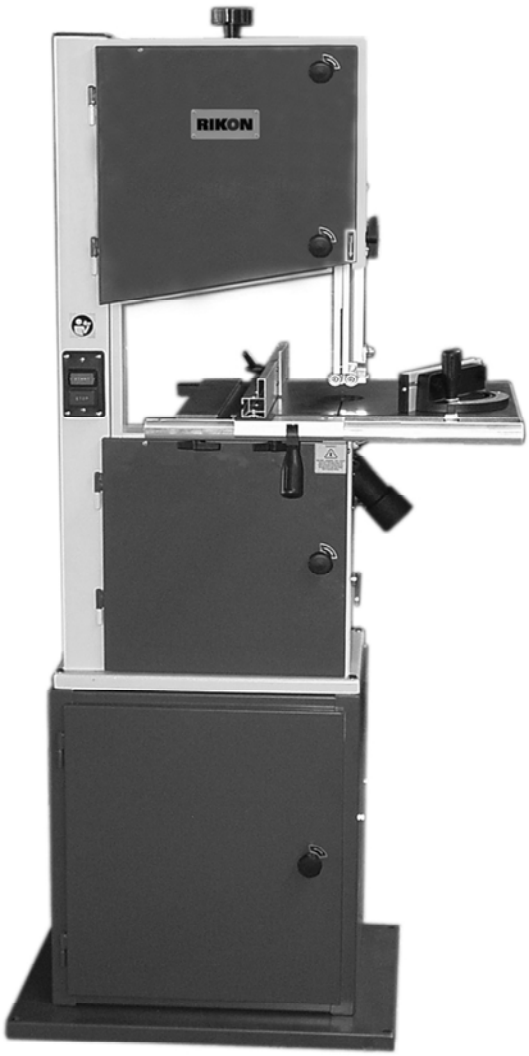
14” Woodworking Bandsaw
Model: 10-320

RIKON POWER TOOLS



Shown with Optional Miter Gauge and Fence

Owner’s Manual

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

Serial number: _____

Date of purchase: _____

For more information:
www.rikontools.com or info@rikontools.com
For Parts or Questions:
techsupport@rikontools.com or 877-884-5167

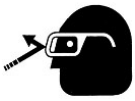
Part # 10-320M2

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. **The following instructions must be followed at all times.**

There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us and we have advised you.

General Safety Warnings

KNOW YOUR POWER TOOL. Read the owner's manual carefully. Learn the tool's applications, work capabilities, and its specific potential hazards.

⚠ DANGER 	**ALWAYS GROUND ALL TOOLS.** If your tool is equipped with a three-pronged plug, you must plug it into a three-hole electric receptacle. If you use an adapter to accommodate a two-pronged receptacle, you must attach the adapter plug to a known ground. Never remove the third prong of the plug. **ALWAYS AVOID DANGEROUS ENVIRONMENTS.** Never use power tools in damp or wet locations. Keep your work area well lighted and clear of clutter.
⚠ DANGER 	**ALWAYS REMOVE THE ADJUSTING KEYS AND WRENCHES FROM TOOLS AFTER USE.** Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on. **ALWAYS KEEP YOUR WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
⚠ DANGER 	**ALWAYS KEEP VISITORS AWAY FROM RUNNING MACHINES.** All visitors should be kept a safe distance from the work area. **ALWAYS MAKE THE WORKSHOP CHILDPROOF.** **Childproof** with padlocks, master switches, or by removing starter keys.
⚠ DANGER 	**NEVER OPERATE A TOOL WHILE UNDER THE INFLUENCE OF DRUGS, MEDICATION, OR ALCOHOL**.
⚠ DANGER 	**ALWAYS WEAR PROPER APPAREL.** Never wear loose clothing or jewelry that might get caught in moving parts. Rubber-soled footwear is recommended for the best footing.
⚠ DANGER 	**ALWAYS USE SAFETY GLASSES AND WEAR HEARING PROTECTION.** Also use a face or dust mask if the cutting operation is dusty.
⚠ DANGER 	**NEVER OVERREACH.** Keep your proper footing and balance at all times.
⚠ DANGER 	**NEVER STAND ON TOOLS.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

⚠ DANGER **ALWAYS DISCONNECT TOOLS**.
Disconnect tools before servicing and when changing accessories such as blades, bits, and cutters.

ALWAYS AVOID ACCIDENTAL STARTING.
Make sure switch is in “OFF” position before plugging in cord.

NEVER LEAVE TOOLS RUNNING UNATTENDED.

⚠ DANGER **ALWAYS CHECK FOR DAMAGED PARTS.**

Before initial or continual use of the tool, a guard or other part that is damaged should be checked to assure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other damaged parts should immediately be properly repaired or replaced.

Special Safety Rules For Bandsaws

1. Always stop the Bandsaw before removing scrap pieces from table.
2. Always keep hands and fingers away from the blade.
3. Never attempt to saw stock that does not have a flat surface, unless a suitable support is used.
4. Always hold material firmly and feed it into the blade at a moderate speed.
5. Always turn off the machine if the material is to be backed out of an uncompleted cut.
6. Adjust the upper guide about 1/8” above the material being cut.
7. Check for proper blade size and type for thickness and type of material being cut.
8. Make sure that the blade tension and blade tracking are properly adjusted.
9. Make “relief” cuts before cutting long curves.
10. Release blade tension when the saw will not be used for a long period of time.

SAVE THESE INSTRUCTIONS.
Refer to them often.

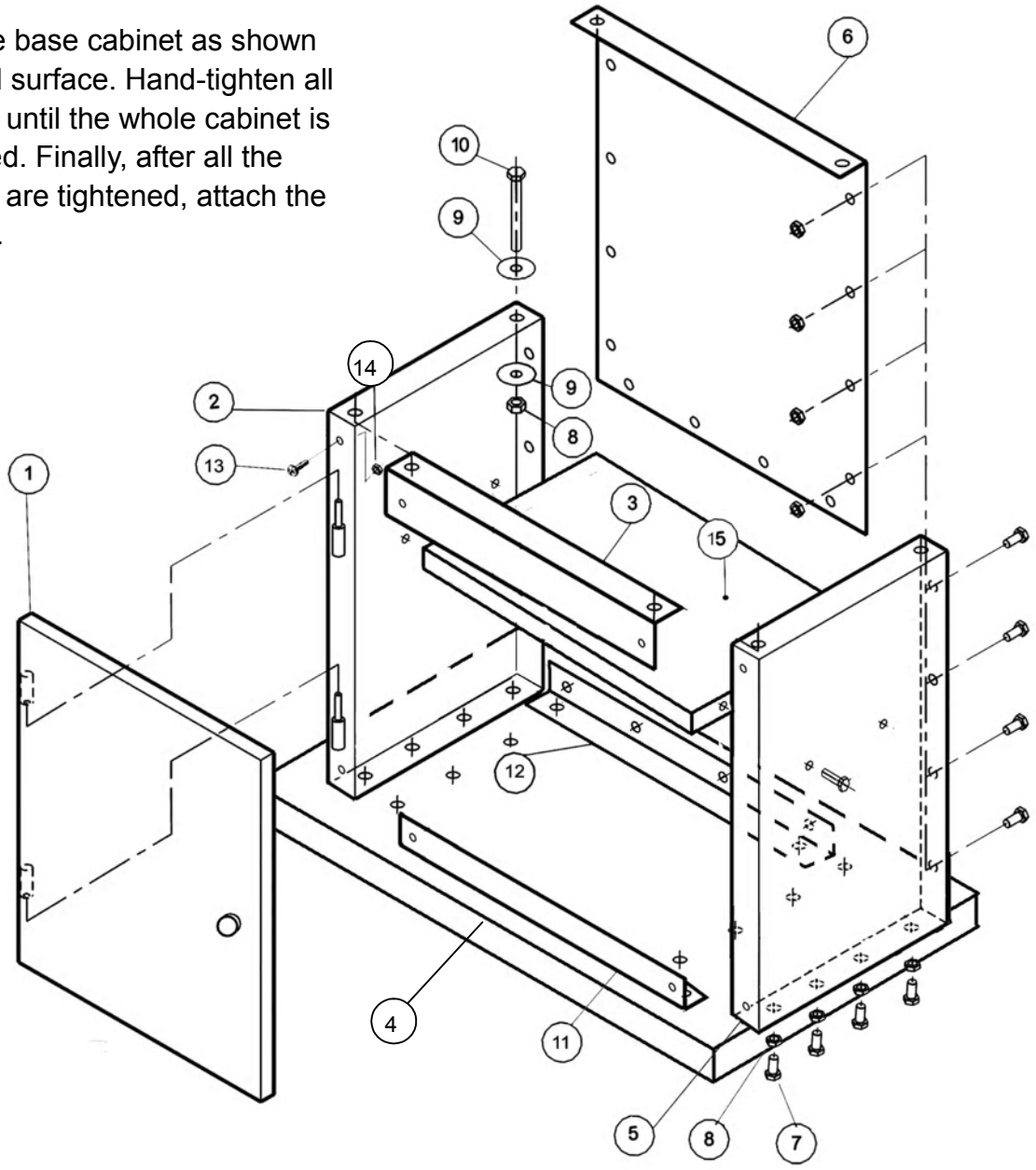
Table of Contents

Specifications

Throat width	13-5/8"
Max. cutting depth	6"
Blade length	93-1/2"
Blade width	1/8" – 3/4"
Table size	16" x 20-1/2"
Table tilt	Left-1° Right-45°
Blade speeds	1445 ft/min & 2950 ft/min
Motor	1 HP
Amps	9A
Volts	120V
Net weight	199 lbs

Base Cabinet Assembly

Assemble base cabinet as shown on a level surface. Hand-tighten all fasteners until the whole cabinet is assembled. Finally, after all the fasteners are tightened, attach the door (#1).



Item #	DESCRIPTION	Qty	Item #	DESCRIPTION	Qty
1S	DOOR	1	9S	WASHER – 1/4”-3/4” O/D	4
2S	LEFT END PANEL	1	10S	HEX. SET SCREW	4
3S	FRONT BRACING MEMBER	1	11S	FRONT ANGLE BAR	1
4S	BASE PANEL	1	12S	REAR ANGLE BAR	1
5S	RIGHT END PANEL	1	13S	PAN HEAD SCREW	2
6S	BACK PANEL	1	14S	SELF LOCK NUT	2
7S	HEX. SET SCREW (1/4”x20x7/8”)	24	15S	SHELF	1
8S	HEX NUT (1/4”x20)	28			

Assembly

Mounting the Saw to the Base Cabinet
(Some assistance may be needed for this)

The bandsaw has four holes (A) in the base (See Fig.01) to allow it to be bolted to the base cabinet. Lift the saw onto the base cabinet using the frame. Do not lift bandsaw using the table. Install the four bolts, eight washers and four nuts as shown in the Base Cabinet Assembly instructions on page 5.

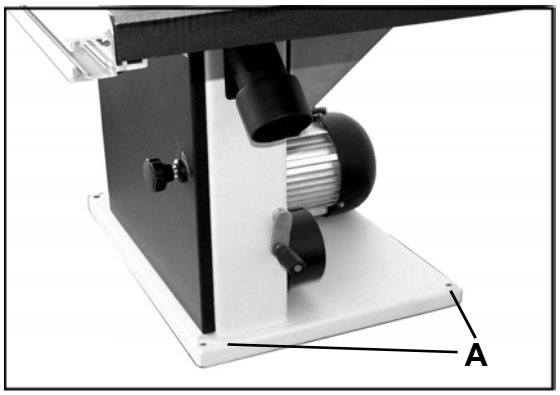


Fig. 01

Installing Upper Trunnion to Table
Tools Required: 13 mm Wrench

Insert the M8 x 50 carriage bolt and square plastic insert (A) through the slot on the upper trunnion casting (B) and, temporarily, screw on the wing nut (C) to prevent it from falling out. (See Fig.02)

Install the upper table trunnion casting (B) to the underside of the bandsaw table (D) using the four M8 x 16 hex head set screws (E) and washers, ensuring that the angle tilt scale is closest to the edge of the table. (See Fig.03)

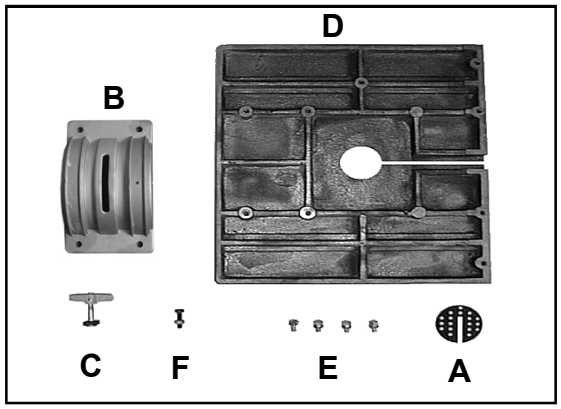


Fig. 02

While the table is in the upside down position, add the table stop screw and nut (F) as shown. This will be adjusted later. (See Figs.02& 03)

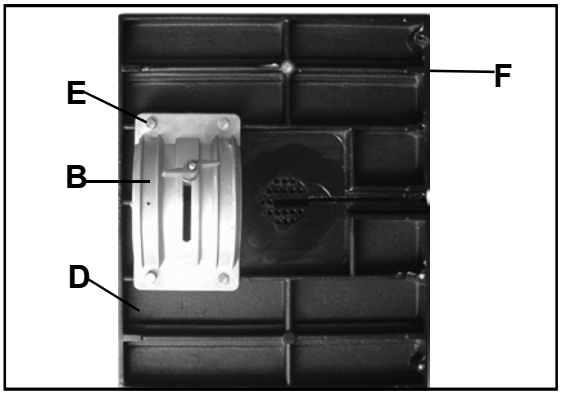


Fig. 03

Installing the Table to the Saw
(Some assistance may be needed for this)

Turn the table over and remove the wing nut (C) from the trunnion carriage bolt (A) making sure the end of the bolt projects down through the casting. (See Fig.04)

Guide the table and upper trunnion on to the bandsaw lower trunnion (G) and ensure the bolt (A) projecting from the upper trunnion is inserted through it's corresponding hole in the lower trunnion. When in position, tighten the wing nut (C). (See Fig.04)

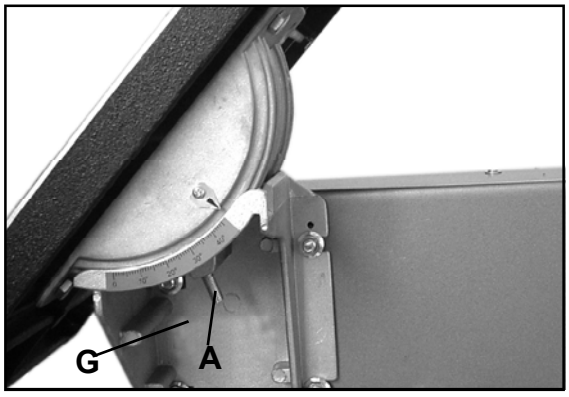


Fig. 04

Install the plastic table insert to the center of the table with the angled bevel facing downwards.

Installing the 2-1/2" Dust Port

Assemble the 2-1/2" dust port to the bandsaw frame with a hex socket head cap screw and washer. Place the 2-1/2" dust port on to the side of the bandsaw frame.

Locate two hex socket head cap screws and two washers from the bag of loose parts. Mount the dust port to the bandsaw frame and install a hex socket head cap screw with washer in each hole, then tighten with the M6 hex "L" wrench.
(See Fig.05)

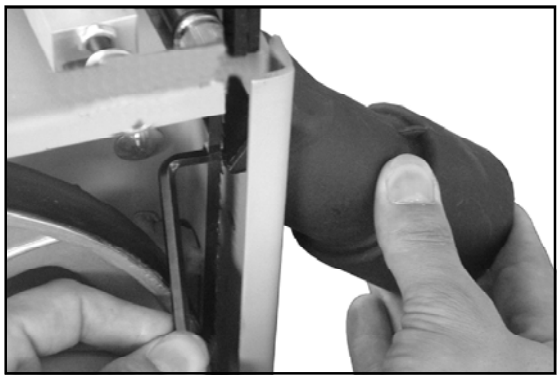


Fig. 05

Installing the Belt Tension Crank Handle

Tools Required: Flat blade screwdriver
10mm wrench

Attach the crank handle (A) to the belt tension crank arm with the M6 x 55 slotted head screw and two M6 nuts. (See Fig.06)

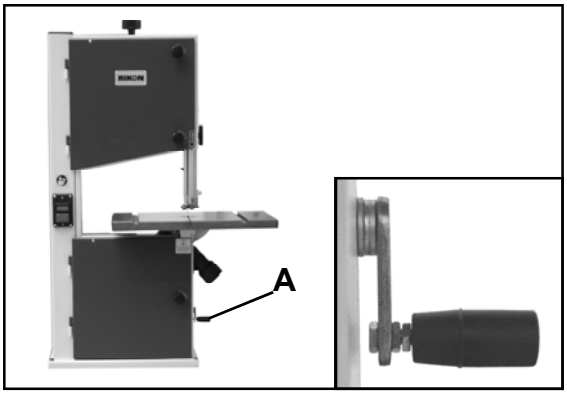


Fig. 06

Assembling the Optional Rip Fence

Install the rear fence rail to the table with two M6-1.0 x 20 hex bolts and two flat M6 washers.
Install the front fence rail to the table with four thumbscrews and four flat M8 washers.
Make sure the end cap is locked into the rear fence rail. Then set the fence on the front rail.
(See Fig.07)

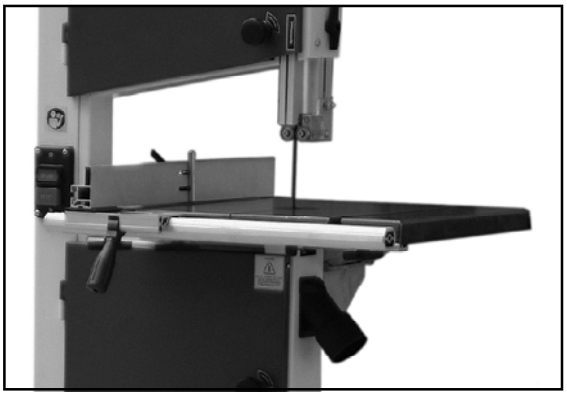


Fig. 07

Rip Fence Adjustment

The optional rip fence has three adjustments to ensure proper performance. (See Fig.08)

Adjusting Fence 90 Degrees to Table: Loosen slightly the two hex head screws which hold the fence rail to the fence body. Raise or lower the four micro-adjusting screws, located on the fence body accordingly.

Correcting for Blade Drift: Loosen the two hex head screws which hold the fence rail to the fence body. Pivot the fence rail toward or away from the blade to compensate for drift.

To Adjust the Rip Fence Guide Scale: Slide the rip fence against the blade along the rail and loosen the indicator screw . Then move the scale sideways and align the zero on the scale with the line on the magnifying window. Retighten the indicator screw when the adjustment is correct.

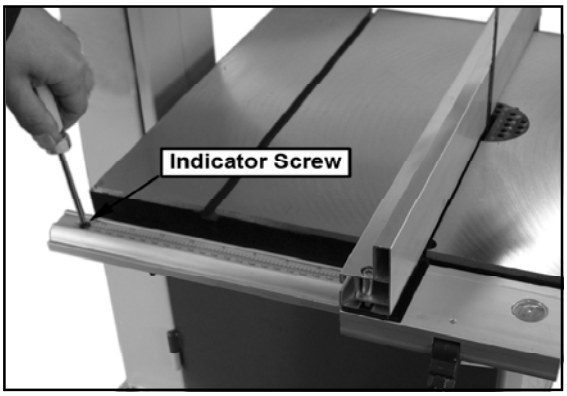


Fig. 08

Adjustments

Centering the Table to the Blade

To center the table to the blade, loosen the four M8 nuts (G), which hold the lower trunnion to the bandsaw frame. (See Fig.09) Slide the table sideways until the blade is at the center of the slot in the table insert.

Tighten the 4 nuts making sure the table is square to blade.

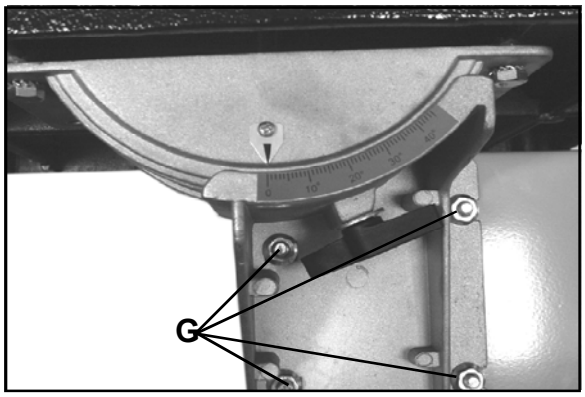


Fig. 09

Setting the Table Square to Saw Blade

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

The table may be set at 90° to the saw blade (See Fig.09) by adjusting the table stop screw (A, B) (See Fig.10) underneath the table.

The table stop screw rests on the top of the quick release adjustment stop. By first loosening the locking nut (A) and then adjusting the screw (B), the table can be set correctly. Re-tighten the locking nut (A) making sure that the setting is maintained. (See Fig.11)

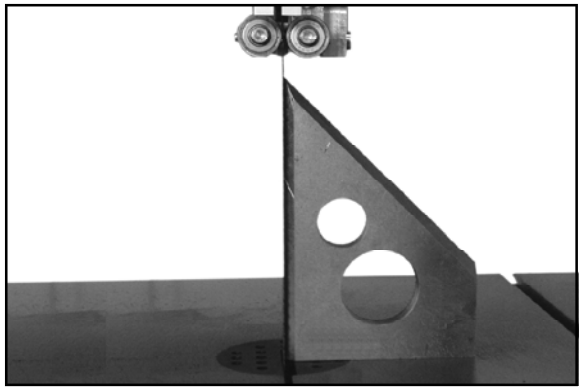


Fig. 10

The table may also be set at 90° to the back of the saw blade by adjusting the trunnion micro adjustment screws. (See below)

Setting Table Square to Front and Rear of Blade

Place a square against the saw blade on the front (against the teeth) and rear positions. If the table requires adjustment, proceed as follows:

a. Using a wrench, release the flange nuts on the lower table trunnion.
b. Place the M5 Hex “L” wrench on the hex. socket micro-adjusting set screws and adjust until the table is square to the saw blade in the front and rear positions.
c. Tighten the flange nuts and recheck the saw blade and the table for square. (See Fig.12)

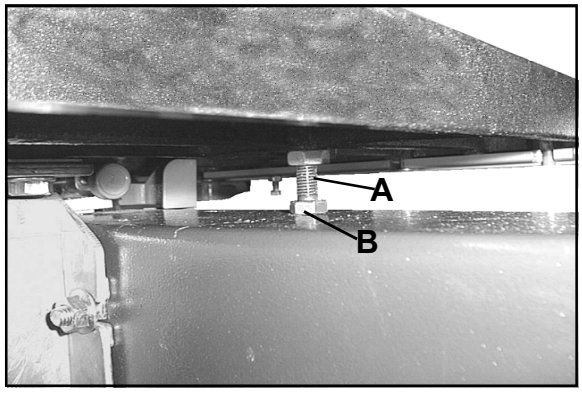


Fig. 11

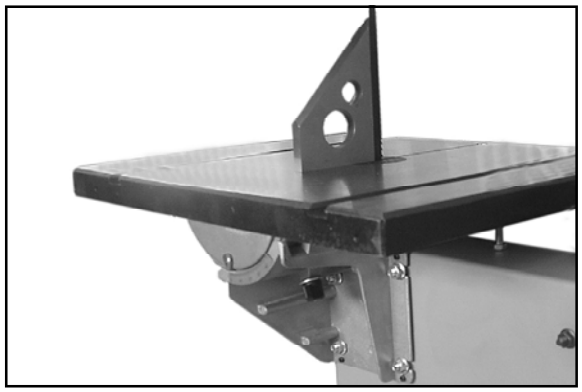


Fig. 12

Checking the Table for Flatness

Once the scale is set to the desired position the table should be checked for flatness. This can be done by using a steel rule as a straight edge.

The steel rule should be held on the table across the table slot close to the front edge of the table. (See Fig.13)

If the straight edge shows there is a step across the table slot, then the table needs to be adjusted using the Hex socket screw (A) and wing nut (B) to level the two sections. (See Fig.13)

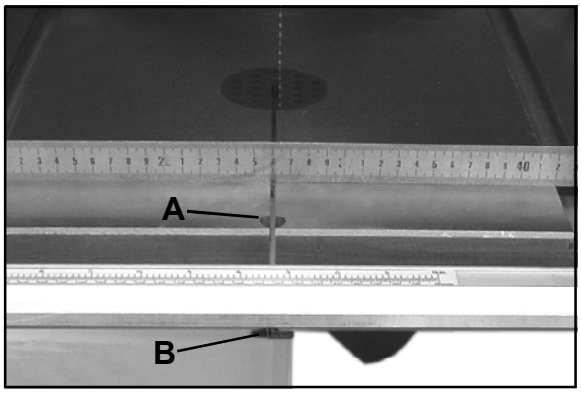


Fig. 13

Dust Extraction

The machine is equipped with two dust extraction ports, 4" and 2.5". (See Fig.14 B)

It is recommended that when in use, the machine is connected to a suitable dust collector which should be able produce an air speed of approximatley 350 CFM through the dust port areas.

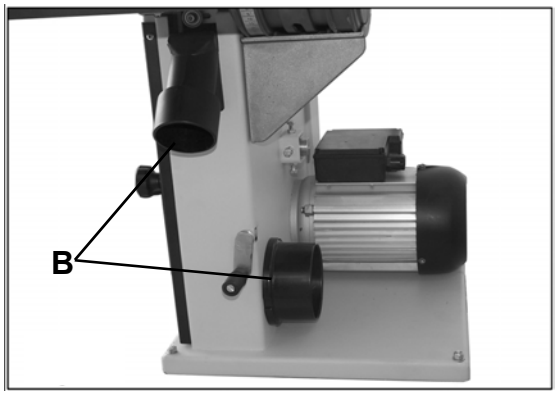


Fig. 14

Lower Blade Guard

When opening the lower band-wheel door on this machine, the lower blade guard (C) swings down. (See Fig.15)

When the lower door is closed, the guard MUST be raised back to its operating position.

The band-wheel doors MUST be closed at all times when the machine is being operated.

Fig. 15

Tilting the Bandsaw Table

Ensure the table is clear of loose objects. Loosen the wing nut (D) on the lower trunnion, then tilt the table to the angle required using the scale (E). (See Fig.16)

When the required setting is reached, re-tighten the wing nut to lock the table into position.

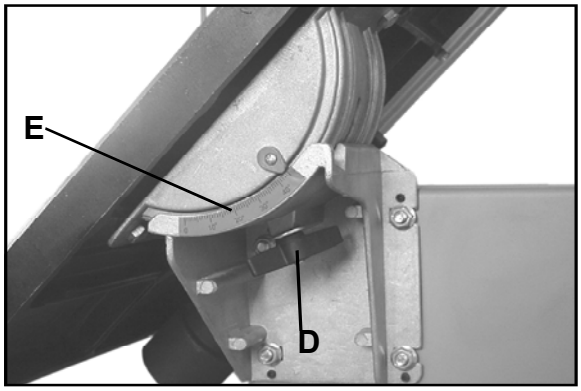


Fig. 16

Replacing the Bandsaw Blade

1. Unplug the machine from the electrical supply. This ensures that the bandsaw will not accidentally turn on if the ON/OFF switch is bumped.

2. Open the top and bottom band-wheel doors by turning the door locking knobs (A).

3. Remove the Optional Rip Fence Guide (B) from the front of the table by releasing the 4 winged thumb screws (C). (See Fig. 17)

4. Release the blade tension by turning the large knob (D) on top of machine. (See Fig. 18)

5. Remove the saw blade (E) by feeding it through the slot in the table, upper and lower blade guides and the slot in the spine of the machine being careful not to cut yourself. Wear gloves if necessary.

6. When installing the new blade, ensure the blade teeth are pointing downwards and towards you at the position where the blade passes through the table.

7. Re-tension the new blade (See Fig. 18) and check the blade tracking by turning the upper wheel in a clockwise direction by hand. The blade should run in the center of the band-wheel. (See Fig. 19)

8. If required, adjust the tracking using tracking knob and lock knob (F) to the rear of the upper band-wheel housing. When the tracking is correct, lock the setting. (See Fig. 18)

9. Re-set the blade guides as described in the section headed “Adjusting the Blade Guides”.

10. Replace the optional rip fence guide, and re-tighten the four winged thumb screws.

11. Close and lock both the band-wheel doors before reconnecting the power supply.

FIG.17

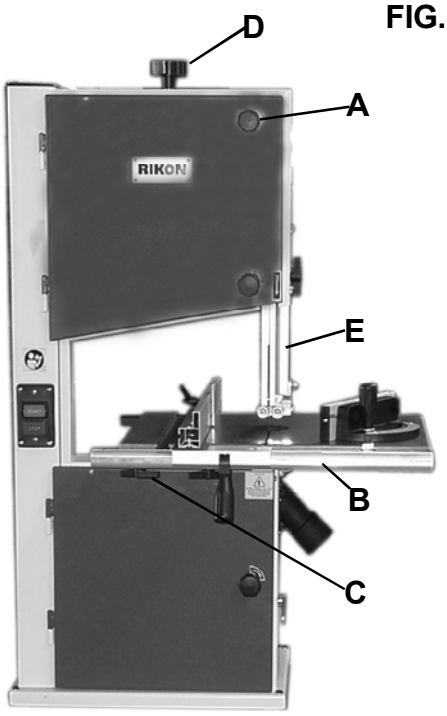
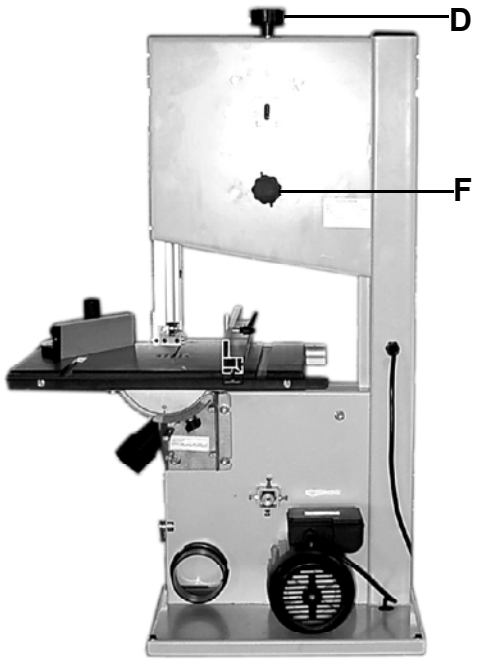


FIG.18



Shown with Optional Miter Gauge and Fence

Tracking the Bandsaw Blade

Unplug the bandsaw from the electrical supply.

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

Once the blade is installed and tensioned, track the blade by turning the upper band-wheel by hand in a clockwise rotation and adjusting the tracking knob simultaneously (F). (See Fig.19)

The blade should run in the center of the band-wheel as shown. (See Fig.19)

When the correct adjustment is achieved, lock the tracking knob in position with the wing nut.

Fig. 19

Adjusting the Blade Guides

Upper Guides

To adjust the upper blade guides, first position the roller guides (A) relative to the blade by loosening the hex nut (B) and moving the guide carrier until the roller guides (A) are approximately 1/16" behind the gullets of the blade. (See Fig.20)

Next set the roller guides (A) to within 1/32" of the blade by releasing the screw (C) on each side of the blade. Do not set the guides too close as this will adversely affect the life of the blade. (See Fig.20)

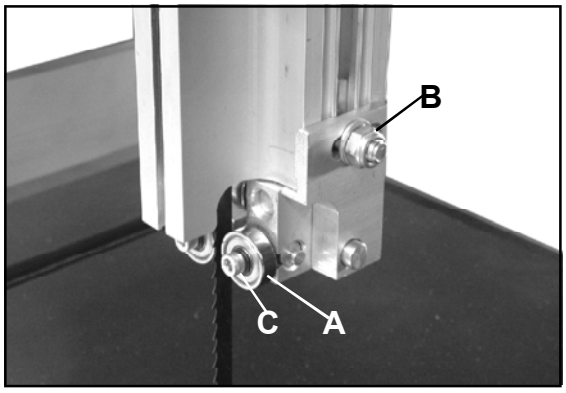


Fig. 20

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

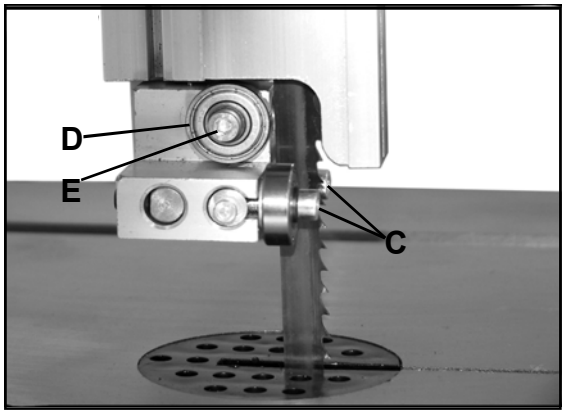


Fig. 21

Lower Guides

To adjust the lower blade guides (F) , first position the guides so that they are approximately 1/16" behind the gullets of the bandsaw blade by loosening the nut (G), then move the guide carrier casting to the desired position. Re-tighten the nut (G) to lock in position. (See Fig.22)

Adjust the guides (F) to within 1/32" of be blade by releasing the socket cap (H).

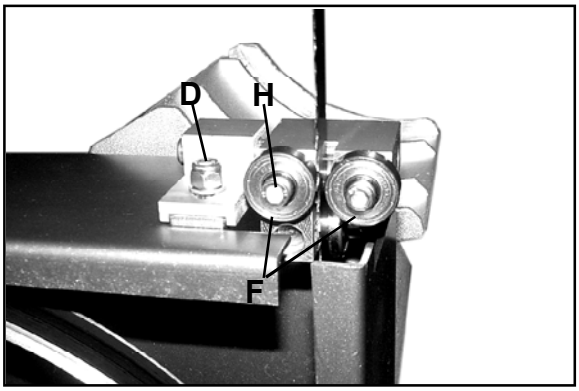


Fig. 22

Adjusting the Cutting Height

To adjust the cutting height, release the wing nut (A) and move the upper blade guide and guard assembly (B) so that it provides approximately 3/16" clearance above the workpiece. (See Fig.23)

When set correctly, re-tighten the wing nut (A).

Note: The maximum cutting height is 6".

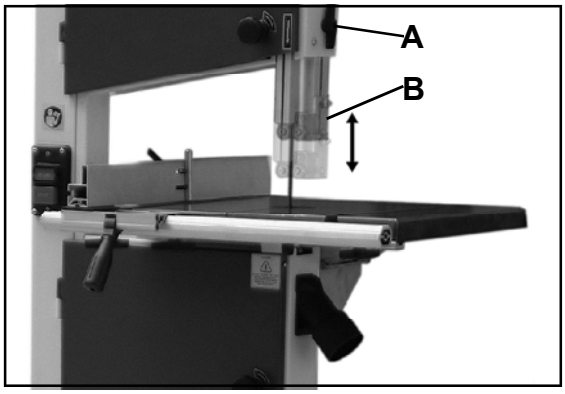


Fig. 23

Changing the Blade Speed

This bandsaw has two blade speeds: 1445 feet/min for hardwoods, some plastics and certain non-ferrous metals, 2950 feet/min for all other timber.

Before changing the speed always make sure the machine has been unplugged from the electrical supply.

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

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

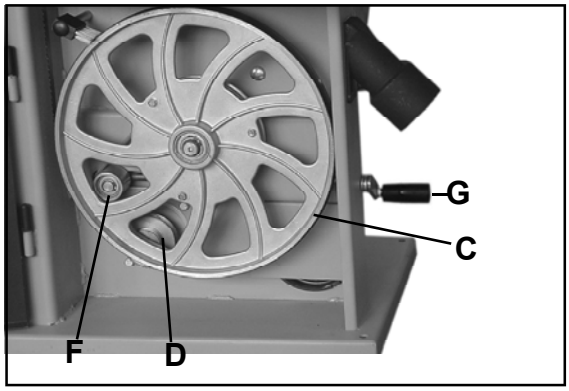


Fig. 24

For the high speed (2950 ft/min), the belt should be installed on the rear pulley of both the motor and bandwheel, as shown. (See Fig.25)

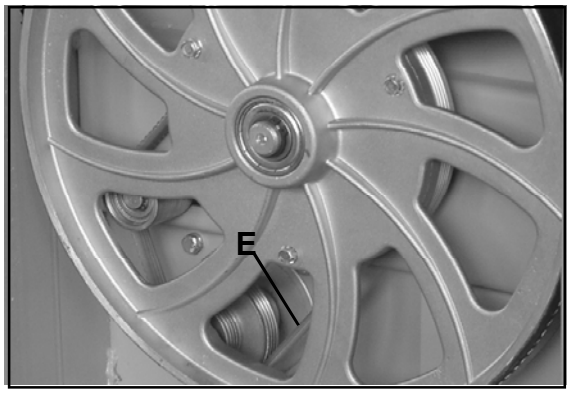


Fig. 25

For the low speed (1445 ft/min), the belt should be installed on the front pulley of both the motor and bandwheel, as shown. (See Fig.26)

Note: To install a new multi-vee belt, the lower bandwheel must be removed. See “Changing the Motor Drive Belt” shown on page 16.

Fig. 26

Adjusting the Blade Tension

To loosen the tension of the blade, turn the top tension knob counter clockwise (A) and the tension indicator (B) will lower. To tighten the tension of the blade, turn the tension knob clockwise, and the tension indicator will rise. (See Fig.27)

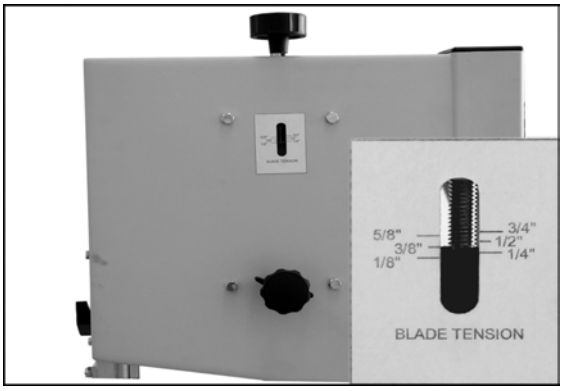


Fig. 27

Operation

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

Maintenance

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

REGULAR MAINTENANCE OF THE MACHINE WILL PREVENT UNNECESSARY PROBLEMS.

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

Troubleshooting

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

TROUBLE	PROBABLE CAUSE	REMEDY
The machine does not work when switched on.	1. No power supply. 2. Defective switch.	Check the cable for breakage. Contact your local dealer for repair.
The blade does not move with the motor running.	1. The quick release lever or blade tension handwheel has not been tightened. 2. The blade has come off one of the wheels. 3. The saw blade has broken. 4. The drive belt has snapped.	Switch off the motor, tighten the quick release lever or blade tension handwheel. Open the hinged door and check. Replace the blade. Replace the belt.
The blade does not cut in a straight line.	1. Fence for cutting not used. 2. Too fast feed rate. 3. The blade teeth are dull or damaged. 4. Blade guides not suitably adjusted.	Use a fence. Put light pressure on the workpiece & make sure the blade does not bend. Use a new blade. Adjust the blade guides.
The blade does not cut, or cuts very slowly.	1. The teeth are dull, caused by cutting hard material or long use. 2. The blade was mounted in the wrong direction.	Replace the blade, use a 6 T.P.I. blade for wood and soft materials. Use a 14 T.P.I. blade for harder materials. A 14 T.P.I. blade always cuts slower due to the finer teeth and the slower cutting performance. Install the blade correctly.
Sawdust builds up inside the machine.	1. This is normal	Clean the machine regularly. Open the hinged door and remove the sawdust with a vacuum cleaner. Attach a dust collection system.
Sawdust inside the motor housing.	1. Excessive dust build-up on the machine exterior components.	Clean the ventilating slots of the motor with a vacuum cleaner. From time to time remove the sawdust to prevent it from being sucked into the housing.
The machine does not cut at 45° or 90° angles.	1. The table is not at right angles to the blade. 2. The blade is dull or too much pressure was put on the workpiece.	Adjust the table. Replace the blade or put less pressure on the workpiece.
The blade cannot be properly positioned on the bandwheels.	1. The wheels are not in alignment. Defective bearing. 2. The blade tracking knob hasn't been properly adjusted.	Contact Technical Support @ 877-884-5167 or techsupport@rikontools.com. Adjust the tracking knob.

Electrical Requirements

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor, with insulation having an outer surface that is green with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only three wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the tool's plug.*

Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet that looks the one illustrated in Figure A below. The tool has a grounding plug that looks like the grounding plug as illustrated in Figure A below. A temporary adapter, which locks like the adapter as illustrated in Figure B below, may be used to connect this plug to a two-pole receptacle, as shown in Figure B if a properly grounded outlet is not available.** The temporary adapter should only be used until a properly grounded outlet can be installed by a qualified electrician. The green colored rigid ear or tab, extending from the adapter, must be connected to a permanent ground such as a properly grounded outlet box.

* Canadian electrical codes require extension cords to be certified SJT type or better.
** Use of an adapter in Canada is not acceptable.

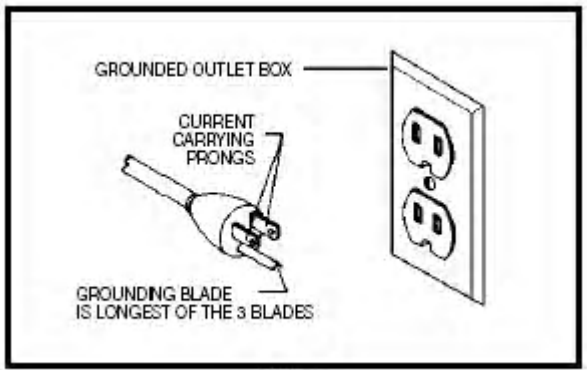


Fig. A

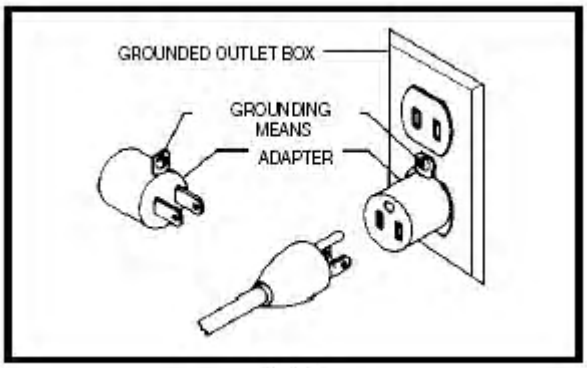


Fig. B

Wiring Diagram

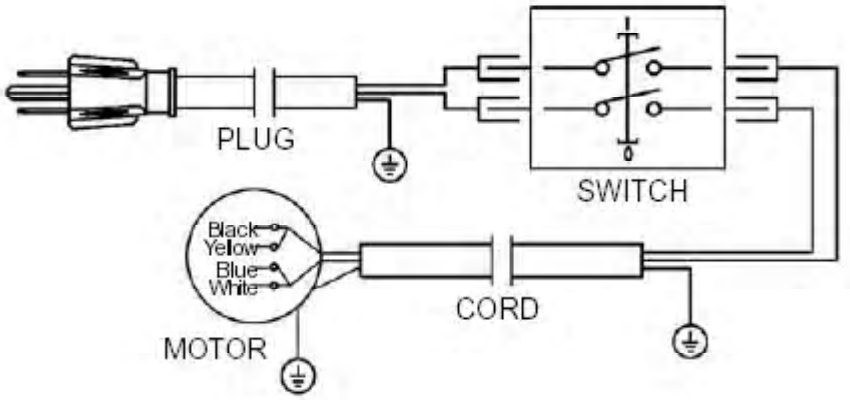
The machine is supplied with a 3-wire, grounded plug. Should this be changed by the customer, the wires in the mains lead are colored in accordance with the following codes:

Green: Ground White: Neutral Black: Live

WARNING! This machine must be grounded.

REPLACING POWER SUPPLY CABLE
Replacement of the power supply cable should only be done by a qualified electrician.

WIRING DIAGRAM



120V Electrical schematic

Changing The Motor Drive Belt

Before changing the drive belt, make sure that the bandsaw is unplugged from the power source.

1. Release the saw blade tension by turning the blade tension knob on the top of bandsaw counterclockwise.

2. Released the belt tension by using the crank handle.

3. Using C-clip pliers (not provided) remove the retaining ring from the center of the lower wheel.

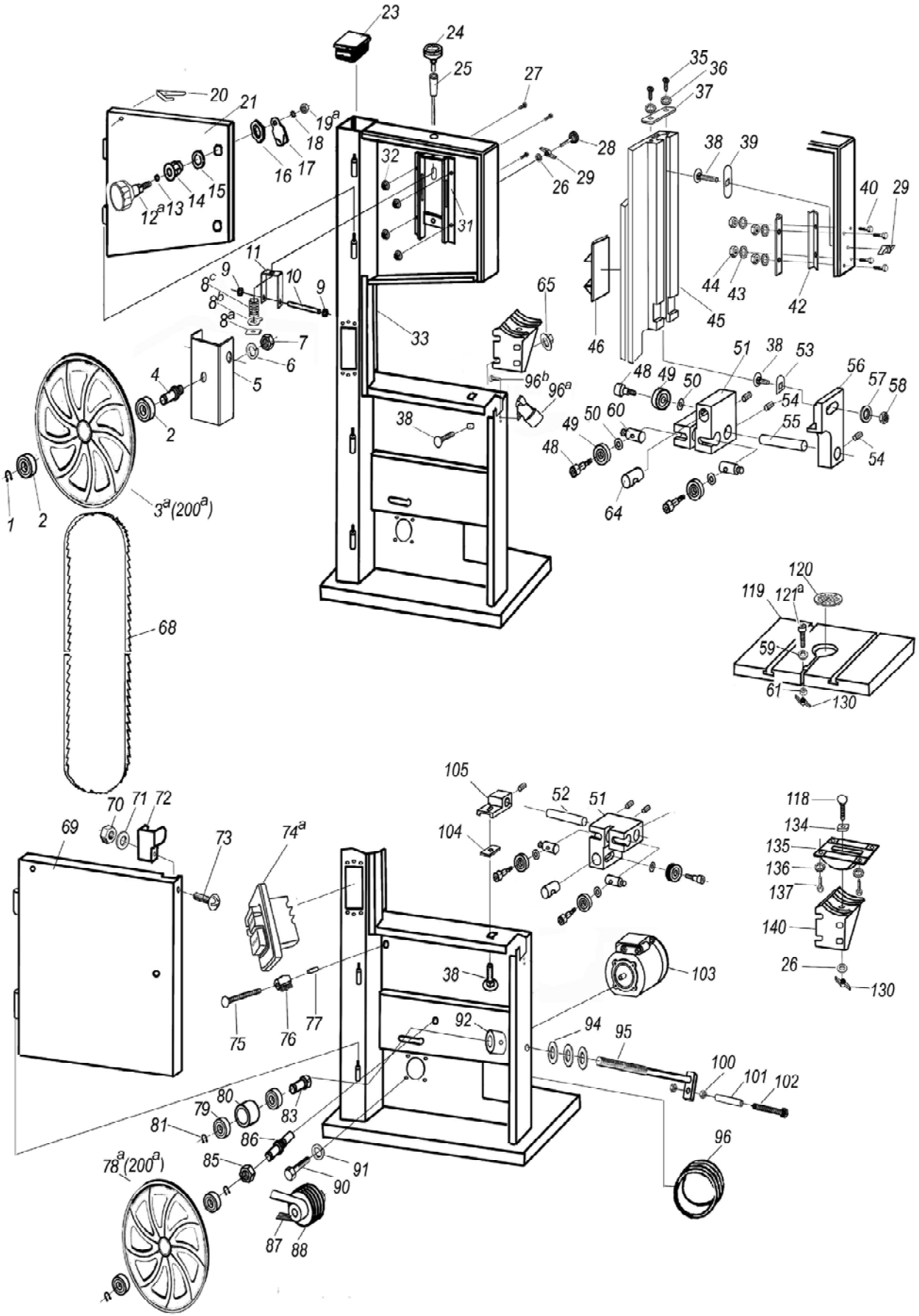
4. Carefully slide the lower wheel forward and at the same time release the saw blade from this wheel.

5. Remove the old drive belt and install the new belt. Ensure ribs in drive belt are seated correctly before reassembling and tensioning the drive belt.

Parts List

Key No.	Part No.	Description
1	1-CLP17GB894D1B	Circlip ring 17x1
2	1-BRG80203GB278D	Ball bearing 80203
3a	1-JL21022001A	Upper wheel assembly
4	1-JL20021006	Upper bearing shaft
5	1-JL20021005A050W	Wheel carrier bracket
6	1-WSH16GB93Z	Spring washer M16
7	1-M16GB6171Z	Hexagonal nut M16x15
8a	1-JL20021009	Blade tension indicator
8b	1-JL21020004-014T	Indicator, scale
8c	1-JL21021010A	Spring, scale
9	1-JL20021004	Star lock w/o cap Rd10
10	1-JL20021002	Cylindrical pin 11x100
11	1-JL20021001B050W	Tension bracket
12a	1-JL20061101/2-001S	Knurled knob
13	1-M6GB6172Z	Saddle washer
14	1-JL20010011-001S	Lock housing
15	1-JL20010013-001S	Nylon washer
16	1-JL20010012	Hexagonal nut M22x1.5
17	1-JL20010009	Tongue lock
18	1-WSH6GB93Z	Serrated lock washer 6mm
19	1-M6GB889Z	Hex nut M6
20	1-JL20010008	Leaf spring
21	1-JL21012000B049W	Door-upper assembly
23	1-JL21010001A-001S	Top plug
24	1-JL21025001-001S	Blade tension knob
25	1-JL21021200A	Blade tensioner
27	1-M8X16GB5781Z	Hex. head screw M8x16
28	1-JL20024001/2-001S	Blade tracking knob
29	1-JL20010016-001S	Wing nut M8
31	1-JL20021100A050W	Tension bracket frame
32	1-M8GB6177Z	Flange nut M8
33	1-JL21011000C050W	Frame-Bandsaw
35	1-ST4D8X22GB845Z	Pan head tapping screw
37	1-JL20041003	Plate
38	1-M8X20GB14Z	Carriage bolt 5/16"x18x7/8
39	1-JL20041004	Bolt guide
40	1-M6X16GB5781Z	Hexagonal bolt M6x16
42	1-JL20010005	Guide bracket
43	1-WSH6GB862D2Z	Lock washer 6mm
44	1-M6GB6170Z	Hexagonal nut M6
45	1-JL21041001B	Saw blade guide assembly
46	1-JL20041002-001S	Slide
48	1-M5X20GB70Z	Guide adjusting screw
49	1-BRG80018GB278	Grooved ball bearing
50	1-WSH6GB97D1Z	Flat washer M6
51	1-JL21042001	3-roller guide block
53	1-JL22041004	Bolt guide, small
54	1-M8X10GB80B	Screw socket set M8x10
55	1-JL22042002	Guide shaft
56	1-JL21042002	Upper guide mount
57	1-WSH8GB97D1Z	Flat washer 8mm
58	1-LOC5/16Z	Hex.l nut 5/16"x18, self locking
59	1-WSH6GB97D1Z	Flat washer 6mm
60	1-JL22042003	Bearing mount cylinder w/cap
61	1-JL21031003	Bush
64	1-JL22042004	Bearing mount cylinder
65	1-M8GB6177Z	Flange nut M8
69	1-JL21013000-049W	Door-lower assembly
70	1-M4GB889Z	Hex. nut M4, self locking
71	1-WSH4GB97D1Z	Flat washer 4mm
72	1-JL20010006-050W	Saw blade guard
73	1-M4X12GB818Z	Hexagonal screw M4x12
74	1-HY56	Power switch
75	1-M8X100GB14Z	Carriage bolt M8X100
76	1-JL20010004	Brush
77	1-JL20010003	Spacer bush M8x50
78a	1-JL21023000A	Lower wheel assembly
79	1-BRG80101GB278	Grooved ball bearing 80101
80	1-JL20014002A	Tension wheel
81	1-CLP12GB894D1B	Circlip ring 12x1
83	1-JL20014001	Sliding shaft
85	1-JL20020004	Hexagonal nut M20x1.5
86	1-JL21020002A	Lower bearing shaft
87	1-JL20020002	Poly-v-belt
88	1-JL20070001	Motor belt pulley
90	1-M6X16GB5781Z	Hexagonal screw M6x16
91	1-WSH6GB93Z	Spring washer 6mm
92	1-JL20010015	Set collar 10mm
94	1-WSH10GB97D1Z	Disc washer 20x10.2x0.8
95	1-JL21015100	Crank
96	1-JL20010007-001S	Saction connector Rd 100
96a	1-JL21010019	2.5"Dust port
96b	1-M6X10GB5781Z	Cylinder HD screw M6x10
100	1-M6GB6170Z	Hexagonal flat nut M6
101	1-JL20015001-001S	Crank handle
102	1-M6X55GB65Z	Cap screw M6x55
103	1-H8012614/1-UL1506012	Motor 1HP 120V-60HZ
104	1-JL20040001	Pin guide set
105	1-JL21043001	Lower guide support
118	1-M8X50GB14Z	Carriage bolt M8x50
119	1-JL21031001D001G	Table
120	1-JL20031002-001S	Table insert
121a	1-6X50GB70Z	Hex socket screw M6x50
130	1-JL20010016-001S	Wing nut M8
134	1-JL20030002	Glide piece
135	1-JL20032001	Table trunnion upper
136	1-WSH8GB862D2Z	Lock washer 8mm
137	1-M8X16GB5781Z	Hexagonal screw M8x20
140	1-JL20030001A	Table trunnion lower
200a	1-JL21022002A	Bandsaw tire 350x2.5x24

Parts Explosion



How-To's for all Band Saw Blades

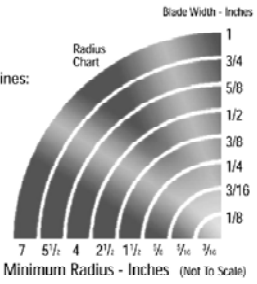
Choosing the Correct Blade Width

Blade width is measured from the tips of the teeth to the back edge of the blade as shown above. The instructions for the particular machine being used should be followed when selecting blade width.

If no such instructions are provided, blade width should be determined with the following guidelines:

For Cut-Off Sawing, the blade should be as wide as the machine will allow. The wider the band is, the straighter the cut will be. Faster feeding can be achieved.

For Contour Sawing, the blade should be as wide as the machine allows, but still narrow enough so that it can cut the desired shape (radius). Minimum dimensions for different cutting radii are shown on the chart at right.



How To Choose The Correct Number Of Teeth Per Inch (TPI)

The number of teeth per inch (TPI) is important in obtaining the finish desired and the proper feed rate. A coarse tooth blade (2, 3 TPI) should be used for resawing wood and cutting thicker stock up to 8". A fine toothed blade (18 to 32 TPI) should be used for thinner metals and plastics under 1/4". For general cutting of 3/4" wood 4 TPI will provide a fast cut and 14 TPI will cut slow, but leave a smoother finish.

When Selecting TPI remember:

- More TPI give a smoother but slower cut
- Fewer TPI allow a faster cut with a slightly rougher finish
- At least three teeth must be in the workpiece—the chart to the right will help you decide.

TPI	Minimum Material Thickness
32	3/32"
24	1/8"
18	5/32"
14	1/4"
10	5/16"
8	3/8"
6	1/2"
4	3/4"
3	1"
2	1-1/2"

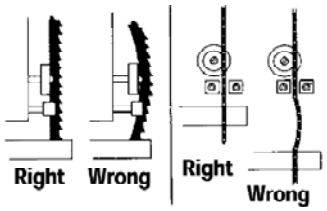
It is important to know the SFM for the various speed settings of your band saw, so that you can select the proper speed for cutting wood or other materials. Check the operator's manual of your band saw to determine the SFM or use the following procedure:

1. Determine the RPM: check the operator's manual or clock the revolutions per minute of the wheels with a tachometer or revolution counter.
2. Measure the diameter of the drive wheel in inches and multiply by .262 to obtain the wheel circumference. The RPM times circumference equals the surface speed of the blade.
   RPM x diameter in inches x .262 = SFM.

Note: Spring Steel Wood Cutting Band Saw Blades should never be operated at surface speeds above 3000 SFM. Carbon Hard Edge Flexible Back Band Saw Blades may be run up to 8000 SFM.

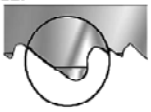
Installing your Band Saw Blade

1. Unplug the saw, then loosen the tension on the upper wheel. With all the blade guides backed off, slip the new blade around the wheels and then tension it.
2. When you have tensioned the blade enough to keep it on the wheels, track it by turning the upper wheel with one hand while adjusting the tilt of the wheel's axis with the other hand. The blade should ride in the middle of the rim. **Never track the blade with the motor running and the cover open.**
3. Next, adjust the blade guides; first the thrust bearings: upper and lower, then the left had side guides.
4. Use a square to make sure you are not pushing the blade out of line and place a piece of white paper between the blade guide and the blade to allow for clearance.



Diagnosing Problems

1. Premature and Excessive Tooth Wear



- Feed pressure too light, increase it.
- Lower band velocity.
- Improper tooth selection, use a finer pitch.
- Improper break-in with new band. Velocity and feeding should be reduced the first few cuts.
- Teeth are running the wrong direction. Be sure teeth are pointing in proper direction.
- Incorrect saw guide insert size for the band, allowing them to strike teeth

2. Blade Vibration

- Increase or decrease band velocity.
- Increase tension of band.
- Teeth too coarse for workpiece.
- Increase feed pressure.
- Material not securely held.

3. Gullets Loading

- Teeth too fine for workpiece - use a coarser pitch.
- Decrease band velocity.

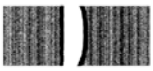
4. Band Stalls in Work

- Feed pressure too great - decrease feed.
- Teeth too coarse, use finer tooth blade

5. Premature Blade Breakage

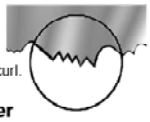
- Thickness of blade too heavy for diameter of wheels and speed of machine
- Increase or decrease velocity
- Check wheels for defects
- Teeth too coarse for workpiece –use a finer pitch
- Decrease blade tension
- Decrease feeding force
- Brittle weld – increase annealing period, decreasing heat gradually
- Check for proper adjustment of band guides, saw guides, saw guide inserts and back-up bearings.

6. Blade Making Belly-Shaped Cuts



- Increase tension.
- Adjust guides closer to workpiece.
- Teeth too fine – use a coarse pitch.
- Decrease feed force.
- Teeth dull.

7. Tooth Strippage



- Teeth too coarse for workpiece.
- Material not securely held.
- Too much feed pressure –reduce for good chip curl.
- Band velocity too low – increase speed.

8. Band Develops a Negative Camber

- Band is riding on saw guide backup bearing too heavily. Adjust band for alignment on top and bottom wheels.
- Check band wheel alignment.

9. Blade Not Running True Against Saw Guide Backup Bearing

- If clicking noise against saw guide backup bearing, remove burr on band.
- Check band wheel alignment.
- Check saw guide backup bearing for wear, replace if necessary
- Weld not in proper alignment. Reweld blade straight and true.

10. Cutting Rate Too Slow

- Increase band velocity.
- Increase feed pressure.
- Use a coarser pitch.

11. Blade Leading In Cut

- Reduce feed pressure or rate.
- Check adjustments and wear of saw guides or rollers.
- Lack of band tension.
- Tooth set damage.

12. Premature Loss of Set

- Improper width selection - check chart for correct width for radius cutting.
- Reduce band velocity.

13. Band Develops Positive Camber

- Decrease force.
- Use a coarser pitch to increase tooth penetration.
- Adjust saw guides closer to work.

14. Band Develops Twist

- Wrong width for radius being cut – choose a narrower blade.
- Binding in cut – decrease feed pressure.
- Decrease band tension.
- Adjust saw guides further from workpiece.

15. Finished Cut Surface Too Rough

- Improper tooth selection – choose a finer pitch.
- Increase band velocity.
- Decrease feed rate.

16. Band Scoring (side wear or grooving)

- Check for wear on saw guide inserts.
- Too much pressure on saw guide inserts.
- Check alignment of saw guides – be sure they are square to front vise. Replace or clean guides.

17. Burring or Mushrooming of Blade Back Edge

- Increase tension and adjust guides.
- Check contact between blade and back edge rollers.
- Reduce feed pressure.
- Use coarser pitch blade.
- Use finishing stone.

Notes

RIKON POWER TOOLS

2-Year Limited Warranty

RIKON Power Tools/Richen Enterprise, 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 two (2) 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 or belts 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, which includes date of purchase and an explanation of the complaint, must be provided.

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
110 Cummings Park
Woburn, MA 01801

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.

RIKON POWER TOOLS

For more information:
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Woburn, MA 01801

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