RYOBI OWNER'S OPERATING MANUAL 190mm (7⅝") BAND SAW MODEL HBS7600

SPECIFICATIONS:

Motor	⅓ HP
Throat Capacity	193mm (7 ⅝")
Table Size	290 (11 ⅜") x 290mm (11 ⅜")
Table Adjustment	0 to 45°
Blade Length	1425mm (56 ⅛")
Blade Width	6.3mm (1/4 ")
RPM	1300
Drive System	Direct
Dust Port	45mm (1 ¾")
Switch Type	Childproof Safety
Weight	16.5 kg.

THANK YOU FOR BUYING A RYOBI BAND SAW

Your new band saw has been engineered and manufactured to Ryobi's high standard for dependability, ease of operation and operator safety. Properly cared for, it will give you years of rugged, trouble-free performance. To ensure your safety and satisfaction, carefully read this owner's manual before using your new band saw. Pay especially close attention to the safety instructions, warnings and cautions. If you use the band saw properly and only for what it is intended, you will enjoy years of safe, reliable service. Please fill out and Retain the Warranty Service Registration Card so that we can be of future service to you.

Thank you again for buying a Ryobi band saw.

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● BENCH TOP BAND SAW SAFETY

To avoid injury from unexpected movement:

1. Put the saw on a firm level surface where there is plenty of room for handling and properly supporting the workpiece.
2. Support the saw so the table is level and the saw does not rock.
3. Bolt the saw to the support surface to prevent slipping, walking or sliding during operations like cutting long, heavy boards.
4. Turn saw off and unplug cord before moving the saw.

To avoid injury from jams, slips or thrown pieces:

1. Choose the right size and style blade for the material and the type of cutting you plan to do.
2. **USE ONLY RECOMMENDED ACCESSORIES.** The use of improper accessories may cause risk of injury to persons
3. Make sure the blade teeth point downward, toward the table.
4. Make sure the blade guides and thrust bearings are properly adjusted.
5. Make sure the blade tension is properly adjusted.
6. Make sure the table lock handle is tight and no parts have excessive play.
7. To avoid accidental blade contact, minimise blade breakage and provide maximum blade support, always adjust the upper blade guide and blade guard to just clear the workpiece.

Use extra caution with large, very small or awkward workpieces:

1. Use extra supports (tables, saw horses, blocks, etc.) for any workpieces large enough to tip when not held down to the table top.
2. Never use another person as a substitute for a table extension, or as additional support for a workpiece that is longer or wider than the basic saw table, or to help feed, support or pull the workpiece.
3. When cutting irregularly shaped workpieces, plan your work so it will not pinch the blade. For example, a piece of molding must lay flat or be held by a fixture or jig. Workpieces must not twist rock, or slip while being cut.
4. Properly support round material such as dowel rods, or tubing. They have a tendency to roll during a cut, causing the blade to "bite". To avoid this, always use a "V" block or clamp the work to the mitre gauge.
5. Cut only one workpiece at a time.
6. Clear everything except the workpiece and related support devices off the table before turning the saw on.

Plan the way you will hold the workpiece from start to finish.

1. Do not hand hold pieces so small that your fingers will go under the blade guard. Use jigs or fixtures to hold the work and keep your hands away from the blade.
2. Avoid awkward operations and hand positions where a sudden slip could cause serious injury from contact with the blade.

Whenever saw is running:

1. WARNING!
   Do not let familiarity (gained from frequent use of you band saw) cause a careless mistake. A careless fraction of a second is enough to cause a severe injury.
2. Before starting your cut, watch the saw while it runs. If you experience excessive vibration or unusual noise, stop immediately. Turn the saw off. Unplug the saw. Do not restart until locating and correcting the problem.

Before freeing any jammed material:

1. Turn switch "OFF"
2. Remove switch key.
3. Unplug the saw.
4. Wait for all moving parts to stop.

When backing up the workpiece, the blade may bind in the kerf (cut). This is usually caused by sawdust clogging up the kerf or because the blade comes out of the guides. If this happens:

1. Turn switch "OFF"
2. Remove switch key.
3. Unplug saw.
4. Wait for all moving parts to stop.
5. Open band saw cover.
6. Wedge the kerf open with a flat blade screwdriver or wooden wedge.
7. Turn the upper wheel by hand while backing up the workpiece.

Before removing loose pieces from the table, turn saw off and wait for all moving parts to stop.

Before leaving the saw:

1. Wait for all moving parts to stop.
2. Make workshop child-proof. Lock the shop.
3. Disconnect master switches.
4. Remove the switch key. Store it away from children and others not qualified to use the tool.

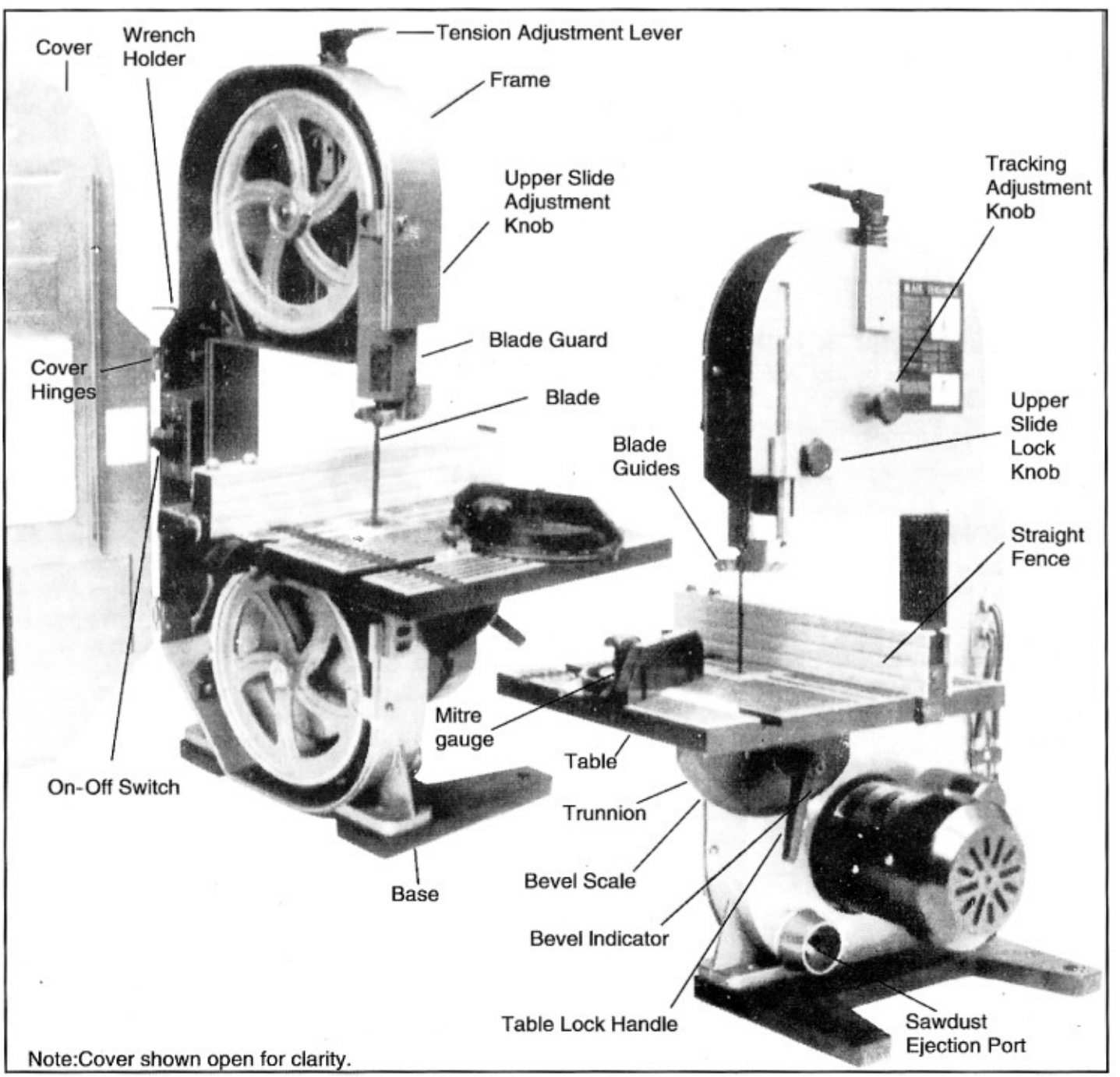
■ UNPACKING

1. Carefully remove all parts from the shipping carton.
2. Do not discard the packing material until you have identified all the parts using the parts list.
3. If all parts have been included, proceed to assembly
4. If you are missing a part, contact your dealer to obtain it before attempting to assemble the tool.
5. Examine all the parts to make sure no breakage has occurred during shipping. Any damaged part should be replaced before attempting to use the tool.

LOOSE PARTS LIST

Assemble the following parts according to the instruction on the following pages.

Basic Saw Assembly
Saw Table
Table Lock Handle/Screw
Mitre Gauge
Straight Fence
Washer2/5"
Hex Wrench Key



Note:Cover shown open for clarity.

■ FEATURES

Familiarise yourself with the following features of the RYOBI benchtop band saw before connecting it to a power source and using it.

● BLADE GUIDES

Blade Guides supports the blade and keeps it from twisting during operation. An adjustment is necessary when blades are changed or replaced.

● UPPER SLIDE LOCK KNOB

The upper blade guide assembly should just clear the workpiece while cutting. Always adjust the upper guide assembly and lock the upper slide by tightening the upper slide lock knob before turning on the band saw.

● TABLE LOCK HANDLE

Loosening the handle allows the table to be tilted and tightening the handle locks the table in place.

● TILT (BEVEL) SCALE

Tilt (bevel) scale shows degree table is tilted for bevel cutting.

● TENSION ADJUSTMENT LEVER

Tension adjustment lever controls the amount of blade tension when changing blades.

● TRACKING ADJUSTMENT KNOB

Tracking adjustment knob adjusts to keep blade running in centre of wheels.

● SAWDUST EJECTION PORT

Sawdust is eliminated from inside of machine. Also, makes an excellent hook-up for a wet/dry vac.

● COVER HINGES

Cover hinges allow front cover to be opened for making adjustments to machine.

● WRENCH HOLDER

Wrench Holder keeps hex. "L" Wrench conveniently located for blade guide adjustment.

● SWITCH

The switch has a built-in safety lock. To lock the switch in the OFF position, remove the safety cover from the switch. Place the switch cover in a location that is inaccessible to children.

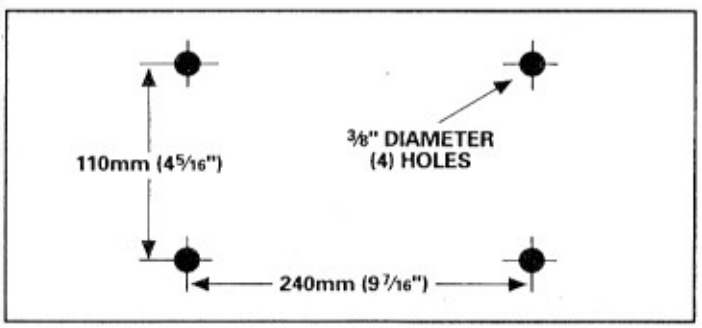
■ ASSEMBLY

● MOUNTING BAND SAW TO WORKBENCH

If band saw is to be used in a permanent location, it should be fastened securely to a firm supporting surface such as a workbench. If mounting to a workbench, holes should be drilled through supporting surface of the workbench using dimensions illustrated.

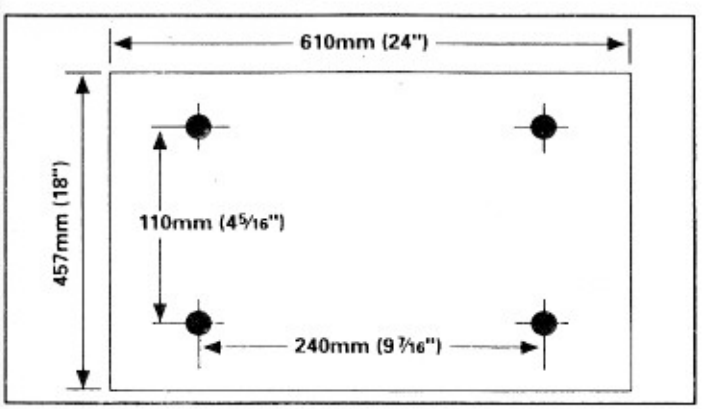
1. Each leg should be bolted securely using 5/16" diameter machine screws, lock washers, and 5/16" hex nuts (not included). Screw length should be 1-3/4" plus the thickness of the bench top.
2. Locate and mark the holes where band saw is to be mounted.
3. Drill (4) 3/8" diameter holes through workbench.
4. Place band saw on workbench aligning holes in feet with holes drilled in workbench.
5. Insert all four 5/16" screws and tighten.

NOTE!
All bolts should be inserted from the top. Install the washers and nuts from the underside of the bench.



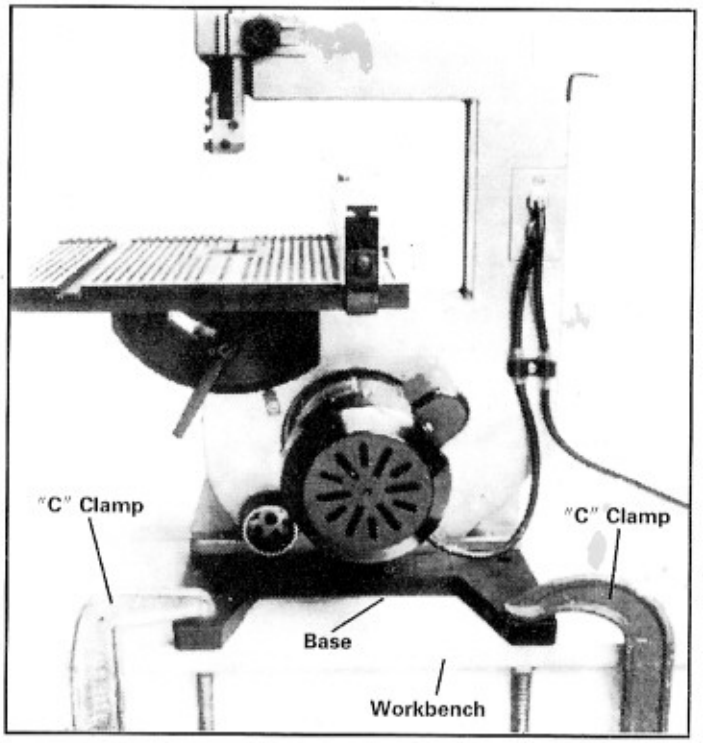
An alternate method of mounting is to fasten band saw to a mounting board. The board should be of sufficient size to avoid tipping of saw while in use. Any good grade of plywood or chipboard with a 3/4" minimum thickness is recommended. (Thinner chipboard can break.) Once the saw is mounted, securely clamp the board to the workbench using "C" clamps.

WARNING!
Supporting surface where band saw is mounted should be examined carefully after mounting to insure that no movement during use can result. If any tipping or walking is noted, secure workbench or supporting surface before operating band saw.



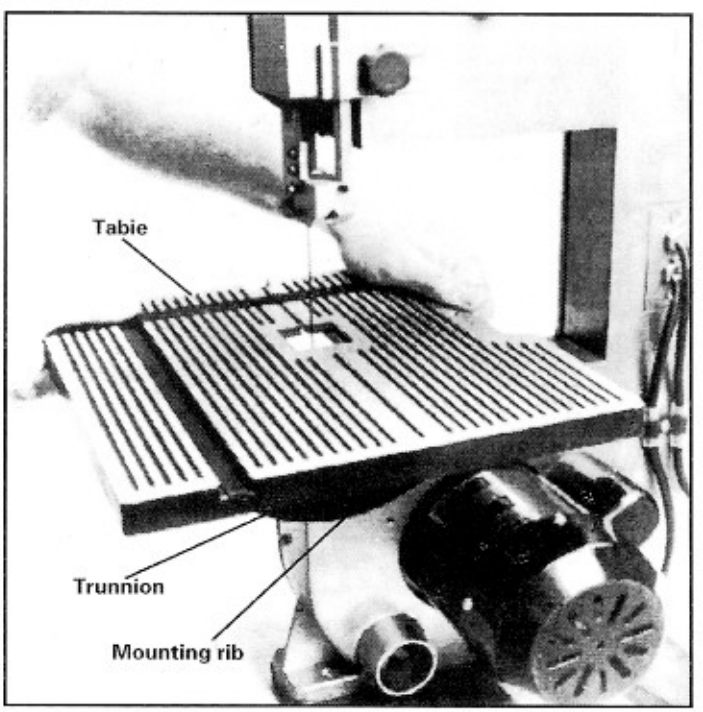
● CLAMPING BAND SAW TO WORKBENCH

The Band Saw can be clamped directly to a workbench using two (2) or more "C" clamps on base of unit.



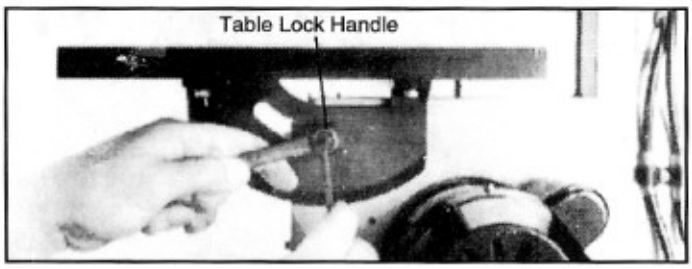
● INSTALLING THE TABLE

1. Place table onto band saw frame making sure the blade travels through the slot in the table and that the mounting rib on the frame engages with the groove on the inside of the trunnion.

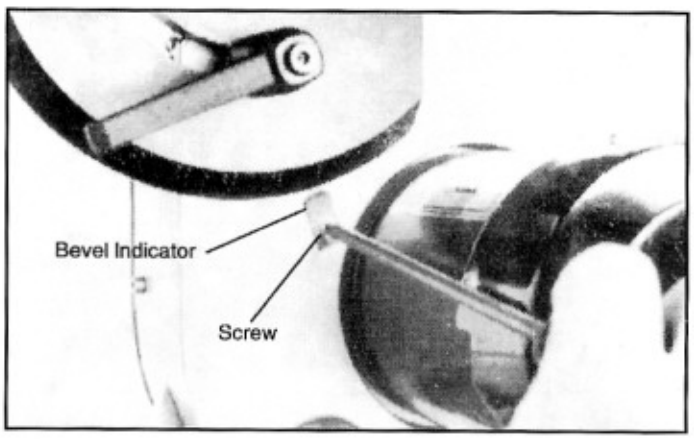


2. Fasten the table to the frame using the table lock handle/screw. The table lock handle/screw is tightened using the hex wrench key.

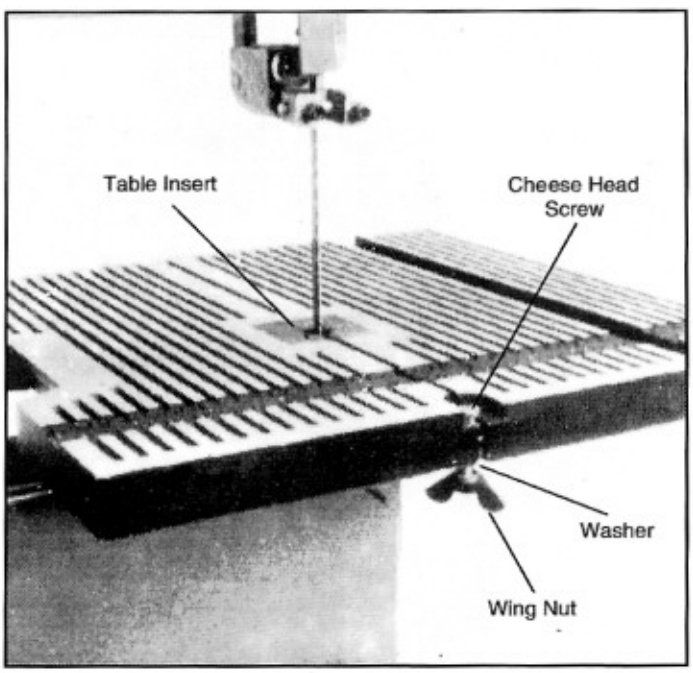
   The handle is spring loaded on the screw and is disengaged by moving the handle towards the screw head.



3. Assemble the bevel indicator to the saw frame using screw



4. Place the table insert on the table and assemble the cheese head screw, washer and wing nut to the table. The washer and wing nut are positioned below the table.

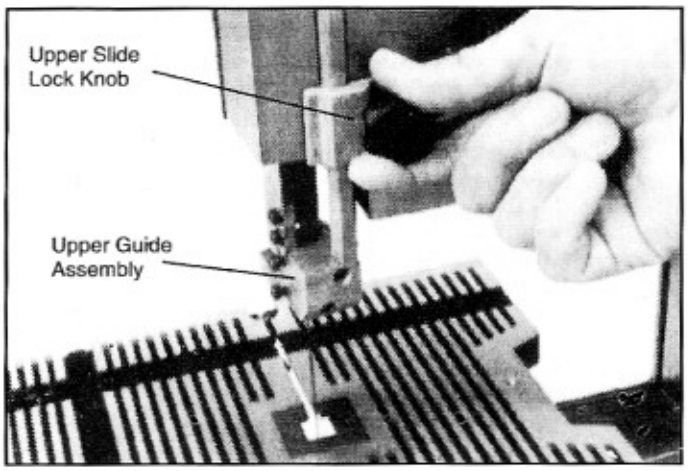


■ ADJUSTMENTS

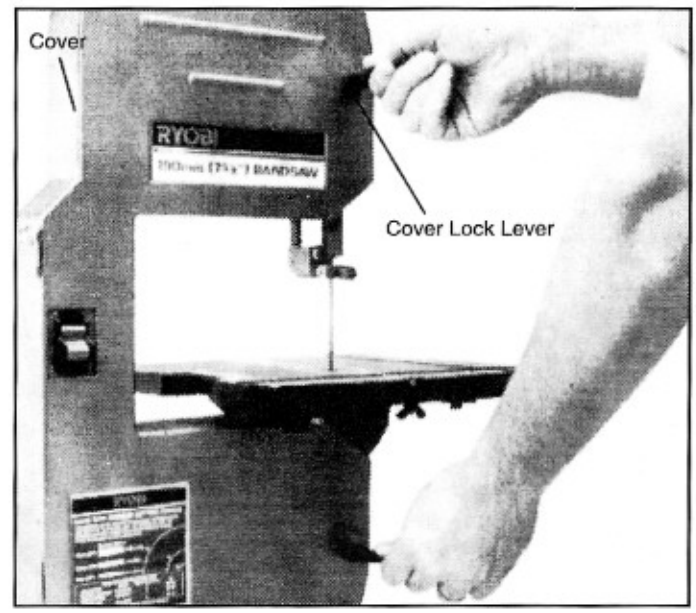
● ADJUSTING UPPER BLADE GUIDE ASSEMBLY

The upper blade guide assembly should always be set about 3mm (1/8") above or as close as possible to the top surface of the workpiece being cut.

1. Loosen the upper slide lock knob.
2. Position the guide assembly to the desired position.



3. Tighten the upper slide lock knob.



3. Loosen the two blade guard mounting screws using the hex wrench key and remove the blade guard.
4. Remove the cheese head screw, washer and wing nut from the table.
   Replace these parts after the blade is installed, tensioned and tracked.

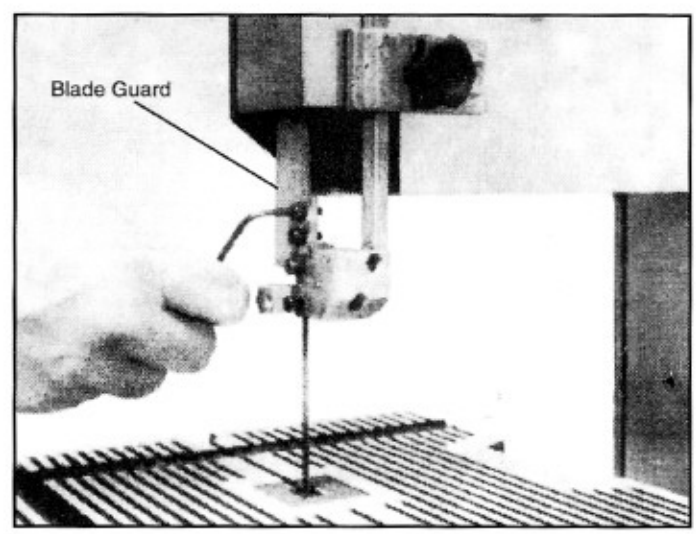
● ADJUSTING BLADE

INSTALLING THE BLADE

WARNING!
Turn off saw, remove switch key and unplug saw before removing or installing blade.

WARNING!
Always wear safety goggles to avoid injury while uncoiling band saw blades.
The band saw blade is under tension. To uncoil the blade, remove the tie and gently toss the blade to the floor in an open unoccupied area. The blade will snap open ready for installation.

1. Loosen the upper slide lock knob and position the guide assembly about half way between the table and the frame. Tighten the lock knob.
2. Open the front cover of the saw by releasing the two (2) cover levers.
   NOTE!
   Replace the band saw cover after blade is properly installed, tensioned and tracked.



5. Uncoil the blade.
6. Slide the blade into the slot of the table with the teeth facing forward and down toward the table.
7. Place the blade on both wheels. Centre the blade on the rubber tyres.

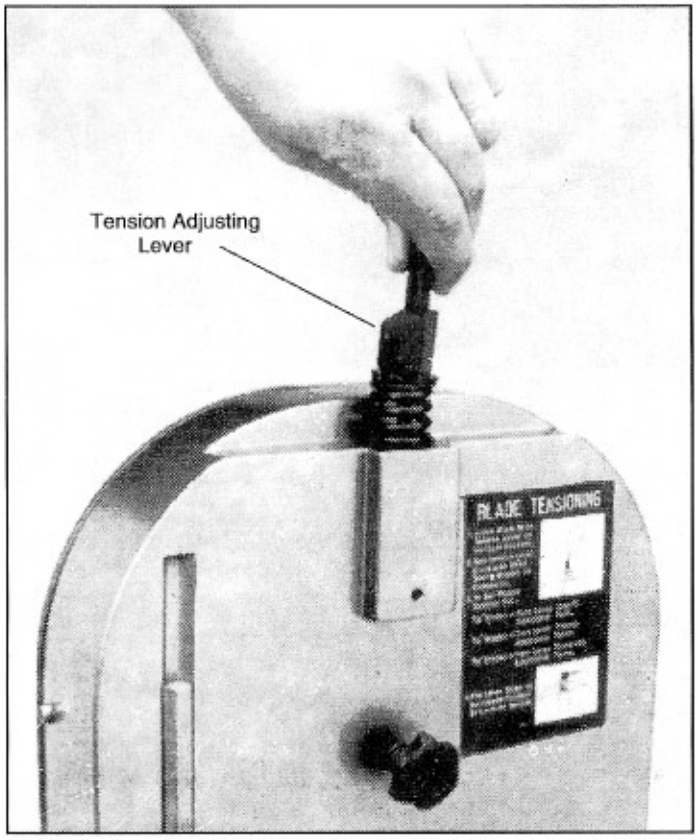
● TENSIONING THE BLADE

Turn off saw, remove switch key and unplug before making any adjustments.

1. With the tension adjustment lever in the vertical position, turn the lever clockwise until the spring begins to compress

2. To set the correct tension for:
   - 3mm (1/8") Blades - Turn Lever one (1) additional turns
   - 6.3mm (1/4") Blades - Turn Lever Two (2) additional turns
   - 10mm (3/8") Blades - Turn Lever Three (3) additional turns
3. Flip lever down to the horizontal position to lock the tensions.

NOTE:
Be careful not to overtension the blade as breakage may occur. Too little tension may cause the blade to slip on the wheels.

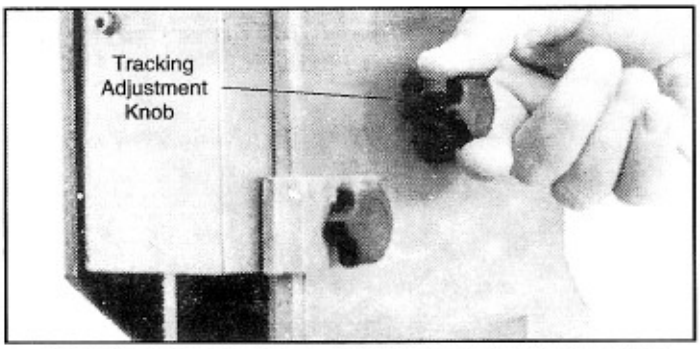


● TRACKING THE BLADE

WARNING!
Turn off saw, remove switch key and unplug before making any adjustments.
Blade tension must be properly adjusted before tracking the blade.

1. Slowly turn the upper wheel clockwise by hand and watch the blade on the tyre. If the blade moves away from the centre of the tyre the tracking will have to be adjusted.
2. If the blade moved toward the front of the saw, turn the tracking adjustment knob in (clockwise) direction while turning the wheel by hand, until the blade rides in the centre of the tyre. If the blade moved away from the front of the saw, turn the tracking adjustment knob out (anti clockwise) while turning wheel by hand, until the blade rides in the centre of the tyre.
3. Check the position of the blade on the other tyre. The blade should be completely on the tyre.

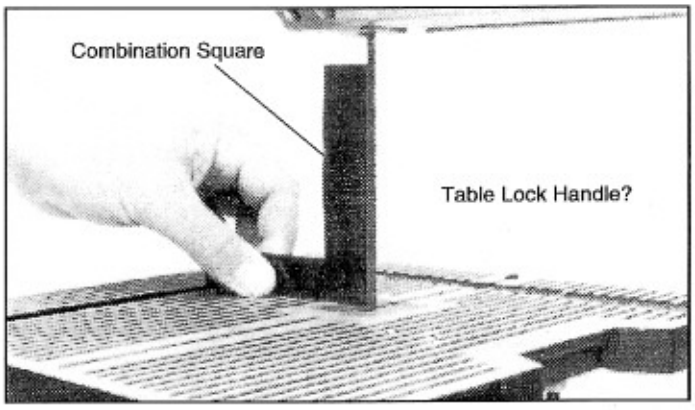
   If not, adjust the tracking until the blade is on both tyres.
4. Rotate the upper wheel by hand in a clockwise direction for a few more turns. Make sure the blade stays in the same location on the tyres. Readjust if necessary, until blade is tracking correctly.

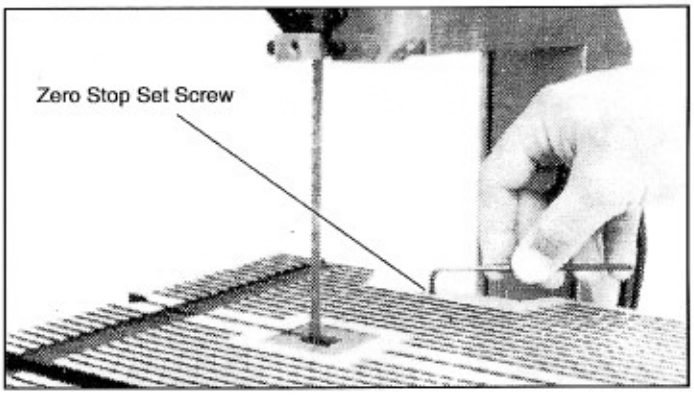


● ALIGNING THE TABLE SQUARE TO THE BLADE

WARNING!
Turn off saw, remove switch key and unplug before making any adjustment.

1. loosen the upper slide lock knob and position the guide assembly all the way up. Tighten the lock knob.
2. Loosen the table lock handle
3. Place a small square on the table beside the blade as illustrated
4. Holding the left edge of the table (near the zero stop set screw), tilt the table up or down to align table 90 degrees to blade (0 degree position). Tighten lock handle.
5. Adjust the zero stop set screw using hex wrench until the set screw just touches the frame and tighten lock nut.
6. Check squareness of blade to table. Make readjustments if necessary.



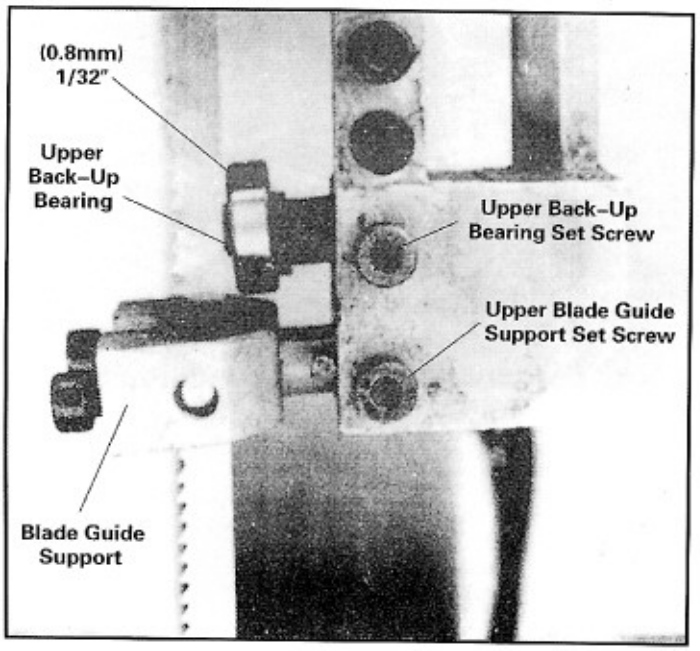


● ADJUSTING THE BLADE GUIDES AND BACK-UP BEARING

WARNING!
Turn off saw, remove switch key and unplug before making any adjustment.

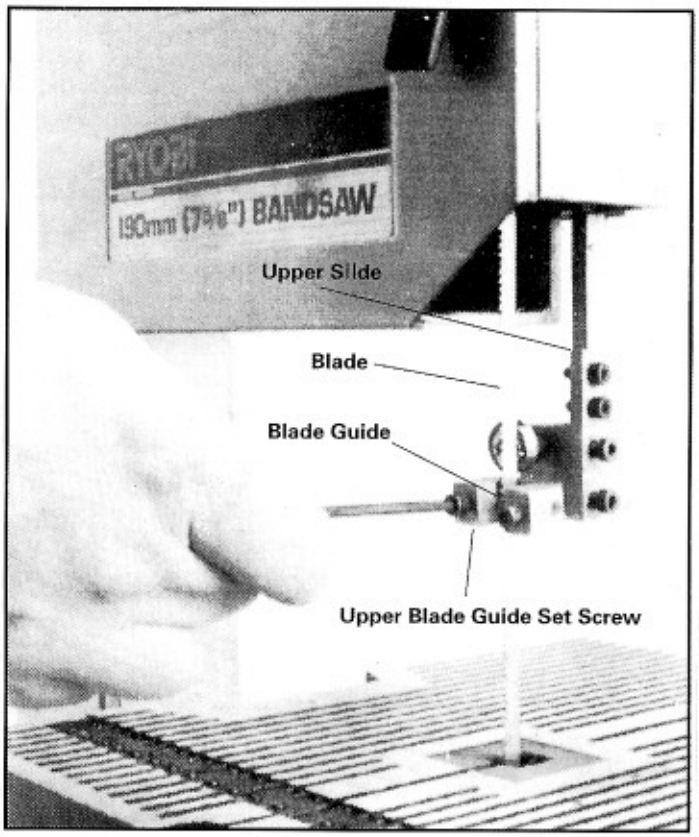
NOTE!
The upper and lower blade guides and back-up bearings support the band saw blade during cutting operations. The adjustment of the guides and bearings should be checked whenever a different blade is installed.

1. Adjust the upper and lower back-up "bearings" first. Looses the set screws, using the hex wrench. (The set screws are located on the right side of the upper slide for the upper bearing and on the right side of the frame, just below the table for the lower bearing).
2. Move the back-up bearing to within 1/32" (0.8mm) of the blade and tighten the set screws.
   NOTE!
   The back-up bearing is to support the back edge of the blade while cutting. The blade should not contact the bearings when you stop cutting.
3. Adjust the position of the blade guide support next. Loosed the upper blade guide, support set screw, using the hex wrench (the set screw is located on the right side of the upper slide).
4. Slide the blade guide support on the shaft until the front edge of the blade guides are about 1/32" (0.8mm) behind the gullet of the blade. Tighten the set screw.



NOTE!
Letting the blade teeth hit the blade guides while using the band saw will ruin the blade. The set of the teeth and the sharpened edge of the teeth would be damaged. Proper adjustment of the upper and lower blade guide assemblies will prevent this from happening.

1. Loosen the two screws that lock the upper blade guides and press the two guides evenly against the sides of the blade but do not pinch the blade. Release the guides and rotate the upper wheel slightly clockwise moving the blade downward. make sure one guide is not further away from the blade than the other. Tighten both screws.
2. Repeat on the lower blade guides.



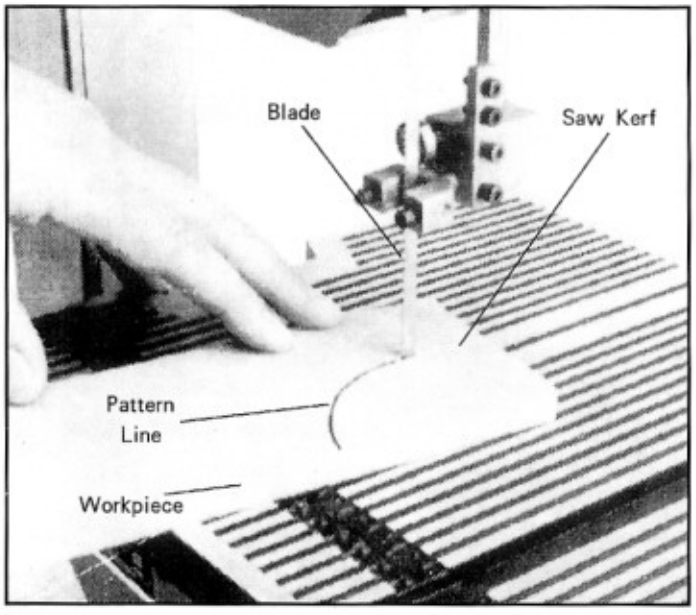
■ BASIC OPERATION OF THE BENCH TOP BAND SAW

A band saw is basically a "curve cutting" machine. It is also used for straight-line cutting such as cross cutting, ripping, mitreing, bevelling, compound cutting, and resawing. It is not capable of doing inside cutting.

This band saw is designed to cut wood and wood composition products only.

For general type scroll cutting, follow the pattern lines by pushing and turning the workpiece at the same time. Do not try to turn the workpiece while engaged in the blade without pushing it; the workpiece could bind or twist the blade.

A curved radius cut is best performed by following the pattern line with the blade while turning the workpiece. The blade should cut in the middle of the pattern line (saw kerf) since wood cutting band saw blades are thin.

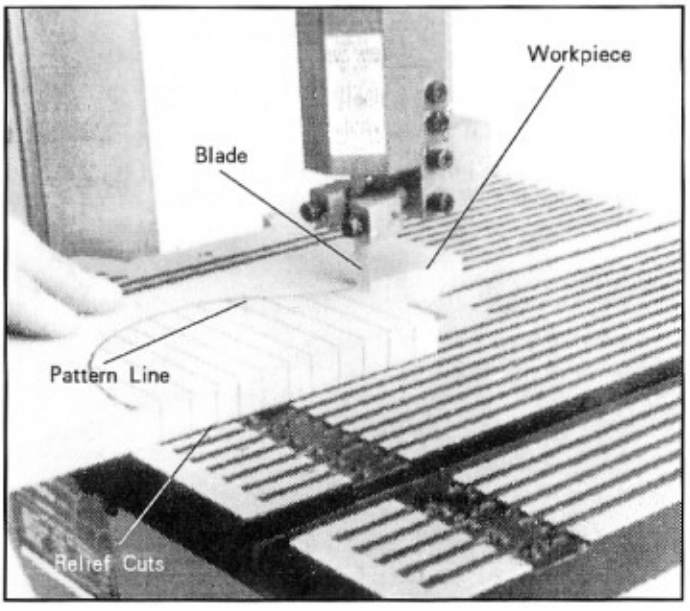


WARNING!
To avoid blade contact, adjust the upper guide assembly to just clear the workpiece.

1. Use both hands while feeding the work into the blade. Hold the workpiece firmly against the table. Use gentle pressure. Do not force the work, but allow the blade t cut.
2. The smallest diameter circle that can be cut out is determined by the width of the blade. A 1/4" wide blade will cut a minimum diameter of approximately 1-1/2". A 1/8" wide blade will cut a minimum diameter of approximately 1/2".

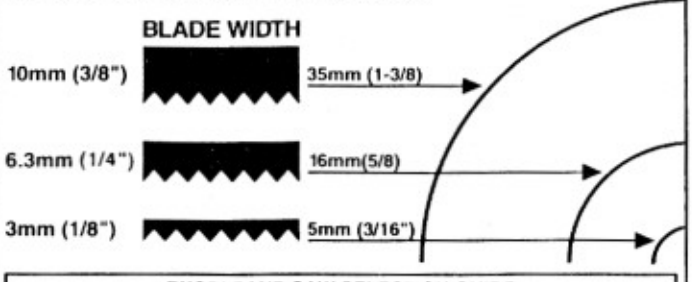
Relief cuts are made intricate when an intricate curve (too small a radius for the blade) is to be cut. A relief cut is made by cutting through the scrap section of workpiece to curve in pattern line, then carefully backing blade out.

Several relief cuts should be made for intricate curves, then follow pattern line as sections are cut off of curve "relieving" blade pressure.



BAND SAW MINIMUM CUTTING RADIUS

THE MINIMUM BAND SAW CUTTING RADIUS DEPENDS UPON THE WIDTH OF BLADE AND SET. LISTED BELOW ARE THE MINIMUM CUTTING RADIUS OR CURVES FOR THE THREE RYOBI BAND SAW BLADES AVAILABLE.



RYOBI BAND SAW SELECTION GUIDE

APPLICATION	WIDTH	TEETH PER 25mm	Part No
GENERAL PURPOSE	6.3mm(1/4")	6	4632114
WOOD CUTTING	3mm(1/8")	14	4632113
PLASTIC AND COMPOSITION	10mm(3/8")	6	4632115

NOTE: ALWAYS USE THE WIDEST BLADE POSSIBLE.

■ MAINTENANCE

WARNING!
For your own safety, turn switch "OFF", remove switch key and remove plug from power outlet before maintaining or lubricating your band saw.

● GENERAL

Keep you Band Saw Clean.

Remove sawdust from the inside frequently.

Do not allow pitch to accumulate on the table, blade guides, or thrust bearings.

Apply a thin coat of automobile-type wax to the table top so the wood slides easily while cutting. Also apply wax to the inside surfaces of the trunnion.

● TYRES

Pitch and sawdust that accumulates on the tyres should be removed with a stiff brush or a piece of wood. Do not use a sharp knife or any kind of solvent.

When the tyres become worn they should be replaced. When replacing the tyres, put a thin layer of rubber cement on the outside of the wheels and inside of 2 tyres. Allow to dry then slide tyres onto wheels aligning tyres inside wheel edges.

● MOTOR ELECTRICAL

Frequently vacuum or blow out any sawdust from the motor.

WARNING!
If the power cord is worn, cut, or damaged in any way, have it replaced immediately.

WARNING!
To avoid fire or electrocution, reassemble electric parts with only approved service parts. Reassemble exactly as originally assembled.

● LUBRICATION

All of the ball bearings are permanently lubricated. They require no further lubrication.