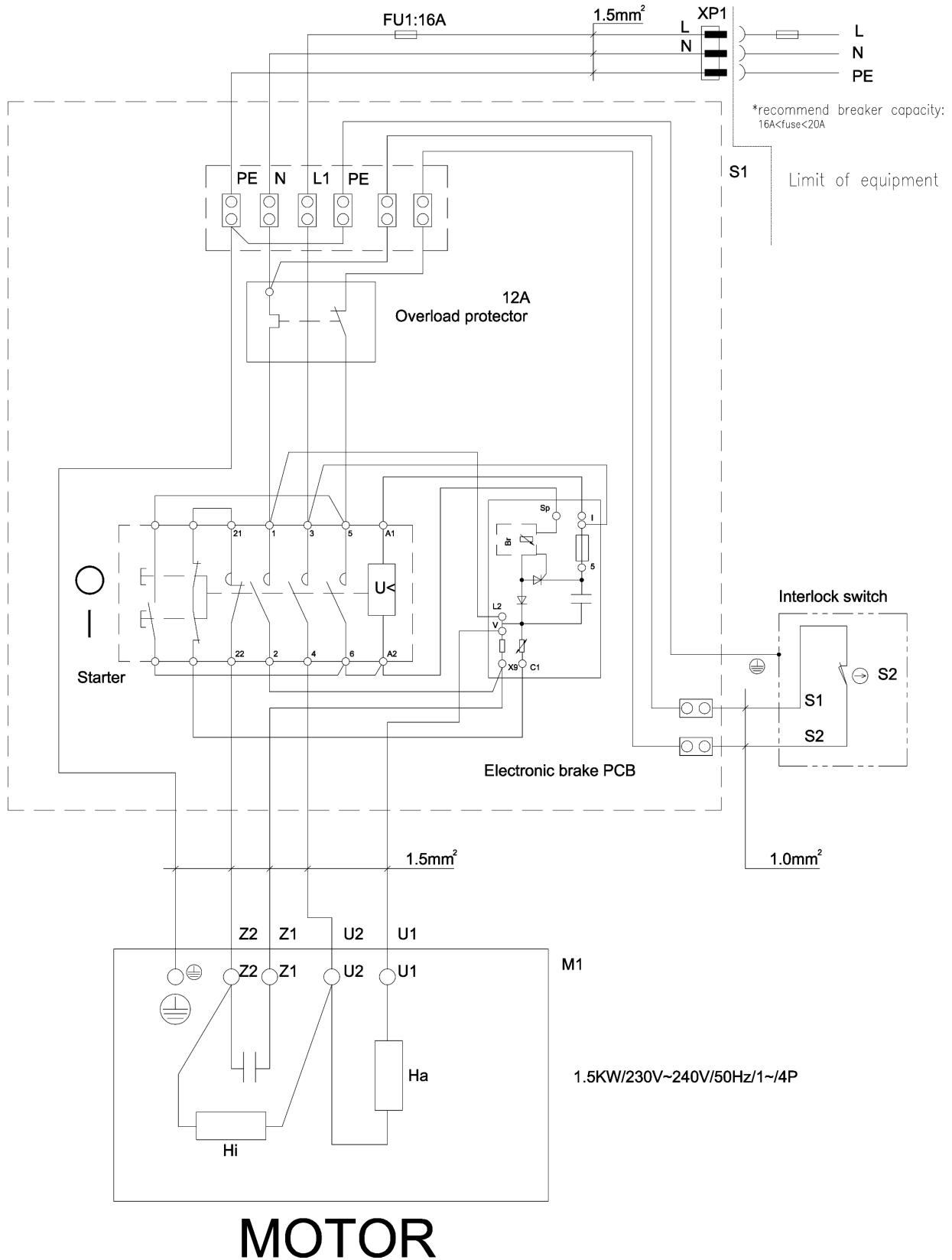
PART NO. AB198101 - MITRE GAUGE ASM



No.	PART No.	DESCRIPTION	SPECIFICATION	QTY
1	198101	Guide Bar		1
2	198102	Guide Piece		1
3	sn069200	Countersunk Bolt		1
4	198103	Pointer	M6 x 6	1
5	sf059200	Pan Head Bolt W/Flange		1
6	198107	Steel Pin	Ø.5 x 10	1
7	198106	Mitre Gauge Body		1
8	198104	Nylon Washer		1
9	198105	Handle		1

ELECTRICAL DRAWING

*electrical power supply:
1~ 230V~240V 50Hz





ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

IMPORTED BY

HARE & FORBES
MACHINERYHOUSE

Australian Distributor

Hare & Forbes
Machineryhouse
Sydney - Melbourne
Adelaide - Brisbane - Perth

Ph: 1300 202 200
www.machineryhouse.com.au

MACHINERYHOUSE

New Zealand Distributor

Machineryhouse
Auckland
Christchurch

Ph: 0800 142 326
www.machineryhouse.co.nz