Busy Bee Tools

METAL BAND SAW

BBMBS46

User's Manual



COPYRIGHT © 2026 BY BUSY BEE TOOLS LTD.
V1.0-2026

NO PORTION OF THIS MANUAL MAY BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF BUSY BEE TOOLS LTD.

Table of Content

General Shop Safety Instructions……...1

Introduction……...2

Machine Identification and Data Sheet……...3

Section 1: Safety Instructions……...4

Section 2: Power Supply……...13

Section 3: Assembly and Setup……..15

Section 4: Operations…….27

Section 5: Cleaning, Maintenance and Lubrication……41

Section 6: Troubleshooting……...50

Section 7: Electrical Wiring and Diagram……..55

Section 8: Machine Diagrams and Parts List……56

Warranty……..64







General Shop Safety instructions

Notice: Safety First! The paramount concern in operating this equipment is safety. It is imperative to adhere strictly to the following instructions. Neglecting any of the listed guidelines may lead to risks such as electric shock, fire hazards, or severe personal injury.

This tool is specifically designed for certain applications. We emphasize the importance of refraining from modifying or repurposing the tool for any other use beyond its designated application. If you have inquiries regarding its appropriate application, refrain from using the tool until you have communicated with us and received our guidance. Please refer to the below safety symbols

CAUTION Implies an imminently hazardous situation, which, if not avoided, could result in death or serious injury.

DANGER Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

WARNING Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.

Please Note that this manual has some instructions and processes to help you maintain and prolong the life of your machine please perform all the recommended cleaning and maintaining processes diligently.

Introduction

It is with distinct honor and excitement that we present to you the BBMBS46 metal band saw, a premier addition to our esteemed line of precision metalworking equipment. At Busy Bee Tools, we are committed to engineering excellence, and this machine exemplifies our dedication to providing craftsmen with superior tools for their trade.

This manual has been meticulously crafted to guide you through the setup, safe operation, and maintenance of your new BBMBS46 metal band saw. By following the detailed instructions and recommendations contained within these pages, you can anticipate many years of dependable and satisfying performance. This commitment to quality underscores Busy Bee Tools' promise of enhancing customer satisfaction through innovation and reliability.

Included within this manual are precise specifications, illustrations, and photographs that represent the BBMBS46 in its current configuration. Please note, in our pursuit of continual improvement and to exceed industry standards, Busy Bee Tools reserves the right to make enhancements to this model without prior notice.

For your convenience, we continuously update all our product manuals which are available on our website at www.busybeetools.com . We encourage you to visit this site regularly to download the latest updates and ensure that you are always informed about the best practices for operating and maintaining your machine. At Busy Bee Tools, your safety and satisfaction are our utmost priority, and we are dedicated to ensuring that your experience with the BBMBS46 is exceptional.

Welcome to the Busy Bee Tools family, where craftsmanship meets innovation.

Contact Us

In case you require additional assistance or have any further questions, please do not hesitate to reach out to our dedicated Customer Service and Technical Support Department at:

Busy Bee Tools Head Office

130 Great Gulf Drive

Concord ON, L4K 5W1

Or at any of our stores across Canada.

Visit our website for the latest deals and for more information. Call us Toll Free: 1-800-461-2879.

Email us at: cs@busybeetools.com

Our team of experts is here to provide you with the guidance and support you need to ensure the safe and efficient operation of your machine. Your satisfaction and safety are our top priorities, and we are committed to assisting you in any way we can.

COPYRIGHT © 2026 BY BUSY BEE TOOLS LTD.
V1.0-2026
NO PORTION OF THIS MANUAL MAY BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF BUSY BEE TOOLS LTD.

Machine Identification and Data Sheet

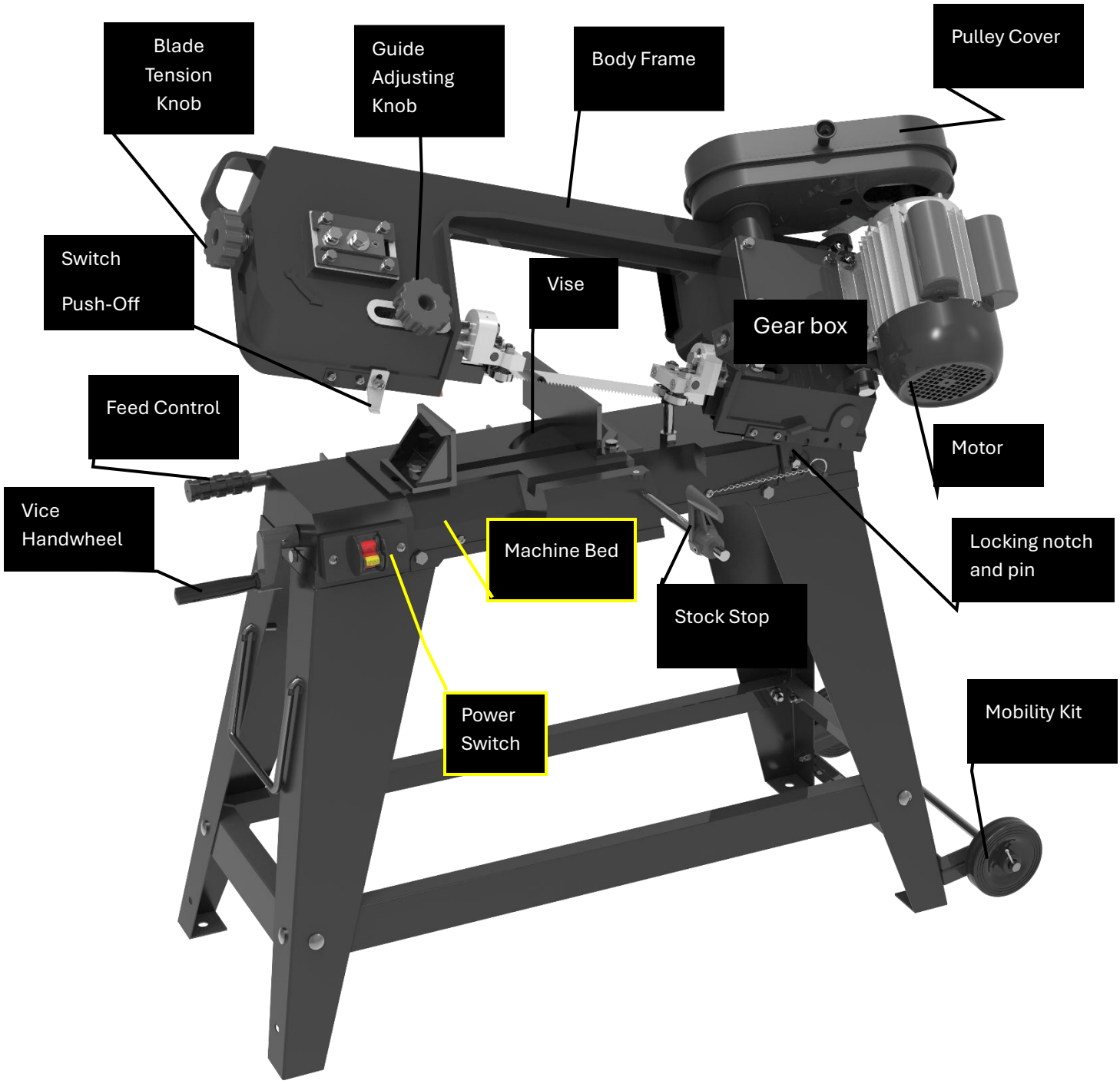


Figure 1: Machine Identification.

Specifications

Electrical	120VAC/60Hz/6.5Amp 1HP
Motor No-Load Speed	1700 RPM
Blade Speed	80 FPM/ 120 FPM/ 200 FPM
Cutting Capacity	4-1/2” Round Stock 4”X6” Rectangular Stock
Throat Depth	4-1/2”
Angle Cutting Capacity	0° - 45° (left) miter plate on horizontal cutting
Horizontal Bed	11-1/2”LX7-1/2”WX23-1/2”H
Vertical Bed	9-1/2”X9-1/2”X33-1/2”H
V-Belt Type	0-506
Blade Size (included)	64-1/2”LX1/2”WX0.025” thick/14TPI

Section 1: Safety

General Safety Instructions

Read and fully understand all safety warnings, instructions, and operating procedures before using this machine.
Failure to follow these warnings and instructions may result in electric shock, fire, serious personal injury, or equipment damage.

Keep all safety warnings and instructions for future reference.

1. Keep Safety Guards Installed

Always ensure that all protective guards are properly installed, correctly adjusted, and functioning as intended. Never operate the machine with guards removed, damaged, or disabled.

2. Remove Adjustment Tools Before Operation

Always remove all adjustment keys, wrenches, and other tools before starting the machine. Develop the habit of checking that all tools have been removed before switching the machine on.

3. Maintain a Clean Work Area

Keep the work area, machine surfaces, and surrounding floor clean and free from clutter. Untidy work areas and crowded benches increase the risk of accidents.

4. Avoid Hazardous Operating Environments

Do not operate power tools in wet or damp locations or expose them to rain or moisture. Ensure the work area is properly illuminated and free from conditions that may create a safety hazard.

5. Keep Unauthorized Persons Away

Keep children and untrained personnel at a safe distance from the machine and work area. Only authorized and properly

trained operators should use this equipment.

6. Make the Workshop Safe

Prevent unauthorized operation of equipment by using safety measures such as lockable switches, padlocks, disconnect devices, or by removing starter keys when the machine is not in use.

7. Do Not Force the Machine

Operate the machine at the speed and feed rate recommended for its intended application. Excessive force can reduce performance, damage components, and increase the risk of injury.

8. Use the Correct Tool and Accessories

Use the machine and accessories only for their intended purpose. Do not modify the machine or use attachments that are not designed or recommended for the application.

Extension Cord Safety Requirements

Use only properly rated extension cords that are suitable for the machine's electrical requirements. An undersized extension cord can cause voltage drop, reduced performance, overheating, and potential fire hazards.

The required wire size depends on the extension cord length and the machine's rated amperage. Use the following guidelines:

Recommended Minimum Wire Gauge for Extension Cords (120 V)

Machine Rated Amperage	Extension Cord Length	Minimum Wire Gauge
0–6 A	25 ft (7.6 m)	18 AWG
	50 ft (15.2 m)	16 AWG
	100 ft (30.5 m)	16 AWG
	150 ft (45.7 m)	14 AWG
6.1–10 A	25 ft (7.6 m)	18 AWG
	50 ft (15.2 m)	16 AWG
	100 ft (30.5 m)	14 AWG
	150 ft (45.7 m)	12 AWG

Note: When uncertain, always select the next heavier gauge extension cord. A lower gauge number indicates a heavier-duty cord with greater current-carrying capacity.

9. Wear Appropriate Protective Clothing

Do not wear loose clothing, gloves, jewelry, rings, bracelets, neckties, or any items that could become caught in moving machine components. Wear non-slip footwear and secure long hair with appropriate protective covering.

10. Always Wear Approved Eye Protection

Wear safety glasses with appropriate impact protection whenever operating

the machine. Use additional protection, such as a face shield or dust mask, when performing operations that generate dust or debris.

Standard prescription glasses are not a substitute for approved safety glasses.

11. Secure the Workpiece Properly

Whenever possible, secure the workpiece using clamps, fixtures, or a vise. Holding the workpiece securely improves control and allows both hands to operate the machine safely.

12. Maintain Proper Balance and Position

Avoid overreaching. Always maintain stable footing, proper balance, and a comfortable operating position while using the machine.

13. Maintain the Machine Properly

Keep cutting tools sharp, clean, and properly maintained to ensure safe and efficient operation. Follow all maintenance instructions for lubrication, adjustments, and accessory replacement.

14. Disconnect Power Before Maintenance

Always disconnect the machine from the power source before performing maintenance, servicing, cleaning, or changing accessories such as blades, bits, cutters, or other tooling.

15. Prevent Accidental Start-Up

Ensure the power switch is in the **OFF** position before connecting the machine to the electrical supply or restoring power after maintenance.

16. Use Recommended Accessories Only

Use only accessories and attachments recommended by the manufacturer. Improper accessories may cause machine damage, reduced performance, or serious personal injury.

17. Never Stand on the Machine

Do not stand on the machine or use it as a work platform. The machine may tip over, or accidental contact with moving components may result in serious injury.

18. Inspect Damaged Components Before Use

Before operating the machine, inspect all guards and components for damage. Verify that:

- Guards operate correctly.
- Moving parts are properly aligned.
- Moving components are not binding.
- Parts are securely mounted.
- No damaged components could affect safe operation.

Damaged guards or components must be repaired or replaced before operating the machine.

19. Follow Correct Feed Direction

Always feed material into blades, cutters, or rotating tools **against the direction of rotation**. Incorrect feeding direction may cause kickback, loss of control, and serious injury.

20. Do Not Leave the Machine Running Unattended

Never leave the machine operating without supervision. Turn the power switch OFF and wait until all moving parts have come to a complete stop before leaving the machine.

Failure to follow these safety instructions may result in serious injury, equipment damage, or unsafe operating conditions. Always operate the machine according to the manufacturer's instructions and applicable workplace safety requirements.

Band Saw Safety Warnings

For Your Safety, Read and Understand the Instruction Manual Before Operating This Machine

Failure to follow these safety instructions may result in serious personal injury, equipment damage, or unsafe operating conditions. Always ensure the band saw is properly adjusted, inspected, and operated according to the manufacturer's instructions.

1. Wear Appropriate Eye Protection

Always wear approved safety glasses or goggles when operating the band saw. Additional face protection is recommended when performing operations that may generate chips, debris, or fragments.

2. Wait for the Blade to Stop Before Removing Material

Never attempt to remove cut-off pieces, scraps, or trapped material while the blade is moving. Turn the machine OFF and wait until the blade has come to a complete stop before clearing any material.

3. Maintain Proper Blade Adjustment

Before operation, verify that the blade tension, blade guides, and blade guide bearings are correctly adjusted. Proper adjustment helps ensure safe operation, accurate cutting, and reduces the risk of blade failure.

4. Adjust the Upper Blade Guide Correctly

Position the upper blade guide so it is slightly above the workpiece while cutting. Keeping the guide as close as practical improves blade support and reduces the risk of accidental contact.

5. Secure the Workpiece Properly

Always hold the workpiece firmly against the table during cutting. Maintain proper control of the material to prevent movement, binding, or unexpected kickback.

6. Use Extreme Care When Handling Band Saw Blades

Use caution when unpacking, installing, removing, or replacing a band saw

blade. Blades may be stored under tension and can suddenly uncoil, causing injury.

Always wear:

- ANSI-approved safety glasses.
- A full-face shield.
- Heavy-duty protective gloves.

7. Keep Hands Away From the Blade

Never place hands or fingers near the cutting area or the moving blade. Use appropriate push sticks, fixtures, or other safety devices when required to maintain a safe distance from the blade.

8. Do Not Operate the Machine With Guards Disabled or Damaged

Never operate the band saw if any guard, cover, or safety device is missing, damaged, or disabled.

All moving guards must:

- Move freely without obstruction.
- Return automatically to their protective position.
- Fully cover hazardous moving components when not in use.

9. Verify Blade Setup Before Each Use

Before operating the band saw, adjust and inspect:

- Blade tension.
- Upper blade guide position.
- Blade guide bearings.
- Blade tracking.

Correct adjustment of these components is essential to reduce the risk of blade breakage, inaccurate cuts, and operator injury. Refer to the **Operating Instructions** section of this manual for detailed adjustment procedures.

Always inspect the band saw before use and never bypass safety devices. Safe operation requires proper machine setup, correct cutting techniques, and continuous attention to the work area.

10. Do Not Leave the Band Saw Unattended

Never leave the band saw running or connected to the electrical supply when unattended. Turn the machine OFF and disconnect the power cord from the outlet before leaving the work area.

11. Install the Band Saw on a Stable Surface

Place the band saw on a flat, level, and sturdy surface capable of supporting the machine’s weight and the workpieces being cut.

If the machine is equipped with wheels or a mobile base, always secure or lock the wheels before operation to prevent unintended movement.

12. Inspect the Saw Blade Before Use

Before operating the band saw, inspect the blade to ensure it is correctly installed, properly tensioned, and free from cracks, bends, or other damage.

Do not operate the machine with a damaged blade.

13. Cut Only One Workpiece at a Time

Never attempt to cut multiple workpieces simultaneously. Cutting stacked materials can cause shifting, binding, loss of control, and possible injury.

14. Do Not Perform Freehand Cutting

Never attempt to cut material without proper support and control. Always keep the workpiece firmly against the table, fence, or approved holding device during cutting operations.

15. Support Large Workpieces Properly

When cutting large or heavy workpieces, ensure the entire length of the material is adequately supported. Use an appropriate support stand, roller stand, or auxiliary support device when necessary.

16. Do Not Lean on the Band Saw

Never place body weight against the band saw, especially when the machine is positioned upright. Applying force to the machine may cause instability or unexpected movement.

17. Secure the Machine Before Moving

Before transporting or relocating the band saw:

- Lower the cutting head to the horizontal position.
- Engage the locking mechanism.
- Install the locking pin in the pivot assembly, if equipped.

Failure to secure the machine properly may result in unexpected movement and injury.

18. Allow the Blade to Reach Full Speed Before Cutting

Allow the saw blade to reach full operating speed before feeding material into the blade.

When stopping the machine:

- Turn the power OFF.
- Allow the blade to stop naturally.
- Do not attempt to stop the blade by applying pressure or contacting it with another object.

19. Wear Protective Gloves When Changing Blades

Always wear heavy-duty cut-resistant gloves when installing, removing, or handling band saw blades. Blades are sharp and may cause serious injury.

20. Stop the Machine Before Backing Out of a Cut

If the blade becomes trapped or a cut must be withdrawn before completion, turn OFF the band saw and wait until the blade has completely stopped before removing the workpiece.

21. For Indoor Use Only

Operate this band saw indoors in a dry environment. Do not expose the

machine to rain, moisture, or outdoor weather conditions.

22. Use the Correct Blade for the Workpiece

Ensure the blade tooth spacing is suitable for the material being cut. If the blade teeth are too widely spaced and fail to properly engage the workpiece, the material and/or blade may be damaged.

23. Use Only Approved Accessories

Only use accessories and attachments recommended by the manufacturer. The use of incompatible or unapproved accessories may increase the risk of injury or machine damage.

24. Use Original Replacement Parts

When servicing the machine, use only identical replacement parts that meet the original equipment specifications.

25. Use Approved Personal Protective Equipment

Only use safety equipment approved by recognized standards organizations.

Minimum requirements:

- Eye protection must be ANSI-approved.
- Respiratory protection must be NIOSH-approved and suitable for the specific hazards present in the work area.

Unapproved protective equipment may not provide adequate protection.

26. Stay Alert During Operation

Remain focused and use proper judgment when operating power tools.

Do not operate the band saw if you are:

- Tired or distracted.
- Under the influence of alcohol, drugs, or medication that may affect your ability to operate machinery safely.

A moment of inattention can result in serious personal injury.

27. Follow Workplace Safety Regulations

For industrial or commercial applications, follow all applicable workplace safety regulations, including OSHA requirements or local occupational health and safety standards.

28. Maintain Safety Labels and Identification Plates

Keep all warning labels, safety decals, and nameplates clean and readable. These labels contain important safety information.

Replace any damaged, missing, or unreadable labels before operating the machine.

29. Prevent Accidental Start-Up

Prepare the machine and workpiece completely before turning the power switch ON. Ensure the switch is in the OFF position before connecting power.

30. Pacemaker Safety Notice

Individuals with implanted pacemakers should consult their physician before operating this machine.

Electromagnetic fields generated by electrical equipment may interfere with pacemaker operation.

Operators with pacemakers should:

- Avoid operating the machine alone.
- Never use the machine with the power switch locked in the ON position.
- Inspect and maintain the machine regularly to reduce electrical hazards.
- Ensure the power supply is properly grounded.
- Use a Ground Fault Circuit Interrupter (GFCI) when required to reduce the risk of electric shock.

31. Understand the Limitations of Safety Instructions

The warnings, precautions, and instructions provided in this manual cannot cover every possible situation or hazard that may occur during operation.

The operator is responsible for using proper judgment, following safe work practices, and exercising caution at all times. Safety depends not only on the machine design but also on the operator's awareness and actions.

Failure to follow these safety precautions may result in serious injury, machine damage, or unsafe operating conditions. Always operate the band saw according to the instructions provided in this manual.

Vibration Safety Warning

Risk of Injury Due to Vibration Exposure

This machine produces vibration during operation. Prolonged or repeated exposure to vibration may cause temporary or permanent injury, particularly affecting the hands, wrists, arms, and shoulders.

To reduce the risk of vibration-related injuries, follow these precautions:

1. Monitor Health Effects From Vibration Exposure

Individuals who regularly use vibrating tools for extended periods should consult a qualified medical professional before use and schedule periodic medical evaluations to ensure that vibration exposure is not causing or worsening health conditions.

The following individuals should avoid operating vibrating tools unless approved by a medical professional:

- Pregnant individuals.
- Persons with reduced circulation in their hands.
- Individuals with previous hand or arm injuries.
- Persons with nervous system disorders.

- Individuals with diabetes.
- Persons affected by Raynaud's disease.

If you experience symptoms associated with vibration exposure, such as:

- Tingling sensations.
- Numbness.
- Loss of feeling.
- Pale, white, or blue fingers.
- Pain or discomfort in the hands, wrists, or arms.

Stop using the machine and seek medical advice promptly.

2. Avoid Smoking During Operation

Do not smoke while operating vibrating tools. Nicotine restricts blood circulation to the hands and fingers, increasing the risk of vibration-related injuries.

3. Select Low-Vibration Tools and Methods

Whenever possible, choose tools, accessories, and operating methods that generate the lowest level of vibration for the task being performed.

4. Schedule Regular Breaks

Include vibration-free periods throughout the workday. Frequent breaks allow the body to recover and help reduce the effects of prolonged vibration exposure.

5. Avoid Excessive Grip Force

Hold the workpiece and operate the machine with only the force necessary to maintain safe control. Excessive gripping can increase vibration transfer to the hands and arms.

Allow the machine to perform the work without applying unnecessary pressure.

6. Maintain the Machine Properly

Maintain the machine according to the maintenance instructions provided in this manual. Proper maintenance helps reduce excessive vibration caused by worn, damaged, or improperly adjusted components.

If unusual vibration, noise, or movement occurs during operation, stop using the machine immediately and inspect it before continuing.

Ignoring vibration safety precautions may result in long-term health effects or permanent injury. Proper machine maintenance, correct operating techniques, and appropriate work practices are essential to minimize vibration exposure.

Section 2: Power Supply

Electrical Grounding Instructions

To Prevent Electric Shock and Serious Injury Due to Improper Grounding

Read and follow all grounding instructions before connecting or operating this machine.

Improper connection of the equipment-grounding conductor can create a risk of electric shock, which may result in serious injury or death.

110–120 V AC Grounded Tools Equipped with Three-Prong Plugs

1. **Grounding Protection**

In the event of an electrical malfunction or breakdown, proper grounding provides a low-resistance path for electrical current, reducing the risk of electric shock.

This machine is equipped with a power cord that includes an equipment-grounding conductor and a grounding plug. The plug must be connected to a properly installed and grounded electrical outlet that complies with all applicable local electrical codes and regulations.

2. **Do Not Modify the Plug**

Never modify the supplied plug. If the plug does not fit the available outlet, have a properly grounded outlet installed by a qualified electrician.

3. **Proper Grounding Conductor Connection**

Incorrect connection of the equipment-grounding conductor may create an electric shock hazard.

The grounding conductor is identified by insulation that is green, with or without yellow stripes. If the power cord or plug requires repair or replacement, ensure that the equipment-grounding conductor is connected only to the proper grounding terminal and **never** to a live electrical terminal.

4. **Verify Grounding Requirements**

If the grounding instructions are not fully understood, or if there is any uncertainty regarding proper grounding, consult a qualified electrician or service technician before operating the machine.

5. **Use Proper Extension Cords**

When an extension cord is required, use only a three-wire extension cord equipped with a three-prong grounding plug and a three-pole receptacle that accepts the machine’s plug.

6. **Inspect Power Cords Regularly**

Replace damaged, worn, cracked, or deteriorated power cords immediately. Do not operate the machine with a damaged electrical cord.

Grounded Outlet Requirements

This machine is designed for use with a **125 V AC, three-prong grounded outlet** suitable for circuits rated up to **15 A**.

The electrical outlet must:

- Match the configuration of the machine’s grounding plug.
- Be properly installed and grounded according to all applicable electrical codes and regulations.
- Provide a reliable connection to the equipment-grounding system.

Do not use electrical adapters to connect this machine to an incompatible outlet.
Using adapters may defeat the grounding protection and create a serious electric shock hazard.

Always verify that the electrical supply, outlet, plug, and grounding system are suitable before operating the machine. If there is any doubt, have the electrical installation inspected by a qualified electrician.

Section 3: Assembly and Setup

Setup and Preparation Before Use

Important Safety Requirements

Before setting up or operating this machine, **read and fully understand the entire Important Safety Information section located at the beginning of this manual**, including all safety warnings, precautions, and instructions provided under each subsection.

Prevent Accidental Operation

To prevent serious injury from unintended machine start-up:

Before performing any setup, adjustment, assembly, inspection, maintenance, or service procedure:

1. Turn the power switch to the **OFF** position.
2. Disconnect the machine from the electrical power source by unplugging the power cord from the outlet.

Never perform setup or adjustment procedures while the machine is connected to power.

Reference Information

Note: For additional information regarding the components and parts referenced in the following sections, refer to the **Assembly Diagram** located near the end of this manual.

Stand Assembly Procedure

Note: Refer to the Assembly Diagram and Figure A for component identification and proper orientation during assembly.

1. Install the Pull Handle

Insert the **Pull Handle (12)** into the two mounting holes located in the upper section of one **Stand (10)**.

Secure the Pull Handle to the Stand using two **Pins (11)**. Ensure the handle is fully seated and securely retained.

2. Install the Tool Plate to the First Stand

Position one end of the **Tool Plate (128)** against the upper section of the Stand (10) equipped with the Pull Handle.

Secure the Tool Plate using:

- Two **Bolts (9)**.
- Four **Flat Washers (8)**.

- Two **Nuts (6)**.

Do not fully tighten the hardware until the complete stand assembly has been aligned.

3. Attach the Second Stand

Align the opposite end of the **Tool Plate (128)** with the upper section of the second **Stand (10)**.

Secure the Tool Plate using:

- Two **Bolts (9)**.
- Four **Flat Washers (8)**.
- Two **Nuts (6)**.

Verify that both stands are aligned correctly and positioned evenly before tightening all fasteners.

4. Install the Wheel Bracket

Align the two mounting holes on the **Wheel Bracket (130)** with the corresponding mounting holes located on the lower section of the Stand without the Pull Handle.

Ensure the Wheel Bracket is positioned correctly before securing it.

5. Secure the Wheel Bracket

Attach the Wheel Bracket to the Stand using:

- Two **Bolts (9)**.
- Four **Flat Washers (8)**.
- Two **Nuts (6)**.

Tighten all fasteners securely after confirming that the stand assembly is properly aligned.

Refer to **Figure 2** for the completed assembly orientation.

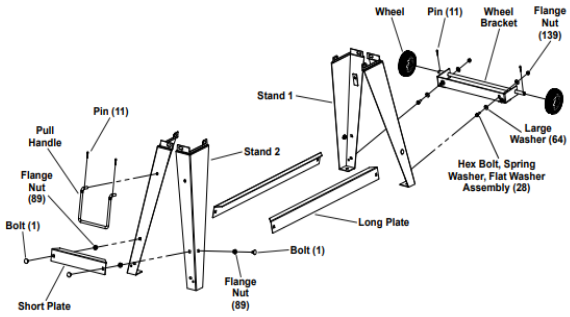


Figure 2: Stand Assembly.

Mounting the Band Saw to the Stand Assembly

Important Safety Requirement

This procedure requires assistance and appropriate lifting equipment. The band saw is heavy and may cause serious injury if lifted or positioned incorrectly. Do not attempt to install the machine onto the stand assembly alone.

1. Position the Band Saw on the Stand

With the assistance of another person and using a suitable lifting device, carefully place the band saw onto the stand assembly.

Position the machine so that:

- The **motor side of the band saw** is located on the same side as the stand's wheels.

- The upper sections of the stand fit completely inside the base of the band saw.
- The machine is seated evenly and securely on the stand assembly.

2. Align Mounting Holes

Align the mounting holes in the base of the band saw with the corresponding mounting holes located in the upper sections of the stand assembly.

Verify that all six mounting holes are properly aligned before installing hardware.

Refer to **Figure 3: Stand (Top View)** for mounting hole locations.

3. Secure the Band Saw to the Stand

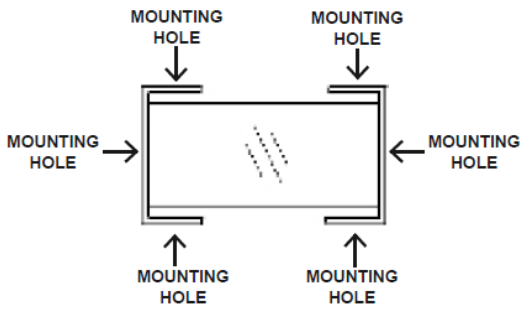


Figure 3: Stand Top view.

Install the mounting hardware through each of the six mounting holes as follows:

Outside of Stand:

- One **Bolt (13)**.
- One **Flat Washer (3)**.

Inside of Stand:

- One **Flat Washer (3)**.
- One **Spring Washer (4)**.
- One **Nut (5)**.

Install all six fasteners and tighten securely.

After installation, verify that:

- The band saw is firmly attached to the stand.
- All mounting hardware is properly tightened.
- The machine is stable and level before operation.

Refer to **Figure 4** for the correct hardware installation sequence.

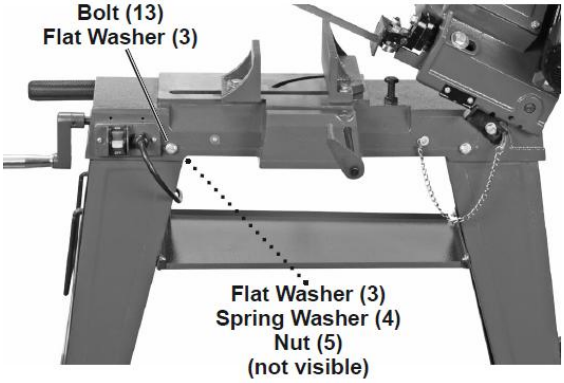


Figure 4: Attach the band saw to the stand.

Installing the Adjustable Stock Stop Assembly

Purpose of the Stock Stop

When installed on the band saw, the adjustable **Stock Stop Assembly**

allows the operator to make multiple cuts of the same length quickly and consistently. Proper installation and adjustment ensure accurate repeat cuts.

Installation Procedure

1. Install the Stock Stop Shaft

Insert the **Shaft (19)** into the mounting hole located in the **Machine Bed (122)**.

Secure the shaft in position by tightening the **Set Screw (49)**.

Refer to **Figure 5** for the correct installation location.

2. Install the Stock Stop

Slide the **Stock Stop (18)** onto the installed **Shaft (19)**.

Position the Stock Stop at the desired location based on the required cutting length.

Secure the Stock Stop by tightening the **Screw (17)**.

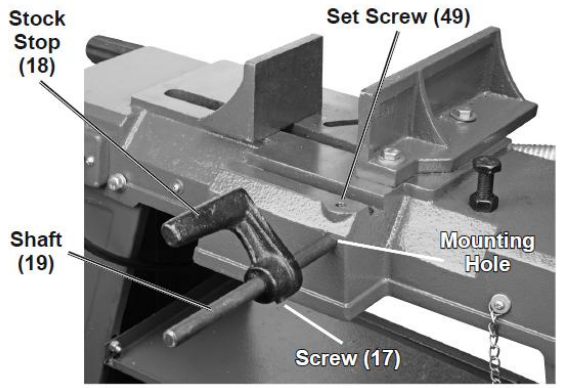


Figure 5: Attach the stock stop.

3. Verify Operation

Before cutting material:

- Confirm that the Stock Stop is securely fastened.
- Verify that it does not interfere with the workpiece, blade, or machine movement.
- Adjust the Stock Stop position as required to achieve the desired cut length.

Note: Always verify the cutting length with a test piece before performing production cuts.

Installing the Pulley Cover

Installation Procedure

1. Position the Pulley Cover

Place the **Pulley Cover (101)** over the **Spindle Shaft (97)** and **Motor Shaft**, ensuring the cover is correctly positioned and fully seated.

2. Align the Mounting Hole

Align the mounting hole in the **Pulley Cover (101)** with the corresponding mounting hole in the **Body Frame (93)**.

Verify that the cover is properly positioned and does not interfere with any moving components.

3. Secure the Pulley Cover

Fasten the **Pulley Cover (101)** to the band saw using:

- One **Screw (89)**.
- One **Spring Washer (7)**.
- One **Flat Washer (8)**.

Tighten the fastener securely.

Refer to **Figure 6** for the correct installation position and hardware arrangement.

Final Check

Before operating the band saw, verify that:

- The pulley cover is securely installed.
- All fasteners are properly tightened.
- The cover does not contact or interfere with rotating components.
- All guards and protective covers are installed before connecting power.

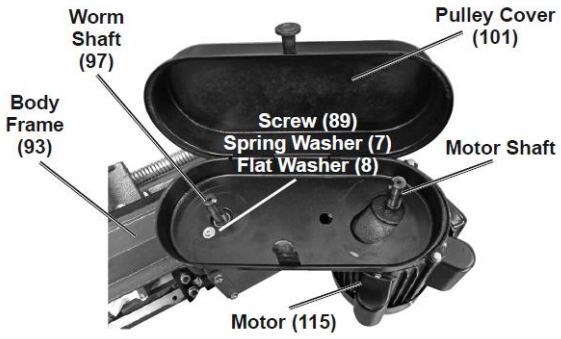


Figure 6: Attaching the pulley cover.

Installing the Spindle Pulley and Motor Pulley

Installation Procedure

1. Install the Spindle Pulley

Slide the **Spindle Pulley (99)** fully onto the **Spindle Shaft (97)** until it is properly seated.

Secure the Spindle Pulley to the Spindle Shaft using one **Screw (52)**.

Refer to **Figure 7** for the correct installation position.

2. Install the Motor Pulley

Insert the **Shaft Key (51)** into the key slot on the **Motor Shaft**.

Align the keyway slot in the **Motor Pulley (105)** with the installed Shaft Key.

Slide the Motor Pulley fully onto the Motor Shaft, ensuring that the Shaft Key is properly engaged with the pulley keyway.

Secure the Motor Pulley to the Motor Shaft using one **Screw (52)**.

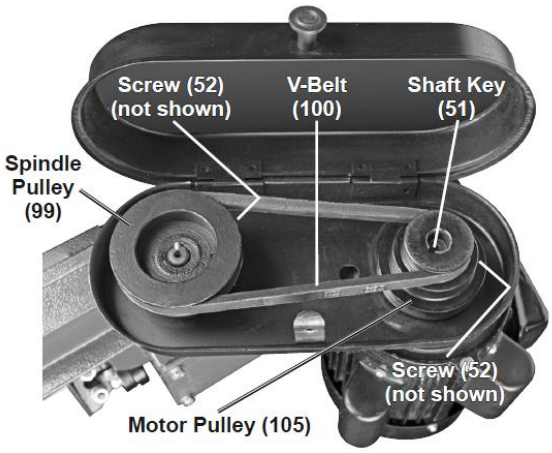


Figure 7: Attaching the pulleys.

Installing and Adjusting the V-Belt

Installation Procedure

1. Loosen the Motor Mounting Bolt

Loosen the **Bolt (108)** to allow the **Motor (115)** to move along its mounting position.

Move the motor toward the **Body Frame** to provide sufficient clearance for V-belt installation.

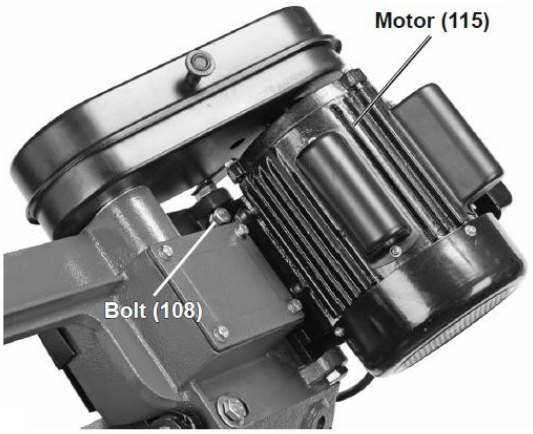


Figure 8: Install V-belt.

2. Install the V-Belt

Place the **V-Belt (100)** around the upper grooves of the **Spindle Pulley (99)** and **Motor Pulley (105)**.

Ensure that the belt is properly seated in both pulley grooves and is not twisted or misaligned.

Refer to **Figure F** for the correct belt routing.

3. Adjust V-Belt Tension

Adjust the position of the motor until the V-belt has approximately **1/2 in. (13 mm) of deflection** when moderate thumb pressure is applied at the midpoint of the belt span.

Proper belt tension is required to ensure efficient power transfer while preventing excessive wear on the belt and pulley components.

4. Secure the Motor Position

After the correct belt tension has been achieved, tighten the **Bolt (108)** securely to lock the motor in position.

Final Inspection

Before operating the band saw, verify that:

- The V-belt is properly seated in both pulley grooves.
- The belt is aligned and runs smoothly.
- The motor mounting bolt is securely tightened.
- The belt tension is correct.
- The pulley cover is installed before connecting the machine to power.

An improperly adjusted V-belt may cause belt slippage, excessive vibration, reduced cutting performance, or premature component wear.

Final Inspection

Before operating the band saw, verify that:

- Both pulleys are fully seated on their respective shafts.
- The Shaft Keys are correctly installed and engaged.
- All retaining screws are securely tightened.
- The pulleys rotate freely without interference.

- The pulley cover is installed before connecting power.

Improper pulley installation may result in belt misalignment, excessive vibration, reduced performance, or damage to machine components.

Adjusting the Cutting Speed

Cutting Speed Selection

This band saw is designed to operate at three different blade speeds: **80, 120, and 200 feet per minute (FPM)**. Selecting the correct cutting speed is important for achieving proper cutting performance, extending blade life, and preventing damage to the workpiece or machine components.

Use the following chart to select the appropriate cutting speed based on the material being cut.

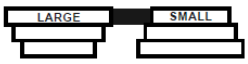
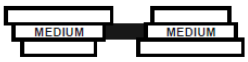
MATERIAL	SPEED (FPM)	PULLEY GROOVE	
		SPINDLE	MOTOR
Tool Steel, Stainless Alloy Steels, Bearing Bronze	80		
Medium to High Carbon Steels, Hard Brass or Bronze	120		
Low to Medium Carbon Steels, Soft Brass, Aluminum, Plastic	200		

Figure 9: Pulley configuration details.

Adjusting the Cutting Speed

1. Select the Required Cutting Speed

Refer to the cutting speed chart above and determine the appropriate blade speed for the material being cut.

2. Disconnect Power Before Adjustment

Before changing the V-belt position:

1. Turn the band saw OFF.
2. Disconnect the power cord from the electrical outlet.
3. Allow all moving components to come to a complete stop.

3. Adjust the V-Belt Position

To change the cutting speed:

a. Loosen the **Bolt (108)** and move the **Motor (115)** toward the **Body Frame** to release tension on the V-belt.

b. Move the **V-Belt (100)** to the required grooves on the **Spindle Pulley (99)** and **Motor Pulley (105)** according to the selected cutting speed.

c. Carefully move the motor back to its original position to restore proper tension on the V-belt.

d. Tighten the **Bolt (108)** securely to lock the motor in position.

Refer to **Figure F** and **Figure G** for pulley and motor adjustment locations.

Final Inspection

Before operating the band saw, verify that:

- The V-belt is installed in the correct pulley grooves.
- The belt tension is properly adjusted.

- The motor mounting bolt is securely tightened.
- The pulley cover is properly installed.

WARNING — Prevent Serious Injury

Always close and secure the pulley cover lid before operating the band saw.

Never operate the machine with the pulley cover open or removed. Exposure to rotating pulleys and belts can result in serious injury.

Converting the Band Saw for Vertical Operation

Application

The band saw can be converted to a vertical operating position for performing operations such as **notching, slitting, and contour cutting**. These operations are typically easier to perform with the band saw in the vertical configuration.

Conversion Procedure

1. Remove the Locking Pin

Remove the **Locking Pin (126)** from the **Body Frame (93)**.

Store the locking pin in a safe location during adjustment to prevent loss or damage.

2. Raise the Band Saw to the Vertical Position

Carefully raise the **Body Frame (93)** until it reaches the fully vertical operating position.

3. Secure the Body Frame

Rotate the **Support Plate (127)** clockwise until it firmly engages and supports the Body Frame.

Insert the **Locking Pin (126)** to secure the Body Frame in the vertical position.

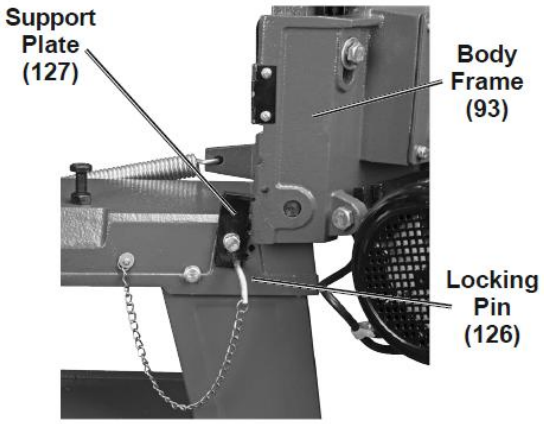


Figure 10: the correct vertical configuration.

Final Inspection Before Operation

Before using the band saw in the vertical position, verify that:

- The Body Frame is fully raised and securely supported.
- The Support Plate is properly locked in position.
- The Locking Pin is fully inserted and secured.
- The worktable or supporting surface is properly installed and stable.
- All guards and safety devices are correctly positioned.

Do not operate the band saw in the vertical position unless the Body

Frame is securely locked. Failure to properly secure the machine may result in unexpected movement and serious injury.

Converting the Band Saw for Vertical Operation (Continued)

3. Open the Blade Back Cover

Remove the **Screw (142)** and **Flat Washer (141)** to release and open the **Blade Back Cover (82)**.

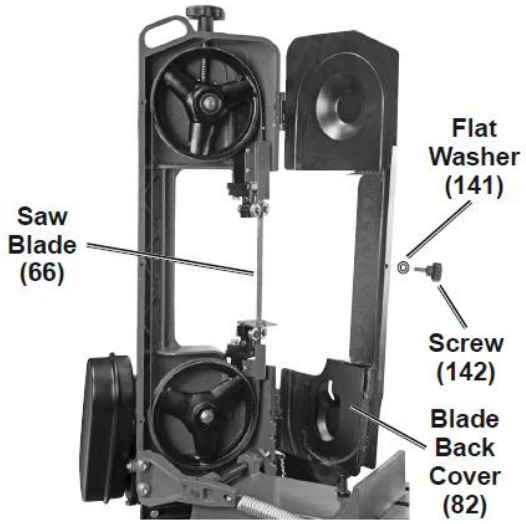


Figure 11:The location of the blade cover fastener.

WARNING — Prevent Serious Injury

Keep hands, fingers, and other body parts away from the saw blade (66) at all times.

The blade is sharp and may cause serious injury, even when the machine is not operating. Ensure the band saw is disconnected from the power supply before performing this procedure.

4. Remove the Horizontal Cutting Guard

Remove the two **Screws (78)** securing the **Horizontal Cutting Guard (71)**.

Carefully remove the Horizontal Cutting Guard from the machine.

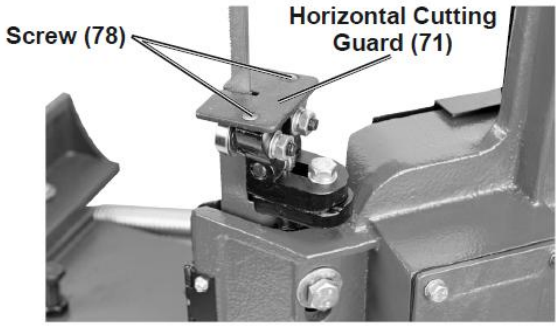


Figure 12: guard location and removal procedure.

Final Check Before Vertical Operation

Before operating the band saw in the vertical position:

- Confirm that the horizontal cutting guard has been removed as required.
- Ensure the blade area is clear of tools, hardware, and loose components.
- Verify that all remaining guards and safety devices are properly installed.
- Confirm that the Body Frame is securely locked in the vertical position.

Never perform setup adjustments while the machine is connected to electrical power.

Converting the Band Saw for Vertical Operation (Continued)

5. Secure the Blade Back Cover

Close the **Blade Back Cover (82)** and secure it in position using the previously removed **Screw (142)** and **Flat Washer (141)**.

Verify that the cover is properly closed and securely fastened before continuing.

6. Install the Vertical Cutting Table

Carefully guide the **Saw Blade (66)** through the slot in the **Vertical Cutting Table (134)**.

Position the Vertical Cutting Table correctly and secure it to the machine using the two **Screws (78)**.

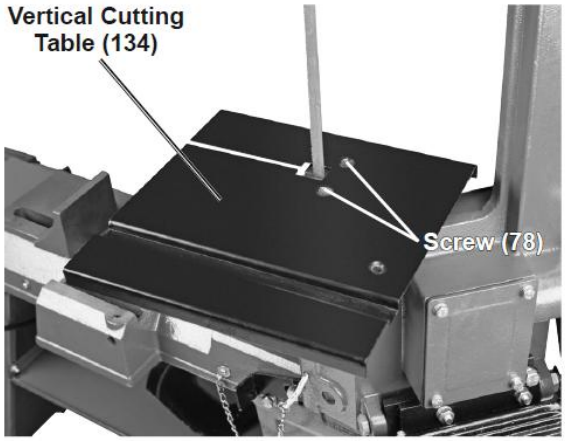


Figure 13: The correct installation position.

Final Inspection Before Vertical Cutting

Before operating the band saw in the vertical position, verify that:

- The Vertical Cutting Table is securely fastened.
- The saw blade is properly positioned through the table slot.
- The blade path is clear of obstructions.
- All fasteners are tightened securely.
- The machine is disconnected from power during setup procedures.

Warning: Keep hands and fingers away from the saw blade during installation and operation. The exposed blade presents a serious risk of injury.

Converting the Band Saw for Vertical Operation (Continued)

7. Install the Vertical Cutting Table Support

Install the **Vertical Cutting Table Support (136)** as follows:

a. Install the Mounting Screw

Insert one **Screw (135)** downward through the mounting hole in the **Vertical Cutting Table (134)**.

b. Secure the Support to the Cutting Table

Attach the upper section of the **Vertical Cutting Table Support (136)** to the Vertical Cutting Table using:

- One **Flat Washer (8)**.
- One **Nut (6)**.

Tighten the hardware securely while ensuring the support remains properly aligned.

c. Loosen the Body Frame Bolt

Loosen the bolt located on the **Body Frame (93)** as shown in figure 14.

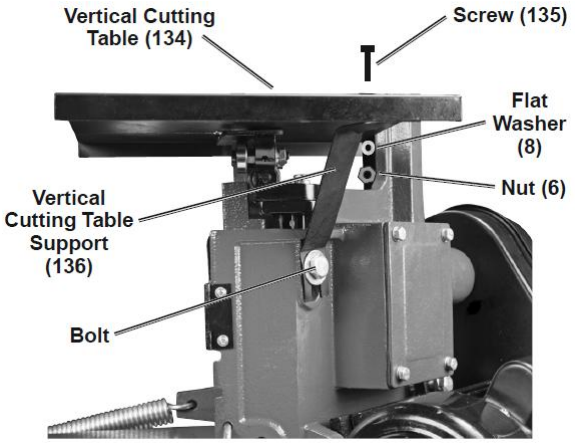


Figure 14: Installing the table support.

Do not remove the bolt completely. It only needs to be loosened enough to allow installation of the support bracket.

d. Position the Support Bracket

Place the lower section of the **Vertical Cutting Table Support (136)** between the **Body Frame** and the head of the loosened bolt.

Ensure the support is seated correctly and provides stable support for the Vertical Cutting Table.

e. Secure the Support

Firmly tighten the Body Frame bolt to lock the **Vertical Cutting Table Support (136)** in position.

Final Inspection

Before operating the band saw in vertical mode, verify that:

- The Vertical Cutting Table is securely supported.
- All mounting hardware is properly tightened.
- The support bracket is correctly positioned and stable.
- The saw blade passes freely through the table slot.
- The blade guard and other safety components are properly installed.

Do not operate the band saw in vertical mode unless the cutting table and support assembly are securely installed. Improper installation may result in table movement, loss of workpiece control, and serious injury.

Converting the Band Saw for Horizontal Operation

Conversion Procedure

1. Remove the Vertical Cutting Table

Remove the two **Screws (78)** securing the **Vertical Cutting Table (134)** to the band saw.

Carefully remove the Vertical Cutting Table and store it in a safe location.

2. Move the Vertical Cutting Table Support

Loosen the **Bolt** securing the Vertical Cutting Table Support assembly.

Move the support assembly away from the **Saw Blade (66)** to provide clearance for horizontal operation.

Refer to **Figure M** for the correct support assembly location.

3. Open the Blade Back Cover

Remove the **Screw (113)** and **Flat Washer (114)** to open the **Blade Back Cover (115)**.

Refer to **Figure J** for the correct fastener location.

WARNING — Prevent Serious Injury

Keep hands, fingers, and other body parts away from the saw blade (66).

The blade is sharp and may cause serious injury. Always disconnect the machine from the power supply before performing setup or conversion procedures.

4. Install the Horizontal Cutting Guard

Carefully position the **Horizontal Cutting Guard (71)** around the **Saw Blade (66)**.

Secure the guard in position using the two **Screws (78)**.

Verify that the guard is properly installed and does not interfere with blade movement.

5. Secure the Blade Back Cover

Close the **Blade Back Cover (115)** and secure it using the previously removed **Screw (113)** and **Flat Washer (114)**.

Ensure the cover is fully closed and securely fastened before operation.

6. Release the Support Plate

Remove the **Locking Pin (126)** from the **Body Frame (93)**.

Rotate the **Support Plate (127)** counterclockwise until it disengages from the Body Frame.

7. Lower the Body Frame

Carefully lower the **Body Frame (93)** until it reaches the full horizontal operating position.

Ensure the frame moves smoothly and is fully seated before use.

8. Lock the Band Saw for Storage or Transport

When storing or moving the band saw, secure the machine in the horizontal position by inserting the **Locking Pin (126)** into the **Body Frame (93)**.

Refer to **Figure W** for the correct locking position.

Final Inspection Before Horizontal Operation

Before operating the band saw in horizontal mode, verify that:

- The Body Frame is fully lowered and securely positioned.
- The Locking Pin is removed during operation and installed only for storage or transport.
- The Horizontal Cutting Guard is properly installed.
- The Blade Back Cover is closed and secured.
- All fasteners are tightened.

- The saw blade moves freely without obstruction.

Failure to properly convert and secure the band saw before operation may result in loss of control, equipment damage, or serious personal injury.

Section 4: Operations

Vertical Position

WARNING — TO PREVENT SERIOUS INJURY:
Always wear ANSI-approved safety-impact eye protection when operating the Band Saw.

1. Before performing any setup or adjustment, make sure the Band Saw is **unplugged from the electrical supply**. Complete all required adjustments described previously in this manual before connecting the power cord.
2. Remove the **Locking Pin (126)** from the **Body Frame (93)**.
3. Raise the **Body Frame (93)** to its fully vertical position. Rotate the **Support Plate (127)** clockwise until it is firmly engaged with the Body Frame. Reinstall the **Locking Pin (126)** to secure the Body Frame in the vertical position.
4. After all required adjustments have been completed, connect the **Power Cord (27)** to a properly grounded **120-volt electrical outlet**.
5. Turn the **Power Switch (14)** to the **“ON”** position.

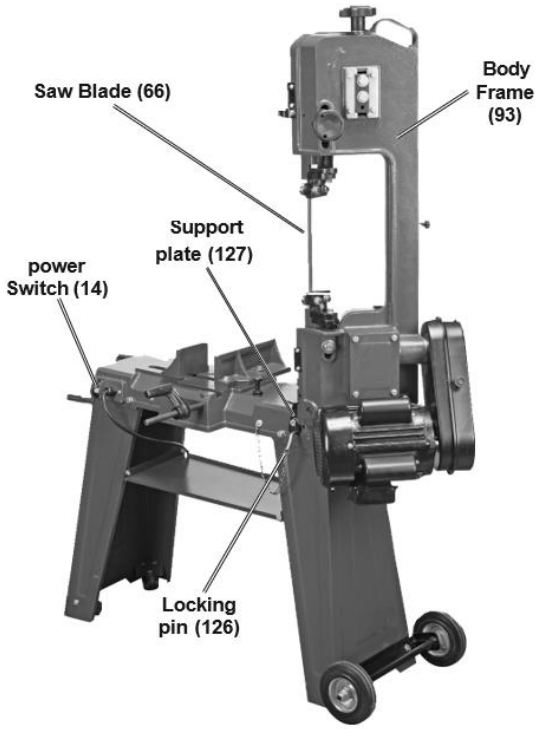


Figure 15: Vertical Position

CAUTION:
When the Band Saw is configured for vertical operation, cut **flat workpieces only**. Never attempt to cut pipe, tubing, or other round workpieces while the Band Saw is in a vertical position.

6. Before beginning a cut, allow the Band Saw to run briefly and inspect the **Saw Blade (66)** for excessive looseness, abnormal vibration, or other irregular operating conditions. If any problem is detected, turn the Band Saw **OFF**, disconnect it from the electrical supply, and

correct the problem before continuing.

7. Position the workpiece securely on the **Vertical Cutting Table (134)**. Maintain firm downward pressure on the workpiece throughout the cutting operation.
8. When cutting a large or lengthy workpiece, provide adequate support along its entire length. Use a suitable roller stand or equivalent support equipment when necessary. Roller stands are not included with the Band Saw.
9. Allow the **Saw Blade (66)** to reach full operating speed before gradually feeding the workpiece into the blade.

WARNING — TO PREVENT SERIOUS INJURY:
Keep hands, fingers, and other body parts away from the Saw Blade and the cutting area at all times.

10. Feed the workpiece into the Saw Blade gradually and at a controlled rate. **Do not force the workpiece** or attempt to increase the cutting rate beyond the machine's intended capacity.
11. Use both hands to maintain secure control of the workpiece and keep it firmly supported against the Vertical Cutting Table throughout the cutting operation.

WARNING — TO PREVENT SERIOUS INJURY:
Never attempt to remove a workpiece, scrap material, or any obstruction from the moving parts of the Band Saw while the machine is running or connected to the electrical supply. If it becomes necessary to back the workpiece out of an incomplete cut, turn the **Power Switch (14) to the "OFF" position** and wait until the Saw Blade has come to a complete stop before removing or repositioning the workpiece.

12. When the cut is complete, turn the **Power Switch (14)** to the **"OFF"** position and disconnect the **Power Cord (27)** from the electrical outlet.

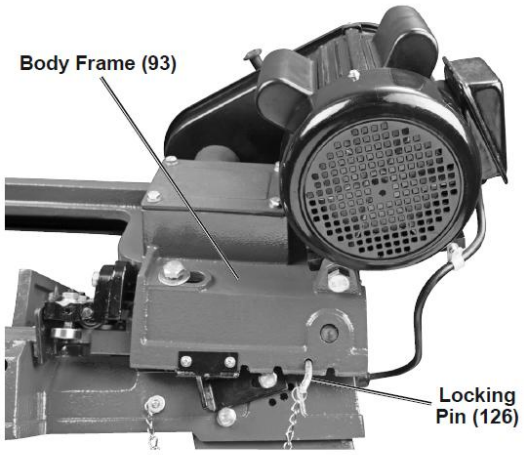


Figure 16: Locking Pin location.

13. Wait until the **Saw Blade (66)** has come to a complete stop. Remove the finished workpiece and any scrap material from the Vertical Cutting Table.
14. Remove the **Locking Pin (126)**. Rotate the **Support Plate (127)** counterclockwise until it disengages from the Body

Frame. Carefully lower the **Body Frame (93)** to its horizontal position.

15. Clean the Band Saw and surrounding work area. Secure the Body Frame in the horizontal position by inserting the **Locking Pin (126)** into the Body Frame. Store the Band Saw indoors in a clean, dry location and keep it out of the reach of children.

Horizontal Position

WARNING — TO PREVENT SERIOUS INJURY:
Always wear ANSI-approved safety-impact eye protection when operating the Band Saw.

1. Before performing any setup or adjustment, make sure the Band Saw is **unplugged from the electrical supply**. Complete all required adjustments described previously in this manual before connecting the power cord.
2. If necessary, convert the Band Saw to horizontal operation according to the procedure described in **"To Convert the Band Saw for Horizontal Use"** on page 12.
3. Remove the **Locking Pin** from the **Body Frame**.
4. Raise the **Body Frame** to its fully vertical position. Rotate the **Support Plate** clockwise until it is firmly engaged with the Body Frame. Install the **Locking Pin** to secure the Body Frame in position.
5. Position the workpiece securely in the **Vise Assembly (38, 14)**. Ensure that the workpiece is properly aligned and firmly clamped before beginning the cut.

When cutting a long or large workpiece, provide adequate support along its entire length. Use a suitable roller stand or equivalent support device when necessary. Roller stands are not included with the Band Saw.

6. When producing multiple workpieces of the same length, adjust the **Stock Stop (18)** to the required cutting length.
7. After completing all required setup and adjustments, connect the **Power Cord** to a properly grounded **120-volt electrical outlet**.
8. Turn the Band Saw **ON** and allow it to run briefly. Check for excessive Saw Blade looseness, abnormal vibration, or other unusual operating conditions. If any problem is detected, turn the Band Saw **OFF**, disconnect the power cord, and correct the problem before continuing.
9. To begin the cutting operation, turn the **Power Switch** to the **"ON"** position. Remove the **Locking Pin** and carefully lower the **Body Frame** until the **Saw**

Blade is positioned just above the intended cutting line.

10. Allow the **Saw Blade** to reach full operating speed before lowering it into the workpiece.

WARNING: TO PREVENT SERIOUS INJURY:
Keep hands, fingers, and other body parts safely away from the Saw Blade and cutting area at all times.

11. Slowly lower the **Body Frame** so that the Saw Blade gradually enters the workpiece. Maintain a controlled feed rate and **do not force the Saw Blade** through the material faster than the machine is designed to cut.

WARNING TO PREVENT SERIOUS INJURY:
Never attempt to remove a workpiece, scrap material, or any obstruction from the moving parts of the Band Saw while the machine is running or connected to the electrical supply. If the workpiece must be backed out of an incomplete cut, turn the **Power Switch to the "OFF" position** and wait until the Saw Blade has come to a complete stop before attempting to remove or reposition the workpiece.

IMPORTANT:
In **horizontal cutting mode only**, the **Switch Push-Off Tip (90)** automatically moves the **Power Switch** to the **"OFF"** position when the cutting cycle is completed, stopping the Band Saw motor.

12. After the automatic shutoff or completion of the cut, verify that the **Power Switch** is in the **"OFF"** position. Disconnect the **Power Cord** from the electrical outlet.

13. Wait until the **Saw Blade** has come to a complete stop. Raise the **Body Frame** to its fully vertical position. Rotate the **Support Plate** clockwise until it is firmly engaged with the Body Frame, then install the **Locking Pin** to secure the Body Frame.

14. Remove the completed workpiece from the **Vise Assembly** and remove scrap material from the **Machine Bed (122)**. Carefully lower the Body Frame to its horizontal position.

15. Clean the Band Saw and surrounding work area. Secure the Body Frame in the horizontal position by inserting the **Locking Pin** into the Body Frame. Store the Band Saw indoors in a clean, dry location and keep it out of the reach of children. Refer to **Figure W** on page 18.

Tool Setup

Important Safety Requirements

Before setting up or operating this machine, **read and fully understand the entire Important Safety Information section located at the beginning of this manual**, including all safety warnings, precautions, and

instructions provided under each subsection.

Prevent Accidental Operation

To prevent serious injury from unintended machine start-up:

Before performing any setup, adjustment, assembly, inspection, or maintenance procedure:

1. Turn the power switch to the **OFF** position.
2. Disconnect the machine from the electrical supply by unplugging the power cord from the outlet.

Never perform setup procedures while the machine is connected to power.

Guard Safety Requirements

To prevent serious injury:

Do not operate this machine with any guard disabled, damaged, removed, or improperly installed.

All moving guards must:

- Move freely without obstruction.
- Operate correctly.
- Automatically return to their protective position.

Before operation, verify that all guards and safety devices are properly installed and functioning correctly.

Never bypass or modify safety guards. Operating the machine without proper guarding may result in serious injury.

Using the Vise

Clamping the Workpiece

The vise is used to securely hold the workpiece during cutting operations. Proper clamping prevents movement of the material, improves cutting accuracy, and reduces the risk of injury.

Procedure

1. Position the Band Saw for Vise Operation

Raise the **Body Frame (93)** to the vertical position.

Secure the Body Frame in place using the **Support Plate (127)** and **Locking Pin (126)**.

Refer to figure 10 for the correct vertical position.

2. Open the Moveable Vise Plate

Rotate the **Hand Wheel (31)** counterclockwise to move the **Moveable Vise Plate (38)** away from the fixed jaw.

Adjust the opening width to accommodate the workpiece.

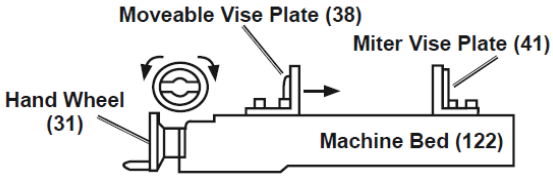


Figure 17: How to use the vise.

3. Position the Workpiece

Place the workpiece securely on the **Machine Bed (122)**.

Ensure the material is positioned correctly for the desired cut.

For long or heavy workpieces, provide additional support at the free end to prevent movement, tipping, or excessive loading on the vise.

4. Secure the Workpiece

Rotate the **Hand Wheel (31)** clockwise to move the **Moveable Vise Plate (38)** toward the **Miter Vise Plate (41)**.

Tighten the vise firmly until the workpiece is securely clamped.

Final Inspection Before Cutting

Before starting the band saw:

- Confirm the workpiece is securely clamped.
- Verify that the blade path is clear.
- Ensure the workpiece is properly supported.
- Confirm that the vise and workpiece do not interfere with any machine components.

Never attempt to cut material that is not securely clamped. A loose workpiece may shift during cutting, causing blade damage, inaccurate cuts, or serious injury.

Using the Quick Vise Adjustment for Angle Cuts

Purpose

The Quick Vise adjustment allows the workpiece to be positioned at an angle for performing accurate angled cuts.

Proper vise adjustment ensures the workpiece remains securely clamped and aligned during cutting.

Adjustment Procedure

1. Adjust the Miter Vise Plate Angle

Loosen the **Bolt (43)** securing the **Miter Vise Plate (41)**.

Adjust the Miter Vise Plate to the desired cutting angle by aligning it with the required position on the **Angle Scale**.

After selecting the correct angle, securely tighten the **Bolt (43)** to lock the Miter Vise Plate in position.

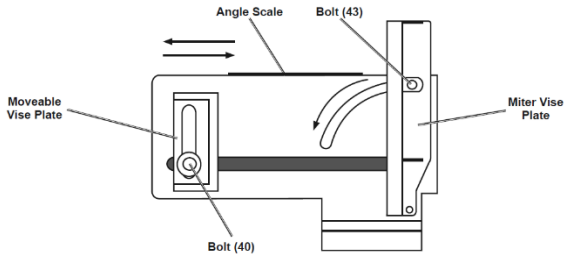


Figure 18: Angle adjustment.

2. Adjust the Moveable Vise Plate

Loosen the **Bolt (40)** securing the **Moveable Vise Plate (38)**.

Adjust the Moveable Vise Plate so that it is parallel with the **Miter Vise Plate (41)**.

Once properly aligned, securely tighten the **Bolt (40)**.

Final Inspection Before Cutting

Before operating the band saw, verify that:

- The Miter Vise Plate is securely locked at the selected angle.

- The Moveable Vise Plate is properly aligned and parallel with the Miter Vise Plate.
- The workpiece can be clamped securely without movement.
- All vise hardware is tightened before starting the cut.

Improper vise adjustment may allow the workpiece to shift during cutting, resulting in inaccurate cuts, blade damage, or serious injury.

Adjustments

Adjusting the Stock Stop

Purpose

The adjustable **Stock Stop** allows the operator to position a consistent reference point for making multiple cuts of the same length. Proper adjustment improves cutting efficiency and repeatability.

Adjustment Procedure

1. Loosen the Stock Stop Locking Screw

Loosen the **Socket Head Screw (17)** that secures the **Stock Stop (18)** to the **Shaft (19)**.

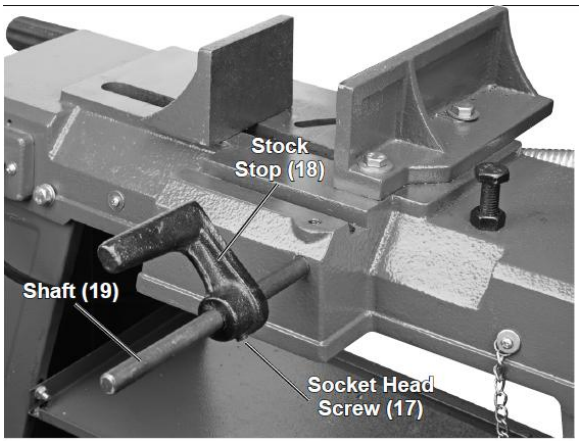


Figure 19: The location of the adjustment screw.

2. Set the Desired Length

Slide the **Stock Stop (18)** along the **Shaft (19)** until the desired cutting length is reached.

Verify the position using an appropriate measuring tool if precise dimensions are required.

3. Secure the Stock Stop

Once the desired position has been set, securely tighten the **Socket Head Screw (17)** to lock the Stock Stop in place.

Final Inspection

Before performing repeated cuts, verify that:

- The Stock Stop is firmly secured to the shaft.
- The desired cutting length has been confirmed.
- The workpiece contacts the Stock Stop consistently during positioning.

- The Stock Stop does not interfere with blade movement or machine operation.

A loose Stock Stop may shift during operation, resulting in inaccurate cuts or inconsistent workpiece lengths.

Adjusting the Blade Guide Bearings

Important Adjustment Information

Proper adjustment of the **Blade Guide Bearings (72)** is critical to the performance, accuracy, and safe operation of the band saw.

Note: Before adjusting the Blade Guide Bearings, first install a new **Saw Blade (66)** if cutting performance is poor.

A worn or improperly sharpened blade may become dull on one side faster than the other, causing the blade to drift and produce crooked cuts. Replacing the saw blade will correct this condition. Adjusting the Blade Guide Bearings will **not** correct a damaged or unevenly worn blade.

Adjustment Procedure

1. Inspect the Blade Guide Brackets

If installing a new saw blade does not correct the cutting issue, inspect the **Blade Guide Bracket Seats (67, 74)**.

Ensure the bracket seats are clean and free from debris, damage, or any obstruction that may affect blade alignment.

2. Verify Blade Guide Bearing Clearance

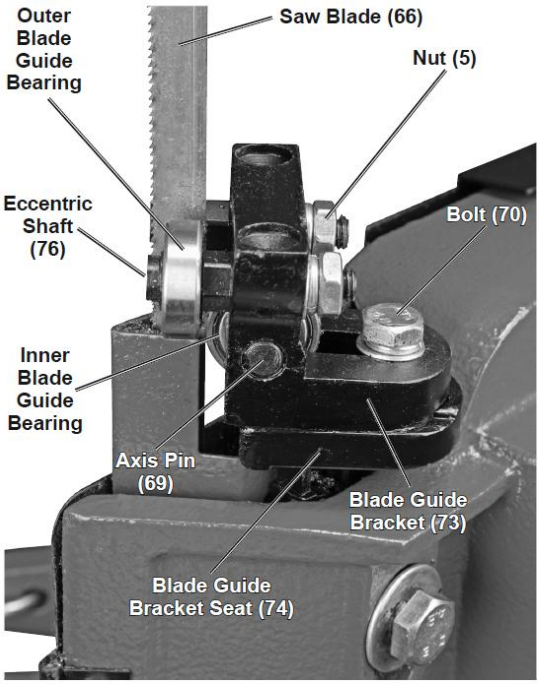


Figure 20: Blade Guide Adjustment.

The correct clearance between the **Saw Blade (66)** and the **Blade Guide Bearings (72)** should be:

0.0 in. to 0.001 in. clearance
(The bearings should lightly contact the blade without applying pressure.)

3. Adjust the Outer Blade Guide Bearings

The outer Blade Guide Bearings are mounted on **Eccentric Shafts (76)** and can be adjusted.

Figure 18: The correct adjustment location.

To adjust:

a. Loosen the **Nuts (5)** while holding the Blade Guide Bearings securely.

b. Rotate the Blade Guide Bearings until the proper clearance between the

bearings and the Saw Blade is achieved.

c. Hold the bearings in position and tighten the **Nuts (5)** securely.

4. Adjust the Inner Blade Guide Bearings

To adjust the inner Blade Guide Bearings:

a. Loosen the **Bolts (70)** securing the **Blade Guide Brackets (73, 79)**.

b. Move the Blade Guide Brackets forward or backward until the correct clearance between the bearings and the Saw Blade is achieved.

c. Securely tighten the **Bolts (70)** to lock the Blade Guide Brackets in position.

Final Inspection

After completing the adjustment:

- Rotate the blade by hand to verify smooth movement.
- Confirm that the blade runs freely between the guide bearings.
- Ensure the bearings are not applying excessive pressure against the blade.
- Verify that all nuts and bolts are securely tightened.
- Perform a test cut to confirm proper blade tracking and cutting performance.

Improper Blade Guide Bearing adjustment may cause premature blade wear, inaccurate cuts, excessive vibration, or blade damage.

Adjusting the Blade Tracking

Important Adjustment Information

Proper blade tracking is essential for accurate cutting performance, reduced blade wear, and safe band saw operation. The saw blade must run correctly on the blade wheels without contacting the wheel flanges.

WARNING — Prevent Serious Injury

This adjustment procedure requires operating the band saw with the **Blade Back Cover open**.

To prevent serious injury:

- Keep hands, fingers, and tools away from the rotating saw blade and moving components.
- Do not touch the blade or blade wheels while the machine is operating.
- Complete all adjustments carefully and only as instructed.

Adjustment Procedure

1. Set the Band Saw to the Lowest Speed

Adjust the band saw to its slowest cutting speed.

Refer to the **Adjusting the Cutting Speed** section of this manual for instructions.

2. Remove the Locking Pin

Remove the **Locking Pin (126)** from the **Body Frame (93)**.

3. Position the Body Frame Vertically

Raise the **Body Frame (93)** to the fully vertical position.

Rotate the **Support Plate (127)** clockwise until it firmly engages and supports the Body Frame.

Insert the **Locking Pin (126)** to secure the Body Frame in position.

Refer to **Figure I**.

4. Open the Blade Back Cover and Inspect Blade Tracking

Remove the **Screw (142)** and **Flat Washer (141)** to open the **Blade Back Cover (82)**.

Turn ON the band saw and observe the position of the **Saw Blade (66)** as it rotates on the **Upper Blade Wheel (83)**.

5. Verify Correct Blade Tracking

The saw blade is tracking correctly when:

- The rear edge of the blade is lightly contacting the edge of the Upper Blade Wheel flange.
- The back of the blade is not forced against or rubbing heavily on the flange.

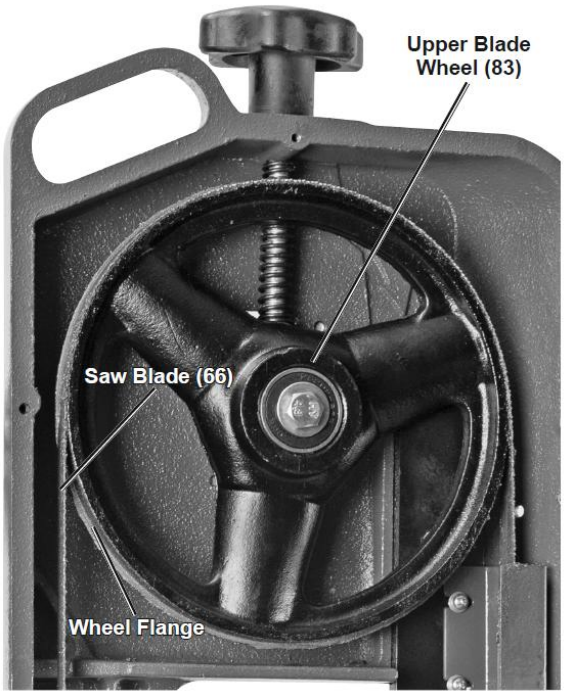


Figure 21: Upper wheel front view.

Note: Before making any tracking adjustment, ensure that the **Blade Guide Bearings (72)** are completely clear of the Saw Blade.

6. Loosen the Blade Wheel Adjustment Bolts

Turn OFF the band saw.

Loosen the two **Bolts (13)** until they are loose but still slightly snug.

7. Adjust Blade Tracking

With the band saw running, slowly turn the **Set Screw (96)** to adjust the position of the blade until proper tracking is achieved.

Maintain correct blade tension during adjustment by adjusting the **Blade Tension Adjustment Knob (91)** as required.

Continue adjusting until the blade tracks correctly on the Upper Blade Wheel.

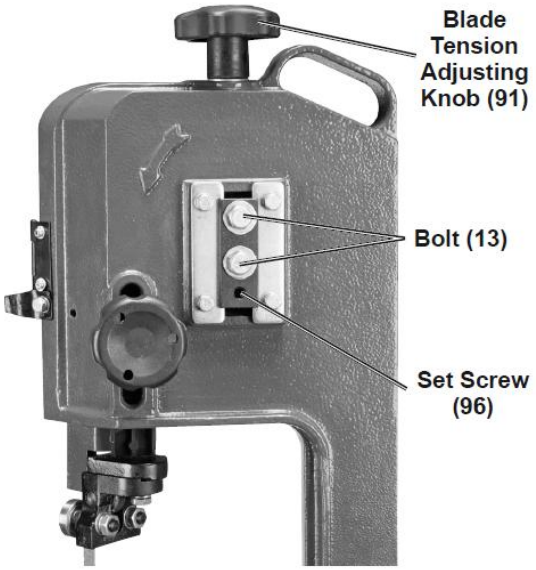


Figure 22: Upper wheel back view.

8. Secure the Adjustment

Turn OFF the band saw.

Once proper blade tracking has been achieved, securely tighten the two **Bolts (13)** to lock the adjustment position.

9. Close the Blade Back Cover

Close the **Blade Back Cover (82)**.

Secure the cover using the **Screw (142)** and **Flat Washer (141)**.

Final Inspection Before Operation

Before returning the band saw to normal operation, verify that:

- The blade tracks correctly on the wheel.
- The blade does not rub excessively against the wheel flange.
- Blade tension is properly adjusted.
- All bolts and fasteners are securely tightened.
- The Blade Back Cover is closed and secured.

Incorrect blade tracking can cause blade damage, inaccurate cuts, excessive vibration, and premature wear of machine components.

Adjusting the Blade Tension

Important Adjustment Information

Proper blade tension is essential for safe operation, accurate cutting, and extended saw blade life. Excessive tension may cause premature blade wear or component damage, while insufficient tension may cause blade slipping, poor cutting performance, or inaccurate cuts.

Adjustment Procedure

1. Position the Body Frame

Raise the **Body Frame (93)** to the fully vertical position.

Rotate the **Support Plate (127)** clockwise until it firmly engages and supports the Body Frame.

Insert the **Locking Pin (126)** to secure the Body Frame in position.

2. Increase Blade Tension

Turn the **Blade Tension Adjustment Knob (91)** clockwise to increase tension on the **Saw Blade (66)**.

3. Decrease Blade Tension

Turn the **Blade Tension Adjustment Knob (91)** counterclockwise to reduce tension on the Saw Blade.

4. Verify Proper Blade Tension

Correct blade tension has been achieved when the **Blade Wheels (63, 83)** securely grip the Saw Blade and rotate it without slipping.

The blade should be tight enough to maintain proper tracking and cutting performance, but not excessively tensioned.

Important Storage Recommendation

Release blade tension when the band saw will not be used for an extended period.

Reducing blade tension during long periods of storage helps prevent unnecessary stress on the blade, wheels, bearings, and machine components.

Final Inspection

Before operation, verify that:

- The blade is properly tensioned.
- The blade tracks correctly on the wheels.
- The blade moves smoothly without excessive vibration.
- The blade guides and guards are properly adjusted and installed.

Incorrect blade tension may result in blade breakage, poor cutting accuracy, excessive vibration, or damage to the band saw.

Adjusting the Feed Rate

Purpose

The feed rate controls the downward movement speed of the **Body Frame** during cutting. Proper adjustment of the feed rate helps maintain cutting accuracy, improves blade life, and prevents excessive loading of the saw blade.

Adjustment Procedure

Adjust the feed rate by turning the **Feed Handle (35)**:

- Turn the **Feed Handle clockwise** to **decrease** the feed rate.
- Turn the **Feed Handle counterclockwise** to **increase** the feed rate.

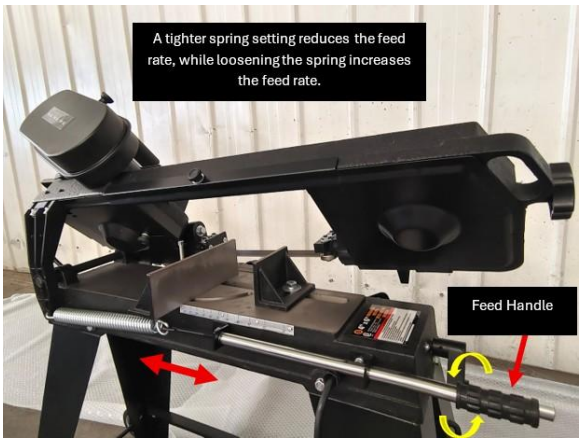


Figure 23: Feed rate control handle.

NOTICE — Prevent Blade Damage

Do not turn the **Feed Handle (35)** more than **one full turn at a time**.

- Excessive feed pressure can overload the Saw Blade (66), causing blade breakage or premature failure.
- Insufficient feed pressure can cause the blade teeth to rub instead of cutting efficiently, resulting in rapid blade dulling.

Final Adjustment Guidelines

After adjusting the feed rate:

- Allow the blade to cut at a steady, controlled rate.
- Monitor cutting performance and adjust as necessary for the material being cut.
- Avoid forcing the workpiece into the blade.

Proper feed rate selection is essential for achieving clean cuts, extending blade life, and preventing unnecessary stress on the band saw components.

Adjusting the Blade Guide Brackets

Purpose

Proper adjustment of the Blade Guide Brackets ensures adequate support of the saw blade during cutting. Correct positioning improves cutting accuracy, reduces blade deflection, and helps prevent blade damage.

Adjustment Procedure

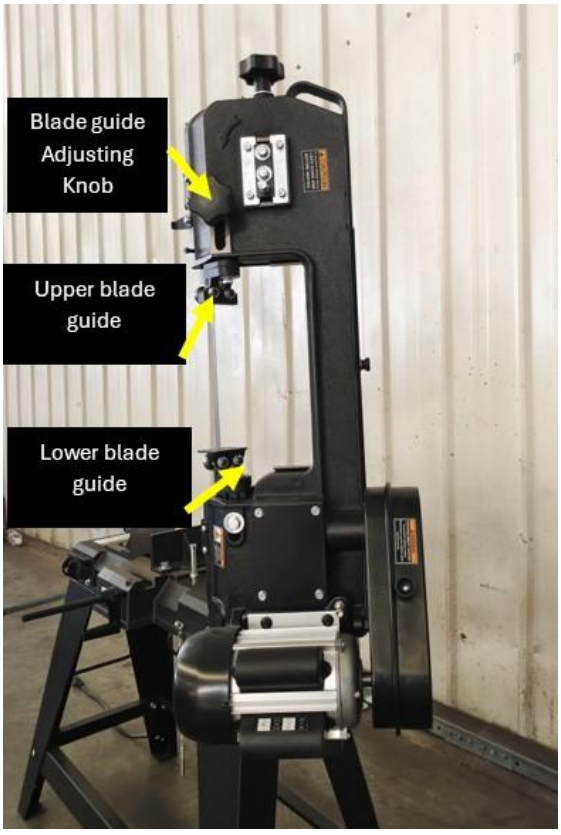
1. Adjust the Upper Blade Guide Bracket

Loosen the **Blade Guide Adjustment Knob (68)** to release the **Upper Blade Guide Bracket (79)**.

Slide the bracket upward or downward to match the height of the workpiece being cut.

2. Position the Blade Guide Brackets Correctly

Adjust the Blade Guide Brackets so they are positioned as close as possible to



the workpiece without:

Figure 24: The guide adjustment location.

- Interfering with the movement of the workpiece.

- Contacting the **Machine Bed (122)**.
- Restricting the cutting operation.

Keeping the blade guides close to the workpiece provides better blade support and improves cutting performance.

3. Secure the Adjustment

After the correct position has been achieved, tighten the **Blade Guide Adjustment Knob (68)** securely to lock the Upper Blade Guide Bracket in place.

Final Inspection

Before cutting, verify that:

- The Blade Guide Brackets are securely locked.
- The guides are positioned close to the workpiece.
- The blade can move freely without contacting the guides or machine components.
- The workpiece can pass through the cutting area without interference.

Improper blade guide bracket adjustment may result in blade deflection, inaccurate cuts, excessive vibration, or premature blade wear.

Workpiece and Work Area Setup

Preparing the Work Area

Proper preparation of the work area and workpiece is essential for safe operation, accurate cutting, and preventing accidents.

1. Prepare a Suitable Work Area

Select a work area that is:

- Clean and free of unnecessary materials.
- Well illuminated.
- Large enough to safely operate the machine and handle the workpiece.

Keep children, pets, and unauthorized personnel away from the work area to prevent distractions and reduce the risk of injury.

2. Position the Power Cord Safely

Route the power cord along a safe path between the electrical outlet and the machine.

Ensure that the power cord:

- Does not create a tripping hazard.
- Is protected from sharp edges, heat sources, moving parts, or other potential damage.
- Provides enough length for safe and unrestricted machine operation.

3. Secure the Workpiece

Secure loose or unstable workpieces using an appropriate vise, clamp, fixture, or other suitable holding device (not included).

The workpiece must remain stable and properly supported throughout the

cutting operation to prevent movement, shifting, or loss of control.

4. Remove Potential Hazards

Inspect the work area before operation and ensure that no hazardous objects or obstructions are present.

Keep the cutting area clear of:

- Electrical wiring or utility lines.
- Loose materials.
- Other objects that may interfere with safe operation.

Final Work Area Inspection

Before starting the machine, verify that:

- The work area is clean and adequately lit.
- The workpiece is properly secured and supported.
- The power cord is safely positioned.
- The cutting path is clear of obstructions.
- All required safety equipment is available and being used.

A properly prepared work area reduces the risk of accidents and allows the machine to operate safely and efficiently.

Section 5: Cleaning, Maintenance, and Lubrication

General Maintenance Requirements

Regular inspection, cleaning, and maintenance are essential to ensure safe operation, reliable performance, and extended service life of the band saw.

Always follow the safety procedures in this manual before performing any maintenance activity.

1. Inspect the Band Saw Before Each Use

Before operating the machine, inspect its overall condition.

Check for:

- Loose hardware or fasteners.
- Misalignment, binding, or restricted movement of moving components.
- Cracked, broken, or damaged parts.
- Damaged electrical wiring or insulation.
- Any other condition that may affect safe operation.

Correct any problems before using the band saw.

2. Inspect the Saw Blade Before Each Use

Inspect the **Saw Blade (66)** before every operation.

A dull or damaged saw blade can:

- Reduce cutting performance.
- Produce poor-quality cuts.
- Increase cutting resistance.
- Place excessive load on the band saw motor.
- Accelerate machine wear.

Replace the saw blade when it becomes worn, damaged, or no longer provides satisfactory cutting performance.

3. Clean the Band Saw After Use

After each use, clean the external surfaces of the band saw using a clean cloth.

For cleaning the machine body:

- Use only a clean cloth with mild detergent or a mild cleaning solvent.
- Remove accumulated dust, chips, and debris.
- Do not immerse any electrical components or allow liquids to enter electrical areas.

4. Clean Motor Ventilation Openings Periodically

Periodically clean the motor ventilation openings to prevent dust buildup and maintain proper cooling.

Before cleaning:

- Wear **CSA-approved safety goggles**.
- Wear **CSA-approved respiratory protection** when required.

Use clean, dry compressed air to remove dust from the motor vents.

Maintenance Guidelines

To maintain safe and reliable operation:

- Keep the machine clean and free of accumulated material.
- Replace worn or damaged components immediately.
- Keep all guards and safety devices properly installed.
- Do not operate the band saw if any safety-related issue is identified.

Proper maintenance helps prevent unexpected failures, improves cutting performance, and extends the service life of the machine.

Storage, Transportation, and Service Requirements

Securing the Band Saw for Storage or Transport

When the band saw is not in use or is being transported:

1. Lower the **Body Frame (93)** to the horizontal position.
2. Insert the **Locking Pin (126)** into the Body Frame to secure it in position.

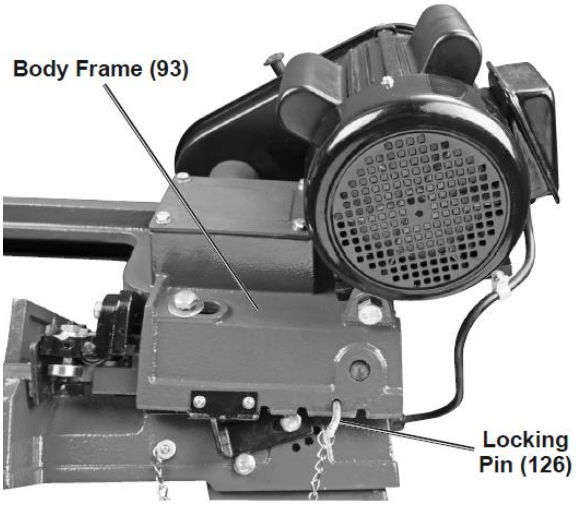


Figure 26: Horizontal position for storage.

Properly securing the Body Frame prevents unexpected movement during storage or transportation and reduces the risk of equipment damage or injury.

Qualified Service Requirement

Any maintenance, service, adjustment, or repair procedure not specifically described in this manual must be performed only by a **qualified service technician**.

Do not attempt unauthorized repairs or modifications, as improper service may create safety hazards or damage the machine.

WARNING — Electrical Safety Requirement

If the **power supply cord** of this tool becomes damaged, it must be replaced only by a **qualified service technician**.

Do not operate the band saw with a damaged power cord. A damaged cord may create an electrical shock, fire, or serious injury hazard.

Replacing the Saw Blade

WARNING — Prevent Serious Injury

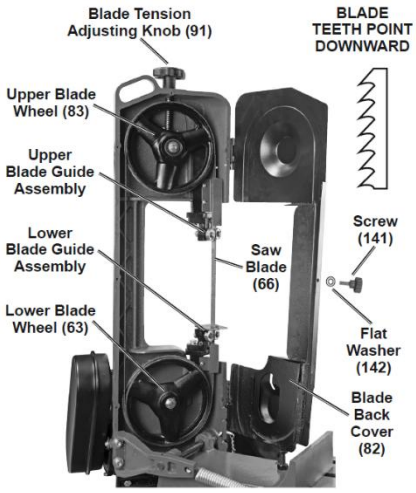
The saw blade is sharp and may cause serious cuts.

Before replacing the saw blade:

- Wear **heavy-duty protective work gloves**.
- Disconnect the band saw from the electrical power supply.
- Ensure the machine is turned OFF, and all moving components have come to a complete stop.

Blade Replacement Procedure

1. Wear Protective Gloves



Wear heavy-duty work gloves to protect your hands from accidental contact with the sharp **Saw Blade (66)** during removal and installation.

2. Position the Body Frame

Raise the **Body Frame (93)** to the fully vertical position.

Rotate the **Support Plate (127)** clockwise until it firmly engages and supports the Body Frame.

Insert the **Locking Pin (126)** to secure the Body Frame in position.

3. Release Blade Tension

Turn the **Blade Tension Adjustment Knob (91)** to release tension on the **Saw Blade (66)**.

Reduce the blade tension sufficiently to allow safe removal of the blade from the blade wheels and guides.

4. Open the Blade Back Cover

Remove the **Screw (142)** and **Flat Washer (141)** to open the **Blade Back Cover (82)** and gain access to the Saw Blade.

Important Safety Reminder

Never attempt to remove or install a saw blade while the machine is connected to power.

Handle the blade carefully during removal and installation to prevent injury and avoid damaging the blade or machine components.

Figure 27: Replacing the blade.

5. Remove the Existing Saw Blade

Carefully remove the old **Saw Blade (66)** from:

- The **Upper Blade Wheel (83)**.
- The **Lower Blade Wheel (63)**.
- The Blade Guide Assemblies.

Handle the blade carefully to prevent injury and avoid damaging machine components.

6. Install the New Saw Blade

Install the new **Saw Blade (66)** by positioning it:

- Between both Blade Guide Assemblies.
- Around the **Upper Blade Wheel (83)**.
- Around the **Lower Blade Wheel (63)**.

IMPORTANT — Blade Tooth Direction

The saw blade teeth **must point downward toward the Motor**.

Installing the blade in the incorrect direction will prevent proper cutting and may damage the workpiece, blade, or machine.

Blade Specifications and Selection

The band saw is supplied with a:

- **64 in. diameter saw blade**
- **0.025 in. blade thickness**
- **15/32 in. blade width**
- **14 teeth per inch (TPI)**

The machine is also compatible with blades having **4, 6, 8, and 10 teeth per inch**.

Select the appropriate blade tooth pitch based on the thickness and type of material being cut:

- Thinner materials require a higher tooth count for proper cutting performance.
- Thicker materials require fewer teeth per inch to provide adequate chip clearance.

At least **three blade teeth must remain engaged with the workpiece during cutting**.

CAUTION — Prevent Blade and Workpiece Damage

Do not use a blade with teeth spaced so widely that the teeth straddle the workpiece.

Incorrect tooth selection may result in severe damage to the workpiece and/or saw blade.

7. Adjust Blade Tension

Increase tension on the new **Saw Blade (66)** by turning the **Blade Tension Adjustment Knob (91)**.

Adjust the tension according to the procedure described in the **Adjusting the Blade Tension** section of this manual.

Verify that the blade is properly seated on both blade wheels before operation.

8. Close the Blade Back Cover

Close the **Blade Back Cover (82)**.

Secure the cover using the **Screw (142)** and **Flat Washer (141)**.

Final Inspection Before Operation

Before using the band saw:

- Confirm the blade teeth are facing the correct direction.
- Verify the blade is properly installed on both blade wheels.
- Check blade tension and tracking.
- Ensure all guards and covers are installed and secured.
- Rotate the blade manually to confirm smooth movement before reconnecting power.

Improper blade installation may result in blade breakage, poor cutting performance, equipment damage, or serious injury.

Replacing the V-Belt

Important Information

The band saw uses a **size 0-506 V-Belt (100)**. Replace the V-Belt if it becomes worn, damaged, stretched, cracked, or unable to maintain proper tension.

WARNING — Prevent Serious Injury

Before replacing the V-Belt:

- Turn the **Power Switch** to the OFF position.
- Disconnect the band saw from the electrical power supply.
- Allow all moving components to come to a complete stop.
- Do not operate the machine with the pulley cover removed.

V-Belt Replacement Procedure

1. Open the Pulley Cover

Open the **Pulley Cover (101)** to access the V-belt and pulley assembly.

2. Release V-Belt Tension

Loosen the **Bolt (108)** securing the **Motor (115)**.

Move the motor toward the **Body Frame** to reduce tension on the existing **V-Belt (100)**.

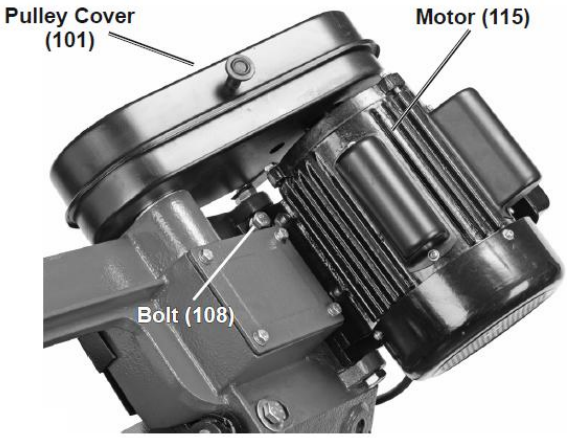


Figure 28:Releasing the belt tension.

3. Remove the Existing V-Belt

Remove the old V-Belt from the:

- **Spindle Pulley (99)**.
- **Motor Pulley (105)**.

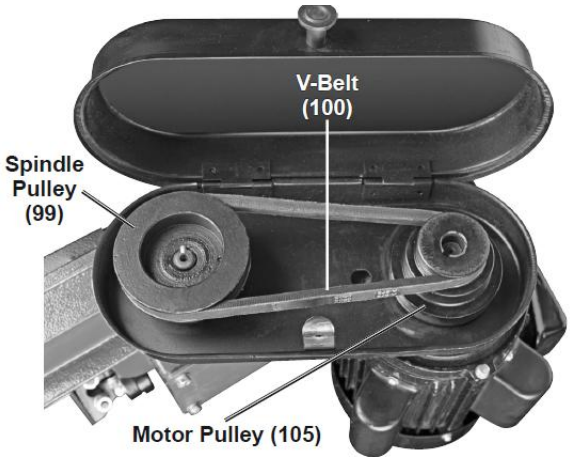


Figure 29: Replacing the belt.

Inspect the pulleys for excessive wear, damage, or debris before installing the replacement belt.

4. Install the New V-Belt

Install the new **V-Belt (100)** around the appropriate pulley grooves based on the required blade speed.

Refer to the **Cutting Speed Adjustment Chart (Figure H)** for the correct pulley combination.

Ensure the belt is properly seated in both pulley grooves and is not twisted.

5. Adjust V-Belt Tension

Move the **Motor (115)** away from the Body Frame until the V-Belt has approximately **1/2 in. (13 mm) of deflection** when moderate thumb pressure is applied at the midpoint of the belt span.

Proper tension ensures efficient power transfer while preventing excessive belt wear.

6. Secure the Motor Position

Tighten the **Bolt (108)** securely to lock the motor in position.

Final Inspection

Before operating the band saw:

- Verify the V-Belt is properly installed on both pulleys.
- Confirm the belt is aligned and correctly tensioned.
- Ensure the motor mounting bolt is tight.
- Close and secure the Pulley Cover (101).
- Rotate the system manually to confirm smooth movement before reconnecting power.

Improper V-belt installation or adjustment may result in belt slippage, excessive vibration, reduced cutting performance, or premature component failure.

Changing the Gear Box Oil

Important Maintenance Information

The **Spindle Shaft (97)** and **Worm Gear (53)** operate inside an oil-bath Gear Box. Under normal operating conditions, the gear oil should not require replacement more frequently than **once per year**.

Oil replacement may be required sooner if:

- The oil becomes contaminated.
- A leak develops.
- The Gear Box Cover (110) or gasket is improperly installed, causing loss of oil.

Regular inspection of the Gear Box helps ensure proper lubrication and prevents premature wear of internal components.

WARNING — Prevent Serious Injury

Before performing any Gear Box maintenance:

- Turn the **Power Switch** to the OFF position.
- Disconnect the band saw from the electrical power supply.
- Allow all moving components to come to a complete stop.

Gear Box Oil Change Procedure

1. Position the Body Frame

Place the **Body Frame (93)** in the horizontal position.

Refer to figure 26 for the correct position.

2. Remove the Gear Box Cover

Remove the following hardware:

- Four **Bolts (111)**.
- Four **Spring Washers (7)**.
- Four **Flat Washers (8)**.

Carefully remove the **Gear Box Cover (110)** and **Gear Box Gasket (109)**.

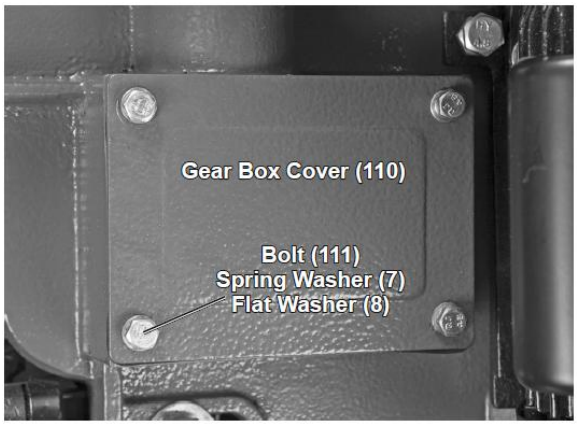


Figure 30: Gear box location.

Important Note

Inspect the Gear Box Gasket for damage, deformation, or wear during removal.

A damaged gasket must be replaced before reinstalling the Gear Box Cover to prevent oil leakage.

Changing the Gear Box Oil (Continued)

3. Drain and Refill the Gear Box Oil

Remove the existing oil from inside the **Gear Box**.

Refill the Gear Box using **140 weight gear oil**.

Fill the Gear Box only until the oil level reaches the edge of the Gear Box housing.

Do not overfill the Gear Box.
Excessive oil volume may cause leakage, increased operating resistance, or damage to seals.

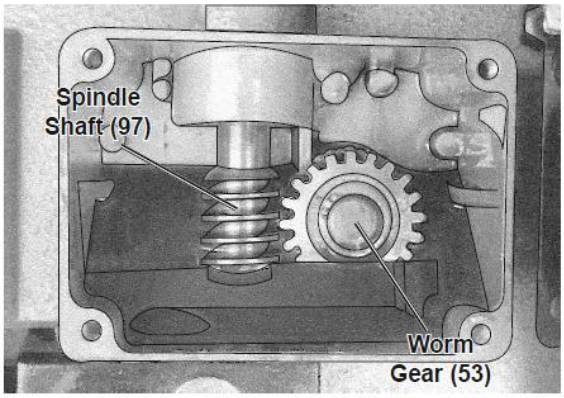


Figure 31: The correct oil level.

4. Reinstall the Gear Box Cover

Reinstall the **Gear Box Gasket (109)**, ensuring it is properly seated and aligned.

Install the **Gear Box Cover (110)** and secure it using:

- Four **Spring Washers (7)**.
- Four **Flat Washers (8)**.
- Four **Bolts (111)**.

Tighten the bolts evenly to ensure proper sealing and prevent oil leakage.

Final Inspection

After completing the Gear Box oil change:

- Verify that the Gear Box Cover is securely installed.
- Check for oil leaks around the gasket and cover.
- Confirm that the machine operates smoothly before returning it to service.

Proper lubrication is essential for reducing wear, maintaining gear

performance, and extending the service life of the band saw drive system.

Section 6: Troubleshooting

Troubleshooting Guide

The following troubleshooting information is intended to help identify and correct common operating issues. If a problem cannot be corrected using the solutions provided, have the machine inspected and serviced by a qualified technician.

Troubleshooting Guide

Problem	Possible Cause	Recommended Solution
Tool will not start	Power cord not connected.	Verify that the power cord is securely plugged into a properly grounded electrical outlet.
	No power at the electrical outlet.	Check the outlet for power. If necessary, inspect the circuit breaker and ensure the circuit has sufficient capacity and is not overloaded.
	Thermal overload protector has tripped (if equipped).	Turn the tool OFF and allow the motor to cool. Reset the overload protection and restart the machine.
	Internal electrical damage or worn components (switch, carbon brushes, etc.).	Have the machine inspected and repaired by a qualified service technician.
Tool operates slowly	Extension cord is too long or has an insufficient wire gauge.	Whenever possible, connect the machine directly to a properly grounded outlet. If an extension cord is required, use one with the correct wire gauge and length. Refer to **Table A – Recommended Extension Cord Sizes**.
Cutting performance decreases over time	Saw blade is dull, damaged, or worn.	Inspect and replace the saw blade if necessary.

Problem	Possible Cause	Recommended Solution
	Carbon brushes are worn or damaged.	Have the carbon brushes replaced by a qualified service technician.
Excessive noise or rattling	Internal component wear or damage (bearings, carbon brushes, etc.).	Discontinue use and have the machine inspected by a qualified service technician.
Motor overheats	Feed rate is too aggressive.	Reduce the cutting feed rate and allow the machine to cut at its designed capacity.
	Saw blade is dull or damaged.	Replace the saw blade.
	Motor ventilation openings are blocked.	Disconnect power. Wearing ANSI-approved eye protection and NIOSH-approved respiratory protection, clean the motor vents using dry compressed air.
	Extension cord is too long or undersized.	Eliminate the extension cord whenever possible or use one with the correct wire gauge. Refer to **Table A**.
	Blade tension is excessive.	Adjust the blade tension according to the procedure in **Blade Tension Adjustment**.
	V-belt tension is excessive.	Adjust the V-belt tension according to the procedure in **V-Belt Installation and Adjustment**.
	Incorrect blade tooth pitch for the material.	Install a blade with the proper tooth pitch for the workpiece material.
	Worm gear and drive gear are improperly aligned.	Adjust the gear alignment so the worm gear is centered on the driven gear.
	Insufficient gearbox lubrication.	Inspect the gearbox oil level and refill or replace the oil as required.

Problem	Possible Cause	Recommended Solution
Excessive saw blade breakage	Blade tension is too low.	Adjust the blade tension to the recommended setting.
	Incorrect blade speed.	Select the proper blade speed for the material being cut. Refer to the **Cutting Speed Chart**.
	Workpiece is not securely clamped.	Secure the workpiece firmly in the vise before cutting.
	Blade tracking is incorrect, causing contact with the wheel flange.	Adjust the blade tracking according to the **Blade Tracking Adjustment** procedure.
	Blade tooth pitch is unsuitable for the material.	Replace the blade with one having the appropriate tooth pitch for the workpiece.
	Workpiece is fed before the blade reaches full speed.	Allow the blade to reach full operating speed before beginning the cut.
	Blade guide assemblies are improperly adjusted.	Adjust the blade guide bearings and blade guide brackets according to the procedures in this manual.

Important: If the problem persists after performing the recommended corrective actions, discontinue use immediately and have the band saw inspected and serviced by a qualified service technician.

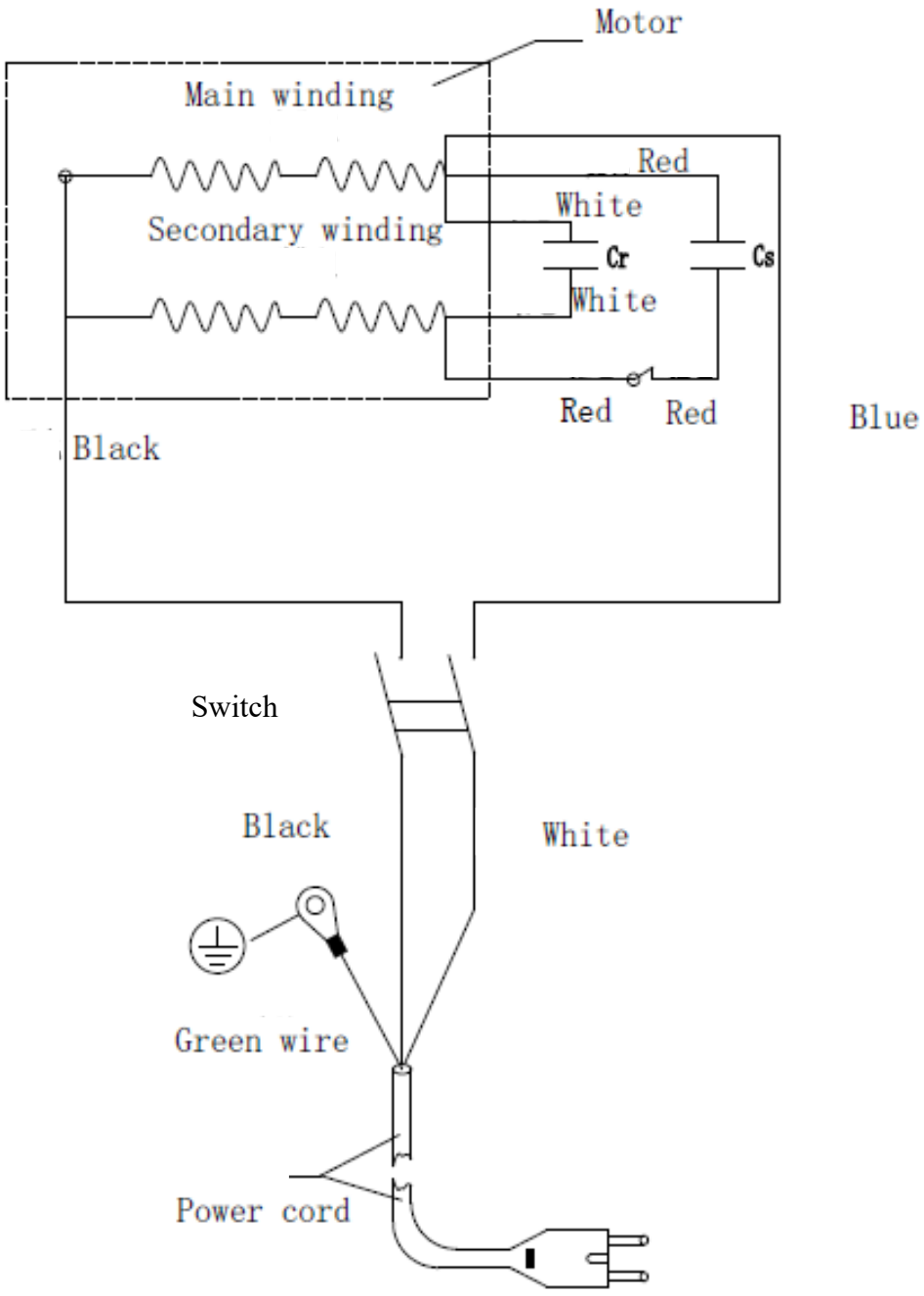
Troubleshooting Guide (Continued)

Problem	Possible Cause	Recommended Solution
Premature Blade Dulling	Saw blade tooth pitch is too coarse for the workpiece material.	Select and install the recommended saw blade for the material being cut. Refer to the **Saw Blade Selection** section.
	Blade speed is too high.	Select the next lower blade speed appropriate for the material. Refer to the **Cutting Speed Chart**.
	Feed pressure is too light.	Increase the feed pressure by adjusting the feed rate according to the procedure in the **Feed Rate Adjustment** section.
	Saw blade installed in the wrong direction.	Reinstall the saw blade with the teeth pointing downward in the correct cutting direction.
	Blade tension is insufficient.	Increase blade tension according to the **Blade Tension Adjustment** procedure until the proper tension is achieved.
Blade Cuts Crooked	Vise is not square with the saw blade.	Adjust the vise to ensure it is square with the blade. Securely clamp the workpiece before cutting.
	Feed pressure is excessive.	Reduce the feed pressure by adjusting the feed rate.
	Blade guide bearings are improperly adjusted.	Adjust the blade guide bearings to maintain approximately **0.001 in. (0.025 mm)** clearance from the blade, including the blade weld.
	Blade tension is insufficient.	Increase blade tension according to the recommended procedure.
	Blade guide brackets are positioned too far from the workpiece.	Position the blade guide brackets as close to the workpiece as possible without interfering with the cut.

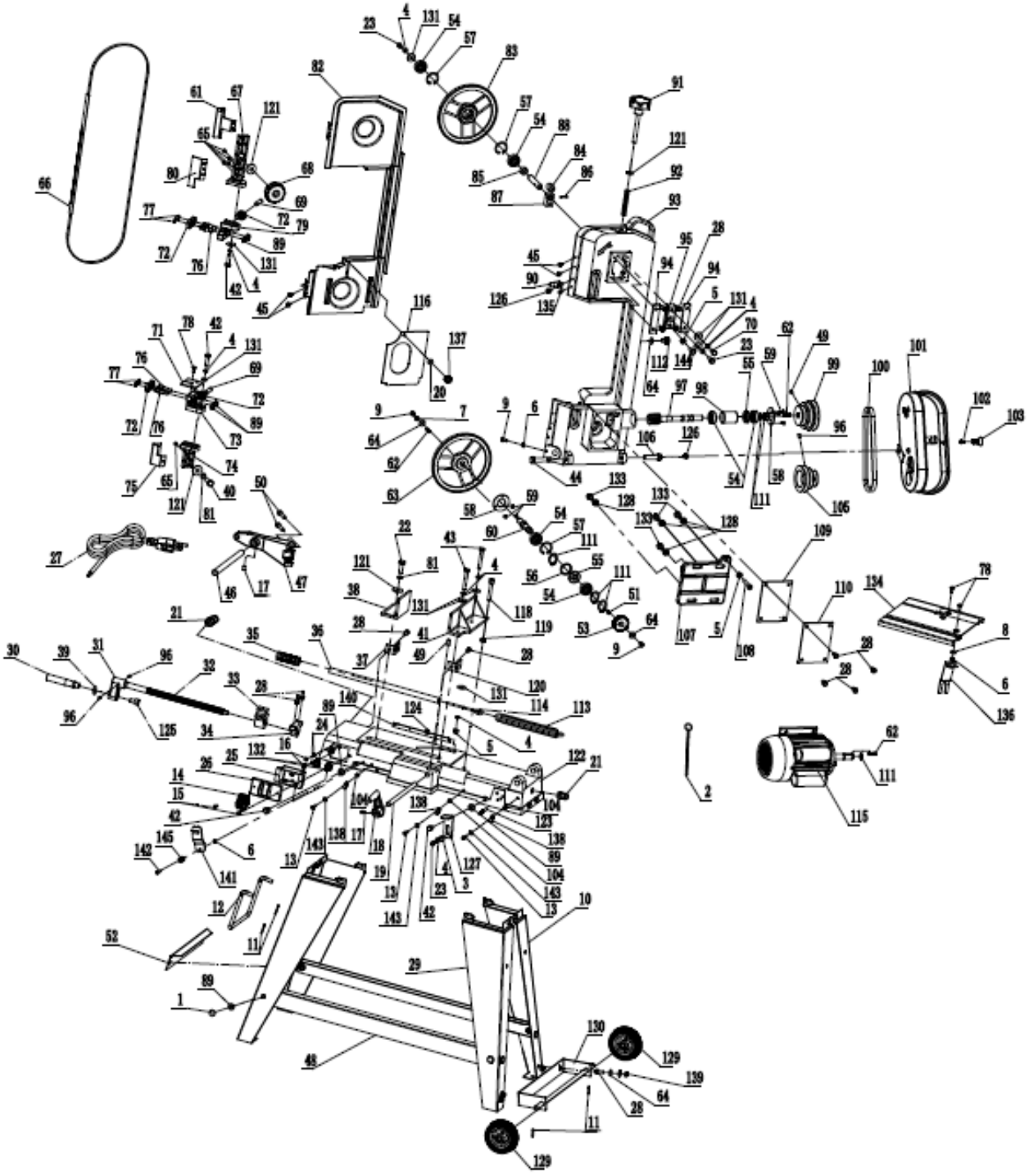
Problem	Possible Cause	Recommended Solution
	Saw blade is dull or damaged.	Replace the saw blade.
	Incorrect blade speed for the material.	Select the appropriate cutting speed for the material being cut.
	Blade tracking is incorrect.	Adjust the blade tracking according to the **Blade Tracking Adjustment** procedure.
Blade Produces Rough Cuts	Blade speed is too high.	Reduce the blade speed according to the **Cutting Speed Chart**.
	Feed pressure is excessive.	Reduce the feed pressure by adjusting the feed rate.
	Blade tooth pitch is not suitable for the material.	Install a saw blade with the appropriate tooth pitch for the workpiece.
Blade Twists During Cutting	Blade is binding in the workpiece.	Reduce the feed pressure and allow the blade to cut at its normal rate.
	Blade tension is excessive.	Reduce blade tension until the recommended tension is achieved.
Unusual Wear on the Side or Back of the Blade	Blade guides are worn.	Replace the blade guides.
	Blade guide bearings are improperly adjusted.	Adjust the blade guide bearings according to the **Blade Guide Bearing Adjustment** procedure.
	Blade guide bearing bracket is loose.	Tighten the blade guide bearing bracket securely.

Important: Always disconnect the band saw from the power supply before performing inspections, adjustments, or maintenance. If the problem cannot be corrected using the procedures provided in this manual, discontinue operation and have the machine inspected by a qualified service technician.

Section 7: Electrical Wiring Instruction and Diagram



Section 8: Machine Diagrams and Parts List



Parts List

No.	Part Number	Description and Specifications	QTY
1	ZBCAM812512	Bolt Carriage M8-1.25×12	6
2	PBBMBS46002	Chain	1
3	ZWFTM80000	Washer Flat M8	1
4	ZWSPM80000	Washer Spring M8	8
5	ZNHXM812500	Nut Hexagonal M8-1.25	2
6	ZNHXM610000	Nut Hexagonal M6-1.00	3
7	ZWSPM60000	Washer Spring M6	2
8	ZWFTM60000	Washer Flat M6	2
9	ZBHXM610012	Bolt Hex HD M6-1.00×12MM	3
10	PBBMBS46010	Stand ASSY 2	2
11	ZPSP3.20016	Pin Split 3.2X16MM	4
12	PBBMBS46012	Pull Handle	1
13	ZSPHM407020	Screw Philips M4-0.70X20MM	3
14	PBBMBS46014	ON/OFF Switch HY7-4 125VAC 20Amp 60Hz	1
15	ZSPHST4.230	Screw Self-Tapping Philips HD ST4.2X30MM	2
16	PBBMBS46016	Screw Philips+Spring washer+Flat washer ASSY	2
17	ZSCHM812512	Screw Hex Socket M8-1.25X12MM	2
18	PBBMBS46018	Stop Block	1
19	PBBMBS46019	Stop Block Shaft	1
20	ZWFTLGM515	Washer Large M5 O.D. 15MM	1
21	PBBMBS46021	Strain Relief	2
22	ZBHXM1015025	Bolt Hex HD M10-1.50X25MM	2
23	ZBHXM812516	Bolt Hex HD M8-1.25X16MM	3
24	ZWTHDM500	Washer Toothed M5	2
25	PBBMBS46025	Switch Box	1
26	PBBMBS46026	Switch Panel	1
27	PBBMBS46027	Power Cord	1
28	PBBMBS46028	Bolt Hex+Spring washer+Flat washer ASSY M6-1.00X20MM	14
29	PBBMBS46029	Stand ASSY 1	2
30	PBBMBS46030	Handle	1
31	PBBMBS46031	Crank Handle	1
32	PBBMBS46032	Adjusting Rod	1
33	PBBMBS46033	Nut Special For Rod	1
34	PBBMBS46034	Rod Support	1
35	PBBMBS46035	Feed Handle	1
36	PBBMBS46036	Handle Rod ASSY	1
37	PBBMBS46037	Feed Handle Bracket 1	1
38	PBBMBS46038	Moveable Vise Plate	1

No.	Part Number	Description and Specifications	QTY
39	ZWFLTM1000	Washer Flat M10	1
40	ZBHXM1015030	Bolt Hex HD M10-1.50X30MM	1
41	PBBMBS4641	Fixed Vise Plate	1
42	ZBHXM812525	Bolt Hex HD M8-1.25X25MM	8
43	ZBHXM812540	Bolt Hex HD M8-1.25X40MM	2
44	ZBHXM1217535	Bolt Hex HD M12-1.75X35MM	1
45	PBBMBS46045	Screw Philips HD+Flat Washer ASSY	4
46	PBBMBS46046	Connecting Shaft	1
47	PBBMBS46047	Connecting Frame	1
48	PBBMBS46048	Long Beam Plate	2
49	ZBHXM610012	Screw Hex socket Hd M6-1.00X12MM	2
50	PBBMBS46050	Screw Hex socket+Spring Washer+Flat Washer ASSY M8-1.25X30MM	2
51	ZKEY050510	Key Flat 5X5X10MM	1
52	PBBMBS4652	Short Beam Plate	1
53	PBBMBS46053	Worm Gear	1
54	ZBRG6000ZZ	Bearing 6202ZZ	6
55	PBBMBS46055	Oil Seal (I.D. 15MMXO.D. 35MMXTH 7MM)	2
56	PBBMBS46056	Worm Gear Bearing Spacer Sleeve	1
57	ZRINGCEXT35	C-Ring Retaining 35MM	3
58	PBBMBS46058	Bearing Retaining Plate	2
59	ZSPHM508012	Screw Philips HD M5-0.80X12MM	6
60	PBBMBS46060	Worm Gear Shaft	1
61	PBBMBS46061	Upper Guard Plate 2	1
62	ZKEY050525	Key Flat 5X5X25MM	3
63	PBBMBS46063	Lower Blade Wheel	1
64	ZWFLGM6000	Washer Flat Large M6	7
65	ZSPHM407010	Screw Philips HD M4-0.70X10MM	3
66	PBBMBS46066	Blade 1638X12.7X0.63 MM 14TPI (Included)	1
67	PBBMBS46067	Upper Guide Slide Rod	1
68	PBBMBS46068	Adjustment Handle	1
69	PBBMBS46069	Guiding Shaft	2
70	ZBHXM812530	Bolt Hex M8-1.25X30MM	1
71	PBBMBS4671	Small Worktable	1
72	ZBRG6000ZZ	Bearing 6000ZZ	6
73	PBBMBS46073	Lower Bracket	1
74	PBBMBS46074	Lower Guide Slide Rod	1
75	PBBMBS4675	Lower Guard Plate	1
76	PBBMBS46076	Eccentric Shaft	4
77	ZRIGCEXT10	C-Ring Elastic Retaining M10	4

No.	Part Number	Description and Specifications	QTY
78	ZBHXM610020	Screw Philips HD M6-1.00X20MM	3
79	PBBMBS46079	Upper Bracket	1
80	PBBMBS4680	Upper Guard Plate 1	1
81	ZWFLTM2000	Washer Spring M10	2
82	PBBMBS4682	Blade Back Cover	1
83	PBBMBS4683	Upper Blade Wheel	1
84	PBBMBS46084	Tightening block	1
85	PBBMBS46085	Isolation ring 1	1
86	PBBMBS4686	Pin Spring cylindrical 4X22MM	1
87	PBBMBS46087	Adjusting Block	1
88	PBBMBS46088	Upper Blade Wheel Axle	1
89	ZNFLGM8125	Nut Flange HD M8-1.25	18
90	PBBMBS46090	Switch Push-Off Tip	1
91	PBBMBS46091	Tension Handle	1
92	PBBMBS46092	Tension Spring	1
93	PBBMBS46093	Saw Frame	1
94	PBBMBS46094	Guide Plate	2
95	PBBMBS46095	Tension Slider	1
96	PBBMBS46096	Screw Hex socket HD M6-1.00X8MM	3
97	PBBMBS46097	Spindle Shaft	1
98	PBBMBS46098	Spacer Sleeve	1
99	PBBMBS46099	Driven Pulley	1
100	ZVBA53000	V-Belt VBA530	1
101	PBBMBS46101	Pulley Cover Assy	1
102	ZSPHM508012	Screw Philips HD M5-0.80X12MM	1
103	PBBMBS46103	Knob	1
104	ZNHXM4070	Nut HexM4-0.70	3
105	PBBMBS46105	Motor Pulley	1
106	PBBMBS46106	Fixed Bolt	1
107	PBBMBS46107	Motor Connection Plate ASSY	1
108	ZSCHM812565	Screw Hex socket HD M8-1.25X65MM	1
109	PBBMBS460109	Sealing Gasket	1
110	PBBMBS460110	Cover Plate	1
111	ZPINSPRG15	Pin Spring Cylindrical 15MM	6
112	ZBHXM610010	Handle Locking M6-1.00X10MM	1
113	PBBMBS46113	Extension Spring	1
114	PBBMBS46114	Adjustment Screw (Special)	1
115	BBMBS46MOT	Motor 120VAC 6.5Amp 60Hz	1
116	PBBMBS46116	Panel	1
117	PBBMBS46117	Wire Fixing Block	2

No.	Part Number	Description and Specifications	QTY
118	PBBMBS46118	Screw Hex socket HD M8-1.25X60MM	1
119	ZNHXM812500	Nut Hex HD M8-1.25	1
120	PBBMBS46120	Handle Seat 2	1
121	ZWFLGM1000	Large washer M10	4
122	PBBMBS46122	Machine Bed	1
123	PBBMBS46123	Pin Locking	1
124	PBBMBS46124	Bolt Hex HD 2.4X6MM	4
125	PBBMBS46125	Screw Hex socket HD M10-1.50X16MM	1
126	PBBMBD46126	Screw Philips HD+Spring washer+Flat washer ASSY M6-1.00X12MM	2
127	PBBMBS46127	Support plate	1
128	ZWFLTM4000	Nut Flange HD M8-1.25	4
129	PBBMBS46129	Wheel	2
130	PBBMBS46130	Wheel Bracket	1
131	ZWFLGM8000	Large Washer M8	8
132	PBBMBS46132	Wire Clip	2
133	ZBHXM812518	Bolt Flange M8-1.25X18MM	4
134	PBBMBS46134	Worktable	1
135	PBBMBS46135	Bearing Fastening Screw	1
136	PBBMBS46136	Support Plate	1
137	PBBMBS46137	Handle Locking M5-0.80X12MM	1
138	PBBMBS46138	Fixing Button	3
139	ZNFLGM6100	Nut Flange M6-1.00	4
140	PBBMBS46140	Angle Ruler	1
141	PBBMBS46141	Hook	1
142	PBBMBS46142	Screw Hex socket HD M6-1.00X25MM	1
143	ZWFLGM4012	Large Washer M4 O.D. 12MM	3
144	ZBHXM812535	Bolt Hex HD M8-1.25X35MM	1
145	PBBMBS46145	Compression Spring	1

Busy Bee Tools

BUSY BEE TOOLS 2 YEARS LIMITED WARRANTY

Busy Bee Tools warrants products to the original purchaser against defects in materials and workmanship under normal use. With proof of purchase, an approved claim may be resolved by parts, in-branch repair, replacement, or another remedy chosen by Busy Bee Tools.

Key Warranty Terms

- **Coverage: Parts against manufacturer defect** for **two years** and labor for **90 days** only from purchase date. Labor is covered only when the machine is brought to a branch at the customer's expense; on-site labor is not covered.
- **Eligibility:** Original purchaser only; warranty is **non-transferable.**
- **Service:** Available only at a branch or authorized repair facility; no on-site service.
- **Costs:** Contact the nearest branch first. Customers pay transportation, travel, removal, installation, and related costs unless pre-approved in writing.

Coverage and Exclusions

Coverage excludes misuse, accidents, improper installation or maintenance, unauthorized repairs or modifications, normal wear, unintended use, and failure to follow instructions. Consumables and wear items such as blades, bits, belts, cutters, chisels, and punches are not covered. Unauthorized modification voids the warranty.

IF THE MACHINE IS ALTERED IN ANY WAY, THE WARRANTY SHALL BE NULL AND VOID.

Claims, Repairs, and Returns

- **Claims require inspection** and approval before repair, replacement, credit, or refund.
- Returns and warranty repairs need prior written authorization; collect or unauthorized shipments are refused.
- **Non-warranty** returns must be unused, include proof of purchase, and retain original packaging where applicable. A minimum 15% restocking fee may apply based on the condition of the machine and its packaging when returned.
- **Shipping is non-refundable**; approved warranty shipments must be packaged well, insured, and prepaid.
- **Busy Bee Tools chooses repair or replacement** and the return carrier. Repairs include a 30-day parts-and-labor warranty unless stated otherwise.
- Additional non-warranty charges require approval. For replacement parts, call **1-800-461-BUSY (2879)** with the model and part number as well as the serial number.

Limitation of Liability

Where permitted by law, Busy Bee Tools is not liable for injury, property damage, or incidental, special, contingent, or consequential losses arising from product use, misuse, or inability to use. Busy Bee Tools interprets and administers this policy based on inspection and the circumstances of each claim.