Operator's Manual **Companion** 8-in. BAND SAW

Model No. 172.21399

Save this manual for future reference.

SMERTING

CAUTION: Read, understand and follow all Safety Rules and Operating Instructions in this manual before using this product.

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.

P/N 21399-MANUAL

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- SAFETY
- FEATURES
- ASSEMBLY
- ADJUSTMENT
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ONE YEAR FULL WARRANTY ON COMPANION TOOL

If this Companion tool fails due to a defect in material or workmanship within one year from the date of purchase, **CONTACT THE NEAREST SEARS PARTS & REPAIR CENTER** at **1-800-4-MY-HOME**[®] and Sears will replace it, free of charge. This warranty applies only while this product is in the United States.

This warranty is void if this tool is used for commercial or rental purposes.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., Dept. 817WA, Hoffman Estates, IL 60179

SAVE THESE INSTRUCTIONS! READ ALL INSTRUCTIONS!

SAFETY INSTRUCTIONS

WARNING: BE SURE to read and understand all safety instructions in this manual, including all safety alert symbols such as DANGER, WARNING and CAUTION, BEFORE using this tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them, deserve your careful attention and understanding. The safety warnings **DO NOT** by themselves eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

SYMBOL MEANING



SAFETY ALERT SYMBOL: Indicates danger, warning or caution. May be used in conjunction with other symbols or pictographs.



DANGER: Failure to obey a safety warning will result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.



WARNING: Failure to obey a safety warning can result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.



CAUTION: Failure to obey a safety warning may result in property damage or personal injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.

NOTE: Advises you of information or instructions vital to the operation or maintenance of the equipment.



WARNING: The operation of any tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, ALWAYS wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend A Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shield, both available at Sears Retail Stores. ALWAYS wear eye protection which is marked to comply with ANSI Z87.1.

ELECTRICAL SAFETY

General Electrical Connections

- **DANGER:** To reduce the risk of electrocution:
 - 1. Use only identical replacement parts when servicing. Servicing should be performed by a qualified service technician.
 - 2. DO NOT use in rain or where floor is wet. This tool is intended for indoor use only.

110-120 Volt, 60 Hz. Tool Information

The plug supplied on your tool may not fit into the outlet you are planning to use. Your local electrical code may require slightly different power cord plug connections. If these differences exist, make the proper adjustments per your local code before your tool is plugged in and turned on.

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, as shown (Fig. A). 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.

A temporary adapter may be used to connect this plug to a 2-prong outlet as shown (**Fig. B**) if a properly grounded 3-prong outlet is not available. This temporary adapter should be used only until a properly grounded 3-prong outlet can be installed by a qualified electrician. The green colored rigid ear, lug or the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

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.

WARNING: DO NOT permit fingers to touch the terminals of the plug when inserting or removing the plug to or from the outlet.

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

WARNING: If not properly grounded, this tool can cause an electrical shock, particularly when used in damp locations, in proximity to plumbing, or out of doors. If an electrical shock occurs, there is the potential of a secondary hazard, such as your hands contacting a moving part of the tool causing serious injury.



NOTE: The adapter illustrated is for use only if you already have a properly grounded 2-prong outlet **NOTE:** In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code.

- 9. Before plugging in the tool, **BE SURE** that the outlet voltage supplied is within the voltage marked on the tool's data plate. **DO NOT** use "AC only" rated tools with a DC power supply.
- 10. **ALWAYS** avoid body contact with grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
- 11. If operating the power tool in damp locations is unavoidable, **ALWAYS** use a Ground Fault Circuit Interrupter to supply power to your tool. **ALWAYS** wear electrician's rubber gloves and footwear in damp conditions.
- 12. **DO NOT** expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- 13. **ALWAYS** periodically inspect tool cords and extension cords for damage. Have damaged cords repaired at a Sears Service Center. **BE SURE** to stay constantly aware of the cord location and keep it well away from moving parts.
- 14. ALWAYS use the proper extension cord, and MAKE SURE the cord is in good condition. ONLY USE a cord that is heavy enough to carry the current your tool will draw. An undersized cord will cause a current drop in line voltage resulting in a loss of power and overheating. A wire gauge size AWG (American Wire Gauge) of at least 14 is recommended for an extension cord 25 feet or less in length. If in doubt, use the next heavier size. Smaller gauge wires, have greater capacity (14 gauge wire has more capacity than 16 gauge wire).
- 15. **DO NOT** abuse the cord. **NEVER** use the cord to pull the plug from the outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.
- 16. When operating a power tool outside, **ALWAYS** use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.

SYMBOLS

Some of the following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
	Wet Conditions Alert	Do not expose to rain or use in wet conditions.
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear safety goggles or safety glasses with side shields and a full face shield when operating this product.
	Safety Alert	Precautions that involve your safety.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	. Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	Hot Surface	To reduce the risk of injury or damage, avoid contact with any hot surface.

WORK AREA SAFETY

- 1. ALWAYS keep your work area clean and well lit. DO NOT leave tools or pieces of wood on the tool while it is in operation. Cluttered benches and dark areas invite accidents.
- 2. **DO NOT** operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- 3. **ALWAYS** keep bystanders, children and visitors away while operating a power tool. Distractions can cause you to lose control.
- 4. **ALWAYS** make your workshop childproof with padlocks and master switches or by removing starter keys.
- 5. ALWAYS make sure the work area has ample lighting so you can see the work and that there are no obstructions that will interfere with safe operation **BEFORE** using your tool.

PERSONAL SAFETY

- 1. ALWAYS know your power tool. Read the operator's manual carefully, learn the tool's applications and limitations, as well as the specific potential hazards related to this tool.
- 2. ALWAYS stay alert, watch what you are doing and use common sense when operating a power tool. DO NOT use tool while tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- **3.** ALWAYS dress properly. DO NOT wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that can get caught and draw you into moving parts. Non-slip footwear is also recommended. Pull back long hair. Keep your hair, clothing and gloves away from moving parts. Loose clothing, jewelry or long hair can be caught in moving parts.
- **4. ALWAYS** remove adjusting keys or wrenches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- 5. ALWAYS wear safety glasses with side shields. Everyday eyeglasses have only impact resistant lenses, they are NOT safety glasses.
- 6. ALWAYS wear a dust mask to keep you from inhaling fine particles.
- 7. ALWAYS protect your hearing. Wear hearing protection during extended periods of operation.
- 8. ALWAYS secure your work. Use clamps or a vise to hold work when practical. It is safer than using your hand and frees both hands to operate tool.
- **9. DO NOT** overreach. **ALWAYS** keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- 10. ALWAYS avoid accidental starting. BE SURE switch is in the "Off" position before plugging in.
- 11. NEVER stand on tool. Serious injury could occur if the tool is tipped or if the tool is accidentally contacted.

TOOL USE AND CARE SAFETY

- 1. NEVER leave the tool running unattended. ALWAYS turn it off. DO NOT leave the tool until it comes to a complete stop.
- 2. DO NOT use the tool if the switch does not turn it "On" or "Off". Any tool that cannot be controlled with the switch is dangerous. ALWAYS have defective switches replaced at a Sears Service Center.
- **3.** ALWAYS disconnect the plug from the power source before making any adjustments, changing accessories or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- 4. ALWAYS store idle tools out of the reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

TOOL USE AND CARE SAFETY cont.

- 5. ALWAYS maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control. Follow instructions for lubricating and changing accessories.
- 6. DO NOT force the tool; it will do the job better and more safely at the rate for which it was designed.
- 7. ALWAYS use the right tool for the job. DO NOT force the tool or attachment to do a job it was not designed for. Use it only the way it was intended.
- 8. Before using this tool, ALWAYS check for damaged parts, including guards for prop operation and performance. Also ALWAYS check the alignment of moving parts, binding of moving parts, breakage of parts, tool stability, mounting and any other condition that may affect the tool's operation. If damaged, have the tool serviced at a Sears Service Center before using. Many accidents are caused by poorly maintained tools.

WARNING: Use of accessories that are not recommended for use with this tool may create a hazardous condition.

9. Only use accessories that are recommended for this tool. Using improper accessories may cause the risk of serious injury. See accessories section of this manual for proper accessories.

ADDITIONAL SPECIFIC SAFETY RULES FOR BAND SAWS

WARNING: DO NOT operate your band saw until it is completely assembled and installed according to the instructions.

- 1. Know your power tool. Read operator's manual carefully. Learn the applications and limitations, as well as the specific potential hazards related to this tool. Following this rule will help reduce the risk of electric shock, fire or serious injury.
- 2. ALWAYS firmly clamp or bolt your tool to a workbench or worktable at approximately hip height.
- 3. ALWAYS be sure that all adjustments are secure BEFORE operating tool.
- 4. ALWAYS USE SAFETY GOGGLES WHEN OPERATING YOUR BAND SAW. KEEP FINGERS AWAY FROM THE BLADE.
- 5. To avoid injury from unexpected movement, MAKE SURE your band saw is on a firm, level surface and properly secured to prevent rocking or shifting. MAKE SURE there is adequate space for handling your workpiece without obstruction. Bolt the band saw to the support surface to prevent slipping, moving or sliding during operation. Turn the band saw OFF and unplug the power cord BEFORE moving the band saw.

ADDITIONAL SPECIFIC SAFETY RULES FOR BAND SAWS cont.

- 6. To avoid injury from jams, slips or thrown pieces, use ONLY the right size and style of blade.
- 7. Use ONLY recommended accessories. MAKE SURE the blade teeth point downward toward the top of the worktable.
- 8. ALWAYS be sure the band saw blade path is free of nails. ALWAYS carefully inspect lumber and remove all nails **BEFORE** sawing.
- 9. ALWAYS adjust the upper blade guide and blade guard to barely clear the workpiece. (Blade guides, thrust bearing and blade tension must be properly adjusted to avoid accidental blade contact, to minimize blade breakage and to maximize blade support.)
- 10. DO NOT remove the band saw's blade guard. NEVER operate the band saw with any guard or cover removed. MAKE SURE that all guards are operating properly BEFORE each use.
- 11. ALWAYS be sure that the band saw blade clears the workpiece. NEVER start the band saw with the blade touching the workpiece. ALWAYS allow the motor to come up to full speed BEFORE starting to saw.
- 12. **ALWAYS** support long workpieces to minimize the risk of the band saw blade binding, breaking or throw back. The band saw blade may slip or slide while working with long or heavy boards.
- 13. BE SURE the worktable lock handle is tightly secured BEFORE turning on the band saw.
- 14. Use extra care and caution with large, very small or awkwardly shaped workpieces. Make relief cuts when cutting long curves.
- 15. **USE** extra external supports to prevent workpieces from tipping off the top of the worktable. **DO NOT** use another person as a substitute for an extension of the worktable or as an additional support for the workpiece.
- 16. **NEVER** saw more than one piece at a time. **DO NOT STACK** more than one workpiece on the worktable at a time.
- 17. **NEVER** do layout, assembly or setup work on the worktable when the band saw is on or while the blade is moving.
- 18. ALWAYS avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the band saw blade. ALWAYS make sure that you have good balance. NEVER operate your band saw on the floor or in a crouched position.
- 19. **NEVER** stand or have any part of your body in line with the path of the band saw blade.
- 20. ALWAYS plan intricate, close and fine work carefully BEFORE you turn on the band saw so that you DO NOT pinch the blade as you make your cut.
- 21. ALWAYS secure small workpieces with jigs and fixtures. DO NOT hand-hold small workpieces that can draw your fingers under the blade guard. ALWAYS support round-shaped workpieces properly (with a "V" block or clamped to the miter gauge) to prevent the workpiece from rolling on the worktable or the blade from biting into the workpiece accidentally.
- 22. ALWAYS use clean and sharp band saw blades. Sharp blades minimize stalling, blade drifting and kickback.

ADDITIONAL SPECIFIC SAFETY RULES FOR BAND SAWS cont.

- 23. DO NOT use a dull or damaged band saw blade. Damaged band saw blades can break easily, bind in the workpiece and cause kickback.
- 24. ALWAYS keep your hands away from working area. DO NOT reach under the material you are working on or into the path of the band saw with your fingers or hand for any reason. ALWAYS turn the power off.

WARNING: The band saw blade continues to move after the power to the band saw cuts off. To avoid possible serious injury, after turning **OFF** the band saw switch to cut power, allow the blade to stop completely **BEFORE** removing the band saw blade from the workpiece.

- 25. **NEVER** begin cutting a workpiece until the band saw blade is at full speed. Allow the band saw to operate for a brief period before using. If there is excessive vibration or unusual noise, stop the band saw **IMMEDIATELY**. Turn the band saw **OFF**. Unplug it immediately. **DO NOT** restart the band saw until the problem has been identified and corrected.
- 26. **NEVER** reach into the band saw blade area to pick up a workpiece, a piece of scrap, or anything else that is in or near the path of the band saw blade. Turn the power switch **OFF**, remove the switch key and unplug the band saw. Wait for all moving parts to stop completely before removing jammed materials.
- 27. NEVER, for any reason, touch the band saw blade or other moving parts during use.
- 28. DO NOT turn the motor switch on and off rapidly. This could cause the band saw blade to loosen which could create a hazard. Should this ever occur, stand clear and allow the band saw blade to come to a complete stop. Disconnect the tool from the power source and securely tighten the band saw blade.
- 29. ALWAYS turn off the band saw before disconnecting it to avoid accidental starting when reconnecting the band saw to a power supply. NEVER leave the band saw unattended when it is connected to a power supply.
- 30. **NEVER** lift this band saw by gripping the adjustable worktable.
- 31. **NEVER** leave the work area until all moving parts are stopped. To childproof the work area, shut off the power to master switches and remove the switch key from the band saw. Store it in a safe place, away from children.
- 32. SAVE THESE INSTRUCTIONS. Refer to them frequently and use them to instruct others who may use this band saw. If someone borrows this band saw, make sure they have these instructions also.

WARNING: Some dust particles created by sawing, drilling, power sanding, grinding and other construction jobs contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

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

Your risk from these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:

- Work in a well-ventilated area.
- Work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.



WARNING: The operation of any tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, **ALWAYS** wear safety goggles or safety glasses with side shield and a full face shield when needed. We recommend A Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shield, both available at Sears Retail Stores.

SERVICE SAFETY

- 1. If any part of this band saw is missing or should break bend, or fail in any way; or should any electrical component fail to perform properly: **ALWAYS** shut off the power switch and remove the tool plug from the power source and have the missing, damaged or failed parts replaced **BEFORE** resuming operation.
- 2. Tool service must be performed only at a Sears Service Center. Service or maintenance performed by unqualified personnel could result in a risk of injury.

The label of your tool may include the following symbols.

V	. Volts
Α	.Amps
Hz	.Hertz
W	
Min	
\sim	
n _o	No Load Speed
	.Class II Construction
/min	
⚠	Indicates danger, warning or caution. It means attention!!! your safety is involved.

IMPORTANT! READ ALL INSTRUCTIONS

GLOSSARY OF TERMS FOR BAND SAWS AND WOODWORKING

Base

Supports band saw. For additional stability, holes are provided in base to bolt the band saw to a workbench which should also be bolted to the floor.

Blade Guides

These guides support the band saw blade and keep it from twisting and deflecting during operation. Blade guides must be adjusted when blade is changed or replaced. These guides should be tracking but not forcing the band saw blade in another direction. Make sure the guides do not ride on the teeth of the band saw blade but ONLY on the flat part of the band saw blade.

Upper Slide Adjusting Knob

This knob locks the upper slide. Use it after you adjust the upper guide assembly to make sure the upper blade guide just clears the workpiece before cutting. **BEFORE TURNING ON THE BAND SAW**, tighten the upper slide adjusting knob.

Worktable Provides a working surface to support the workpiece.

Worktable Lock Handle Locks the worktable in place after it has been adjusted for your workpiece.

Tile (Bevel) Scale Shows the degree the worktable is tilted for bevel cutting.

Blade Tension Adjustment Knob

Moves the upper wheel up or down to control the amount of blade tension.

Blade Tracking Adjustment Knob

Adjusts the blade position so that the blade always runs in the center of the wheels.

Sawdust Ejection Port

Helps keep the band saw free from sawdust. The sawdust ejection port makes an excellent hook-up to many wet/dry shop vacuums.

Blade Slot

Slot in the worktable to help make blade changes quick and easy without removing the worktable assembly

Cover

For easy and convenient blade changes and adjustments, your band saw has been designed with a durable, hinged cover.

Blade Guard Protects the operator from the blade during band saw operation.

Trunnion

A bracket located under the worktable assembly that allows the worktable to tilt up to 45 degrees. A scale on the rear of the trunnion allows the operator to measure the angle of the cut.

Band Saw ON/OFF Switch

Has a locking feature which is intended to help prevent unauthorized and possible hazardous use by children and others. To lock the switch in the OFF position, remove the switch key from the switch.

Bevel Cut An angle cut made through the face of a workpiece.

Compound Cut A simultaneous bevel and miter cut.

Crosscut

A cut made across the width of the workpiece and at 90 degrees to the primary grain of the wood.

F.P.M. Abbreviation for feet per minute. Used in reference to the linear surface speed of the saw blade.

Free Hand

Performing a cut without using a fence (guide), hold-down or other proper device to prevent the workpiece from twisting during the cutting operation.

GLOSSARY OF TERMS FOR BAND SAWS AND WOODWORKING cont.

Gum A sticky sap-based residue from wood products.

Heel Misalignment of the band saw blade.

Kerf

The material removed by the blade in a through cut, or the slot produced by the blade in a non-through or partial cut.

Kickback

Throwing of a workpiece caused by the band saw blade binding with the workpiece and causing it to kickback uncontrollably toward the operator causing a potential serious injury.

Leading Edge The front edge of the workpiece that first enters the cutting tool.

Miter Cut An angle cut made across the width of a workpiece.

Resaw

A cutting operation to reduce the thickness of the workpiece to make a thinner workpiece.

Resin

A sticky, sap-based residue from wood products that can bind the band saw blade and accumulate in the blade teeth.

Ripping Cut

A cutting operation along the length of the workpiece usually parallel to the primary grain of the wood.

R.P.M.

Revolutions per minute. The number of turns completed by a spinning object in one minute.

Saw Blade Path

The area of the workpiece or worktable directly in line with the travel of the blade or the part of the workpiece that will be cut.

Set

The distance between two saw blade teeth tips that are bent outward in opposite directions to each other. The further apart the tips are, the greater the set.

Through Sawing

Any sawing operation where the saw blade extends completely through the thickness of the workpiece.

Trailing Edge The workpiece edge last cut by the blade.

Workpiece

The item being cut. The surfaces of a workpiece are commonly referred to as faces, ends and edges.



UNPACKING

Your Band Saw has been shipped partially assembled.

- 1. Remove all packing materials from around your Band Saw.
- 2. Carefully lift the band saw from carton and place it on a level work surface. The motor housing assembly is heavy, so get help, if you need it, to help avoid injuring your back. Compare parts against the carton contents list below.
- 3. Do not discard the packing materials until you have carefully inspected the band saw for loose or damaged parts and successfully operated the tool.

A WARNING: This band saw has been shipped with a protective coating applied to the machined surfaces. Remove the coating with a soft cloth moistened with a non-oil based solution such as rubbing alcohol.

DO NOT use acetone, gasoline or lacquer thinner to remove the protective coating.

Carefully inspect all parts of the band saw to make sure that no breakage or damage has occurred during shipping.

WARNING: If any parts are missing, **DO NOT** operate this tool until the missing parts are replaced. Failure to do so could result in possible serious injury.

CARTON CONTENTS

The following items are included with your band saw



CARTON CONTENTS cont.

MARNING: The use of attachments or accessories that are not recommended might be dangerous and could cause serious personal injury.

TOOLS NEEDED

The following tools are not included, but are needed to assemble your band saw.



DESCRIPTION

KNOW YOUR BAND SAW

Your band saw has many built-in convenience features for fast, efficient sawing. Before attempting to use your tool, familiarize yourself with all of the operating features and safety requirements.

WARNING:DO NOT allow familiarity with your tool to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.



ASSEMBLY

A WARNING: To prevent personal injury, ALWAYS disconnect the plug from power source **BEFORE** assembling parts, making adjustments or changing blades.

ATTACHING SAW TABLE

- 1. Remove the table aligning screw and wing nut (1) from the edge of the worktable (2) (Fig. 2).
- Remove the spring-loaded hex screw
 (3) (Fig. 2A) from the handle shaft (4)
 (Fig. 2A) to release the crank (5) (Fig. 2A)
 from the table lock handle (Fig. 2A).
- 3. Slide the worktable onto the lower blade housing by passing the blade through the blade slot (6) (Fig. 3A) in the worktable. Make sure the raised mounting rib (7) (Fig. 3) on the side of the lower blade housing engages with the recessed groove (8) (Fig. 2) on the trunnion bracket (9) (Fig. 2) of the worktable.
- 4. Slide the flat washer (10) (Fig. 2A) onto the threaded end of the handle shaft (4) (Fig. 2A). Insert the threaded end of the handle shaft (4) (Fig. 2A) through the curved slot on the trunnion bracket and into the threaded hole (11) (Fig. 3) above the raised mounting rib on the lower blade housing. Hand-tighten the handle shaft into the lower blade housing (Fig. 4A) until the mounting rib fully engages with the recessed groove on the trunnion bracket.
- 5. Replace the crank on the handle shaft and fasten it with the spring-loaded hex screw (Fig. 4). NOTE: See Fig. 4 for assembled and installed table lock handle (12). The table lock handle engages when the crank is pulled back toward the spring-loaded hex screw head to lock/unlock the table.
- 6. Replace the aligning screw and wing nut (1) (Fig. 2).
- 7. If necessary, adjust the tilt pointer (13) (Fig. 4) to reflect actual table tilt position in degrees.



ASSEMBLY cont.

MOUNTING BAND SAW TO WORK STAND (Fig. 5)

WARNING: ALWAYS make sure your band saw is securely mounted to a workbench or an approved workstand. Motor vibration, weight on the worktable and other factors may cause the band saw to tip over, slide or 'walk' along the workstand surface during operation. Failure to do so could result in an accident, resulting in possible serious personal injury.

- 1. If the band saw is to be mounted in a permanent location, it **MUST** be secured to a supporting surface such as a work bench.
- 2. The band saw must be securely fastened by the four base holes to a workstand or workbench with heavy-duty fasteners (not included). This prevents the band saw from tipping over, sliding or walking/creeping along the workstand or workbench surface during operation. See diagram for proper installation.

(Mounting hardware indicated is not included.)

- 1. Band saw base
- 2. Hex head bolt
- 3. Lock washer
- 4. Flat Washer
- 5. Workbench surface
- 6. Flat washer
- 7. Lock washer
- 8. Hex nut

IMPORTANT. If the workstand or workbench has a tendency to move during operation, fasten it securely to the floor.

NOTE: Mounting hardware listed above is not included with the tool.



ASSEMBLY cont.

REPLACING (INSTALLING) THE BLADE (Fig. 6)

- 1. Unscrew the upper and lower cover knobs (1) (Fig. 6) of the hinged housing cover and open the cover.
- Loosen the blade guard adjusting knob (3) (Fig. 6) and position the blade guard halfway above the table (Fig. 6A). Tighten the blade guard adjusting knob.
- 3. Loosen the two blade guard mounting screws (4) (Fig. 6A) with the hex key and slide off the blade guard (3) (Fig. 6A).
- Remove the table aligning screw (5) (Fig. 6) from the worktable.
- 5. Turn the blade tension knob (6) (Fig. 6) counterclockwise to release blade tension and remove the old blade.
- 6. Slide the old blade off of the upper and lower blade wheels (7) and through the table slot (8) **(Fig. 6A)**.
- 7. Install the new replacement blade with the teeth pointing toward the table slot and downward toward the table.
- 8. Center the blade on the soft, no-slip surface of the upper and lower blade wheels (7).
- 9. Rotate the wheels clockwise to help guide and center the blade on the upper and lower blade wheels.



CAUTION: ALWAYS install the band saw blade with the teeth pointing down toward the worktable.

A WARNING: TURN OFF the saw, REMOVE the switch key and UNPLUG the saw BEFORE removing, adjusting or installing the blade.

ADJUSTMENTS

REPLACING (INSTALLING) THE BLADE (Figs. 7, 7A, 7B)

BLADE TENSION

- When the blade is centered on the upper and lower blade wheels, turn the blade adjustment tension knob (1) (Fig. 7) clockwise until the spring (2) (Fig. 7) begins to compress.
- Continue tightening until the blade is tight on the upper and lower blade wheels. Under-tightening the blade will cause it to slip on the blade wheels.
- 3. DO NOT over-tighten the blade.

BLADE TRACKING (Figs. 7, 7A, 7B)

NOTE: Adjust the tension properly **BEFORE** making any tracking adjustments. Check that the blade guides are not touching the blade.

- By hand, turn the upper blade wheel (3) (Fig. 7A) clockwise and watch the blade position on the soft, no-slip surface (4) of the wheel. If the blade moves off center, tracking adjustment is required.
- If the blade moves toward the OUTSIDE EDGE (5) of the blade wheel, turn the tracking adjustment knob (1) (Fig. 7B) clockwise. Continue adjusting until the blade returns to and remains in the center of the soft, no-slip surface of the blade wheel.
- If the blade moves toward the INSIDE EDGE (6) of the blade wheel, turn the tracking adjustment knob (1) (Fig. 7B) counterclockwise. Continue adjusting until the blade returns to and remains in the center of the soft, no-slip surface of the blade wheel.
- 4. Check the position of the blade on the lower wheel. If the tracking is 'off', continue to rotate the tracking adjustment knob clockwise and counterclockwise until the blade sits properly centered on both blade wheels as they rotate.







ADJUSTMENTS cont.

REPLACING (INSTALLING) THE BLADE (Figs. 8-10)

ADJUST THE UPPER BLADE GUIDE STABILIZING BARS AND BLADE GUIDE BRACKET (Fig. 8)

NOTE: The upper and lower blade guides and support bearings stabilize the moving blade as rigidly as possible during operation under load conditions. These guides **MUST** be checked and adjusted **BEFORE EACH USE and AFTER BLADE CHANGES.**

- Loosen the two blade guide adjusting screws (1)
 (Fig. 8) with hex key. Slide each blade guide stabilizing bar (2) toward the blade (3) so they are as close as possible to the blade without touching or pinching the blade. Tighten the two blade guide adjusting screws (3) securely with hex key.
- 2. Loosen the blade guide bracket adjusting screw (4) with hex key and adjust the blade guide bracket (5) that holds the two blade guide stabilizing bars (2). Move this bracket (5) in or out until the front of the two blade guide stabilizing bars (2) are to the rear of and not touching the blade teeth. Tighten the blade guide bracket adjusting screw (4) securely with hex key.

BE SURE that the two blade guide stabilizing bars **DO NOT CONTACT** the teeth of the saw blade when you are operating the band saw and applying pressure into the saw blade with your work piece.

ADJUST THE UPPER BLADE SUPPORT BEARING (Fig. 9)

The blade support bearing (1) keeps the saw blade (2) from being pushed back when cutting. This support bearing (1) should be located 1/32-in. behind the blade (2).

- Loosen the blade support bearing adjustment screw (3) with hex key. Position the blade support bearing (8) 1/32-in. behind the smooth rear edge of the blade.
- 2. Tighten the support bearing adjustment screw (3) securely with hex key.
- 3. Replace the blade guard if no additional adjustments are to be made.

ADJUST THE LOWER BLADE GUIDE STABILIZING BARS, BLADE GUIDE AND SUPPORT BEARING (Fig. 10)

Follow the same steps and sequence used when adjusting the upper blade guide stabilizing bars for adjusting the lower blade guide and support bearing. When adjusting the blade guide adjusting screw (1) (Fig. 10) and support bearing adjusting screw (2) (Fig. 10), pass hex key through the holes in the lower blade wheel housing to access the adjusting screws.

NOTE: Make sure you have properly adjusted both the upper and lower blade guides. The blade will be ruined if the blade teeth hit the blade guides.







ADJUSTMENTS cont.

SQUARING THE TABLE TO THE BLADE (Fig. 11)

- 1. Raise the blade guard (1) (Fig. 11) as far as it will go.
- 2. Loosen the table lock handle (2) (Fig. 11).
- 3. Set a combination square (3) (Fig. 11) on the table and align it with the blade.
- 4. Move the table (4) **(Fig. 11)** until it is at a 90° angle to the blade. Tighten the table lock handle (2).
- 5. Turn the zero-stop set screw (5) (Fig. 11) until it touches the frame. Turn the shaft clockwise to tighten the table.
- 6. Recheck the adjustments, reset the tilt pointer (6) (Fig. 11) to the actual correct reading.

TILTING THE WORKTABLE (Fig. 12)

- 1. Loosen the worktable lock handle (1) (Fig. 12).
- 2. Tilt the worktable to the side until it reaches the desired angle.
- 3. Check the angle markings opposite the pointer(2) (Fig. 12). Tighten the worktable lock handle (1).

WHEEL BRUSH (Fig. 13)

The wheel brush is located inside the housing and helps keep the blade and the wheel free of sawdust and wood chips.

- 1. To adjust, loosen the screw (1) (Fig. 13) and position the wheel brush (2) (Fig. 12) so that it contacts the bristles of the brush.
- 2. Tighten the screw (1).

AWARNING: DO NOT attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is a misuse and could result in a hazardous condition leading to possible serious personal injury.







A WARNING: To avoid injury from the band saw starting accidentally, ALWAYS assemble all parts of your band saw BEFORE connecting it to the power supply. The band saw should NEVER be connected to a power supply when you are assembling parts, making adjustments, installing or removing band saw blades or when not in use.

WARNING: To avoid injury from an accidental start, **ALWAYS** make sure: (1) the switch is in the **OFF** position, (2) the switch key is **REMOVED**, and (3) the plug is **NOT** connected to the power source outlet **BEFORE** making any adjustments.

OPERATION

APPLICATIONS

Use your band saw **ONLY** for the purposes listed below:

- Sawing wood and plastic

- Other applications based on approved accessories

WARNING: To avoid possible injury, keep blade wheel motor housing cover closed, secured in place, and in proper working order while tool is in operation.

A WARNING: Turn saw OFF, REMOVE the switch key, and UNPLUG the saw BEFORE removing, adjusting or installing the blade.

LOCKING THE SWITCH (Fig. 15)

The switch should be locked when the saw is not being used.

- 1. Wait until the saw has come to a complete stop.
- To lock the switch in the "OFFÕ" position, remove the yellow switch key (1) from the switch housing (2). Store it in a safe place.
- 3. To turn the saw "ON", insert the yellow switch key (1) into the switch housing (2) and move the switch to the "ON" position.

MITER GAUGE (Fig. 16)

- 1. The miter gauge fence (1) can be turned 45° to the right or left.
- 2. To set the angle, loosen the lock knob (2) and rotate the fence until it reaches the desired angle on the index scale (3).
- 3. Tighten the lock knob (2).





SAWDUST EJECTION PORT (Fig. 17)

- 1. The sawdust ejection port (1) blows dust away from the user and the work area.
- 2. Your band saw is equipped with a standard vac adaptor that can be used with most wet/dry vacs.



OPERATION cont.

FENCE

The quick-set fence can be moved on the worktable and locked in place by raising (unlocking) or lowering (locking) the lock handle (1).

A WARNING: To prevent personal injury, ALWAYS disconnect the plug from the power source when making any adjustment.



BASIC OPERATING INFORMATION

WARNING: To avoid blade contact and personal injury, adjust the upper guard assembly so that it just clears the upper surface of the workpiece.

For general cutting, follow the pattern lines by pushing the turning the workpiece at the same time. To achieve a curved radius cut, follow the pattern line with the blade while turning the workpiece. The blade should cut in the middle of the pattern line (kerf).

Use both hands to feed the work through the blade. Make sure you hold the workpiece firmly against the worktable. Use light forward pressure and **DO NOT** force the workpiece against the band saw blade.

The diameter of any circle cut you make is determined by the width of the band saw blade. For example: a 1/4-in. wide blade will cut a minimum diameter of approximately 1-1/2-in. A 1/8-in. wide blade will cut a minimum diameter of approximately 1/2-in.

BAND SAW MINIMUM CUTTING RADIUS

Always use the widest blade possible.

NOTE: the blade length for your band saw is 56 1/8 in. (1425 mm)

CAUTION: Blade teeth are sharp. Use care when handling a band saw blade.

MAINTENANCE

GENERAL cont.

A WARNING: To avoid accidents, ALWAYS disconnect the tool from the power source **BEFORE** cleaning or performing any maintenance.

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M WARNING: Preventive maintenance performed by unauthorized personnel may result in misplacing of internal wires and components, which could cause a serious hazard.

CLEANING

- 1. Remove sawdust that accumulates inside the band saw housing and blow sawdust out of the motor area.
- 2. Clean off the pitch, sap and resin that accumulates on the worktable, blade guides and bearings.
- 3. Apply a thin coat of automotive polish to the top of the worktable and to the trunnion. Polish for a slick surface.
- 4. Remove pitch, sap and resin from the wheels using a stiff brush. **DO NOT USE SOLVENTS**
- 5. Replace the wheel tires when worn.

A WARNING: DO NOT at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. to come in contact with plastic parts. They contain chemicals that can damage, weaken or destroy plastic.

WARNING: Replace the power cord immediately if it is worn, cut or damaged in any way.

It is a known fact that electric tools are subject to accelerated wear and possible premature failure when they are used to work on fiber glass, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to electrical tool parts, such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool has used for extended work on any fiber glass material.

it is not recommended that this tool be used for extended work on any fiber glass material, wallboard, spackling compound, or plaster. During any use on these materials, it is extremely important that the tool is cleaned frequently by blowing dust and debris from moving parts with an air jet.

WARNING: ALWAYS wear safety goggles or safety glasses with side shields when using this tool or blowing dust. If operation is dusty, also wear a dust mask.

MAINTENANCE cont.

GENERAL cont.

LUBRICATION

All of the bearings in this tool are lubricated with a sufficient amount of high-grade lubricant for the life of the tool under normal operating conditions. Therefore, no further lubrication is required.

ACCESSORIES cont.

Sears Parts and Repair Centers have a 56 1/8 -in. replacement blade for your 8-in. Band Saw. To order, simply call 1-800-488-1222 anytime, day or night (U.S.A. only) or order online at www.sears.com

EXTENSION CORDS

The use of any extension cord will cause some loss of power. To keep the loss at a minimum and to prevent overheating, use an extension cord that is heavy enough to carry the current that the tool will draw.

A wire gauge (AWG) of at least 14 is recommended for an extension cord 25 feet or less in length. When working outdoors **ALWAYS** use an extension cord that is suitable for outdoor use. The cord's jacket will be marked WA.

CAUTION: Keep extension cords away from the cutting area, and position the cord so it will not get caught on lumber, tools, etc. during operation.

WARNING: Check extension cord before each use. If damaged, replace it immediately. NEVER use a tool with a damaged cord because touching the damaged area could cause electrical shock, resulting in serious injury.

WARNING: The use of attachments or accessories that are not recommended might be dangerous.

NOTES

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