WOODSTOCK

SHOP FOX®

INTERNATIONAL

MODEL W1749
9" BANDSAW

Optional
Model W1750
Stand shown

OWNER'S MANUAL

Phone: (360) 734-3482 • Online Technical Support: tech-support@shopfox.biz

#8169BL

Printed in China

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

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

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

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

⚠ WARNING!

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

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

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Contents

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USE THE QUICK GUIDE PAGE LABELS TO SEARCH OUT INFORMATION FAST!

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INTRODUCTION

Woodstock Technical Support

Your new **SHOP FOX®** Bandsaw has been specially designed to provide many years of trouble-free service. Close attention to detail, ruggedly built parts and a rigid quality control program assure safe and reliable operation.

Woodstock International, Inc. is committed to customer satisfaction. Our intent with this manual is to include the basic information for safety, setup, operation, maintenance, and service of this product.

We stand behind our machines! In the event that questions arise about your machine, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: **tech-support@shopfox.biz**. Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

If you need the latest edition of this manual, you can download it from **http://www.shopfox.biz**.
If you have comments about this manual, please contact us at:

Woodstock International, Inc.
Attn: Technical Documentation Manager
P.O. Box 2309
Bellingham, WA 98227

Specifications

Motor Size	1/3 HP, 110V, 2.5A, Single-Phase
Motor Speed	1725 RPM
Power Transfer	Multi-Groove Belt Drive
Cord Gauge	18 AWG
Max. Cutting Width	9"
Max. Cutting Height	3 1/2"
Table Size	11 1/2" L x 11 1/2" x 5/8" T
Footprint	11" W x 6 3/4" D
Overall Height	29"
Bench to Table Height	12"
Box Size	30" L x 16" W x 11" H
Table Angles (Maximum)	45° right
Blade Speeds	2559 FPM
Blade Size Range	1/8" to 3/8"
Blade Length	59 1/4"
Bearings	Permanently-Lubricated Ball Bearings
Power Control	Toggle Switch START/STOP
Guides	Steel Guide Blocks 1/2" W x 1/2" H x 1" L
Rip Fence	Aluminum Fence
Body Construction	Aluminum
Dust Port	2 1/2"
Net Weight	42 lbs.

Controls and Features

To familiarize yourself with the controls and features of your bandsaw, use this list and see **Figures 1** & **2.**

Controls

A. Elevation Height Knob: Moves the blade guide assembly to the desired height.

B. Blade Guide Lock Knob: Locks the blade guide assembly to the desired height.

C. Blade Tracking Knob: Adjusts blade tracking.

D. Table Tilt Lock Knob: Locks the table in position.

E. Table Adjustment Knob: Adjusts table position from 90° to 45°right.

F. Table Adjustment Tension Knob: Provides tension for adjusting table angle in finer increments.

G. Blade Tension Knob: Tensions blade in gradual increments.

H. START/STOP Toggle Switch: Toggles power ***ON*** and ***OFF*** to the motor.

Features

I. Fence and Miter Gauge: Allows for controlled cutting at various angles.

J. Steel Guide Blocks: Provide blade support.

K. Table Stop: Allows for returning table to 0° degrees quickly and accurately.

L. Dust Port: Allows bandsaw to be connected to a dust collection system.

M. Miter Gauge Holder: Holds miter gauge.

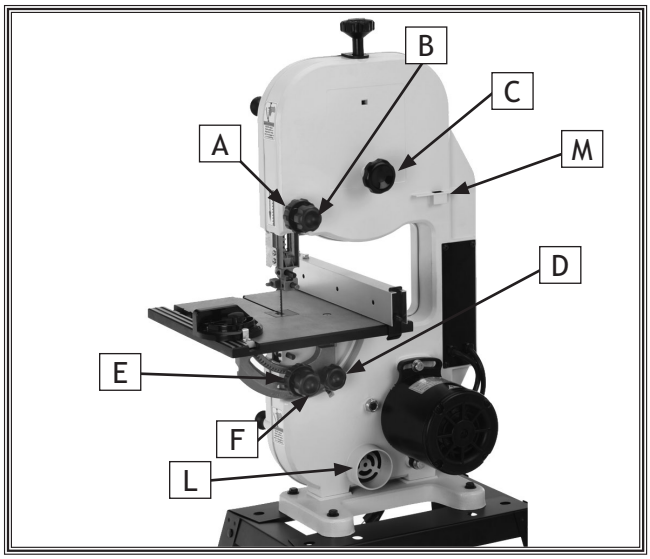


Figure 1. Bandsaw rear view.

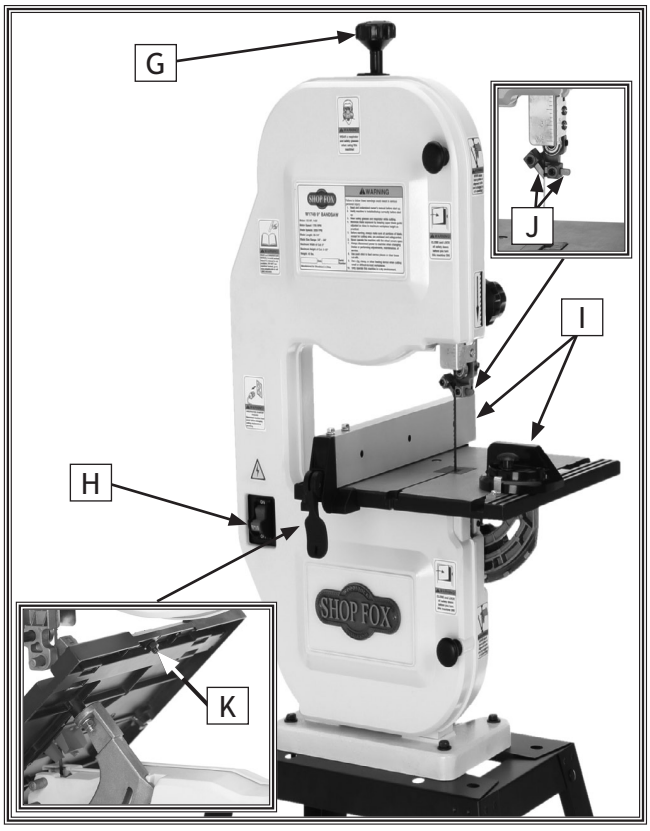


Figure 2. Bandsaw front view.

SAFETY

READ MANUAL BEFORE OPERATING MACHINE. FAILURE TO FOLLOW INSTRUCTIONS BELOW WILL RESULT IN PERSONAL INJURY.

⚠DANGER Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

⚠WARNING Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

⚠CAUTION Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.

NOTICE This symbol is used to alert the user to useful information about proper operation of the equipment, and/or a situation that may cause damage to the machinery.

Standard Safety Instructions

1. **READ THROUGH THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.

2. **ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.

3. **ALWAYS WEAR AN NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust is a carcinogen and can cause cancer and severe respiratory illnesses.

4. **ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing damage.

5. **WEAR PROPER APPAREL.** DO NOT wear loose clothing, gloves, neckties, rings, or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.

6. **NEVER OPERATE MACHINERY WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.

8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.

9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove start switch keys.

10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power off and allow all moving parts to come to a complete stop before leaving machine unattended.

11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.

12. **KEEP WORK AREA CLEAN AND WELL LIT**. Clutter and dark shadows may cause accidents.

13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.

14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY**. Make sure switch is in OFF position before reconnecting.

15. **MAINTAIN MACHINERY WITH CARE**. Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**

17. **REMOVE ADJUSTING KEYS AND WRENCHES**. Make a habit of checking for keys and adjusting wrenches before turning machinery ***ON***.

18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.

19. **USE RECOMMENDED ACCESSORIES**. Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.

20. **DO NOT FORCE MACHINERY**. Work at the speed for which the machine or accessory was designed.

21. **SECURE WORKPIECE**. Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.

22. **DO NOT OVERREACH**. Keep proper footing and balance at all times.

23. **MANY MACHINES WILL EJECT THE WORKPIECE TOWARD THE OPERATOR**. Know and avoid conditions that cause the workpiece to "kickback."

24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**

25. **BE AWARE THAT CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Make sure you know the hazards associated with the type of dust you will be exposed to and always wear a respirator approved for that type of dust.

Additional Safety Instructions for Bandsaws

⚠WARNING

READ and understand this entire instruction manual before using this machine. Serious personal injury may occur if safety and operational information is not understood and followed. DO NOT risk your safety by not reading!

⚠CAUTION

USE this and other machinery with caution and respect. Always consider safety first, as it applies to your individual working conditions. No list of safety guidelines can be complete—every shop environment is different. Failure to follow guidelines could result in serious personal injury, damage to equipment or poor work results.

1. **BLADE CONDITION**. Do not operate with a dull, cracked or badly worn blade. Dull blades require more effort to use and are difficult to control. Inspect blades for cracks and missing teeth before each use, and replace as required.

2. **HAND PLACEMENT**. Never position fingers or thumbs in line with the cut. Serious personal injury could occur.

3. **GUARDS**. Do not operate this bandsaw without the blade guard in place or with the doors open.

4. **BLADE REPLACEMENT**. When replacing blades, make sure teeth face toward the front of the machine and the blade is properly tensioned before operating.

5. **WORKPIECE HANDLING**. Never hold small workpieces with your fingers during a cut. Always support/feed the workpiece with a push stick, table support, vise, or some type of clamping fixture.

6. **CUTTING TECHNIQUES**. Plan your cuts to always cut out of the wood. DO NOT back the workpiece away from the blade while the saw is running. If you need to back the work out, turn the bandsaw ***OFF*** and wait for the blade to come to a complete stop, and DO NOT twist or put excessive stress on the blade while backing work away.

7. **BLADE SPEED**. Allow blade to reach full speed before cutting.

8. **LEAVING WORK AREA**. Never leave a machine running and unattended. Allow the bandsaw to come to a complete stop before you leave it unattended.

9. **FEED RATE**. Always feed stock evenly and smoothly. DO NOT force or twist blade while cutting, especially when sawing small radii.

10. **WORKPIECE MATERIAL**. This machine is designed to cut wood only. It is not designed to cut metal or use cutting fluid.

11. **MAINTENANCE/SERVICE**. All inspections, adjustments, and maintenance are to be done with the power ***OFF*** and the plug removed from the outlet. Wait for all moving parts to come to a complete stop.

12. **BLADE CONTROL**. Do not attempt to stop or slow the blade with your hand or a workpiece. Allow the blade to stop on its own, unless your machine is equipped with a brake.

Avoiding Potential Injuries

Figure 3. NEVER start motor with wheel covers open.

Figure 4. DO NOT place hands in the line of cut.

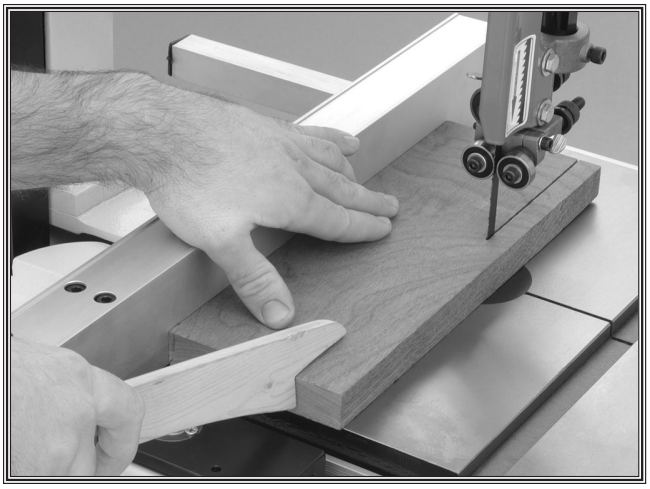


Figure 6. Always keep hands clear of blade.

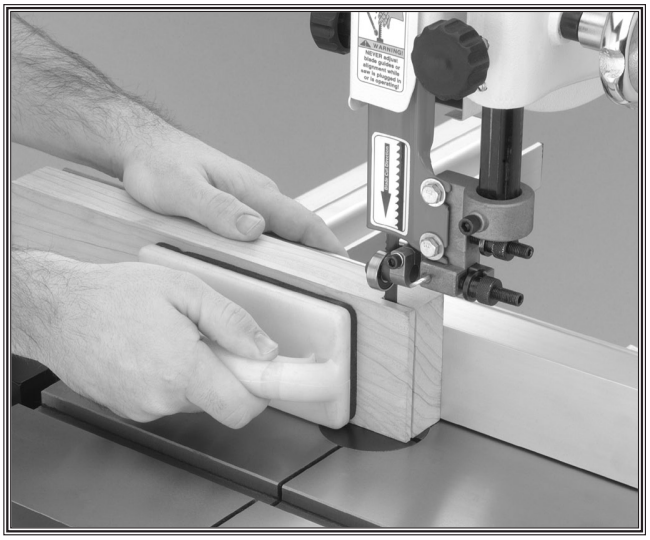


Figure 5. Use push blocks when necessary.

Figure 7. Unplug saw before changing blades.

ELECTRICAL

110V Operation

The **SHOP FOX®** Model W1749 is wired for 110 volt operation. The motor supplied with your new bandsaw is rated at 1/3 HP and will draw approximately 2.5 amps. A 5-15 plug is included for your machine and is intended to be plugged into a matching 5-15 receptacle.

Connect your machine to a circuit (wire, breaker, plug, receptacle) that is rated for at least 15 amps.

We recommend connecting this machine to a dedicated circuit with a verified ground, using a circuit breaker sized for the circuit. Never replace a circuit breaker with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes.

If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, you may create a fire hazard—consult a qualified electrician to reduce this risk.

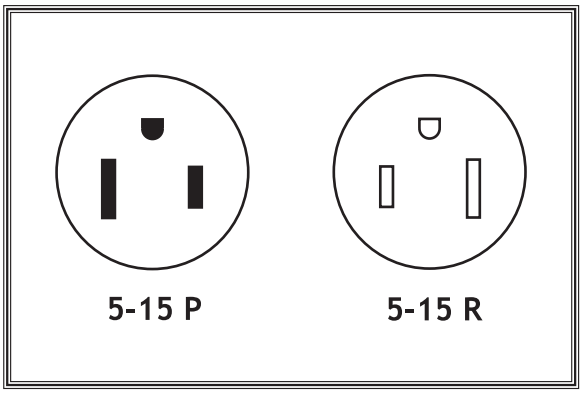


Figure 8. Typical 110V 3-prong plug and outlet.

Extension Cords

When it is necessary to use an extension cord, use the following guidelines:

- Cords rated for Standard Service.
- Use at least a 16 gauge cord that does not exceed 50 feet in length.
- Do not use cords in need of repair.
- A qualified electrician MUST size cords over 50 feet long to prevent motor damage.

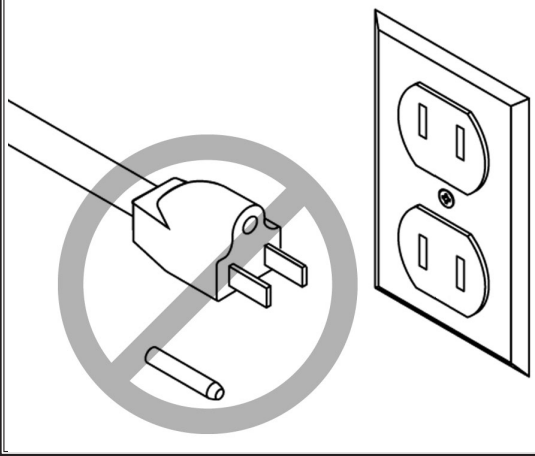
Grounding

This machine must be grounded! The electrical cord supplied with this machine comes with a grounding pin. Do not remove it. If your outlet does not accommodate a ground pin, have it replaced by a qualified electrician or have an appropriate adapter installed.

Note: *When using an adapter, the adapter must be grounded.*

⚠WARNING

This equipment must be grounded. Verify that any existing electrical outlet and circuit you intend to plug into is actually grounded. If it is not, it will be necessary to run a separate 12 AWG copper grounding wire from the outlet to a known ground. Under no circumstances should the grounding pin be removed from any three-pronged plug or serious injury may occur.



SET UP

Unpacking

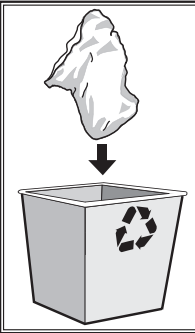
The **SHOP FOX®** Model W1749 has been carefully packaged for safe transporting. If you notice the machine has been damaged, please contact your authorized **SHOP FOX®** dealer immediately.

Items Needed for Set Up

The following items are needed, but not included, to set up your machine:

- Safety Glasses.....1
- Leather Gloves.....1 pair
- Open End Wrench 12mm 2
- Open-End Wrench 10mm 1
- Phillips Screwdriver #2 1
- Feeler Gauge 0.016" 1
- Machinist's Squares.....2
- Rulers.....2
- Mounting Hardware (optional) ..... As needed
- Dust Collection System (optional) 1
- 2½" Dust Hose (optional) 1
- 2½" Hose Clamp (optional).....1

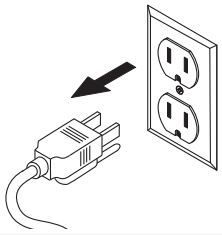
If any parts are missing, examine the packaging for the missing parts. For any missing parts, find the part number in the back of this manual and contact Woodstock International, Inc. at (360) 734-3482 or at **tech-support@shopfox.biz**



⚠WARNING

SUFFOCATION HAZARD! Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.

⚠WARNING



UNPLUG-power cord before you do any assembly or adjustment tasks! Otherwise, serious personal injury to you or others may occur!

Inventory

The following is a description of the main components shipped with the **SHOP FOX®** Model W1749. Lay the components out to inventory them.

Note: *Some parts and hardware may already be installed on the machine. Make sure to check the machine when you use this inventory list.*

Box Inventory (Figure 9) **Qty**

A. Bandsaw (not shown)..... 1
B. Trunnion..... 1
C. Table Tilt Lock Knob 1
D. Table Adjustment Tension Knob 1
E. Table Adjustment Knob 1
F. Miter Gauge..... 1
G. Fence 1
H. Table..... 1

Hardware and Tools

- Flat Head Screws 1/4"-20 x 1 1/4" (Table) 3
- Flat Washer 6mm, Silver (Table) 2
- Lock Washers 1/4" (Table) 3
- Hex Nuts 1/4"-20 (Table).....3
- Compression Spring (Trunnion).....1
- Wing Nut M6-1 (Table).....1
- Carriage Bolt M6-1 x 20 (Table).....1
- Pinion Gear (Trunnion) 1
- Hex Wrench 3mm.....1

NOTICE

If ordering replacement parts, refer to the parts list and diagram in the back of the manual.

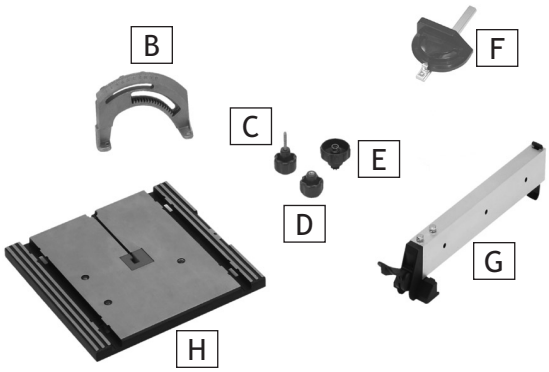


Figure 9. W1749 inventory.

Machine Placement

- **Bench Load:** Some workbenches may require additional reinforcement to support both the machine and the workpiece.
- **Working Clearances:** Consider existing and anticipated needs, size of material to be processed through the machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your bandsaw.
- **Lighting:** Lighting should be bright enough to eliminate shadow and prevent eye strain.

⚠CAUTION

MAKE your shop "child safe." Ensure that your workplace is inaccessible to youngsters by closing and locking all entrances when you are away. NEVER allow untrained visitors in your shop when assembling, adjusting or operating equipment.

Mounting

We recommend mounting the Model W1749 to a workbench or securing it to a Shop Fox Model W1750 Stand, which is sold separately.

To mount the bandsaw to a bench, do these steps:

1. Place the bandsaw on a bench top capable of holding 42 pounds plus the weight of the workpiece. Make sure the surface is flat and stable.
2. Drill four 1/4" holes on the bench using the holes in the base as a guide.
3. Using a 12mm wrench, bolt the base to the bench with 5/16" lag bolts and flat washers as shown in **Figure 10**.

Figure 10. Installing bandsaw onto bench top.

To mount the bandsaw to the Model W1750 Stand, do these steps:

1. Place the bandsaw on the W1750 Stand and align the mounting holes.
2. Using two 12mm wrenches, secure the bandsaw to the stand with the 5/16"-18 x 1 3/4" hex bolts, flat washers and hex nuts included with the stand, as shown in **Figure 11**.

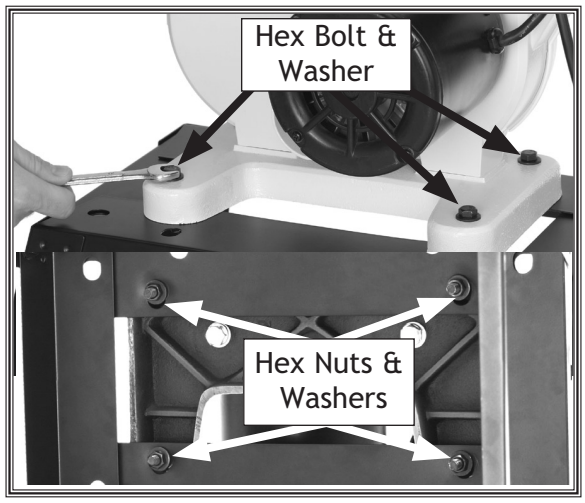


Figure 11. Installing bandsaw onto Model W1750 stand.

Trunnion

The trunnion supports the table and allows it to tilt 45° right.

To install the trunnion, do these steps:

1. DISCONNECT BANDSAW FROM POWER!

2. Place the trunnion onto the bandsaw, making sure the slot under the teeth fits over the table adjustment shaft as shown in **Figure 12**.

3. Fasten the table tilt lock knob and 1/4" flat washer as shown in **Figure 13**.

4. Fit the pinion gear into the back of the table adjustment knob and slide these onto the shaft so the pinion and trunnion teeth mesh as shown in **Figure 14**.

5. Place the compression spring and 1/4" washer over the shaft and secure with the table adjustment tension knob, as shown in **Figure 15**.

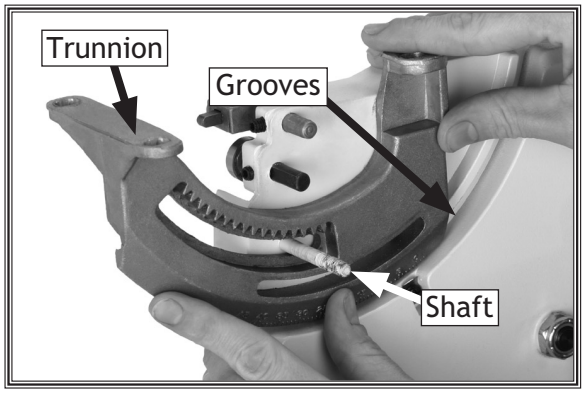


Figure 12. Trunnion placed over shaft and aligned with grooves on bandsaw.

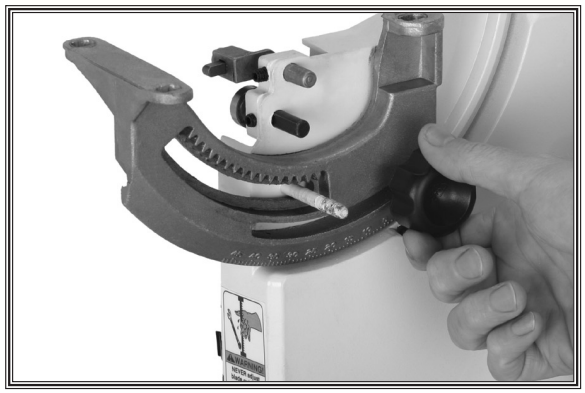


Figure 13. Installing table tilt lock knob.

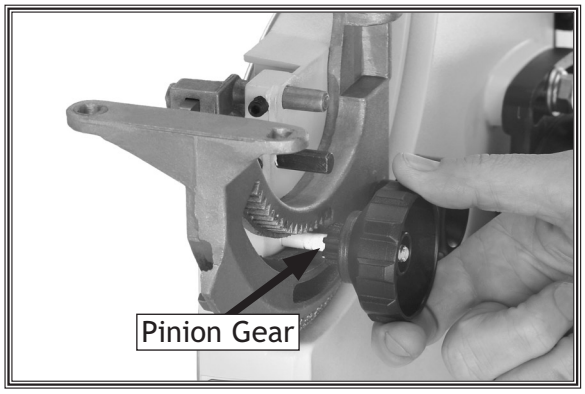


Figure 14. Installing table adjustment knob.

Figure 15. Installing tension knob.

Table

To install the table, do these steps:

1. DISONNECT BANDSAW FROM POWER!

2. Carefully slide the groove in the table past the blade, and align the holes in the table and top of the trunnion.

3. Using a Phillips head screwdriver and 10mm wrench, fasten the table to the trunnion with the 1/4"-20 x 1 1/4" flat head screws, lock washers, and hex nuts as shown in **Figure 16**.

4. Install the M6-1 x 20 carriage bolt into the slot shown in **Figure 17** and secure with two flat washers and a wing nut.

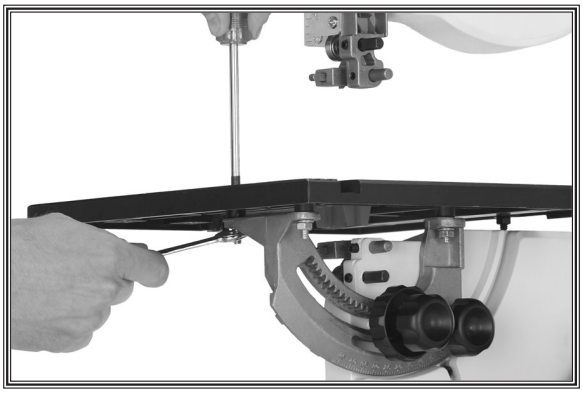


Figure 16. Fastening table to trunnion.

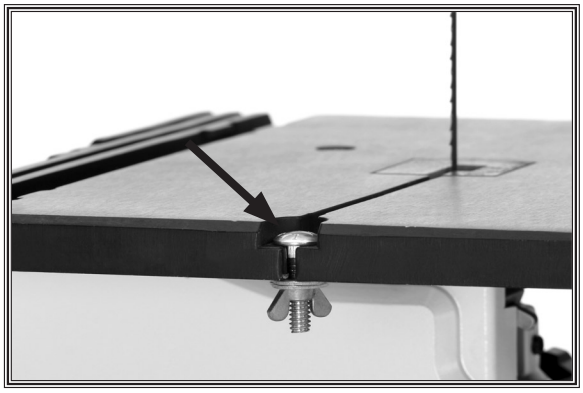


Figure 17. Carriage bolt, washers and wingnut installed onto table.

Positive Stop

The positive stop allows the table to be quickly and accurately returned to the horizontal (0°) position after being adjusted to a different angle.

To set the positive stop, do these steps:

1. DISCONNECT BANDSAW FROM POWER!

2. Using a 10mm wrench and 3mm hex wrench, loosen the jam nut (**Figure 18**) that locks the positive stop set screw in place.

3. Raise the upper blade guide assembly and place a machinist's square on the table next to the side of the blade as shown in **Figure 19**. Adjust the table square with the blade and lock in place.

4. Adjust the positive stop screw so it just touches the bandsaw (**Figure 20**) and secure it by tightening the jam nut.

5. Check the adjustment for accuracy once you have tightened the jam nut.

6. Loosen the screw on the pointer (**Figure 21**) but do not remove it.

7. Align the tip of the pointer with the "0" mark on the table tilt scale.

8. Tighten the screw on the pointer so that the pointer is locked in place.

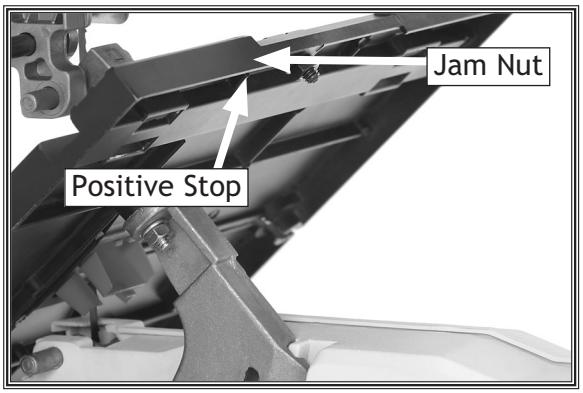


Figure 18. Positive stop.

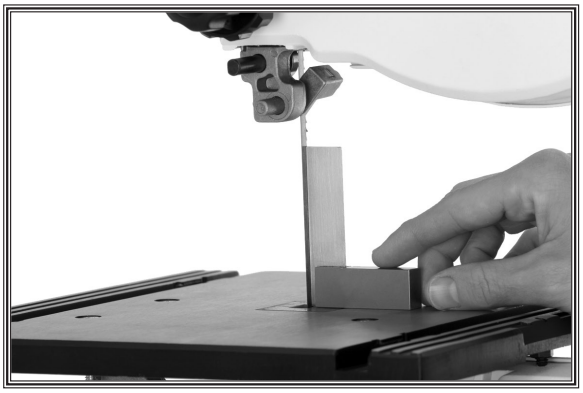


Figure 19. Squaring table to blade.

Figure 20. Adjusting positive stop.

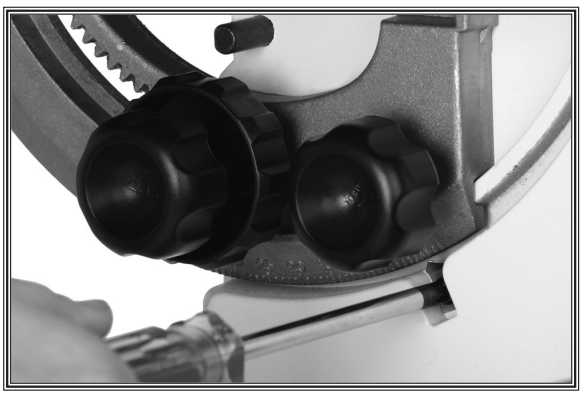


Figure 21. Adjusting pointer.

Dust Collection

⚠CAUTION

DO NOT operate this bandsaw without an adequate dust collection system. This saw creates substantial amounts of wood dust while operating. Failure to use a dust collection system can result in short and long-term respiratory illness.

Recommended CFM at Dust Port: 150
Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must take into account many variables, including the CFM rating of the dust collector, the length of hose between the dust collector and the machine, the amount of branches or wyes, and the amount of other open lines throughout the system. Explaining this calculation is beyond the scope of this manual. If you are unsure of your system, consult an expert or purchase a good dust collection "how-to" book.

To connect a dust collection hose, do these steps:

1. Fit a 2½" dust hose over the dust port, as shown in **Figure 22**, and secure in place with a hose clamp.
2. Pull the hose to make sure it does not come off.

Note: *A tight fit is necessary for proper performance.*

3. Attach the dust hose to a dust collector.

Figure 22. Dust hose attached to dust port.

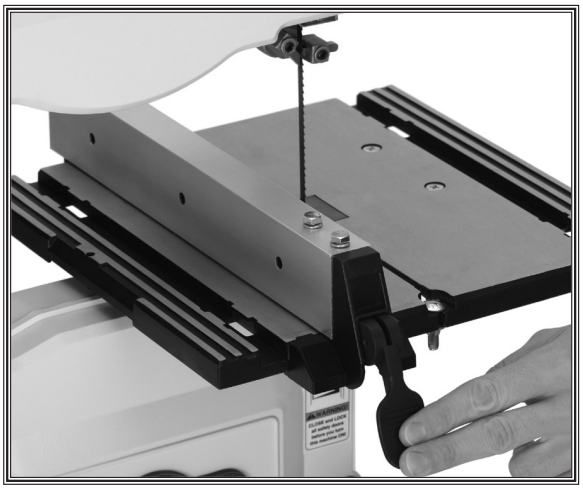


Figure 23. Installing fence.

Fence

To mount the fence, do these steps:

1. Flip the fence lever up, slide the fence over the left side of the table and secure the lever as shown in **Figure 23**.

Miter Gauge

The miter gauge is preassembled at the factory. Just slide it into the outer miter slot for now.

Figure 24. Miter gauge.

Blade Tracking

Perform this adjustment if the blade tracking does not match the tracking shown **Figure 25**. In this procedure you will tilt the upper wheel in or out slightly so the blade tracks slightly to the front of the rubber tire center line.

To adjust the wheel tilt and center the blade on the wheel crown, do these steps:

1. DISCONNECT THE BANDSAW FROM POWER!

2. Open the wheel door and move the blade guide blocks out of the way of the blade. (See **Page 20** for instructions on adjusting blade guides).

3. Turn the blade tension knob until there is moderate tension on the blade.

4. Spin the upper wheel by hand at least three times and watch how the blade rides on the crown of the wheel. Refer to **Figure 26** for an illustration of this concept.

   — If the blade rides in the center of the upper wheel and is centered on the peak of the wheel crown, then the bandsaw is already tracked properly and no further adjustments are needed at this time.

   — If the blade does not ride in the center of the upper wheel and is not centered on the peak of the wheel crown, then continue with the following steps.

5. Loosen the tracking knob wing nut shown in **Figure 27**.

6. With one hand, spin the upper wheel clockwise. With the other, rotate the tracking knob clockwise slightly to move the blade to the rear of the wheel. Turn the tracking knob counterclockwise to move the blade to the front of the wheel.

7. Repeat **Steps 4 & 5** until the blade tracks slightly to the front of the rubber tire center line as shown in **Figure 25**.

8. Tighten the tracking knob wing nut, readjust the blade-guide blocks, and close the wheel door.

Figure 25. Blade centered on wheel tire.

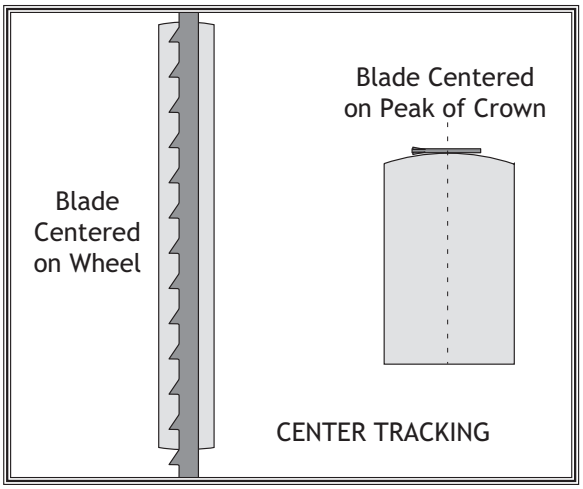


Figure 26. Center tracking examples.

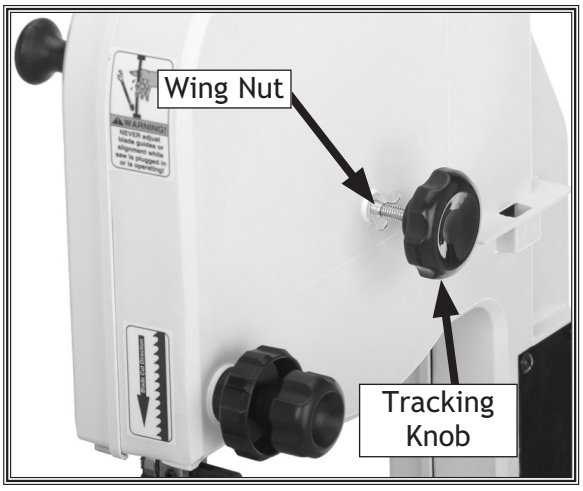


Figure 27. Tracking knob and wing nut.

Test Run

Once the assembly is complete and you have finished the **Blade Tracking** procedure on **Page 17**, you need to test run the bandsaw to continue with the remainder of the adjustments.

To test run the bandsaw, do these steps:

1. Read the entire instruction manual first!

2. Make sure all tools and foreign objects have been removed from the bandsaw.

3. Review **Page 9** and connect your machine to the power source.

4. Make sure that you have completed the **Blade Tracking** procedure before continuing.

5. Make sure that the blade guides are adjusted as far away from the blade as possible, and that the blade is not touching the table.

6. Turn the bandsaw ***ON***.

   — The bandsaw should run smoothly with little or no vibration.

   — Immediately turn the bandsaw ***OFF*** if you suspect any problems, and refer to **Page 41** to troubleshoot/fix any problems before starting the bandsaw again.

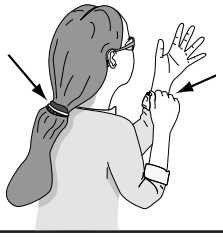
   — If the source of an unusual noise or vibration is not readily apparent, contact our technical support for help at (360) 734-3482 or contact us online at **tech-support@shopfox.biz.**

7. Turn the bandsaw *OFF*.

WARNING

Always wear safety glasses when operating the jointer. Failure to comply may result in serious personal injury.

WARNING



Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing rolled up and long hair tied up and away from machinery.

Tensioning Blade

A properly tensioned blade is essential for making accurate cuts and is required before making many bandsaw adjustments. (Everytime you replace the blade, you should perform this procedure because all blades tension differently.)

To tension the bandsaw blade, do these steps:

1. Complete the **Test Run** procedure and make sure the blade is tracking properly.

2. DISCONNECT BANDSAW FROM POWER!

3. Raise the upper blade guide assembly as high as it will go, and adjust the upper and lower blade guide blocks away from the blade.

   Note: *This procedure will NOT work if the blade guide blocks have any contact with the blade.*

4. Remove the table insert.

5. Turn the blade tension knob and push the blade carefully with your finger until there is moderate pressure on the blade as shown in **FIgure 28**.

6. After removing your finger from the blade, connect the bandsaw to the power source and turn it ***ON***.

7. Slowly release the tension one quarter of a turn at a time. When you see the bandsaw blade start to flutter, stop decreasing the tension.

8. Now, slowly increase the tension until the blade stops fluttering, then tighten the tension another quarter turn.

   Note: *Always detension the blade after use to increase blade life and reduce strain on the bandsaw components.*

9. Turn the bandsaw ***OFF*** and DISCONNECT THE BANDSAW FROM POWER!

10. Reinstall the table insert and re-adjust the blade tracking as instructed on **Page 17**.

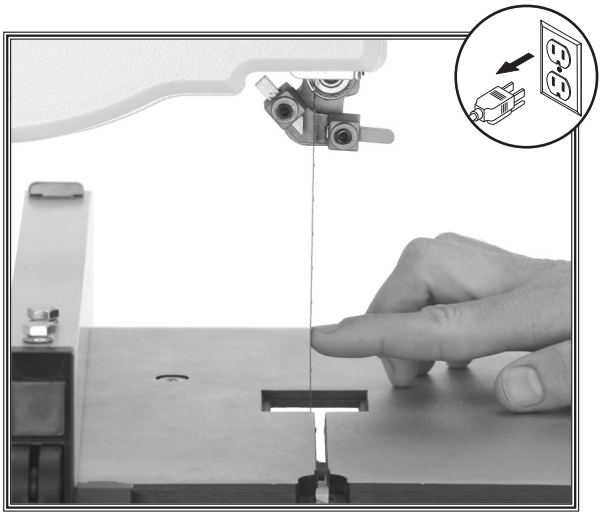


Figure 28. Blade deflection test.

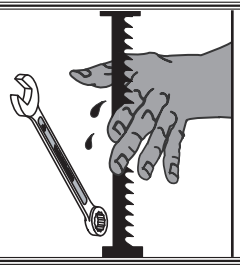
NOTICE

DO NOT over-tension the blade, or leave the blade tensioned when not in use. If you ignore this notice, you will shorten the life of the blade.

Adjusting Blade Guides

The blade guides provide side-to-side support to help keep the blade straight while cutting.

Always adjust the upper and lower blade guide blocks away from the blade before removing, installing or tracking a new blade.



⚠WARNING

UNPLUG the bandsaw power cord, and NEVER work around the blade or adjust the table while the saw blade is moving!

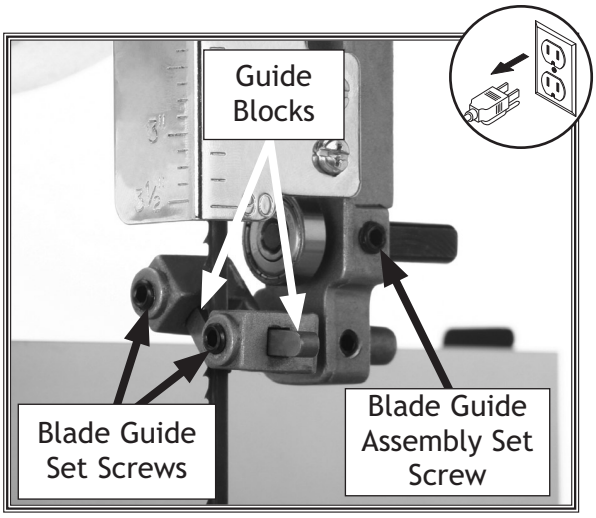


Figure 29. Upper blade guide controls.

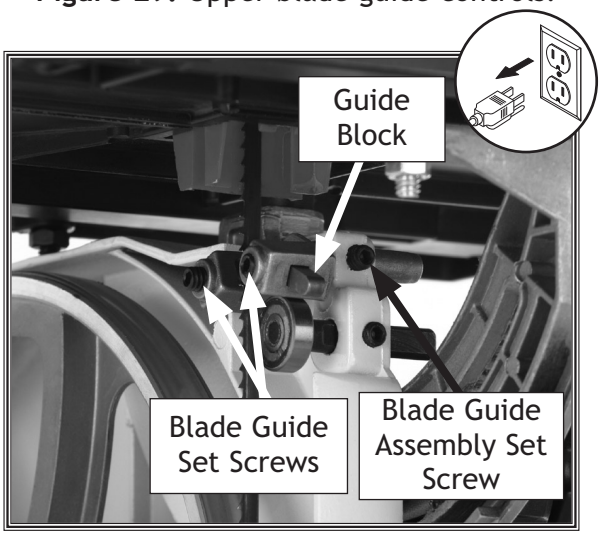


Figure 30. Lower blade guide controls.

To adjust the upper and lower blade guides, do these steps:

1. DISCONNECT BANDSAW FROM POWER!
2. Make sure the blade is tracking properly and that it is correctly tensioned.
3. Familiarize yourself with the blade guide controls shown in **Figure 29** & **30**.
4. Loosen the rear set screw on the blade guide assembly as shown in **Figure 29** and adjust the assembly in or out until the edges of the blocks are $^{1}/_{16}$" behind the blade gullets as illustrated in **Figure 31**.
5. Retighten the set screw.
6. Loosen the blade guide set screws (in front) and position the guide blocks 0.004" away from the blade.

   Note: *0.004" is approximately the thickness of a dollar bill.*
7. Repeat **Steps 4-6** for the lower guides.

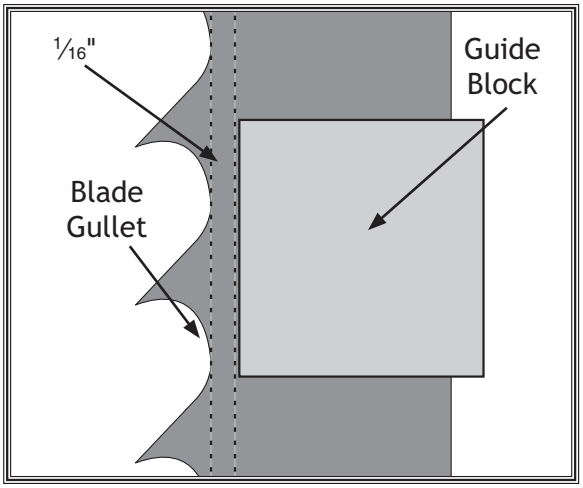


Figure 31. Spacing between guide block and gullet.

Adjusting Support Bearings

NOTICE

Whenever changing a blade or adjusting tension and tracking, the upper and lower support bearings and guide blocks must be properly adjusted before operation.

The support bearings are positioned behind the blade for support during cutting operations. Proper adjustment of the support bearings is an important part of making accurate cuts and also keeps the blade teeth from coming in contact with the guide blocks while cutting.

To adjust the upper support bearing, do these steps:

1. DISCONNECT BANDSAW FROM POWER!

2. Make sure the blade is tracking properly and that it is correctly tensioned.

3. Familiarize yourself with the upper support bearing controls shown in **Figure 32**.

4. Loosen the set screw on the support bearing shaft (**Figure 32**).

5. Place a 0.016" feeler gauge between the support bearing and the blade, and position the bearing 0.016" away from the back of the blade as illustrated in **Figure 33**.

   Note: *For a quick gauge, fold a dollar bill in half twice (four thicknesses of a dollar bill is approximately 0.016") and place it between the support bearing and the blade.*

6. Tighten the set screw to keep the support bearing locked in place.

To adjust the lower support bearing, do these steps:

1. Repeat **Steps 1-3**.

2. Loosen the lower support bearing shaft set screw (**Figure 34**).

3. Place a 0.016" feeler gauge between the support bearing and the blade, position the bearing 0.016" away from the back of the blade (**Figure 33**), and tighten the set screw.

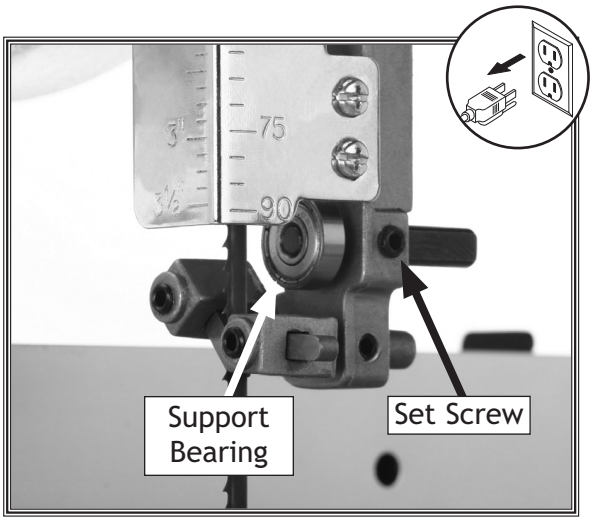


Figure 32. Upper support bearing controls.

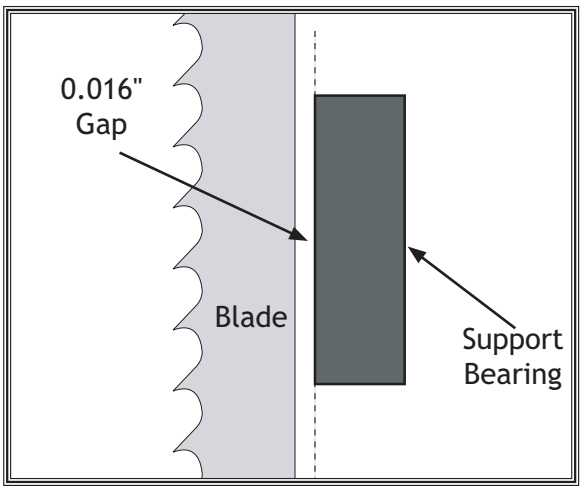


Figure 33. Blade aligned approximately 0.016" away from the bearing edge.

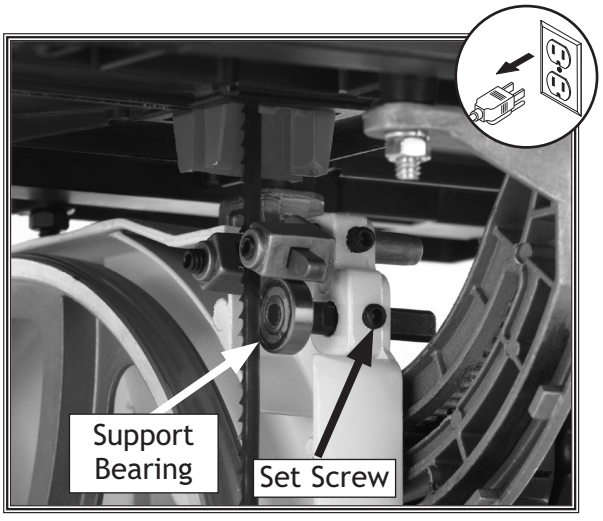


Figure 34. Lower support bearings.

Aligning Table

To ensure cutting accuracy when the table is first installed, the table should be aligned so that the miter slot is parallel to the bandsaw blade.

To align the table so the miter slot is parallel to the bandsaw blade, do these steps:

1. Install the largest blade you have and make sure that the blade is tracking properly and that it is correctly tensioned.

2. DISCONNECT BANDSAW FROM POWER!

3. Place an accurate straightedge along the blade. The straightedge should lightly touch both the front and back of the blade.

   Note: *Make sure the straightedge does not go across a tooth. Do not let the straightedge bend the blade or measurements will be incorrect.*

4. Use a fine ruler to gauge the distance between the straightedge and the miter slot. The distance you measure should be the same at both the front and the back of the table (see **Figure 35**).

   - If these measurements are not equal, loosen the flat head screws securing the table to the trunnion (see **Figure 16**), rotate the table until the measurements are equal, and retighten the screws.

   - If after setting the miter gauge slot parallel with the blade the bandsaw does not cut straight, refer to the **Blade Lead** instructions on **Page 27**, otherwise this procedure is complete.

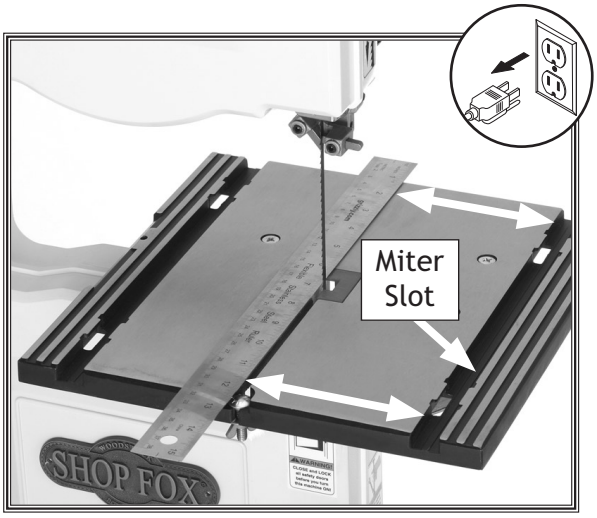


Figure 35. Table alignment.

Aligning Fence

The fence is designed to be lifted off the table quickly and repositioned with accuracy on either side of the blade. The fence is most often used between the blade and the bandsaw body.

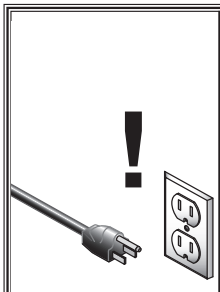
If the fence is not adjusted parallel to the miter slot (or blade), then every time you attempt to make a straight cut, the cut will be tapered. It is important that this parallelism be checked and adjusted to ensure straight cuts.

To set the fence so it is parallel to the miter slot, do these steps:

1. Using a high-quality ruler, as shown in **Figure 36**, measure the distance at both ends of the fence to the edge of the miter slot. The distance should be the same at both the front and the back of the table.

   - If the distance is not the same, skew the fence so it is parallel to the miter slot, and lock the fence with the lever and make sure the fence stays parallel to the miter slot.

   - If after all adjustments, the bandsaw does not cut straight while using the miter gauge, refer to the **Blade Lead** instructions on **Page 27**.



WARNING

UNPLUG the bandsaw, and wait until the parts have come to a complete stop before you adjust the saw! Otherwise, accidental startup may occur causing severe personal injury.

Figure 36. Aligning fence with ruler.

NOTICE

Adjusting the fence parallel to the miter slot does not guarantee straight cuts. The miter slot may need to be adjusted parallel to the side of the blade. Refer to the "Aligning Table" instructions.

Miter Gauge

The miter gauge needs to be calibrated to the blade when it is first mounted in the miter slot.

To calibrate the miter gauge, do these steps:

1. DISCONNECT BANDSAW FROM POWER!

2. Place one edge of a machinist's square against the face of the miter gauge and the other against the blade face as shown in **Figure 37**.

3. Loosen the lock knob on the miter gauge and adjust the gauge flush with the edge of the square.

4. Tighten the lock knob, and verify the setting.

   Note: *Sometimes the tightening procedure can affect the adjustment. Always check your adjustments after this step.*

5. Loosen the screw that secures the angle pointer and adjust the pointer to the 0° mark on the scale.

6. Retighten the screw that secures the angle pointer.

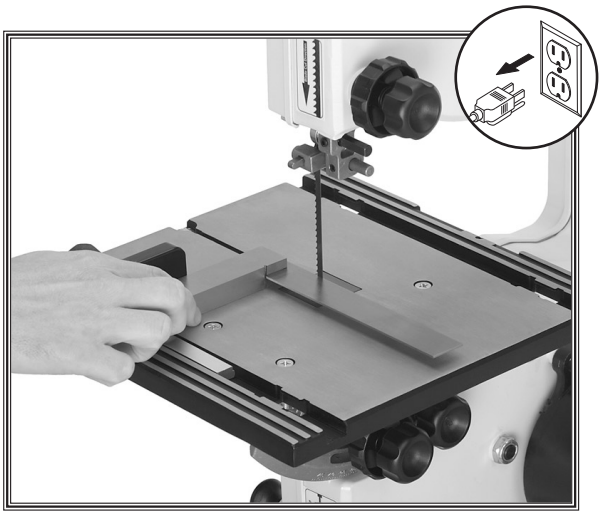


Figure 37. Example of squaring miter gauge to blade.

OPERATIONS

General

The Model W1749 will perform many types of operations that are beyond the scope of this manual. Many of these operations can be dangerous or deadly if performed incorrectly.

The instructions in this section are written with the understanding that the operator has the necessary knowledge and skills to operate this bandsaw. **If at any time you are experiencing difficulties performing any operation, stop using the machine!**

If you are an inexperienced operator, we strongly recommend that you read books, trade articles, or seek training from an experienced bandsaw operator before performing any unfamiliar operations. **Above all, your safety should come first!**

Overview

The bandsaw is one of the most versatile wood cutting tools in the shop. It is capable of performing many different cutting functions including:

Straight Cuts

- Miters
- Angles
- Compound Angles
- Resawing
- Ripping
- Crosscutting

Irregular Cuts

- Simple and Complex Curves
- Duplicate Parts
- Circles
- Beveled Curves

A properly adjusted and tuned bandsaw can be safer to operate than most other saws and performs many functions with ease and accuracy.

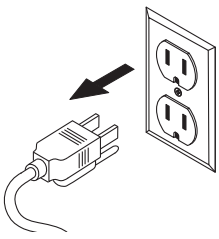
⚠WARNING

READ and understand this entire instruction manual before using this machine. Serious personal injury may occur if safety and operational information is not understood and followed. DO NOT risk your safety by not reading!

⚠WARNING

Always wear safety glasses when operating the bandsaw. Failure to comply may result in serious personal injury.

⚠WARNING



DO NOT investigate problems or adjust the bandsaw while it is running. Wait until the machine is turned *OFF*, unplugged and all working parts have come to a complete stop before proceeding!

Basic Cutting Tips

Here are some basic tips to follow when operating the bandsaw:

- Replace, sharpen, and clean blades as necessary and make adjustments periodically to keep the saw always running in top condition.
- Use light and even pressure while cutting. Light contact with the blade will permit easier line following and prevent undue friction.
- Avoid trying to turn tight corners because this will twist the blade. Remember, you must saw around corners.
- Misuse of the saw or using incorrect techniques is unsafe and results in frustration and poor cuts. Remember—the blade does the cutting with the operator's guidance.

On/Off Switch

The ON/OFF switch is located in the location shown in **Figure 38**. Immediately turn the bandsaw ***OFF*** if there becomes a safety hazard.

The switch can be disabled to prevent unauthorized use. Remove the safety key shown in **Figure 38** from the switch housing and place the key in a safe place.

Figure 38. Disabling ON/OFF switch.

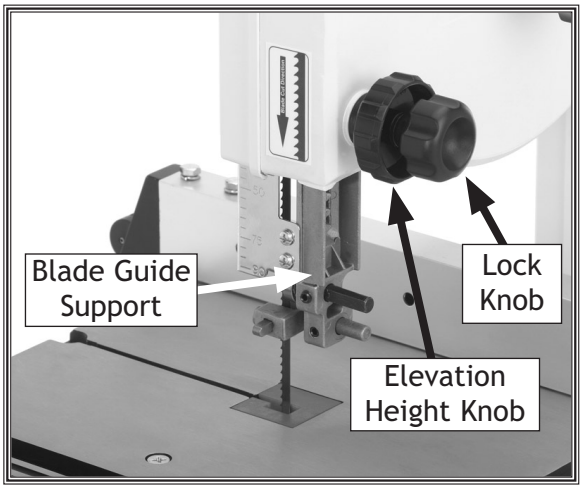


Figure 39. Blade guide support and controls.

Blade Guide Support

The blade guide support (**Figure 39 & 40**) must be no more than 1/8" from the top of the workpiece at all times to provide support for the blade so it cuts accurately.

To adjust the blade guide support, do these steps:

1. Make sure that the blade tension, blade tracking, support bearings, and guide blocks are adjusted correctly.
2. Loosen the lock knob shown in **Figure 39**.
3. Turn the elevation height knob to raise or lower the blade guide support until it is no more than 1/8" from the top of the workpiece (see **Figure 40**).
4. Lock the blade guide assembly with the lock knob.

⚠WARNING

The blade guard MUST be installed at all times. Failure to follow this warning may result in serious personal injury!

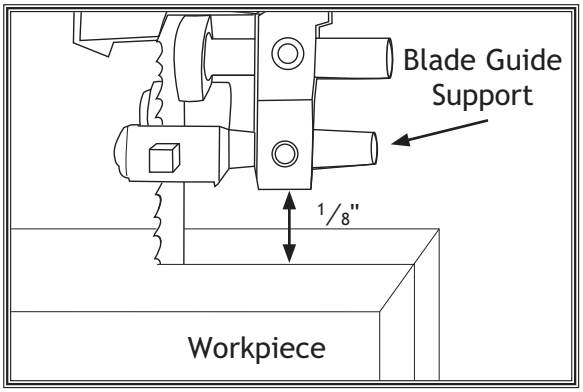


Figure 40. Clearance between blade guide support and workpiece.

Blade Lead

Bandsaw blades commonly wander off of the cut line when sawing, as shown in **Figure 41**. This is called blade lead. Blade lead is commonly caused by too fast of a feed rate, a dull or abused blade, or improper tension. If your blade is sharp/undamaged and you still have blade lead, perform the following instructions.

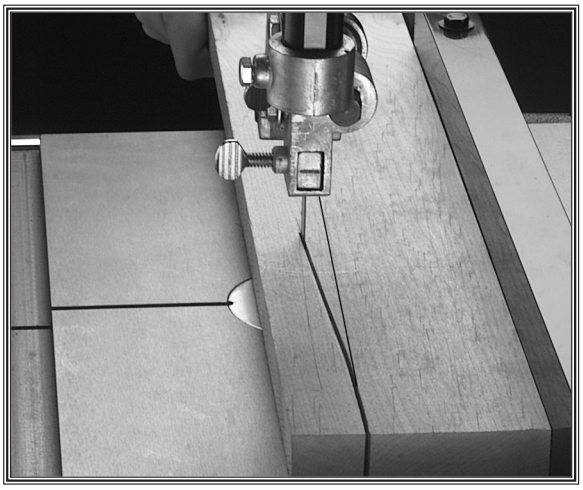


Figure 41. Example of blade leading away from line of cut.

Troubleshoot and correct for blade lead in the following order:

1. The feed rate could be too fast; push workpiece with less force.

2. The blade tension may be too loose; go to **Page 19** and re-tension the blade.

   If the blade tension is correct and it is not convenient to replace the blade, compensate for lead by skewing the fence in the appropriate direction to compensate for the amount the cut strays, or slightly rotate the table.

3. The blade may be too thin for the cutting task, or the tooth pitch may be incorrect; go to **Page 32** & **Page 33** for information on blade with and tooth styles. Choose and install the correct blade.

4. The guide blocks may be set incorrectly; go to **Page 20** and adjust the guide blocks.

5. The blade tracking may be incorrect; go to **Page 17** and adjust the blade tracking.

6. The blade teeth may be dull on one side, or the blade may have been sharpened unevenly; replace or re-sharpen the blade.

7. The blade teeth may be set heavier on one side than the other; replace the blade.

8. Check that the miter slot or fence is parallel to the blade line, and correct if necessary (See **Aligning Table**, **Page 22** and **Aligning Fence**, **Page 23**).

Table Tilt

The bandsaw table will tilt 45° to the right to provide a range of cutting options.

To tilt the table, do these steps:

1. DISCONNECT BANDSAW FROM POWER!

2. Loosen the table tilt lock knob and the table adjustment tension knob shown in **Figure 42**.

3. Tilt the table to the desired angle. Adjust the tension knob to move the table faster or slower. Use the angle gauge for easy reference.

4. Tighten the table tilt lock knob.

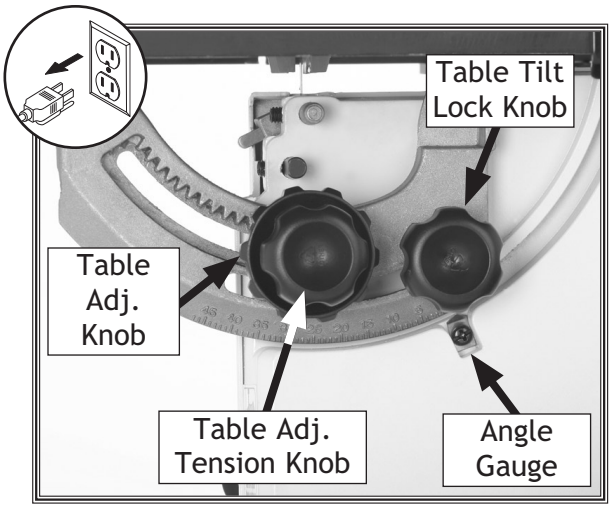


Figure 42. Table controls.

Ripping

Ripping is the process of cutting with the grain of the wood stock. For plywood and other processed wood, ripping simply means cutting down the length of the workpiece. For ripping, a wider blade is better. In most ripping applications, a standard raker tooth style will be sufficient.

To make a rip cut, do these steps:

1. Adjust the fence to match the width of the cut on your workpiece and lock the fence in place.

2. Adjust the upper blade guide assembly to the correct height.

3. After all safety precautions have been met, turn the bandsaw ***ON***. Slowly feed the workpiece into the blade and continue with the cut until the blade is completely through the workpiece. **Figure 43** shows a typical ripping operation.

   Note: *If you are cutting narrow pieces, use a push stick to protect your fingers.*

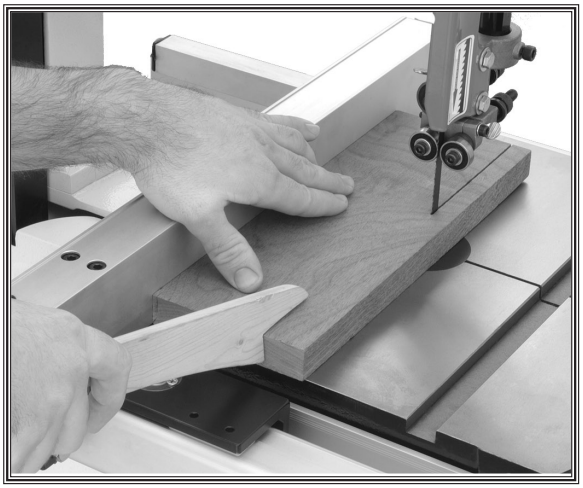


Figure 43. Example of a typical ripping operation with a push stick.

⚠WARNING

NEVER place fingers or hands in the line of cut. In the event that something unexpected happens, your hands or fingers may be pulled into the blade. ALWAYS use a push stick when ripping narrow pieces. Failure to follow these warnings may result in serious personal injury!

Crosscutting

Crosscutting is the process of cutting across the grain of wood. For plywood and other processed wood, crosscutting simply means cutting across the width of the material.

To make a 90˚ crosscut, do these steps:

1. Mark the workpiece on the edge where you want to begin the cut.

2. Adjust the blade guide assembly to the correct height and make sure the miter gauge is set to 90˚.

3. Move the fence out of the way. Place the workpiece evenly against the miter gauge.

4. Hold the workpiece against the miter gauge and line up the mark with the blade.

5. After all safety precautions have been met, turn the bandsaw ***ON***. Slowly feed the workpiece into the blade and continue the cut until the blade is all the way through the workpiece. **Figure 44** shows a typical crosscutting operation.

Figure 44. Example of crosscutting operation with miter gauge.

Resawing

Resawing is the process of cutting a board into two or more thinner boards as shown in **Figure 45**. The maximum board width that can be resawn is limited by the maximum cutting height of the bandsaw.

One of the most important considerations when resawing is blade selection. Generally, the wider blade, the better. In most applications, a hook or a skip tooth style will be desirable. Choose blades with fewer teeth-per-inch (from 3 to 6), because they offer larger gullet capacities for clearing sawdust, reducing heat buildup and reducing strain on the motor.

⚠WARNING

When resawing thin pieces, a wandering blade (blade lead) can tear through the surface of the workpiece, exposing your hands to the blade teeth. Always use push blocks when resawing and keep your hands clear of the blade.

⚠WARNING

The blade guard MUST be installed at all times. Failure to follow this warning may result in serious personal injury!

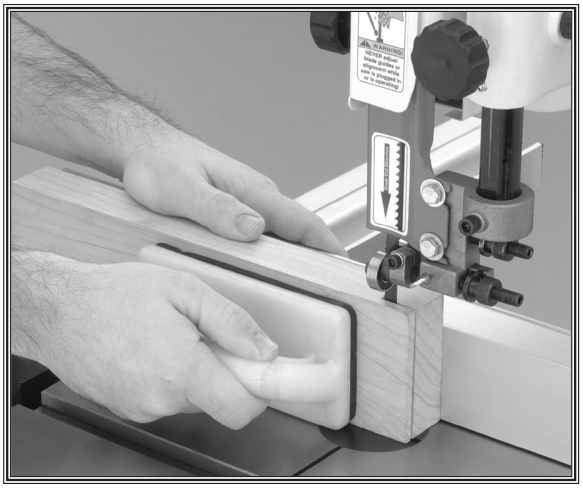


Figure 45. Example of typical resawing technique.

To resaw a workpiece, do these steps:

1. Verify that the bandsaw is setup properly and that the fence is parallel to the blade.

2. Adjust the upper blade guide so it is just above the workpiece with a minimum amount of blade exposed.

3. Use the widest blade your bandsaw will accept. **Note:** *The blade must also be sharp and clean.*

4. Set the fence to the desired depth of cut and use it to guide the work.

5. Support the ends of the board if necessary.

6. Turn the bandsaw ***ON***.

7. Using push paddles and a push stick, keep pressure against the fence and table, and slowly feed the workpiece into the moving blade until the blade is completely through the workpiece (**Figure 45**).

⚠WARNING

Do not force the wood into the blade during cutting. This will distort the blade, cause excessive heat and often results in blade breakage. Breakage can cause serious personal injury.

When resawing, consider using an auxiliary fence that is higher than the standard fence. This provides a more solid surface for the workpiece to slide against. An auxiliary fence can be made from any straight and flat piece of lumber and can be bolted or screwed to the standard fence.

When using a fence to guide the board, the actual line of cut may not be exactly parallel to the fence. This is due to a number of reasons involving the configuration of the table, condition of the blade, the cutting forces, and the blade tension. To correct this condition, refer to the **Blade Lead** instructions on **Page 27**.

Cutting Curves

When cutting curves, simultaneously feed and turn the stock carefully so that the blade follows the layout line without twisting. If a curve is so abrupt that it is necessary to repeatedly back up and cut a new kerf, use either a narrower blade or a blade with more TPI (teeth per inch), or make more relief cuts (See **Figure 46**).

Always make short cuts first, then proceed to the longer cuts. Relief cuts will also reduce the chance that the blade will be pinched or twisted. Relief cuts are cuts made through the waste portion of the workpiece and are stopped at the layout line. As you cut along the layout line, waste wood is released from the workpiece, alleviating any pressure on the back of the blade. Relief cuts also make backing the workpiece out easier, if needed.

Stacked Cuts

One of the benefits of a bandsaw is its ability to cut multiple copies of a particular shape by stacking a number of workpieces together. Before making stacked cuts, ensure that both the table and the blade are properly adjusted to 90°. Otherwise, any error will be compounded.

To complete a stacked cut, do these steps:

1. Align your pieces from top to bottom to ensure that each piece has adequate scrap to provide a clean, unhampered cut.

2. Secure all the pieces together in a manner that will not interfere with the cutting. Hot glue on the edges works well, as do brad nails through the waste portion. (Be careful not to cut into the brads or you may break the blade!)

3. On the face of the top piece, lay out the shape you intend to cut.

4. Make relief cuts perpendicular to the outline of your intended shape in areas where changes in blade direction could strain the woodgrain or cause the blade kerf to bind.

5. Cut the stack of pieces as though you were cutting a single piece. Follow your layout line with the blade kerf on the waste side of your line as shown in **Figure 47**.

NOTICE

The list below displays blade widths and the corresponding minimum radii for those blade widths.

Width	Radius
1/8"	1/8"
3/16"	3/8"
1/4"	5/8"
3/8"	1 1/4"

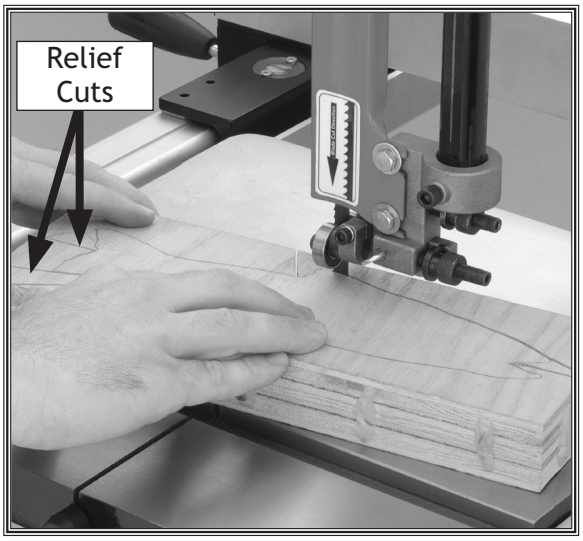


Figure 46. Typical relief cuts before cutting curves on a bandsaw.

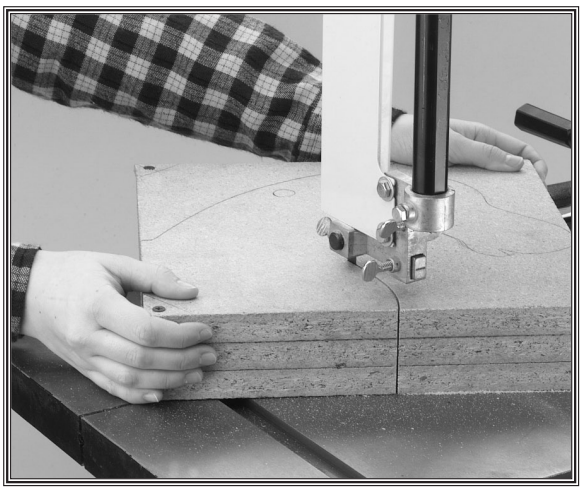


Figure 47. A typical stacked cut on a bandsaw.

Blade Information

Selecting the right blade requires a knowledge of the various blade characteristics to match the blade with the particular cutting operation.

Blade Length

Measured by the circumference, blade lengths are usually unique to the brand of your bandsaw and the distance between wheels. The Model W1749 is designed for blades that are 59 1/4" long.

Blade Width

Measured from the back of the blade to the tip of the blade tooth (the widest point), blade width is often the first consideration given to blade selection. Blade width dictates the largest and smallest curve that can be cut, as well as how accurately it can cut a straight line.

The Model W1749 can use blades from 1/8" to 3/8" in width. Always pick the size of blade that best suits your application.

- **Curve Cutting:** Use the chart in **Figure 48** to determine the correct blade for curve cutting. Determine the smallest radius curve that will be cut on your workpiece and use the corresponding blade width.

- **Straight Cutting**: Use the largest width blade that you own. Narrow blades can cut tight curves (a small radius) but are not very good at cutting straight lines because they naturally wander (blade lead). However, larger blades are much better at cutting straight lines, but function poorly at cutting small curves because of their size.

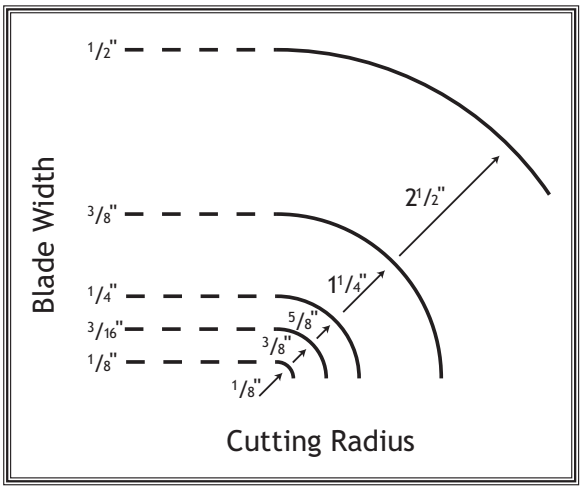


Figure 48. Blade width radii.

Tooth Style

When selecting blades, another option to consider is the shape, gullet size, teeth set and teeth angle—otherwise known as "Tooth Style."

Figure 49 shows the three main categories of tooth style:

- **Raker:** This style is considered to be the standard because the tooth size and shape are the same as the tooth gullet. The teeth on Raker blades usually are very numerous, have no angle, and produce cuts by scraping the material; these characteristics result in very smooth cuts, but do not cut fast and generate more heat while cutting.

- **Skip:** This style is similar to a raker blade that is missing every other tooth. Because of the design, skip toothed blades have a much larger gullet than raker blades, and therefore, cut faster and generate more heat. However, these blades also leave a rougher cut than raker blades.

- **Hook:** The teeth on this style have a positive angle (downward) which makes them dig into the material, and the gullets are usually rounded for easier waste removal. These blades are excellent for the tough demands of resawing and ripping thick material.

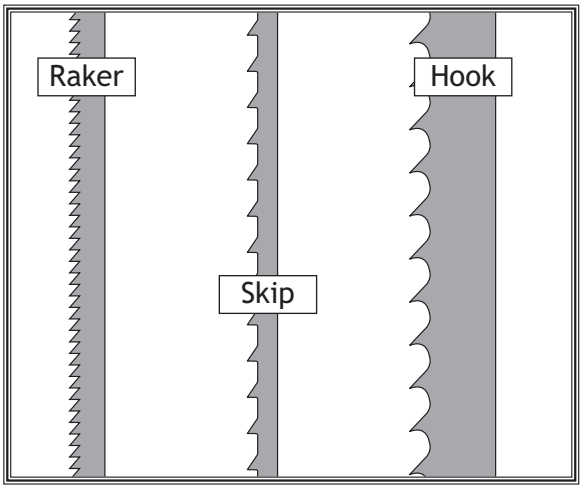


Figure 49. Raker, skip and hook tooth styles.

Tooth Pitch

Usually measured as TPI (teeth per inch), tooth pitch determines the size of the teeth. More teeth per inch (fine pitch) will cut slower, but smoother; while fewer teeth per inch (coarse pitch) will cut rougher, but faster. As a general rule, choose blades that will have at least three teeth in the material at all times. Use fine pitched blades on harder woods and coarse pitched blades on softer woods.

Blade Care

A bandsaw blade is a delicate piece of steel that is subjected to tremendous strain. You can obtain longer use from a bandsaw blade if you give it fair treatment and always use the appropriate feed rate for your operation.

Be sure to select blades with the proper width, style, and pitch for each application. The wrong choice of blades will often produce unnecessary heat, which will shorten the life of your blade.

A clean blade will perform much better than a dirty blade. Dirty or gummed up blades pass through the cutting material with much more resistance than clean blades. This extra resistance also causes unnecessary heat.

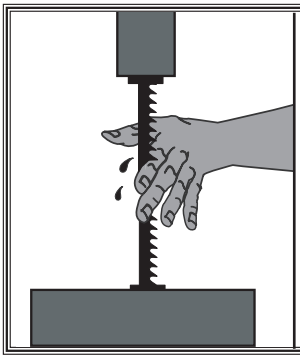
Blade Breakage

Many conditions may cause a bandsaw blade to break. Blade breakage is unavoidable, in some cases, since it is the natural result of the peculiar stresses that bandsaw blades are subjected to. Blade breakage is also due to avoidable circumstances. Avoidable breakage is most often the result of poor care or judgement on the part of the operator when mounting or adjusting the blade or support guides.

The most common causes of blade breakage are:

- Faulty alignment and adjustment of the guides.
- Forcing or twisting a wide blade around a curve of short radius.
- Feeding the workpiece into the blade too fast.
- Tooth dullness or absence of sufficient set.
- Incorrect tension.
- Top blade guide assembly set too high above the workpiece.
- Using a blade with a lumpy or improperly finished braze or weld.
- Continuously running the bandsaw when not in use.

Blade Changes



⚠WARNING

UNPLUG the bandsaw power cord and wait until all working parts have come to a complete stop before attempting to change the blade! Otherwise, severe personal injury may occur.

To remove the blade, do these steps:

1. DISCONNECT BANDSAW FROM POWER!
2. Remove the carriage bolt/wing nut shown in **Figure 50**.
3. Adjust the upper and lower guide blocks as far away as possible from the blade.
4. Release the blade tension by turning the blade tension knob counterclockwise.
5. Put on leather gloves to protect your hands from the blade teeth, and carefully remove the blade from both wheels.
6. Work the blade through the blade guard and guide assemblies.

NOTICE

DO NOT over-tension the blade, or leave the blade tensioned when not in use. If you ignore this notice, you will shorten the life of the blade.

Figure 50. Carriage bolt and wing nut.

To replace a blade, do these steps:

1. Slide the blade through the table slot, ensuring that the teeth are pointing forward and down (**Figure 51**) toward the table.

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

2. Slip the blade through the guides, and mount it on the upper and lower wheels.

   Note: *To make blade installation easier, have an assistant hold the blade on one of the wheels while you install it on the opposite wheel.*

3. Apply tension to the blade by turning the blade tension knob clockwise. Rotate the wheel slowly by hand as tension is applied to allow the blade to center itself on the wheel. Adjust tracking if needed.

4. Adjust tension as described **Page 19**.

5. Adjust the upper/lower guide bearings and the support bearings.

6. Replace the carriage bolt and wing nut.

7. Close the wheel covers.

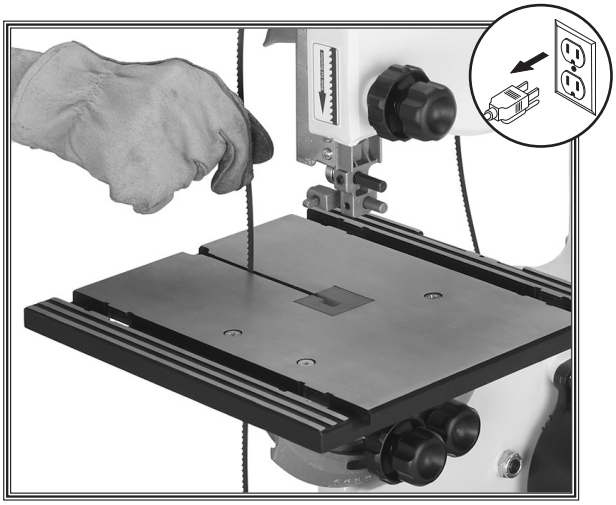


Figure 51. Blade installation.

MAINTENANCE

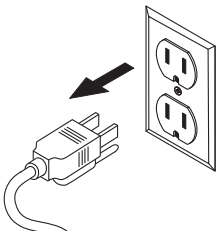
General

Regular periodic maintenance on your **SHOP FOX®** Model W1749 will ensure its optimum performance. Make a habit of inspecting your machine each time you use it.

Check for the following conditions and repair or replace when necessary:

- Loose mounting bolts.
- Worn switch.
- Worn or damaged cords and plugs.
- Damaged V-belt.
- Any other condition that could hamper the safe operation of this machine.

⚠WARNING



MAKE SURE that your machine is unplugged during all maintenance procedures! If this warning is ignored, serious personal injury may occur.

Cleaning

Cleaning your bandsaw is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

Wheel Brush

The bandsaw is equipped with a lower wheel brush. The brush should be checked daily and cleaned when it becomes dirty. The brush can be adjusted for wear. Refer to **Adjusting Wheel Brush** on **Page 39** for adjustment details.

Lubrication

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. Do not lubricate them.

SERVICE

General

This section covers the most common service adjustments or procedures that may need to be made during the life of your machine.

If you require additional machine service not included in this section, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: **tech-support@shopfox.biz**.

Checking and Tensioning V-Belt

To ensure optimum power transmission from the motor to the blade, the V-belt must be in good condition and operate under proper tension. Belt tension should be checked at least every 3 months—more often if the bandsaw is used daily.

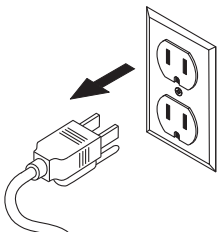
To check the V-belt, do these steps:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the wheel cover.
3. Note the condition of the V-belt. If the V-belt is cracked, frayed, or glazed, it should be replaced as soon as convenient.
4. Push the center of the V-belt. Note the amount of deflection (**Figure 52**). If deflection is more than 1/4", tension the V-belt.

To tension the V-belt, do these steps:

1. Follow **Steps 1 & 2** above.
2. Using a 14mm wrench, loosen the motor adjustment bolts shown in **Figure 53**.
3. Move the motor to the right as far as possible to tension the V-belt, then tighten the adjustment bolts.

WARNING



MAKE SURE that your machine is unplugged during all service procedures! If this warning is ignored, serious personal injury may occur.

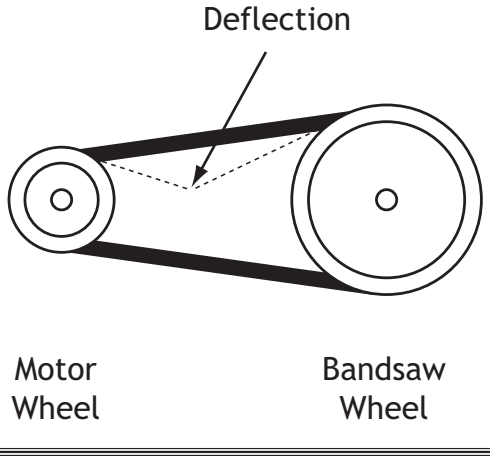


Figure 52. V-belt deflection.

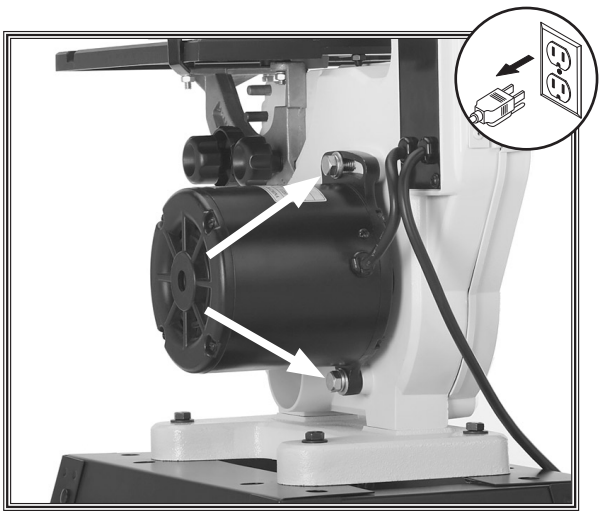


Figure 53. Motor adjustment bolts.

4. Push the center of the V-belt. If deflection is approximately 1/4", then tension is correct. If the deflection is more than 1/4", repeat **Steps 2-3** until correct.

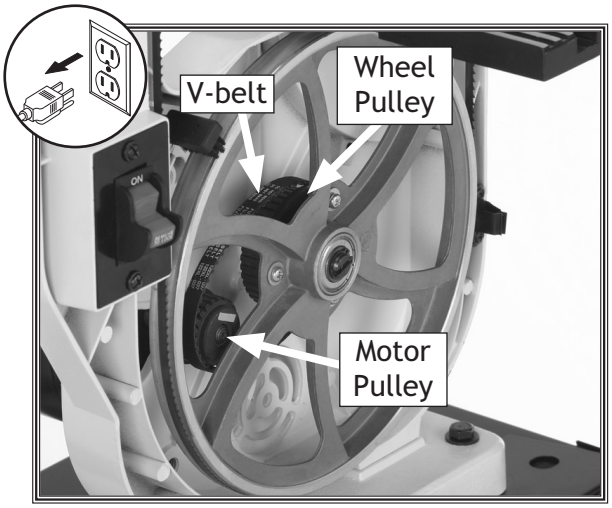


Figure 54. New V-belt installed on motor pulley and wheel.

Replacing V-Belt

To replace the V-belt, do these steps:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the wheel cover and remove the blade.
3. Loosen the motor adjustment bolts and move the motor left to remove tension on the V-belt.
4. Remove the external retaining ring, flat washers, lower wheel, and V-belt.
5. Place a new V-belt on the wheel and motor pulleys, making sure the teeth on the V-belt (**Figure 54**) and the pulleys mesh.
6. Move the motor right to tension the V-belt and tighten the motor adjustment bolts.
7. Check the V-belt tension and adjust if necessary, as described in **Tensioning V-Belt**, on **Page 38**.
8. Reinstall the fasteners removed in **Step 4**.
9. Reinstall the blade and close the wheel covers, making sure all components are correctly installed and adjusted if necessary.

Adjusting Wheel Brush

The lower wheel compartment contains the wheel brush shown in **Figure 55**. This brush is designed to sweep sawdust off of the wheel tire as the bandsaw is operating. In order to work properly, the brush must be making contact with the wheel.

To adjust the wheel brush, do these steps:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the lower wheel cover.
3. Loosen the screw that secures the wheel brush in place, adjust the brush so it makes good contact with the wheel, and tighten the screw.

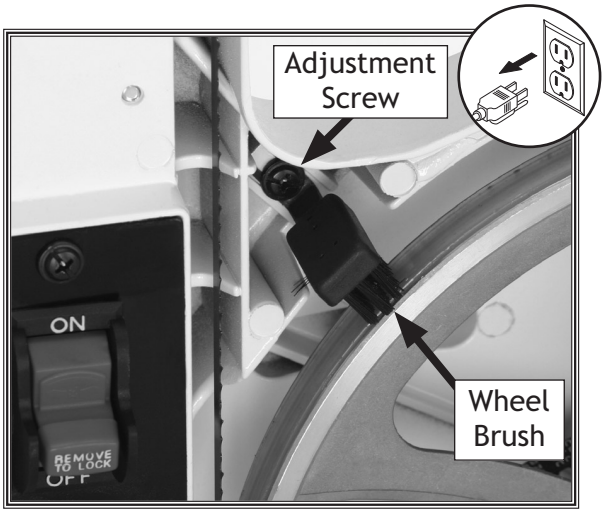


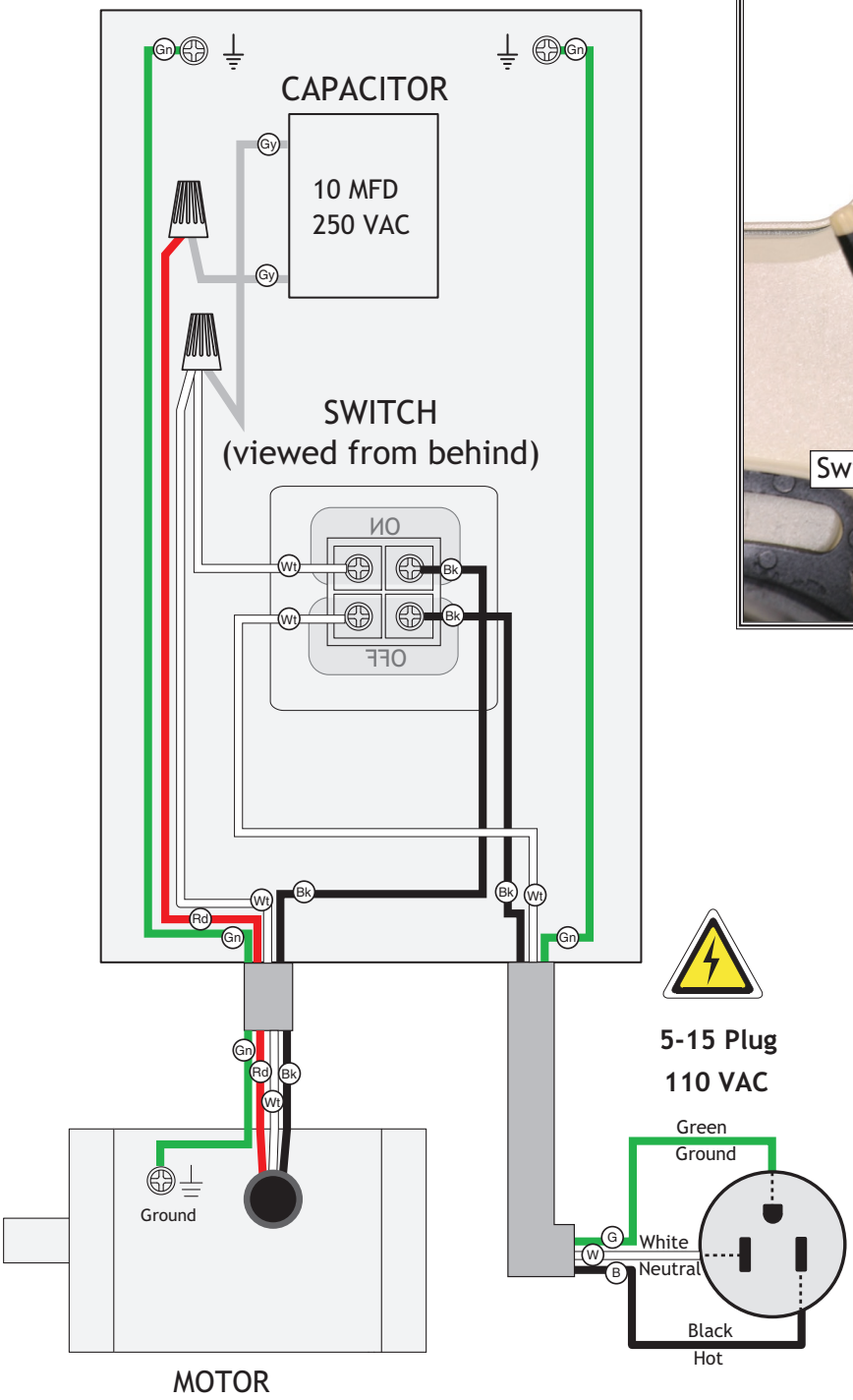
Figure 55. Wheel brush.

W1749 Wiring Diagram Electrical Components

COLOR KEY	
BLACK	Bk
WHITE	Wt
GREEN	Gn
RED	Rd
GRAY	Gy

DANGER

Disconnect power before performing any electrical service. Electricity presents serious shock hazards that will result in severe personal injury and even death!



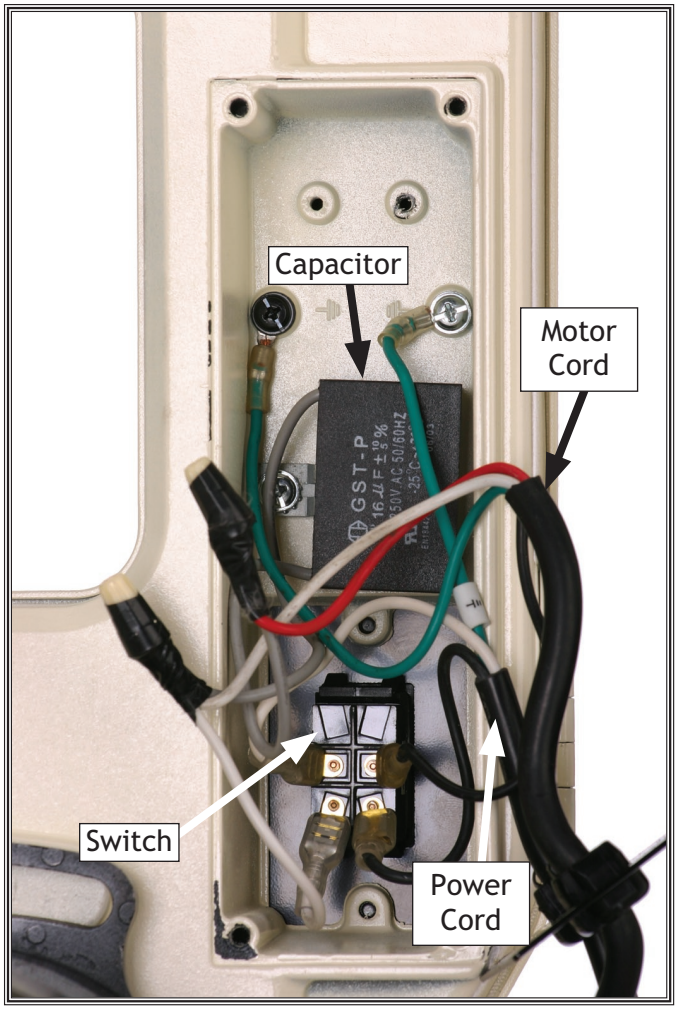
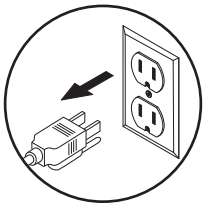


Figure 56. W1749 switch wiring.

Figure 57. W1749 motor wiring.

SERVICE

Troubleshooting



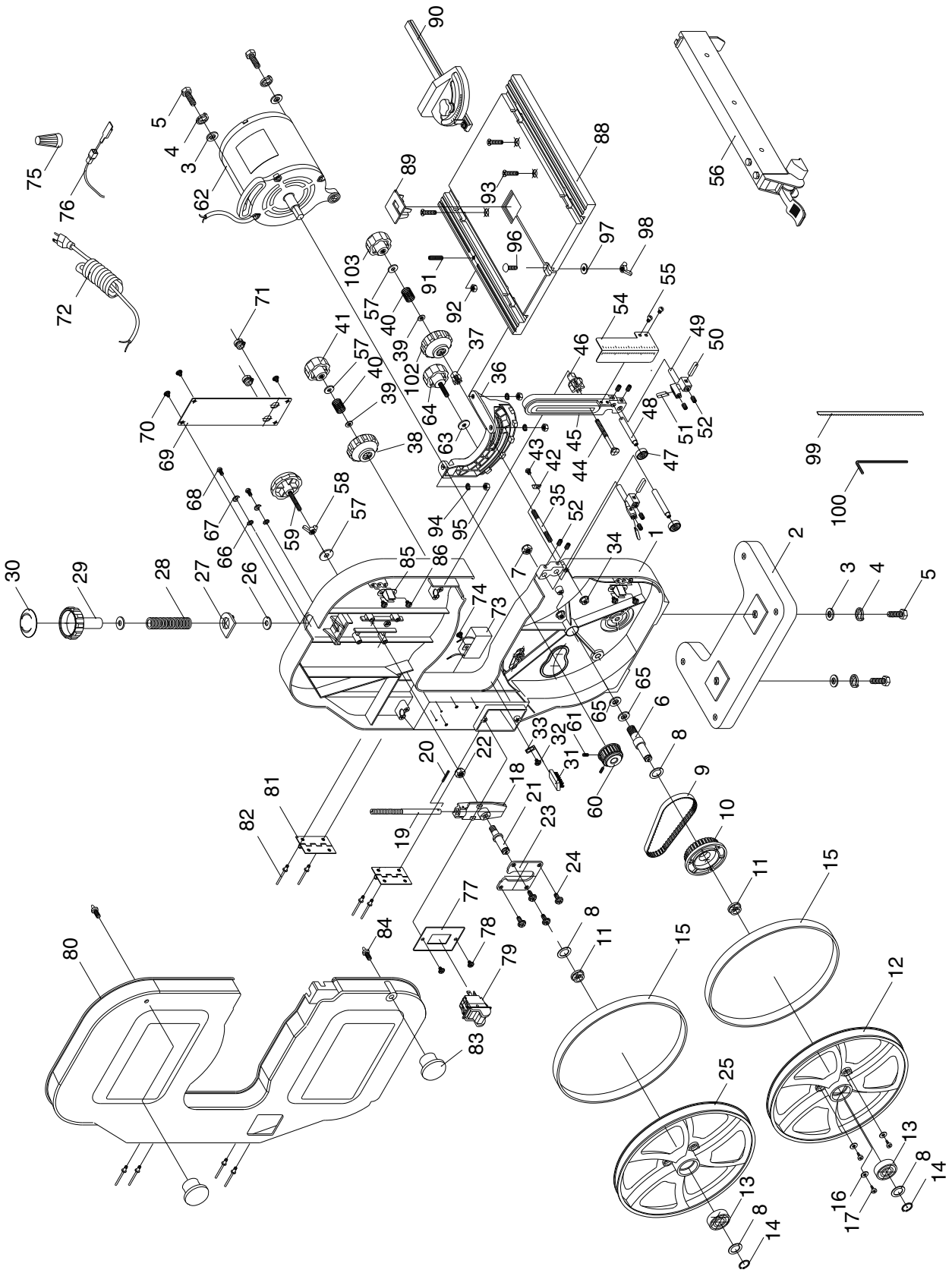
This section covers the most common problems and corrections with this type of machine. **WARNING! DO NOT make any adjustments until power is disconnected and moving parts have come to a complete stop!**

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Motor will not start.	1. Low voltage. 2. Open circuit in motor or loose connections.	1. Check power supply for proper voltage. 2. Inspect all lead connections on motor and magnetic switch for loose or open connections.
Fuses or circuit breakers trip open.	1. Short circuit in line cord or plug. 2. Short circuit in motor or loose connections. 3. Incorrect fuses or circuit breakers in power supply.	1. Inspect cord or plug for damaged insulation and shorted wires and replace extension cord. 2. Inspect all connections on motor for loose or shorted terminals or worn insulation. 3. Install correct fuses or circuit breakers.
Motor overheats.	1. Motor overloaded. 2. Air circulation through the motor restricted.	1. Reduce load on motor. 2. Clean out motor to provide normal air circulation.
Motor stalls (resulting in blown fuses or tripped circuit).	1. Wrong workpiece material (wood). 2. Processing speed too fast for task. 3. V-belt slipping. 4. Blade is slipping on wheels. 5. Plug/receptacle is at fault. 6. Motor overloaded. 7. Motor is at fault.	1. Use wood with correct moisture content, without glues, and little pitch/resins. 2. Decrease processing speed. See **Basic Cutting Tips** on **Page 26**. 3. Replace bad V-belt, align pulleys, and re-tension (**Page 38 and 39**). 4. Adjust blade tracking and tension to factory specifications. See **Page 19**. 5. Test for good contacts and correct wiring. 6. Reduce load on motor. 7. Repair/replace.
Machine has vibration or noisy operation when running.	1. Blade weld hits guides or teeth are broken. 2. Bent or worn out blade. 3. Motor or component is loose. 4. V-belt worn or loose. 5. Motor fan is rubbing on fan cover. 6. Machine is incorrectly mounted or sits unevenly on floor. 7. Worn arbor bearings. 8. Tires incorrectly installed on wheels. 9. Wheels out of balance	1. Replace blade (**Page 35**). 2. Replace blade (**Page 35).** 3. Inspect/replace stripped or damaged bolts/nuts, and re-tighten with thread locking fluid. 4. Inspect/replace belt (**Page 39**). 5. Replace dented fan cover and loose/damaged fan. 6. Relocate or remount machine. 7. Check/replace arbor bearings. 8. Re-install tires on wheels. 9. Replace wheels.

Cutting Operations

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Machine slows when operating.	1. Feeding workpiece too fast. 2. Blade is dull.	1. Reduce feed rate. See **Basic Cutting Tips** on **Page 26**. 2. Replace blade (**Page 36**).
Ticking sound when the saw is running.	1. Blade weld contacting support bearing. 2. Blade weld may be failing.	1. Use file or stone to smooth and round the back of the blade. 2. Inspect and replace blade if necessary (**Page 36**).
Blade contacting table insert.	1. Excessive side pressure when cutting. 2. Table improperly adjusted.	1. Reduce side pressure. 2. Adjust table.
Vibration when cutting.	1. Loose or damaged blade. 2. Blade is tracking incorrectly. 3. Blade tension is loose.	1. Tighten or replace blade. See **Page 19 or 35.** 2. Fix blade tracking. 3. Fix blade tension.
Burn marks on the edge of the cut.	1. Too much side pressure when feeding workpiece. 2. Blade too wide for size of radius being cut.	1. Feed workpiece straight into the blade. See **Basic Cutting Tips** on **Page 26**. 2. Install a smaller width blade/increase blade tension. See **Page 19 or 35**.
Rough or poor quality cuts.	1. Feeding workpiece too fast. 2. Tracking and tension incorrect.	1. Reduce feed rate. See **Basic Cutting Tips** on **Page 26**. 2. Fix tracking and tension.
Sawdust buildup inside cabinet.	1. Clogged dust port. 2. Low CFM (airflow) from dust collection system.	1. Clean out dust port. 2. Three options: —Check dust lines for leaks or clogs. —Move bandsaw closer to dust collector. —Install a stronger dust collector.
Blade wanders or won't follow line of cut.	1. Blade lead.	1. Refer to **Blade Lead** on **Page 27**.

PARTS



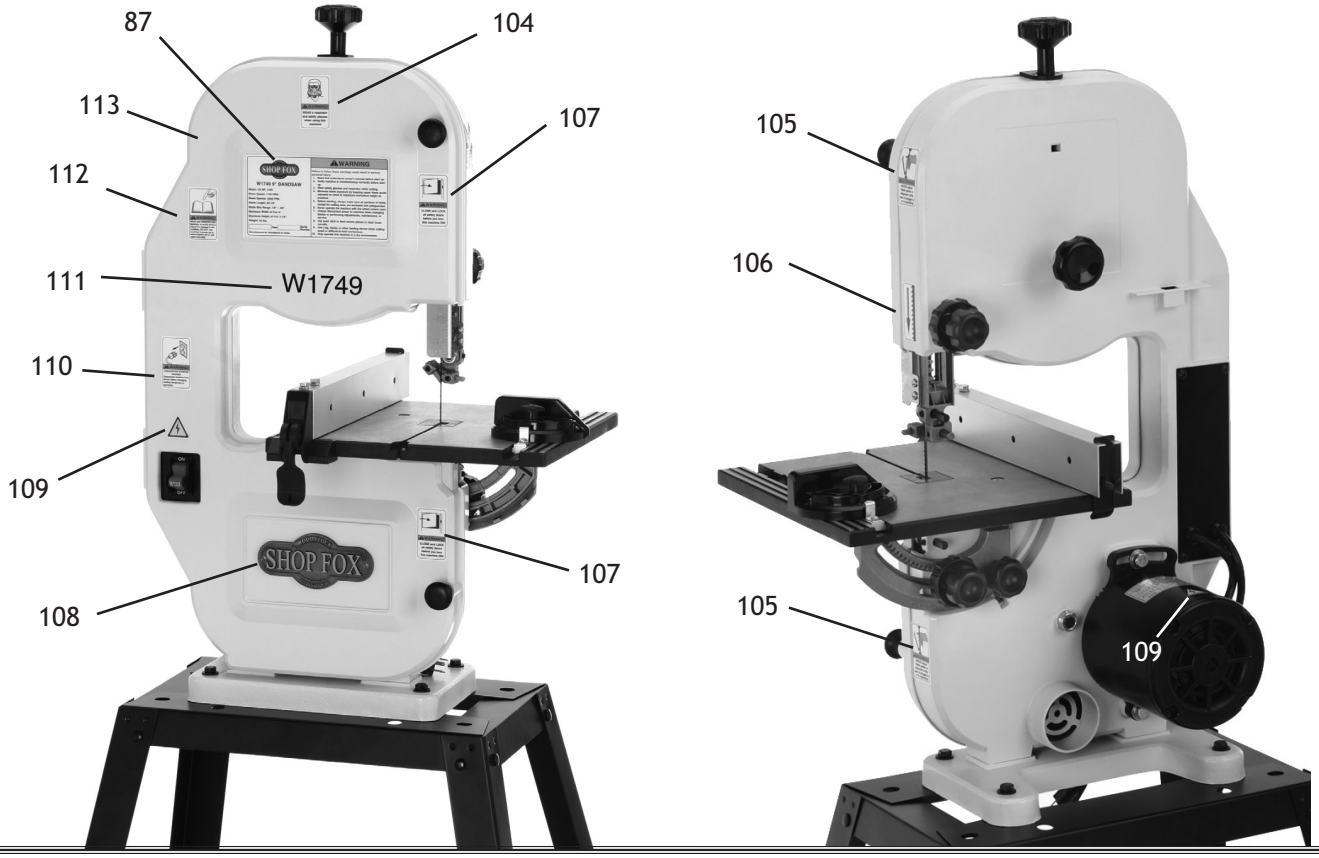
Parts List

REF	PART #	DESCRIPTION
1	X1749001	MAIN BODY
2	X1749002	BASE
3	XPW02	FLAT WASHER 3/8
4	XPLW04	LOCK WASHER 3/8
5	XPB18	HEX BOLT 3/8-16 X 1
6	X1749006	LOWER WHEEL SHAFT
7	XPLN06	LOCK NUT 1/2-13
8	XPW18M	FLAT WASHER 18MM
9	X1749009	TIMING BELT 9 X 122XL 61T
10	X1749010	WHEEL PULLEY
11	X1749011	COPPER BUSHING
12	X1749012	LOWER WHEEL
13	XP6201	BALL BEARING 6201ZZ
14	XPR03M	EXT RETAINING RING 12MM
15	X1749015	WHEEL TIRE
16	XPW03	FLAT WASHER #10
17	XPHTEK6	TAP SCREW #10 X 3/8
18	X1749018	SLIDING HOLDER
19	X1749019	SPECIAL BOLT 5/16 X 145
20	XPRP42M	ROLL PIN 3 X 20
21	X1749021	UPPER WHEEL SHAFT
22	XPLN01	LOCK NUT 3/8-16
23	X1749023	SLIDING PLATE
24	PFS16	FLANGE SCREW 1/4-20 X 3/8
25	X1749025	UPPER WHEEL
26	XPW07	FLAT WASHER 5/16
27	X1749027	KNOB BRACKET
28	X1749028	COMPRESSION SPRING
29	X1749029	BLADE TENSION KNOB
30	X1749030	TURNING BUTTON
31	X1749031	PLASTIC BRUSH
32	XPFS15	FLANGE SCREW 10-24 X 1/4
33	X1749033	WHEEL BRUSH BRACKET
34	X1749034	SPECIAL NUT 1/4-20
35	X1749035	TURNING FIXTURE BOLT
36	X1749036	TRUNNION
37	X1749037	PINION GEAR
38	X1749038	ELEVATION HEIGHT KNOB
39	XPW06	FLAT WASHER 1/4
40	X1749040	COMPRESSION SPRING
41	X1749041	BLADE GUIDE LOCK KNOB 1/4-20
42	X1749042	POINTER
43	XPS18	PHLP HD SCR 10-24 X 1/4
44	XPCB20	CARRIAGE BOLT 1/4-20 X 2-1/2
45	X1749045	BLADE GUIDE SUPPORT
46	X1749046	TEETH GUIDE BOLT
47	XP626	BALL BEARING 626ZZ
48	X1749048	BEARING SHAFT
49	X1749049	Y TYPE BLOCK
50	XPK23M	KEY 5 X 5 X 25
51	XPK23M	KEY 5 X 5 X 25
52	XPSS03	SET SCREW 1/4-20 X 3/8
54	X1749054	BLADE GUIDE SUPPT. BRACKET GUARD
55	XPS18	PHLP HD SCREW 10-24 X 1/4
56	X1749056	FENCE ASSEMBLY
57	XPW06	FLAT WASHER 1/4
58	XPWN02	WING NUT 1/4-20
59	X1749059	TRACKING KNOB 1/4-20 X 1-1/2
60	X1749060	MOTOR PULLEY
61	XPSS05M	SET SCREW M5-.8 X 10
62	X1749062	MOTOR
63	XPW06	FLAT WASHER 1/4
64	X1749064	TABLE TILT LOCK KNOB 1/4-20 X 35
65	XPW10M	FLAT WASHER 14MM
66	XPTLW02M	EXT TOOTH WASHER 5MM
67	X1749067	COPPER WASHER 5MM
68	XPFS15	FLANGE SCREW 10-24 X 1/4
69	X1749069	PLATE
70	XPFS15	FLANGE SCREW 10-24 X 1/4
71	X1749071	STRAIN RELIEF 3/16 X 1/4
72	X1749072	POWER CORD
73	X1749073	CAPACITOR 16MFD 250V
74	XPFS15	FLANGE SCREW 10-24 X 1/4
75	X1749075	WIRE NUT
76	X1749076	MOTOR CORD
77	X1749077	SWITCH PLATE
78	XPFS15	FLANGE SCREW 10-24 X 1/4
79	X1749079	SWITCH
80	X1749080	MAIN BODY COVER
81	X1749081	DOOR HINGE
82	X1749082	BLIND RIVET
83	X1749083	DOOR KNOB
84	X1749084	SPRING CLIPPER
85	X1749085	SPRING PLATE
86	XPFS15	FLANGE SCREW 10-24 X 1/4
88	X1749088	TABLE
89	X1749089	TABLE INSERT
90	X1749090	MITRE GAUGE ASSEMBLY
91	XPSS06	SET SCREW 1/4-20 X 3/4
92	XPN05	HEX NUT 1/4-20
93	XPFH16	FLAT HD SCR 1/4-20-20 X 1-1/4-20
94	XPLW02	LOCK WASHER 1/4
95	XPN05	HEX NUT 1/4-20
96	XPCB07M	CARRIAGE BOLT M6-1 X 18
97	XPW03M	FLAT WASHER 6MM
98	XPWN01M	WING NUT M6-1
99	X1749099	SAW BLADE
100	XPAW03M	HEX WRENCH 3MM
102	X1749102	TABLE ADJUSTMENT KNOB
103	X1749103	TABLE ADJUSTMENT LOCK KNOB 1/4

Label Placement

⚠WARNING

Safety labels warn about machine hazards and how to prevent machine damage or injury. The owner of this machine MUST maintain the original location and readability of all labels on this machine. If any label is removed or becomes unreadable, REPLACE that label before allowing the machine to enter service again. Contact Woodstock International, Inc. at (360) 734-3482 or www.shopfoxtools.com to order new labels.



REF	PART #	DESCRIPTION
87	X1749087	MACHINE ID LABEL
104	XLABEL-06S	RESPIRATOR/GLASSES LABEL (SMALL)
105	XLABEL-10S	NO ADJ. BLD GUIDES LABEL (SMALL)
106	XLABEL-17	BLADE CUT DIRECTION LABEL
107	XLABEL-03S	KEEP DOOR CLOSED LABEL (SMALL)
108	X1749108	SHOP FOX LOGO PLATE
109	XLABEL-04	ELECTRICITY LABEL
110	XLABEL-18S	UNEXPECTED STARTUP HAZARD LABEL (SMALL)
111	X1749111	MODEL NUMBER LABEL
112	XLABEL-08S	READ MANUAL LABEL (SMALL)
113	XPAINTSF701	PAINT FOR SHOP FOX MACHINES

Warranty

Woodstock International, Inc. warrants all **SHOP FOX®** machinery to be free of defects from workmanship and materials for a period of two years from the date of original purchase by the original owner. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, lack of maintenance, or reimbursement of third party expenses incurred.

Woodstock International, Inc. will repair or replace, at its expense and at its option, the **SHOP FOX®** machine or machine part which in normal use has proven to be defective, provided that the original owner returns the product prepaid to the **SHOP FOX®** factory service center or authorized repair facility designated by our Bellingham, WA office, with proof of their purchase of the product within two years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'s sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant that **SHOP FOX®** machinery complies with the provisions of any law or acts. In no event shall Woodstock International, Inc.'s liability under this warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom. We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages arising from the use of our products.

Every effort has been made to ensure that all **SHOP FOX®** machinery meets high quality and durability standards. We reserve the right to change specifications at any time because of our commitment to continuously improve the quality of our products.

Warranty Registration

Name_____

Street _____

City _____ State_____ Zip_____

Phone #_____ Email _____ Invoice #_____

Model #_____ Serial #_____ Dealer Name_____ Purchase Date_____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. ***Of course, all information is strictly confidential.***

1. How did you learn about us?
_____ Advertisement ____ Friend ____ Local Store
_____ Mail Order Catalog ____ Website ____ Other:

2. How long have you been a woodworker/metalworker?
_____ 0-2 Years _____ 2-8 Years ____ 8-20 Years _____ 20+ Years

3. How many of your machines or tools are **Shop Fox®**?
_____ 0-2 _____ 3-5 ____ 6-9 _____ 10+

4. Do you think your machine represents a good value? _____ Yes ____ No

5. Would you recommend **Shop Fox®** products to a friend? _____ Yes ____ No

6. What is your age group?
_____ 20-29 ____ 30-39 ____ 40-49
_____ 50-59 ____ 60-69 ____ 70+

7. What is your annual household income?
_____ $20,000-$29,000 ____ $30,000-$39,000 ____ $40,000-$49,000
_____ $50,000-$59,000 ____ $60,000-$69,000 ____ $70,000+

8. Which of the following magazines do you subscribe to?

____ Cabinet Maker
____ Family Handyman
____ Hand Loader
____ Handy
____ Home Shop Machinist
____ Journal of Light Cont.
____ Live Steam
____ Model Airplane News
____ Modeltec
____ Old House Journal
____ Popular Mechanics
____ Popular Science
____ Popular Woodworking
____ Practical Homeowner
____ Precision Shooter
____ Projects in Metal
____ RC Modeler
____ Rifle
____ Shop Notes
____ Shotgun News
____ Today's Homeowner
____ Wood
____ Wooden Boat
____ Woodshop News
____ Woodsmith
____ Woodwork
____ Woodworker West
____ Woodworker's Journal
____ Other:

9. Comments:_____

_____

_____

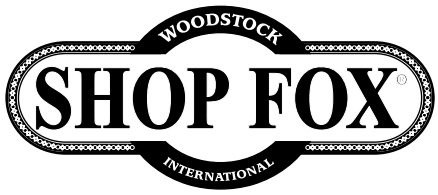
_____

_____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

Place
Stamp
Here



WOODSTOCK INTERNATIONAL INC.
P.O. BOX 2309
BELLINGHAM, WA 98227-2309

FOLD ALONG DOTTED LINE

TAPE ALONG EDGES--PLEASE DO NOT STAPLE